

Seamus Ward explains why following the likes of Toyota with the introduction of 'Lean' thinking could offer the NHS an opportunity to 'work smarter, not harder'.



# thinking lean

■ **We have all heard about – if not experienced – queues in Tesco suddenly getting shorter; not because frustrated shoppers have stomped off in a huff but because the store has opened more tills.**

Car maker Toyota famously runs highly-efficient assembly plants where the parts needed in each shift arrive minutes before workers clock on. But what have the business practices of Tesco and Toyota got to do with the NHS? Well, quite a bit, according to the latest managerial thinking sweeping the health service.

Tesco and Toyota – together with the RAF and the Royal Navy – are the leading exponents of 'Lean' thinking in the UK. The idea, pioneered by the car makers in the 1940s, is to redesign services by removing practices or stages in a process that does not add value to the customer. Essentially it is a practical Feng Shui, removing the clutter and barriers that disrupt the patient journey from being unwell to (hopefully) being cured.

## more efficient

As well as happier customers, Lean organisations should be more efficient – the Holy Grail of all public sector bodies, including the NHS. In June, an NHS Confederation survey found that 95% of chief executives believe the Service must increase productivity and cut waste

before they can justify more funding in the Government's next spending round (next summer). The chief executives said they could release the most resources by getting better value for money from clinical processes and staffing – areas where Lean could have an impact.

The potential for Lean thinking in healthcare is massive, according to Neil Westwood, Associate in Service Transformation at the NHS Institute for Innovation and Improvement. The Institute is leading implementation of the initiative in the health service.

"The NHS is no different to any other industry or private sector company. Lean works effectively if you have a process and all organisations have processes. Lean is just as relevant to the NHS as it is to Tesco," he says.

"People, especially doctors, challenge us and say the NHS is not like a factory but to be honest a hospital is just like a factory. There are lots of processes that share resources. We have estimated that about 80% of the Lean tools and mechanisms can be applied to healthcare."

These include improving the flow – entering data only once or reorganising equipment and furniture so staff do not need to make unnecessary trips around their department, for example – empowering staff and reducing the cost of mistakes by correcting them as they happen.

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"Fundamentally, people need to match resources to demand. You need to understand how many patients are seen or tests are done in a day and then manage your resources, staff and equipment, around that. For example, one A&E department had four nurses on duty regardless of how busy they were. Around 11pm demand doubled but they still had four nurses. They needed to create some flexibility around the staffing so they had more on duty at the busiest times," Mr Westwood says.

## quick and cheap results

He adds that Lean produces results quickly and cheaply. The pathology lab at Hereford Hospitals Trust is one of the pioneers of Lean in the NHS. In June, with the help of experts from the NHS Institute, it completed a seven-day challenge to improve with startling results.

Turnaround times for tests were reduced by 40% by introducing simple steps. Samples are now sorted by the porters who drop them

off rather than lab staff. No specialist knowledge is needed – the porters sort the samples by matching the colour of test request slips to colour coded boxes in reception. Double handling of samples has also been eliminated. At the end of the seven-day challenge, the NHS Institute estimates that if the quicker turnaround of pathology samples allows 1% of patients to be discharged quicker (a conservative assumption, according to Mr Westwood), the Trust will save two beds a day or £365,000 a year.

“You don’t have to spend months and months training your workforce to operate Lean, though you need some expertise to get it started,” Mr Westwood adds. “You make people aware of waste, not just in terms of throwing something away but in terms of waste of your time. That’s when the penny starts to drop. Staff at Hereford now finish 15 minutes early – that’s quite a motivation – and that time can be used to plan for the next day.”

The Institute says only 5% of NHS activities is value adding – the trick is to maximise the value-adding steps and eliminate the unnecessary waste.

#### step back

Much of the time this can be done by asking why things are done in a certain way. Often, the answer is, ‘because it has always been done that way’. Mr Westwood says processes are often made more complex as, say, new clinical requirements or new pieces of equipment are introduced in a time-pressured environment. Lean offers a chance to step back and simplify the process.

He adds that management must lead the introduction of Lean thinking. “Leaders have to actively demonstrate they support this and want it to be a success. If not, the results will

not be sustainable. They must spend time listening to the staff – in Toyota 80% of the managers’ time is spent on the shop floor. They don’t have offices, which forces them to go and talk to people to see how processes can be improved.”

#### putting it into practice

Such leadership is evident at Bolton Hospitals Trust, where its Chief Executive David Fillingham (the former Chief Executive of the NHS Modernisation Agency) has overseen the application of the Lean model in pathology, orthopaedic surgery and trauma. With the help of RAF technicians, death rates for patients having hip operations have fallen by a third, while the paperwork in the trauma unit has been reduced by 42% and the space needed by the pathology lab cut in half.

Following a redesign of the whole process of caring for trauma patients over a nine month period, the waiting time to go from A&E to theatre was cut from 2.4 to 1.7 days and the patients’ stays in hospital reduced by 32% (34.6 to 23.5 days).

Lean reduced the Trust’s pathology department’s sample turnaround time to between two and three hours from between 24 to 30 hours.

“When we started out, some people were very sceptical. But I’ve never seen anything that energises staff in this way. What makes Lean so powerful is that it engages the enthusiasm of front line staff,” says Mr Fillingham.

Though he believes Lean could save the NHS hundreds of thousands of pounds, Mr Westwood concedes Lean will not be an immediate cure for the health service’s financial woes. “It will save cash eventually but Lean is a long-term strategy and cash

will not come out overnight but over three to five years. But Lean is not about sacking people. It’s about improving processes and as a result you may not need as many staff but a true Lean organisation would redeploy these staff elsewhere in the organisation to improve that area.”

#### waste elimination

The Confederation agrees – pathology staff at Bolton who were no longer needed have been redeployed – and it argues a slash and burn approach to cost cutting would squander the opportunities provided by Lean. It argues Lean is not about improving productivity by sweating assets harder but its goal is the elimination of waste.

Former Health Secretary Alan Milburn often encouraged the NHS to ‘work smarter, not harder’. Lean could offer the NHS the opportunity to do just that. ■

Seamus Ward is a freelance journalist