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Healthcare Pressures Pushing Demand for Lean Six Sigma Process Improvement to Streamline Hospital Services and Reduce Costs



Michael Grealy
Industrial Reporter, Australian Metropolitan

The perfect storm of rising demand for services, budgetary constraints, and higher customer expectations is driving healthcare managers to seek Lean Six Sigma training to improve their processes and efficiency. In Australia's most populous state, the latest NSW (New South Wales) public hospital activity figures tell the story – in the March 2016 quarter hospital emergency department patients were up four per cent, patients treated and admitted to hospital up five per cent and the waiting list for elective surgery was up two per cent compared with 2015.

It's a trend that's led Australian headquartered global professional development services company, PD Training, to have veteran process and improvement management expert Hans Pihl specifically adapt the Lean Six Sigma (LSS) training courses for local health services.

John Belchamber, PD Training's Enterprise Relationship Manager, says the company has experienced a marked increase in demand in the past year for process training from healthcare, aged care and NDIS providers – all expected to create more value with fewer resources.

"We've adapted our Lean Six Sigma training to be as relevant as possible to their working environment. Healthcare, aged care and NDIS providers are just like other sectors in facing higher service expectations from their customers, managing budgetary pressures and needing to become more productive and efficient."

Manufacturing Methodologies Adapted to Healthcare Improvements

Lean Six Sigma is a process philosophy that puts customer expectations at its core, used globally by organisations to eliminate waste and improve efficiency.

In healthcare, it's a prime tool to solve not just age old challenges of ballooning waiting lists, but key to saving vital dollars at a time when budgets are being reallocated and cut.

While LSS methodology derives from Japanese and US manufacturing sectors, Hans Pihl says hospitals and allied health environments are highly suited to the philosophy and the sector's understanding is growing about how to use LSS to improve efficiency and quality.

LSS combines the principles of Lean Management, the continuous improvement approach through small, incremental changes in processes, with the Six Sigma process, (introduced at Motorola in 1986) geared to eliminating defects and variations in a process.

According to Mr Pihl, the principles of LSS are relevant to healthcare. He confers, "LSS is about creating more value for customers with fewer resources and this has as much relevance to the health sector as for manufacturing, retail or any other sector.

"Hospitals today need to do more with less. They are under pressure to reduce waste, cut costs, reduce waiting times for operations - much as manufacturing seeks for process cycle times - and increase customer satisfaction without jeopardising patient care. They too have to look at eliminating non value-add activities."

Fusing Florence Nightingale Principles with Industrial Management Processes

Mr Pihl uses nursing pioneer Florence Nightingale as a role model. "She was probably the first to use Six Sigma-type techniques and tools in 1854 when she arrived at the military hospital in Scutari during the Crimean War," he said.

"Ten times more soldiers were dying in hospital of diseases such as typhus, typhoid, cholera, and dysentery than from battle wounds. Florence Nightingale is famous for her statistical work that gave an accurate portrayal of the relative causes of war hospital deaths.

"She looked at why more were dying in the hospital. Her conclusions about poor hygiene, diet, sanitation and so on, their relation to mortality and how to lead and organise change, are particularly meaningful today."

As a lead LSS trainer for PD Training, Hans Pihl brings 30 years of international business experience in operations, manufacturing, and R&D across Europe, Middle East, and Asia.

He drew on process improvements in the health sector in the UK and Scandinavia in developing course material before delivering LSS training recently to healthcare workers from areas such as strategic development, project management, procurement, auditing and ITC at a hospital in south-east Queensland.

Mr Pihl says the health sector generally needs to apply the customer philosophy in its change agenda and have leadership that champions process innovation.

"Everywhere there is a process, there is a waste - we have delays, interruptions, breakdowns. If you look at the public hospital system there are waiting lists for surgery or treatment and we know long waiting times for surgery have been associated with poorer health, quality of life and patient outcomes. **

"If we put the patient customer at the centre of the equation we have a huge opportunity to review that and improve health care for people. The National Health Service in the UK has looked at the root causes of waiting times and reported dramatic reductions through LSS."

Lean Six Sigma Significantly Reduced Waiting Times for Procedures

An NHS study of Hereford Hospitals using LSS showed a 42 per cent reduction in waiting times for MRI scanning, a 60 per cent fall in CT scan waiting times and a 97 per cent drop in waiting times for Ultrasounds.***

Mr Pihl said: "In Australia services like pathology and X-rays have become very process driven but not at the expense of the customer experience or treatment.

"It's all about managing the process to meet customer expectations. If you are going in for a blood test you'd like it to take five minutes. It's like expecting to get a hamburger in thirty seconds.

"It's as much about a culture shift as it is about a process shift. In LSS, when things don't work, we don't blame people, 85 per cent of the time it's the process. So it's integral that senior management sign up for it and are part of the change to build infrastructure and support it."

Mr Pihl said for LSS can be applied in test pockets of a hospital or healthcare facility - for example by personnel in the an application process for a job or patient information form - with a simple process that participants own and where there is no interdependence.

"Find some standalone situations, for example, a process for procurement, inventory control or waiting time for specific treatment. Greater control over warehouse stock, more accurate picking, less error in packing, find out why that is to get to the root cause and then develop a new process to avoid outstanding orders. It is basically about right goods to the right place at the right time, which will benefit the patient," he said.

"You break it down step by step to see where the value add is and where it's not and determine what you are willing to pay for and what you're not."

Limited Data Collection Restricts Innovation Potential

Sub-standard data collection in healthcare, too many systems and lack of integration may hamper any ability to innovate, according to Mr Pihl.

"It's not uncommon for people to question the integrity of data and not use it. From an LLS perspective we ask what we need in data, identify time delay and things that do not add any value to the patient and question our current processes and ask how it should look in the future. We would then change our process and ways of collecting data to build that future."

PD Training has delivered Six Sigma certification courses to healthcare workers in Brisbane, the Gold Coast and Sydney and leadership and customer service training to organisations in the aged care and disability services sector in Perth, Adelaide and Sydney.

John Belchamber added: "The increased focus on service in the National Disability Insurance Scheme is due to change in the funding structure where the client can now has the money and decides which provider to spend it with. This means that service is now a key factor if you are going to have clients choose you and stay with you as a provider.

"In other areas of health cutbacks in funding mean that people need to 'do more with less' and therefore they're looking at Lean Six Sigma to improve processes."

AUTHOR BIO: Michael Grealy is a communications professional and trusted adviser with 40 years' experience in journalism and media relations. Michael was a successful industrial and political reporter and feature writer for Australian metropolitan daily and Sunday newspapers. He has also been a media adviser to two Premiers in NSW.

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