



## Lab Quality Confab 2011:

### How to Conduct Highly Effective Kaizen Events in Your Lab and Hospital

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#### Email from Lean Client: Post Kaizen Event

*Dear Leslie,*

*Our LEAN project has significantly improved our TAT, work flow and physician satisfaction. After a year and major cross training, the cost saving is starting to show up in \$.*

*We are in the top three of the physician satisfaction category in our hospital. The staff from the hospital rated us 4.78 out of 5.00 scale. This is the first in 20 years. Please come visit us when you are at our area.*



## What is Kaizen?

- Kaizen means “continuous improvement”
  - kai = to take apart
  - zen = to make good
- To take something apart to make it better
- Lean principles are founded on the idea of kaizen or continuous improvement
- The smallest ideas can lead to the greatest results



## What's the Purpose of Kaizen?

- To ELIMINATE waste (non-value added activities)

Overproduction

Transportation

Inventory

Processing

Waiting

Motion

Defects



## What's the Role of a Kaizen Event?

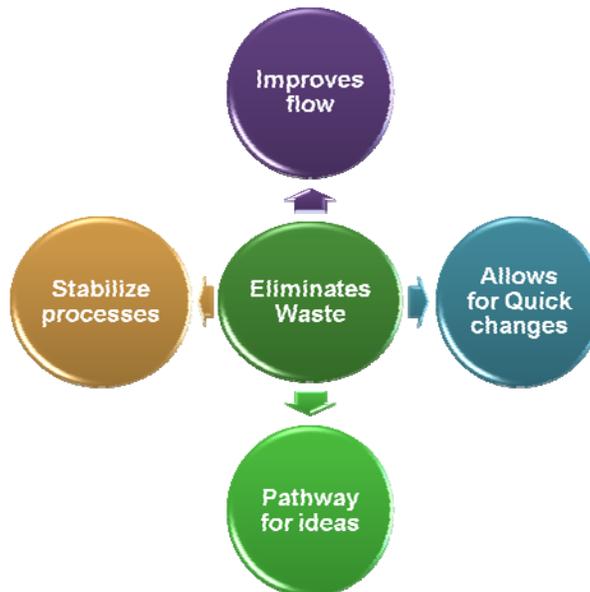
- To make **“focused-changes”** and involve the whole work team
- A part of production **shuts down** while the changes are made
- Kaizen events must be **carefully planned**, rapidly implemented and thoroughly followed up (audits)



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## Benefits of a Kaizen Event



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### Three Phases to Kaizen Event



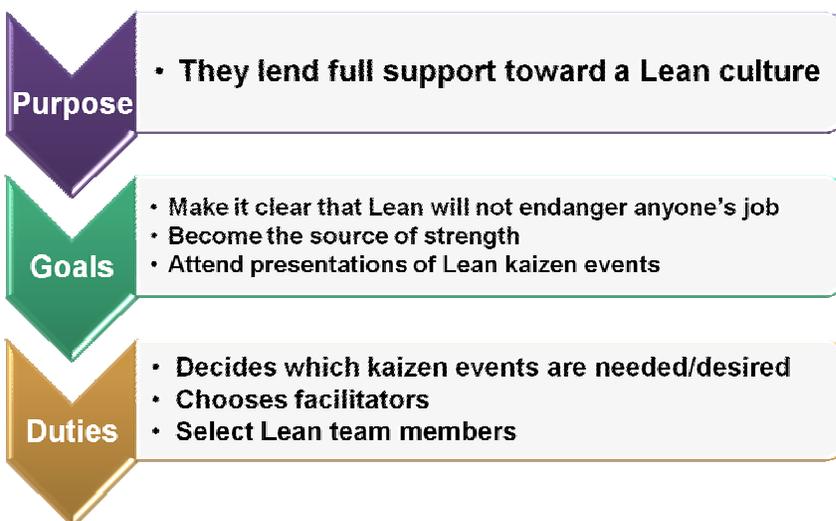
### Team Support Structure— Key Roles for a Successful Kaizen Event



## Key Support Roles External Facilitator and/or Internal Lean Team



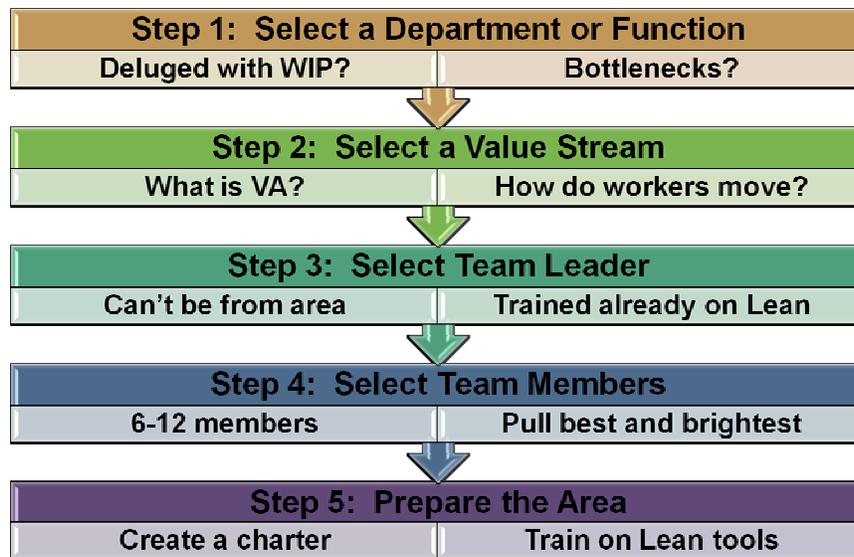
## Key Support Roles Upper Management: (Administrators, Medical Directors and Technical Directors)



### Key Support Roles Lean Team Leader



### Phase I: Roadmap to Success



### Phase I: Key Roles Lean Team Members

These are the people who actually conduct the kaizen event

They must support the potential of the kaizen event

Six but no more than twelve people; two from the area

Try to get your brightest and best people

Gather ideas from other workers in the area

Train team members on change management and the use of the Lean tool set

### Ten Tips for a Newly Formed Lean Team

Throw out all your fixed ideas about how to do things.

Don't spend a lot of money on improvements.

Identifying problems under a Lean umbrella is a good thing!

Think of how the new method will work – not how it won't.

Correct mistakes the moment they're found.

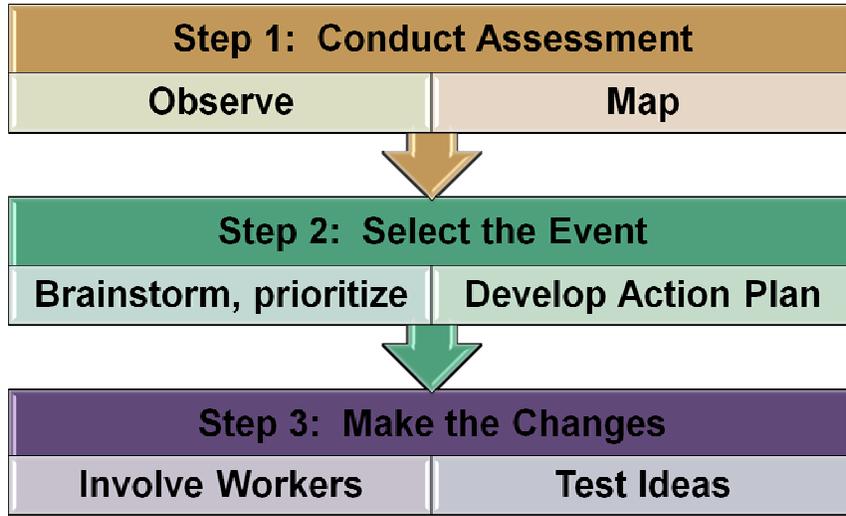
Ask "Why?" at least five times until you find the ultimate cause.

Don't accept excuses. Totally deny the status quo.

Don't seek perfection.

Ten people's ideas are better than one person's.

Phase II: Planning (80%) and Implementing (20%)



Phase II: Step 1

**Step 1: Conduct Assessment**

- Observe
- Gather Data
- Map the Process
- Take Pictures
- Do Time Studies
- Count WIP

## **Step 1: Conduct Assessment** **Observe—Look for These Things!**

- Labor imbalances
- Poorly defined work sequence
- Poor workplace organization
- Inadequate tools
- Difficult work methods
- Little or no support
- Loose or no specifications
- Push vs. pull production flow
- Irregular work flow
- Poorly defined responsibilities
- Incapable processes
- Cycle time/Takt time unclear
- Variability in the workplace
- Poor communication
- Lack of core skills
- Overproduction
- Quality problems

## **Phase II: Step 2**

### **Step 2: Select Kaizen Event**

Brainstorm various opportunities

Prioritize them

List in preferred order; vote

Make final selection

Develop rapid action plan

Start communications plan

## Step 2: Brainstorming Exercise: New Process Wish List

- U-shaped “line” to bring processes closer together
- Team environment (small groups)
- Work station that is “work friendly”
- Support tech role serving work cell and feeding the line
- One room for all staff
- Eliminate bins
- Build QC into the line; near-time; 100%
- Reduce handwriting
- Less walking around by workers
- Logical flow to the space
- FIFO
- Production kanban
- Don’t take client calls in area before 5 PM
- Inventory more organized
- Keep workers working (less motion, less personal calls)
- Standardized work
- Better process for stats

## Step 2: Develop Action Plan: Begin with the End in Mind

If I could be  
Queen for a day,  
I would . . .



## Step 2: Rapid Implementation



## Phase II: Step 3

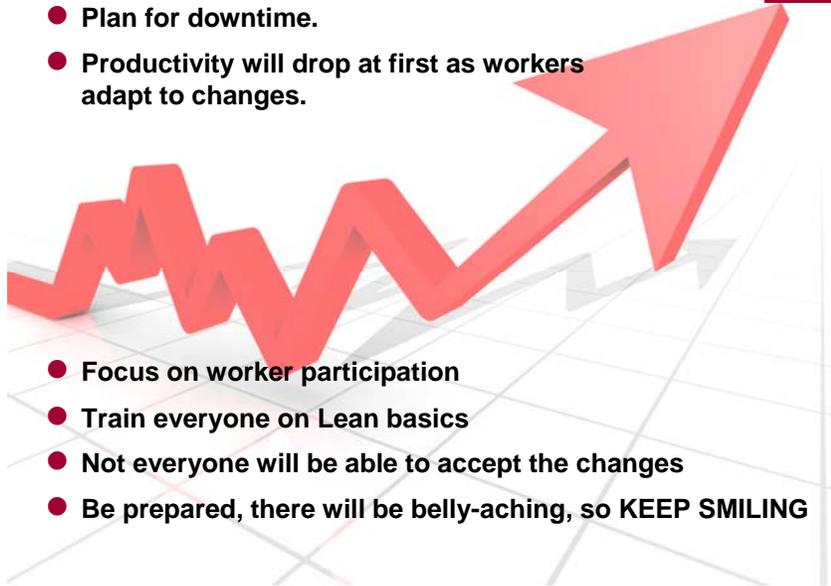
### Step 3: Make the Improvements

- Work with the operators to find solutions,
- Meet with staff to collaborate on new ideas,
- Test new layouts before moving equipment, and
- Train the staff on the new process
- Re-measure to quantify your improvements



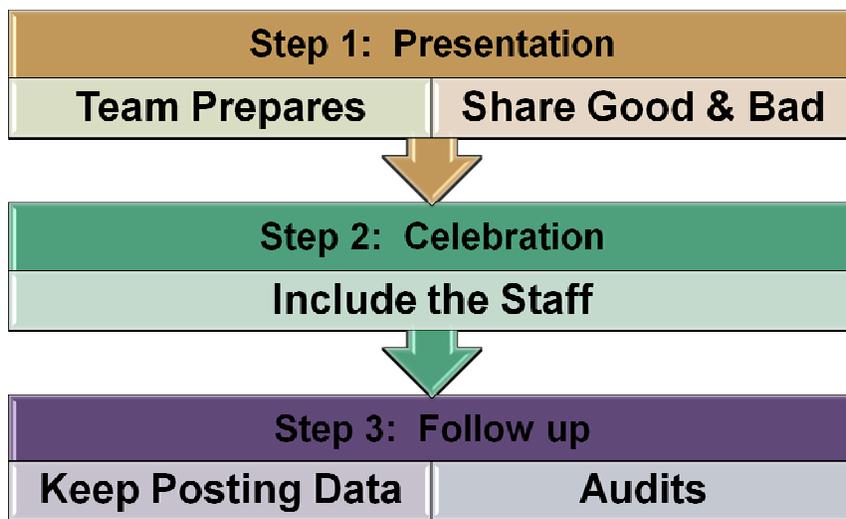
### Step 3: Make Improvements: Cautions

- Plan for downtime.
- Productivity will drop at first as workers adapt to changes.



- Focus on worker participation
- Train everyone on Lean basics
- Not everyone will be able to accept the changes
- Be prepared, there will be belly-aching, so KEEP SMILING

### Phase III: Presentation, Celebration & Follow Up



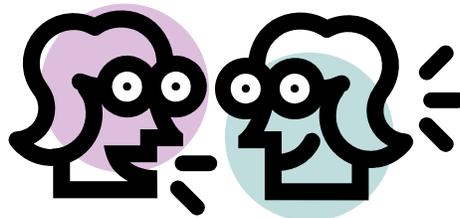
### Phase III: Presentation: Sharing Key Learnings

1. Do more prep in the space before engagement begins
2. Allow more time for communication with staff
3. Rapid implementation is intense
4. IS has to be an integral part of implementation
5. Ask “Why?” five times to uncover root causes
6. Changes always have a downstream effect on other departments
7. There’s real value in rolling Lean throughout the entire lab value stream
8. Staff rose to the challenges in an exemplary manner
9. We’ve always known what we wanted to do, now we know how to implement the things that bring real value to the process
10. We’ve become great cheerleaders of Lean



### A Word about Communication

- Makes all the difference in success or failure!
- Announcement from the top communicates serious support.
- Establish a storyboard
- Posting schedule and steps in conducting kaizen events
- Describe what will happen over and over—you cannot over-communicate



## Final Key Takeaways

- Do Lean **WITH** the people, not **TO** the people
- Understand the importance of preparation and follow up; it takes more time than actual implementation
- Success only comes with a company culture that supports continuous improvement!



# Thank You!



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