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Breaking Bad Habits: the Decision to Implement Lean Sigma in Health Care Organizations and the Stages of Change Model

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“Health care is in a constant state of change,” we hear executives say. “We’re adding services. We’re responding to the realities of managed care and reduced revenues. We’re working with IHI, CMS, and the Joint Commission on their improvement initiatives. We never stop changing!” It’s true, of course. Health care executives feel, as the Red Queen explained to Alice, “Now, here, you see, it takes all the running you can do, to keep in the same place.”¹

Everyone in health care is working hard. No one disputes that. But what about the fundamental way the work is done? What about the processes that constitute the way care is delivered, and reimbursed? Are they as productive as they can be? Are they ready for change?

Some health care institutions have embraced Lean Sigma as a methodology to generate breakthrough change, but only a few have truly integrated it into the organization. Those that have report phenomenal success. Why aren’t others following their lead?

A way to understand the hesitance comes from an unlikely, though useful source: the Stages of Change Model (SCM). SCM was developed at the University of Rhode Island to understand how patients give up addictive behaviors such as smoking. The idea behind SCM is that behavior change does not happen in a single step. Rather, people tend to progress through different stages on their way to successful change. In addition, each of us progresses through the stages at our own rate.

The analogy with behavioral change in organizations is not far-fetched. It is SBTI’s experience that, like people, organizations develop and perpetuate bad habits and are reluctant to change. They are unwilling to let go of processes that are inefficient and unproductive. Why would a hospital allow an unacceptable surgery turnover time resulting in significant down time for surgeons and anesthesiologists and minimizing the number of scheduled procedures? Why would an Emergency Department accept unnecessarily high wait times that result in patients leaving without being seen, and taking their revenues with them?

Managing a health care organization with poor processes is a bad habit. Those habits, though, did not spring to life fully formed like Athena out of Zeus’ head. No one goes to work one day and decides to implement a crummy process. It takes years and lots of smart, committed people to create a bad process. So, the decision to break apart that

¹ Carroll, Lewis. *Through the Looking Glass and What Alice Found There*. Bloomsbury Publishing, 2001.

process, examine its core assumptions, and rebuild it can be as difficult as it is necessary. Before people and institutions come to a decision to change behavior, as we will see, they progress through predictable stages on their way to successful change. And they progress through the stages at their own rate. Those Stages of Change, outlined in Marc Kerns' scholarly work² are:

- Precontemplation Stage
- Contemplation Stage
- Preparation Stage
- Action Stage
- Maintenance and Relapse Prevention

Precontemplation Stage

During the precontemplation stage, patients do not even consider changing. Smokers who are "in denial" may not see that the advice applies to them personally. Patients with high cholesterol levels may feel "immune" to the health problems that strike others. Obese patients may have tried unsuccessfully so many times to lose weight that they have simply given up. (Kern, M., 2005)

Health care organizations, too, can be "in denial." You run a good hospital. The community is happy, the board is happy, the medical staff grumble but are basically content. You even have a comfortable, if slight, margin. Why change? Yes, some things could be better, but you have your hands full just running the place. Besides, you tried TQM and/or CQI. Those programs fizzled and you wrote a lot of large checks to consultants who are long gone.

There is no "burning platform." In his book, *Six Sigma: the First 90 Days*³, Steve Zinkgraf discusses the importance of establishing a sense of urgency for change to occur. To move organizations out of complacency, good leaders link the need for change to external realities, usually derived from two different sources: 1) the current organization is under siege now or will be soon; and 2) the organization will not exist in the long run if things do not change.

Health care organizations are very familiar with these realities. As health care continues to consume a larger and larger proportion of the gross domestic product (estimated to reach 20% by 2015⁴), price increases and cost shifting will lose their appeal. To survive, and to carry out their mission to the communities they serve, health care organizations need to drive out waste and reduce variation. Just what Lean Sigma is designed to do.

² Kern, Marc. Stages of Change Model. <http://www.AddictionInfo.org/articles/11/1/Stages-of-Change-Model/Page1.html>, 2005.

³ Zinkgraf, Stephen. *Six Sigma: the First 90 Days*. Prentice-Hall, 2006.

⁴ Borger, C., et al. "Health Spending Projections Through 2015: Changes on the Horizon," Health Affairs Web Exclusive W61: 22 February 2006.



Contemplation Stage

During the contemplation stage, patients are ambivalent about change. During this stage, patients assess barriers (e.g., time, expense, hassle, fear, "I know I need to, doc, but ...") as well as the benefits of change. Although they think about the negative aspects of their bad habit and the positives associated with giving it up, they may doubt that the long-term benefits associated with quitting will outweigh the short-term costs. On the plus side, people are more open to receiving information about their bad habit, and more likely to actually use educational interventions and reflect on their own feelings and thoughts concerning their bad habit. (Kern, M., 2005)

Integrating Lean Sigma into your organization and doing it well is, we acknowledge, a significant investment. The executive team will need to be engaged, as will the board and the medical staff. There will be resistance because...well, resistance to change is a natural occurrence. And change must be managed in a disciplined way. A guiding coalition will be established and an infrastructure developed, the vision and strategy will be created and communicated, and staff will be empowered to support the organization's goals.

Will it be worth the effort? A client hospital recently reported exceeding \$10 million in savings from their Lean Sigma program. That is the equivalent of creating, staffing, and managing a new \$200 million program with an ambitious 5% margin. Even more importantly, however, clinical processes are improved and patients are safer and happier with their care.

The short-term costs can be daunting, but there is both financial and cultural return on investment. Staff no longer accept inefficiency and waste as inevitable and are actively engaged in their elimination. There is better communication and a shared vision of the organization's future. It can seem overwhelming, but to distinguish your organization and assure its survivability requires a lot of hard work from a lot of people.

Preparation Stage

In the preparation stage, people have made a commitment to make a change. Their motivation for changing is reflected by statements such as: "I've got to do something about this — this is serious. Something has to change. What can I do?" This is a research phase: people are taking small steps toward cessation. They are trying to gather information about what they will need to do to change their behavior. During the preparation stage, patients prepare to make a specific change. They may experiment with small changes as their determination to change increases. For example, sampling low-fat foods may be an experiment with or a move toward greater dietary modification. Switching to a different brand of cigarettes or decreasing their drinking signals that they have decided a change is needed. (Kern, M., 2005)

During the preparation stage, health care organizations send out emissaries: to conferences, professional meetings, or even to places that have instituted Lean Sigma. Relevant books are purchased, literature gathered, and web sites searched.

An organization may even "test the waters" by sending someone to be trained as a Lean Sigma Black Belt. Although this provides exposure to the philosophy and methodology, it can ultimately be a dangerous strategy. A Belt or two or four do not constitute a Lean Sigma program. A well-integrated Lean Sigma program requires leadership commitment, a supporting infrastructure, and carefully selected and prioritized projects tied to strategic imperatives.



Often, a Belt returns from training only to realize that all of the old job responsibilities are still there, but now (s)he is a Belt and, oh, by the way, start saving us money. It can lead to frustration for the trained resource and the organization concluding that Lean Sigma does not work. Incremental implementation of a Lean Sigma program can be achieved but success is less likely and, anyway, it wastes time when full benefits can be realized more quickly.

Sometimes, the preparation stage is accelerated from the outside. We know that at least two of the handful of hospitals with successfully integrated Lean Sigma programs were encouraged to do so by local industries. Those companies had experienced the merits of a Lean Sigma program first-hand and wanted their employees' health care to have the same rigor.

Action Stage

The action stage is the one most physicians are eager to see their patients reach. Many failed New Year's resolutions provide evidence that if the prior stages have been glossed over, action itself is often not enough. Any action taken by patients should be praised because it demonstrates the desire for lifestyle change. This is the stage where people believe they have the ability to change their behavior and are actively involved in taking steps to change their bad behavior by using a variety of different techniques. People in this stage tend to be open to receiving help. (Kern, M., 2005)

Once it reaches the action stage, the organization faces a dilemma: to deploy Lean Sigma using only internal resources or to bring in a Lean Sigma provider to add to the resources? Dr. Zinkgraf reports that few companies deploy Lean Sigma successfully when relying on internal resources alone. In fact, nearly all major Fortune 500 company deployments have used an outside provider. He asks, "Would you rather have a few internal people who have seen one or two [Lean] Sigma deployments, or hire an external group with experience with a few dozen deployments?"

When the decision is made to engage a provider, the organization needs to decide which provider. We think it's simple but others may disagree. To the rescue, Dr. Zinkgraf's book provides a chapter on selecting a Lean Sigma provider. He describes such criteria as corporate history; corporate deployment history; experience in your industry; thought leaders, customization, and flexibility; intellectual property portfolio; and bench strength (i.e., consultant experience).

With the decision comes the fun. SBTI recommends that the early phases of implementation include planning for, creating, and rewarding early wins. Early results are the best way to drive change and to win over the organization. As people realize that their lives are going to be easier because of vastly improved processes and the CFO begins to see financial rewards, they become almost evangelistic about the program.

Maintenance and Relapse Prevention

Maintenance and relapse prevention involve incorporating the new behavior "over the long haul." They remain aware that what they are striving for is personally worthwhile and meaningful. They are patient with themselves and recognize that it often takes a while to let go of old behavior patterns and practice new ones until they are second nature to them. Even though they may have thoughts of returning to their old bad habits, they resist the temptation and stay on track. (Kern, M., 2005)



Unlike TQM and CQI, as a change methodology, Lean Sigma is not the fad-du-jour. It has legs. One thing that distinguishes Lean Sigma is the development of an organizational guiding coalition and a supporting infrastructure. Another distinguishing factor is the Control phase, the “C” in the DMAIC roadmap. This is the most difficult and most important phase of any Lean Sigma project. By establishing a Control Plan, with its standard work, mistake proofing, and performance monitoring, leaders ensure that breakthrough improvements are permanent, not subject to the caprice of organizational life: turnover, distracted supervisors, and, yes, even staff indifference.

This being said, people and organizations need to prepare for relapse prevention. For example, the life cycle of a Black Belt can be brief. Once they acquire the tools, skills, and mindset of Lean Sigma, they often move up within the hierarchy of the organization. These resources need to be periodically replenished. There may also be management changes. The organization should screen new executive and director candidates to assure they are at least open to Lean Sigma. Once hired, training is the best way to assure continuity.

In SBTI’s experience, it takes about two years for an organization to integrate Lean Sigma and become self-sufficient. Most of the external intervention is done up front and the organization quickly takes the lead in its implementation. It does take a while to “to let go of old behavior patterns and practice new ones,” but good consultants are good coaches and will encourage the organization to stay on track.

Conclusions

To those health care organizations struggling with the decision to integrate Lean Sigma, we say be patient. The decision is itself a process. We would love to hear from you but we’ll be here when you are ready. In the Red Queen’s advice to Alice that, “it takes all the running you can do, to keep in the same place,” she adds, “If you want to get somewhere else, you must run at least twice as fast.” Maybe, but you don’t have to do it alone.

