Lean:

Change your culture to continually look for improvements

AQN

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TOYOTA
KOMATSU
PATRIA 50

19 2 2006

Is there a need?

- 15 million incidents of medical harm every year
  - 180,000 deaths from drug errors
  - 20,000 – 88,000 deaths from hospital infections
- Recalls
  - Toyota
  - Food
  - Toys
  - Medications
- Commuting—World average of 40 minutes each way
- Waiting
- Looking for lost items (159 hours per year)

What is Lean?

- Process improvement methodology developed in manufacturing (Toyota Production System has led the way)
- Focuses on value to the customer by eliminating waste in the process
- Increases speed in our processes
- Effective in both service and manufacturing

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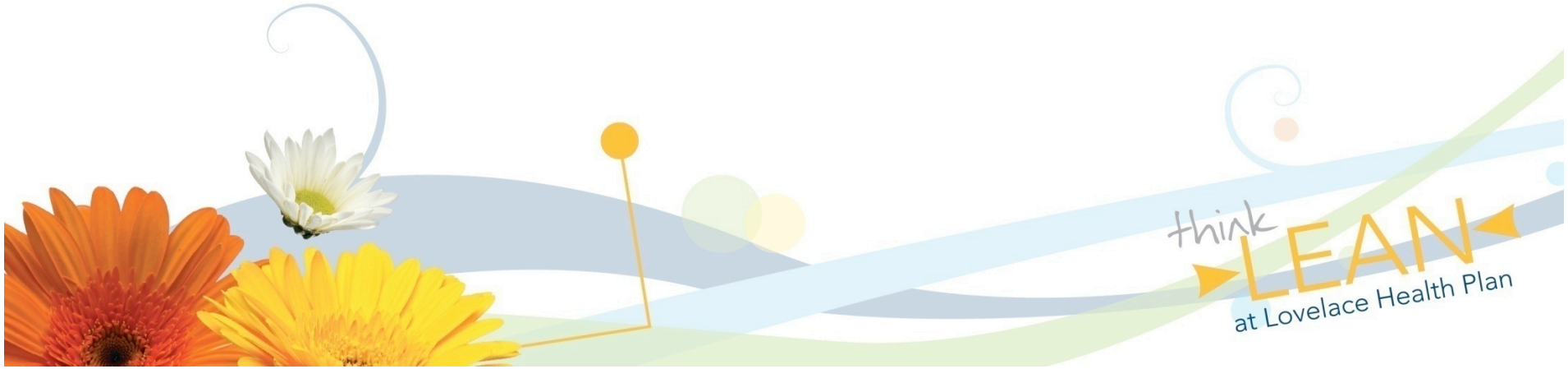
Vocabulary

- Gemba—Where the action takes place
- Kaizen—Continuous improvement. Also refers to a short process improvement event (3-5 days)
- Muda—Waste
- Poka Yoka—Mistake proof your process



Lean Fundamentals

- All processes should be “Pull”, not “Push”
  - Pull—Determined by customer demand—only produce what is required—included just-in-time inventories
  - Push—Determined by process—produce what we think will be needed
- Defects are not Made and/or Passed
  - Do it right the first time
  - Defects are prevented when possible, but never moved to the next step in the process

Lean Fundamentals

- Eliminate Waste
  - Look early and often for waste
  - Anything that does not add value to the product/ service
- Mistake Proof your Processes
  - Creating ways to eliminate any chance for error
  - Physical restrictions, visual cues, templates, workflow order

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Lean Fundamentals

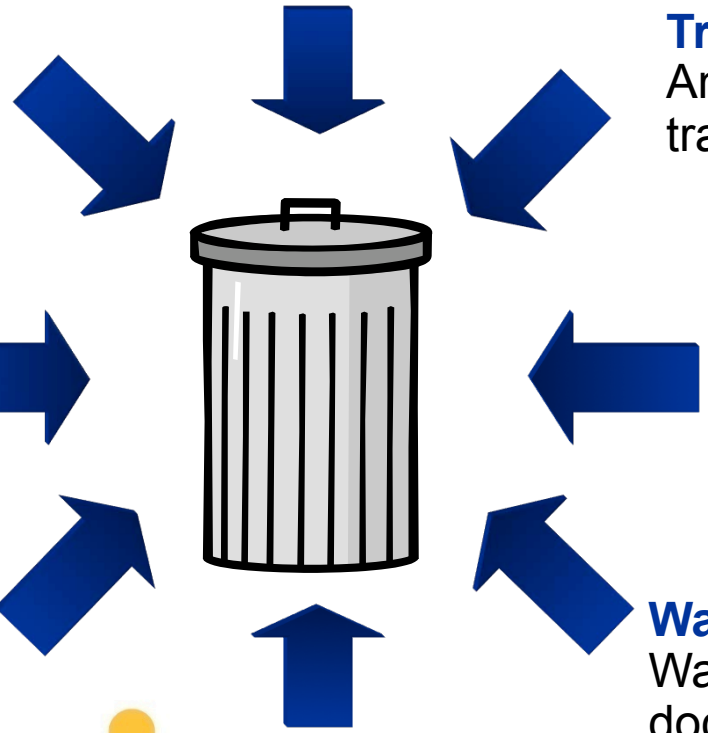
- Level & Balanced Production
  - Design daily workload based on customer demand
  - Minimize non-value-added steps and optimize resources
  - Multi-skilled employees perform more than one task
- Standard Work
  - Clear guidelines—everyone does the task the same way
  - Management standard work

Types of Waste

Overproduction:
Producing too much; producing too soon; batch processing

Intellect:
Failure to fully utilize the time and talents of people; lack of training; no avenue for suggestions

Transportation:
Any nonessential transport or handling



Motion:
Any motion that does not add value; chasing parts, signatures, tools, etc

Inventory:
High supply stores; finished product stores; in-work materials

Defects:
Any rework; errors

Waiting:
Waiting on parts or documents, waiting for other workers or a machine

Extra Processing:
Adding inspections; approvals; reviews

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Challenges to Identifying Waste

"Today's problems are the results of yesterday's solutions."

--Peter Senge

- In many cases, we unknowingly built waste into the process…it looks normal
- Need to know how and where to look
- Must look at our work through a process lens

Do you ever feel like this?

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Identifying Waste

- Waste looks like
  - Clutter
  - People waiting
  - Overflowing in-boxes – both email and the one on the desk

- Waste feels chaotic
  - “Hurry up and wait”
  - Frustrating
  - “Fire drills”

Kaizen Event

- Form and train team of experts
- Map process
- Gather data and identify waste
- Identify root cause and solution
- Implement solution(s)
- Measure results

Lean Process

Process identified for improvement

(Plan)

(Do)

Kaizen
-Value stream map
-Implement improvements

(Act)

-Additional learning
-New ideas for improvement

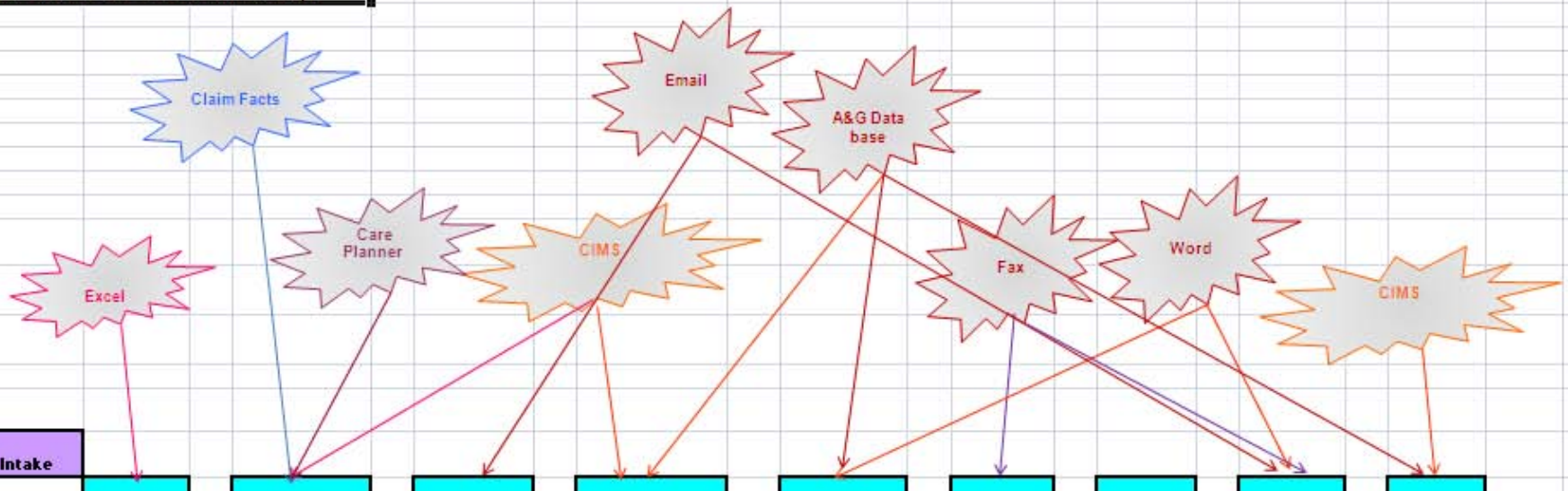
Continuous Improvement

(Check)

Gemba
-Metrics
-Team

Value Stream Process Map

Lovelace Health Plan - A&G Member Dept



Data Coord. Intake

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	LOB inbox	Pre-review	AOR Request/ OMM record request	Documentation	Ack Letter	Create Folder	Case Research	Case Review	Case Closed	
	C/T - 7 min RR - 0% Delays	C/T - 8 min RR - 5% Delays	C/T - 9 min R/R - 0% Delays	C/T - 9 min R/R - 10% Delays - 10%	C/T - 6 min R/R - 0% Delays	C/T - .5 min RR - 0% Delays	C/T - 15 min RR - 0% Delays	C/T - 4.3 min R/R - 0% Delays	C/T - 15 min R/R - 0% Delays	
Present Minutes:	7	8	9	9	6	0.5	15	4.3	15	73.8
New Minutes:	7	6	0	8	3	0	15	4.3	15	58.3

Results

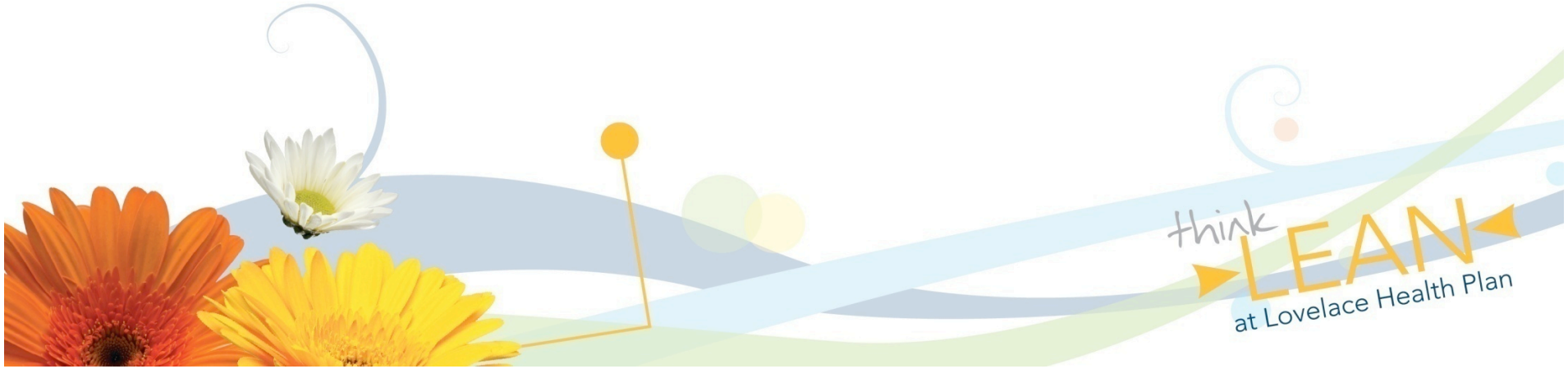
- ThedaCare Health System
  - Reduced length of stay from 3.71 days to 3.01 days
  - Patient satisfaction from 68% to 90% top box
  - Saved $27 million with no layoffs—lowest priced in WI
- Letterkenny Army Depot
  - Increased throughput from 1 to 19 HUMVEEs per day
  - $21M saved in 3 years
- Denver Health Cardio Vascular Clinic
  - Reduced process from 16 to six steps
  - Clinical Care time increased from 240 to 285 mins
  - Procedure wait time dropped from 33 to three days
- LHP Appeals and Grievance
  - Labor costs per file dropped from $80 to $29
  - Cost savings exceeded $116,000 in seven months

Continuous Improvement

When you've fixed something;

Fix it Again

--Lean Enterprise Institute



Culture of Continuous Improvement

1. Leadership commitment/involvement/change
2. Link to customer and strategy/objectives
3. Allocate appropriate resources
4. Train and engage all employees—Don't expect them to just "get it"
5. Measure, measure, measure
6. Coordinate across the organization
7. Publicize results—tell your story
8. Provide rewards/compensation
9. Be patient—have the long-term view

Leadership

White Coat

- All Knowing
- “In Charge”
- Autocratic
- “Buck Stops Here”
- Impatient
- Blaming
- Controlling

Lean Improvement

- Patient
- Knowledgeable
- Facilitator
- Teacher
- Student
- Helper
- Communicator
- Guide

Source: *On the Mend*

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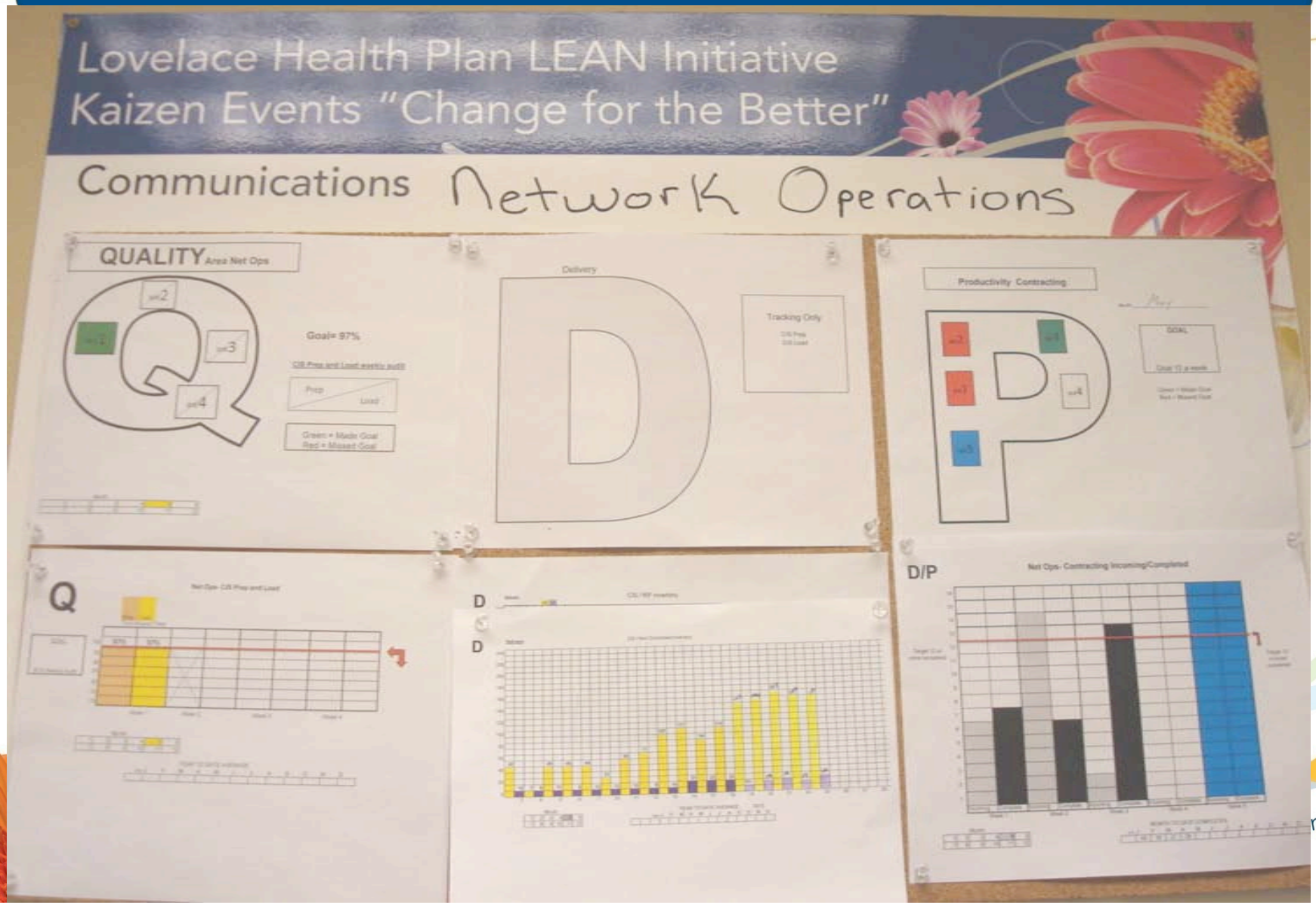
Measure


Lovelace Health Plan LEAN Initiative
Kaizen Events "Change for the Better"
Communications Network Operations
QUALITY Area: Net Ops
Goal= 97%
Delivery
Tracking Only
Productivity Contracting
GOAL
Q
D
D
D/P

Leading vs Lagging

- Leading Indicator
  - Signals future events
  - Decisions can be made
  - Example: Yellow light—red is coming
- Lagging Indicator
  - Follows the event
  - Confirms a trend
  - Example: Unemployment rising—bad economy

MPG History **OR**

Patience

The key to everything is patience. You get the chick by hatching the egg, not by smashing it.

- Arnold Glasow

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Summary

- Lean reduces waste, focuses on customers, and shortens cycle time
- Must calibrate our "lens" to recognize waste
- Need to change our way of thinking to cultivate a culture of continuous improvement
- Long term commitment of resources, training, and patience
- Continuous improvement is hard—expect it to be so

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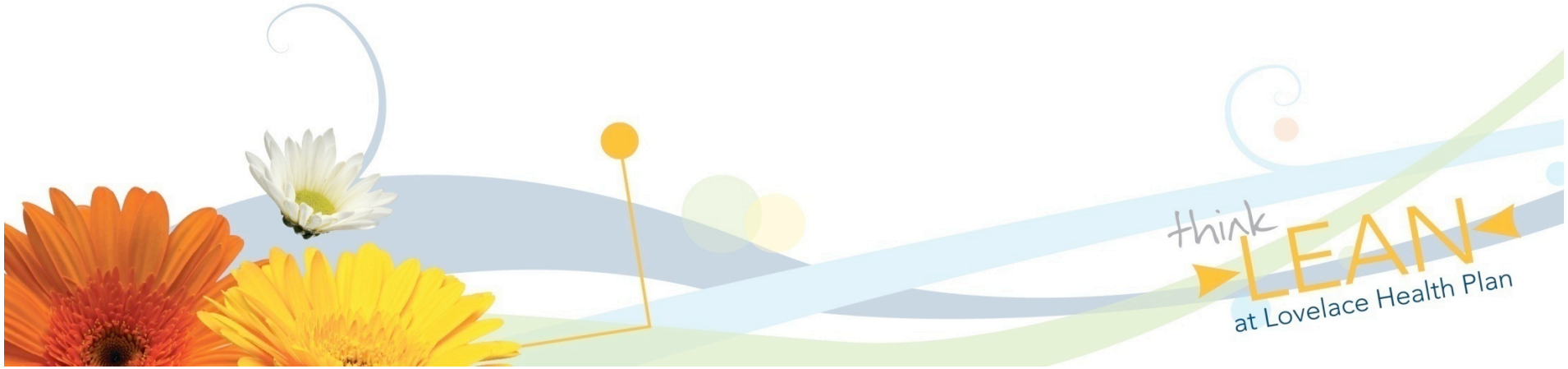
Challenge

"*We are what we repeatedly do. Excellence, therefore, is not an act but a habit.*"

-- Aristotle



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- Lean Enterprise Institute (www.lean.org)
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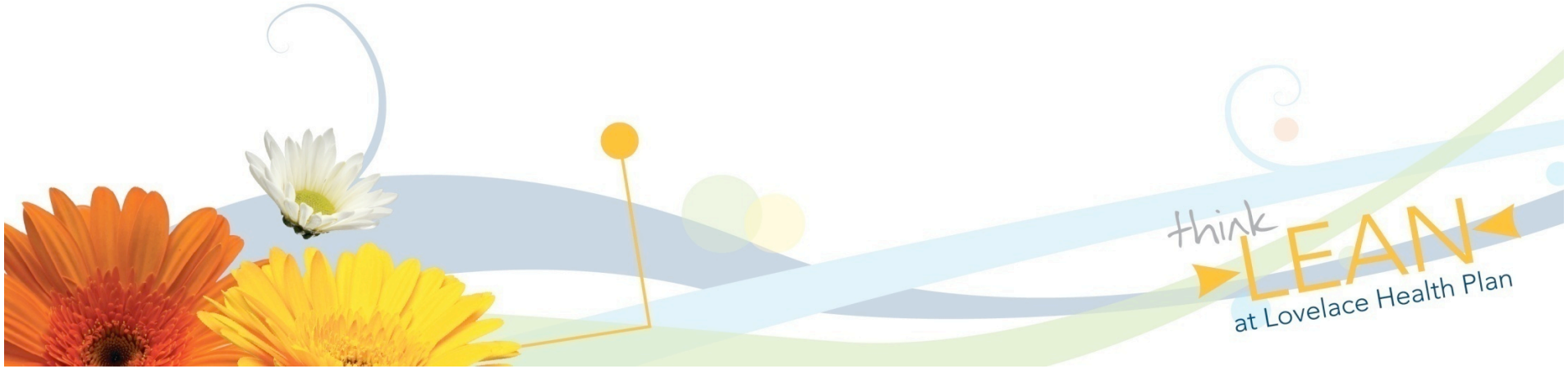
Questions

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