



Rapid Process Improvement Techniques Deliver Workflow Excellence

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Objectives

Receive an overview of Kaizen and DMAIC methodologies

Recognize the key elements for organizing a Kaizen

Select the best targets

Lead the way to quality



Why rapid process improvement?

- Integrating Kaizen into DMAIC process can generate excitement because improvement is seen **NOW**
- DMAIC and Kaizen can lead lab operations – and the entire organization – to financial and operational bottom-line improvements

Where is lab quality today?

An American Society for Quality (ASQ) study published in August 2009 looks at hospital deployment of Lean and Six Sigma and why they are driven to pursue these quality programs.

The results were unexpected from the lab perspective.

Not too surprising...

Hospital deployment

	Lean	Six Sigma	Lean Six Sigma
No deployment	47.2%	57.5%	62.9%
Minor deployment	44.4%	26%	27.1%
Moderate deployment	4.2%	8.2%	4.3%
Full deployment	4.2%	8.2%	5.7%

No surprises here either...

Greatest challenges to successful deployment

	Lean	Six Sigma
Sustaining improvements	68.3%	52.6%
Competition from other initiatives	58.5%	47.4%
Leadership commitment	53.7%	52.6%
Availability of resources	51.2%	55.3%
Building employee knowledge	34.2%	42.1%
Motivating employees	31.7%	39.5%
Expertise	22%	26.3%
Scaling up the effort	14.6%	29%
Other	2.4%	2.6%
No challenges	0%	2.6%

Overcoming challenges

The inability to sustain improvement was cited by 68% of study hospitals as the greatest challenge to achieving successful lean deployment and by 53% of hospitals as the greatest challenge to achieving successful Six Sigma deployment.

Other challenges include competition from other initiatives, level of leadership commitment and availability of resources.

Get Your Checkup: ASQ study looks at hospital deployment of Lean and Six Sigma, Quality Progress, August 2009

Maintaining momentum and focus

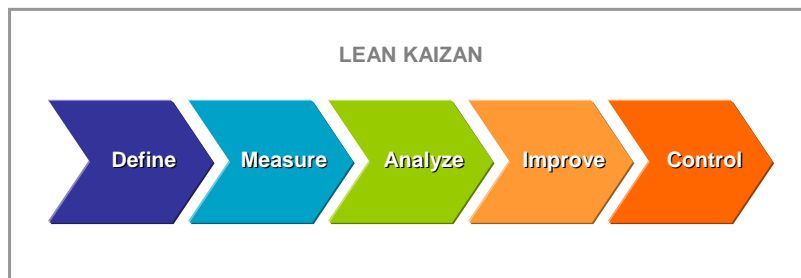
- Even in a “quality” environment where commitment is high, challenges abound in maintaining focus and energy at initial commitment levels
- Use a pattern of Kaizen – DMAIC – Kaizen to meet your lab’s goals

Rapid turns and quick wins keep the team focused and the executive sponsors engaged!

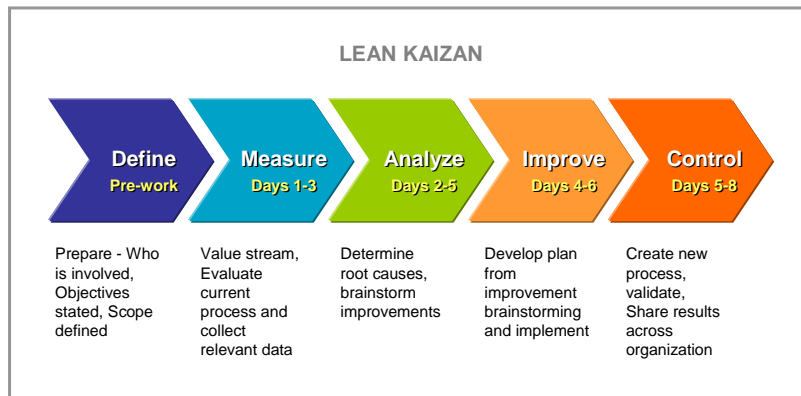
High-performance lab workflow starts with the basics

- The quickest and best results in the lab may result from focusing on removing **WASTE**
 - Time
 - Steps
 - Labor
 - Inventory: wasted or expired

DMAIC methodology



DMAIC and Kaizen: powerful partners



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Apply Kaizen with the result in mind

- It will produce significant tangible results in a very short period of time
- It will provide needed energy and enthusiasm infusions to continuous improvement efforts
- Sustained outcomes require a strong control structure
- Evaluate value vs. non-value added
- Detailed analysis – the “A” in DMAIC – is essential for success

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Initiating a structured process improvement program

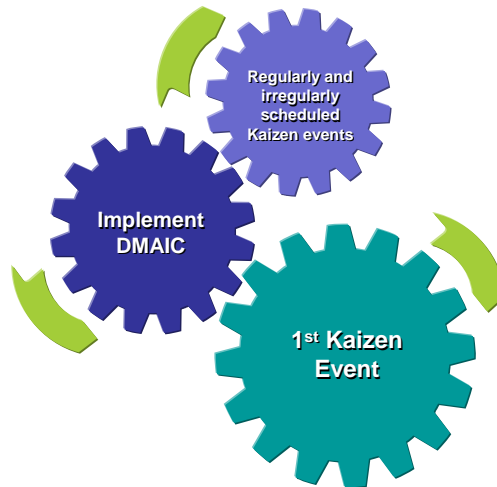
- Kaizen events are a great place to start
- What Kaizen events can provide:
 - For upper management
 - Gain program credibility, buy-in with accelerated progress, success to quantifiable – and preferable – financial or “big” goals
 - For department heads
 - Earn trust with success in a short period of time
 - For staff
 - Teambuilding, success, get to enjoy results – life in the lab is easier

Start with a focus that will impress

And sustain!

Your secondary goal may be to continue the quality effort in the lab and eventually the hospital.

Let's take a look at how this is done



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Haven't you ever heard that quality is...



Contagious?

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Start with a few quick wins

- Decreasing
 - Cycle time
 - Work steps – and actual steps, as in lab layout
- Decrease
 - Material or overhead costs
 - Rework or overtime
 - Redundant work – and waiting
- Changing workspace to accommodate flow

Choose a smaller scope with a potentially big impact so you can use your resources effectively.

Incorporate the Kaizen successes into the DMAIC process

- The learning is just as valuable as the outcome
- Sustain the teamwork and improved communication
- Communicate the successes and improvements throughout the organization – create excitement for what's next
- Build incrementally on every successful aspect of Kaizen events – generate momentum for detailed quality initiatives and new SOPs

Two success stories

- Focused on patient safety
- Delivered zero error results

Point of care solution

- Florida Hospital (Orlando, FL)



Automated specimen collection solution

- Gaston Memorial Hospital (Gastonia, NC)



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Florida Hospital's point of care solution

Specimen collection automation

Results

- Specimens complete within 120 min. timeframe
 - Improved from <50% to over 76%
- Reduced staff from 42 to 38 FTEs, but doing more
 - Collecting over 15,000 blood specimens/month
- **<1 patient identification error per YEAR since 2004**

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Success achieved and sustained

***Sunquest Collection Manager™ was chosen
for safety and efficiency.***

And it delivered.



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Success achieved and sustained

***“Collection Manager has met our expectations for
productivity improvement and exceeded our
expectations for improving patient safety.”***



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*Patrick O'Sullivan, MS, MT(ASCP)SBB,
Administrative Laboratory Director
Florida Hospital*

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Gaston Memorial's automated specimen collection system

ASCS implemented initially for patient safety, realized even more benefits in workflow efficiency and streamlining communications.

Results

- No patient/specimen errors in first year of use and beyond (Lab 2007, ED 2008)
- Elimination of redundant processes that could result in human error
- Bedside barcoding ensures positive patient ID

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Success achieved and sustained

Sunquest Collection Manager™ was chosen to meet these goals.

And it delivered.



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Success achieved and sustained

***“The implementation exceeded our expectations,
and we never stepped back.”***

*David Mills, Laboratory Director
Gaston Memorial Hospital*



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Process improvement really does = Return on Investment (ROI)

Increase ED capacity by reducing TAT. With Collection Manager the staff in the ED can proactively collect patient specimens in anticipation of these being needed, as the device can be used to scan a wristband and print a set of labels to identify “draw and hold” collections prior to the order being placed in the LIS. Once the order is placed specimens can quickly be sent to the lab, significantly reducing TAT. This reduction in TAT creates added capacity in the ED allowing more patients to be seen per day and thereby driving increased revenues as well.

The sample hospital was able to reduce the LOS per patient in the ED by 10 min. each. Taking advantage of even 10% of the added capacity created by this time savings netted over \$250K in revenue.

***“We were able to reduce result
turnaround time to the ED by 10
minutes per patient within just 2.5
weeks of going live.”***

– Director, Emergency Services

Impact on sample hospital:

\$263,600 in annual incremental revenue

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In Summary

- Launch your entire quality program with Kaizen
- Integrate Kaizen into the DMAIC process to generate excitement – improvement is seen **NOW**
- Calculate ROI on one perceived high-cost issue to build powerful business case
- Lead lab operations – and the hospital – to financial and operational bottom-line improvements with DMAIC and Kaizen

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Sunquest: Driving the Future of Diagnostic IT

