



In October 2019, I presented a workshop on applying Lean Six Sigma in Hospitals to a group of 25 Health Information Managers at the 2019 HIMAA/NCCH National Conference held in Paramatta, NSW, Australia. HIMAA is the Health Information Management Association of Australia while NCCH is the National Centre for Classification in Health, The University of Sydney.

The workshop was designed to help participants to:

1. Assess a quality problem or area for improvement.
2. Identify possible routes to dealing with it.
3. Evaluate potential solutions.
4. Choose an approach that has a reasonable chance of success.
5. Select tools and methods suited to the problem and the approach chosen.
6. Use the tools and methods to address the problem.

BACKGROUND

While Lean is now regarded as synonymous with the Toyota Production System (TPS), pure lean is concerned with the elimination of waste (“muda”).

Lean methodologies “allow an organisation to efficiently and effectively design workflow processes by eliminating mudas (or wastes).”(1)

The seven original “muda” are transport, inventory, motion, waiting, over-production, over-processing and defects. The TPS has two fundamental pillars, Just-in-Time and Automation, is concerned with the improvement of flow and focuses on three key forms of waste:

- “muda” is work which adds no value;
- “muri” is work which is too complicated or uncontrolled; and
- “mura” is work which lacks uniformity or consistency.

Six Sigma, developed and applied in manufacturing industry, is a “process-focused, statistically based approach to business improvement...” (2)

The structured method used is to Define, Measure, Analyse, Improve and Control (DMAIC) and the core performance metric is the number of defects per million opportunities (DPMO).(3)

Lean Six Sigma is an amalgam of aspects of each, balancing the qualitative, value driven ‘doing the right thing’ of Lean with Six Sigma’s empirical quantitative measurement of ‘doing things right’.

The framework introduced in this workshop was developed in an attempt to answer the apparent failure of Lean Six Sigma in quality improvement in healthcare.

While the framework is focused on Lean Six Sigma, it is not necessary to adopt the philosophy as the tools and methods can be, and have been, utilised in many different settings.

IN THE FIRST PART OF THE WORKSHOP WE EXPLORED AND DISCUSSED:

(i) The topic of using Lean Six Sigma for quality improvement, including the philosophy, strengths, weaknesses and critical success factors; and some of the most widely used methods and tools;

(ii) What makes healthcare different from other settings, especially key characteristics unique to healthcare, including individual patient variation and clinical independence;

(iii) The concept of simplification as an alternative to complexity and intensification.

THE SECOND PART OF THE SESSION CONSIDERED:

(iv) the potential usefulness and transferability of a decision support framework designed for the acute hospital setting;

(v) A new decision support framework designed for the acute hospital setting; and

(v) The seven basic tools of quality

THE FINAL PORTION OF THE WORKSHOP:

Focused on using the framework to examine some real life case studies to better understand the framework, methods and tools proposed.

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