

LEAN HOSPITAL

What is “Lean”



What is “Lean”

- A tool set
- A management system or method
- For continuous improvement and employee engagement



Lean Enterprise Institute ..

“set of concepts, principle and tools used to create and deliver most value from the **customers’ perspective**”

Ohno’s definition ..

“time based approach: reducing delays leads to better quality and lower cost”

Lean History

- Also known as Toyota Production System (TPS)
- Initiated in “1945”
- Documented in “early 1980s”
- The term lean credited to Jon Krafcik, a researcher from the Massachusetts Institute of Technology (MIT)
- Toyota use the phrase “Build people, not just cars”

Toyota way Philosophy

1. Continuous Improvement (*kaizen*)
2. Respect for people
 1. Waste (*Muda*)
 2. Overwork (*Muri*)
 3. Uneven workload (*Mura*)

Respect for people

1. People are organization's most valuable resource
2. Maximized – involvement, responsibility, accountability
3. Minimized - Hierarchy
4. Team work – valued and rewarded
5. Expect – self-determination, self-motivation, self management
6. Continuous - Personal and professional growth, expanded delegation
7. Organizational leadership - necessary

The power of Lean

When properly deployed, Lean is:

- A continuous improvement system to improve work and outcomes
- A business system to execute business processes and principles
- A management system of how to lead and empower the people



Value - Starts with customer

Who are customers of health care?

Do the provider and consumer has similar value?

Demonstration - 1



Value-added activity or Non-value-added activity?

1. The customer must be willing to pay for the activity
2. The activity must transform the product or service in some way
3. The activity must be done correctly in the first time

Example

Department	Role	VA Activity	NVA activity
Operating Room	Surgeon	Operating on patient	Waiting for delayed procedure
Inpatient Unit	Nurse	Administering medication to a patient	Doing office job

Department	Product	VA Activity	NVA activity
ED	Patient	Being treated	Waiting to be seen
Lab	Patient specimen	Being tested	Waiting to be moved as "Batch"

Selected Lean Tools

Lean Tool	Definition
Kanban	Japanese term “Signal”
5S	Method for organizing workplaces to reduce wasted time and motion for employees, making problems more readily apparent
Kaizen	Continuous Improvement
Error Proofing	Method for designing or improving processes so errors are less likely to occur
Visual Management	Method for making problem visible, providing for fast response and problem solving

Kanban





5S demonstration

5S

Before:



After:



- Sort
- Set
- Shine
- Standardized
- Sustained

Kaizen

- Key Lean strategy
- Meant to be a daily process by which many small improvement processes are implemented in an ongoing basis
- Should not be a bureaucratic process
- Allow employee engagement and ownership

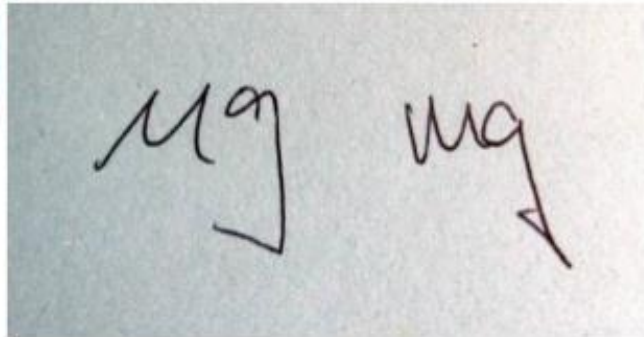
Kaizen Event

Plan-Do-Check-Act (PDCA)

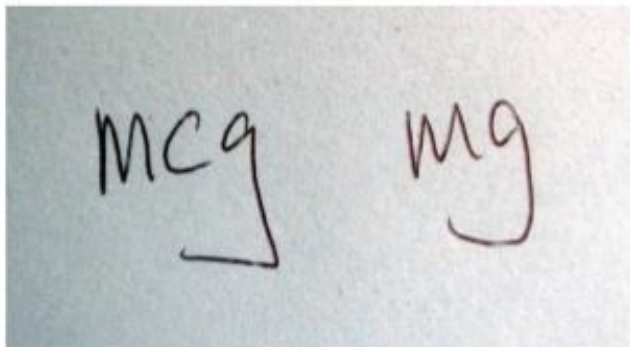
Plan-Do-Study-Act (PDSA)

1. Conduct training on Lean, Kaizen, observe current process
2. Establish goal, Brainstorm, identify and discuss improvement opportunities
3. Start implementing discussed improvement process
4. Study the result by comparing with old result
5. Documentation

Error Proofing Example



Confusing



**Unambiguous
(Lean)**

Waste

- Non-value-added, Not-necessary
 1. Defects
 2. Overproduction
 3. Overprocessing
 4. Waiting
 5. Motion
 6. Transportation
 7. Inventory
 8. Human Potential

Visual Management

- Demonstration

Reporting

A3 Thinking is a

- Reporting system
- Living document
- Motivational tool
- Summary of all efforts
- Compact (All in A3 size paper: 11.69" x 16.54")
- Easy to understand

9 Boxes in A3

1. Reason for action
2. Current State
3. Target State
4. Gap Analysis
5. Solution Approach
6. Rapid Experiments
7. Completion Plan
8. Confirmed State
9. Insights (Lesson learnt)



□ References

1. Lean Hospitals: Improving quality, patient safety, employee engagement, Second edition by Mark Graban
2. VA case, Yellow Belt certificate training, Dorn Veteran Affairs Hospital, Columbia, South Carolina, USA



Thank you
Question?