

HMS Lean Yellow Belt Training

A3 Thinking

UMMHC CENTER FOR INNOVATION AND
TRANSFORMATIONAL CHANGE (CITC), UMASS
MEMORIAL HEALTH CARE

"Haste makes Waste"

Less waste
More value for
the Customer



Lean

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Today's Agenda

- White Belt Review
- Lean Culture
- Problems & Problem Solving
- The A3 – Left Side
 - ▣ (10am) The Problem Statement- A3 Exercise Part 1
- Current Conditions – Process Mapping
 - ▣ (11:10am) A3 Exercise Part 2
- Current Conditions – Data Analysis
- *Lunch 12pm*
 - ▣ A3 Exercise Part 3
- Root Cause Analysis, 5 Whys
 - ▣ (1:30pm) A3 Exercise Part 4
- Goals & Timeline.
- The A3 – Right Side
- PDSA & Countermeasure design.
 - 5S
 - Standard Work
- ▣ (2:45pm) A3 Exercise Part 5
- Department Idea Systems & Lean Leadership
- Lessons learned, next steps
- Training close 4pm

Learning Objectives for A3

- Learn to apply the “A3” problem solving approach
 - Write a problem statement
 - Analyze current condition information
 - Explore and find root causes
 - Develop, deploy and sustain countermeasures
 - How to empower others to make improvement

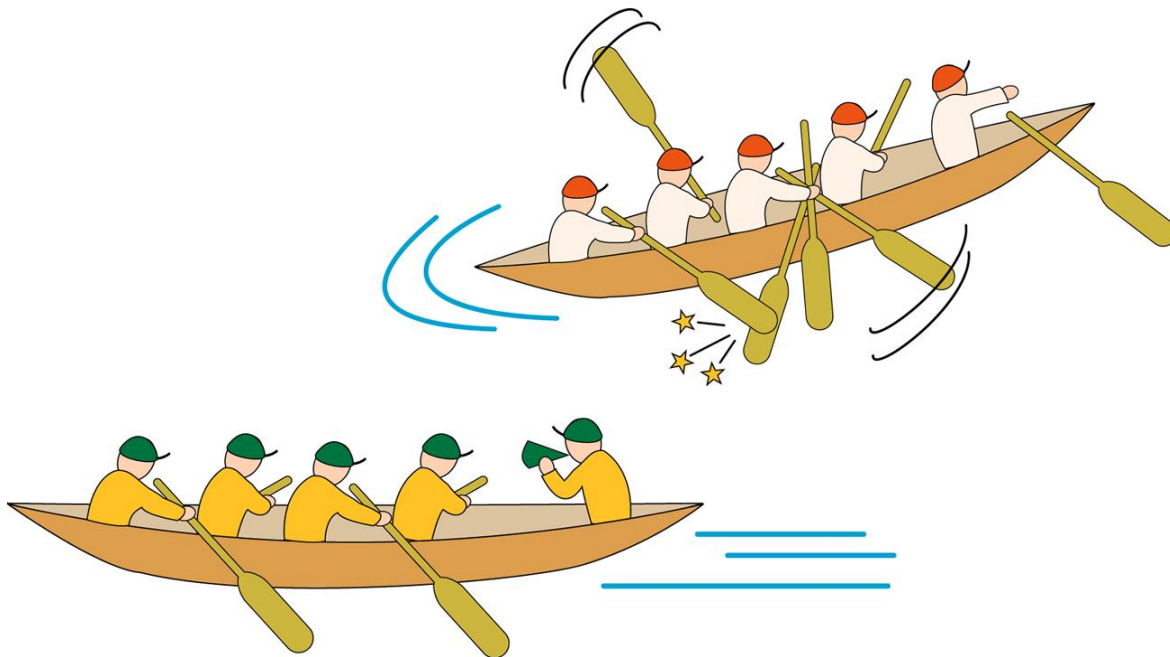
Review

- Please share with your colleagues at your table
 - What you remember from White Belt Training?
 - A waste that you have removed or identified in your department after the White Belt Training?
 - An initiative you'd like to apply Lean to, or a problem you'd like to solve
- Prepare to share
- 10mins

It's All About People

- It's **the people** who bring a Lean System to life:
 - Working, communicating, resolving issues, and growing together.
 - Continuously
 - It **requires** employee involvement and leadership support

Individual



You work for your team members.

It's All About People

- Pre-reading themes: communication, team working, and performance metrics

Traditional Culture	Lean Culture
Function Silos	Interdisciplinary Teams
Managers Direct	Managers Teach/Enable
Benchmark to justify not improving	Seek perfection - the absence of waste
Blame People	Blame the Process - Root Cause analysis
Rewards: Individuals	Rewards: Group Sharing
Supplier is Enemy	Supplier is Ally
Guard Information	Share Information
Volume Lowers Cost	Removing Waste Lowers Cost
Internal Focus	Customer Focus
Expert Driven, Periodic Improvement	Process Driven, Continuous Improvement
Efficiency	Value

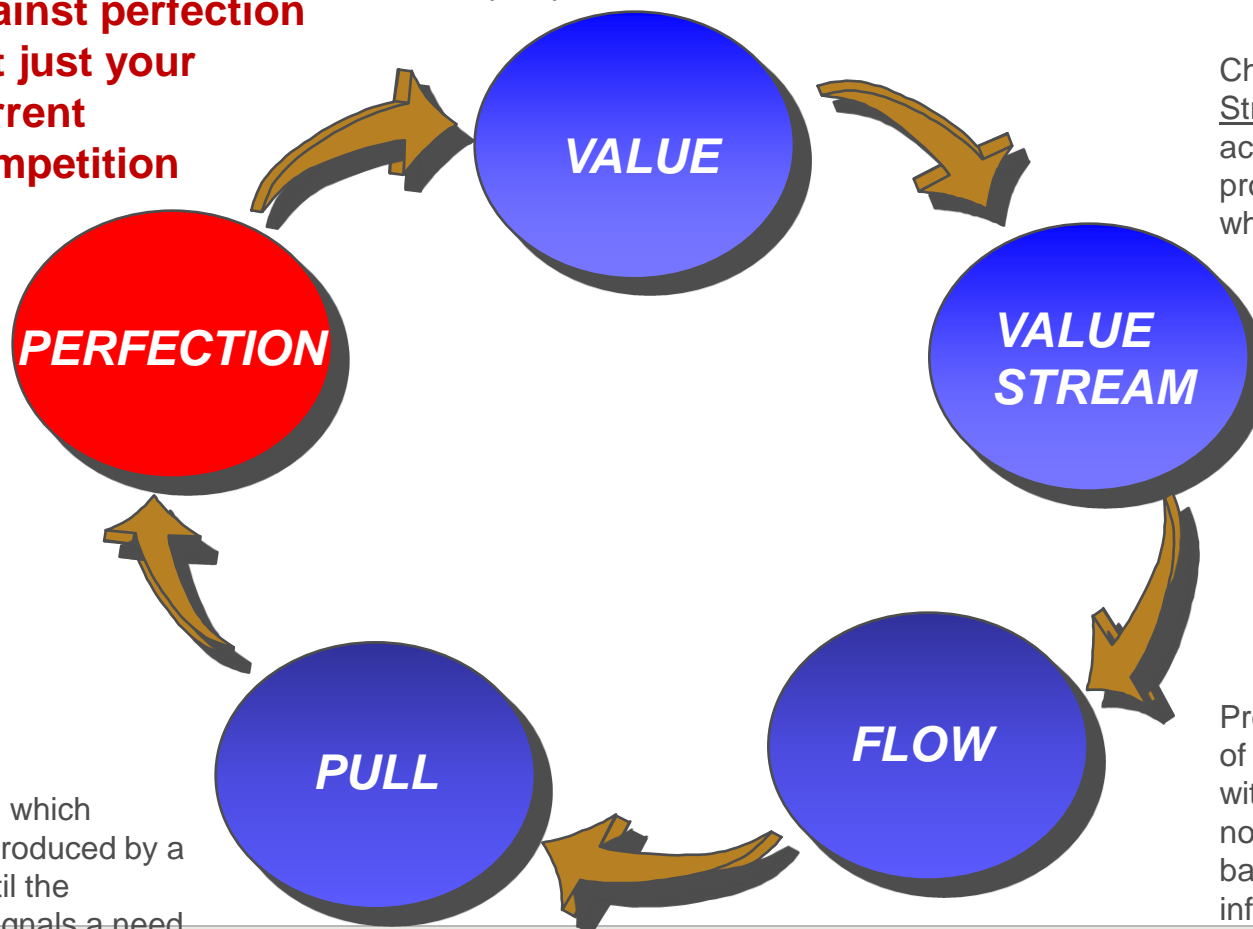


5 Guiding Principles of Lean

**Always compete
against perfection
not just your
current
competition**

Specify value from the
perspective of the customer

Characterize the Value
Stream (set of
activities) for each
product / process
while removing waste.



A system in which
nothing is produced by a
supplier until the
customer signals a need

Progressive achievement
of value creating steps
with minimal queues and
no stoppages or
backflows of product,
information or services



What's True North?

- "True North" a key concept in Lean process improvement.
- An idiom that emerged from Toyota twenty years ago, connotes the compass needle for the organization.
- Works as a compass providing a guide to take an organization from the current condition to where they want to be.
- The foundation of a strategic plan.



HMS True North?

- *To create and nurture a diverse community of leaders committed to alleviating human suffering caused by disease.*

How might we use our True North?

- **Guide** our work, at the organizational and departmental level
- **Evaluate & Prioritize** ideas & improvement project efforts against these goals
- Decide how to **commit resources**
- **Notice misalignment**
- Identify high impact, low difficult A3's to start working on

The “8 Wastes”!



Defects

Errors

PA forms, AdComp forms,
Incomplete information for
Grants submission



Overproduction

Doing more than needed

Extra reports, Unnecessary info.
sent automatically, printing in
advance



Waiting

Waiting or Delays

Waiting for information,
report, answer, approvals,
signatures, etc.



Not Utilizing Employees

Ideas and skills not used

Not recognizing employees as
best source for fixing issues



Transport

Movement of people or material

Transport between campuses,
Movement of files to different
locations



Inventory

Too much material

Buying in bulk, more servers
than required, supplies,
equipment



Motion

Movement by workers

Searching for supplies, items
needed not close by, always
looking in shared drives



Extra Processing

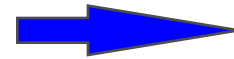
Re-dos

Unnecessary approvals,
rework, same data required in
multiple places or systems

Eliminate Waste – Increase Value

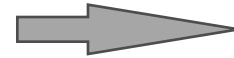
Observe that 2 Things are ALWAYS Happening. . .

1. Things that should be done



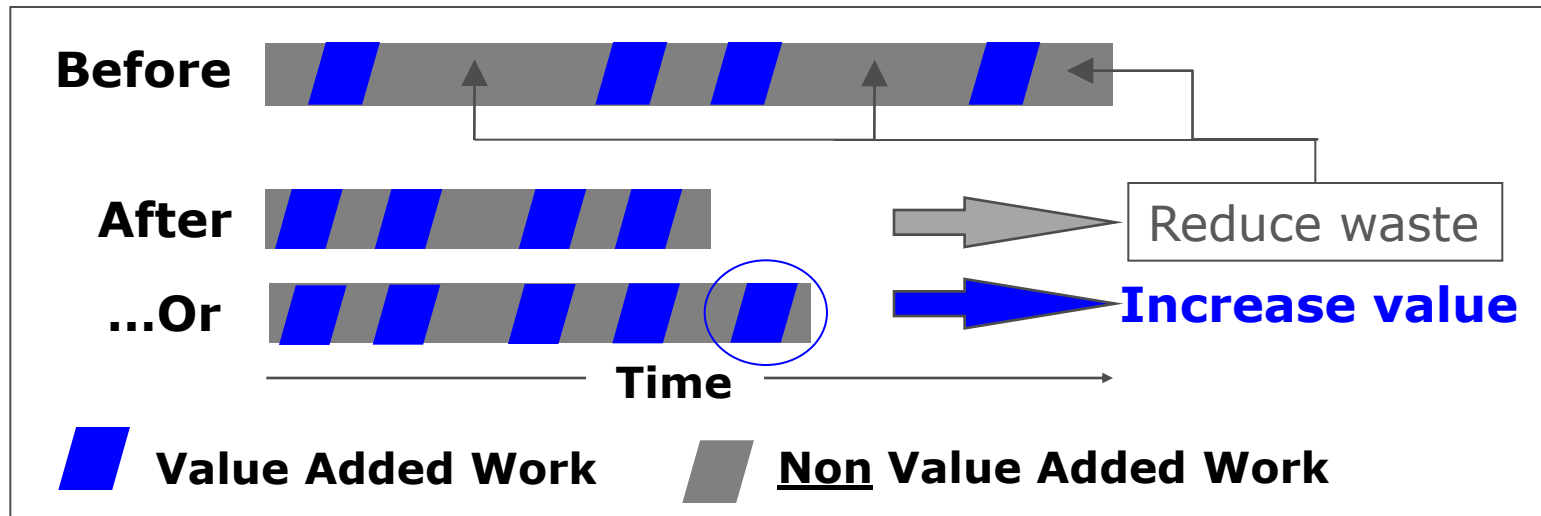
Value

2. Things that should not be done



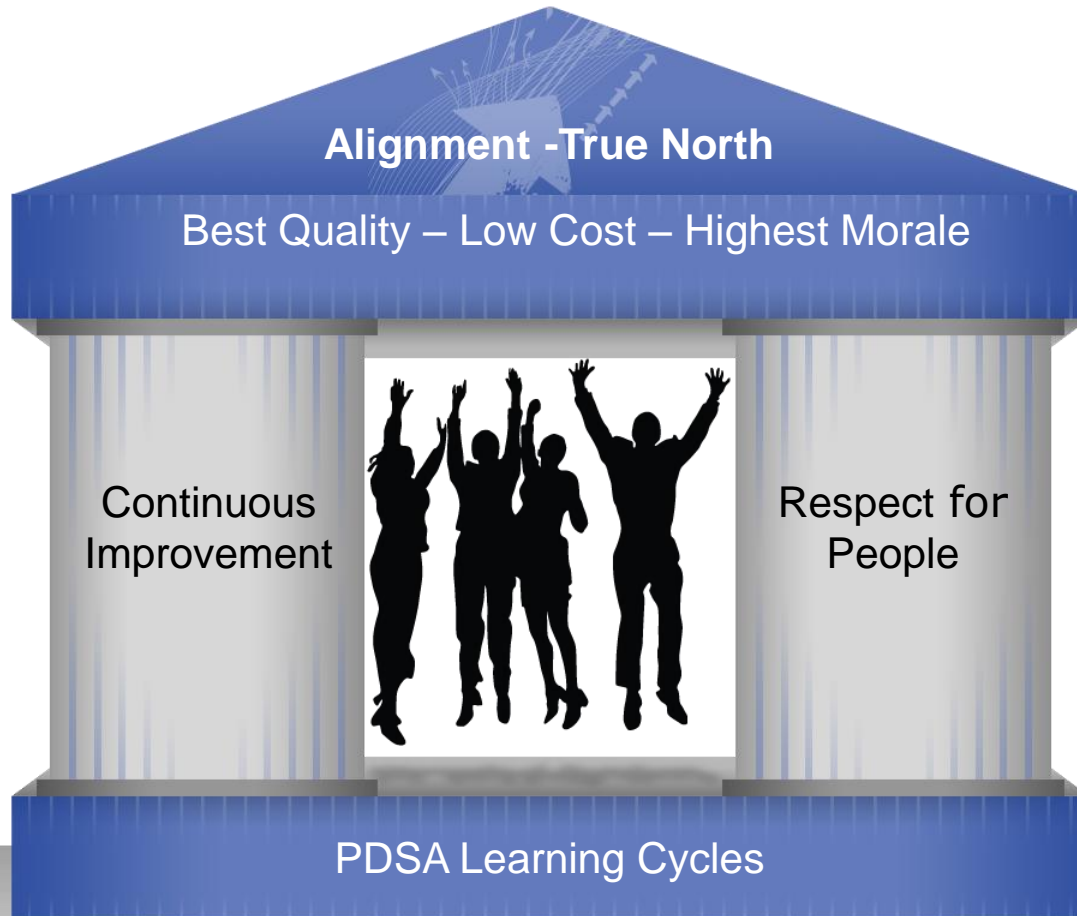
Non-Value

Example



"It"...Either Adds Value or Does Not

Lean is both a *methodology* and a *philosophy*



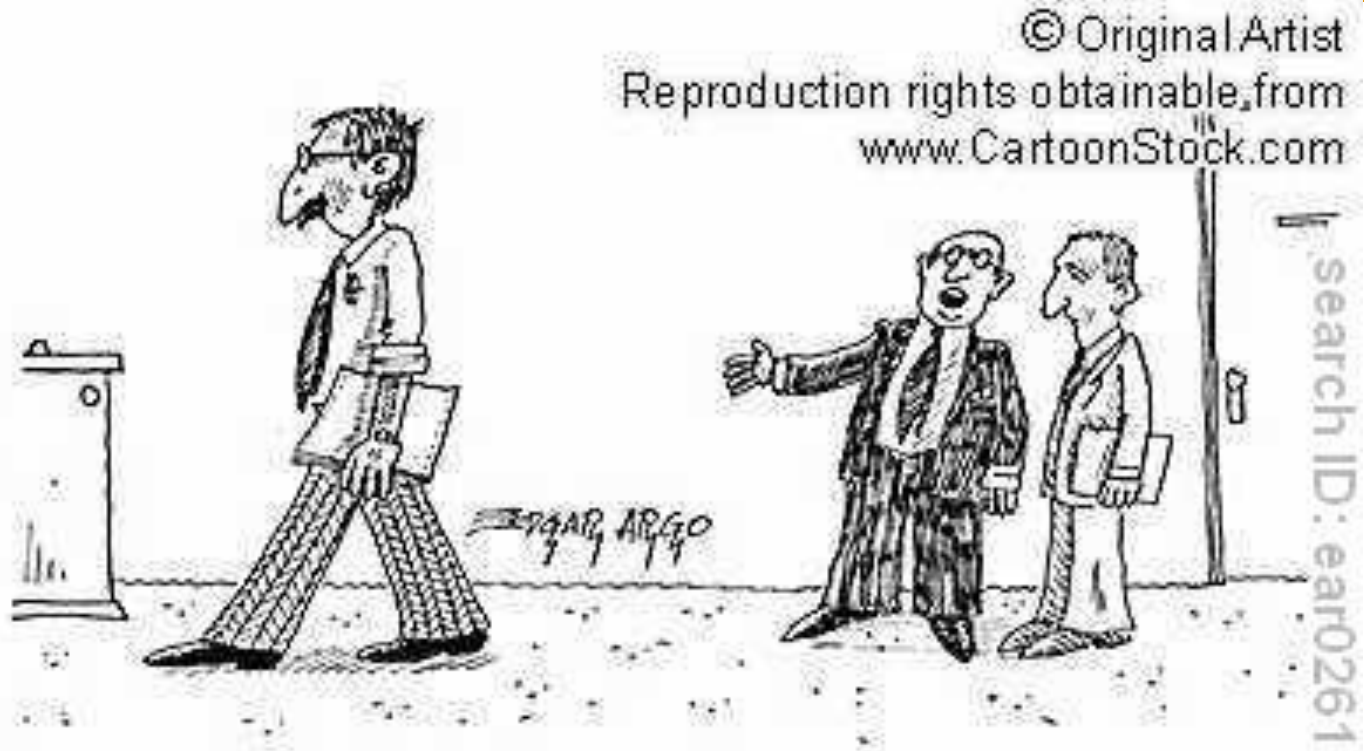
When do people feel respected?

When staff are empowered to institute their ideas for improving performance

Summary of White Belt Training

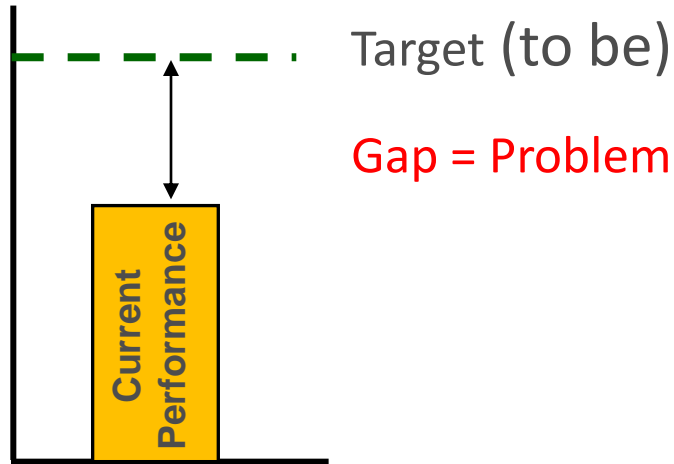
- Increase value for our customers by eliminating waste
- It's about people!
- Continuously improving, using the tools
- Lean is an organizational philosophy, a system, a set of tools. Lean = Mean
- Lean isn't a magic wand. It takes work and commitment – Get involved!
 - *“Insanity is doing the same thing over and over again and expecting different results.”* Albert Einstein

Introduction to Problem Solving



"HE COMES UP WITH A SOLUTION TO EVERY PROBLEM... IT'S ALWAYS PRACTICAL, WORKABLE AND WRONG."

What is a “Problem”? (video link)



A problem is a “gap” - between:

- Current condition – what is **actually** happening and
- Target or ideal condition – what **should** be happening, what is needed

Organization Problems

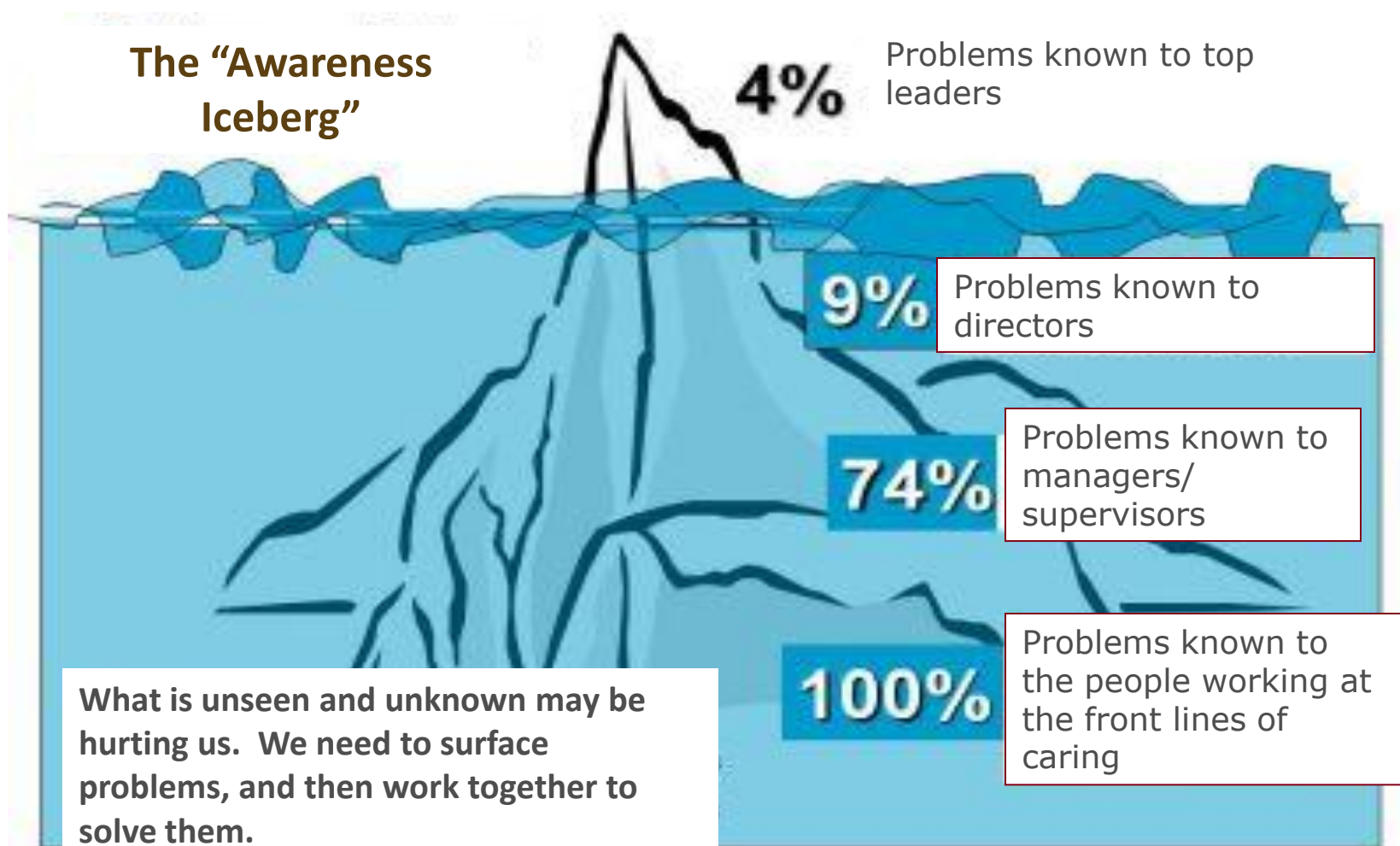
Can be global (Institution level):

The current UMMS process for ordering supplies creates delays in getting them delivered.

Can be local (Dept/Unit level):

Delays in interactions between different divisions in HR causes increase in time for a new employee to get hired.

Problems lie beneath the surface



How can we harness and solve those problems?

- Teach Staff to recognize waste
- Staff must have a way to communicate the problems they are encountering
- Problems need to be prioritized against the goals of the organization
- Staff should be able to work on solving the problems constructively
- Items being worked on should be communicated.....

A3 Template – Enhanced PDSA

Project Title, Leader

Charter

Team Members

Problem Statement

Scope (In/Out)

Background/Current
Conditions

Root Causes

Goals

Est. Project Completion

PDSA

Countermeasures (PLAN)

Implementation (DO)

Results/Conclusions (STUDY)

Follow-up Actions (ACT)

A3 Team Members

A3 Lead

Accountable for efficiently and effectively leading a team through the scientific problem solving process. The first step in this process is to clearly understand the problem to be improved and ends when there is proof that the root causes for this problem have been eliminated.

A3 team members

Crucial to overall success. They must be active champions of process change and continuous improvement.

They agree to: Being enthusiastic and committed to solving the problem(s). Team Spirit! Action!

Team members learn about Lean process improvement by respectfully asking questions, implementing countermeasures and reporting back to the team.

Lean Coach

The Lean coach is a Lean expert accountable for supporting, teaching, coaching, and mentoring the process owner, A3 owner, A3 team members and staff.

Problem Statement Insights

- Ensure the problem statement is **specific**.
- Ensure the problem statement does **not** include an implied solution.
- Ensure the problem statement states “what” not “why”.
- Ensure the problem statement does not include goals.
- To gain alignment and ensure success, the problem statements should be agreed upon by the core team and leadership early in the process.
- As you learn more about your problem, the problem statement should be refined to reflect what you learn.

Must-Haves & Delighters when Developing a Problem Statement

Must Haves

What:

The problem statement includes what is being affected.

Where:

The problem statement includes where the problem is occurring (space, location, or the point of cause in the process).

Delighters

When:

Includes a pattern of occurrence over time.
Includes the specific dates and times.
States when the problem was discovered.

Who:

Includes who is being affected by this problem. Use titles or responsibilities (not individual names).

How often/How many:

Quantifies the actual number of occurrences.

Consequences:

States actual or potential consequences if the problem is not fixed (impact on quality, cost, customers, morale, etc.).

Examples of Problem Statements

At UMMS:

41% of all expired grants and contracts remain open in PeopleSoft beyond the 90 day expiration period impacting final invoicing, compliance, departmental and central staff rework and additional follow-up with grants and contracts at UMMS

Difficulty in obtaining medical info. for Disability determination leads to 10,000- 16,000 consultative exams/year

It takes up to 4 months to execute a contract for Facilities in the Medical School

Scope

What's In? What's Out?

- On boarding process for university campus employees vs. MBL/CWM
- One academic department vs. multiple academic departments
- One campus, multiple campuses, entire system
- Process Start → Finish

Examples:

- In: University campus, 333 South Street
- Out: MassBioLogics, Commonwealth Medicine
- Start: New Employee Accepts offer
- End: New Employee attends Orientation

A3 Exercise – Part 1 (35 min)

Part A – (25mins)

- Write a problem statement for your team.
- Decide on scope; what is included vs. excluded.
- List appropriate team members who can work together to solve the problem

Part B – (10min)

- 2- 3 min report out from each team

How our brains work

How many passes does the team in White make?

<http://www.youtube.com/watch?v=Ahg6qcgoy4>

Process/Workflow Mapping

- Involves doers of the work
- Enhances Problem Solving
- Improves Decision Making
- Illustrates “The Big Picture”
 - A Picture is worth a thousand words
- Can be used for future training and spread

VSM & Process Mapping: Know your distance

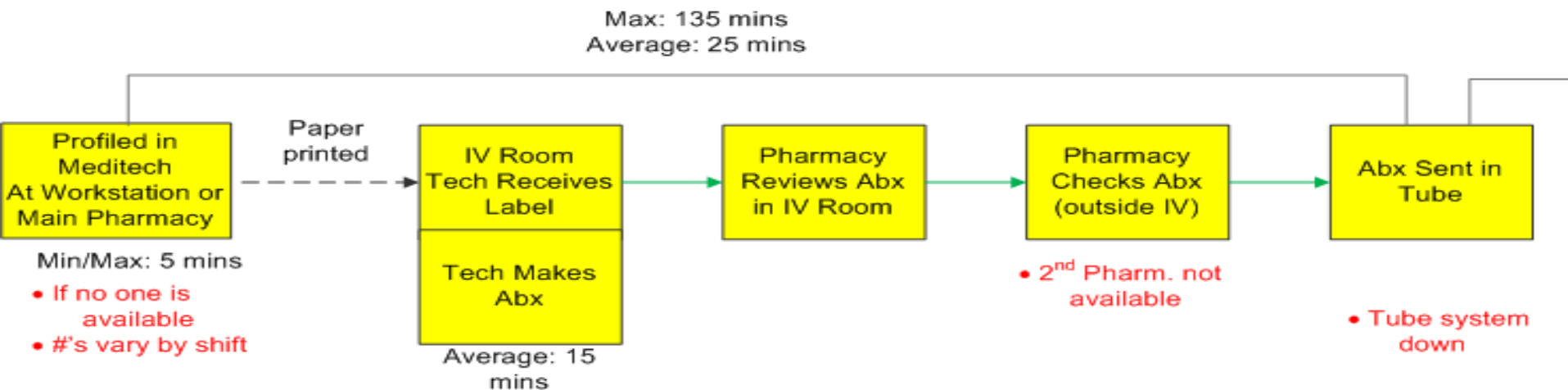
Using Graphical representations of defined processes to “see and surface” opportunities

Value Stream Mapping

- 10,000 ft level (higher)
- Considers the entire Value Stream
- Identifies non-value added steps
- Enables long term strategic planning – Typically one year but can be more

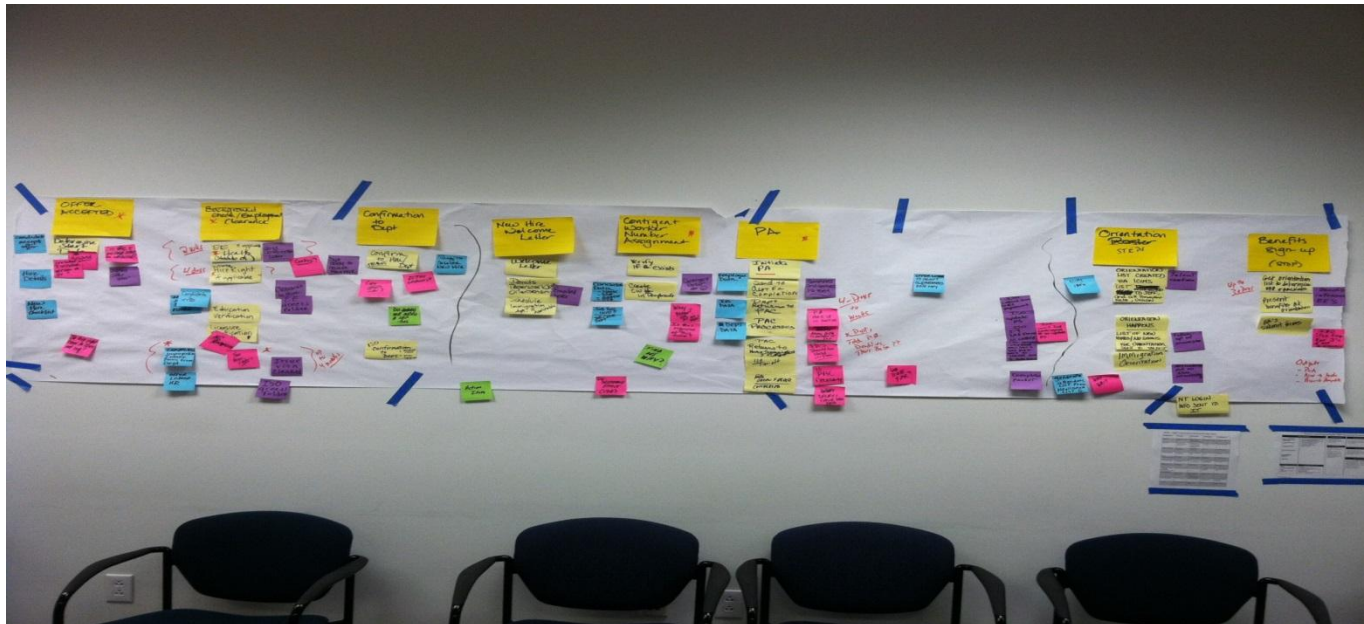
Process Mapping

- “Ground level”
- Very detailed – every step and decision documented
- Improvements are usually very small but easy to implement
- Enables short-term tactical planning



New Hire Current State Map

- Process Maps can illustrate bottlenecks and help quantify the waste



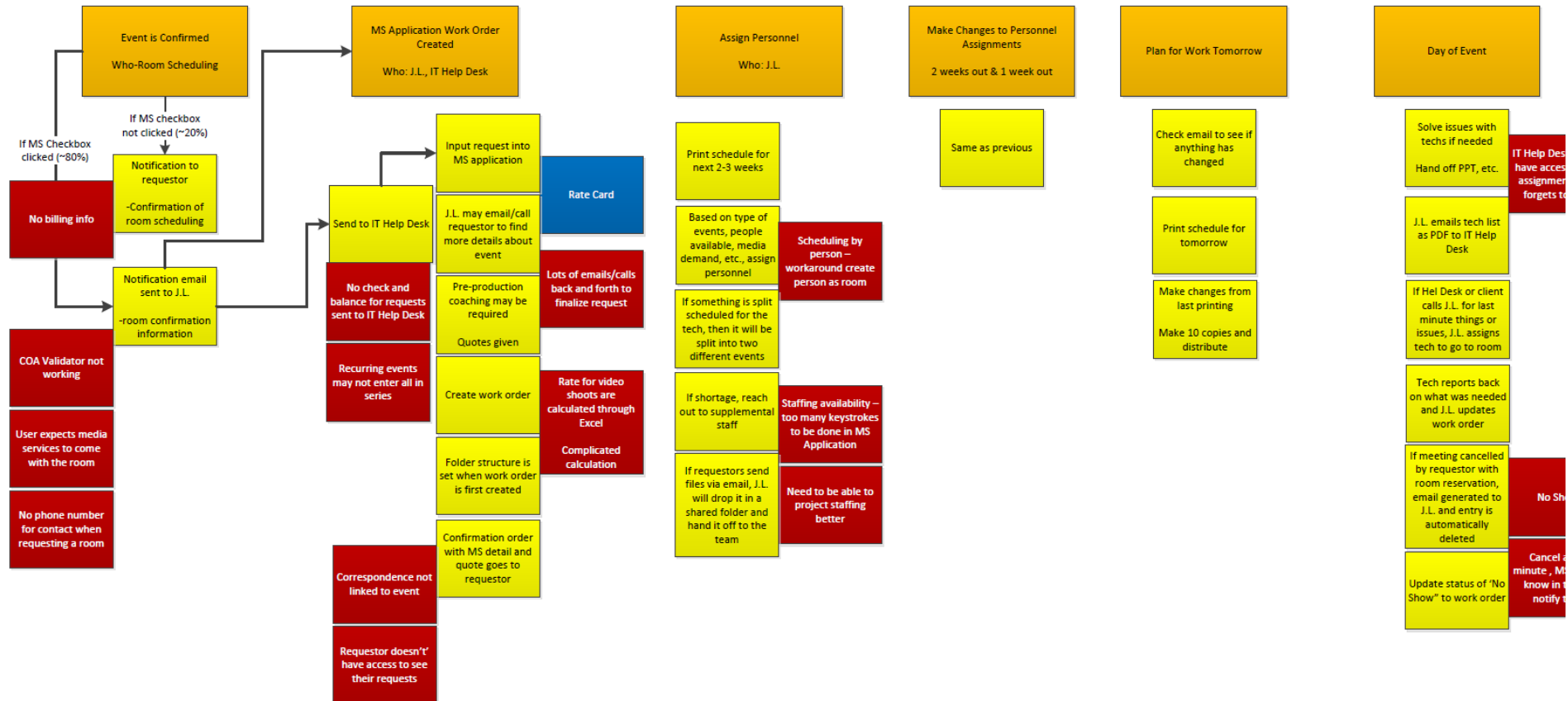
GMAS

People with same job performing differently, impacts data integrity, stakeholder satisfaction, likelihood of audit findings, financial penalties, reputation and not getting paid.

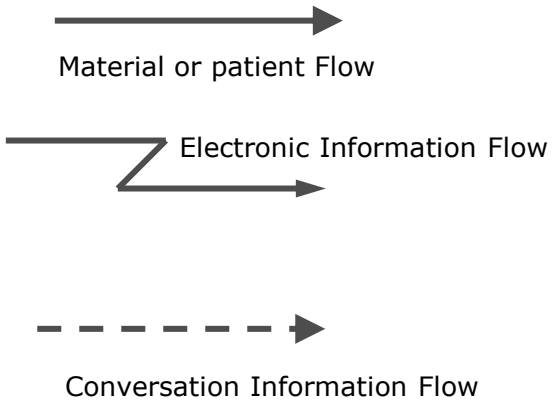
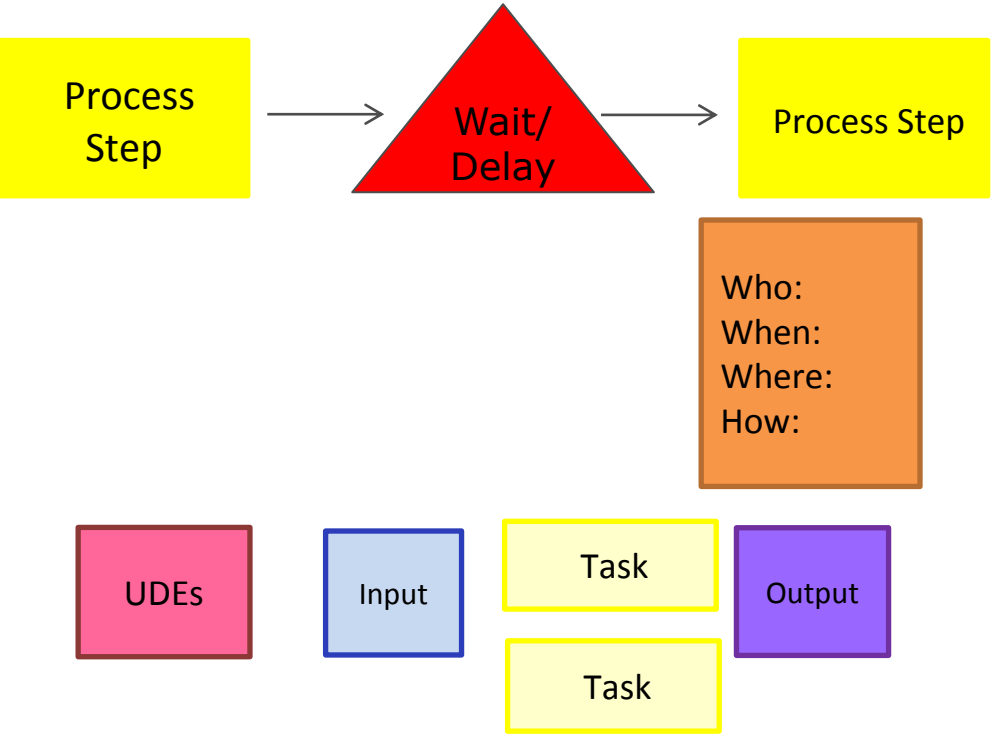


Media Services

Problem Statement: HMS is implementing a new Room Scheduling system (EMS) which will replace legacy Room Scheduling and Media Services systems



Current Condition Process Symbols



Lead time: The time between the initiation and completion of a production process
Cycle Time: The period required to complete one cycle of an operation; or to complete a function, job, or task from start to finish.

A3 Exercise – Part 2 (20 min)

Return to your teams and create a current condition map based on the embedded process of your A3.

Include major process steps, process tasks, in/out puts, and **wastes**.

Background / Current Conditions

- Describe what is actually happening
- Identify and quantify waste and value
- Not just “**what?**”, but....
 - **How much?** How often? Trend vs. one-time?
 - **Where** – University, South Street, Boston?
 - **When** – All the time; time of day; day of week?
 - **Who** – Is involved? Is impacted? Is the “customer”?
 - **Which** – Equipment? Supplies?
 - **How**...Does it work? ...the process, the problems.
- **Consider** - Quality, Delivery, Cost, Access, Value to the customer & *Compliance*; existing policies, regulations and laws.

Data vs. Metrics

- **Data is a collection of facts, such as values or measurements**
 - Data can be numbers, words, measurements, observations, or descriptions

Data:	Metrics:
Individual measurements	Calculations from the individual measurements
<ul style="list-style-type: none">• Time stamps :<ul style="list-style-type: none">• HR-Talent initiates PA form• Offer approval time• Grant Closeout time	<ul style="list-style-type: none">• Median time from PA initiated to PA entered into PeopleSoft• Avg. days from Offer accepted to employee start date

- Metrics are used to determine where a process stands in relation to its goals and to evaluate the effects of process changes

Choosing Metrics

Metrics should be:

- Relevant to goals
 - Actionable and meaningful
 - Targeted at reducing wastes
- Clearly and specifically defined
 - No wasted efforts in data collection
 - Scope should be known to all
- Easily measurable
- Manageable in number
 - Too many metrics can be difficult to keep track of or to use in decision making
- Comprehensive
 - Consider all metrics that can be affected by process changes

Collecting data

Go see what's happening at the "Gemba"... see & learn

Two methods:

- Via technology systems
 - Data is collected and stored using a computer program
 - iCIMS
 - Peoplesoft
- Via manual collection
 - Data is collected by hand through observation
 - Should be standardized to ensure consistent data collection

Technology Systems

Pros:

- Data collected via computer entry
- Large data sets
- Fast collection
- IS support

Cons:

- Often requires some amount of manipulation: cleaning, filtering

Manual Collection

Pros:

- Control for desired variables upfront
- Collect information computer system does not

Cons:

- Slow collection
- More time/labor consuming


Manual Data Collection Tools: Tick Sheet

		BIOSKETCHES						
		Investigator Name:	A	B	C	D	E	F
		Review #:	1	2	3	4	5	6
1	Correct/Current Biosketch Form Used			y		y		y
2	Headers/Footers on Form Present (require removal)	Y		y	y			
3	eRA Commons ID Not Included			y				
4	Position Title Not Included							
5	Position Title Inconsistent with Cayuse	Y						
6	Personal Statement not relevant to project							
7	Publications - PMCID Missing			y	y		y	y
8	Greater than 15 Publications included	Y					y	
9	Research Support - Incorrect Headings							
10	Research Support - Grant # Incorrect			y				
11	Research Support - Project Period Incorrect	Y						



Manual Data Collection Tools: Time Study

Time Study (simple): A work measurement technique, generally using a stopwatch or other timing device, to record the actual elapsed time for performance of a task.

Data Collection Results for Benedict / Primary Care				
** sorted in ascending order on Elapsed Time **				
Day / Date	Check-In Time			Note/Comment
	Start Time (Begins when Patient presents at desk)	Stop Time (Ends when Check-In is complete)	Elapsed Time (in minutes) ** 	
5/15/2012	1:54	1:56	2	aob, privacy
5/15/2012	2:03	2:06	3	no changes
5/15/2012	2:08	2:11	3	no changes
5/15/2012	2:01	2:05	4	no zoster paperwork from pharmacy
5/15/2012	2:37	2:41	4	NEHN
5/15/2012	1:56	2:01	5	phone, copay
5/15/2012	2:30	2:35	5	zoster paper work missing
5/15/2012	2:23	2:29	6	phone,NEHN,insurance
5/15/2012	2:13	2:21	7	pharmacy,phone, insurance
5/15/2012	1:53	2:02	9	phone,insurance,NEHN,aob, insuranc

Collecting Qualitative Data

- Typically collected via survey or interview
- Best practice is to convert to quantitative data
 - Responses are rankings
 - Easier to analyze than comments

Circle your role: Attending LIP Resident Care Coordinator (CM/SW) Nurse
 What floor do you work on? _____

Patient Care Survey

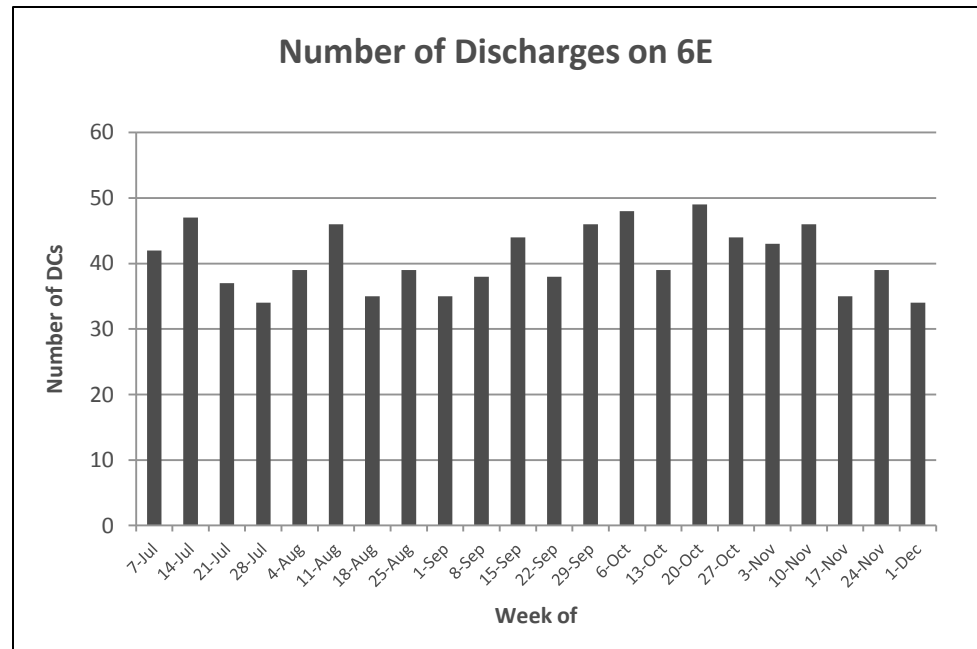
Please answer the following statements in regards to patients you have cared for who were NOT a part of SNAP rounds or ANY other multidisciplinary rounds.

COMMUNICATION					
Physician/LIPs, nurses and care coordinators share in decision making.	5 All of the time	4 Most of the time	3 Some of the time	2 Rarely	1 Never
Physicians/LIPs, nurses and care coordinators plan together before making decisions.	5 All of the time	4 Most of the time	3 Some of the time	2 Rarely	1 Never
Physicians/LIPs, nurses and care coordinators have open communication in making decisions?	5 All of the time	4 Most of the time	3 Some of the time	2 Rarely	1 Never
There are delays in relaying information regarding patient care.	5 All of the time	4 Most of the time	3 Some of the time	2 Rarely	1 Never
PLAN OF CARE					
When I care for a patient, I am confident all information is communicated to all team members.	5 All of the time	4 Most of the time	3 Some of the time	2 Rarely	1 Never
When I care for a patient, the Plan of Care each day is clear.	5 All of the time	4 Most of the time	3 Some of the time	2 Rarely	1 Never
When I care for a patient, I am confident the plan of care is safe and effective.	5 All of the time	4 Most of the time	3 Some of the time	2 Rarely	1 Never
DISCHARGE PROCESS					
The patient discharge process is efficient and timely.	5 All of the time	4 Most of the time	3 Some of the time	2 Rarely	1 Never
I am aware in advance of what is expected of me in planning for a patient discharge.	5 All of the time	4 Most of the time	3 Some of the time	2 Rarely	1 Never
In the last 7 days, I have been frustrated with the discharge process because of lack of communication and/or planning.	5 All of the time	4 Most of the time	3 Some of the time	2 Rarely	1 Never

All responses will be kept confidential.

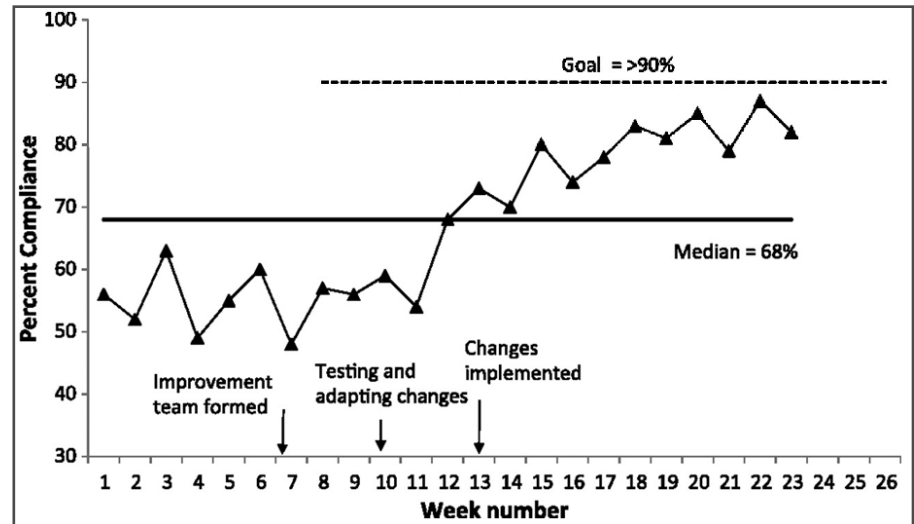
Bar Charts

- Show quantitative relationships between categories or groups
- Vertical or horizontal bars represent a category
- Length of the bar represents the quantitative value
- Easy to see trends or make comparisons



Run Charts

- Display continuous data in respect to time along a line
- Should also include a line representing the median of the data points
- Important tool for assessing the effectiveness of change over time
- Helps determine if improvement has really happened and if it is sustaining over time



*See Appendix for run chart rules

Example : Time for New employee hire

Example Problem Statement:

- “Average time to hire a new employee for Widget department is 10 business days longer than other departments”

What should the data collection plan look like?

3min discussion at your table

Other Current Condition Tools *

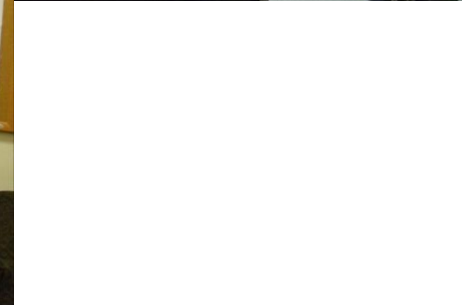
A variety of methods and tools can be used to capture and describe the current condition to provide context for the A3.

Here are some suggestions:

Pictures, Layouts, Spaghetti Diagrams: Pictures and diagrams can visually represent the work area being addressed by the A3.

** See subsequent slides for examples*

Go to the Gemba... See & Learn



WARD
SCHOOL

Go to the Gemba... See & Learn

- Go see
- Respect People
- Explain and ask humble questions



Background & Current Condition Re-cap

- What happens today? Describe the context or history of the situation.
- What is being observed? Who is involved or affected?
- What reports or measures are being used to track performance in the area?
 - Run chart – is a graph that displays observed data in a time sequence. Often, the data displayed represent some aspect of the output or performance
 - Time study and tick sheet
- Include a process map, pictures, or other visual representation

Let's take a Break for Lunch



A3 Exercise – Part 3 (10 min)

1. Return to your team, brainstorm on what information should or could be collected as background and current conditions. Write it out.
2. Include a description of data that might be available to help quantify the problem.
3. Identify current condition tools you might use. For example, a tick sheet.

No report out (gallery walk if not already done)

Root Cause Analysis

- Why does the problem or need exist?
- Separate symptoms from causes
- What is the **real** problem?
- Root cause analysis tools:
 - 5 Whys
 - Fishbone diagrams



Is there a Root Cause to Waste?

- What is meant by “root cause”?
 - Underlying reason, usually not obvious. The “real” problem.
 - Versus a “contributing” cause, or symptoms.
- Why do we pursue the root cause?
 - Root cause is solvable and will result in fixing the problem by applying a countermeasure
 - Solving *contributing* causes or *symptoms* **won't** eliminate the problem (the Waste).
- Root Cause Analysis Tool – **5 Whys**
 - Breaks down each reason or cause until further breakdown is not possible

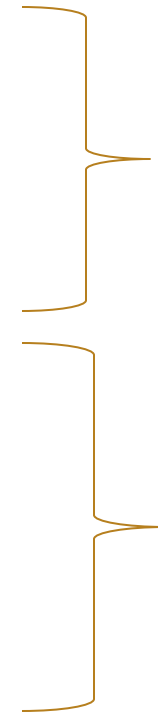
Creating A Non-Blaming Culture

New Paradigm -- Create a culture where:

- Focus on the problem; not the person
- Problems are recognized as opportunities
- It's okay to make legitimate mistakes
- Problems are exposed because of increased trust
- People are not problems: They are problem solvers!
- Emphasis is placed on finding solutions instead of assigning blame
- Finding and exposing problems is expected of everyone

Addressing critical issues and involving leaders from the beginning reduces resistance at future critical points in the project

Underlying cause vs. symptom



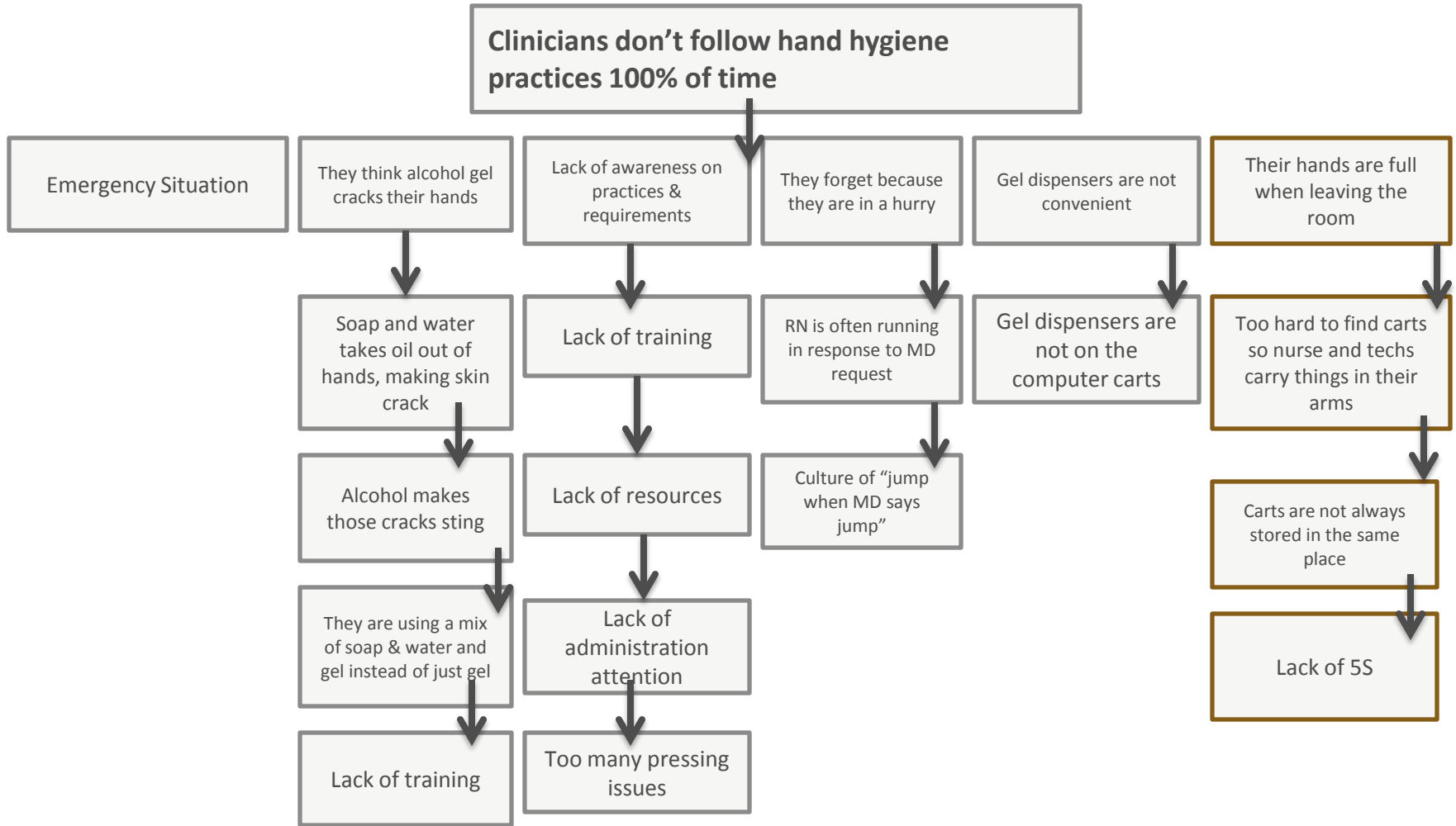
Symptom

Underlying
cause

Respect for People

- Lean leaders can drive out cultural fear by showing a consistent and genuine respect for those who do the work – where the work is being done.
- Go to the Gemba, ask questions and listen
 - Tap into their wisdom, experience, training, knowledge and critical thinking skills.
- Provide the time to work on process improvement
 - Allowing and equipping the staff to improve their own work in a culture without fear is.

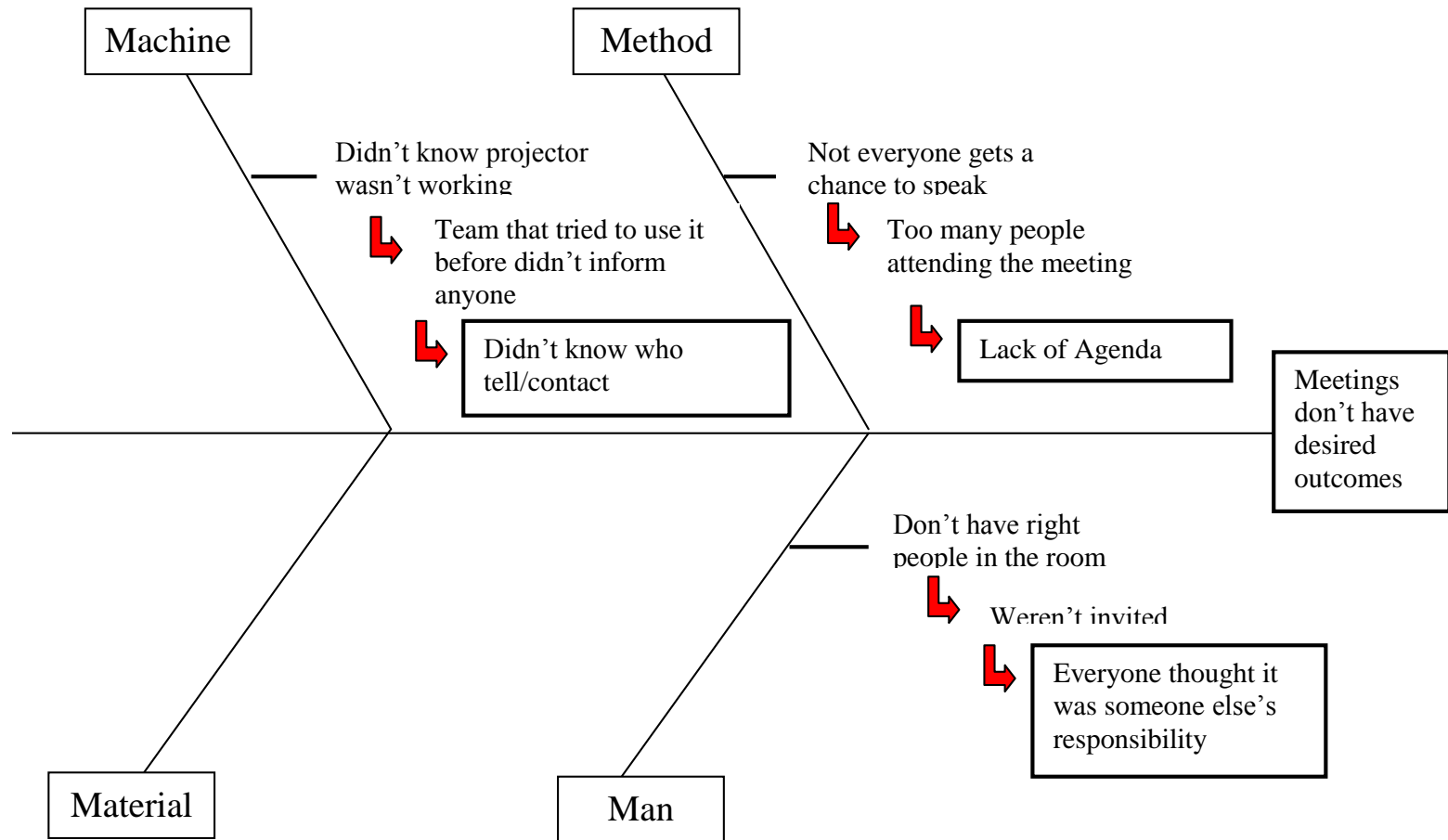
“5 Whys” Example



Problem-solving using 5 Whys and a Fishbone Diagram



Fishbone Diagram Example



Perception of presenting problem

Clarify the problem

Go to the Gemba and understand the way the work is done

Focus on the process

Ask: Why?

Why? → Direct cause

Why? → Cause

Why? → Cause

Why? → Cause

Why? → **Root Cause**

Grasp the situation

What is the actual problem *in performance*?

Problem breakdown

Go to the gemba, get the facts first-hand, analyze them thoroughly and objectively

Be Respectful

Blame the process, not the person. Where did the process fail?

Cause investigation

Determine the root cause of *why* the problem is occurring.

Root Cause Re-cap

- The root cause is an initiating cause on a causal chain which leads to the problem at hand.
- A Root Cause Analysis (RCA) is conducted in order to identify what behaviors, actions, inactions, or conditions need to be changed to prevent recurrence and achieve better consequences.
- If you miss or do not find the root cause, you risk wasted time, effort, resources and frustration.

Goals & Timeline

Goals

- What goals would you like to see, based on resolving some of the contributing factors of the problem?
- How much improvement? By when? What are your metrics?

Goals & Timeline

Goals	<p>S.M.A.R.T.</p> <ul style="list-style-type: none"> • Specific • Measurable • Attainable • Realistic • Time-bound 	<p>-Reduce Percentage of expired accounts open in PeopleSoft beyond 90 day expiration period from 51% to 20% of all expired grants</p> <p>-Reduce time from submission to HR to delivery to Payroll by xx days</p> <p>- Reduction in errors found at Research Funding Services less than 50% (from 83% to 40%) by end of February '15</p>
Timeline	Specific, Realistic	by December 10, 2014

A3 Exercise – Part 4 (30 min)

- Referring to your case create a fishbone diagram that represents the causes (whys) of the problem.
- Use paper and fishbone template skeleton on the wall.
- Also establish Goals and Estimated Timelines for your A3

No report (gallery walk during break)

A3 Template – Enhanced PDSA

Project Title, Leader

Charter

Team Members

Problem Statement

Scope (In/Out)

Background/Current
Conditions

Root Causes

Goals

Est. Project Completion


PDSA

Countermeasures
(PLAN)

Implementation (DO)

Results/Conclusions (STUDY)

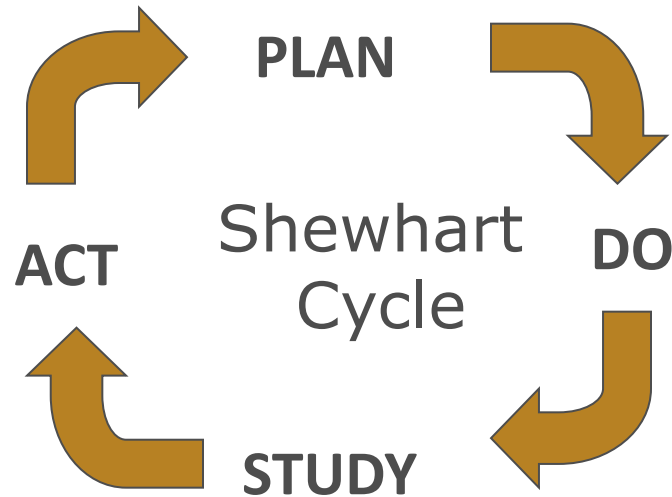
Follow-up Actions (ACT)



We are
here

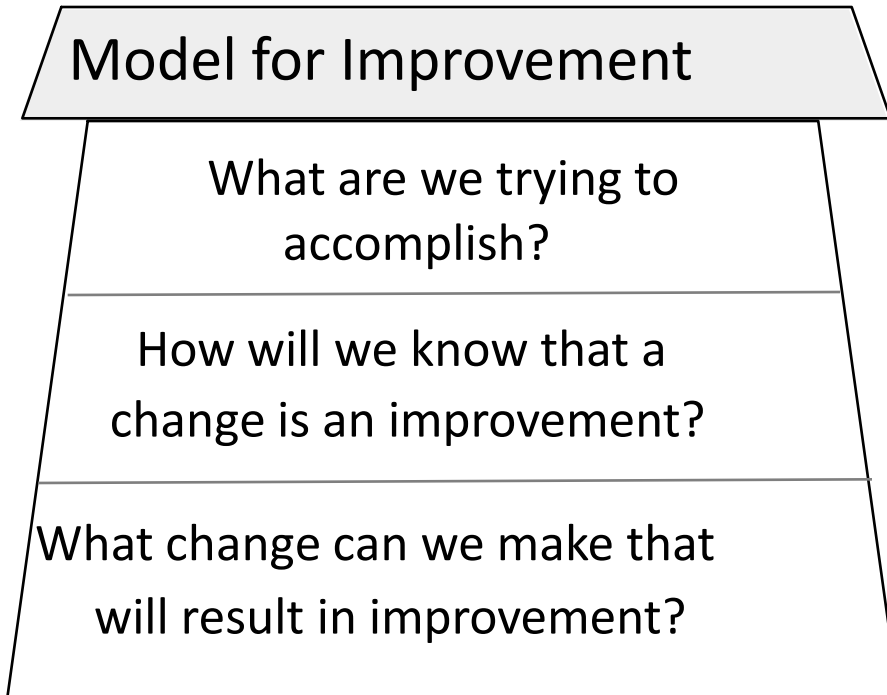
PDSA

- Created by Shewhart in the 1930s as the scientific method for improvement
- Popularized by Deming first in Japan in the 1950s.
- At the core of all quality systems.
- The foundation for A3
- IHI Model for Improvement

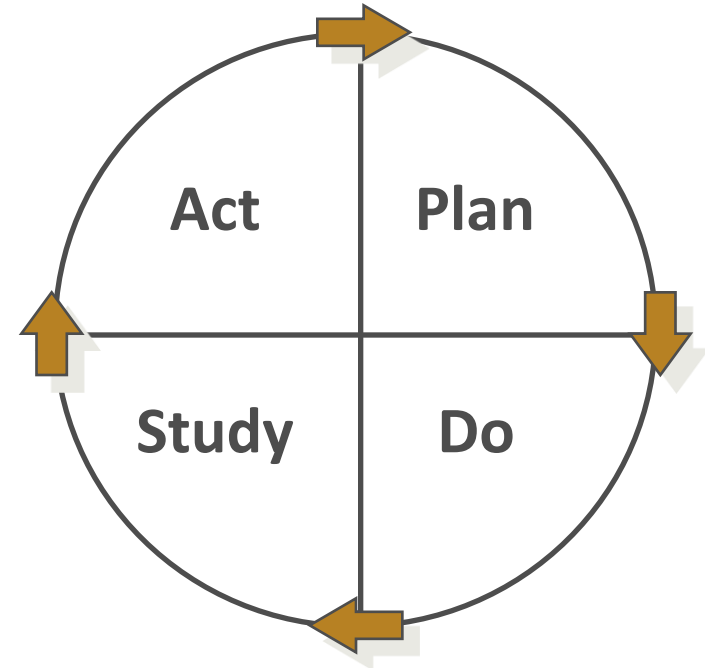


Cycling through Plan, Do, Study, and Act until desired result is achieved, is essential to improving

Now, for each project, consider:



Reference: *IHI Model for Improvement.*



PDSA Cycle 1 . . PDSA Cycle 2 . . PDSA Cycle X.

Until you achieve the improvement you seek

Countermeasures (Plan)

GET APPROVAL

- **Devise countermeasures** and visualize future state
 - Evaluate possible fixes based on effectiveness, cost, and time to implement. Which alternative solutions have you decided to trial?
 - Every countermeasure should be a Lean tool or use one or more Lean principles.
 - Every countermeasure should be eliminating waste and aligned with the Goals of the A3 project.
 - “Right-size” the countermeasure design.
 - Verify alignment with larger organizational goals.
 - Verify that the countermeasure will not remove or violate an existing Compliance, Privacy or Information Security policy, procedure, or control. Check with Compliance if unsure.
 - Test solutions on a small scale, if possible.

Mapping the future state



MUSINGS FROM A LEAN THINKER

lean.org/leanpost



The Optimist



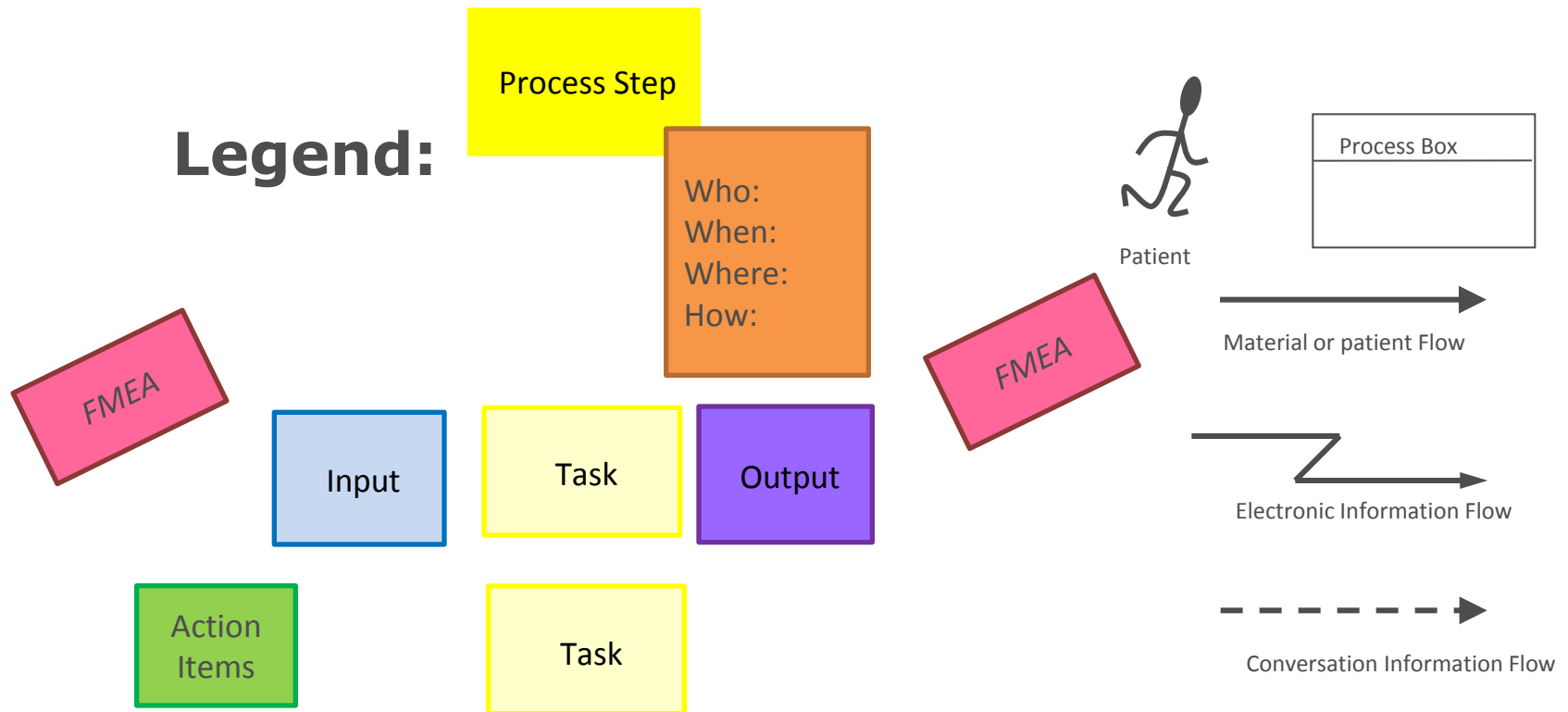
The Pessimist



The Lean Thinker



Future State VSM Symbols



Lead time: The time between the initiation and completion of a production process

Cycle Time: The period required to complete one cycle of an operation; or to complete a function, job, or task from start to finish.

Failure Modes & Effects Analysis

An FMEA is a prospective method to reduce risk, by asking:

*“What could possibly go **wrong** with our plan?”*

“What could we put in place to eliminate or minimize it?”

An FMEA asks you to carefully consider the plan, identify where and how it might fail, and assess the relative impact of different forms of failure.

Examples of Countermeasures

- **5S**
 - To address problems associated with wasted time and wasted talent in searching for supplies & equipment to perform work
 - Sort & Scrap
 - Straighten/Set in order/Stabilize
 - Shine/Sweep
 - Standardize
 - Sustain
- **Visual Management**
 - Make operations visually obvious
 - Make problems stand out – make it easy to identify error conditions
 - Easy tracking of up to the minute process performance
 - Andon – a light or signal that a worker needs help immediately (to indicate a problem or abnormality has been detected)

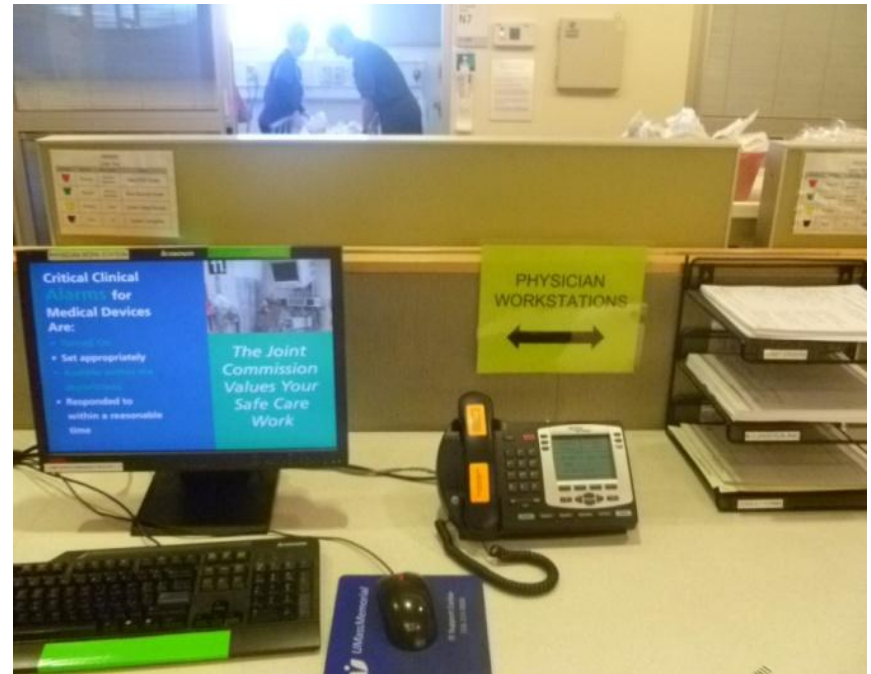
5S of University ED

Before



5S of University ED

After



Visual Management - Room Flags



Examples of Countermeasures

Standard Work

- Purpose is to make the **best methods** consistent among all workers
..... A Best Practice
- Well defined, precise procedures for each person's work; includes work sequence, equipment and inventory required
- Reduces variation
- Key to continually improving a process
- Visual pictures or video supplement can be very helpful

Standard Work Example


Standard Work					
Date: 12/10/2014		Team Leader: Mark Smith		Supervisor: Susan King	
Area: Admin		Job: Rejected Medical Release Forms		Written By: Mark Smith	
Step	Major Step	Key Points (Quality, Safety, Technique)	Reason for Key Point		
1	State Agency release Is rejected by facility and returned to DES. This will be Day 1 of returned release	1. Rejected release is received by DES Operations team and placed in 807 Bucket (Day 1)	Facility wants DES to use facility specific release form		
2	Administrative Manager retrieves documents in 807 bucket on daily basis (still Day 1)	1. Administrative Manager checks bucket daily and retrieves rejected release forms (Still Day 1) 2. Administrative Manager opens each case to verify open status. (Daily)	Administrative Manager reviews documents in 807 bucket and processes as appropriate		
3	Administrative Manager identifies all NEW rejections and sends to designated RFI DA	1. If case is open and it is a NEW rejection of State Agency Release not in DES RFI database the Administrative Manager sends rejected release to designated RFI DA for facility contact (Still Day 1).	These facilities need to be input into the RFI database for future reference		
4	Designated RFI DA contacts facility	1. Designated RFI DA contacts facility (Day 2)	Designated RFI DA contacts facility HIM Manager to resolve State Agency Release rejection.		
5	Designated RFI DA gets facility to use our release and send records	1. If designated DA is successful in getting facility to use State Agency Release request is processed by facility. This is a variable time span dependent on timeliness of response by facility.	Designated DA does not hold up the case while attempting to resolve the rejected release issue.		

A3 Exercise – Part 5 (20 min)

- Create a Future State Map (if applicable)/ or create Action Items from the current state map
- Identify Countermeasures to Root causes
- Create the Implementation Plan – Identify what to Study
- **Capture next steps for team report out (5mins each)!**

What is an Idea System?

Creating a standard process for empowering people, continuous improvement and alignment with True North

IDEA BOARD			
NEW IDEAS <small>Submit to your True North. Do not submit if it is not aligned with the goal.</small>		Implement	Consider
		High	Possible
		Low	Not at this time
		Low	High
Idea #	Task	Responsible	By When
PARKING LOT	IDEAS NEEDING HELP	COMPLETED IDEAS	



Idea		#
Name(s):	Date:	
What is the problem/waste?		
Why is it happening?		
Idea:		
Date the Idea was Implemented:		



Idea Board + TNM + Team Huddles + Celebration
= **Idea Systems**

What are “True North” Goals & Metrics?

- True North **Goals** are the goals an organization will aspire to reach; similar to strategic goals/objectives.
- True North **Metrics** must be established to drive the desired results.
 - Measurement is crucial to knowing where we stand with respect to our goals.
 - You can't manage what you don't measure.
- True North Goals and Metrics ultimately define the **value** an organization is committed to delivering to its customers: Patients, Employees, Physicians, the UMass System, and the Community.

IDEA BOARD

METRICS

List here 1-3 focus areas for the department

NEW IDEAS

IDEAS IN PROGRESS

COMPLETED IDEAS

Idea #	Task	Responsible	By When

PARKING LOT

IDEAS NEEDING HELP

No idea is too small!

- An idea can be as small as changing the types of pens you write with because the ink bleeds less...
- Or having all the computers automatically turn on at 6:30am so they are ready when staff arrive...
- Or setting an alarm on your phone so you remember to charge it...

**Check with Staff
Before Peeing,
We May Require
a Lab Sample.**

What else is the Huddle for?

- Sharing better techniques
- Sharing and encouraging new ideas, innovations
- Developing problem solving skills
- Building respect for each other
- Team building
- Information sharing



Starting the Huddle



- Remember that the Huddle should give energy to the team, not take it!
- The staff needs to buy in to the purpose and urgency of the meeting.
- Start with a greeting – perhaps something catchy to use every day



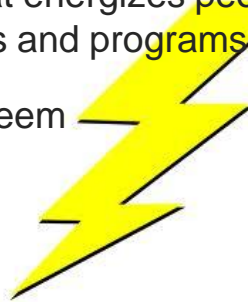
Empowering your team members

- *Zapp*

Vs.

- *Sapp*

- Zapp (a force that energizes people, a key success for ideas and programs):
- Boosting self esteem
- Responsibility
- Building trust
- Being listened to
- Solving problems as a team
- Praise
- Support (feedback, coaching, encouragement) Listen
- Upward & downward communication
- Development & growth



- Sapp (the taking of power, a de-motivating event or force in the workplace):
- Criticize
- Confusion
- Lack of trust
- Not being listened to
- Someone solving problems for you
- Not knowing whether you are succeeding
- Taking credit for others successes
- Believing that you can't make a difference
- Treating people like interchangeable parts
- Blame the person
- Shut people down



Escalating ideas and “Needs Help Section”

- An idea that is “out of scope” for our department
- An idea that we do not have the resources/time to implement
- “Big picture” ideas worth sharing
- Escalated ideas need to have defined problem scopes, causes and current condition information
- *Why? Problem Solving occurs as close to the front-line as possible*

Example Idea

Idea			
Name(s):	John Doe	Date:	24-Jun
What is the problem/waste?			
We have too much to do and don't have enough time for that			
Why is it happening?			
We don't have enough staff			
Idea:			
Hire more staff			
Date Implemented:			

Lean Leadership

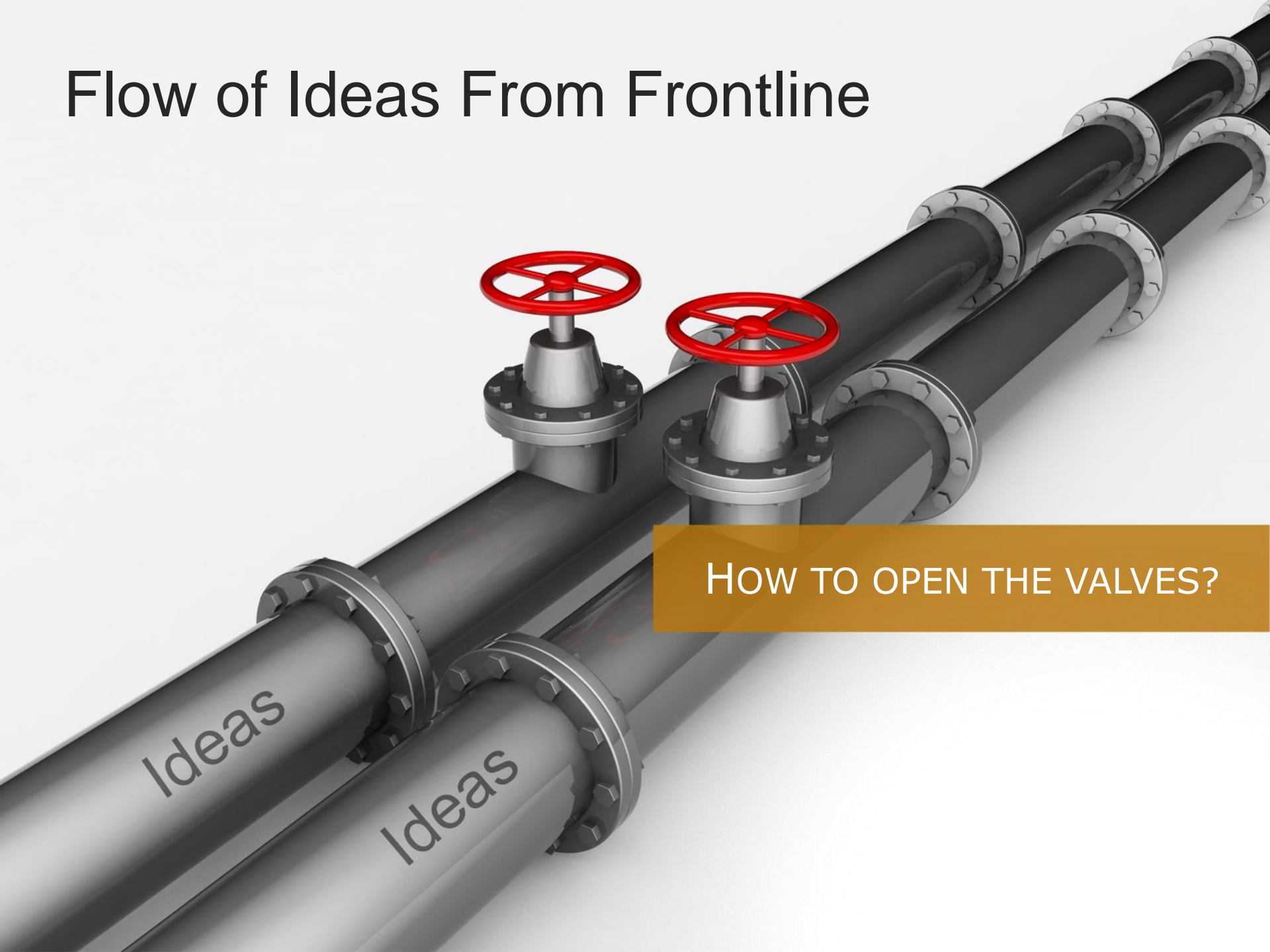
An abstract graphic featuring a large blue arrow pointing upwards and to the right. The arrow is composed of many smaller, overlapping arrows, creating a sense of motion and direction. Binary code (0s and 1s) is scattered throughout the scene, particularly around the arrow and in the background. The overall color palette is dominated by shades of blue and white, with a brownish-gold bar containing text.

ALIGNING THE ORGANIZATION WITH TRUE NORTH

A detailed image of a silver and black compass. The compass face is black with white markings for degrees and cardinal directions (N, S, E, W). The needle is silver and points towards the top of the frame. The compass is positioned in the lower right quadrant of the slide, partially overlapping the brownish-gold text bar.

ENGAGING EVERYONE IN THE WORK

Flow of Ideas From Frontline



HOW TO OPEN THE VALVES?

Results

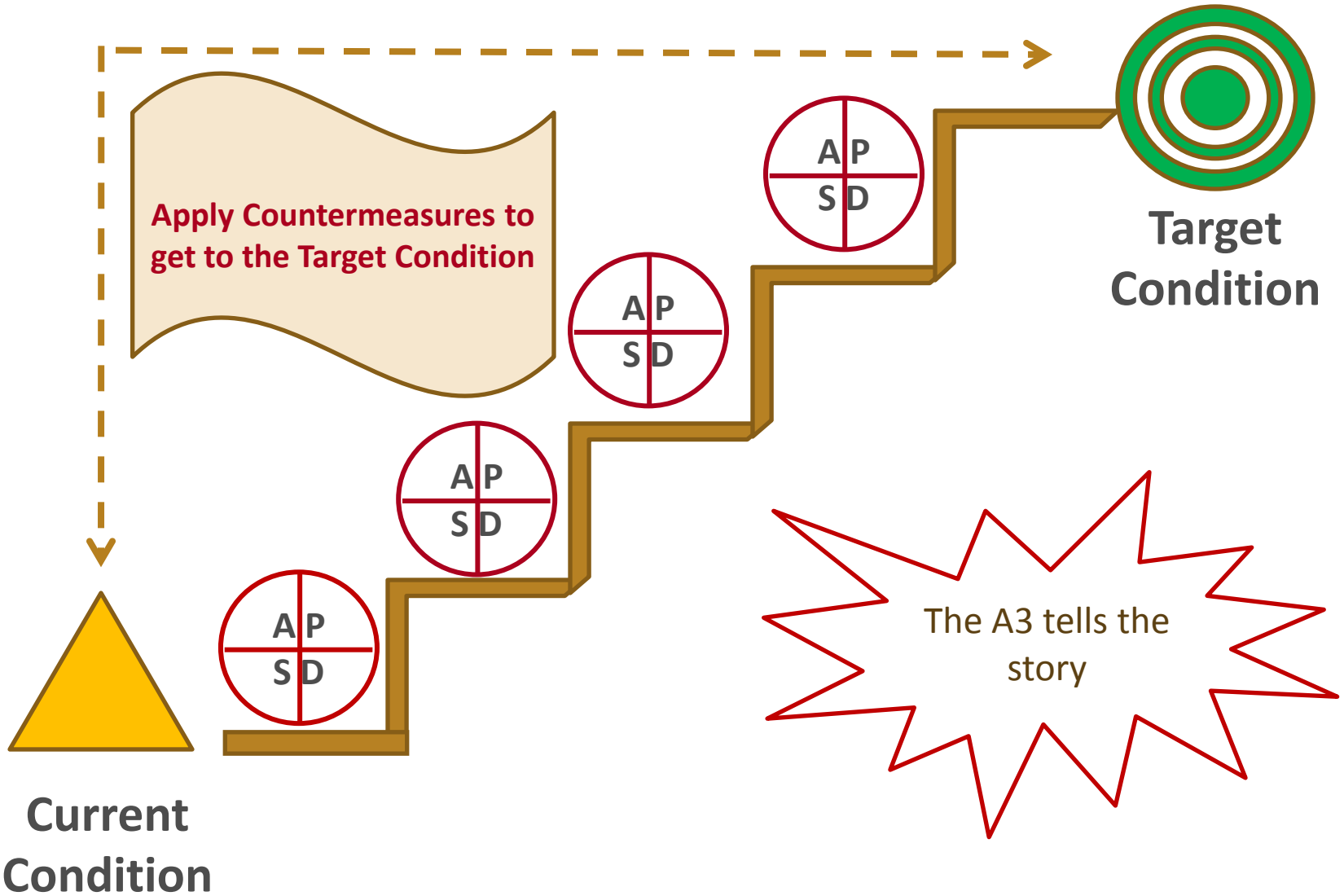


“The better I care for
the team, the faster
they run.”
-Dallas Seavey

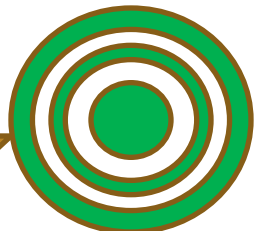
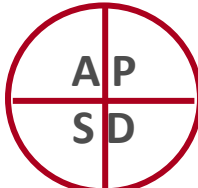
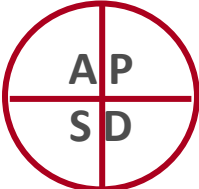
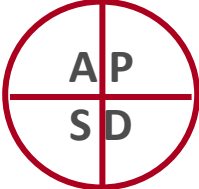
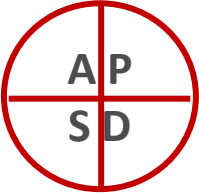
You Are Here



You Want/Need to be Here



Apply Countermeasures to get to the Target Condition



Target Condition

The A3 tells the story

Current Condition

Countermeasures - Recap

- Address the problem's root causes
- Use and Apply the right Lean principles and tools
- Be thorough – combine multiple approaches, tools
- Develop alternative approaches, consider and analyze costs versus benefits
- Check for compliance
- Pick the best approach based on analysis
- Include what you will monitor and measure to determine the change is improving or eliminating the root cause(s).

More A3 Elements

Implementation Plan (Do)

What will be main actions & outcomes in the implementation process & in what sequence?

What support & resources will be required?

Who will be responsible for what, when & how much?

When will progress & impact be reviewed & by whom?

Use a Gantt chart to display actions, steps, outcomes, timelines & roles.

Results and Reflection (Study)

What happened during the trials – study the positive and negative effects, reflect

What are the final results, and conclusions of the trials?

Follow-up Actions (Act)

Accept, reject or modify aspects of the trials to achieve desired outcomes

What related issues or unintended consequences do you anticipate & what are your contingencies?

What processes will you use to enable, assure & sustain success?

Implementation Planning

- Identify what will be done
- Identify who will be responsible
 - Responsible person does not need to do all the work
- Determine when it will be done
 - Note milestones
- Identify how to “Do-Study-Act”
 - Will you first test possible solutions before rollout? How? *FMEA*???
 - Plan for follow-up: How, Who, and When, Frequency of PDSA cycles
- Identify failure modes to the plan, and how to address them

Is A3 a Tool or a Process?

The Tool:

The **A3 format** is used for proposing and reporting on improvements, changes and countermeasures to problems – and more. It provides structure for the information.

The Process:

The **PDSA** management and learning cycle is a process for identifying problems, improvements and countermeasures and **managing implementation** – coaching and developing people and process

Traps for the Unwary

- Fixing things that should not be happening at all
- Not understanding the larger process of which this is a part
- Jumping to the countermeasure without having a deep understanding of the problem
- Not clearly understanding the needs of the organization
- Not tying your A3 to the larger goals of the organization
- Focusing on symptoms, not root causes
- Viewing people as the problem instead of the process being the problem

Three Common Mistakes

Assuming you know what the problem is without seeing what is actually happening

Assuming you know how to fix a problem without finding out what is causing it

Assuming you know what is causing the problem without confirming it

In other words - Not fully Grasping the Situation

(And where do we grasp the situation?

At the Gemba!)

A Good A3. . .

A good A3 is a reflection of the dialogue that created it...

-John Shook

JOHN Y. SHOOK



John Shook is chairman and CEO of Lean Enterprise Institute (LEI).

John enthusiastically shares his knowledge and insights with the Lean Community and with those who have not yet made the Lean leap. See www.lean.org to learn more.

A3 Expectations / Take-Aways

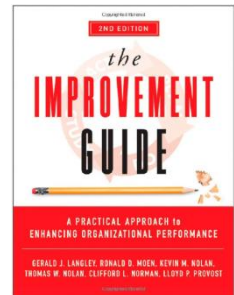
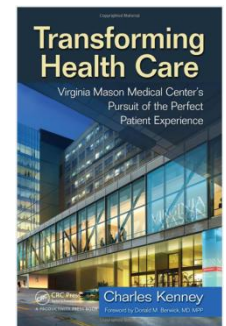
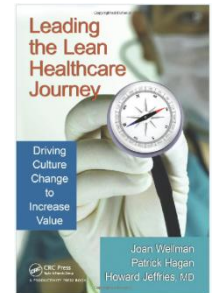
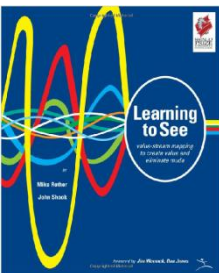
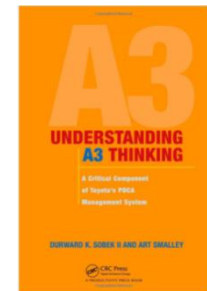
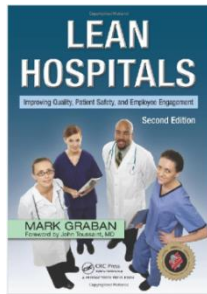
- A3 Communicates a story
 - A3's must make sense to others, not just the person(s) creating them
 - Should be visual and extremely **concise**
- Contains a goal and a means to measure success
- Resolves a problem
- Engages and aligns the organization
- Is not a form alone, but the **process and thinking behind it**
- Is an iterative (PDSA) process

External (Web) Lean Resources

- Lean Enterprise Institute
 - Mission: Advance lean thinking throughout the world
 - <http://www.lean.org/>
- Lean Blog
 - Mark Graban's blog about Lean in hospitals, business, and our world.
 - <http://www.leanblog.org/>

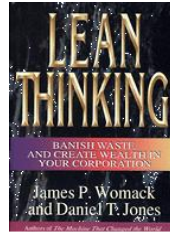
External Resources

Title	Topic / Focus
<i>Lean Hospitals</i> – Mark Graban	Improve safety, quality, access, and morale while reducing costs.
<i>Leading the Lean Healthcare Journey</i> – Wellman, Jeffries, Hagan	Challenges overcome by continuous improvement. Contributions from change agents at several hospitals.
<i>Understanding A3 Thinking</i> – Sobek & Smalley	Guidance, examples, and practical advice on A3 thinking and reporting.
<i>Transforming Health Care</i> – Charles Kenney	How Virginia Mason Medical Center adopted the Toyota Production System as its management method.
<i>Learning to See</i> – Rother & Shook	Value stream mapping to create value and eliminate muda (waste).
<i>The Improvement Guide</i> – Langley, Moen, Nolan, Nolan, Norman, Provost	Integrated approach to process improvement that delivers quick and substantial results in quality and productivity in diverse settings.

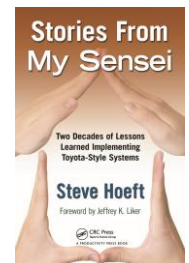
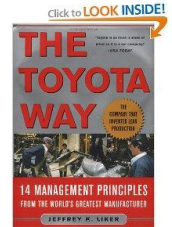
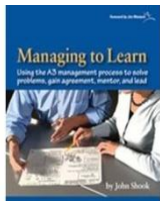
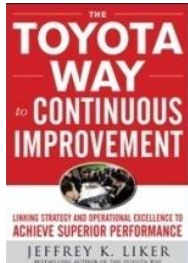


External Resources (2)

More Books, Guides



Title	Topic / Focus
<i>Lean Thinking</i> – James Womack	Lean Background / Case Studies
<i>The Toyota Way</i> – Jeff Liker	Detailed study of Toyota
<i>The Toyota Way to Continuous Improvement</i> – Jeff Liker	Using PDCA as a strategic advantage
<i>The Machine That Changed The World:</i> – James Womack	Origination of Lean outside of Japan
<i>Managing to Learn</i> – John Shook	Using the A3 process
<i>Stories from My Sensei</i> - Steve Hoefft	Deploying Lean principles through humor using the Toyota House Model



Final Thoughts: Show & Encourage Lean Behavior

- Focus on the customer
- Look for opportunities to improve
- Look for defects, errors, and other waste in your work
- Expose problems
- Ask “Why” repeatedly
- Identify and eliminate waste
- Standardize work, visual management
- Have a bias for action

Conventional vs. Lean Behaviors

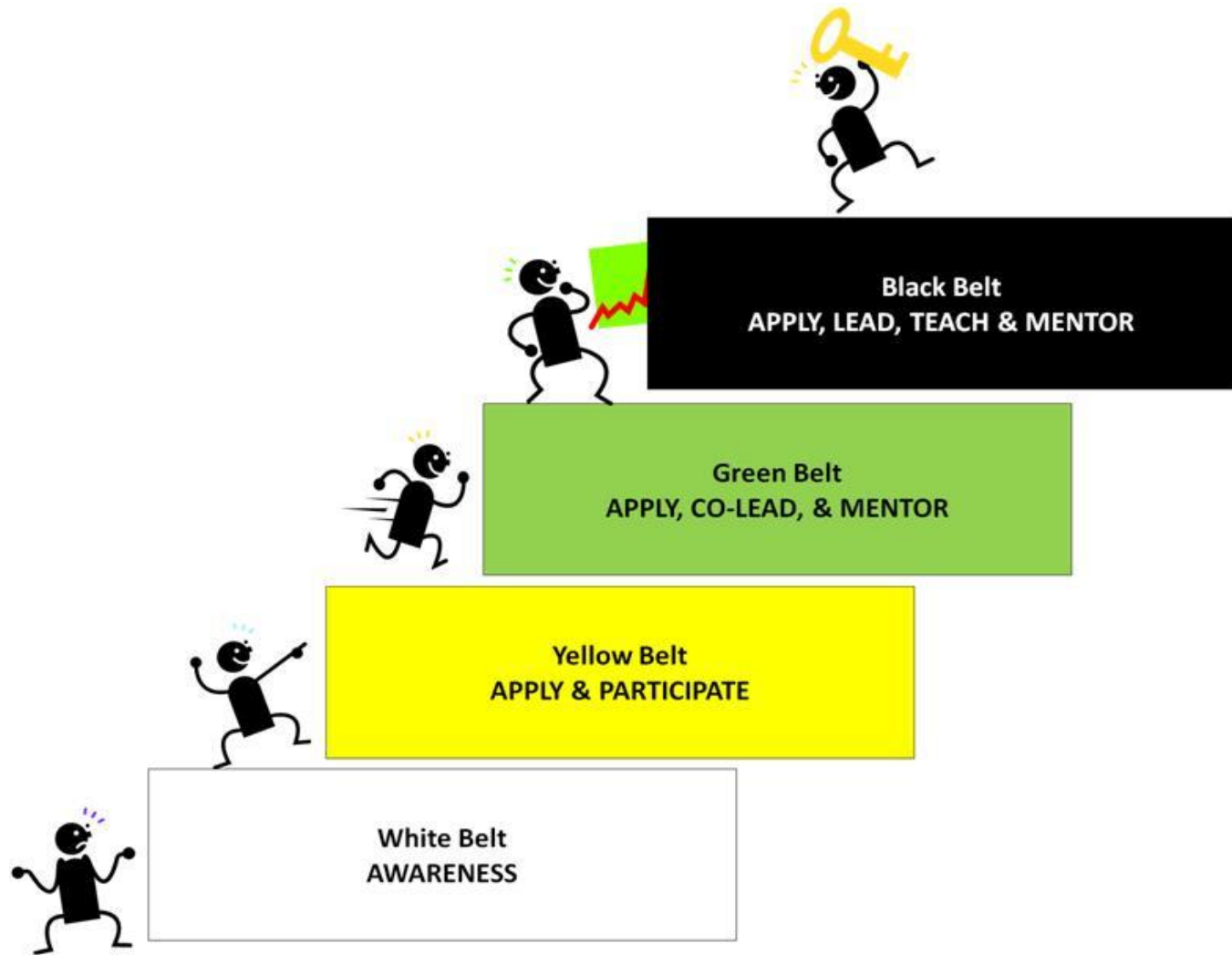
Conventional

- confusion
- unnecessary commentary
- irrelevant observations
- random thoughts
- ego
- negativity
- excess
- sarcasm
- cynicism

Lean

- self-awareness
- humility
- compassion
- suspension
- calmness
- patience
- humor
- respect
- sincerity

Lean Belt Certifications



What You Can Do

- **Congratulations - You are a HMS Yellow Belt**
 - Hang your certificate with pride
 - Share your Lean knowledge with co-workers and others
- ***Practice* – Use A3 thinking and problem solving daily**
 - 5S, Waste Walks, A3 thinking, Standardized Work, Error proofing
- **Your Feedback is Valuable!**
 - Fill out the training evaluation on your way out
 - Contact us through ernest.byers@umassmemorial.org and/or varang.parikh@umassmemorial.org
- **Please attend upcoming Lean Community meetings**

Congratulations!



Appendix B: Run Chart Rules

- Rule #1: A shift
 - Six or more consecutive points above or below the median
- Rule #2: A trend
 - Five or more consecutive points all going up or down
- Rule #3: Too many or too few runs
 - A run is a series of points in a row on one side of the median
 - Count runs by counting the number of times the line connecting data points crosses the median and add one
 - “Too few” or “Too many” depends on total number of data points (see next slide)
 - “Too many” may indicate need for data stratification
 - “Too few” indicates a signal of change
- Rule #4: An astronomical data point
 - An obviously different value
 - General consensus that it is unusual
 - Note: The highest or lowest point on a graph is not necessarily astronomical

Appendix B: Run Chart Rules

Rule #3:

Too many or too few runs

Total number of data points on run chart not falling on median	Lower limit for number of runs (< than this is "too few")	Upper limit for number of runs (> than this is "too many")
10	3	9
11	3	10
12	3	11
13	4	11
14	4	12
15	5	12
16	5	13
17	5	13
18	6	14
19	6	15
20	6	16
21	7	16
22	7	17
23	7	17
24	8	18
25	8	18
26	9	19
27	10	19
28	10	20
29	10	20
30	11	21
31	11	22
32	11	23
33	12	23
34	12	24
35	12	24

Total number of data points on run chart not falling on median	Lower limit for number of runs (< than this is "too few")	Upper limit for number of runs (> than this is "too many")
36	13	25
37	13	25
38	14	26
39	14	26
40	15	27
41	15	27
42	16	28
43	16	28
44	17	29
45	17	30
46	17	31
47	18	31
48	18	32
49	19	32
50	19	33
51	20	33
52	20	34
53	21	34
54	21	35
55	22	35
56	22	36
57	23	36
58	23	37
59	24	38
60	24	38