

On the Mend

Revolutionizing Healthcare
to Save Lives and Transform
the Industry

by John Toussaint, MD
and Roger A. Gerard, PhD

with Emily Adams

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Lean Enterprise Institute, Inc.
215 First Street, Suite 300
Cambridge, MA 02142
(t) 617-871-2900 · (f) 617-871-2999 · lean.org

Chapter 10

Action Plan

Do you think you can do better? We hope so. For all the work of the last seven years, ThedaCare has still just scratched the surface of lean healthcare's potential.

We welcome competition. In fact, every hospital, physician group, and health plan that joins the lean effort ultimately pushes everyone in healthcare to secure better medical outcomes, lower costs, and better experiences for patients and staff. Someday, the word healthcare will not always be followed by crisis—if we can focus on the patient while creating value (rather than waste) and minimizing time to put healthcare on the mend.

But how and where to begin a lean transformation?

The triumphs and stumbles of ThedaCare's journey toward lean, described in these pages, is not the only template. Lean has been introduced in a growing network of hospitals and implemented in many other industries over the past 30 years with great success when done skillfully. We look to those experiences for guidance, as well.

This much we can say: senior leaders are always the key to making and sustaining a lean transformation. Many times, lean initiatives have begun in middle management with great energy and hope, only to

sputter and fail when faced with senior management disinterest or lack of understanding. To make lean successful, there are a few bits of mandatory business that only the most senior management can accomplish. This chapter provides a short list of those tasks.

If ThedaCare were to start a lean initiative again today, we would do a few jobs in a different way and different order. This list does not always reflect what ThedaCare did. Rather it is what we would do today with the benefit of experience.

1. Identify the crisis.

When the platform on which you stand starts to burn, action is the only choice. Senior leaders need to find that sense of urgency by clearly identifying and naming the crisis in order to convince staff that action is the only choice.

Without a burning platform to create clarity and urgency, most people are happy to agree that change is needed—elsewhere. That other department really needs a makeover, right? Without a strong case for change, staff will view incoming ideas as an optional management project and sidestep new responsibilities.

In 1999, Ariens, the snow blower company from Chapter 1, was teetering on the verge of bankruptcy and everyone knew it. As one last-ditch effort before the doors closed forever, management tried lean. From executives to engineers and operators, Ariens employees threw their energy into lean as if their jobs depended on it, which they did. Within two years, the company had become such a success story that we were working on their production line—for a few days, anyway—trying to discover their secret.

At ThedaCare, John identified the burning platform as a quality crisis. But after naming the crisis, he insisted that ThedaCare stop comparing

itself to other hospitals—where it looked pretty good—and start using objective measures from manufacturing, such as quality at a Six Sigma level. This was a tough sell. Ultimately, the argument about how to compare quality measures lacked the urgency of the true problem, which was that the quality crisis was resulting in death and injury for patients. Quality of care and slow response times should have been all the urgency ThedaCare needed.

The quality crisis is really the burning platform for all of healthcare, plus the fact that no one—patients, care providers, businesses, or governments—can afford the added cost of waste in the system.

If we had focused clearly from the beginning on quality's effect on patients, doctors and nurses would have been far more likely to join the lean transformation. They did, after all, work hard to join a *helping* profession. The lesson here is to make the burning platform emotional and immediate. For that, quality is your best argument. The bonus is that the steps required to improve quality will also reduce cost.

2. Create a lean promotion office.

Companies have failed in their lean attempts by erroneously deciding that a lean promotion office is a layer of bureaucracy. They have followed misguided advice to “just do it” without any technical assistance to managers. But just going to the gemba and doing kaizen—no matter how exciting—has very limited usefulness and is usually detrimental to an organization's long-term improvement goals.

A lean promotion office is critical for planning and managing change to ensure that employees are educated and involved in lean. A high-level executive should be tapped to lead this office as a full-time job, reporting to the CEO.

At ThedaCare, John selected 12 of his best managers and clinicians to become full-time lean facilitators. These were two-year assignments, after which facilitators were moved back into line management roles. All 12 agreed to the assignment and today most are in key leadership roles with deep-rooted knowledge of lean principles. Today there are more than 35 lean facilitators who are dedicated full-time to lean activity.

An organization committed to lean should aspire to have 3% of the work force assigned as full-time lean facilitators. The goal should be that all managers have at least two years' full-time experience in continuous improvement. We also believe it is imperative to hire deeply knowledgeable teachers or consultants to work with the lean promotion office. In the beginning, we didn't know what we didn't know. So, we also needed to visit other companies, participate on their teams, and learn from other executives experienced in lean.

Next, move all quality functions in your organization into the lean promotion office. Do not divide quality into clinical and administrative issues when you move quality into the lean promotion office. If you do, physicians and nurses may end up seeking other avenues to quality improvement, shattering the organization's focus. Finally, do not allow lean and quality to become divided in the minds of your employees. If this happens, lean will earn a reputation as being about cost cutting alone. Quality and efficiency are inextricably linked in a truly lean organization.

3. Find change agents.

There are agents of change throughout your organization, just waiting to be unveiled. These supervisors and senior managers and front-line caregivers probably do not know yet that they have the capacity to lead major change.

Here is how you will recognize them: They will be complainers and local agitators who hear about lean and seize upon it to make the changes they want. They will be a Jamie Dunham, the nurse who wanted respect and meaningful roles for nurses and ended up helping to create Collaborative Care; or a Kim Barnas, who coveted an expensive new cancer-fighting therapy and helped transform the radiation therapy practice before going on to create standard work for executives. After discovering that lean principles help them solve seemingly intractable problems, agitators become champions and early adopters. These are your change agents. Give them tools and air cover and they will help lean take root in your organization.

Work on solving physician and staff problems first, before attacking more patient-focused issues. This may sound like backward priorities, but this is the way that you will win over the people who will then use lean—repeatedly—to improve patient experiences.

Finally, find change agents on your board of directors. At least one of them will likely be implementing lean in his or her company. Give all board members a chance to champion the changes. Keep them informed of lean's progress and the barriers you find. Put them on kaizen teams. Without the support and assistance of ThedaCare's board of trustees, our lean journey would have completely derailed after three years.

4. Map your value streams.

A value stream is the set of steps that delivers a given type of value to the customer. A value-stream map records all these steps and their current performance. These maps are used to study both individual processes, such as laboratory tests or knee surgery, and larger functions, such as the Human Resources plan for training all employees in lean principles. The goal is to understand the true customer experience and journey—whether it belongs to a patient or employee—from start to finish.

In healthcare, the patient often must make a circuitous and disconnected path through many departments deploying many resources, in order to obtain care. That path becomes clear when you create maps showing all the steps and information flows, for example, for the birthing process or the experience of a heart attack patient from the time an ambulance is called to the time the heart artery is opened up with a balloon. You need to create these maps to see waste of many types and to determine where errors usually occur.

These maps have been an epiphany for doctors and nurses, who see just how difficult a patient's path can be. This discovery usually drives them into action to use lean tools to create easier medical journeys for their patients. So value-stream maps are also a lever to move hearts and minds.

At any one time, between 14 and 16 ThedaCare value streams are being actively mapped and managed for improvement. This means a concentrated application of lean improvement resources to drive significant change, in which the goal is always 50% improvement year over year.

5. Engage senior leaders early in strategy deployment.

Another common mistake of lean initiatives involves outsourcing improvements. There are plenty of consultants who will launch lean with a campaign of kaizen events, explaining that everyone will learn by doing. This leaves senior managers free to (probably) work at cross-purposes to lean. Also, consultants who are not working closely with senior management will not have a plan as to how the improvements all fit together to improve the patient experience, reduce costs, and serve the organization's long-term goals.

Instead, senior managers must be intimately involved in lean through strategy deployment, or hoshin kanri. As described earlier, hoshin kanri is a standardized process to help an organization select and focus

on the few key priorities. At ThedaCare, we established true north metrics to keep us focused on the four measures that truly matter. Make no mistake: everyone believes that his or her proposed projects are the most important. So, winnowing down your list of truly critical measures is some of the most difficult work you will undertake.

We spent six years asking the question, “What is most important?” until we all agreed on four things: customer satisfaction, safety/quality, people, and financial stewardship. Knowing the four points of ThedaCare’s true north enabled us to define nine simple metrics that kept leadership focused. As ThedaCare’s immediate priorities and understanding of the lean journey have changed over the years, the metrics collected have changed as well. There are some common categories, however. When looking at customer satisfaction, ThedaCare typically tracks whether patients have good access to healthcare, turnaround time for lab tests or treatment, and quality of time, which generally refers to the amount of face-time patients have with caregivers. Quality and safety metrics usually track mortality and medication errors. The people section might look at OSHA recordable injuries and HAT³⁵ scores for staff. Financial stewardship usually focuses on operating margin—or profit—and productivity. (See *Figure 13, True North Metrics, in the Appendix.*)

Once the true north metrics are agreed upon, make sure that all major improvement initiatives are focused on those metrics, and that every department tracks data that address those metrics. ThedaCare would have made far faster strides in our lean conversion had we begun strategy deployment from the beginning with clear metrics.

35. HAT stands for health assessment test, a measure of the health of a person’s lifestyle.

6. Acquire and disperse knowledge broadly.

ThedaCare's lean initiative began with the idea that one only learns lean by doing. We agree that there is great value in learning lean by making real improvements. But in ThedaCare's case, strict learn-by-doing meant putting 5,500 people through a week-long Rapid Improvement Event and the logistics soon became insurmountable.

Therefore, large organizations with even a low turnover rate need to combine kaizen-type team weeks with something like hands-on, single-day seminars and internships. ThedaCare's seminars use simulations to present the theory of lean and group discussion on the reasons to pursue lean. It was not intended to be a comprehensive lean training, but by using seminars with simulations, all employees could receive some introduction to lean within three months—enough to understand the essence of ThedaCare's goals and direction.

Learning lean without being on a week-long event is also possible through personal training in the PDSA cycle. All ThedaCare managers are now expected to mentor subordinates through PDSA projects and to ensure that those subordinates, in turn, guide their teams through the same training. In healthcare, this is probably easier than in other industries because PDSA is essentially applying the scientific method to everyday problems.

Separate training for managers is also necessary because they need to understand and use value-stream maps, PDSA, visual tracking, 6S,³⁶ and many other tools. ThedaCare managers struggled with lean ideas for months until leaders realized that a lean training course specifically for managers was needed. This course not only taught PDSA, but also prepared managers to mentor others in PDSA.

36. 6S stands for sort, straighten, scrub, safety, standardize, sustain—the lean method for workplace organization and visual control. It's an important part of daily improvement where the right layout, supplies, equipment, and information are safely organized and available when needed.

Also, trainers emphasized the potential contradiction between local metrics and ThedaCare's true north metrics, and how value stream maps can interconnect issues—helping managers understand the business case for lean.

ThedaCare's first session attracted 60 people, the second session had 100 attendees, and the next had staff scrounging chairs for 200. They learned to set metrics for their departments consistent with ThedaCare's true north metrics and to manage daily improvement activities while working through their first two PDSAs.

7. Teach a man to fish (or, become a mentor).

There are two basic types of leadership: modern (Sloan) and lean (Toyota). The Sloan style is top-down and autocratic, while lean leaders are teachers and facilitators. Medical and business schools are not churning out Toyota-style leaders, so you will need to create the leaders you want.

Chief executive officers must lead the way to this change by modeling the behavior they want from subordinates. This means being out on the floor where the work takes place, at gemba, with top executives in tow, teaching, listening, and finding barriers to remove for front-line staff. In this way, directors and vice presidents gain first-hand knowledge of lean, see what the new expectations are, and learn to focus their energies on the place where value is created.

CEOs will need to see that bonus structures of top executives are rewritten to reflect lean leadership goals. In the lean world, saving the company money is not rewarded if patient care is undermined in the process. ThedaCare restructured bonuses to reward those who actively participated in improvement work and worked to identify and remove barriers to improvement.

Lean leaders are intimately familiar with work on the front lines. At Autoliv, Inc., a Toyota supplier of auto safety systems, problem-solving is considered a company-wide activity. Once an error or problem is identified, the front-line team member has 15 minutes to find a temporary countermeasure so production can continue safely. If none is found, the supervisor has 15 minutes with the problem before involving a management team. This escalation continues until, if after four hours there is still no countermeasure, the issue lands on the CEO's desk. Imagine if all medication errors were given this type of full-organization scrutiny, with time limits on solving underlying problems that caused the error. Medication errors would fall to zero.

In the perfect lean world ThedaCare is always working toward, every employee is a problem-solver and every executive and manager is a mentor, leading subordinates through a standardized process to solve problems so that they deeply understand what they are trying to accomplish for the organization.

8. Involve suppliers in lean.

Invite suppliers to join lean improvement projects and then set new expectations for how those suppliers interact with your company. In the course of bringing lean to construction suppliers, for instance, ThedaCare employees emphasized mutual cost savings and a long relationship to motivate the suppliers to participate and collaborate in the lean approach.

The key in this work was partnership instead of competition. As part of the 2P process, ThedaCare invited architects and builders to join teams in week-long events focused on care-process redesign. Then, ThedaCare collaborated with its general contractor, Boldt, to create a new delivery model.

Instead of hiring an architect to design a new building and then choosing a builder through competitive bids—a process that typically generates a lot of rework, design changes and cost overruns—ThedaCare now uses an Integrated Lean Project Delivery Core Team. Made up of representatives from ThedaCare, Boldt, and two architectural design firms, the core team has shared responsibility for the design, schedule, and cost of all construction projects.

In fact, the work has resulted in a new, three-way contract between ThedaCare, an architect, and Boldt for each project. The new contract, which can also include a critical supplier, binds all entities together in mutual responsibility.

“We know we're completing projects faster and with less expense,” said Albert Park, ThedaCare's Director of Facilities Planning and a licensed architect. “We still don't know how we are doing compared to the wider market. However, we do now have in place a metric to compare our projects to each other, and we are seeing notable improvement.”

9. Restructure your organization into product families.

This is a straightforward task in manufacturing where the design and manufacture of different models—for example cars or snow blowers—can be clearly separated into product-family value streams. In health-care, it means co-locating steps in a process whenever possible to tightly coordinate all the steps of a patient's journey in order to speed value. ThedaCare's experience proves that this is difficult to do in healthcare. Not impossible, but difficult.

For instance, ThedaCare has been working on restructuring several areas to create one musculoskeletal value stream. This involves redesigning patient care in sports medicine, physical therapy, rheumatology,

orthopedics, orthopedic surgery, and imaging into a single value stream designed from the customers' perspective. Three years later, improvement teams have moved and streamlined many functions to be more patient-focused, but musculoskeletal, also known as Orthopedics Plus, still does not have a unified financial statement. In addition, there are multiple managers for the various services and there is no single process owner to think about end-to-end improvements.

Over the years, healthcare has added many new treatments, creating many new value streams. These treatments are usually added to the menu in the most cost-effective and convenient way for the healthcare organization, but not always in a way that is convenient or value-creating for the customer.

For instance, as medicine has embraced physical therapy for a wide variety of conditions, hospitals have added gymnasium-type rooms and hired therapists to work in one central location. Essentially, this means that physical therapy is not so much about the patient's condition or convenience as it is about the management of physical therapy. This is not patient-focused care. And yet, when ThedaCare moved some physical therapists out of their central hospital location and into individual clinics, physical therapy revenue dropped by \$300,000. That is because Medicare pays less for outpatient-based rehabilitation than it does for inpatient physical therapy.

So, there are roadblocks to creating product families, but this is still important work. Even if it cannot be completed immediately, it will help keep your organization focused on achieving unified, efficient, patient-focused healthcare.

Don't Let Anything Stop You

Once an organization becomes convinced that measurement is necessary, *how* and *what* to measure can become the topic of nagging disagreements and epic turf wars. Do not let that stop the work. This is perhaps the most important piece of advice we can offer from seven years of experience at ThedaCare: trust the improvement process.

Learn everything you can about lean thinking, get all of your top executives on board through hoshin kanri, create an intelligent path, and the infrastructure to support that path. And then keep pushing the work forward.

As top executives in a healthcare organization, we know that there is no substitute for leaders being out on the floor as vocal champions of the work, pushing it constantly forward. If you know that you are saving money and improving patient outcomes—even just a little—then you must continue forward even if you do not yet know the best metrics to portray your success.

Results

While some data are notoriously difficult to capture and publicly share in healthcare, we can report a few big-picture metrics from seven years of lean healthcare work. Further, we believe that any organization that applies the principles and works diligently at improvement can achieve these results.

Access: Same-day appointments are now available at every ThedaCare clinic, every day. Due to lean work, clinical capacity has also expanded and ThedaCare is capable of helping more people.

Price: ThedaCare is consistently the lowest-price overall healthcare provider in the state of Wisconsin. Consumers can visit the Wisconsin Collaborative for Healthcare Quality at www.wchq.org to compare inpatient treatment prices for a variety of diagnoses.

Quality: This is where we have the most trouble compiling and presenting data in a public forum. Individual doctors often have control over what data are released and to whom. Without state or federal mandates, quality reporting is dependent on whim. The Wisconsin Collaborative has won over most of the state's health organizations and reports quality metrics for a number of clinical conditions. ThedaCare is consistently ranked at the top in the state on these measures.

But even here, doctors and surgeons might agree to report only certain types of metrics that may not be entirely useful or clear. At present, we can only offer examples such as ThedaCare's success in reducing the mortality rate for coronary bypass surgery from 4% to near zero, while reducing the cost of that procedure by 22%. In the future, we hope to have more universal—less anecdotal—and relevant quality data.

Staff engagement: On a six-point scale, ThedaCare's mean score on employee opinion surveys rose from 4.485 in 2006 to 5.027 in 2009.

Operating margin: In 2003, ThedaCare's operating margin (profit) was 2.5%. It improved every year since, to 6% in 2009, despite continuing cuts in Medicare reimbursements.

Action Plans for Everyone Else

For those of us working inside the black box that is American health-care, there is plenty of work to do if we are going to save lives and budgets. But what of those people on the outside, debating policy on the state or national level—what is their role? Lean healthcare has three immediate issues.

Healthcare leaders trying to become lean are often stymied by the very policies that outsiders think will help. Instead of more complexity and secrecy, we need sunshine and clarity. In brief, we need:

1. *Mandated consumer reporting for all hospitals, clinics, and care providers detailing quality metrics and cost.* The metrics must be clear and meaningful for patients, such as infection rates and medication errors. This should be built up from existing regional public reporting mechanisms such as the Wisconsin Collaborative for Healthcare Quality. This is a critical need for patients, who do not have free choice when it comes to healthcare providers as long as they lack accurate information. This will be the first step in rewarding quality care throughout the country.

2. *Change government payment criteria to reward quality and lower cost.* Medicare and other public plans should be in the business of stimulating competition between care providers on who can offer the best quality at the best price. At present, they do just the opposite. For example, when ThedaCare found a way to reduce patient stays for given conditions in its Collaborative Care unit while improving outcomes, Medicare's response was to reduce reimbursements by an amount greater than the reduction in stay. ThedaCare was punished for helping patients while saving money.

3. *New insurance strategies working toward universal access should be paid for by taking cost (waste) out of the existing health system, and plans should be administered at the state level.* The federal role should be to set guidelines for quality and access, while state and regional initiatives of key stakeholders banded together in public-private partnerships decide how to redesign the system.

Policymakers will only enact these changes, of course, if patients demand them. Patients—and eventually that includes all of us—need to start demanding clear, easily obtainable, and relevant quality information. Cost comparisons also must be public, because cost affects everyone's ability to access healthcare. We must demand universal access to quality healthcare at lower public costs and stop listening to politicians who say it cannot be done—ThedaCare and many other organizations in the Healthcare Value Leaders Network are now proving that it is imminently possible.