NATIONAL ASSOCIATION OF CLINICAL NURSE SPECIALISTS

July 17, 2014

Standard Occupational Classification Policy Committee
U.S. Bureau of Labor Statistics, Suite 2135
2 Massachusetts Avenue, NE
Washington, DC 20212

RE: ***Federal Register*** / Vol. 79, No. 99 / Thursday, May 22, 2014 – Notice of solicitation of comments for the 2018 SOC revision.

Dear Members of the Standard Occupational Classification Policy Committee:

The National Association of Clinical Nurse Specialists (NACNS) is the voice of more than 72,000 Clinical Nurse Specialists. NACNS appreciates the opportunity to comment on the Office of Management and Budget's and the Standard Occupational Classification Policy Committee's solicitation (79 FR 29619) for revising the 2018 Standard Occupational Classification's broad occupational units and detailed occupations. Based upon our review, NACNS respectfully requests that due consideration be given to making the following changes to the 2018 SOC:

1. Under the Broad Occupation group 29-1140 Registered Nurses, delete the title "Clinical Nurse Specialists"

2. Under Minor Group 29-1000 Health Diagnosing and Treating Practitioners, add a new Broad Occupation 29-11X0 "Clinical Nurse Specialists"

3. Under a new Broad Occupation 29-11X0 "Clinical Nurse Specialists" add a new Detailed Occupation 29-11XX "Clinical Nurse Specialist"

If accepted, the NACNS recommendations would be configured in the SOC coding system as represented in the following graphic:

The SOC Coding System

Hierarchy level	**Example SOC Codes, Titles, and Definition**
Major occupation group	29-0000 Healthcare Practitioners and Technical Occupations
Minor occupation group	29-1000 Health Diagnosing and Treating Practitioners
Broad occupation	Broad Occupation: 29-11X0 Clinical Nurse Specialists. This broad occupation includes the one following detailed occupation 29-11XX Clinical Nurse Specialists
Detailed occupation	29-11XX Clinical Nurse Specialists – Diagnose and treat acute or chronic illness in an identified population with emphasis on specialist care for individuals with or at risk for chronic conditions; independently or as part of a multidisciplinary healthcare team.

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For the reasons described below, NACNS strongly advocates for

1) Excluding the Clinical Nurse Specialist from the Broad Occupation group 29-1140 Registered Nurses, and
2) Including the Clinical Nurse Specialist as a broad occupation and detailed occupation in the 2018 SOC revisions currently under consideration.

Clinical Nurse Specialist – Input Requested

1. Nature of the work performed

Recommended Definition:

29-11XX Clinical Nurse Specialists

Diagnose and treat acute or chronic illness in an identified population with emphasis on specialist care for individuals with or at risk for chronic conditions; independently or as part of a multidisciplinary healthcare team. May serve as leaders and facilitators of change, coordinators of specialized care, and implementers of evidence-based care within/between organizations to facilitate quality improvement, patient safety, and lower healthcare costs. May prescribe medications, durable medical equipment, and medical supplies. May order, perform, and/or interpret diagnostic tests including lab work and x-rays. May provide health promotion, health teaching, and disease prevention in the acute and/or chronically ill. May teach registered nurses and other healthcare professionals working in clinical settings. Must be registered nurses and must have specialized graduate education. Excludes "Nurse Anesthetists" (29-1151), "Nurse Midwives" (29-1161), and "Nurse Practitioners" (29-1171).

Illustrative examples: *Clinical Nurse Specialists (CNS), Perinatal CNS, Gerontological CNS, Psychiatric & Mental Health CNS-Adult, Women's Health CNS*

CNSs are licensed registered nurses who have graduate preparation (master's or doctorate) in nursing as a Clinical Nurse Specialist. They have unique and advanced level competencies that meet the increased needs of improving quality and reducing costs in our healthcare system. They provide direct patient care, including assessment, diagnosis, and management of patient healthcare issues. CNSs are recognized for Part B participation in Medicare, Title 18 and may independently bill for these services. They also are recognized as eligible for Medicare's Primary Care Incentive Program in the Patient Protection and Affordable Care Act. CNSs have prescriptive privileges in 35 states. The Clinical Nurse Specialist is one of the four advanced practice registered nurse (APRN) categories as recognized by the National Council of State Boards of Nursing (NCSBN), individual state boards of nursing, and the American Nurses Association.

In addition to the direct care role of all APRNs, CNSs are leaders of change in health organizations, developers of scientific evidence-based programs to prevent avoidable complications, and coaches of those with chronic diseases to prevent hospital readmissions. CNSs are facilitators of multidisciplinary teams in acute and chronic care facilities to improve the quality and safety of care, including preventing hospital acquired infections, reducing length of stays, and preventing hospital readmissions. The CNS uses system-level knowledge to facilitate improved patient care and outcomes.

The Clinical Nurse Specialist, along with the other advanced practice registered nurses but *unlike* registered nurses (RNs), are licensed independent practitioners in 24 states who are expected to practice within standards established or recognized by a licensing body – a state board of nursing. As recognized APRNs, CNSs are accountable to patients, the nursing profession, and the licensing board to comply with the requirements of the state nurse practice act and related advanced practice nursing rules and regula-

tions. APRNs are expected to recognize the limits of their knowledge and expertise and refer patients or obtain consultations as needed to provide appropriate, quality patient care. (See the National Council of State Boards of Nursing *Consensus Model for APRN Regulation: Licensure, Accreditation, Certification & Education* at https://www.ncsbn.org/Consensus_Model_for_APRN_Regulation_July_2008.pdf)

The CNS must be a graduate of an accredited graduate-level education program that specifically prepares the individual for the CNS role, i.e., advanced clinical knowledge and skills to provide direct as well as indirect care to patients. Advanced CNS competencies associated with certified CNS academic programs demonstrate a greater depth and breadth of knowledge, a greater synthesis of data, increased complexity of skills and of interventions, and greater role autonomy than identified for the RN. In most states (and potentially all states in the near future), the CNS must pass a national certification examination that measures APRN, Clinical Nurse Specialist, and population-focused competencies. These CNSs also must maintain continued competence through recertification by a national certification program

Examples of CNS work

Clinical Nurse Specialists are uniquely prepared with advanced nursing education to meet the increased demand for health care and to safeguard the provision of quality care. Since 1953, the CNS has served as a committed leader, delivering cost-effective care with optimal patient outcomes. The CNS provides both health promotion and maintenance through assessment, diagnosis, and management of acute and chronic patient problems that includes pharmacologic and non-pharmacologic interventions.

Research and demonstration projects have shown that the CNS role is uniquely suited to lead implementation of evidence-based quality improvement actions that also reduce cost throughout the healthcare system. The CNS also plays an essential role in care coordination and transitions of care that result in reduced hospital length of stay, fewer hospital readmissions and hospital-acquired conditions (HACs). A review of the CNS Core Competencies (see Appendix A) supports the centrality of the function of care coordination within the CNS role. This would show that the CNS is educated and prepared to be, not only a participant in care coordination, but also to partner with other providers in the leadership role for care coordination.

Many examples of CNS work listed below are excerpted from the NACNS December 2013 White Paper *Impact of the Clinical Nurse Specialist Role on the Costs and Quality of Health Care*. The White Paper with references is Appendix B, and is available at www.nacns.org/docs/CNSOutcomes131204.pdf

- Improve clinical care through identification of staff nurse learning needs and developing strategies to enhance individual clinical practice.

- Identify and respond to alerts, such as The Joint Commission – to make immediate changes for patient safety. One example would be leading a team of interdisciplinary healthcare professionals to change the use of single dose vials as multi-use vials.

- Review of the literature and implementation of falls prevention programs to decrease the risk of falls in at-risk patients such as, recent post-operative patients, those taking certain medications and/or elderly patients.

- Review of the literature and implementation of a decision-making tree for use in step-down units by nurses and pulmonary therapists in weaning patients from mechanical ventilation.

- Review of the literature and implementation of a system for the storage of immunizations in a rural primary care clinic.

- Review of the scientific evidence and Implementation of new infection control techniques to decrease infection rates.

- Provide consultation on individual patients who are identified by staff nurses, nurse management, physicians, or other healthcare providers as high-risk and needing the CNS' expertise. One example would be the management of a patient with active cardiac disease that is 9 month pregnant and experiencing cardiac arrhythmias. The CNS would assist in establishing a plan of care to assess the cardiac issues as well as the impending pregnancy concerns and health of the fetus. Likely this would require the CNS to consult with other CNSs and healthcare providers to manage the patient's assessment and nursing care.

- Many CNSs manage a case load of patients – identified by staff nurses, nurse managers and/or physicians, or other healthcare professionals – requiring specialized care beyond the scope of the registered nurse assigned to the patients care. CNS work examples might be direct care provided by a CNS who specializes in wound/ostomy care to patients necessitating surgery for an ostomy, including ostomy placement or a patient with a complex wound requiring specialized wound care techniques. Another example is a CNS that specializes in diabetes care that would provide insulin management, including prescribing of medications and durable medical equipment, for a fragile diabetic who is experiencing health status changes as a result of an event such as an acute onset of a disease or an unanticipated surgery.

- Clinical Nurse Specialists with prescriptive authority for medications and durable medical equipment working in pain clinics manage their own patients as a member of the healthcare team at the clinic. This CNS offers an approach to patient symptom management that may include prevention of worsening of the underlying chronic condition(s), recommendations for changes in lifestyle, utilization of alternative pain-relief therapies, as well as the use of more traditional medication and durable medical equipment.

- Numerous studies also have documented the impact the CNS has in preventing hospital-acquired conditions in acute care settings:

  - ✓ Krupp (2009) demonstrated CNSs decreased the HAC rate by 46% in an acute care setting.
  - ✓ Hays (2010) demonstrated a pressure ulcer treatment program, implemented by a CNS, decreased HAC rates from 20% down to 3.8%, resulting in a cost savings of over $40,000 for that organization.
  - ✓ Richardson & Tjoelker (2012) demonstrated a CNS led initiative to decrease central line-associated blood stream infections (CLABSI) saving the organization $214,712 in terms of cost avoidance and 1.4 lives saved out of 8 patients with CLABSI.
  - ✓ Maze (2011) demonstrated a CNS led initiative resulting in the CLABSI rate to be consistently below the National Healthcare Safety Network (NHSN) benchmark.

- Clinical Nurse Specialists have distinguished themselves as effective coaches of those with chronic illness by promoting self-care and reducing the costs of the illness and readmissions. Several studies document their efforts in the care of the chronically ill, including those with heart failure (Creason 2001, Newman 2002, Knox 1999, Ryan 2009), asthma (Horner 2008) and epilepsy (McNellis 2007). In addition, CNSs have developed and demonstrated the effectiveness of their community programs that identify those with COPD early slowing down the progression of their disease (DeLong 2004).

- CNSs provide behavioral health care to individuals in private practice and to communities through special programs. The Insight Program, which was implemented by CNSs in a community setting to address depression in women, had a statistically significant and clinically relevant improvement in scores on all tools used (Adams 2000). Another study demonstrated that CNSs also work as members of the primary care team in providing care to improve the recognition of depression and its initial management in a Veterans Administration hospital (Dobscha 2001).

- To improve the outcomes of those having a stroke, a CNS led team implemented practice guidelines and developed best practice tools resulting in reduced length of stay for those patients admitted with a diagnosis of stroke (Fuhrman 2011).

- For geriatric patients having a hip fracture, a CNS led the team to achieve The Joint Commission certification in Geriatric Hip Fracture Disease that led to decreased costs by 15%, a 28% decrease in length of stay and 0.5% decrease in mortality (McWilliams-Ross 2011).

- An interdisciplinary team, facilitated by a CNS, coordinated a transformation in the care of patients with diabetes within a health system. The Diabetes Clinical Initiative achieved remarkable outcomes with significant decreases in the average monthly glucose levels declining from 194 mg/dL to 155 mg/dL with a decrease in the percentage of patients with hyperglycemia after day 1. This significant decrease was also achieved in those receiving cardiac surgery, in critical care units and in perianesthesia pre-procedure and post-procedure. Hypoglycemia rates remained low compared with published national data. As a result of these dramatic changes in blood glucose levels, the length of stay decreased significantly (Helmuth 2012).

- At an urban acute care hospital, CNSs developed a tool for nurses to assess patients on admission for alcohol consumption and collaborated with physician and pharmacy teams to create an order set. As a result of the implementation of this tool, the hospital costs and length of stay decreased (Corniello, 2012).

- Santos (2012) demonstrated CNSs led the effort to improve outcomes for patients with traumatic spinal cord injury (SCI) by creating and implementing a critical pathway. This resulted in a decrease in the average length of stay in the ICU by 7 days and a decrease in the average hospital length of stay by 10 days for traumatic paraplegic patients (Santos, 2012).

- In a community-based care program, CNSs who provided care to those with complex and chronic care conditions had an impact on clinical quality, costs and client satisfaction. Financial measures showed reductions in all key indicators: cost (decreased 24%), emergency department utilization (decreased 38%), inpatient missions (decreased 23%), and inpatient days (decreased 49%), when compared with the year prior to the program (Schmidt and Ulch 2012).

- In an emergency department, the CNS led the team to implement standard practice protocols and guidelines in improving outcomes for septic patients that resulted in a marked decrease in the door-to-first antibiotic administration times and the reduction in patients' hospital lengths of stay (Williams 2011).

2. How the work performed is distinct from other detailed occupations in the SOC

Unlike 29-1140 Registered Nurses, Clinical Nurse Specialists are 1) master's- or doctoral-prepared RNs and 2) are required to perform autonomously in their nursing practice. CNSs also are distinct from RNs because they are specialists, not generalists. CNSs are leaders of change in health organizations. They are developers of evidence-based programs to prevent avoidable complications, direct care providers, and coaches of those with acute and chronic diseases across all settings to prevent hospital readmissions. CNSs are facilitators of professional healthcare teams in acute care and other settings to improve the quality and safety of care, and they are researchers testing interventions to improve the outcomes of care. 29-1140 Registered Nurses are not prepared or educated to perform these duties.

CNSs, like other APRNs, initially attain an entry level RN education and sit for state level nursing boards for their RN professional license. Similar to other APRNs, Clinical Nurse Specialists attain a master's or doctorate degree that prepares the CNS for an advanced practice healthcare role as an APRN. The graduate education CNS program provides discrete skills, education, and training, beyond the RN role, leading

to an APRN licensure or accreditation depending on the particular granting state board of nursing. No state board of nursing grants APRN license or accreditation to 29-1140 Registered Nurses. Since the mid-1950s, CNSs always have been employed in roles manifestly separate from the RN. Increasingly, with the growth of healthcare needs in the nation and the looming health professional shortages, more CNSs will be in demand to provide the specialized advanced care they are educated and trained to provide. CNS roles frequently collaborate with other healthcare providers, such as nurse practitioners, physicians, certified registered nurse anesthetists, dietitians, respiratory therapists, etc., and when implemented as designed, CNS roles do not notably overlap these other providers' roles.

The ever-growing distinction between RNs and APRNs argues for the importance of further SOC detail in the designation. The previously mentioned NCSBN *Consensus Model for APRN Regulation* recognizes four distinct APRN groups: Clinical Nurse Specialists, Nurse Practitioners (NPs), Certified Nurse Midwives (CNMs), and Certified Registered Nurse Anesthetists (CRNAs).

General population foci for the CNS and NP include family/individual across the life span, adult/gerontology, neonatal, pediatrics, women's health/gender-related, psychiatric-mental health. There are no requirements for Nurse Practitioners, Certified Nurse Midwives, and Certified Registered Nurse Anesthetists to specialize beyond any of these general population foci.

CNSs also must specialize beyond and within populations to provide acute and chronic care services (e.g., diabetes, cardiovascular disease, pulmonary disease, mental health). Clinical Nurse Specialists are responsible for a specialty population of patients. Sometimes confused with CNSs, NPs are primarily *generalists* whose focus of care is on individuals and families. Generally speaking, NPs serve in roles that allow them to provide direct care for the majority of their clinical time in the primary care setting.

CNSs and NPs both are responsible and accountable for health promotion; prevention of illness and risk behaviors; diagnosis and treatment of health/illness states, and disease management for individuals and families. However, there are additional aspects of CNS professional practice that are not required of the NP role: 1) specializing in a population, 2) specializing in the care of groups and communities, and 3) providing acute and chronic care through the spectrum of wellness to illness. These aspects include, but are not limited to, health maintenance and prevention, management of patients with chronic conditions and care transition needs, management of patients with physiologically unstable conditions, rehabilitation, palliative, and end-of-life care. The role differentiation has been captured in the entry-level core competencies for the CNS. These core competencies are listed in Appendix A. [Clinical Nurse Specialist Core Competencies – http://www.nacns.org/docs/CNSCoreCompetenciesBroch.pdf]

Finally, unlike RNs, but similar to other APRNs, CNSs have independent practice in 24 states that do not require a supervisory relationship with a physician. In addition, CNSs are able to directly bill for their services to Medicare beneficiaries, and in most states bill Medicaid programs and commercial insurance companies. They also are able to prescribe medications in 35 states.

3. Job titles

There are a number of job titles associated with the Clinical Nurse Specialist. The list below of Clinical Nurse Specialist titles is excerpted from CMS's Healthcare Provider Taxonomy Code. This crosswalk list links the types of providers and suppliers who are eligible to apply for enrollment in the Medicare program with the appropriate Healthcare Provider Taxonomy Codes. This crosswalk includes the Medicare Specialty Codes for those provider/supplier types who have Medicare Specialty Codes.

Medicare Provider/Supplier to Healthcare Provider Taxonomy, October 16, 2013
http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/MedicareProviderSupEnroll/Taxonomy.html

Specialty Code	Medicare Provider/ Supplier Type Description	Taxonomy Code	Provider Taxonomy Description: Type, Classification, Specialization
89	Certified Clinical Nurse Specialist	364S00000X	TYPE: Physician Assistants & Advanced Practice Nursing Providers/Clinical Nurse Specialist
		364SA2100X	CNS, Acute Care
		364SA2200X	CNS, Adult Health
		364SC2300X	CNS, Chronic Care
		364SC1501X	CNS, Community Health/Public Health
		364SC0200X	CNS, Critical Care Medicine
		364SE0003X	CNS, Emergency
		364SE1400X	CNS, Ethics
		364SF0001X	CNS, Family Health
		364SG0600X	CNS, Gerontology
		364SH1100X	CNS, Holistic
		364SH0200X	CNS, Home Health
		364SI0800X	CNS, Informatics
		364SL0600X	CNS, Long-term Care
		364SM0705X	CNS, Medical-Surgical
		364SN0000X	CNS, Neonatal
		364SN0800X	CNS, Neuroscience
		364SX0106X	CNS, Occupational Health
		364SX0200X	CNS, Oncology
		364SX0204X	CNS, Oncology, Pediatrics
		364SP0200X	CNS, Pediatrics
		364SP1700X	CNS, Perinatal
		364SP2800X	CNS, Perioperative
		364SP0808X	CNS, Psychiatric/Mental Health
		364SP0809X	CNS, Psychiatric/Mental Health, Adult
		364SP0807X	CNS, Psychiatric/Mental Health, Child & Adolescent
		364SP0810X	CNS, Psychiatric/Mental Health, Child & Family
		364SP0811X	CNS, Psychiatric/Mental Health, Chronically Ill
		364SP0812X	CNS, Psychiatric/Mental Health, Community
		364SP0813X	CNS, Psychiatric/Mental Health, Geropsychiatric
		364SR0400X	CNS, Rehabilitation
		364SS0200X	CNS, School
		364ST0500X	CNS, Transplantation
		364SW0102X	CNS, Women's Health

In addition, the list below is not exhaustive, but the titles cover other frequently seen job titles.

Other Common Clinical Nurse Specialist Titles:
Cardiovascular CNS
Diabetes CNS
Forensic CNS
Orthopaedic CNS
Pain management CNS

4. Indications of the number of jobs or workers in the occupation

National Sample Survey of Registered Nurses

The *National Sample Survey* of *Registered Nurses* (NSSRN) is the largest *survey* of *registered nurses* in the U.S. According to the last time the U.S. Health Resources and Services Administration's NSSRN was conducted in 2008, 42,400 RNs reported that they were Clinical Nurse Specialists, making CNSs the second largest group of APRNs. Additionally, 16,400 reported to be NPs and CNSs, increasing the number of CNSs to a total of 58,800.

One limitation to the NSSRN that may artificially inflate all APRN categories, except the CNS category, is that any RN completing the survey may easily claim to an NP, CNM, or CRNA. Unlike these other three APRN roles, since the inception of the CNS role, CNSs have been required to be master's prepared. Therefore, the survey data collection procedure was designed so that only RNs with master's degrees or higher were able to enter the CNS field in the survey compared to other APRN fields. As a result, other APRN categories may be artificially inflated.

A second limitation to the NSSRN is that distribution of the survey was stratified by total number of RNs in any given state. While CNSs are known to be unevenly distributed from state to state, there was no stratification in the data collection procedure to specifically target CNSs. Therefore, states with smaller numbers of RNs yet larger numbers of CNSs do not have an accurate representation of CNSs in the survey data.

2014 Clinical Nurse Specialist Survey

In 2013, the NACNS Board of Directors approved the development and distribution of the *2014 Clinical Nurse Specialist Survey*. This Survey was specifically developed to collect national-level data on the Clinical Nurse Specialist. NACNS has partnered with a number of specialty nursing organizations and certifying organizations to distribute information on the Survey to encourage a high response rate for this national CNS survey. The Survey is collecting data on job title, employers, specific job responsibilities based on the CNS role, and demographic data on the individual who has graduated at a master's level program as a Clinical Nurse Specialist. This survey was opened in June 2014 and will collect data until December 31, 2014.

Expected Growth – APRNs' Participation in Medicare Part B

Peter McMenamin, Ph.D., Senior Policy Fellow, American Nurses Association (ANA), reported in March 2014 on the then-released Centers for Medicare and Medicaid Services (CMS) statistics on providers in Medicare Part B in 2012. The initial 2012 data indicated that APRNs enrolled as Medicare Part B providers (and billing under their own National Provider Identification [NPIs]) continued to increase their presence in the Medicare program. According to the statistics, there has been an increase in the amount of Medicare approved charges by Clinical Nurse Specialists of 2.4% or a total of $58,189, 376 in 2012. This is above the 1.2% increase for all providers. The greatest gains in amount of approved Medicare charges for APRNs were the Nurse Practitioners that saw a 15.5% increase in 2012. The CNMs saw a 13.2% increase in the same year, likely due to the Patient Protection and Affordable Care Act's legislated increase in reimbursement of CNM services to 100% of the physician fee schedule.

APRNs provided one or more services to 11,394,440 Medicare fee-for-service eligible enrollees in 2012. This was an increase of 1,008,105 persons served compared to the prior year. While Medicare eligibles increased by 2 million persons in 2012 resulting in an increase of 3.3% in the Part B population, all four APRN roles nonetheless increased their Medicare persons served statistics by more than proportionate amounts. With respect to the percentage of Medicare fee-for-service patients who have received one or more Part B services from an APRN billing under her or his own NPI, there has been a 2% increase each year for the last four years on record.

The CMS statistics understate the total provision of APRN services to Medicare patients. They do not include APRN services provided to Medicare Advantage patients. They do reflect APRN services provided in institutional settings and reimbursed under Medicare Part A. And they do not include services provided by APRNs but billed "incident to" physician services under Part B.

CMS continues to expand opportunities for APRNs, including CNSs to directly bill for services. As more Clinical Nurse Specialists step forward to get involved in Medicare reimbursement, the increases will persist in the CNS statistics for percentage of Medicare charges and numbers of Medicare beneficiaries served. See the ANA's March 28, 2014 QuikStats posting at http://www.ananursespace.org/blogs/peter-mcmenamin/2014/03/28/quikstats-2012-aprns-in-medicare-part-b

NACNS Literature Review – Impact of the Clinical Nurse Specialist Role on the Costs and Quality of Health Care

In December 2013, NACNS released a White Paper providing evidence that Clinical Nurse Specialists have the advanced nursing education, skills, and expertise necessary to meet the increased demand for health care and ensure the provision of quality care. A body of scientific research and several demonstration projects have shown that CNSs are uniquely suited to lead healthcare institutions' efforts to implement programs, practices, and interventions that will improve care quality and reduce cost in a variety of practice areas. The evidence highlighted in the paper links CNSs' key roles in improving outcomes and reducing costs for prenatal care; preventive and wellness care; care to reduce depression; chronic conditions; preventing hospital-acquired conditions (HACs); reducing lengths of stays in acute and community care centers; and preventing readmissions. Among the findings:

- CNSs improved access to wellness and preventive services for people at risk for chronic diseases, such as diabetes and heart failure, through early identification of these individuals;
- In private practice and as part of healthcare teams, CNSs implemented interventions that increased recognition of depression and provided effective behavioral healthcare to reduce depression;
- CNSs providing prenatal home care improved outcomes for pregnant women at high risk for delivering low birth-weight babies;
- CNSs effectively promoted self-care for patients with chronic conditions, reducing costs of treating the conditions and readmissions;
- CNSs successfully led efforts to implement programs that dramatically reduced HACs in acute care settings;
- CNSs implemented practices in acute care and community-based settings that significantly decreased patients' length of stay; and
- CNSs coordinated, implemented and evaluated plans that improved patient care and prevented

The CNS has long been a crucial member of the healthcare team. As the Patient Protection and Affordable Care Act (PPACA) is implemented, the Clinical Nurse Specialist role will become more central. Under PPACA, the dramatic increase in the number of people with access to healthcare services and its various provisions (e.g., penalties for high readmission rates for Medicaid recipients) will push healthcare providers to take all possible measures to improve the quality of patient care while bending the cost curve. CNSs have the education and the skills to help institutions achieve these goals. They provide diagnosis, treatment, and ongoing management of patients. CNSs also provide expertise and support to nurses caring for patients at the bedside, help drive practice changes throughout the organization, and ensure the use of best practices and evidence-based care to achieve the best possible patients. The White Paper with references is Appendix B, and is available at www.nacns.org/docs/CNSOutcomes131204.pdf.

CNNMoney

In November 2013, CNNMoney released its annual America's Best Jobs based on a ranking of professions examined for offering "great growth opportunities" among other factors . Clinical Nurse Specialist

obtained the #2 spot and was described by CNNMoney as "a hot healthcare career".
http://money.cnn.com/pf/best-jobs/

5. Types of employers

- Heath Care Systems
- Hospitals
- Clinics
- Community health centers
- School health centers
- Mental health centers
- Prisons
- Research centers
- Public health departments
- Accountable Care Organizations
- Healthcare businesses (e.g., pharmaceutical companies and healthcare device manufacturers)

6. Education and training

For entry into APRN practice and for regulatory purposes, APRN education, including that of the Clinical Nurse Specialist, must:

- Be formal education with a graduate degree or post-graduate certificate (either post-master's or post-doctoral) that is awarded by an academic institution and accredited by a nursing or nursing-related accrediting organization recognized by the U.S. Department of Education (USDE) and/or the Council for Higher Education Accreditation (CHEA);
- Be awarded pre-approval, pre-accreditation, or accreditation status prior to admitting students;
- Be comprehensive and at the graduate level;
- Prepare the graduate to practice in one of the four identified APRN roles – one of these roles is the Clinical Nurse Specialist;
- Prepare the graduate with the core competencies for one of the APRN roles across at least one of the six population foci. Clinical Nurse Specialist competencies are available for Adult/Gerontology and for Women's Health/Gender Specific. Competencies are under development for Family across the Lifespan.
- Include at a minimum, three separate comprehensive graduate-level courses (the APRN Core) in:
  - ❖ Advanced physiology/pathophysiology, including general principles that apply across the lifespan;
  - ❖ Advanced health assessment, which includes assessment of all human systems, advanced assessment techniques, concepts and approaches; and
  - ❖ Advanced pharmacology, which includes pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of all broad categories of agents.

Additional content, specific to the role and population, in the above three APRN core areas, should be integrated throughout the other role and population didactic and clinical courses.

- Provide a basic understanding of the principles for decision making in the identified role;
- Prepare the graduate to assume responsibility and accountability for health promotion and/or maintenance as well as the assessment, diagnosis, and management of patient problems, which includes the use and prescription of pharmacologic and non-pharmacologic interventions; and
- Ensure clinical and didactic coursework is comprehensive and sufficient to prepare the graduate to practice in the APRN role and population focus.

Preparation in a specialty area of practice is optional but if included must build on the APRN role/population-focus competencies. Clinical and didactic coursework must be comprehensive and sufficient to prepare the graduate to obtain certification for licensure in, and to practice in the APRN role and population focus.

As part of the accreditation process, all APRN education programs must undergo a pre-approval, pre-accreditation, or accreditation process prior to admitting students. The purpose of the pre-approval process is twofold: 1) to ensure that students graduating from the program will be able to meet the education criteria necessary for national certification in the role and population-focus and, if successfully certified, are eligible for licensure to practice in the APRN role/population-focus; and 2) to ensure that programs will meet all educational standards prior to starting the program. The pre-approval, pre-accreditation, or accreditation processes may vary across APRN roles. (See the NCSBN *Consensus Model* www.ncsbn.org/Consensus_Model_for_APRN_Regulation_July_2008.pdf)

Sample education competencies used by the nursing profession specific to CNS education

Core Practice Doctorate Clinical Nurse Specialist (CNS) Competencies (2009) - http://www.nacns.org/docs/CorePracticeDoctorate.pdf

Adult-Gerontology Clinical Nurse Specialist Competencies (2010) - http://www.nacns.org/docs/adultgeroCNScomp.pdf

Clinical Nurse Specialist Core Competencies (2010) - http://www.nacns.org/docs/CNSCoreCompetenciesBroch.pdf

Criteria for the Evaluation for Clinical Nurse Specialist Master's, Practice Doctorate and Post-Graduate Certificate Educational Programs (2011) - http://www.nacns.org/docs/CNSEducationCriteria.pdf

The Essentials of Master's Education in Nursing (2011) - http://www.aacn.nche.edu/education-resources/MastersEssentials11.pdf

The Essentials of Doctoral Education for Advanced Nursing Practice (2006) - http://www.aacn.nche.edu/publications/position/DNPEssentials.pdf

The Essentials of Master's Education for Advanced Practice Nursing (1996) http://www.aacn.nche.edu/education-resources/MasEssentials96.pdf

7. Licensing

CNS licensure shares the traits of licensure for the other APRN roles. A uniform model of regulation of advanced practice registered nurses does not exist across the states. Each state determines its APRN scope of practice, the roles that are recognized, criteria for entry-into advanced practice and the certification examinations accepted for entry-level competence assessment. This situation has created some practice barriers and a degree of practice variability from state-to-state. As a result, in 2008 the nursing community released a document that outlines a uniform model of state regulation for APRNs - *Consensus Model for APRN Regulation: Licensure, Accreditation, Certification & Education*. This model currently is being considered by a number of states. The NCSBN is leading an effort urging states to adopt the components of the APRN Consensus Model to allow an improved degree of uniformity in licensure, accreditation, certification, and education of APRNs. As of 2010, forty-eight nursing organizations had endorsed this model.

For the CNS, the APRN Consensus Model requires a significant education, accreditation, and certification change. Under the Model, the CNS will be educated based on ***role and population*** (of patients). Historically, CNS education has been based **on *role and clinical specialty*** (subset of population, in most

cases). Under the previous model, many states accepted specialty certification, when it was available, as recognition for licensure of the Clinical Nurse Specialist. Under the APRN Consensus Model, the requirement will be for national certification based on ***role and population***. Currently, associations, certification organizations, educational institutions, and others are engaged in efforts to make the changes needed in CNS education, accreditation, certification and licensure. A number of these components are in place, even in states that have not yet adopted all components of the APRN Consensus Model.

This change in the licensure, accreditation, certification, and education definitively separates all APRN roles from the classic nursing role (RN including RNs with generic, non-advanced practice master's degrees). It provides a universal understanding of the preparation needed to enter the advanced practice role and has the effect of distinguishing the job characteristics for the RN and each of the APRN roles.

8. Tools and technologies

The CNS will use all of the tools and technologies that are available for clinical health care. These tools will be similar to those used by all APRNs and physicians. In addition, the CNS will use tools that assist them in analysis and implementation of improved quality of care and evidence-based care including, but not limited to, computer systems, computer applications related to databases, statistics, research, and total quality management.

9. Professional or trade associations and unions

The National Association of Clinical Nurse Specialists is the only comprehensive membership association for all CNSs. The American Nurses Association also includes the CNS as one of the categories of RN and APRN members that comprise the organization. CNSs, if they choose to join professional associations, may also join their specialty nursing association. As a result, there are a number of specialty nursing professional associations that have Clinical Nurse Specialist members. For example:

American Association of Critical-Care Nurses
Association of Women's Health, Obstetric and Neonatal Nurses
Emergency Nurses Association
Hospice and Palliative Care Nurses Association
National Association of Neonatal Nurses
American Association of Neuroscience Nurses
Oncology Nursing Society
National Association of Orthopaedic Nurses
Pediatric Nurses Association
Association of periOperative Registered Nurses
Association of Rehabilitation Nurses
Wound, Ostomy Nurses Society
Nurses Organization of Veterans Affair

As healthcare's frontline professionals, nurses are the backbone of our nation's healthcare system. According to Nursys®, NCSBN's licensure database, 4,043,087 RNs are licensed to practice in U.S. jurisdictions, making nursing the nation's largest healthcare profession. Despite being the largest healthcare profession in the nation, it is plagued by limited detailed data on the separate professional categories within its ranks. These data are crucial to make wise and cost-effective public policy decisions that will affect the economic and workplace environment for nursing.

Adding the Clinical Nurse Specialist role as a Broad Occupation and as a Detailed Occupation would refine the healthcare occupations to identify, define, and provide statistics on the CNS whose competencies demonstrate greater depth and breadth of knowledge and skills. Since CNSs are a major constituent in the provision of care to large segments of the U.S. population, such classification is critical as the SOC sets out to cover all jobs in the national economy, and as the federal government seeks to enhance healthcare workforce analysis and planning.

Data on the CNS category could be used by the U.S. Congress, other Federal agencies, State and local governments, businesses, and the Department of Labor to discriminate the impact of the health professions shortages on the healthcare needs of the nation. In addition such data could serve to provide critical information about career progression within nursing, the numbers of CNSs serving primary care needs, and could assist with more accurate future workforce projections.

NACNS hopes that the Office of Management and Budget and the Standard Occupational Classification Policy Committee also will see the value of adding "Clinical Nurse Specialists" as a Broad Occupation and "Clinical Nurse Specialists" as a Detailed Occupation to the 2018 SOC.

Thank you for the opportunity to provide these comments and for your careful consideration of them. If you have questions about our comments and/or require additional information, please feel free to contact Melinda Mercer Ray, NACNS Executive Director, at 703-929-8995.

Sincerely yours,

Les Rodriguez, MSN, MPH, RN, ACNS-BC
President

Appendix A
Clinical Nurse Specialist Core Competencies

http://www.nacns.org/docs/CNSCoreCompetenciesBroch.pdf

A.	**Direct Care Competency: Direct interaction with patients, families, and groups of patients to promote health or well-being and improve quality of life. Characterized by a holistic perspective in the advanced nursing management of health, illness, and disease states.**	
	Behavioral Statement	**Characteristics**
A.1	Conducts comprehensive, holistic wellness and illness assessments using known or innovative evidence-based techniques, tools, and direct and indirect methods.	Clinical Judgment
A.2	Obtains data about context and etiologies (including both non-disease and disease-related factors) necessary to formulate differential diagnoses and plans of care, and to identify and evaluate of outcomes.	Clinical Judgment
A.3	Employs evidence-based clinical practice guidelines to guide screening and diagnosis.	Clinical Judgment
A.4	Assesses the effects of interactions among the individual, family, community, and social systems on health and illness.	Clinical Judgment
A.5	Identifies potential risks to patient safety, autonomy and quality of care based on assessments across the patient, nurse and system spheres of influence.	Clinical Judgment
A.6	Assesses the impact of environmental/system factors on care.	Clinical Judgment
A.7	Synthesizes assessment data, advanced knowledge, and experience, using critical thinking and clinical judgment to formulate differential diagnoses for clinical problems amenable to CNS intervention.	Clinical Judgment
A.8	Prioritizes differential diagnoses to reflect those conditions most relevant to signs, symptoms and patterns amenable to CNS interventions.	Clinical Judgment
A.9	Selects interventions that may include, but are not limited to: A.9.a. Application of advanced nursing therapies A.9.b. Initiation of interdisciplinary team meetings, consultations and other communications to benefit patient care A.9.c Management of patient medications, clinical procedures and other interventions A.9.d Psychosocial support including patient counseling and spiritual interventions	Clinical Judgment
A.10	Designs strategies, including advanced nursing therapies, to meet the multifaceted needs of complex patients and groups of patients.	Clinical Judgment
A.11	Develops evidence-based clinical interventions and systems to achieve defined patient and system outcomes.	Clinical Judgment
A.12	Uses advanced communication skills within therapeutic relationships to improve patient outcomes.	Caring Practices

A.13	Prescribes nursing therapeutics, pharmacologic and non-Pharmacologic interventions, diagnostic measures, equipment, procedures, and treatments to meet the needs of patients, families and groups, in accordance with professional preparation, institution-al privileges, state and federal laws and practice acts.	Clinical Judgment
A.14	Provides direct care to selected patients based on the needs of the patient and the CNS's specialty knowledge and skills	Clinical Judgment
A.15	Assists staff in the development of innovative, cost effective programs or protocols of care	Clinical Judgment
A 16	Evaluates nursing practice that considers safety, timeliness, effectiveness, efficiency, efficacy and patient-centered care.	Clinical Judgment
A.17	Determines when evidence based guidelines, policies, procedures and plans of care need to be tailored to the individual.	Clinical Judgment
A.18	Differentiates between outcomes that require care process modification at the individual patient level and those that require modification at the system level.	Systems Thinking
A.19	Leads development of evidence-based plans for meeting individual, family, community, and population needs.	Caring Practices
A. 20	Provides leadership for collaborative, evidence-based revision of diagnoses and plans of care, to improve patient outcomes.	Clinical Judgment
B.	**<u>Consultation Competency</u>: Patient, staff, or system-focused interaction between professionals in which the consultant is recognized as having specialized expertise and assists consultee with problem solving.**	
B.1	Provides consultation to staff nurses, medical staff and interdisciplinary colleagues	Clinical Judgment
B.2	Initiates consultation to obtain resources as necessary to facilitate progress toward achieving identified outcomes.	Clinical Judgment
B.3	Communicates consultation findings to appropriate parties consistent with professional and institutional standards.	Collaboration
B.4	Analyzes data from consultations to implement practice improvements.	Facilitation of Learning
C.	**<u>Systems Leadership Competency</u>: The ability to manage change and empower others to influence clinical practice and political processes both within and across systems.**	
C. 1	Facilitates the provision of clinically competent care by staff/team through education, role modeling, teambuilding, and quality monitoring.	Systems Thinking

C.2	Performs system level assessments to identify variables that influence nursing practice and outcomes, including but not limited to:	Systems Thinking
	C.2.a. Population variables (age distribution, health status, income distribution, culture)	Systems Thinking
	C.2.b. Environment (schools, community support services, housing availability, employment opportunities)	Systems Thinking
	C.2.c. System of healthcare delivery	Systems Thinking
	C.2.d. Regulatory requirements	Systems Thinking
	C.2.e. Internal and external political influences/stability	Systems Thinking
	C.2.f. Healthcare financing	Systems Thinking
	C.2.g. Recurring practices that enhance or compromise patient or system outcomes.	Systems Thinking
C.3	Determines nursing practice and system interventions that will promote patient, family and community safety.	Systems Thinking
C.4	Uses effective strategies for changing clinician and team behavior to encourage adoption of evidence-based practices and innovations in care delivery.	Systems Thinking
C.5	Provides leadership in maintaining a supportive and healthy work environment.	Systems Thinking
C.6	Provides leadership in promoting interdisciplinary collaboration to implement outcome-focused patient care programs meeting the clinical needs of patients, families, populations and communities.	Collaboration
C.7	Develops age-specific clinical standards, policies and procedures.	Collaboration & Response to Diversity
C.8	Uses leadership, team building, negotiation, and conflict resolution skills to build partnerships within and across systems, including communities.	Collaboration
C.9	Coordinates the care of patients with use of system and community resources to assure successful health/illness/wellness transitions, enhance delivery of care, and achieve optimal patient outcomes.	Collaboration
C.10	Considers fiscal and budgetary implications in decision making regarding practice and system modifications.	Systems Thinking
	C.10.a. Evaluates use of products and services for appropriateness and cost/benefit in meeting care needs	Systems Thinking
	C.10.b. Conducts cost/benefit analysis of new clinical technologies.	Systems Thinking
	C.10.c. Evaluates impact of introduction or withdrawal of products, services, and technologies.	Systems Thinking
C.11	Leads system change to improve health outcomes through evidence based practice:	Systems Thinking

	C.11.a. Specifies expected clinical and level outcomes.	Systems Thinking
	C.11.b.Designs programs to improve clinical and system level processes and outcomes.	Systems Thinking
	C.11.c.Facilitates the adoption of practice change.	Systems Thinking
C.12	Evaluates impact of CNS and other nursing practice on systems of care using nurse-sensitive outcomes.	Systems Thinking
C.13	Disseminates outcomes of system-level change internally and externally.	Systems Thinking
D.	**<u>Collaboration Competency</u>: Working jointly with others to optimize clinical outcomes. The CNS collaborates at an advanced level by committing to authentic engagement and constructive patient, family, system, and population-focused problem-solving.**	
D.1	Assesses the quality and effectiveness of interdisciplinary, intra-agency, and inter-agency communication and collaboration.	Clinical Inquiry & Collaboration
D.2	Establishes collaborative relationships within and across departments that promote patient safety, culturally competent care, and clinical excellence.	Collaboration & Response to Diversity
D.3	Provides leadership for establishing, improving, and sustaining collaborative relationships to meet clinical needs.	Collaboration & Response to Diversity
D.4	Practices collegially with medical staff and other members of the healthcare team so that all providers' unique contributions to health outcomes will be enhanced.	Collaboration & Response to Diversity
D.5	Facilitates intra-agency and inter-agency communication.	Collaboration & Response to Diversity
E.	**<u>Coaching Competency</u>: Skillful guidance and teaching to advance the care of patients, families, groups of patients, and the profession of nursing.**	
E.1	Coaches patients and families to help them navigate the healthcare system.	Advocacy & Moral Agency
E.2	Designs health information and patient education appropriate to the patient's developmental level, health literacy level, learning needs, readiness to learn, and cultural values and beliefs.	Facilitation of Learning & Response to Diversity
E.3	Provides education to individuals, families, groups and communities to promote knowledge, understanding and optimal functioning across the wellness-illness continuum.	Facilitation of Learning & Response to Diversity
E.4	Participates in pre-professional, graduate and continuing education of nurses and other healthcare providers:	Facilitation of Learning & Response to Diversity

	E.4.a. Completes a needs assessment as appropriate to guide interventions with staff;	Facilitation of Learning & Response to Diversity
	E.4.b. Promotes professional development of staff nurses and continuing education activities;	Facilitation of Learning & Response to Diversity
	E.4.c. Implements staff development and continuing education activities;	Facilitation of Learning & Response to Diversity
	E.4.d Mentors nurses to translate research into practice.	Facilitator of Learning & Clinical Inquiry
E.5	Contributes to the advancement of the profession as a whole by disseminating outcomes of CNS practice through presentations and publications.	Facilitator of Learning & Clinical Inquiry
E.6	Mentors staff nurses, graduate students and others to acquire new knowledge and skills and develop their careers.	Facilitator of Learning
E.7	Mentors health professionals in applying the principles of evidence-based care.	Facilitator of Learning
E.8	Uses coaching and advanced communication skills to facilitate the development of effective clinical teams.	Advocacy & Moral Agency
E.9	Provides leadership in conflict management and negotiation to address problems in the healthcare system.	Collaboration
F.	**<u>Research Competency</u>: The work of thorough and systematic inquiry. Includes the search for, interpretation, and use of evidence in clinical practice and quality improvement, as well as active participation in the conduct of research.**	
	I. Interpretation, Translation and Use of Evidence	
F.I.1	Analyzes research findings and other evidence for their potential application to clinical practice.	Clinical Inquiry
F.I.2	Integrates evidence into the health, illness, and wellness management of patients, families communities and groups.	Clinical Inquiry
F.I.3	Applies principles of evidence-based practice and quality improvement to all patient care.	Clinical Inquiry
F.I.4	Assesses system barriers and facilitators to adoption of evidence-based practices.	Clinical Inquiry
F.I.5	Designs programs for effective implementation of research findings and other evidence in clinical practice.	Clinical Inquiry
F.I.6	Cultivates a climate of clinical inquiry across spheres of influence:	Clinical Inquiry, Systems Thinking
	F.1.6.a. Evaluates the need for improvement or redesign of care delivery processes to improve safety, efficiency, reliability, and quality.	Clinical Inquiry, Systems Thinking

	F.1.6.b. Disseminates expert knowledge.	Facilitation of Learning
	II. Evaluation of Clinical Practice	
F.II.1	Fosters an interdisciplinary approach to quality improvement, evidence-based practice, research, and translation of research into practice.	Collaboration
F.II.2	Participates in establishing quality improvement agenda for unit, department, program, system, or population.	Clinical Inquiry
F.II.3	Provides leadership in planning data collection and quality monitoring.	Clinical Inquiry
F.II.4	Uses quality monitoring data to assess the quality and effectiveness of clinical programs in meeting outcomes.	Clinical Inquiry
F.II.5	Develops quality improvement initiatives based on assessments.	Clinical Inquiry
F.II.6	Provides leadership in the design, implementation and evaluation of process improvement initiatives.	Clinical Inquiry
F.II.7	Provides leadership in the system-wide implementation of quality improvements and innovations.	Clinical Inquiry
	III. Conduct of Research	
F.III.1	Participates in conduct of or implementation of research which may include one or more of the following: F. III 1 a. Identification of questions for clinical inquiry F. III 1 b. Conduct of literature reviews F. III 1 c. Study design and implementation F. III 1 d. Data collection F. III 1 e. Data analysis F. III 1 f. Dissemination of findings	Clinical Inquiry
G.	**<u>Ethical Decision-Making, Moral Agency and Advocacy Competency</u>: Identifying, articulating, and taking action on ethical concerns at the patient, family, healthcare provider, system, community, and public policy levels.**	
G.1	Engages in a formal self-evaluation process, seeking feedback regarding own practice, from patients, peers, professional colleagues and others	Clinical Inquiry
G.2	Fosters professional accountability in self or others.	Advocacy & Moral Agency
G.3	Facilitates resolution of ethical conflicts:	Response to Diversity
	G.3.a. Identifies ethical implications of complex care situations.	Response to Diversity

	G.3.b. Considers the impact of scientific advances, cost, clinical effectiveness, patient and family values and preferences, and other external influences.	Response to Diversity
	G.3.c. Applies ethical principles to resolving concerns across the three spheres of influence	Moral Agency
G.4	Promotes a practice climate conducive to providing ethical care.	Moral Agency
G.5	Facilitates interdisciplinary teams to address ethical concerns, risks or considerations, benefits and outcomes of patient care.	Advocacy & Collaboration
G.6	Facilitates patient and family understanding of the risks, benefits, and outcomes of proposed healthcare regimen to promote informed decision making.	Facilitator of Learning
G.7	Advocates for equitable patient care by:	Advocacy & Facilitator of Learning
	G.7.a. Participating in organizational, local, state, national, or international level of policy-making activities for issues related to their expertise.	Advocacy & Facilitator of Learning
	G.7.b. Evaluating the impact of legislative and regulatory policies as they apply to nursing practice and patient; or	Advocacy & Facilitator of Learning
G.8	Promotes the role and scope of practice of the CNS to legislators, regulators, other healthcare providers, and the public:	Advocacy & Facilitator of Learning
	G.8.a. Communicates information that promotes nursing, the role of the CNS and outcomes of nursing and CNS practice through the use of the media, advanced technologies, and community networks.	Advocacy & Facilitator of Learning
	G.8.b. Advocates for the CNS/APRN role and for positive legislative response to issues affecting nursing practice.	Advocacy & Facilitator of Learning

Appendix B
www.nacns.org/docs/CNSOutcomes131204.pdf

NATIONAL ASSOCIATION OF CLINICAL NURSE SPECIALISTS

Impact of the Clinical Nurse Specialist Role on the Costs and Quality of Health Care
December, 2013

In 2010, the U.S. spent $2.6 trillion on health care, an average of $8,402 per person. Implementation of the Affordable Care Act has begun and while the benefits and shortcomings of this law have been projected, the reality of implementation is before the nation. The Congressional Budget Office has estimated that more than 14 million more individuals will gain coverage either as a result of access to newly created health plans or as a result of an expansion of state Medicaid programs. The economic pressures and policy changes are causing a radical shift in healthcare delivery across the entire continuum of care. Within these major shifts of policy and care delivery models, it is essential that the patients who rely on the healthcare system have access to high quality, cost-effective care.

The nation's 72,000 Clinical Nurse Specialists (CNS) are uniquely prepared with advanced nursing education to meet the increased demand for health care and to safeguard the provision of quality care. Since 1953, the CNS has served as a committed leader, delivering cost-effective care with optimal patient outcomes (Peplau, 2003). The CNS provides both health promotion and maintenance through assessment, diagnosis, and management of acute and chronic patient problems that includes pharmacologic and non-pharmacologic interventions.

Research and demonstration projects have shown that the CNS role is uniquely suited to lead implementation of evidence-based quality improvement actions that also reduce cost throughout the healthcare system. This leadership has been demonstrated in the following areas, but not limited to; providing prenatal care, preventive and wellness care, behavioral health care and care to those with chronic conditions. The CNS also plays an essential role in care coordination and transitions of care that result in reduced hospital length of stay, fewer hospital readmissions and hospital-acquired conditions (HACs). A review of the CNS Core Competencies supports the centrality of the function of care coordination within the CNS role. This would show that the CNS is educated and prepared to be, not only a participant in care coordination, but also to partner with other providers in the leadership role for care coordination.

Improving Prenatal Care

Clinical Nurse Specialists have demonstrated improved outcomes when providing home care to mothers with a high risk of delivering low-birth weight infants and for early discharge of very low birth weight infants with follow-up. Brooten, Youngblut, Brown, Finkler, Neff, & Madigan (2001) showed in a randomized, controlled clinical trial that the group receiving prenatal home care by a CNS saved 750 hospital days, yielding $2.9 million dollars saved. The CNS has also been shown to be an effective member of the prenatal care team and to have the greatest client satisfaction and the lowest cost per visit when providing prenatal care (Gravely 1992).

Preventive and Wellness Care Reducing Overall Costs for Employer

Clinical Nurse Specialists improve access to wellness and preventive care by early identification of those at risk for costly chronic diseases, such as diabetes and heart failure and provide care to keep people healthy and prevent chronic conditions. A wellness company, owned and managed by CNSs, provides ongoing care to employees to help them stay healthy and to lower their risk for the development of disease. An employer, who has engaged the services of these CNSs, saw their healthcare costs decrease and the annual increase in their health insurance premiums go to the single digits, as opposed to previous double digit increases (Dayhoff 2008).

Psychiatric/Behavioral Health Care to Reduce Depression

Clinical Nurse Specialists provide behavioral health care to individuals in private practice and to communities through special programs. The Insight Program, which was implemented by CNSs in a community setting to address depression in women, had a statistically significant and clinically relevant improvement in scores on all tools used (Adams 2000). Another study demonstrated that CNSs also work as members of the primary care team in providing care to improve the recognition of depression and its initial management in a Veterans Administration hospital (Dobscha 2001).

Reducing Costs of Chronic Condition Care

Clinical Nurse Specialists have distinguished themselves as effective coaches of those with chronic illness by promoting self-care and reducing the costs of the illness and readmissions. Several studies document their efforts in the care of the chronically ill, including those with heart failure (Creason 2001, Newman 2002, Knox 1999, Ryan 2009), asthma (Horner 2008) and epilepsy (McNellis 2007). In addition, CNSs have developed and demonstrated the effectiveness of their community programs that identify those with COPD early slowing down the progression of their disease (DeLong 2004).

Preventing Hospital-Acquired Conditions (HACs)

Clinical Nurse Specialists are the leaders in preventing hospital-acquired conditions (HACs).

Hospital – acquired conditions (HACs) include pressure ulcers, falls, and infections such as: central line associated bloodstream infections (CLABSI) and catheter-associated urinary tract infections (CA-UTI). Preventing HACs is critical for improving the quality of care and reducing overall healthcare costs. Allain (2012) cites hospital-acquired pressure ulcers as affecting 1.6 million people at a cost of $1.6 billion annually. Another prevalent HAC, CLABSI, "…adds additional costs of $35,000 to $56,000 per case, which is no longer reimbursed by Medicare." (Lee, 2011).

Numerous studies have documented the impact the CNS has in preventing HACs in acute care settings.

- Krupp (2009) demonstrated CNSs decreased the HAC rate by 46% in an acute care setting.
- Hays (2010) demonstrated a pressure ulcer treatment program, implemented by a CNS, decreased HAC rates from 20% down to 3.8%, resulting in a cost savings of over $40,000 for that organization.
- Richardson & Tjoelker (2012) demonstrated a CNS led initiative to decrease CLABSI saving the organization $214,712 in terms of cost avoidance and 1.4 lives saved out of 8 patients with CLABSI.
- Maze (2011) also demonstrated a CNS led initiative resulting in the CLABSI rate to be consistently below the National Healthcare Safety Network (NHSN) benchmark.

Multiple other studies have proven the CNS role as expert clinician, consultant & change-agent in the prevention of HACs, leading to cost savings for the organization (Lee, 2011, Krupp, 2009, Quinn, 2011, Morrison, 2010, Jones, 2009, Carlson, 2009).

Reducing Lengths of Stay in Acute and Community Based Settings

Clinical Nurse Specialists have had a significant impact in implementing practices to reduce patients' lengths of stay in acute and community-based settings

- To improve the outcomes of those having a stroke, a CNS led team implemented practice guidelines and developed best practice tools resulting in reduced length of stay for those patients admitted with a diagnosis of stroke (Fuhrman 2011).

- For geriatric patients having a hip fracture, a CNS led the team to achieve The Joint Commission certification in Geriatric Hip Fracture Disease that led to decreased costs by 15%, a 28% decrease in length of stay and 0.5% decrease in mortality (McWilliams-Ross 2011).

- An interdisciplinary team, facilitated by a CNS, coordinated a transformation in the care of patients with diabetes within a health system. The Diabetes Clinical Initiative achieved remarkable outcomes with significant decreases in the average monthly glucose levels declining from 194 mg/dL to 155 mg/dL with a decrease in the percentage of patients with hyperglycemia after day 1. This significant decrease was also achieved in those receiving cardiac surgery, in critical care units and in perianesthesia pre-procedure and post procedure. Hypoglycemia rates remained low compared with published national data. As a result of these dramatic changes in blood glucose levels, the length of stay decreased significantly (Helmuth 2012).

- At an urban acute care hospital, CNSs developed a tool for nurses to assess patients on admission for alcohol consumption and collaborated with physician and pharmacy teams to create an order set. As a result of the implementation of this tool, the hospital costs and length of stay decreased (Corniello, 2012).

- Santos (2012) demonstrated CNSs led the effort to improve outcomes for patients with traumatic spinal cord injury (SCI) by creating and implementing a critical pathway. This resulted in a decrease in the average length of stay in the ICU by 7 days and a decrease in the average hospital length of stay by 10 days for traumatic paraplegic patients (Santos, 2012).

- In a community-based care program, CNSs who provided care to those with complex and chronic care conditions had an impact on clinical quality, costs and client satisfaction. Financial measures showed reductions in all key indicators: cost (decreased 24%), emergency department utilization (decreased 38%), inpatient admissions (decreased 23%), and inpatient days (decreased 49%), when compared with the year prior to the program (Schmidt and Ulch 2012).

- In an emergency department, the CNS led the team to implement standard practice protocols and guidelines in improving outcomes for septic patients that resulted in a marked decrease in the door-to-first antibiotic administration times and the reduction in patients' hospital lengths of stay (Williams 2011).

Preventing Readmissions

The Clinical Nurse Specialist is also a leader in preventing hospital readmissions.

A patient is at risk of being readmitted to the hospital within 30 days of discharge if certain conditions are not met. The patient needs to be educated about medications, expected actions, and potential side effects. The patient also needs to be able to articulate signs and symptoms of the disease process and know when to call a healthcare provider. As of October, 2012 Medicare began to reduce payments to hospitals with excess readmissions (Affordable Care Act, 2010).

The Clinical Nurse Specialist is in an ideal position to coordinate, implement, and evaluate a plan to prevent costly readmissions and improve care.

- Dickinson and O'Brien (2010) developed guidelines and policies to address pandemic situations encountered by a healthcare institution. The CNS authors implemented a plan to prevent admissions/ decrease readmissions and increase quality patient outcomes (Garolis, 2010). The CNS plays a role in accurate medication reconciliation which can ultimately decrease readmission rates. Complex change can be implemented through CNS influence and leadership.

- Brim (2010) discussed how the quality of patient care could be improved through a peer review process. The CNS author was a leader, mentor, and change agent for nursing staff. The CNS encouraged the nurses to become involved in recognizing areas that needed to be improved. As staff became engaged in the process, patient education improved, quality of care improved, and readmissions decreased. The Clinical Nurse Specialist is often the leader in organizations to coordinate and implement changes that result in quality outcomes and reduced readmissions.

- Mary Naylor's, PhD, FAAN, RN Transitional Care Model Program (TCM) has been extensively researched over the past 20 years and has been in patient practice in an urban, acute care health system for the past 6 years. TCM utilizes Advanced Practice Registered Nurses, CNSs and NPs to work with patients while they are still in the hospital, collaborate with the hospital interdisciplinary team to promote optimal patient health, stay with the patient through his/her transitions in care to home, and continue to work with the patient at the patient's home and the patient's out-patient providers with goals of increasing the patient's health awareness/self-management of chronic conditions and benefitting the health organization and insurance agencies by ultimately reducing readmission rates (Naylor, 1994, 1999, 2004, 2006, 2011; Bixby, 2000; Konick-McMahan, 2003).

Conclusion

This review of research and demonstration projects demonstrates how the CNS role promotes quality healthcare services and decreases healthcare expenditures through management of a patient's primary and chronic health care as well as through care coordination and transitions using advanced nursing knowledge, abilities, and skill. Greater utilization of the CNS role within the healthcare delivery system across all settings will improve access to cost-effective, high quality care for the millions who will need it beginning in 2014.

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