FIVE

Spreading the CNL Initiative: An Interprofessional Microsystem Approach

Alice E. Avolio and Marjory D. Williams

Learning Objectives

- Define microsystems within a collaborative practice model
- Identify the requisite steps, activities, and milestones associated with spreading the clinical nurse leader initiative within a healthcare system
- Discuss activities and methods to include in a communication plan that supports spreading the clinical nurse leader initiative
- Identify budget considerations and provide a sample budget plan that covers the lifecycle of the spread initiative
- Describe outcomes of a clinical nurse leader spread initiative within a healthcare system

Initiative is doing the right thing without being told.

Victor Hugo
## Introduction

Successful implementation and sustainment of the clinical nurse leader (CNL) role is best served by a strategic approach that creates opportunities and anticipates and addresses barriers and challenges. This chapter describes the components of a strategic approach to supporting implementation across a large national healthcare system, using the Veteran’s Health Administration (VHA) as an example. Significant key components and instances of specific

---

**Key Terms**

- Microsystems
- Communication plan
- Value
- Interprofessional collaborative practice
- Project and budget lifecycle
- Measureable outcomes

**CNL Roles**

- Communication
- Leadership
- Risk anticipation
- Design and implementation
- Member of profession

**CNL Professional Values**

- Collaboration
- Advocacy
- Accountability

**CNL Core Competencies**

- Communication
- Resource management
- Delegation
- Data interpretation and analysis

---

*Time is neutral and does not change things. With courage and initiatives, leaders change things.*

*Jesse Jackson*
activities that can be included in the development, implementation, and evaluation of a strategic CNL spread initiative are described.

Background

In 2010, the Office of Nursing Services (ONS) of the VHA launched its CNL spread plan, a set of strategic initiatives designed to provide support for full implementation of the CNL role at all points of care across the system over a 5-year period (ONS, 2010). The plan, when first released, defined the scope, project lifecycle, activity descriptions, per annum costs, and markers of success. This portfolio of multiyear activities was specifically designed to:

- Overcome barriers to implementing and sustaining the CNL role
- Employ and fully integrate the CNL role into the patient care model
- Objectively embed quality, safety, and efficiency into patient care delivery
- Enhance collaborative partnerships with affiliating schools of nursing and interprofessional teams (ONS, 2010)

The impetus for the implementation of the CNL spread plan was difficulty encountered in attaining the goal of full implementation across the national VHA system. Multiple barriers existed, including budget constraints, geographic inconsistencies in understanding of and experience with the role, and lack of dedicated ongoing consultative support for facilities during implementation of the role. The multiyear spread plan was designed to address identified barriers while significantly enhancing care delivery and clinical processes at the microsystem level (ONS, 2010).

Inclusion of the CNL role in current and future staffing plans and formation of valuable partnerships were considered fundamental to advancing the adoption and integration of the CNL role within VHA and the healthcare community.

The remainder of this chapter describes the component activities of the VHA's spread plan and outlines key activities and focus areas for consultative support. Priority concerns for communication and resource impact and examples of evaluation measures at the system, organization, and microsystem levels are identified. Chapter content incorporates insights gained from consultative activities and engagement with stakeholders at all levels. The significance of the multiple activities of the CNL spread plan in supporting CNL role implementation and sustainment are highlighted, as is the clear focus on the interprofessional team at the level of the microsystem.
Component Activities of the VHA’s CNL spread plan

This section describes the component activities of the VHA’s CNL spread plan. The activities included:

- Creating the Management Guidance Team
- Establishing the CNL Implementation and Evaluation Consultative Service
- Organizing the Academy for the Improvement of Microsystems
- Developing and implementing the CNL Transition-to-Practice Curriculum
- Partnering in identifying and establishing funding support for VHA employees pursuing requirements to become CNLs

As a beginning activity, a diverse group of stakeholders convened for an all day deep dive exercise to explore a systems redesign approach to the CNL role at the microsystem level across the organization (Harris, 2011). Theoretical underpinnings of the CNL spread plan and the vision of a CNL in every facility across the system by 2016 were reviewed. Barriers were identified, elements of a sound business case were delineated, marketing strategies were proposed, and measures of spread were discussed. The organization of the first Academy for the Improvement of Microsystems (AIM) was developed, as were mechanisms for integrating the multiple component activities of the CNL spread plan. The Management Advisory Group was created to consider feedback from various spread plan activities, make decisions about implementation of the CNL role, and conduct periodic monitoring and oversight during the proposed 5 years of the spread plan. The value of national leadership support was fully acknowledged. Following the deep dive exercise, the expectation that the CNL role would be included in current and future nurse staffing plans was communicated to all medical center directors.

A second activity of the VHA CNL spread plan was establishing the CNL Implementation and Evaluation Service to provide consultation and assistance to VHA medical centers, academic affiliates offering a CNL curriculum, and individual CNL students and preceptors. More specifically, the services included fostering clinical and academic partnerships, readying environments for CNL role implementation and sustainment, developing CNL preceptors, guiding the development and future analysis of metrics related to the impact of the CNL role, collaborating with other activities in the spread plan, disseminating findings, and submitting progress reports (ONS, 2010).
Core activities of the CNL Implementation and Evaluation Service were assessing system needs, establishing measures of success, and remaining responsive to the needs of stakeholders; these activities evolved over the lifecycle of the CNL spread plan. A system-level gap analysis conducted in April 2012 sought input from facility nurse executives to guide the development of consultative activities and products. Consultative site visits individualized to the needs of the requesting facility provided the opportunity to share effective strategies and practice and to create supportive networks across the system. Virtual consultative support was enhanced through access to resource tool kits developed to address common needs, promote standardization of role implementation, and disseminate effective practices. A virtual national community of CNL practice grew around shared online workspace and monthly CNL live meetings that offered CNLs and microsystem stakeholders the opportunity to discuss issues and share approaches. Dissemination of CNL activities and outcomes was supported through a virtual manuscript development workshop that provided step-by-step training and access to writing coaches. Examples of several of these core activities are included in the exemplars at the end of this chapter.

A third activity in the CNL spread plan involved collaboration between ONS and the MidWest Mountain Veterans Engineering Resource Center (VERC) to create the Academy for the Improvement of Microsystems (AIM). The goal of the AIM collaborative was to foster the development of the CNL role through an interprofessional approach emphasizing systems redesign and flow improvement (ONS, 2010). The vision and actionable goals for the AIM collaborative were created during the deep dive exercise using systems redesign principles and processes. AIM engaged cohorts of point-of-care teams from VHA medical centers to participate in guided learning sessions and activities focused on continuous improvement at the microsystem level. Cohort CNL team members were also provided the opportunity to complete a field-based analytics course to emphasize the importance of analytics-driven decisions for value, quality, access, and satisfaction.

A fourth activity in the CNL spread plan was the development and implementation of a 6-month transition-to-practice program and curriculum intended for new CNLs. This transition-to-practice program involved facilitation and mentoring by a facility-based preceptor or CNL mentor during the guided experience. The program was designed to enhance CNL knowledge, skills, and abilities in coordinating care, applying evidence-based practices, delivering care in a professional nursing practice environment, improving processes, demonstrating transformational leadership, and translating informatics and analytics data into practice.
A fifth activity in the CNL spread plan was the creation of a pilot scholarship program modeled after the VHA National Education for Employees Program (VANEERP) that would offer the necessary financial support to allow CNL students to complete their academic program. The pilot scholarship program offered salary replacement dollars to CNL students to complete the 400 hours of clinical practice immersion, the final requirement of the CNL academic curriculum.

Key Activities and Focus Areas for Consultative Support of CNL Role Implementation

Several consultative activities and focus areas emerged as pivotal to supporting CNL role implementation across the national system. Of paramount importance was the development and validation of a shared vision and conceptualization of the role. Even with the strong and well-represented national vision of the ONS, individual facilities and geographic regions often struggled with establishing a shared local vision among the diverse stakeholders at the facility level. Other critical focus areas for consultative support included identifying key stakeholders at the local level, employing a sound business case, creating capacity to support facility plans for CNL role implementation, leveraging stakeholder support in resource-constrained environments, and creating a community of practice networks and virtual resource repositories for sharing successes and innovations.

Developing/Validating a Shared Vision and Conceptualization of the CNL Role

The importance of approaching CNL implementation by first developing and validating a shared vision and understanding of the CNL role within the context of an organization cannot be overemphasized. This applies regardless of the level of consideration, whether that is across an entire national healthcare delivery system, a single organization, or an individual point-of-care microsystem. Failure to establish a common vision and understanding at the beginning of the journey can lead to misunderstandings and inconsistent expectations that threaten implementation efforts and may be difficult to overcome if initial attempts are unsuccessful (Moore & Leahy, 2012; Vestal, 2011). A particularly problematic barrier identified by nursing leadership in the VHA system was a history of failure in implementing the CNL role (ONS, 2010).
Development of a shared vision and understanding of the CNL role includes a set of activities that provide a strong foundation for initial success, growth, and sustainability (Scott & Mensik, 2010). These activities engage key stakeholders in viewing the role within the context of the organization, projecting and defining reasonable expectations and meaningful outcomes, and formulating an initial idea of the characteristics, role description, and competencies of an effective CNL.

Effective strategies for approaching a shared vision and understanding include clear articulation of the origin of the CNL role and the relationship of that origin to the challenges facing the organization. Some organizational leaders tend to start with looking at how nursing resources can correct issues in the organization, which is very likely to lead to role implementation that does not take advantage of the multiple domains of CNL practice and the potential influence of the role on micro-system practice, process, and outcomes. Concurrent with articulation of the origin of the CNL role, clarification of the role as a point-of-care generalist is an equally important foundational strategy. Table 5-1 outlines key factors that led to the development of the CNL role that help to illustrate and emphasize a focus on practice at the level of the microsystem.

Clarification of the CNL role as a point-of-care generalist with a practice focus on the microsystem is an important early step in implementation. This step is the foundation for establishing and communicating expectations, as well as delineating evaluation measures. Although the terms microsystem and interprofessional practice are becoming part of the common language of health care, it remains important to

Table 5-1. Key Factors That Led to the Development of the CNL Role

Despite identification of quality and safety issues in healthcare delivery systems and implementation of structures to improve quality and safety, progress has been slow (Patrician et al., 2012) and improvement activities are often disconnected from the point of care (Reid & Dennison, 2011).

The complexity of healthcare needs, knowledge, delivery, and delivery systems continues to increase (Newhouse & Spring, 2010), yet the care environment remains fragmented and task oriented (Bender, Connelly, Glaser, & Brown, 2012; Stavrianopolis, 2012).

Interprofessional teamwork and collaboration have been identified as the foundation of safe, effective care (Bender et al., 2012; Buxton, Chandler-Altendor, & Puente, 2012; Herbert, 2005; Norsen, Oplanden, & Quinn, 1995), but the healthcare workforce remains inadequately prepared in the arena of interprofessional practice (Newhouse & Spring, 2010; Patrician et al., 2012; Wagner, Liston, & Miller, 2011).
clarify the definition of these concepts when approaching CNL role implementa-
tion. Table 5-2 provides descriptive definitions. Table 5-3 provides additional key
points for articulating the importance of the microsystem focus.

**Identifying Key Stakeholders**

For the vision and understanding to be truly shared it is imperative that key stake-
holders are identified and included as early as possible in the journey (Dearman
& Davis, 2011). Failure is often due to paying inadequate attention to stakeholder
groups and/or individuals who have not bought in and who introduce barriers that
were not anticipated and adequately addressed in the early approach to role imple-
mentation (Harris & Roussel, 2011). Questions to guide stakeholder identification

<table>
<thead>
<tr>
<th>Table 5-2</th>
<th>Descriptive Definitions of Healthcare Microsystem and Interprofessional Practice</th>
</tr>
</thead>
</table>
| A microsystem is a “small group of people who work together on a regular basis
to provide care to discrete subpopulations including the patients. It has clinical and
business aims, linked processes, shared information environment and produces perfor-
mance outcomes. They evolve over time and are (often) embedded in larger systems/
organizations” (The Dartmouth Institute, 2011). |
| Interprofessional practice is characterized by “coordinated and cohesive linkages
between disciplines resulting in reciprocal interactions that overlap disciplinary bound-
aries, generating new common methods, knowledge, or perspectives” (Newhouse & Spring, 2010). |

<table>
<thead>
<tr>
<th>Table 5-3</th>
<th>Key Points About the Importance of a Microsystem Focus</th>
</tr>
</thead>
</table>
| The microsystem is the environment within which the interface with the patient actu-
ally occurs |
| The microsystem is the environment where culture and practice patterns directly
impact patient outcomes |
| The microsystem is the environment where pride in work either flourishes or flounders |
| The microsystem is the environment where teams that include nurses create conditions
of excellence, test changes in healthcare delivery, translate discovery into patient-
centered care, provide safe and efficient care, support individuals to reach their poten-
tial, and roll up their sleeves and do the work |

include the following: Who will this impact? How will this impact them? Who might be impacted unintentionally? Who are key stakeholders who can influence other stakeholder groups? How can we stage stakeholder engagement to maximize support and minimize barriers?

**Employing the Business Case**

Once a common understanding and shared vision have been defined, a solid and meaningful business case can help to consolidate stakeholder engagement and more specifically delineate expectations. Employing the business case can help address important questions such as the following: What can CNL implementation accomplish? What do we anticipate CNL role implementation will actually accomplish? Where in the organization do we most need what we anticipate will be accomplished? What factors maximize the ability to achieve anticipated/desired accomplishments? Table 5-4 identifies ways that the CNL role adds value to the organization at the microsystem level. Value statements are an important component of the business case and provide a framework for presenting anticipated CNL accomplishments to diverse stakeholders (Bleich, 2011).

**Creating Capacity**

A common challenge facing many organizations in the early phase of CNL role implementation is the lack of a local CNL recruitment base. When an organization decides to move forward with CNL role implementation an important early issue is where to find the nurses to fill the role. The two options are recruiting external candidates and developing current employees into the role. Both options offer excellent opportunities

<table>
<thead>
<tr>
<th>Table 5-4  How the CNL Role Adds Value to the Microsystem</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The role is incorporated into the care delivery model.</td>
</tr>
<tr>
<td>• The role embeds an advanced skill set in the microsystem at the point of care.</td>
</tr>
<tr>
<td>• The role assesses and addresses issues in real time and within context of microsystem reality.</td>
</tr>
<tr>
<td>• The role observes and evaluates patterns impacting practice and outcomes.</td>
</tr>
<tr>
<td>• The role partners with the nurse manager.</td>
</tr>
<tr>
<td>• The role supports direct care staff.</td>
</tr>
<tr>
<td>• The role influences point-of-care culture.</td>
</tr>
</tbody>
</table>
but also require thoughtful approaches to anticipate and avoid common pitfalls. As noted earlier, one of the activities in developing and validating a shared vision is formulating an initial idea of the characteristics, role description, and competencies of an effective CNL (Moore & Leahy, 2012). This activity is important to both external recruitment and selection of CNLs and to the development of current employees into the CNL role. Equally important to both approaches is a strong partnership with academic affiliates offering the CNL curriculum (Walters, 2011).

Many facilities across the VHA system identified the CNL role as a workforce development opportunity, recognizing the value of providing an opportunity to further develop strong nurse clinicians who wanted to remain at the point of care. Consultative services assisted facilities in identifying and establishing the key structures, processes, relationships, and resources that would be needed to support employee development into the CNL role. Successful approaches and lessons learned were shared, and important connections across facilities and with academic partners were facilitated. Virtual support was provided by experienced CNLs and CNL preceptors in those areas without current CNL capacity. Questions that helped guide the approach of “grow your own CNL” included the following: What do we need to have in place to do this? What do we currently have in place to support this? What do we need to obtain/develop to be able to do this? What are the stages of this process? What is the time frame for each stage and the overall process? What are alternative options?

**Leveraging Stakeholders**

Even if the decision to implement the CNL role is supported by leadership, nurse staffing resources may be limited. The resource environment may be further constrained by competition across stakeholder groups, and the challenge of actually creating the role without additional resources may generate new resistance within nursing (Moore & Leahy, 2012). An important issue to explore when resources are a problem is where the organization has buy-in and how it can use it to influence resistance. Anticipating resource competition may reveal opportunities for CNL role implementation to address unmet needs through transformation of care delivery models or approaches. Once barriers are identified, knowing where they are and who the organization can partner with to address them can be the basis of a strategic approach to strengthening organizational support of CNL role implementation.
Another issue to pursue is where resource deals can be made. This issue may identify opportunities for innovation and transformational change as resources are renegotiated and realigned to the point of care.

One strategic approach to leveraging stakeholders is a stratified staged marketing plan in which the nature and timing of information are designed to target specific stakeholder groups at key times in the sequence of activities supporting CNL role implementation. Influential stakeholders may help address resistance among other groups if they come on board first. The same set of stakeholders might conversely solidify barriers if the approach is to try to bring every group on board at the same time in the same way.

There are several examples in the VHA of the value of collaborative partnerships in leveraging support for CNL role implementation across programs. The AIM collaborative is one example. The mission of the VERC structures in the VHA is to “integrate the principles of systems engineering into the fabric of healthcare delivery” and to promote continuous improvement and lean system design through development of microsystem process and culture (VERC, 2012). Although the focus of the VERC mission is not specifically on the CNL role, the CNL in the microsystem provides an opportunity for the VERC to give tools for influencing microsystem processes to CNLs within the context of a team. Conversely, exposing microsystem teams without CNLs to teams with CNLs in the same cohort strengthens knowledge about the CNL role and helps teams value having a clinical team member with the particular focus and skill set of a CNL in the interprofessional microsystem environment.

Partnerships across clinical and evidence-based practice programs provide opportunities to keep the CNL role in the discussion of innovative and transformational models of care delivery and to engage in resource realignment considerations or proposals for small tests or pilot projects. These activities build evidence for a business case, increase organizational knowledge, and influence value and culture. Partnering with evidence-based practice program activities exposes CNLs and microsystem teams to consideration of practice change that is based on the best available evidence, clinical expertise, and patient preference. Workshops for teams including CNLs support development of CNL competencies in the area of facilitating microsystem evidence-based practice. Table 5-5 includes examples of how the CNL can influence the microsystem.
Creating Communities of Practice

A primary consideration of activities designed to spread CNL implementation in a healthcare system is the scale of the overall effort. In a national system, such as the VHA, the ability to engage stakeholders across the diverse components of the system is a daunting challenge. Virtual communities of CNL practice provide a vehicle for increasing connections and communication that support adaptive change (Harris & Roussel, 2011) and build organizational knowledge across geographic boundaries. Rather than employing a prescriptive top-down framework for implementation, virtual communities of practice foster diverse relationships and promote action driven from the point of care (Harris & Roussel, 2011).

The VHA CNL Practice SharePoint site was created to provide ready access to information about the CNL role, VHA initiatives, and CNL practice across the VHA. This repository of resources includes a wide variety of tools that support CNL role implementation. Shared workspace is provided for special groups such as new CNLs participating in the Transition-to-Practice Program and CNLs who are participating in a manuscript writing workshop. While the CNL Practice SharePoint site was primarily created for practicing CNLs and CNL students, information and tools on this site are useful to other stakeholders as well. Figure 5-1 is a screen shot of the VHA’s CNL SharePoint site menu.

Table 5-5  How the CNL Influences the Microsystem

<table>
<thead>
<tr>
<th>Influence Description</th>
<th>How it Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient outcomes in assigned microsystem</td>
<td>Uses evidence-based practice to facilitate, coordinate, and provide care</td>
</tr>
<tr>
<td>Safety, effectiveness, timeliness, efficiency, quality, and the degree to which we are client centered</td>
<td>Engages other nurses in evidence-based practice to affect patient outcomes</td>
</tr>
<tr>
<td>Variations in clinical outcomes</td>
<td>Quality and safety as everyday function</td>
</tr>
<tr>
<td>Critical evaluation and mitigation of risk</td>
<td>Redesigns practices, improves flow, coordinates processes</td>
</tr>
<tr>
<td>Patterns of need and tailoring of interventions</td>
<td>Practice and practice change driven by outcomes</td>
</tr>
<tr>
<td>Evidence-based practice as way of practice</td>
<td>Fosters interprofessional team environment</td>
</tr>
<tr>
<td>▲ Uses evidence-based practice to facilitate, coordinate, and provide care</td>
<td>▲ Partners to create learning and problem-solving communities</td>
</tr>
<tr>
<td>▲ Engages other nurses in evidence-based practice to affect patient outcomes</td>
<td></td>
</tr>
</tbody>
</table>

Creating Communities of Practice
The AIM collaborative provides another CNL online community. Cohorts of point-of-care teams from geographically dispersed facilities learn and work together using live or real-time Blackboard online learning technology. Faculty provides instruction in systems redesign and continuous improvement, emphasizing lean principles at the point of care. Teams have access to systems redesign coaches,
faculty consultants, and a national network of subject matter experts. Team members who complete projects that meet specific requirements are eligible to take an exam to achieve Yellow Belt certification. Descriptions of team projects are available to other teams to promote dissemination of practices that reduce waste, improve throughput, and enhance quality care delivery.

Priority Concerns About Communication and Resource Impact

Communication is foundational to the success of any large-scale system change. Change in complex adaptive systems is effected through connections and networks that promote the exchange and flow of information (Crowell, 2011). Attention should be given to how communication occurs, what needs to be communicated, which stakeholders need to be part of which communications, and strategies for addressing barriers to communication (Harris & Roussel, 2011). In a multifacility national healthcare system, consideration should also be given to variable patterns of communication that may exist. A key element of the communication plan is identification of what works best and how the effectiveness of communication will be validated. Development and validation of a shared vision requires effective communication channels within and across system divisions. The success of marketing strategies is dependent on the timing and sequence of information delivery. Sustainable partnerships and supportive networks are not possible without continuous attention to appropriate and effective communication patterns.

Table 5-6 illustrates strategies employed to address communication among several internal stakeholders to support CNL implementation across the VHA system. A comprehensive communication plan identifies communication needs for both internal and external stakeholders.

Budget considerations are critical to the success of change initiatives. Projection of the economic impact of a proposed change includes consideration of fiscal barriers at all levels within the organization. Obvious dimensions of the economic impact of implementing the CNL role across a national healthcare system include costs associated with CNL salaries and training. Considerations for the cost of the necessary infrastructure to support this major change initiative include additional salary, technology, and community-building expenses. Equally important to the projection of anticipated costs is planning to address the impact of stakeholder
disincentives related to resource competition that may occur over the lifecycle of the initiative. Strategies for addressing potential roadblocks to required resource alignments are also important components of budgetary planning. Table 5-7 outlines examples of component costs of the VHA CNL spread plan and illustrates the projected economic impact over the lifecycle of the initiative.

**Outcomes of a CNL Spread Initiative**

A strategic approach to the implementation of the CNL role across a national healthcare system must include a framework for evaluating desired outcomes. The vision of the VHA’s ONS set the primary objective for the CNL spread plan as having a CNL in every point of care across the system within 5 years. In addition to the primary

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>Communication Methods</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>System and facility leadership</td>
<td>Leadership meetings/briefings</td>
<td>As indicated by issues</td>
</tr>
<tr>
<td></td>
<td>Strategic planning meetings</td>
<td>Annual reports</td>
</tr>
<tr>
<td></td>
<td>Nurse executive conference calls</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Nursing shared governance meetings</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Elevator speeches</td>
<td>Impromptu opportunities</td>
</tr>
<tr>
<td>Interprofessional point-of-care teams</td>
<td>Discipline-specific conferences</td>
<td>Annual</td>
</tr>
<tr>
<td></td>
<td>Informational webinars</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td>Grand rounds</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Poster sessions</td>
<td>Semiannual</td>
</tr>
<tr>
<td></td>
<td>Webpages</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Practicing CNLs and CNL students</td>
<td>Conference calls</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>SharePoint community of practice</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>National conferences</td>
<td>Annual; semiannual</td>
</tr>
</tbody>
</table>
Table 5-7  Sample Budget Plan to Support CNL Implementation Across a National System

<table>
<thead>
<tr>
<th>CNL spread plan Activity</th>
<th>Project Component Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YEAR 1</td>
</tr>
<tr>
<td>Academy for Improvement of Microsystems (faculty, coordination, technology, licensing, Yellow Belt [YB] certification, face-to-face meetings)</td>
<td>Salaries</td>
</tr>
<tr>
<td></td>
<td>Start-up</td>
</tr>
<tr>
<td></td>
<td>Travel</td>
</tr>
<tr>
<td>Implementation and Evaluation Consulting Service (Consulting team staff, site visits)</td>
<td>Salaries</td>
</tr>
<tr>
<td></td>
<td>Travel</td>
</tr>
<tr>
<td>Transition-to-Practice Program (Curriculum development, pilot, 0.2 FTEE offset per participant and preceptor)</td>
<td>Start-up</td>
</tr>
<tr>
<td></td>
<td>Travel</td>
</tr>
<tr>
<td>Organizational Level (at which cost impacts)</td>
<td>National</td>
</tr>
</tbody>
</table>

Note: FTEE = Full Time Equivalent Employee

Objective, additional outcomes, milestones, and measures of success were embedded in the evaluation framework. Additional measures pertained to the effectiveness of spread plan components, growth and development of academic and interprofessional partnerships, workforce development, work environment enhancement, and improvements in microsystem performance. This included changes in patterns of microsystem practice, degree of transformational change, sustainability of change, return on investment, and generation of new knowledge.
Strategic action plans identified and tracked progress of component activities and the achievement of milestones. Measures for the AIM collaborative included the number of facilities and microsystem teams completing the training and the number of point-of-care staff achieving Yellow Belt certification. Measures for the Implementation and Evaluation Consultative Service included number of site visits and degree of success meeting facility needs. Outcomes of helping facilities address barriers to CNL implementation are reflected by increased numbers of certified CNLs and new patterns of growth in areas with a history of failure. Measures of the Transition-to-Practice Program include not only the number of new CNLs successfully completing the curriculum, but also the indicators of successful transition to effective practice. This is evidenced through the ability of the new CNL to influence microsystem patterns and practices through leadership and the specific domains of CNL practice.

Ideally, organizational indicators of performance will improve as practicing CNLs begin to impact and influence practices and processes leading to enhanced communication and throughput, competent and consistent high-quality care, reduction of risk for adverse events and hospital-acquired conditions, greater engagement of patients in care, and more efficient and cost-effective care practices. Indicators of healthcare transformation may emerge from more collaborative, innovative, and evidence-based care teams, and the spread of innovation may accelerate due to increased connections and energy across practice networks.

It is important to map out anticipated and desired outcomes to validate success and justify time and expenditure. It is equally important to remain open to unanticipated outcomes that emerge from diverse and novel connections. Healthcare transformation is not about doing the same thing better, but rather about being open to doing things in new ways, ways that have never been thought about or imagined.

As the VHA’s CNL spread plan moves forward over its expected lifecycle, lessons will be learned and knowledge will be built. It is important to move forward in a manner that has sufficient fluidity and adaptability to embrace iterations of change as the innovation feeds its own evolution. Observation tells us that certain characteristics are commonly seen in successful CNL programs and that successful programs have common strengths. **Table 5-8** describes keys to successful CNL implementation and sustainability. **Table 5-9** identifies CNL program strengths.
A CNL spread initiative for a major national healthcare system such as the VHA is composed of multiple activities designed to support implementation of the role and to reduce barriers to role implementation.

The focus of a CNL spread initiative should be on (1) helping facilities establish the infrastructure to support CNL role implementation and practice, (2) providing point-of-care teams with the knowledge and skills to influence practice through system redesign and continuous improvement leadership, and (3) supporting the transition of new CNLs to effective practice at the point of care in the system.

### Table 5-8  Keys to Successful CNL Implementation and Sustainability

<table>
<thead>
<tr>
<th>Key to Successful CNL Implementation and Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership that is engaged, understands, shares vision and expectations, and supports the CNL role</td>
</tr>
<tr>
<td>Microsystem staff that are knowledgeable, see the value of the role, and are willing to engage with the CNL in creating a safe environment characterized by patient-centered, high-quality, efficient, outcomes-focused, data-driven care</td>
</tr>
<tr>
<td>Interdisciplinary team members who actively partner with the CNL in lateral integration and effective communication</td>
</tr>
<tr>
<td>Advanced practice nurses who actively partner with the CNL and assist with role differentiation</td>
</tr>
<tr>
<td>Academic partners who are engaged with facility staff and leadership, and who help build knowledge about the CNL role and provide support for CNL students and preceptors</td>
</tr>
<tr>
<td>A strategic, thoughtful approach to implementing the CNL role in the organization that:</td>
</tr>
<tr>
<td>Targets microsystems that would benefit most from role implementation</td>
</tr>
<tr>
<td>Identifies and develops suitable candidates for the CNL role</td>
</tr>
<tr>
<td>Prepares the clinical environment for role success</td>
</tr>
<tr>
<td>Establishes and evaluates measures of success that are important to the organization</td>
</tr>
</tbody>
</table>

### Table 5-9  CNL Program Strengths

<table>
<thead>
<tr>
<th>CNL Program Strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNL role implementation has maintained the integrity of the microsystem focus.</td>
</tr>
<tr>
<td>The CNL and nurse manager are true partners.</td>
</tr>
<tr>
<td>CNL role activities are primarily driven by microsystem needs.</td>
</tr>
<tr>
<td>CNL roles are strategically viewed from a systems perspective as critical to microsystem performance.</td>
</tr>
<tr>
<td>The CNL program represents a workforce development initiative.</td>
</tr>
</tbody>
</table>

### Summary

- A CNL spread initiative for a major national healthcare system such as the VHA is composed of multiple activities designed to support implementation of the role and to reduce barriers to role implementation.
- The focus of a CNL spread initiative should be on (1) helping facilities establish the infrastructure to support CNL role implementation and practice, (2) providing point-of-care teams with the knowledge and skills to influence practice through system redesign and continuous improvement leadership, and (3) supporting the transition of new CNLs to effective practice at the point of care in the system.
Establishing and validating a shared vision across stakeholders is key to the success of CNL spread and assists an organization in engaging key stakeholders in viewing the role within the context of the organization, projecting and defining reasonable expectations and meaningful outcomes, and formulating an initial idea of the characteristics, role description, and competencies of an effective CNL.

Consultative strategies to support CNL implementation include creating capacity, leveraging stakeholders, and creating communities of CNL practice.

A well thought out communication plan helps to identify information needs and communication patterns, as well as potential barriers to effective communication. Adoption and spread of adaptive innovation across a national system is affected by the nature of exchanges, connections, and networks.

Projection of budget considerations is key to success. Costs of a CNL initiative need to be evaluated within the context of a framework that identifies objectives, milestones, and measures of success.

1. Review the individual components of the CNL spread plan described in the chapter summary. Which of the elements could your system or facility support?

2. What strategies does your facility or system have in place to develop mentors?

3. Does your facility have a shared vision of the CNL role? If not, what strategies could you employ to build or create a shared vision?

1. Identify key stakeholders in your organization and map out a communication plan that addresses the needs of each of them. Think about what each stakeholder needs to know, when they need to know it, how they are best informed, and what barriers you should anticipate.

2. Think about how an organization might use a business plan to relate the economic impact of CNL implementation to a return on investment.
References


Harris, J. L., & Roussel, L. (2011). From project planning to program management. In J. L. Harris, L. Roussel, S. Walters, & C. Dearman (Eds.), *Project planning and management* (pp. 1–18). Burlington, MA: Jones & Bartlett Learning.


Pain and Complex Care

Lauran Hardin and Rebecca Valko

DL is a 36-year-old man with a devastating and rare neurological syndrome. In spite of being wheelchair bound, he maintains as much independence as possible with a service dog, high-end wheelchair, and a strong spirit.

The illness started to take his body in pieces—a Harrington rod, a colostomy, a urostomy, and a feeding tube were all necessary procedures in the last few years. DL has had the same primary care physician (PCP) for many years, but as his physical status declined and he developed more complications, he added an array of specialists to his team, including urologists, gastroenterologists, hospitalists, pain physicians, and neurologists.

His admissions to the hospital escalated from once a year to six admissions within 3 months’ time. Using the skills of systems analysis, CNLs looked at the root cause of these admissions to see if the outcomes of his care could be improved.

Several factors were identified, including fragmentation among the medical providers causing divergent plans of care, complex medical illness without framing it in the context of prognosis, fragmentation among the outpatient providers, lack of communication of plans of care between settings and electronic medical records (EMRs), and lack of a proactive intervention plan to anticipate and react early to problems.

CNLs led a cross-continuum conference of interdisciplinary providers, inviting everyone to come together to creatively see if we could improve outcomes in his care. A complex care plan was created and shared across systems and EMRs to coordinate his care. Evidence-based stoplight tools were engaged with the patient, his family, and the home care and PCP staff to teach everyone how to anticipate the development of complications and intervene before his medical condition required hospitalization.

Creating a web of support among his providers with a clear plan resulted in DL being able to manage his condition at home, with his family and his dog by his side and no hospitalizations or emergency room visits for more than a year.
Lateral Integration/Team Manager

Rebecca Valko

CNLs often work with the entire team so that discharges go smoothly. Here is an example scenario:

A complicated patient (complex psychosocial dynamics) with multiple specialists was being discharged to hospice. I coordinated the palliative care team and the attending physician to make rounds at the same time so that a final plan could be put in place. Proper antibiotic selection needed to be addressed. I called the infectious disease specialist, and she consulted via phone with the attending physician. The expensive antibiotic Zyvox (linezolid) was selected. I respectfully challenged the attending physician about the necessity of using this expensive antibiotic. We collaborated with the pharmacist, and an appropriate, much less expensive antibiotic was selected. The palliative care team was able to complete the pain plan with written prescriptions, the attending physician was able to complete the transfer paperwork, and final logistics were completed with the case manager and hospice liaison. In my role as CNL, I collaborated with six interdisciplinary team members efficiently in 2 hours to facilitate a discharge that could have taken several hours.

Innovation/Collaboration

Rebecca Valko and Lauran Hardin

Patients with gastroparesis comprise a highly complex patient population that is at high risk for readmissions and emergency room visits. Root cause analysis showed that most patients were not following a gastroparesis diet. Literature review showed that diet modification is essential to controlling this disease. Through evidenced-based practice and collaboration with the dieticians from the hospital and the diabetes center, we created an innovative gastroparesis diet guideline. This easy to read and informative patient education tool has been well received by patients and providers. A patient even told me that he kept it on his refrigerator! This was just the first step of an interdisciplinary complex care plan approach that decreased readmissions and the lengths of stays for this challenging patient population.
Quality, Core Indicators, and Vaccine Rates

Rebecca Valko

Vaccination rates for influenza and pneumococcus were a challenge on my acuity-adaptable/cardiac/medical/renal floor. I educated the staff several times regarding the importance and value of vaccinations for hospital patients. Even though we had improved since the implementation of the CNL role on the unit, the vaccination rates were still not meeting standards. With the mentoring of staff to assist in audits and a process change whereby vaccines were given at admission, not at discharge, our unit vaccination rates are now between 95% and 98%. The CNL must look at process steps that make it easier for the staff to do the right thing.

A Practice Innovation to Reduce Unit-Acquired Ear Pressure Ulcers on a Medical Specialty Unit

Beverly Phillips, Jennifer Kareivis, Michelle Sheets, and the nursing staff of 3 West Medical Specialty Unit, Hunterdon Medical Center, Flemington, New Jersey

Background

An increase in unit-acquired pressure ulcers on a medical specialty unit was found to be device related, specifically to methods of oxygen delivery. The firm oxygen tubing and elastic strap from the facemask/tent were identified as factors contributing to ear pressure ulcers for patients unable to communicate needs, including stating pain/discomfort related to oxygen via nasal cannula or facemask/tent. Prior attempts to reduce ear pressure ulcers with alternative means failed. Data were presented by Certified Wound and Ostomy Care Nurse (CWOCN) at a unit meeting. The CNLs championed solving this problem.

Aim

To prevent device-related ear pressure ulcers in patients wearing oxygen cannula or facemask/tent.
Methods/Programs/Practices

Nasal oxygen cannula was changed to softer tubing for any patients requiring supplementation. The CWOCN designed an alternative to the facemask/tent strap, replacing it with a soft trach strap. The Braden scale sensory perception subscale identified patients at risk, with scores of 3 or below indicating that the patient might be unable to feel/communicate discomfort related to oxygen devices. Staff were educated and given visible protocol sheets and prepared supplies. The CNLs facilitated communication and education about the protocol. The CWOCN was the resource person/data collector. If the patient required facemask/tent and had a Braden scale sensory perception score of 3 or below the strap was replaced per protocol. Ear skin assessment was done every shift. Changes were reported to the CWOCN.

Outcome Data

In 2010, preintervention, nine patients developed ear pressure ulcers. Postintervention, one patient in 2011 had an ear pressure ulcer related to oxygen face mask/face tent. Unit-acquired ear pressure ulcers were reduced by 100% related to the oxygen tubing.

Conclusion

Collaboration between the CWOCN and CNLs led to a practice innovation that decreased unit-acquired ear pressure ulcers. The CNLs were integral in educating staff, improving quality care, and identifying patients at risk.
Clinical Nurse Leader and Infection Prevention Collaboration Leading to Decreased Hospital-Acquired Vancomycin-Resistant Enterococcus on a Medical Specialty Unit

Jennifer Kareivis, Barbara Bonnah, Michelle Sheets, Kathy Roye-Horn, and Lisa Rasimowicz
Hunterdon Medical Center, Flemington, NJ

Background

At Hunterdon Medical Center (HMC), the efficacy of the CNL is based on measurable indicators unique to each unit’s population, as formulated by the chief nursing officer. Healthcare-acquired infections are one of the indicators. A 48-bed medical specialty unit, 3 West, screens all patients on admission for methicillin-resistant Staphylococcus aureus (MRSA) and vancomycin-resistant Enterococcus (VRE) to identify community-acquired cases.

Aim

To illustrate the correlation between the collaboration of CNLs and the infection prevention (IP) department and the decrease in hospital-acquired (HA VRE) at HMC.

Methods

In February 2010, an increase in the rate of HA VRE was noted. The CNLs collaborated with the IP department to decrease infection rates on the unit. A committee was formed to improve the rates of HA VRE. Staff nurses, housekeeping, patient care assistants, the IP department, unit management, and the CNLs on 3 West were included on the team. Observations were conducted to evaluate compliance with hand hygiene, use and cleaning of equipment, and wearing of personal protective equipment in isolation rooms. If a patient was positive for HA VRE, a review of his or her record was conducted. The CNL and IP department assessed if there was proximity to a patient with a known positive VRE, if the patient was on telemetry, or if the patient was utilizing a commode during his or her stay. An educational
program was developed for the nursing staff, informing them of the increased rate of HA VRE and data from observations. The education focused on hand hygiene before/after patient contact and wiping of equipment before/after patient use.

**Results/Conclusion**

The overall rate of HA VRE decreased on the 3 West medical specialty unit from February 2010 to September 2010. The CNL cannot effect changes, such as decreasing HA VRE, without collaboration with other departments such as the IP department.