

Ahead of the Population Growth Curve

A Case study outlining North York General Hospital's journey around Process Improvement (focusing on ED and General Medicine)

*Aaron Berk, writer
ED PIP*

Introduction:

Like so many other hospitals ten years ago, North York General Hospital's (NYGH) culture seemed weary and in need of refresh. This time was characterized by heavy workload, nursing shortages, long wait times - all in an area with a growing population and increasing demands for high quality healthcare services. This may sound familiar to the typical headline stories about hospitals today. However, this snapshot in time is no longer a reflection of the culture within North York General Hospital.

This case study is intended to share insights around NYGH's transformational experience as a pioneer of Lean and process improvement within an Ontario hospital.

Starting around 2003, a relatively new senior management team set out on a culture leadership transformation journey. NYGH was in the centre of the SARS crisis which exposed issues including low morale, high staff turnover and long wait times. Due to the challenges that hospital staff endured together, the problems did not manifest themselves with the typical internal conflict between management and the front line staff. Rather, the antagonists seemed to be external to the organization. "There was a morale issue that we had to solve together", said Dr. Tim Rutledge (Emergency Physician & currently VP, Medical and Academic Affairs). This would be an extremely powerful driver that would underpin much of the success that NYGH experienced.

When looking at process improvement in Ontario hospitals, there is not a strong track record or long standing history in Ontario. Many Ontario hospitals currently working on process improvement initiatives have been doing so for less than two years. In fact, many of these hospitals didn't get involved in formal (structured) improvement projects until funding was available to support them. This is not the case with North York General Hospital. They have been at it for years and have built the foundation to support a general focus on sustainability.

It's as if North York General Hospital knew what it had to do before the problems got worse. Many of the key metrics that hospital Emergency Departments are measured on have improved in the face of higher volumes and increased demand. This case study tells the story about how North York General Hospital has managed to stay ahead of the demographic curve by improving efficiency just in time for spikes in demand.

A Focus on Cultural Leadership Transformation as a Driver for Improvement and Change

When Bonnie Adamson arrived as the new CEO at North York General Hospital, she had a vision to drive change and improvements, but she wanted to do it through focusing on transforming the leadership culture within the organization. She believed that initially focusing on the leadership culture was required in order to transform the organization's culture and performance. This required a shift in leadership style from "bosses" to "coaches" and from "individuals" to "teams".

Now, the concept of accountability cascades through the organization and starts with the CEO. When Dr. Rutledge, reflects on the organization’s ability to engage the physicians, he talked about showing physicians that their time is valued. In his words, “the CEO needs to show up to meetings” - and she did. However, this story is not all about what the CEO did for the organization; it’s also a story about how teams decided where they wanted to go together.

A leadership toolkit was developed and the leadership team explored the use of story-telling as a technique of strengthening the culture. There was no longer just the senior management team and Medical Advisory Committee at the top of the org charts. New leadership teams emerged. These included the Leadership Forum (everyone in the hospital), a Leadership Management forum (including front line managers up to VPs and Physician Chiefs), and a Leadership and Alignment Team, or LAT (which included Directors, VPs and Physician Chiefs). By introducing new forums, chaired by the CEO, there began to be an opportunity for real vision and leadership to be shared beyond only the senior team. Accountability agreements were introduced help foster ownership over strategic initiatives and develop leadership across the entire organization.

What’s most important is what our people are saying...

Bonnie Adamson (CEO) remembers back to one of the drivers for change- the low results of a staff satisfaction survey. One of the organization’s goals was to be a place that people wanted to work –instead of a place plagued with high turn-over and use of agency nursing staff. This goal was accomplished through the cascading effect of their leadership transformation, adoption of Lean and an overall shift towards performance management and accountability. “It’s very gratifying to see that now when new orientees fill out a survey asking them why they joined NYGH, they now call out North York’s reputation for its patient centred culture”, says Adamson.

Aligning Process Improvement with Strategy

After initially focusing on the leadership culture, it was time for the leadership team to work on developing strategy - and the leaders of the organization owned it. North York General’s investment in time and money would be very focused on ensuring achievement of their key strategic priorities. Initially they used the concept of a strategy map (rolled out across the organization) that ultimately mapped back to meeting the strategic goals around operational and clinical excellence, creating a family driven experience, fostering responsiveness across the continuum of care, and leading and partnering in system transformation.

North York shared the same common issues facing most of Ontario’s hospitals from the late 1990’s to the present. There were limited funds available to meet an increasing demand for healthcare services. It was clear that the hospital had to make a priority around improving efficiency and quality if they were going to be able to meet the needs of the community they serve. Bonnie introduced a strategy driven approach to improvement. Any important initiative that North York General Hospital would take on would be aligned to the strategy. One of the key strategic priorities focused on improving quality and patient flow. In terms of driving improvement, it was clear that change was needed, but it was only through their journey that they discovered how Lean would help them accomplish their goals.

Becoming a Learning Organization Through Lean

Through the introduction of Lean methodologies and tools, there was a shift in how the organization began to behave. The silos between care providers and programs began to erode. Adopting Lean meant taking a more holistic or “system” approach to solving their problems. The use of value stream mapping and a variety of other tools shifted the focus to root cause investigation. If multidisciplinary front line problem solving teams could pinpoint the actual cause for problems that manifest themselves in terms of long wait times, they could design and implement solutions to improve access to care.

Where to start

As early as 2003, North York General Hospital began to get involved in improvement initiatives including the Canadian Blood Collaborative, Safer Healthcare Now, and the FLO Collaborative. In 2004, NYGH joined the Institute for Healthcare Improvement (IHI) in the United States. As part of the IHI membership, a group of front line staff (including physicians) were sent to a conference with the intention to bring learnings back to implement. It was around this time that NYGH had decided to focus on the patient access problems facing their emergency department, which they anticipated were only getting worse given the increasing population in the area.

It didn't take long to realize that in order to solve problems that manifest themselves in the Emergency Department, the problems needed to be treated from a systems perspective. NYGH's leadership recognized this opportunity to see the process from the patient's perspective and worked hard to build relationships between the ED and the department of medicine to shift the focus of care from provider to patient-centred. NYGH developed an improvement strategy in four stages – (1) within the ED; (2) within Medicine; (3) between ED and Medicine; and (4) between Medicine and the community.

Now that there was a focus within ED and Medicine, the organization, began learning more about Lean and tested Lean methodologies to underpin their improvement efforts. Initially consultants were brought in and played an important role in educating the leadership at North York General about the methodologies and certain Lean tools.

By 2006, the organization had identified flow improvements as a strategic priority and began to create its own internal improvement team by hiring key staff members with Lean blackbelt qualifications. Although the team has played an important role at North York General Hospital for more than four years (and has touched just about all the clinical areas in some capacity), the initial focus remained the ED. By 2007, the internal quality improvement team conducted a major value stream mapping event and engaged a host of front line staff, physicians and administrators to map the end to end flow in the ED. Out of this session, a number of Lean improvement events (“Kaizen Events”) were undertaken.

What is Value Stream Mapping?

*Value stream mapping presents a pictorial representation of the flow of materials, people and process information from the beginning to the end. Value Stream Mapping is a **team exercise** – it builds the team and ensures that everyone understands the current “as is” process .*

Gaining Support and Buy-in

Whether you are a physician, front line nurse or other staff, the principles that North York adopted are universal. Everyone needs to be engaged, and in order to successfully do this, they need to be engaged from the beginning, and not as an afterthought.

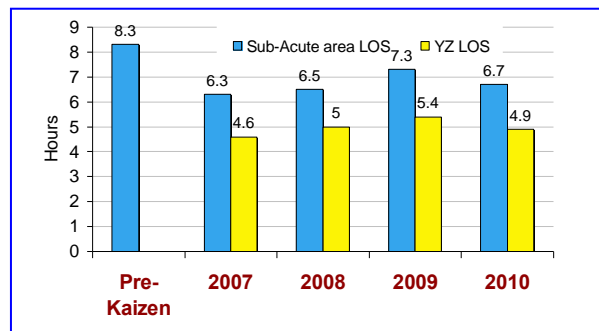
Susan Woollard, Director of the Emergency Department, recounted some of the early challenges that she and her team had in the early phases of their improvement journey. Although, it was clear that there were opportunities for improvement, she never would have guessed how much opportunity there was. Susan tells the story of one of her first improvement initiatives in which that she was engaged. They had decided to look at improvement opportunities by patient acuity level and started with ambulatory care. In this case, the interesting part of the story is not specifically “what” they did, but rather what they learned through this initial Lean improvement experience.

This was the start of the evolution of how they viewed change within the department. This initial improvement initiative taught the team about process improvement, change management and sustainability. After this first event, Susan describes six weeks of intense follow up to ensure sustainability with the team including those who heavily resisted the process. People asked fundamental questions like “why are we starting with low acuity?” However, notwithstanding this challenging experience, they conducted another improvement event some weeks later. This next improvement was their Yellow Zone project.

The Yellow Zone project introduced a streamlined model of care for mid level acuity patients who would get assessed without necessarily holding up a bed. Patients transferred themselves to yellow zone with visual cues and a new charting system was implemented to support this new workflow. In order to accomplish this, one strategy was to move to a team nursing model, which was challenging as the nursing team was quite varied between age and experience. Those nurses who were earlier in their careers were not familiar with the team nursing model of care. However, given that this was the second event there was a great deal more support from the nurses and physicians and following the improvement initiative, acceptance occurred within three weeks (rather than the previous six weeks).

Since the initial Lean improvement events in 2006, there have been dozens of improvement events with quality and safety at the forefront of planning. A couple notable projects were the *EMS offload project* that saw the IT integration with their EDIS, EMS and their hospital information systems to do provincial reporting; and the *CTAS II Cardiac Project* which showed impressive results from swipe to ECG time showing reductions of 77% from 124 minutes to 22 minutes (15 minutes average in 2010 to date).

Exhibit 1 - ED Sub-Acute “Yellow Zone” Results: Length of Stay



Of over 80 improvement events run by North York over the past few years, perhaps the greatest success of all is the cultural turnaround (which didn't happen overnight) regarding buy-in and willingness to contribute and participate in quality improvement initiatives. North York has shown that persistence and evolution of their process improvement methodologies have had a lasting impact – both on performance and culture.

Achievements

Although the achievements at North York General have spanned the organization, for the purpose of this case, study, some of the achievements around improving flow in the Emergency Department will be continued to be focused upon.

As mentioned, North York General Hospital is in the middle of a high population growth area and serves a community with expanding healthcare needs. Some of the most impressive results are the improvements despite higher volumes facing the ED (increased by 18% since 2006). For example:

- EMS offload times improved even though increases of up to approximately 100 additional ambulances arrived per month;
- 89% patient capacity increase in the Sub-acute area due to creation of the Yellow Zone from 35 patients per day to 66 patients per day;
- There was a 23% sustained reduction in overall ED Length of Stay and a 42% reduction in low acuity patients (“Yellow Zone” patients);
- There has been a 15% reduction in time to see a physician from 3.3 hours to 2.8 hours. These results have been sustained for over two years;
- There was a 90% reduction of bed dirty to bed assignment from 2 hrs to 12 minutes;
- There was a 13% reduction in number of ALC patients from 79 to 69.

Sustainability

There is no doubt that improvement in healthcare is hard. However, North York General is a good example of success around sustainability as they've been at it for more than five years. Their keys to success have been rooted in their leadership transformation and strategy. Essentially, by making improvement a strategic priority and a focus of their leadership team, it has become a fixture in the organization. In addition, performance management continues to evolve in the organization to allow them to monitor the intrinsic processes and the outcomes for which they are being held accountable. They have continued to adopt new generations/iterations of a balanced scorecard to help monitor the strategic priorities of the organization. In order to support improvement, each of the programs have formal

Following suit...

As the organization began to mature its efforts around performance management and accountability, the reporting to the Hospital's board of directors became more sophisticated through the use of a balanced scorecard. As a representation of the evolution into a learning organization, the Board, realized that they were, in fact, behind the hospital in how they manage themselves and as a result, they created their own balanced scorecard around hospital governance.

resources allocated from finance, decision support, quality and risk.

The leadership at North York General Hospital seems to believe in process improvement and breathes life into these priorities through its strategy and commitment by the leadership team. Recall that since 2006, there has been a dedicated team of Lean experts who bring the technical skills to support the many improvement initiatives underway. When Susan Woollard talks about engaging the staff in the ED, she talks about the fact that over 80% of the staff have participated in an improvement project in some capacity. There is truly a commitment of resources to make improvement initiatives successful at North York General.

A tradition that has emerged over the last couple years is called “Friday Report Outs”. After completing an improvement event, the front line staff involved lead a presentation about the improvement to the rest of the hospital. Typically, more than 100 people show up. Following their presentation, they are formally recognized as leaders within the hospital and Bonnie (CEO) presents them with a Leadership book. In the interviews around this case study, not one person didn’t talk about the profound impact that the report outs have had on the improvement culture within the organization.

When asked about sustainability, the response was “we’re consistently focused on sustainability”. NYGH is working through their next generation of internal accountability agreements to enable their leaders to be successful. In addition, there has been a quality committee of the board, long before recent legislation has mandated it. Finally, in a hospital who strives to be a place that people want to work, there is a talent management program for capability building within the organization.

Lessons Learned

For North York General Hospital, there is no doubt that their focus and commitment to process improvement has been significant and the outcomes should certainly be considered a success. When the leaders at North York General were asked about their key lessons learned over the last few years, this is what they said:

- “Change is slow”. Getting to see positive improvements stick within the organization is a journey and requires the full commitment of the organization as well as the resources to support success.
- Physicians need to be engaged at the beginning of the process, not as an afterthought. This is one of the areas that continues to be challenging at North York.
- “Celebrate successes”. There are so many ways to celebrate success and it’s critical to recognize the significant contribution that people are making with their time and energy. In addition, by sharing success stories (especially early in the journey), stronger support is developed.
- “You can’t over communicate”.
- “The Leadership team needs to have courage”. Initially change can be really hard and there may be a strong and vocal group of resisters. Recall the example above where there was six weeks of unrest after their first improvement event. Imagine, if they had decided not to proceed as a result of the initial resistance?

- “Clear accountability with clear targets and expectations lay the foundation for sustaining shifting the culture. Ideally accountability agreements should be in place that cascade through the organization.

About North York General Hospital:

North York General Hospital, affiliated with the University of Toronto, is one of Canada's leading community teaching hospitals. We offer our culturally diverse community a wide range of acute care, ambulatory and long-term care services across three sites. The hospital embraces health by providing innovative and compassionate care for the whole family at every stage of life.