



Implementing Lean thinking in nursing homes (Part 1)

This case study showcases a nursing home that has implemented Lean thinking in a workflow optimisation project. The project team involved had undergone a series of structured learning workshops and onsite project implementation. The team was also guided by a coach from the Lean Transformation Innovation Centre (LTIC) to potentially resolve the manpower constraints of inpatient long-term care service.

Prologue: The pain point and background

For a prolonged period of time, staff nurses have raised concerns on inadequate manpower for the morning shifts as it included assisted bathing duties. In view of the aging population, the nursing management has been under pressure to redistribute existing nurses and recruit more nurses to manage the increasing number of residents. Likewise, Human Resource departments have been questioned due to the over-allocation of nurses to the hospital. Hence, there should be measures in place to mitigate these burgeoning issues.

Act 1: Swinging into action

To address these issues, representatives from various departments met to discuss staffing issues at the ward. Despite having some initial differences on the focus of the project, the team successfully came up with the problem statement together. In an attempt

to reconcile diverse interests, the coach facilitated the discussion and drove it towards Quality and Delivery.

One team member described the problem as follows:

“The focus should be on helping the nurses rearrange the schedules for morning shifts because they are very short-handed. For morning shifts, we need a certain number of staff to operate smoothly. If we do not have enough nurses for the morning shift, will they be rushing their work and hence be unable to deliver on quality care?”

This feedback highlights the need to streamline morning ward processes to sustain quality care (Quality aspect).

Another team member made the following comment:

“We have occasional complaints from our own ward nurses about being understaffed during 7 to 9am.”

This demonstrates a need to look into rebalancing staff workload as a way to improve the situation at the wards (Service Delivery aspect).

The Lean¹ project typically focuses on four key cornerstones – Safety, Quality, Delivery and Cost. The session ended after a classic Lean Plan-Do-Check-Act cycle was implemented to tackle the re-engineering project.

Act 2: Understanding the current state and setting targets



Daily, at 7am, the ward nurses will line up the long-term care residents in each ward for bathing. Thereafter, at 7.10am, the nurses will prepare the wheelchair-bound and bedridden residents for assisted bathing in specific shower rooms.

Nurses in charge of bedridden residents will transfer the residents from their sleeping beds to the trolley beds. One of them will then wheel the residents to the designated shower room, while another nurse stays to tidy up their sleeping beds. Those in charge of bathing will move the bedridden patient into the shower room, where they have about 6-8 minutes to bathe each patient.

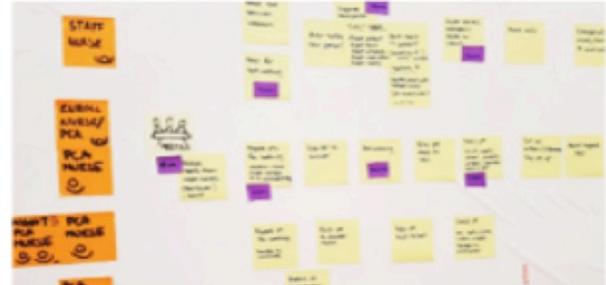
Nurses in charge of wheelchair-bound residents have a simpler process than those in the former group as these residents are able to bathe themselves and are not fully reliant on the nurses to assist them.

The target is to complete the bathing procedures for all warded residents by 9am. The nurses will then clean the showering area and prepare themselves for remaining morning duties.

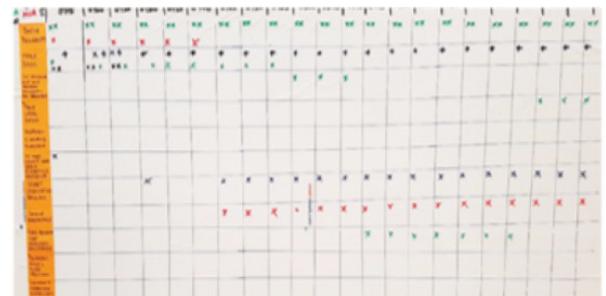
Some nurses shared their feedback on the showering process:

“Sometimes, residents on wheelchairs may not be cooperative due to their moods and personalities. This makes the work of bathing them even more challenging and tedious.”

“Even though the bathing process is expected to be completed by 9am, we do not want the nurses to rush while doing it. If they rush, the residents may not be thoroughly cleaned and could possibly develop rashes on their skin.”



Morning bathing process in Swim Lane format



Morning shift activity chart

To further understand the work process and better allocate the workload, the team created a swim lane² process map. The map reflected the current morning activity chart and an estimated activity chart for each role between 7 to 9am. This has enabled the team to visually track the workload for each job role. ■

Glossary:

- ¹ Lean is about maximising customer value while minimising waste. Key benefits include improved quality and safety, cost reduction, shorter lead time and continuous improvement.
- ² A Swimlane diagram is a flowchart that delineates the personnel and his task in a process.



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Mark is in charge of delivering Lean training and projects to various industries, including SMEs. The center aims to promote and develop lean practices among local enterprises, and drive adoption of Lean thinking, culture and mindset through the partnership with the Lean Enterprise Institute. Since its inauguration in Aug 2016, the center has supported more than 30 companies on their Lean journey. Prior to joining LTIC, Mark was a Lean Six Sigma Black Belt practitioner with the private sector for more than 15 years.



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David is a certified Lean Six Sigma Black Belt practitioner and a certified QMS Lead Auditor for ISO9001. He has more than 15 years of experience practicing and applying Lean methodologies. He is also well-versed in applying other quality improvement tools such as Agile and Scrum, across different industries. David also conducts public workshops and masterclasses.