Collaborative Approach to Healthcare Improvement

Cycles of learning and doing help hospitals embed a sustainable lean management system

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Introduction

Thousands of healthcare executives visited ThedaCare in the last decade and witnessed the journey the community health system has made in improving patient value through continuous improvement. Its story and successes, driven by development and application of the ThedaCare Improvement System and Business Performance System, have been well documented. But reading about and seeing ThedaCare's achievements didn't necessarily translate to results for observer organizations. Many executives walked away from ThedaCare with excitement for what could be accomplished in their own organizations, but, until early 2012, they often lacked the means to guide those ideas to fruition.

Gordon Burrill, a partner of the consulting firm KPMG, routinely brought healthcare executives to see ThedaCare in action. Many of these executives proceeded to implement lean practices they witnessed in Wisconsin. These efforts would result in positive healthcare changes, says Burrill, "but we realized that the organizations had trouble sustaining. Hospitals could not sustain improvements beyond six to 12 months. Everyone believed ThedaCare had the right path, but then it became, 'Now what do we do.'"

The challenge was not that the organizations were not inspired or had not made meaningful improvements — most had — but that a systematic approach to managing improvement, touching all facets and levels of operations on a regular basis, was not established. Healthcare executives had witnessed the *actions* of the ThedaCare Business Performance System (BPS), but they had not adopted the *daily practices and standards* that lead to sustainable *results*.

In February 2012, Burrill and Helen Zak, president and COO of the ThedaCare Center for Healthcare Value, began an innovative experiment to blend education and on-site coaching. Their hypothesis was that education coupled with on-the-ground support would lead to sustainable results. Burrill brought teams from four hospitals together at ThedaCare to learn more intensely about BPS — not focused on what it did, but how it did what it did. Over the next six months, the Center organized ThedaCare-led training, which was sequenced with on-site coaching by KPMG, leading each hospital to fully implement BPS within two units.

Kim Barnas, a senior vice president of ThedaCare, and several of her leaders taught collaboration participants the BPS concepts in five modules, and brought credibility and experience to the effort from having developed and led the BPS rollout at ThedaCare. "It has exceeded everybody's expectations," says Barnas. "Not having worked with Gordon before, I expected it to be difficult to work with KPMG. Gordon and his team are highly qualified and at a sensei level — people who know and understand lean, who have done lean, and who can teach lean."

The classroom attendees then thoroughly applied those concepts in model areas in their own organizations, with on-location coaching support from Burrill and his KPMG lean coaches. The

four hospitals also shared ideas and challenges as they implemented and adopted the BPS practices.

"What we learned from ThedaCare with the support of KPMG would have taken us many, many years to figure out and get implemented," says Marla Fryers, executive vice president, clinical operations, The Scarborough Hospital, Toronto, a community teaching organization that consists of two hospitals, 600 beds, and six satellite sites. "It really accelerated our learning, it accelerated our implementation, and it allowed us to get results much more quickly than if we were trying to do this on our own."

Fryers says the hospital's involvement in the collaboration is allowing Scarborough to expand problem solving away from the domain of management. "What you see is a very decentralized focus on problem solving. You see a very collaborative conversation between managers and frontline staff. We have adopted this idea of creating an army of problem solvers. Our goal is to have one idea or problem per staff member solved; we have about 3,400 people in our organization, and our goal is to solve 3,400 problems per year."

"It is more than just education," says Zak of the collaboration. "The hospitals need those boots on the ground that KPMG can provide. That is something, as a non-for-profit, ThedaCare or the ThedaCare Center for Healthcare Value could not and would not provide." She adds that KPMG was of a similar mind as ThedaCare in how to address issues of sustaining improvements, and, importantly, was not rooted to their own methods and willing to support the ThedaCare BPS system and concepts.

Learning and Applying the Business Performance System

The collaboration experiment began with progressive training at ThedaCare, sequenced over a month and interspersed with weekly onsite coaching by KPMG. The healthcare organizations sent teams consisting of senior leadership (i.e., sponsors of the improvement effort across the entire organization) and unit leadership and unit supervisors for model areas. A phased rollout of five training modules, each lasting one day, provided the hospitals an opportunity to practice and reflect on what they learned and see how it was accepted in their organizations:

- *Daily stat sheet* — This development tool is completed every day between the unit leader, such as the head of an emergency department, and his or her lead nurse or supervisor to help clearly identify the "status of the business. It is where they learn what is going on with the business every morning of every day," says Barnas.

- *Daily problem-solving huddle* — The unit leader, supervisor, and staff gather every day at a set time and location to surface and prioritize problems that may be occurring on the floor. They will assign the problem to an owner, who examines the issue and uses A3 thinking to more accurately identify the problem, find root causes, and then develop potential solutions and a plan to test those ideas.

- *Leadership team* — For each model unit engaged in the BPS work, a leadership team meets on a regular basis (e.g., monthly) to ensure that targets occurring in the model unit stay aligned with organizational objectives as governed by a balanced scorecard or strategic-deployment plan. This group is different than a traditional hierarchy for a department; for example, it would include the unit leader, supervisor for the unit, as well as leadership roles for departments that support the model unit.

- *Leaders standard work* — Consistent interaction helps senior leadership better understand conditions in the units they manage, including current status and progress toward targets, and fosters joint problem-solving between senior leadership and unit leaders. Leadership standard work defines and schedules such interactions.

- *Visual management* — Organizations learn how to create and use kamishibai (storyboard). Through process observation and improvement boards they tie problems and improvement work together, visually tracking progress toward targets. Visual management keeps all within the unit, supporting the unit, and affected by the unit informed at a glance.

Though the classroom training only consists of five modules, Barnas says together they address all of the critical concepts of the ThedaCare BPS: developing people, seeing problems, standardizing processes, improving performance, and standardizing the way of viewing all activities underway. The rigor and repetitiveness with which hospital model areas apply the concepts gradually establishes a lean management system, frontline staff to senior leadership.

“The BPS regulates the flow of information from the frontline to leaders, and vice versa, helping to align all efforts toward True North,” adds Marta Karlov, director of education, ThedaCare Center for Healthcare Value.

The Hospital for Sick Children (SickKids), affiliated with the University of Toronto, is Canada’s most research-intensive hospital and its largest center dedicated to improving children’s health in the country. It has more than 400,000 patient visits annually under the age of 18 years old. Jeff Mainland, executive vice president for strategy, quality, performance, and communications, led a core team of 10 persons to ThedaCare in February 2012. What began as a pilot project in two clinical areas of the organization has now spread to 14 units and involved approximately 450 people in formal training. “As with any organization, there are projects that come and go,” notes Mainland. “The power of this is making it a daily way of working. It is not an event. Once you identify something as the way you do your work, it is going to be sustainable.”

He describes how he daily sees — by reviewing a unit’s daily status sheet or attending a huddle-board session — how care delivered at SickKids is being transformed. “I don’t say that lightly. There is a thoughtful, strategic approach to managing every day on these units, and staff are empowered to solve problems on their own, which has been very rewarding for all… The whole

culture on those units is one of constant, continuous improvement. It is a cultural change with a real focus on daily continuous improvement, and they come wanting to do that as part of their job, not as an extra."

Groundwork for BPS

Since the initial four hospitals that took part in the ThedaCare/KPMG experiment in 2012, another four hospitals have completed learning about and applying BPS, applying the same model.

In order to effectively leverage the collaboration process, participating hospitals need to be at a mature stage in their lean journey. The organization should have experience in applying lean tools and practices, and a leadership and workforce culture that has warmed to lean ideas.

"Organizations must be on a lean journey or it won't make any sense," says ThedaCare's Barnas. "I think they have to have an A3 understanding and have been part of a value-stream mapping and subsequent rapid improvement/kaizen events. This is really about sustaining improvement. It's about incremental improvement unlike the breakthrough improvement brought about by more traditional kaizens. You are not ready for that until a year or two year into your lean journey."

"You need to have a safe environment for people to expose problems," adds Zak. "You need tool knowledge, problem-solving skills, and people willing to work together. That is why we encourage organizations that want to get to a lean management system to get a consultant and build some improvement muscle, practice use of tools, gain some momentum, and understand the basics. That will then get you closer to recognizing the need for a lean management system."

"Two fundamental practices to establish a management system include use of standard work and A3 thinking," notes Karlov. "Without a deep understanding of these concepts, there won't be a good foundation on which to build the management system."

Rona Hamilton, VP HR and organizational effectiveness at Queensway Carleton Hospital, a full-service community hospital in Ottawa with 264 beds, says, "We did a lot of investigation of management systems and felt that [ThedaCare BPS] would sit well with our culture here at Queensway. I also think that partnering with ThedaCare gave us a sense that this is really doable in healthcare."

Prior to the ThedaCare/KPMG collaboration, Queensway Carleton had undertaken extensive breakthrough projects — "the bigger bubbles rather than smaller bubbles of daily improvements," says Hamilton. The organization had done significant work in its emergency department, reducing triage times for various categories of patients, and also had undertaken values-stream mapping projects, including one for the discharge of patients involving the coordination of physicians, social workers, and external partners.

“The major breakthrough projects — big kaizen or value-stream mapping events — were a way we brought collaboration across units or brought internal and external stakeholders together to identify waste in the system and also to look at efficiencies,” adds Hamilton. “Because we started in emergency and exposed the employees and physicians to a number of tools there, that is one area where we have seen a lot of traction. I feel we needed to have those major projects transpire to get individuals to believe [BPS] actually works.”

SickKids also had undertaken various lean initiatives and achieved improvements, says Mainland, but what had taken place was not within a sustainable management system based on principles of continuous improvement nor was it building capacity for lean or a leadership approach to lean. He says the organization’s lean journey is defined to improve value — generally as health outcomes per dollars spend — to patients and families and to the government, which funds the healthcare system. “We were looking at lean management as a way to improve outcomes and decrease costs and, ultimately, improve value.”

In addition, SickKids’ strategic plan includes a direction from its board “to champion continuous improvement,” adds Mainland. “The lean management system I saw at ThedaCare, I thought, could be one of our tickets to championing continuous improvement. What I really liked about it was that it was daily and it was far reaching, so both the depth and breadth was attractive, rather than one-off pockets of success. I really viewed the system that they had implemented as an enterprisewide solution that could be implemented on a daily basis to enhance value.”

On one hand, hospitals come to a realization that rapid improvement events or kaizen alone will not allow their organization to sustain the improvements those efforts established, especially as organizations evolve — staff change, project-sponsors leave, roles evolve. On the other hand, lean experiences begin to foster a culture of continuous improvement, problem solving, conflict resolution, and focus on the customer, which is essential for the repetitive activities of BPS to be embraced and become a natural way of work rather than an assignment or event.

Another criteria to be successful in the collaborative, in addition to evidence of lean experience and leader commitment, is that a hospital has a lean improvement office or staff dedicated to improvement work, and the capacity to focus on the BPS implementation and not be distracted by other projects. The senior leadership team, including the CEO, also must attend a ThedaCare site visit to experience the system firsthand.

“I think it is critical to have a leadership team that supports this perspective, supports the foundational pieces of lean thinking, and we have that,” says Fryers of Scarborough. “I also think it is essential to have a corporate resource, a central improvement office that can coach, mentor, and support ongoing improvements.”

Many Scarborough directors have been certified through a University of Michigan lean program and have led impactful lean events, and various foundational pieces of BPS have been tried. But,

notes Fryers, no one unit had all the concepts of BPS and none had a system of managing improvement, which hindered the hospital's ability to sustain continuous improvement.

"One of our learnings when we were at ThedaCare was that this really is a system for daily problem solving," she stressed. "We were pretty committed to coming back and rolling this out in a thorough fashion on our model units, providing the appropriate amount of coaching and support for our leaders there, and then figuring out how we could spread it out across the organization with the intention of having all the component parts of that system in place in all the clinical units across the organization."

BPS Challenges and Results

Sustaining lean improvements by adopting the ThedaCare business performance system or a customized version of it does drive results, but it is not without challenges. In the model units where BPS is established, every person and process is involved on a daily basis. And as the system concepts spread across a hospital, issues of both too much and too soon arise.

The BPS training and experiences are progressive in nature, with staff cumulatively learning and applying ideas as they work through the training modules. Eventually it requires those involved to better manage their individual roles, both BPS-related and others, or be overwhelmed. "They initially think they can do this in addition to 'their work,'" says Barnas. "It becomes clear, though, that they are overloaded. What happens is we start teaching, and everyone gets excited. Then they add stat sheets. Then they add huddles. Then they coach and observe. Then they are developing their leadership team, and, about that time, 'OMG, I still have to do all the other stuff I had been doing."

Participants need to learn how to clear their calendars and understand where their activities need to be focused. "You don't need to be at every meeting," advises Barnas. "Share notes. Ask what is the purpose for being in a meeting. Until you do this, it's additive."

The ability of the organization and individuals involved to manage the additive BPS process is critical to minimize "drift" and to ensure that leaders maintain the discipline to coach and be actively engaged in problem solving with their staffs. It cannot be occasional or random. "You create standards," says Barnas. "How are you managing to the standard over time. You need a mechanism to observe the standard and observe why there is drift to the standard."

"Too soon" is what process-improvement staff eventually say when areas not involved in BPS begin to see results in the model areas and the transformed habits and attitudes of employees in those units. Queensway Carleton has taken a gated approach to rolling out BPS, intending to have units fully learn and apply all five modules of training rather than allowing partial adoption of BPS concepts in multiple areas. Three departments are currently model units and the plan is to add two units every six months, leveraging existing managers as coaches for the managers that

enter into BPS training. Those model units will be selected based on their state of readiness and other events that may be underway.

Despite Hamilton's efforts to maintain a gated approach, some BPS practices are "leaking into the organization. Our corporate line is that we want to implement the entire system in a department. [We want to] ensure that managers, team leaders, and directors feel comfortable and that the lean office can let go of their hands and that they can carry on before we take on another unit or two." Preventing spread, though, is not easy given that one director leads five units, of which three are BPS model units. Other units independently started rolling out communication boards to develop the habit of huddles and as a precursor to BPS huddles. And in June, five hospital directors were sent to ThedaCare, which increased the demand to implement this model in other areas of the hospital.

"There is a lot of pull," adds Hamilton. "What we have done is leverage managers and the current director to say, 'Be patient. This is going to change the way you do your work. It is going to change how you manage your day. It is going to change your calendar. It is going to change how you coach. It is going to change how you interact with staff and how regular and visible you are with your group. So until you are ready for that, you need to hold on, and you need to be sure you have the resources of the lean office and are developing the right behaviors going forward." One bottleneck she has encountered in keeping BPS rollouts proceeding is the time necessary to coach managers in relinquishing control to frontline staff and standardizing the manner by which that occurs.

"As folks see this and the benefits of this, we are getting a fair bit of pull, and we want to support pull," says Fryers at Scarborough. "But we know that to fully implement the system, you need quite a high level of coaching to support people in doing it well. There is a bit of a struggle in how quickly you move forward and how you resource it and support it to ensure people are successful."

Three units at Scarborough have implemented all modules of BPS by working with ThedaCare and KPMG, and another three units have undergone 10 weeks of BPS training and education delivered by the hospital's improvement office. Rather than completely fight the desire of other units to get involved, Scarborough has trained and implemented select modules of BPS in various units (800 people have been trained in all), and stat sheets are used throughout the hospital.

With 30 clinical units, she feared the time to roll out BPS exhaustively and sequentially would be too extensive, and believes an incremental application of concepts can be beneficial "as long as you have the longer view that you will fill it in over time… You are in it for the long-term. This is not something you can implement in a year and walk away from. This is a commitment to changing the culture of your organization, which probably takes seven to 10 years."

Tangible results at Scarborough that Fryers attributes to BPS include improved flow from the emergency department to in-patient units and improvement to rates for falls and pressure ulcers. Other improvements are process and cultural in nature, such as better methods and logistics to engage frontline staff in conversations and problem solving. The hospital surveyed team members and formal leaders of each of the model units on 14 dimensions of lean management. Six months after BPS implementation all dimensions had improved, with improvements of 35% or greater recorded for:

- *Visual displays of hospital performance data are reviewed to drive improvement.*
- *Senior leaders are regularly on the unit and interact with employees.*
- *Daily huddles result in improved processes.*
- *Staff suggestions on how to improve hospital performance are actively solicited.*

Mainland of SickKids says that there are always skeptics around any new implementation, particularly if it is a business methodology as opposed to, say, a technology. The hospital has had success applying business methods in the past, such as implementation of balanced scorecard eight years ago. But being an academic organization, he notes, physicians are interested in evidence and outcomes, but they will buy in to process improvements if you can profile the initiative or project and show evidence and data. “You need quantitative data to demonstrate to the organization that this has impact and that it absolutely does enhance value.”

As evidence of its BPS efforts, SickKids surveyed the model units before and after the BPS process. For one of the initial units, increases were recorded for:

- Employment engagement — 73% to 87%
- Hand-hygiene compliancy — 67% to 98%
- Medication reconciliation — 47% to 85%.

Mainland advises organizations working with ThedaCare and KPMG to build their own expertise and capacity for wider dissemination of BPS, which SickKids did to the extent that neither KPMG nor other consultants are working with the hospital on its daily continuous improvement process. And as noted by others involved in the collaboration, Mainland says, “The power of this is really making it a daily way of working. Once you identify something as the way you do your work, it’s going to be sustainable. It is just part of the daily activities of the employees on the units where we have implemented it.”

At Queensway Carleton, Hamilton says it is premature to quantify how implementation has impacted cost or impacted the patient. Unlike large events that have quickly moved the metrics at the hospital, the focus of BPS has been on improving patient care through many daily improvements: working to ensure adherence to processes, development of new processes and standards, staff access to equipment, aligning processes to provide appropriate patient care, and improving visibility and teamwork of the management team (e.g., manager, director, senior administration).

"The management system we are learning from ThedaCare is around daily improvements, issues in the work day that detract or pull [staff] away from their patient," adds Hamilton. "Combined with the big breakthrough projects in how we redefine a process, I think we will see over the next six months a visible impact on the patient."

The ThedaCare/KPMG collaborative learning and coaching is unique in that through its practice improvement is done *by staff* rather than improvement done *to staff*, and the daily, incremental activities by staff accumulate to lasting benefits and sustainability, says ThedaCare Center for Healthcare Value's Zak. "The real change had to come from people doing the work, unlike others where it is a facilitator or consultant driving change."

"I see people highly engaged and motivated to do their jobs better each and every day and to make sure we provide the best environment for improving health outcomes for these children who are extremely sick, for their families, and for each other as staff," says SickKids' Mainland. "If you do that, you are going to improve quality, if you improve quality you are going to reduce costs, and at the end of the day value is enhanced for everybody."

Lean Leaders

To learn more about the collaborative improvement approach pioneered by the ThedaCare Center for Healthcare Value and KPMG and the individuals and organizations that contributed to this Healthcare Value Report, please contact the following:

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