



# Reimagine Healthcare

Using 'lean' lawn-mowers to create leaner healthcare



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- 'Lean' manufacturing principles can be valuably applied to healthcare
- Toyota began system which breaks down processes and eliminates waste
- ThedaCare was one of the first healthcare organisations to experiment with lean
- Healthcare providers around the world are adopting the philosophy

Twice a month, every month, 30 healthcare chief executives descend on a non-descript office block in Appleton, Wisconsin. They are drawn from countries around the world, united by a common desire: to understand how a health system took principles used by a local snowblower and lawn-mower manufacturer and used them to transform care.

The office building is home to the ThedaCare Center for Healthcare Value – a pioneer in the use of ‘lean principles’ in healthcare since it was established in 2010. The story of the ThedaCare health system began over a decade ago, when its then chief executive, John Toussaint, visited a nearby lawn-mower factory in east Wisconsin.

“John is a physician – he was ThedaCare’s chief medical officer before becoming CEO – and so he had a unique position in looking at our organisation from a clinical as well as an administrative viewpoint,” remembers Kim Barnas, then in senior management at the health system and for the past year president of the separate ThedaCare Center for Healthcare Value.

### **Improving quality, eliminating waste**

“Like most leaders, one of his major concerns was quality. And so we began looking at different quality programmes around the country, and at a local manufacturer John was exposed to the concept of lean.” The concept originated in Japan – it was developed by Toyota – as the Toyota Production System and focuses on eliminating waste within a system, so creating more value. Both ‘breakthrough’ and ‘continuous improvement’ are key themes in the philosophy.

Dr Toussaint and ThedaCare colleagues were convinced lean could be applied to healthcare, and so hired a consulting firm and began experimenting. The first step was to create value streams for breakthrough results. “What that means is how a patient flows from the identification of a problem until the problem is resolved,” explains Ms Barnas. “You break down that value stream into all of the steps and the components that goes into it – you involve your staff, your community members, your physicians and your leadership – and you identify the waste in that process.”

Phase two was what the organisation termed rapid improvement events. “They’re one week events where you bring the same constellation of people together to look at the problem and remove the waste and solve the problem – solve the problems in flow, solve the problems in quality. You work each step, one at a time, and then you implement the action plan.”

### **Impressive savings, but further to go**

The results were impressive. In the first year alone, enough waste was eliminated at ThedaCare to save \$25m. Around the same figure was saved in year two. By year three, the organisation stopped tracking savings. “We recognised the system worked, and it was waste to track the costs,” explains Barnas.

Which is not to say the journey was complete. Having made

such significant improvements, the challenge proved to be sustaining them. Part of the problem was the tools-based breakthrough focus of this lean work produced results that did not include the ability to assimilate, sustain and improve processes on a daily basis.

“My managers and leaders were coming to me saying ‘we’re changing the way our people do their work with lean, but we’re not changing the way we lead, or the way we manage, and it’s disrespectful, it’s not effective, we’re afraid we’re going to fail,’” she remembers.

Work therefore began on embedding the lean philosophy within management structures. It was a task aided by collaboration with a lean expert in pharmaceuticals and dentistry, and another in the aeronautical and automotive industry.

“They said a profound thing to me,” says Barnas, “that lean comes out of the Toyota production system, and the Japanese have a different culture than you do. We’ve been taught how to use the lean tools, but not how to manage the culture.”

It was an exciting realisation. “We discovered the process that we used for value streams, rapid improvement events and planning, it’s just one piece of lean. That’s the tools piece. But there’s a bigger framework.”

“You’ve got to have guiding principles and your support services need to be brought into those principles, learn the lean tools, and have a way of supporting the operations. So finance, quality departments, human resources departments, are critical to the success. You need to have a process improvement plan, with a team of people in your organisation that can help, and leaders have to change their behaviours and utilise the management system to pull it all together.”

This “full framework” of lean is what staff at the ThedaCare Center for Healthcare Value teach visiting chief executives. They have shared their knowledge with leaders from across North America, but also with those from health systems in Brazil, Europe, Australia, China, Tanzania, South Africa and the United Kingdom.

### **Same principles, same problems, different cultures**

“Our current strategy is to create 12 model cells around North America, and one in each of the continents, so you can develop systems based on your cultures and your healthcare needs.”

In the UK, Barnas fully expects Western Sussex Hospitals NHS Foundation Trust to create its own spin on the lean theme. Barnas and consultants at KPMG are working with the organisation to embed the philosophy, and to tackle the perennial question: ‘how can we deliver better care at a lower cost?’.

“Because no matter what your culture is, we are dealing with the same problems,” reflects Ms Barnas. “That’s what I’ve learnt. That, and snowblower and lawnmower production has more in common with healthcare than you might think.”

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