

Creating Sustainable Improvements: *Leveraging LMS and AONE's CIT Program*

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In 2010, the Institute of Medicine challenged the health care industry in the report *The Future of Nursing: Leading Change, Advancing Health*, stating “the nursing profession has the potential capacity to implement wide-reaching changes in the health care system” and “we need to prepare and enable nurses to lead change to advance health.”¹ Developing leadership competency at all levels of professional nursing has been the charge of the American Organization of Nurse Executives (AONE) for many years. In 2010, AONE launched the Care Innovation and Transformation (CIT) program² and has trained and empowered frontline nurses from more than 100 organizations to be leaders in advancing health care. AONE partnered with OhioHealth to bring CIT to its 10 acute care hospitals and home care agency. The CIT program has provided an opportunity for OhioHealth to engage frontline associates in the development of the Lean Management System (LMS) as a competency. It has created a learning lab for rapid-cycle change and continuous process improvement. The goal of this article is to share the impact CIT leveraged with LMS has had on OhioHealth nursing.

OhioHealth is a nationally recognized, not-for-profit, charitable, health care organization with roots in the Methodist church. The system serves 47 counties in the state of Ohio and consists of nearly 30,000 associates, physicians, and volunteers. OhioHealth employs over 10,000 nurses who work in a variety of settings including its 10 acute care hospitals, home care, hospice and ambulatory settings, and specialty practices. OhioHealth has been recognized 6 times as 1 of the top 5 large health systems in America by Truven Health Analytics and has been recognized by *Fortune* magazine as 1 of the “100 Best Companies to Work For” 12 years in a row (2007 to 2018). Two of the system’s hospitals have garnered 3-time Magnet® designations.

NEW STRATEGIC VISION

In 2015, the OhioHealth nurse executive team adopted a new nursing strategic vision: “Every nurse will be a leader in improving the health of those we serve.” This

powerful vision included a commitment to leadership development in addition to the commitment to continuously improve outcomes. OhioHealth chief nursing officers determined that to be successful, their facilities needed to enhance the existing shared governance structures, create a spirit of innovation, and build continuous improvement competencies. At that same time, system leadership made the decision to embrace the LMS philosophy to engage and empower all associates. The LMS approach to management supports continuous improvement over time, systematically seeking to achieve small, incremental changes in processes in order to improve efficiency and quality. LMS advocates problem solving on the frontline with individuals doing the work held responsible for improving processes leading to enhanced outcomes.^{3,4}

OhioHealth’s chief nursing council determined that the AONE CIT program was the right vehicle to bring the OhioHealth strategic plan to life. It was in alignment with the overarching desire of the organization, it would

be an enabler to strengthen shared governance, and its programing would promote leadership among all nurses participating. Consistent with disciplined continuous improvement, CIT afforded the opportunity to expose the largest associate cohort to a disciplined approach to incremental improvement. This, in turn, served in meeting the overarching desire to create a continuous improvement culture at OhioHealth. CIT would help to create a learning environment consistent with the LMS philosophy bringing nurses from across the system together to share and learn from each other's small tests of change (ToC). CIT would provide structure to the shared governance teams invested in finding solutions to the unit-based challenges they faced; it would empower nurses to tie their work to the strategies of the larger organization while giving them the tools to problem solve. Moreover, CIT would enhance depth in leadership, engaging nurses at all levels to take responsibility to partner with others at the point of care to improve outcomes. Tightly aligning with the newly created vision, AONE was engaged to bring CIT to OhioHealth nurses.

FIRST COHORT BEGINS

OhioHealth's first CIT cohort started with 25 units in March of 2016. In total, 5 cohorts with over 125 nursing departments would participate. Since OhioHealth's partnership with AONE began, 2,085 nurses and nursing assistants have been trained on how to identify the "pebble in their shoe." They determine solutions and use the Plan-Do-Study-Act (PDSA) process to implement rapid cycle change. More than 300 ToC have been implemented across the system. As the journey progressed, LMS was integrated in order to provide discipline for sustainability and deeper integration of improved outcomes.

Consumerism is forcing a new imperative to meet patient and family needs at an even greater degree, while business conditions in health care are becoming increasingly more difficult. Companies in different industries have successfully leveraged the LMS mindset for decades to navigate similar challenges. The Lean philosophy expects the relentless pursuit of better value for customers through engagement of every associate in daily problem solving, keeping "respect for people" at the core. OhioHealth adopted this same vehicle to accelerate its success.

Tactics learned in the CIT program that have accelerated nursing engagement and capacity for problem solving include the Liberating Structures⁵ of 25/10, and Troika Consulting. With these exercises, teams were able to give every participant a voice, allowing them to express their ideas and bring new perspectives to everyday problems. Through using Liberating Structures activities, teams were able to innovate faster, prioritize efforts, and grow momentum that energized associates and shifted the bedside culture to engaged problem-solvers.

The Liberating Structures embedded in the CIT program, combined with the LMS, fully supported the top-down, bottom-up approach to shaping OhioHealth's cultural journey to improve problem solving and continuous improvement. In order to make meaningful, sustainable changes that ultimately lead to accessible and affordable health care, empowered associates need to act as leaders in their own work; that means letting go of "it's how we've always done it," and embracing a new "how might we do it" attitude.

With CIT as the foundation of change and engagement for process improvement, OhioHealth's own Lean Promotion Office (LPO) brought additional value to the curriculum and ongoing support for the cohorts. The LPO worked closely with AONE to deliver hands-on instruction to teams participating in CIT, focusing on LMS concepts in alignment with OhioHealth strategy.

OhioHealth's desire was to build a management system that could transcend simply using a set of tools. LMS requires a sound practice of the tools, but this is secondary to the behavioral skills fostered in leaders. This sounds daunting when one considers the size of the organization and the deep-rooted beliefs and behaviors that made talented leaders successful in their careers.

To tackle the problem of changing behavior, OhioHealth used a concurrent top-down and bottom-up approach. Significant training and coaching is crucial in both areas: Senior leadership continues to be more focused on behavior modeling, whereas the frontline experts are more focused on addressing their daily problems or "the pebbles in their shoes." This is where the blending of the LMS and CIT came into play. In building the frontline problem-solving foundation, the CIT program made for a much quicker adoption with less resistance to implementing solutions discovered through daily problem solving.

To track and monitor ongoing process improvement, key performance indicator (KPI) boards were placed on nursing units across OhioHealth. These KPI boards provide a visual, standard, and engaging way to support nursing teams with several factors. These include problem identification, understanding the root cause of the problem, and tracking the success, or failure, of interventions. KPI metric selection can occur in a variety of ways, such as the many brainstorming methodologies introduced in CIT. Oftentimes, CIT teams—as part of their shared governance councils—use the KPI board to track their ToCs, impacting those pebbles in their shoes, ultimately communicating broadly in order to share lessons learned.

CHANGING A KPI FOR NEWBORNS

OhioHealth Mansfield Hospital was able to incorporate shared governance, CIT, and the LMS to impact a change for the smallest of patients. In August 2017, the American Academy of Pediatrics published new recommendations

for the hepatitis B vaccine to be administered in the first 24 hours of life.⁶ At the start, the number of vaccines provided within the first 24 hours was at 21%. The team understood that significant change was needed to meet their initial goal of 50% compliance. More challenging was the realization that to create sustainable success, they would need involvement of many, including nurses from the labor and delivery unit, the maternity unit, the nursery, and their medical staff partners.

The first step toward the change involved bringing the shared governance CIT teams together to focus on the goal. This unified team decided to combine both the labor and delivery, and the maternity KPI boards into 1 KPI board shared between both units. The first rapid-cycle ToC altered the consent process. Through daily tracking using the KPI board process, associates identified improvement. However, as identified through the daily Pareto chart, greater change was necessary. Through the five-why process and literature review, the team identified the need to change vaccine administration. The new goal was to give neonatal vaccines at the same time versus a traditional staggered approach. It also included administration in the labor and delivery unit instead of the maternity unit. The positive impact was decreasing painful stimuli for the neonate, decreasing stressful moments for the parents, and improved compliance with American Academy of Pediatrics guidelines.

“Watching a process improvement occur and seeing our outcomes daily increased our staff ownership and active participation,” noted Kelli VanNatten, BSN, RN, labor and delivery manager. The results were immediately successful and profoundly important in setting the tone for collaboration needed to sustain results. With the second PDSA change, the team surpassed its target of 50%, and within 2 months, achieved 100% compliance. Almost a year after the change, the team has sustained 100% performance of their goal. “The CIT project became a game changer,” stated Michelle Montgomery, BSN, RN, maternity manager. “Daily management of the process created the outcome. The entire labor and delivery and maternity team is empowered to dig deep into barriers and show their success. Shared governance CIT and Lean thinking changed our culture.”

IMPROVING CAUTI RATES

CIT and LMS also have been able to affect change at the bedside, helping teams improve outcomes within the neuro critical care unit at OhioHealth Riverside Methodist Hospital. With the use of a KPI board, the team focused its attention on the elimination of catheter-associated urinary tract infections (CAUTIs). The team began by studying the conditions that most often led to a CAUTI in the unit’s patient population through a visual Pareto chart. Team members then took action on what they could most influence. The team recognized

that it was standard practice to place a catheter versus basing placement on patient condition. Registered nurses were empowered to evaluate the necessity of a urinary catheter based on standard criteria, oftentimes leading the team to take action to remove the catheter. This daily evaluation and intervention has resulted in a 159% reduction of CAUTIs since the ToC. Catheter use decreased by 50%, further indicating that daily evaluation of necessity leads to decreased catheter usage. The team acted on principles consistent with the CIT program in which each member of the team was able to participate in the implementation and evaluation using the PDSA cycle. Over the course of study, the team was able to identify and remove many barriers to success, and have fully embraced the unit’s newly adopted practice.

The CIT program has become a great springboard for the OhioHealth LMS journey by improving performance and satisfaction through engagement of frontline staff, innovation, and leadership development.⁷ CIT and LMS have become intertwined within the OhioHealth system, rooted in the belief that customer value can always be refined, the belief that value can be achieved through the most innovative ways to provide higher quality and service, and the belief that it all can be done with less effort, time, waste, and cost. OhioHealth has moved beyond basic problem solving. It can now perform more sophisticated problem solving using more advanced tools on issues that have a greater impact on the health system’s operations and bottom-line, thanks to the CIT program.

In addition, the strategic alignment of CIT and LMS is strengthening nursing shared governance. Utilizing a disciplined process to identify issues, brainstorm and study solutions and then monitor the impact of changes implemented, nurses at all levels are leading small and large improvements across OhioHealth.

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