



AMERICAN CONFERENCE ON PHYSICIAN HEALTH



# Disclosures

**Conflict of interest:** CommuniHealth.



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## **Application of Best Practices from High Reliability Organizations to Advance Overall Wellness of Providers**

### **Description of the workshop:**

The goal of this workshop is to improve overall wellness of providers through application of formal human factors and barriers management principles to improve patient safety and care delivery processes.

### **Learning objectives:**

- To develop care delivery processes using barriers management principles, which are defined as the associated process steps, safeguards, and safety barriers.
- Apply human factors engineering and Lean thinking for problem solving to spearhead continuous quality improvement efforts.



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# Developing Your Interventions

## A3 Report for Problem Solving



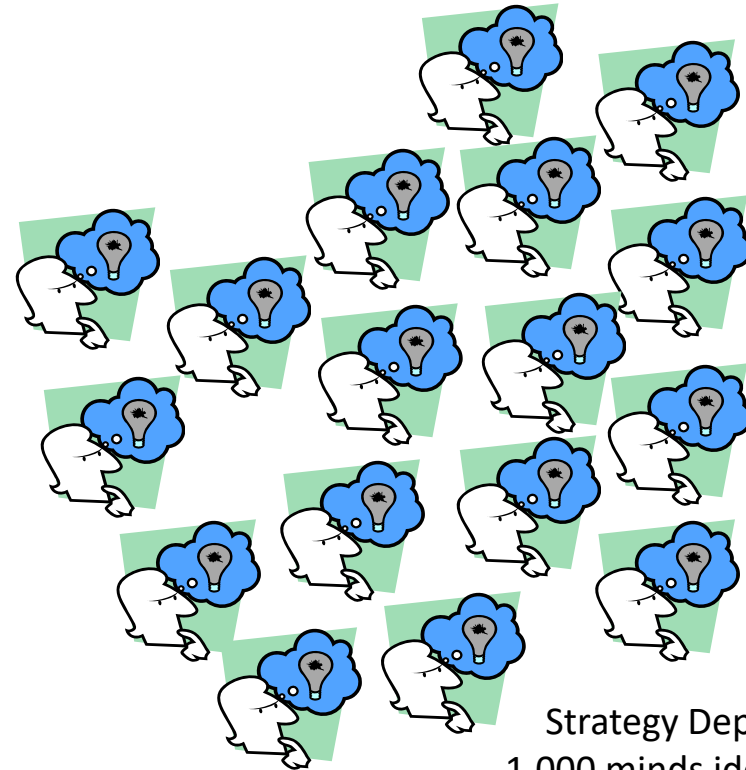
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# Long Term Vision



OR



Soviet Style Planning/ Problem Solving – a few minds telling the workers what to do and how to do it.

Strategy Deployment – 1,000 minds identifying and solving problems.



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# What is CQI?

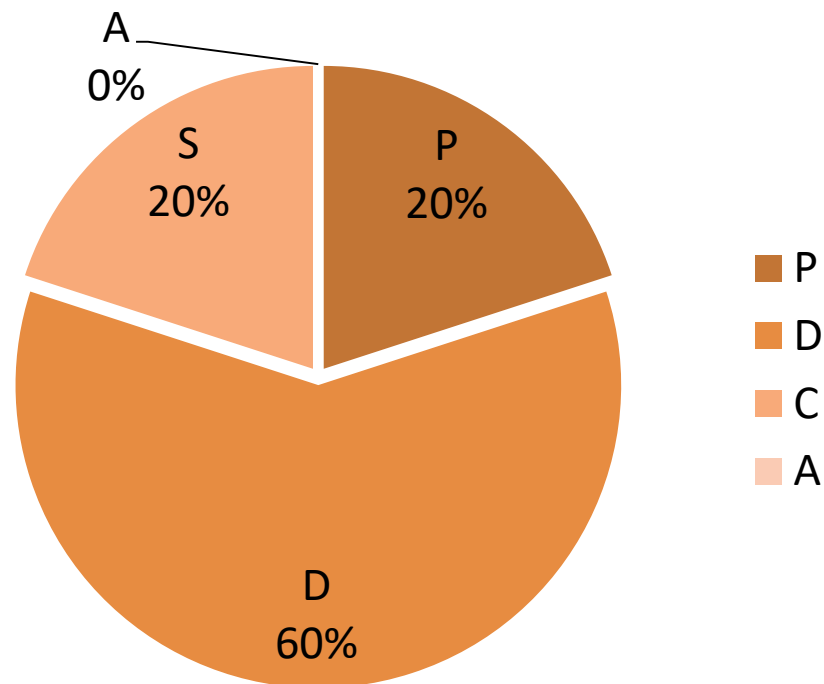
- Continuous improvement means steadily improving each **person's ability** to:
  - Recognize and define important problems (Plan (P))
  - Solve them (Do (D))
  - Learn from the problem-solving (Study (S))
  - Share the learning with others (Act (A))
- Basic Model: PDSA



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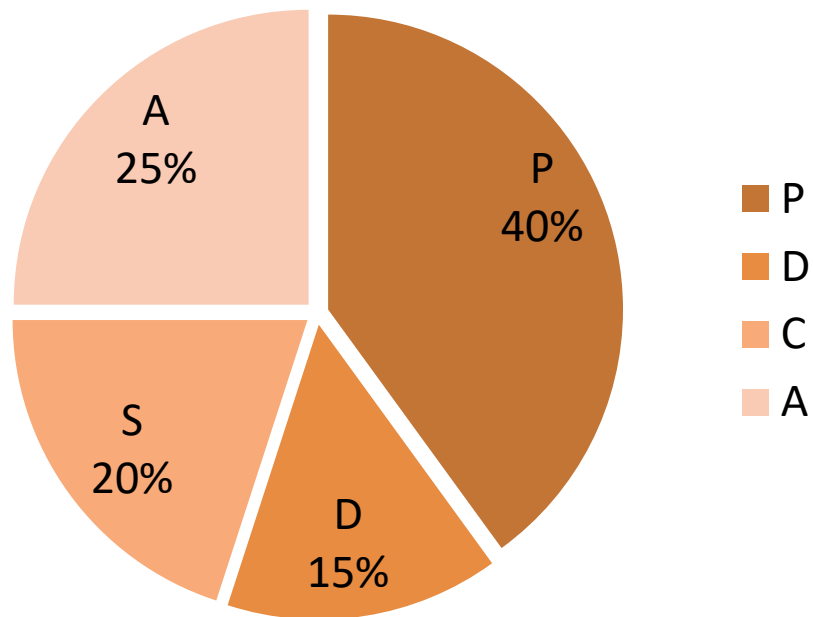
# PDSA in Practice (unfortunately)



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# PDSA – The A3 way



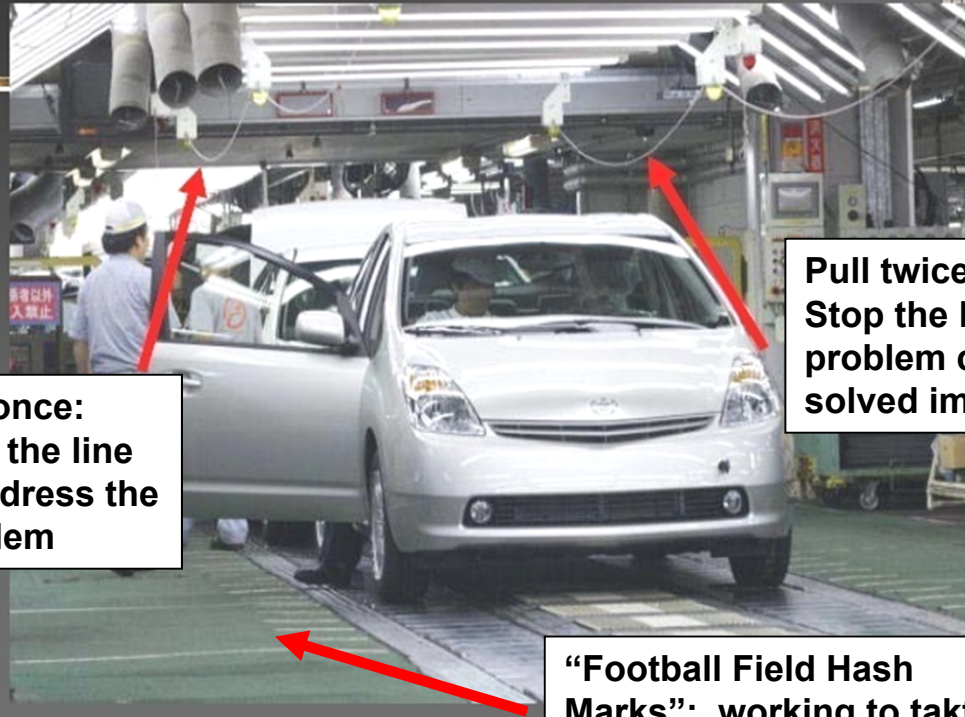
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## Stopping the line

TEAM  
MEDICINE  
VIRGINIA  
MASON



**Pull once:**  
Slow the line  
to address the  
problem

**Pull twice:**  
Stop the line if  
problem can't be  
solved immediately

**"Football Field Hash  
Marks":** working to takt  
time

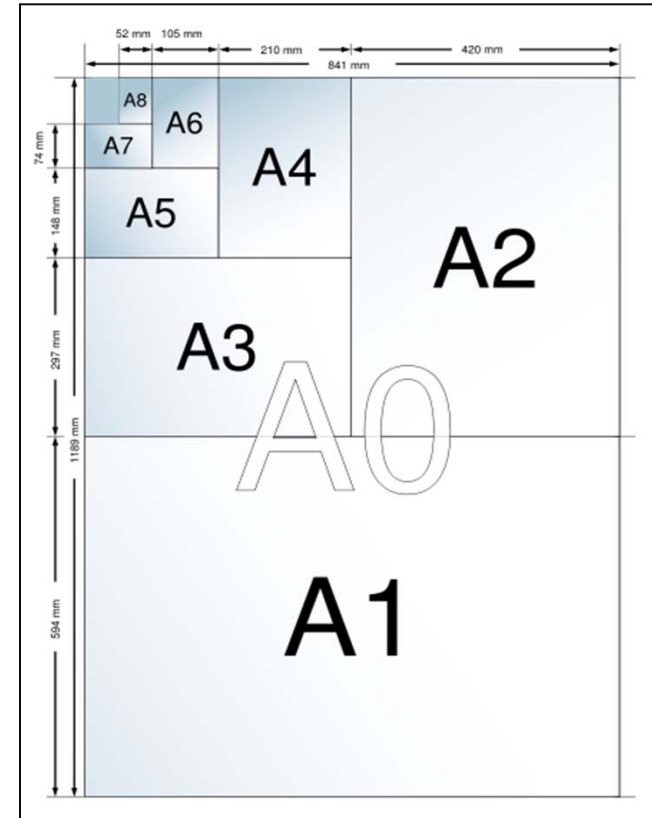


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# What is A3?

- A3 is a paper size – an International/European paper size established by the International Standards Organization (ISO)
- It measures 297 x 420 millimeters, or equivalent to 11.69 x 16.54 inches



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Figure 1 shows a schematic diagram of a 1000 mm x 1000 mm square layout divided into eight rectangular areas labeled A1 through A8. The layout is defined by horizontal and vertical lines. The horizontal dimensions (from left to right) are: 52 mm, 105 mm, 210 mm, and 841 mm (total 1000 mm). The vertical dimensions (from top to bottom) are: 74 mm, 148 mm, 297 mm, and 1189 mm (total 1000 mm). The areas are colored as follows: A1, A2, A3, and A4 are light blue; A5, A6, A7, and A8 are white. A large 'A0' is centered over the bottom half of the layout.

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<b>PROBLEM AREA:</b> (Focus on the problem, not the solution.)  <h2 style="text-align: center; color: red;">Problem</h2> <b>BACKGROUND:</b> (Why is this problem important?)  <h2 style="text-align: center; color: red;">Background</h2> <b>CURRENT CONDITION:</b> (Draw a diagram that shows how the current system operates and where problems occur.)  <h2 style="text-align: center; color: red;">Current Condition</h2>   <b>PROBLEM ANALYSIS:</b> (Identify the root cause, not the effect. Use the 5 whys.)  <h2 style="text-align: center; color: red;">Problem Analysis</h2>	<b>TARGET CONDITION:</b> (Draw a diagram that shows the future system where the problem is resolved.)  <h2 style="text-align: center; color: red;">Target Condition</h2>   <b>COUNTERMEASURES:</b> (What are the actual changes you will introduce to the system?)  <h2 style="text-align: center; color: red;">Countermeasures</h2>  <b>IMPLEMENTATION PLAN:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Who</th> <th style="width: 25%;">What</th> <th style="width: 25%;">When</th> <th style="width: 25%;">Outcome</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <h2 style="text-align: center; color: red;">Implementation Plan</h2>  <b>COST:</b> _____ <b>COST BENEFIT / WASTE RECOGNITION:</b> _____ <b>PILOT TEST:</b> _____ <b>FOLLOW UP:</b> (How will you sustain the gains?) <h2 style="text-align: center; color: red;">Cost / Savings</h2>  <h2 style="text-align: center; color: red;">Follow-up</h2> <div style="position: absolute; bottom: 10px; right: 10px; border: 1px solid black; padding: 5px; width: fit-content;">             Title: To: By: Date:           </div>	Who	What	When	Outcome																
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# Why 1 page report ?

- Forces deeper understanding to express ideas clearly and briefly.
- Greater efficiency -each report will be written once, but read many times.
- Short reports allows distribution to all affected and the expectation that they actually read it.



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# Elements of A3 Thinking

- Objectivity
- Logical thinking process
- Visualization



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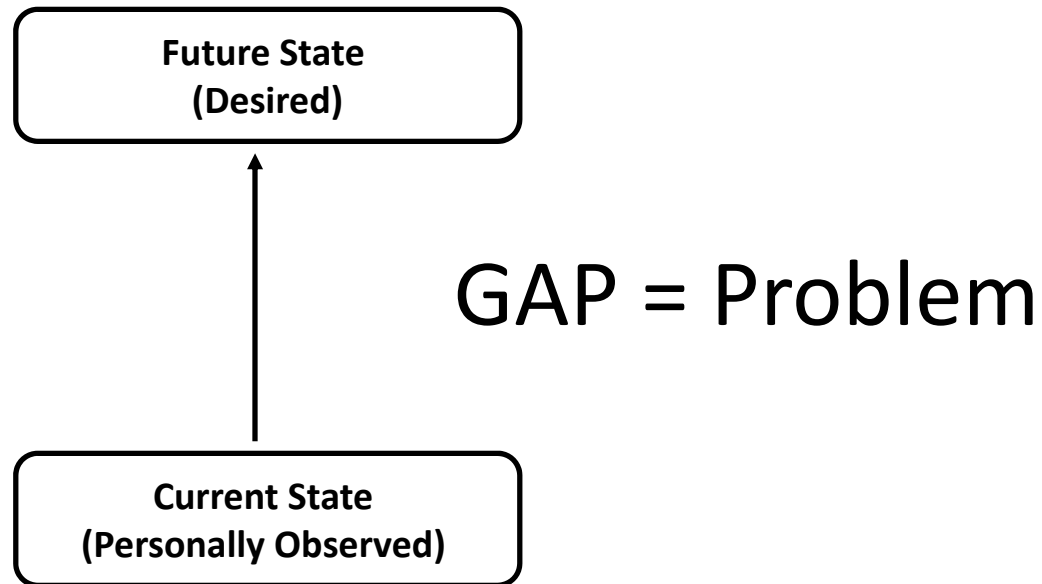
# What is a “Problem”?



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# A3 way...



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# What is “Solving”?

Solution  
vs  
Countermeasures  
(A3 way)



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# Plan (P)

- Current State: observe problem or issue first-hand
- Problem Analysis: ascertain the root cause(s)
  - – 5 Why's
  - – Fish and bone diagram
- Future State: establish goals or targets
- Generate Countermeasures
- Create implementation plan
- Create follow-up plan
- Discuss with all others affected!!!

The form is a structured template for problem-solving, organized into several sections with horizontal lines for text entry:

- PROBLEM AREA:** (Focus on the problem, not the solution)
- BACKGROUND:** (Why is this problem important?)
- CURRENT CONDITION:** (Show a diagram that shows how the current system operates and where problems occur)
- TARGET CONDITION:** (Show a diagram that shows the future system where the problem is resolved)
- COUNTERMEASURES:** (What are the actual changes you will introduce to the present?)
- IMPLEMENTATION PLAN:** (What, When, Where, Outcome)
- PROBLEM ANALYSIS:** (Locate the root cause, not the effect. Use the 5 Whys)
- COSTS:** (Initial Costs, Ongoing Costs)
- COST BENEFIT / RISK/RECOGNITION:**
- FOLLOW UP:** (How will you measure success?)
- Footer:** Title, Rev, Ref, Date



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# Do (D)

- Execute the implementation plan (Kaizen if possible)
- View as an experiment to test your working countermeasures (hypothesis)



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# Study (S)

- Measure the effects to determine whether problem or issue was satisfactory addressed
- Compare to goal or target
- Is your hypothesis confirmed?



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# Act (A)

- If target met:
  - How should the work routines, design guidelines, etc. change?
  - Who else could benefit from this learning?
- If target not met:
  - Make adjustments using PDSA.



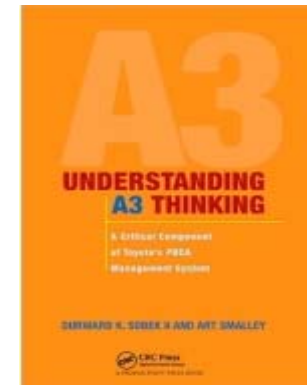
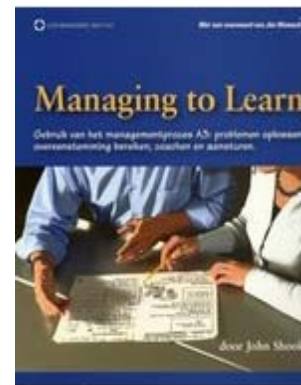
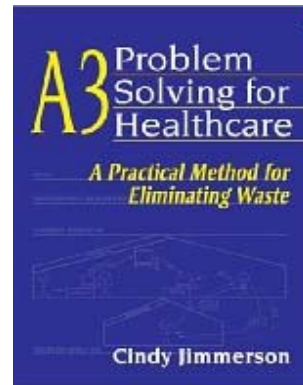
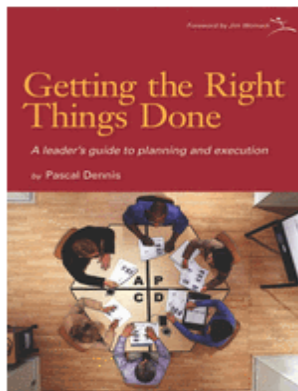
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## Slide title



# Additional Resources



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# Exercise:

- Initiate your 'first' A3 (15min)
  - Your process map
  - Submitted good catch
- Share it (5min each)



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