



Improving the Enterprise

Learning Objectives

At the end of this module, you will be able to:

- **Recognize that enterprise improvement requires more than “local lean thinking”**
- **Describe how lean organizations are able to adapt to external constraints and disruptive events**
- **Participate in a Rapid Process Improvement Workshop to achieve larger-scale lean improvements**
- **Implement a Daily Management System**
- **Describe some of the difficulties of large-scale change**
- **Explain a future state map for a process**

Enterprise Issues

- **HC operations are often impacted by decisions made at higher enterprise levels**
 - **Regulations, insurance, billing...**
 - **Resource constraints and performance demands**
- **HC networks need (ultimately) to be optimized at an enterprise level**
 - **With poor coordination, local optimization may sub-optimize the enterprise (and vice-versa)**
 - **Done right, enterprise resources and removal of enterprise constraints may allow much greater efficiencies at the local level**

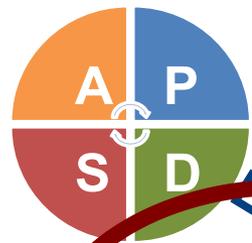
Constraints and Disruptions

- **Higher level decisions and systems may appear as constraints to local attempts at lean**
 - **Billing and paperwork requirements**
 - **Hiring rules, credentialing requirements**
 - **Budget cutbacks**
- **Higher level improvements may appear as disruptions to local attempts at stable process**
 - **EMR**
 - **Consolidations, HC networks**
 - **Changes in insurance or law**

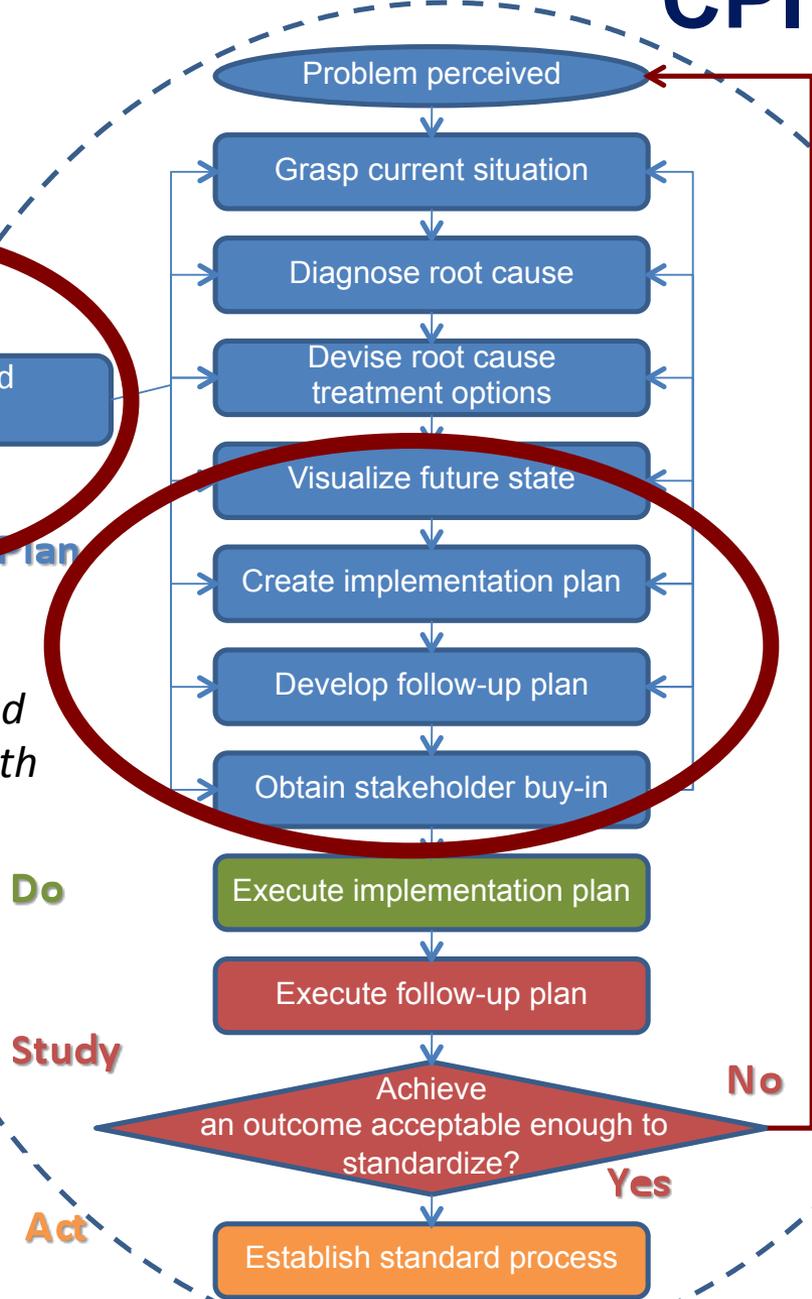
Living with change

- **Lean organizations are, by their nature, adaptable to change**
 - **Process orientation allows efficient process change and quicker stabilization**
 - **Standardization means fewer things have to change (i.e. change and train the standard, not many individual processes)**
 - **Rapid cycle time means changes take effect quicker**
 - **Continuous improvement culture means people are practiced at change, know how to minimize disruptions, quickly stabilize the new state**

Higher level change requires greater levels of organization and planning



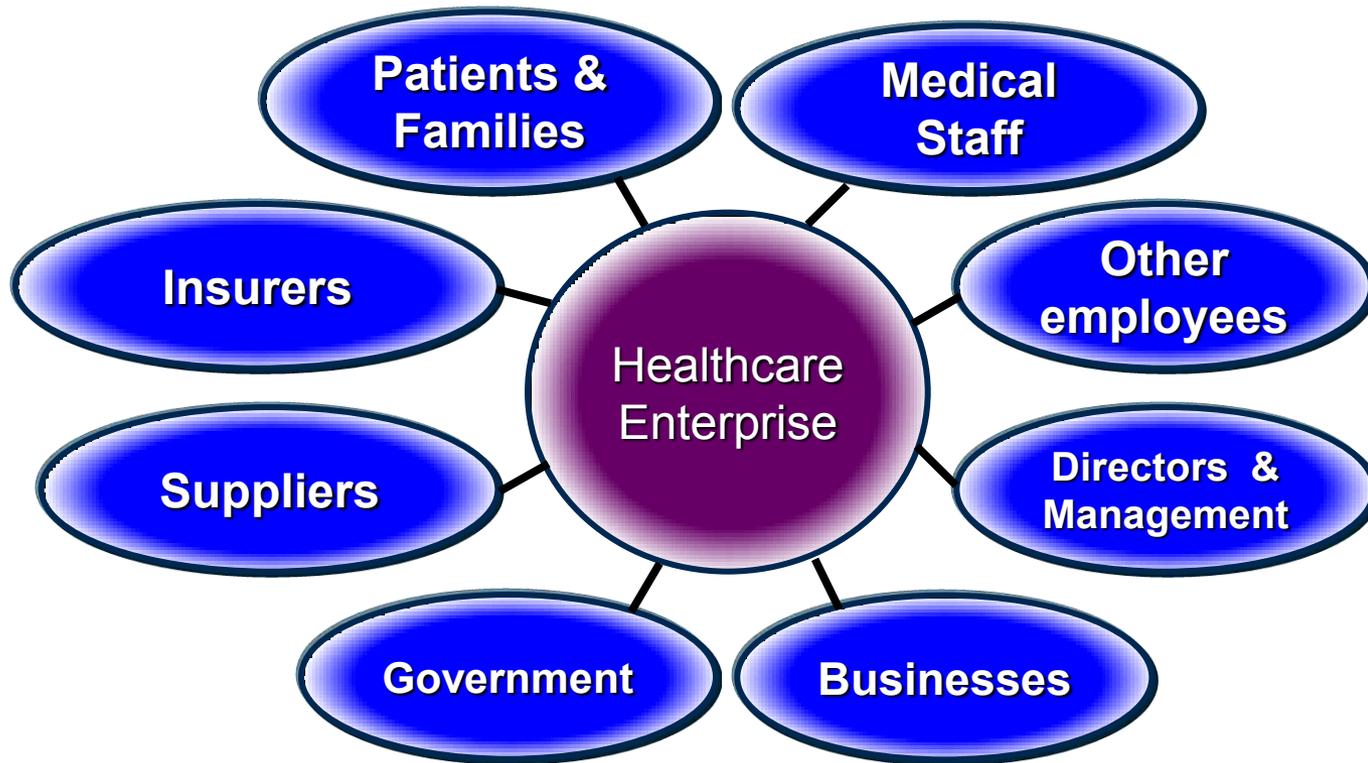
A culture of mentorship and personal growth



Steps are the same, organization and emphasis are different

Adapted from: Sobek, Durward K., Smalley, Art., (2008). *Understanding A3 Thinking: A Critical Component of Toyota's PDCA Management System*. Boca Raton: Productivity Press, Taylor & Francis Group

Healthcare Enterprise Stakeholders



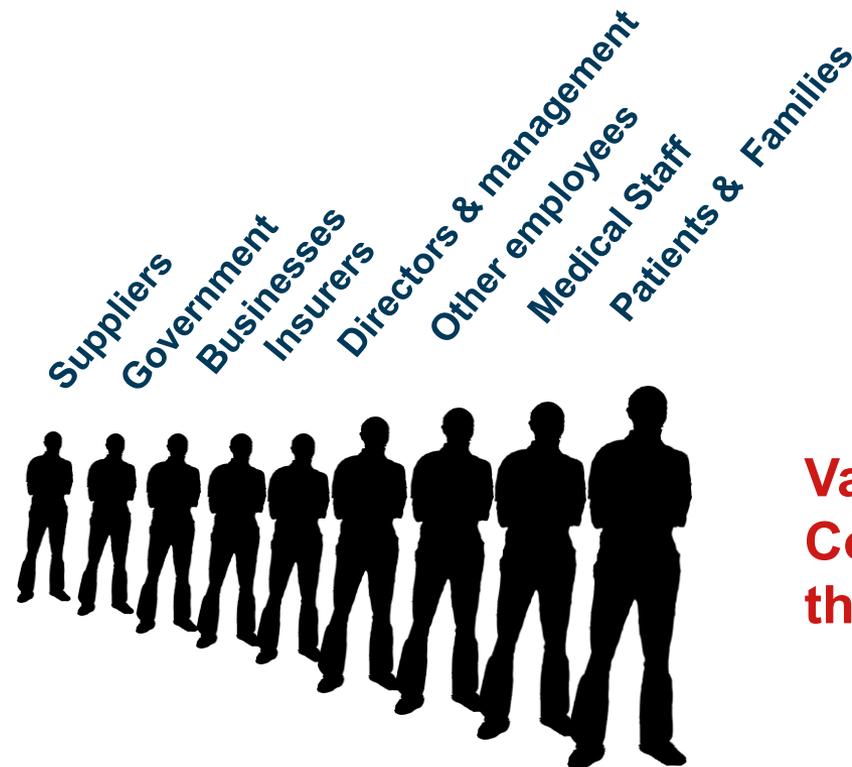
“Any group or individual who can affect or is affected by the achievements of the organization’s objective”

Freeman, *Strategic Management: A Stakeholder Perspective*, Pittman, 1984

Stakeholder Value

“Value - how various stakeholders find particular worth, utility, benefit, or reward in exchange for their respective contributions to the enterprise.”

Murman et al., *Lean Enterprise Value*, Palgrave, 2002



**Value Expected
from the
Enterprise**

**Value
Contributed to
the Enterprise**

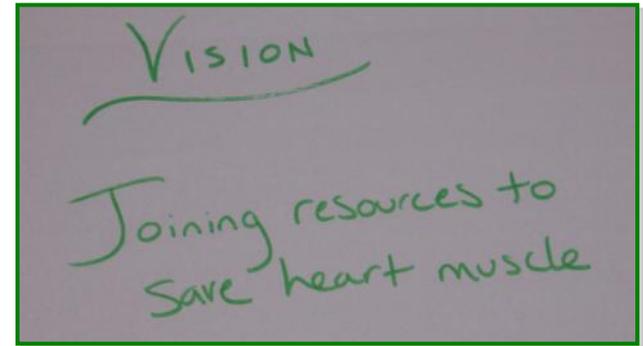
Visualizing: The Ideal State

- **“Giving customers exactly what they want, when they want it, is a core principle of an ideal state. As you observe work in progress, note the delays in care created by caregivers waiting for necessities from their suppliers (...). It is easy to see the delay passed onto the patient and the costs passed onto the organization”***
- **An Ideal State Map is often a useful exercise for determining what directions improvements should follow.**

* Cindy Jimmerson, *Value Stream Mapping for Healthcare Made Easy*

Rapid Process Improvement Workshop (RPIW)

- Focused on a specific improvement opportunity
- Chartered by a sponsor who gives improvement goals and organizational constraints, and provides resources
- Lean coaches & facilitators provided
- Event is up to a week in duration
- Several months preplanning
- Involves all important stakeholders
- Data driven process
- Ends with implementation plan
- Implemented outcomes measured



JHC AMI RPIW – Apr 2009

RPIW is the tool for enterprise level changes

RPIW Flow

Strategic Choice

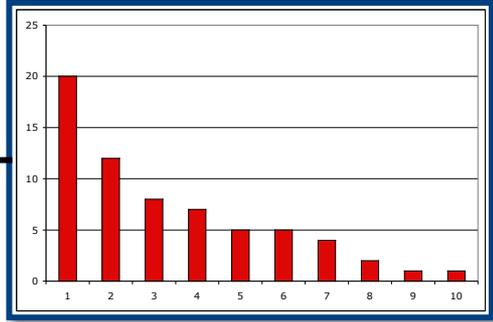
Planning Stage
3 – 6 months

RPIW Charter
Resources
Process data

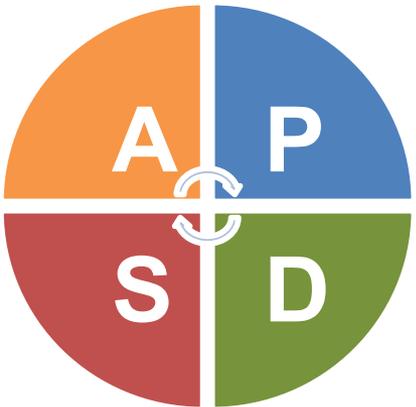
RPI Workshop
3 – 5 days

Future state
process
Implementation
plan

Follow-up Stage
3 – 6 months



Enterprise performance



RPIW Participants

Objectives Resources



Sponsor



Team Domain Experts
Stakeholders



Champion



Lean Experts Facilitator
Lean Coach, Lean Fellow

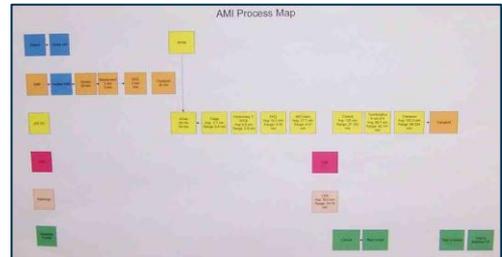


Support Team
IT, Facilities...

Image by MIT OpenCourseWare.

RPIW Workshop

- Day 1 – Team building, Gemba walks, current state map, brainstorming
- Day 2 – Morning: develop future state improvement strategy
- Day 2 – Afternoon: brief management
- Days 3 & 4 – Prototype improvement strategy, including: mockups, testing, develop training materials, engaging affected stakeholders
- Day 5 – Wrap up & brief management



Photos by EarlI Murman

Shorter RPIWs for simpler improvements

Daily Management System



Photos by Earll Murman

- **DMS focuses on a 5 minute meeting of ALL clinic personnel at day's start to:**
 - Review previous day's performance
 - Transmit any new enterprise directives
 - Review current day's plans
 - Note any special achievements or issues
- **Organized and run by clinic administrative lead**

- **Enterprise level issues may create constraints and disruptions at the local level**
- **Enterprise level LEAN can provide much greater benefits than local efforts, however**
- **The CPI framework applies, although the emphases are different**
- **Stakeholder value and Ideal State vision focuses direction**
- **Structured teams (RPIW teams) will be needed, and with them methods for team collaboration and management**

We will continue exploring RPIW events and tools in the upcoming simulation exercise

Acknowledgements

Contributors

- **Hugh McManus – Metis Design**
- **Earll Murman – MIT**
- **Deanna Willis, MD – Indiana University School of Medicine**

Collaborators

- **Jackie Candido – MIT EdNet**
- **Sharon Johnson – WPI**
- **Steve Shade – Purdue University**
- **Julie Vannerson, Indiana University**
- **Whitney Walters – Univ. of Michigan Health System**

MIT OpenCourseWare
<http://ocw.mit.edu>

16.660J / ESD.62J / 16.53 Introduction to Lean Six Sigma Methods
IAP 2012

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.