Driving Change From the Bottom Up in a Top-Down Culture:

Disruptive Innovation: One Organization's "Lessons Learned" in Gaining Stakeholder Acceptance

Shannon Denney, MSN, RN, NE-BC

The purpose of this article is to discuss Catholic Health Initiatives' "lessons learned" through the development of the Virtually Integrated Care new care delivery model. The challenges of deploying disruptive innovation ideas in an acute care, live environment are impressive. Acquiring leadership and frontline staff alignment early and often was a primary project strategy pillar and key success indicator in the project's roadmap.

CULTIVATING AN IDEA

Early in my career as a medical-surgical registered nurse (RN), in a tertiary medical center, I came to understand the challenges of high volume and high demand work environments. Often, my team of caregivers had limited resources to support the frequently unpredictable churn on a busy medical-surgical unit. I remember feeling utterly frustrated after completing a shift, regretting that there did not seem to be enough time to adequately connect with my patients on a more personal level. Competing workflows, such as patient admissions and discharges, processing patient orders, answering phone calls and call lights, attending mandatory meetings, in-services, and completing new paperwork, filled my shifts. As I advanced in my career and took on various leadership roles within the acute care macrocosm, I transitioned my work effort to facilitating a safe and cost-effective patient care environment that provided an efficient and quality level of care. But what exactly did that mean? Immediately, my new vision, my "why," gained an entirely new perspective! I was not only concerned about safe and efficient models of patient care, I was responsible for taking care of the people that were being asked to provide those safe and efficient models of care.

So, when Catholic Health Initiative's (CHI's) Dr. Kathleen Sanford, senior vice president of nursing/chief nursing officer, presented her white paper on "Virtual Nursing, Virtual Models for Now and in the Future" (K. Sanford, unpublished data, 2009), asking us to challenge our current assumptions about how patient care is delivered and to consider creating a new model of care for now and in the future, I raised my hand! Dr. Sanford believed then and now that nurse leaders needed to ask themselves why they believe what they believe about how care is provided. She charged us to really take a look at the current paradigms and to ask ourselves hard questions that might make us uncomfortable. We would discover that just asking ourselves the uncomfortable questions would be the first step to truly becoming innovative.

The Virtually Integrated Care (VIC) model was envisioned by clinical leadership to begin to address those questions. We imagined creating a model that recognizes challenges with ongoing nursing personnel shortages by reengineering each staff member's workflow so that the most appropriate care team member is completing the defined responsibilities. Our thought was to develop a prototype model that recognizes the

KEY POINTS

- **Catholic Health Initiatives' (CHI) has embarked on a new care delivery model which incorporates technology into a team -based, acute care environment.**
- **CHI nursing leadership will highlight their multi-year journey to the development of the Virtually Integrated Care (VIC)* program and will share the challenges of disruptive innovation and the realities of implementing the cultural change required.**

value in using technology for both patient interactions and business strategies now and in the future. This vision complemented dynamic, real-time quality and patient safety surveillance practices, while prioritizing CHI's innovation goals.

INTRODUCTION

CHI executive leaders noted in their 2016 annual strategic plan that the new normal creates the challenge to achieve new levels of performance that ensure greater value for purchasers and consumers. This call for innovation, requires us to radically restructure the care we provide in the future." In other words, we must accept the new challenges we are facing and begin to imagine new and innovative care delivery models. That requires a paradigm shift.

A paradigm is defined as a "ways of thinking and methodologies that are commonly accepted by members of a scientific community."[1] These "ways of thinking" by CHI's VIC operational team proved to be one of the most challenging elements of the project's implementation. Paradigms are not easy to change, even when current "ways of thinking about methodologies" aren't producing exceptional and desired results. The CHI innovation team knew that change is challenging. We also understood that the first step toward acceptance of something new is to ensure that stakeholders understand the "why" for change. The innovation team discovered, that the why would need to be repeated and emphasized throughout each phase of the project. It became apparent that when legacy workflows are evaluated and modified, change fatigue can become palpable. Stakeholder acceptance has to be regained through continual emphasis on "why we are doing this."

Effectively communicating the why to key stakeholders sounds clear cut: explain the rationale before beginning the project and define a new "North Star." It might seem logical that providing key stakeholders with evidence-based logic should preclude any problems in implementing new operational workflows. The CHI innovation team would discover through the 4-year journey on the Virtually Integrated Care project roadmap that when legacy workflows need to be evaluated and potentially modified the need to reinforce ongoing stakeholder acceptance throughout each phase of the project lifecycle could not be overemphasized.

CHI leaders, in partnership with CHI's Institute for Research and Innovation (CIRI), began to question how to best approach current paradigms and challenges in acute care delivery models. Each question led to others. Are there more efficient and cost-effective ways to provide quality, safe care for individuals both in the acute care environment and throughout the continuum of care? Are there ways to leverage new technologies that will improve care? Could a new model, combining communication technologies with the development of a collaborative care team led by a virtual nurse, effectively manage inpatient care? Further, could an inpatient virtual model be the first step leading to a virtual center supporting continuum care for an entire community of individuals?

If we started with an inpatient virtual unit, how would we evaluate the success of that unit? The proposed virtual care model that resulted from these questions would need to be evaluated for its strategic, qualitative, and financial impacts. These included enhancing patient-centered clinical care, restructuring how the care is provided, patient satisfaction, staffing and productivity rates, reduction of overtime, reduced length of stay, development of clinical and management talent, staff satisfaction, and building the information technology and decision support infrastructure.[2]

PLANTING THE SEED

In 2014, the national Virtually Integrated Care design team chartered a 1-year, 10-bed prototype phase in order to develop the clinical and technical architecture framework for the new model. The design team included both national and pilot site nurse leaders, a project manager, staff nurses, providers, and ancillary staff. The model leveraged the integration of advanced communication technologies with the new role of a virtual advanced care nurse. The design team had 6 guiding principles to frame their clinical design architecture. They would develop a model that:

1. Provides increased caregiver availability via a new virtual nurse role on an adult medical-surgical unit
2. Does not compromise safe, high quality care
3. Enables real-time quality surveillance practices
4. Establishes a collaborative relationship with the patient and their families
5. Facilitates coordinated interactions with members of the intercollaborative care team
6. Is cost efficient due to streamlining of traditional acute care, unit-based caregiver roles and responsibilities, so that appropriate skill levels are utilized to provide for patient needs.

During the initial phase of the prototype model architecture, a feasibility study was conducted on one medical-surgical unit. The study focused on "current state" workflows of all care team members. Gaps in care were identified, along with opportunities for future model architecture. Qualitative surveys were conducted of all members of the unit-based care team. This study unit served as the "representative baseline" sample for the project moving forward and informed the larger technical and operational model design architecture strategies.

BURGEONING INNOVATION; OPERATIONALIZING THE VISION

Following a successful prototype phase, the VIC pilot project phase was formally chartered in 2015. This phase

was supported by a 3-year Health Resources and Services Administration and US Department of Health and Human Services grant. Additional funds were obtained from the innovation funds of both CHI and CIRI. The pilot was implemented on two adult medical-surgical units in the CHI Health Nebraska region. Project teams supported a total of 44 virtual care beds during the VIC project's lifecycle. By focusing on small-scale testing of innovation, CHI provided a limited-risk environment through which project teams could test and validate innovative ideas before pursuing largescale operational deployments. Results from the feasibility study informed the architecture for the virtual nurse role. Virtual responsibilities to be tested included patient education; staff mentoring and education; real-time quality surveillance; admission and discharge activities; and provider rounding support.[2]

The VIC team partnered with Catholic Health Initiatives' Organization Change Management team and identified a change agent to support the newly minted pilot phase. The change agent was familiar with the individual project sites and the staff culture of readiness for change. The culture readiness for change would prove to be one of the most important success factors.

Prior to launching the pilot phase of the project, the VIC project team, under the direction of both the change agent representative and the performance excellence team, conducted a 1-day workshop with project site leadership and staff. The workshop focused on two primary objectives: assessment of current state workflows and care delivery challenges, and alignment of staff to future state VIC model strategies. Workshop outcomes were used to further frame the pilot's strategy.

PILOT PHASE

The new integrated model of care was formally named and trademarked (VIC) following input from frontline staff during the prototype phase. The new model inserts the patient at the center of his care. It combines advances in technology with a restructuring of primary caregiver roles, allowing each caregiver to practice at the full extent of her education and training. The new care team included 1 virtual nurse (caring for up to 20 patients). She or he works with a team consisting of 1 RN, 1 licensed practical nurse or paramedic, and 1 certified nursing assistant, who care for a team of 10 to 12 patients. The virtual nurse provides leadership and oversight to the patient care teams, and facilitates patient-specific continuum of care planning.[2]

From a virtual command center located in the pilot facilities, the virtual nurse has access to the patient's electronic health records, integrated clinical decision support tools, and video conferencing capabilities for interacting with the patient and family. This immediate access to pertinent clinical decisions tools makes it easier to develop and coordinate individual care plans, provide education and information to the patient and family, and prepare the patient for discharge. The technology enables the patients and family to connect with the virtual nurse to ask questions and seek counsel about their care. The virtual nurse is also available to the bedside care team members for consult and support with clinical decisions. This included availability to "round" with physicians. Privacy concerns are always paramount. Sessions are never recorded, and patient permission is requested prior to communicating with patients and/or their families (*Figure 1*).

PRIMARY PROJECT STRATEGY LESSONS

1. Implementation of a Comprehensive Communication Strategy

The VIC project team worked with both local and national resources to develop a primary anchor message for the project early in the design phase. That common message was used with each communication notice. Frequent project status communications and timeline updates were identified as a high priority. The VIC team utilized the concept of shared governance and developed both local and national intercollaborative operations teams with unit-based clinical and ancillary staff representation.

As the project's lengthy operational timeline became subject to unpredictable national and divisional operational challenges, the project team needed to adjust the communication strategy to accommodate those challenges. Small-scale, pilot study methodologies are ideal. However, the team learned that the realities of deploying disruptive innovation within live environments demands enhanced flexibility and patience. During the 3-year pilot phase, both project sites experienced leadership and frontline staff vacancies and turnover. These operational challenges left the new and remaining staff feeling vulnerable and unsure of the future of the project.

Subsequent to the emerging operational constraints, multiple communication modalities were identified to keep the staff and leadership informed. The team utilized e-mail, communication boards on the units, newsletters, open forums, lunch and learn sessions, and an additional performance excellence workshop. Whereas executive sponsors were kept updated on monthly project operations calls; key grassroots stakeholders articulated that they felt uninformed and had lost sight of the overall project objectives. The fear and trepidation about unanticipated operational challenges felt by the project's key stakeholders was a scenario the VIC project team had not fully prepared for. The unit-based staff that were participating in the pilot project felt vulnerable to the operational environment and consequently felt isolated from the overall vision of the project itself.

In hindsight, the VIC project team leadership determined that there needed to be a higher level of awareness and sensitivity around providing dynamic

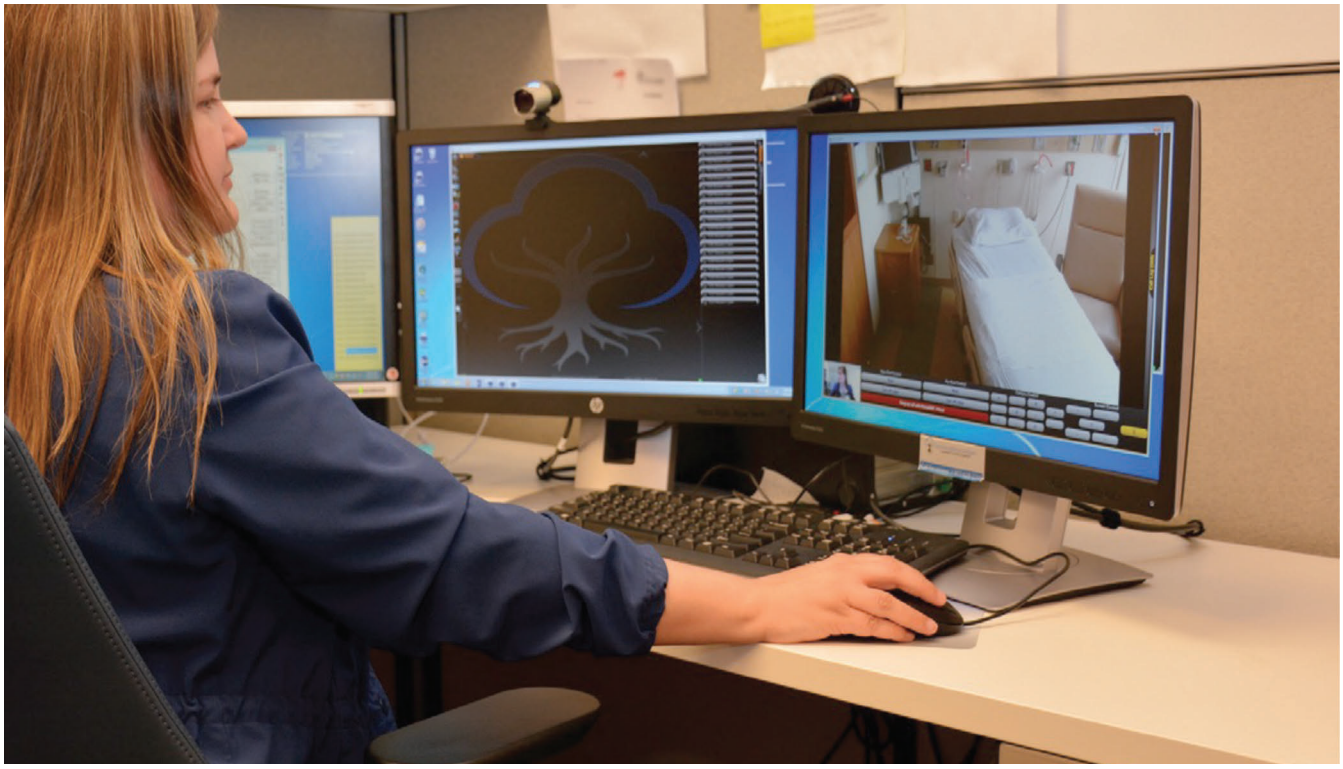

Figure 1. Virtual Command Center

operational change updates. Increased leadership visibility on the pilot units during the national and divisional operational challenges was identified as an area for improvement. Leadership needed to be more present in order to encourage the staff directly rather than relying too heavily on a more traditional communication strategy. This enhanced leadership visibility strategy is believed to be much more effective in demonstrating the continued commitment to a project's vision.

II. Change Management Principles

Guided by CHI's Organizational Change Management[3] theory principles, the VIC project team deployed the 5 fundamental steps of the change acceleration process:

1. Create a shared need
2. Shape a vision
3. Monitor commitment of stakeholders
4. Sustain change
5. Monitor progress

Addressing and mitigating frontline staff concerns was one of the project team's top priorities. Disruptive innovation can be a fairly ubiquitous or nebulous term. In reality, it can translate to frontline staff as troublesome and distracting change in what already seems like an ever-changing environment. Creating vision "value" for a new care delivery model with frontline staff who have been asked to trial new processes, protocols, and equipment on a seemingly endless basis became a central objective.

An intercollaborative operations team was deployed early in the pilot phase of the project. The operations team included leaders and staff involved in the pilot project from both clinical sites. During the 3-year pilot project phase, staff turnover did occur. The need to develop ongoing project orientation for new staff hired to the pilot units was another key lesson learned.[3]

III. Stakeholder Acceptance

The Virtually Integrated Care project team defined stakeholders as anyone who participated in the operational development and/or deployment of the VIC pilot project. The VIC project involved both national and divisional executive leaders working with frontline staff to support the project's objectives.

The project team quickly learned not to make assumptions regarding frontline staff's knowledge about project management processes or strategies for change. The VIC team discovered that the project deliverables were competing with real-time patient care workflows that were hardwired, but not necessarily efficient. During presentations and planning the new model, staff voiced eagerness to experience change and willingness to participate in innovation. However, although the VIC team did discover many staff member's eager to understand and participate in the new care delivery model, others found it difficult to change their practices. There were some operational and cultural realities that both the project team and the key frontline staff did not adequately predict.

Operational change is an inevitability in acute care environments. Mitigating unpredictable operational forecasts was not given enough priority in the early design phases of this project. Understanding how valuable leadership visibility is to frontline staff's sense of security; the importance of reevaluating staff perceptions and attitudes on an ongoing basis; and the need for some level of "protection" from the vicissitudes of the hospital's census during a model change were some key learnings. The VIC project vision never wavered, but project leaders often struggled with maintaining momentum and enthusiasm during more challenging phases of the project lifecycle.

HARVESTING NEW IDEAS; NEXT STEPS

The Virtually Integrated Care pilot project completed its 3-year study in August 2018. Both VIC pilot units plan to continue the current VIC operational model. Statistical outcomes are currently being evaluated in partnership with Creighton University, CHI's academic partner. Anecdotally, study outcomes are demonstrating positive trending in various quality metrics and discharge throughput times, with positive observations in Hospital Consumer Assessment of Healthcare Providers and Systems patient education indicators. Providers on both VIC units have articulated positive feedback regarding virtual nurse intercollaborative communication practices as well.

The primary key "lessons learned" from the deployment of the Virtually Integrated Care project were these:

- Make no assumptions that key stakeholders and frontline staff are informed and or understand operational drivers of change.
- Assess current-state acute care workflows prior to considering new and innovative care delivery models.
- Use small-scale testing models prior to launching full-scale production plans because working in live environments requires flexibility.
- Understand the leadership formal and informal infrastructure when selecting a pilot testing site. Consider the tools that assist in evaluating cultural and structural strengths and challenges.
- Evaluate staff engagement on an ongoing basis, particularly when the project's lifecycle may be protracted.
- Engage key stakeholders, including frontline staff, in project design throughout all phases of the project lifecycle.
- Communicate in a dynamic and adaptive manner as operational changes occur.
- Ensure leadership visibility to motivate and inspire staff.
- Develop operational project teams that include frontline staff.
- Develop strategies that ensure cascading of project information to all key stakeholders.
- Shield the pilot's staff from hospital operations that interfere with implementing and studying the new model. This includes making it clear that staff will not be "floated" to other units, or pulled out of their new roles (such as the virtual nurse role) during the pilot study. This is the only way to ensure accuracy of statistical comparisons between models of care.
- Never cease to remind stakeholders of the "why." The project's vision cannot be lost when operational challenges occur.

The long-term vision for the Virtually Integrated Care model is to develop a framework for broader dissemination, and to gain an evolving understanding of the core dynamics of collaborative practice environments that support effective patient-centered care. The national project team will continue to expand on lessons learned through the Virtually Integrated Care project's future roadmap deployment.

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Shannon Denney, MSN, RN, NE-BC, is the National Director of Innovation Programs with Catholic Health Initiatives' Clinical Enterprise Group in Englewood, Colorado. She can be reached at shannondenney@catholichealth.net.

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