

# BUILDING A FRAMEWORK

The makings of a lean health care transformation

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**W**e all know the reason the health care system must change. But it is remarkable that medical error is now the third leading cause of death in the U.S., and yet there is little outcry. The industry has a burning platform for change; 250,000 people will die as a result of medical error this year. This incredible outcome is not driving change. The question is why? My hypothesis has been that leaders just don't know what to do to change one of the most complex human endeavors in existence. At The ThedaCare Center for Healthcare Value (TCHV), we have embarked on what we are calling the "transformation journey." Our team members, including myself, work with CEOs in a few hospitals and health systems in North America to teach the principles of lean. The following article describes what we are finding and what we have learned.

### Defining purpose

In 2015, I published "Management on the Mend." The book is a framework of the core set of activities that we have observed to be success factors for a lean health care transformation, depicted by a house metaphor (See Figure 1).

The floor of the house is cemented by purpose, values and principles. It is the role of C-suite executives to determine purpose. We are finding that most leaders have done a poor job of defining purpose. In one organization, I recently observed a team that had defined purpose with 37 different metrics. After spending two days redefining what was important, they had reduced the number to 13. This is still not good enough. The Munson Healthcare team in Traverse City, Michigan, redefined "True North" metrics and reduced the number from 20 to 7 (See Figure 2). Until True North

is defined, it is impossible for leaders to decide what breakthrough strategies are required to achieve it. It is even more important to decide what initiatives can be deselected.

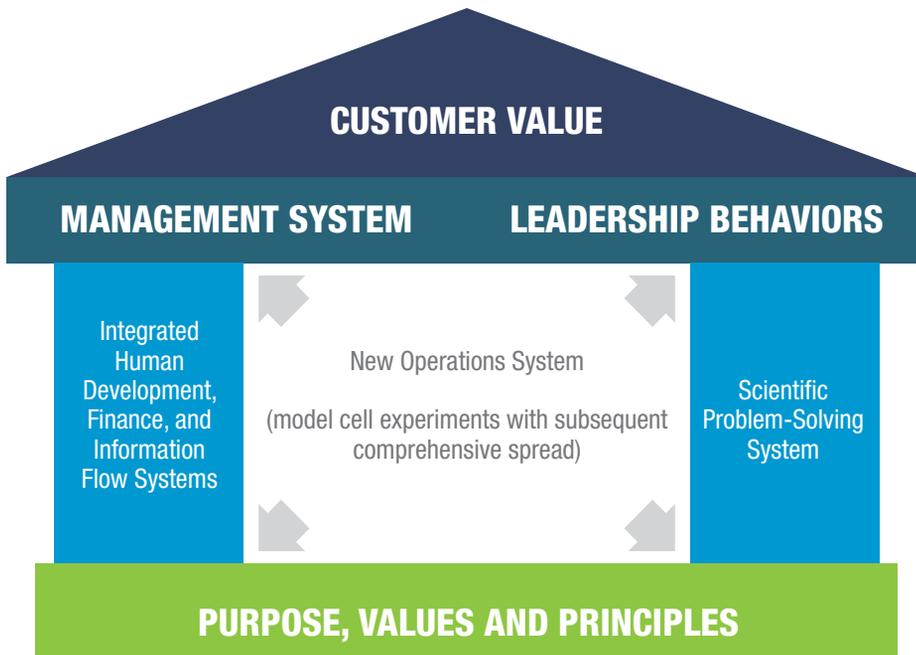
This is the other problem. There are too many initiatives in health care. When senior leadership teams are asked to write each one on a sheet of paper, we typically see 200-300. This provides no clarity for the front-line workers; in fact, it's the opposite. We then ask the C-suite team to create a filter for the initiatives. The teams run the initiatives through the filter and attempt to deselect (See Figure 3). At Munson, the C-suite reduced the number of initiatives by 25 percent.

### The principles of lean

We have also learned that many health care organizations have had some exposure to lean. But it is usually the tools of



**Figure 1: “Management on the Mend” System**



lean without the behaviors and principles required for sustainment. The floor of the “Management on the Mend” house also includes principles. Most health care leaders have not defined these. But what we are finding is if leadership does start by defining principles, this naturally leads to key behavioral expectations. Then systems can be built and tools used to get results. The principles are the “why” behind the systems developed. We didn’t start there. We did value streams and kaizens and never focused on principles and behaviors. This was a mistake. Today in our coaching work, we start with principles first. Anchored to principles and the time freed up from the deselection of initiatives allows the front-line teams to begin work on the model cell, the next important activity in the transformation process.

**The model cell**

The model cell is an inch-wide, mile-deep approach to solving an important business problem. For example, if it takes six months to get an appointment in the primary care doctor’s office, that would be a good place

to start. What we have learned is the work requires radical redesign of care processes. This radical redesign may take a different skill set than we originally thought. When I was CEO, I thought that if we just had the front-line team at a clinic, any team involved would come up with a radical new way. I’m pretty sure now that won’t work, at least consistently, to create radical change. Instead, I believe that different front-line people have different skill sets. Some are disruptive thinkers and some are incremental thinkers. Both skill sets are required for organizational success. When developing radical new designs, disruptive thinkers are predominantly needed.

Tom Hartman, the father of the Autoliv Production System (see article beginning on page 8), described his experience: “A physicist is not a physicist is not a physicist.” In other words, there were some physicists at Autoliv who were great at taking an existing product and improving it. But when given a design challenge to create an entirely different product, some couldn’t do it. The disruptive physicists could start with a blank paper and

create something totally new. We should choose team members carefully as we consider designing radical new ways of care delivery. We should also understand the process for creating radical change is different than that for incremental improvement.

The uniqueness of the solution required is dependent on the amount of design thinking required (See Figure 4). Alan Ward’s book, “Lean Product Development,” outlines the process of set-based concurrent engineering by which multiple ideas are tested at once and compete with each other until the very point a decision must be made. These ideas start with deep customer research and end with a new product value stream. This is exactly what health care requires. In the Atrius Health innovation center, there is a poster on the wall that says, “Let’s obsolete it.” That means to disrupt the status quo.

The project that’s been front and center for several months involves understanding the frail elderly patients that call the office. At 4 p.m., if an elderly person calls with a problem, he or she is most likely directed to head to the emergency room. Based on a deep study of patient needs, the team ran an experiment. They started with one clinic. They created a “red phone” that was diverted to an advanced nurse practitioner (ANP) when an elderly patient called to say, “I’m sick.” The new process includes a visit to the patient’s home by the ANP — immediately. This experiment so far has led to a 33 percent reduction in ER visits and a similar reduction in hospital admissions. The model could not have been created without “disruptive thinkers” on the team.

**Spread of the model cell**

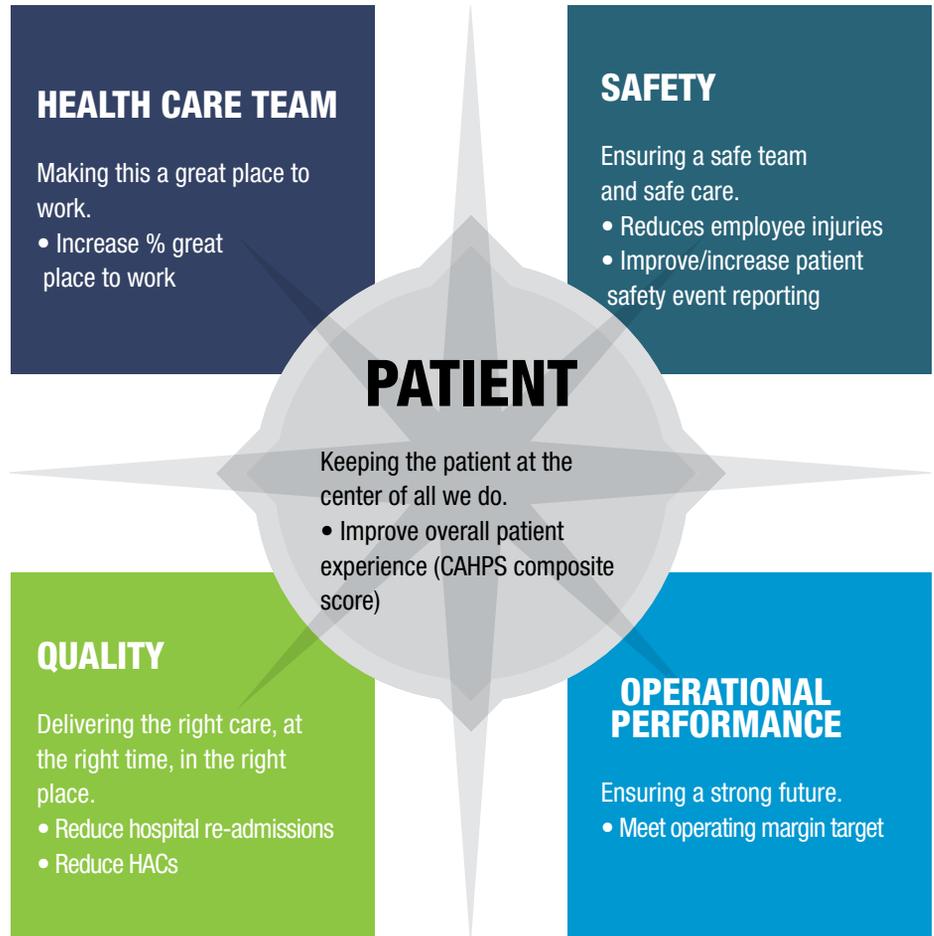
Once created, these new ways of performing work need to be spread. That cannot occur without standard work for physicians. Physicians must be engaged for the spread to be a success. At Zuckerberg San Francisco General, leaders have established a core set of

values and principles that all physicians who practice there are expected to abide by (See Figure 4). It is the responsibility of the hospital chief of staff that all physician leaders are trained in the tools listed and coached on the behaviors expected. This commitment leads naturally to physicians participating in redesign efforts that affect their specialty. So when it's time for them to change what they are doing in the operating room, for example, they have bought in. They understand the change because they were part of the team that developed it.

A learning we had at ThedaCare was that if the physicians are not part of the redesign team and don't understand the "why" of the system change, it is unlikely they will adopt any of the new standard work. Ten years after the original model cell work in ambulatory care, there has been significant decay at the spread sites. The root cause is twofold. First, the standard work for the provider part of the in-room activity was poorly documented, and second, there was no management system in place to support the standard. So each provider "customized" for him or herself what worked best. Providers began to have their medical assistants trained "their way" rather than having them trained to the standard. Providers created their own teams rather than utilizing the teams created through the delivery model process.

Cell leads (super-performing medical assistants), the "air traffic controllers of the office flow," became personal assistants to meet the provider needs rather than monitoring the daily patient flow, deploying staff resources to meet the demands of the day and helping everyone stick to standard work. This had disastrous results for everyone upstream of the process and everyone downstream (See Figure 5). There was no process to determine whether standards were being followed. Today, managers use in-room process observations to assure all staff, including physicians, are following the standard.

**Figure 2: Munson Healthcare True North**



The standard work for providers has been clearly documented and trained. Things have improved significantly.

**The central improvement office**

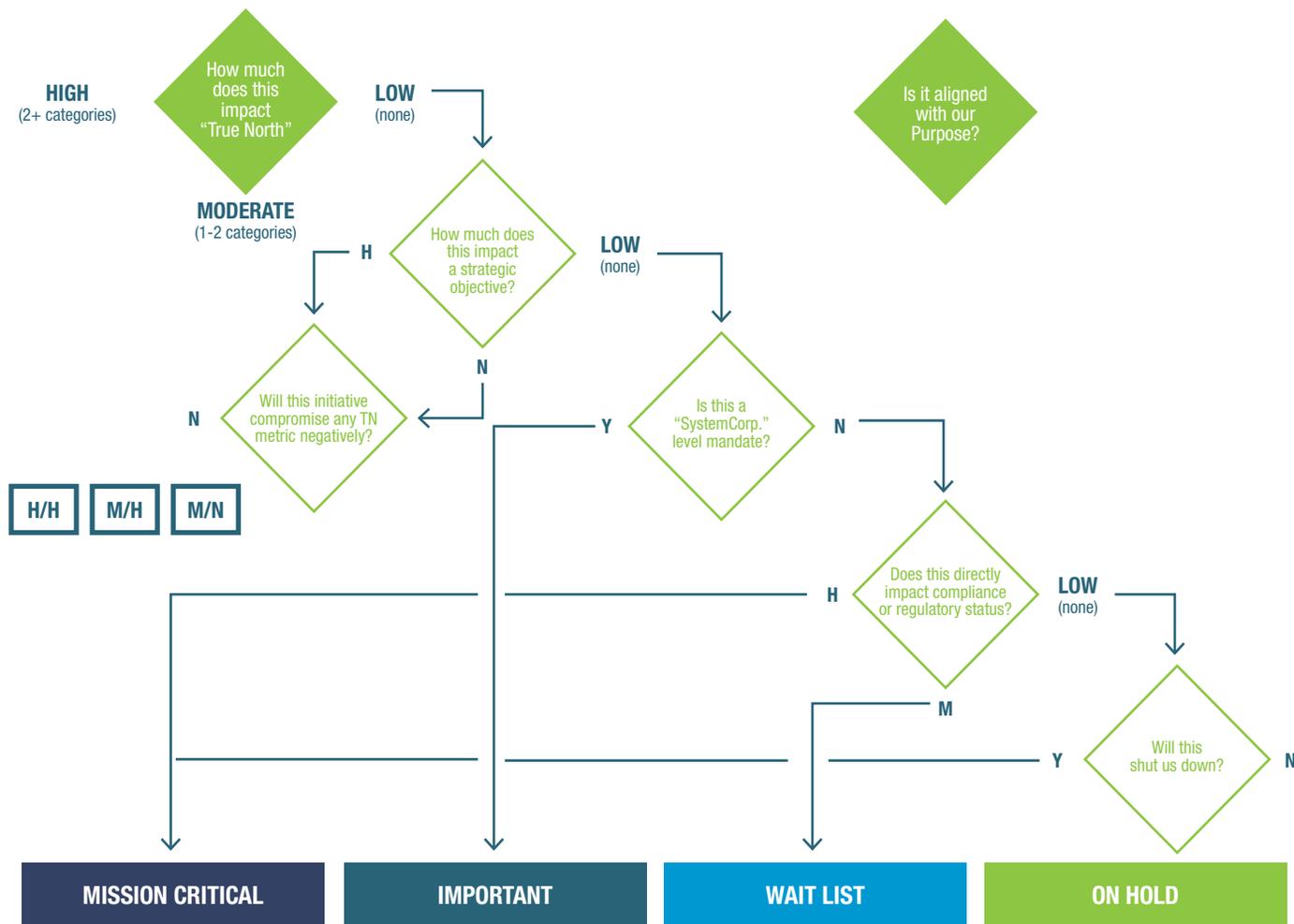
The role of the central improvement office in the transformation journey is very important. Our experience at TCHV is that most health care organizations have not clearly defined the role of the central office. And they do not have the skill sets required to support the improvement work. This is requiring rework because the leaders charged with creating the central office don't know what they don't know.

There are two ways to remedy this: 1) Hire an expert, like Kathryn Correia,

CEO of HealthEast in St. Paul, Minnesota, did when she hired world lean expert Didier Rabino from Anderson Windows as plant manager; or 2) Hire outside consultants deeply knowledgeable in lean to help build the skill set of the central improvement office. Caution: Make sure the consultants agree to work themselves out of a job over time. Most want more billable hours, not fewer.

One other learning about problem-solving in health care is that some problems are complex. Putting a front-line team on them that has no design-thinking capability can lead to incremental change but may not lead to an effective solution. The question is, what problem are you trying to solve, and

**Figure 3: Strategic Filter**



does the problem have tight constraints that front line teams can get their arms around? Or is it complex, with loose constraints that may require a different type of team with different skills? In my experience, most health care workers are not design thinkers. They have difficulty tackling problems that require a complete dismantling of the existing state.

**The management system**

Improvements don't sustain without systems to support the new processes — specifically, a management system. Part of that system we've already covered includes finding a way to dese-

lect initiatives, establishing True North and tying new systems back to core principles of lean. There are many other activities too. For example, every day at St. Mary's Hospital in Kitchener, Ontario, Canada, managers meet with supervisors, lead-shift nurses, and team members in front of a visual management board documenting all continuous improvement work to talk through needs, discuss progress on improvement projects, and consider new ideas. Every current continuous improvement project is on one of these boards, with progress being tracked by the unit. Directors and vice presidents routinely attend these team huddles to observe, mentor and find barriers

they might be able to knock down. Managers, vice presidents and the president of the hospital also routinely audit standard work to look for deviations and to verify that the standard, as written, still describes the best way to perform the work.

The CEO at St. Mary's and his team help ensure that everyone has time for these huddles, status checks and gemba walks (meaning visiting where value is created for the patient), by declaring that every weekday morning between 8 and 10 a.m. is a no-meeting zone. During this time, all managers are focused on the needs of the front-line caregivers and on improving

**Figure 4: The Zuckerberg San Francisco General values and principles in three categories**

	[principles]	[leadership]	[management]	[front-line]
ALIGN	Create value for the patient. Create constancy of purpose. Think systematically.	Establish Direction	Organize & Translate	Set & Achieve Goals
ENABLE	Lead with humility. Respect every individual. Learn continuously.	Motivate, Mentor, Inspire	Empower, Involve & Coach	Develop & Share
IMPROVE	Focus on process. Embrace scientific thinking. Flow and pull value. Understand & manage variation. Assure quality at the source. Seek perfection.	Breakthrough Thinking	Monitor & Maintain Predictability	Adapt & Adjust

patient care instead of being locked away in department meetings.

There is a menu of health care standard work that has been proven by leaders at St. Mary’s and over 40 other hospital systems in the U.S. and Canada to work. In her book, “Beyond Heroes,” Kim Barnas documents much of this standard work, activities such as defining the standard work for a day of the manager. When I was asked by one of my sensei many years ago, “What in your day is value added to your customer?” and the answer was, “Nothing,” it became clear to me that I needed to develop my standard work. For senior executives, this looks different than for managers. My role included being at the gemba asking questions. Supporting my team by coaching and teaching A3 thinking. Focusing on True North and deselection. And managing the organization visually. No leader gets a pass on any of this, including administrative support functions.

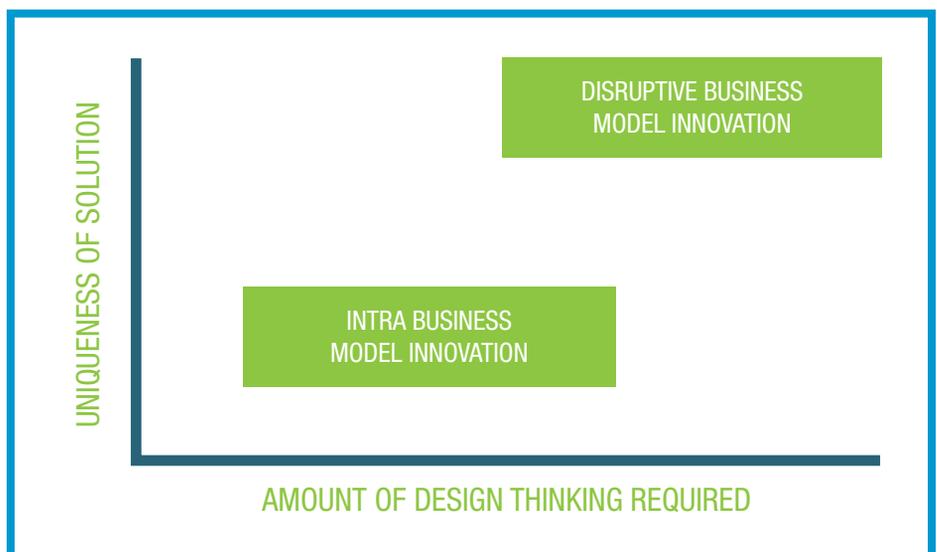
**The administrative support functions**

In health care, administrative support functions such as IT, finance and HR can catapult the journey forward or kill a lean transformation. Human resour-

es, the people in charge of people development and culture, many times have heavy organizational development backgrounds. They are the supposed experts in cultural development. Then along comes lean. This is threatening because it introduces a new set of principles that will have impact on culture. It’s not uncommon for staff engagement scores to drop early in the transformation journey. Since HR sees

this as their responsibility, they can put the brakes on blaming lean. In fact, it’s the change itself that is unsettling to staff. Any significant change is generally met with skepticism, and the lean transformation is no different. Two years into the lean transformation I led, I reported to the board the worst staff satisfaction scores in the history of the organization. That night at the board meeting, I asked the board

**Figure 5: Uniqueness of solution vs. amount of design thinking**

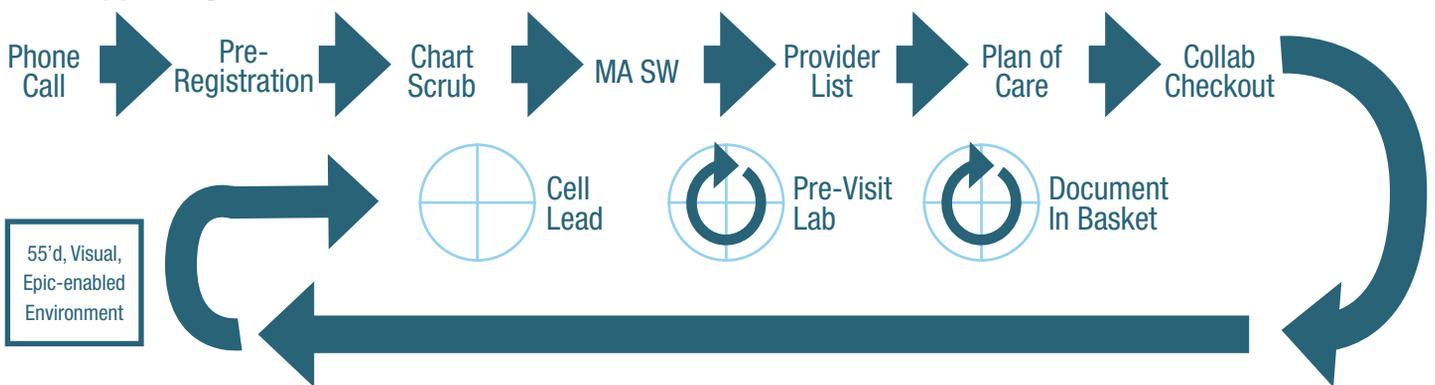


**Figure 6: The original flow of the ThedaCare clinic redesign in 2006**

*The Patient Experience*



*The Supporting Processes*



whether I should continue to forge ahead because it looked like I was destroying the place. The manufacturing executives on the board at the time said, “If the scores weren’t going down, we wouldn’t believe you were making change happen.” They had been through this in their own plants. They knew and could support what I was doing.

Once HR settles in, they play a critical role. There are many activities that need to be done, including developing a redeployment pool; setting a no-lay-off philosophy; and building a people development system that includes the key behavioral indicators required for sustainment of the lean journey. In health care, because the industry is so bloated with waste, most leaders are unwilling to set a no-layoff philosophy. They think they will slash their way to efficiency. This couldn’t be further from the truth, but it is the prevailing sentiment and is terribly damaging

to building an improvement culture. Salem Health in Oregon has developed a pool that employees can stay in for several months as they get retrained or redeployed to another area or department.

Finance is another important function supporting the model cell. Most manufacturing organizations have moved to rolling forecasts as a way to measure and improve financial performance. Health care is considerably behind. Forecasting is an estimate of likely future outcomes. It is where we think we are heading, adjusted quarterly (or more often) as new facts emerge. It is a far more accurate gauge of what will happen next quarter — what you will need in terms of resources and the amount of revenue you will likely pull in — and yet, in every company I know of that has switched to forecasting, it requires less time to prepare.

If we placed a hospital’s forecast next

to a traditional budget, you would not see a huge difference in presentation. There would be columns of numbers in similar categories all the way down the page. The real difference between a budget and a forecast is in the behaviors each tool provokes. A budget demands that managers and executives make a 12-month assumption that bends resources in their favor, and encourages blame over investigation. It is just too easy to say, “Bill didn’t hit his numbers; he’s a bad manager.” Forecasts adjusted with the environment are more accurate, and encourage proactive plan-do-study-act thinking.

Finally, getting the information needed to improve performance at the bedside is really important to support this radical change in thinking. Once organizations get good at daily problem-solving, the expectation for vital information rises. It’s hard to improve without near real-time information on

the business. In health care, we have spent billions of dollars on electronic health records, but have no information flow to show for it. We input data but can't get anything meaningful as outputs. The emergence of Clinical Business Intelligence (CBI) is changing that.

"CBI is an IT system that collects and analyzes data and delivers the results to frontline clinicians in real time, helping them to make better decisions. It can be used to keep clinicians informed about everything from infections and iatrogenic injuries (those caused unintentionally by physicians) to whether units are over- or understaffed" (HBR-2013). Leaders are needed to build the mindset, skill set and tool set required for success.

### Growth in the lean health care movement

A movement has begun in health care. It's lean health care. It's working, and more and more organizations are piling on the bus. We have developed a framework for success that, when followed, works. It's not a prescription, because there is no pill that makes a great lean leader. It's a compendium of examples and lessons learned that guide leaders through the rapids. It includes developing True North, deselecting strategic initiatives and deploying the critical few. It involves anchoring the organization in a core set of universal truths called principles. It involves creating a model cell supported by a central improvement office, administrative functions and a revolutionary management system that

replaces the usual autocracy in health care. The model cell is spread throughout the organization. It requires leaders to fundamentally change their behavior. The hardest thing is to build the culture of trust. It starts with sincere interest in the other person. Manifest by the type of questions asked. Do we genuinely care what the other person has to say, or are we looking for confirmation of our answers? Finally, listening is not waiting to talk. When all these systems and behaviors are in place, health care will change forever. We all know it can't come soon enough. ●

Dr. John Toussaint's health care improvement work using Toyota Production System principles has been well documented. He has been a featured speaker at the AME annual conference, and was inducted into the AME Hall of Fame in 2012.

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