

# HQIC Patient Safety Network: Quality Improvement

## Welcome!

- All lines are muted, so please ask your questions in Q&A chat.
- For technical issues, chat to the 'Technical Support' panelist.
- Please be aware that this event will be recorded.

**We will get started shortly!**

# HQIC Quality Improvement Basics



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Lynne Hall, RN, BSN

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# Making Health Care Better *Together*

## **COLLABORATORS:**

Alabama Hospital Association  
Alliant Health Solutions  
Comagine Health  
Georgia Hospital Association  
KFMC Health Improvement Partners  
Konza

## Hospital Quality Improvement

# Welcome from all of us!



# Quality Improvement Co-Leads



## **Melody "Mel" Brown, MSM**

Melody has over 40 years of healthcare experience, including varied roles at Alliant Health Solutions working on the CMS contract for the Quality Innovation Network-Quality Improvement Organization (QIN-QIO). As the patient safety manager, her focus has been on coaching hospitals and nursing homes on all facets of healthcare quality improvement.

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## **Lynne Hall, RN, BSN, LSSBB**

Lynne has over 30 years of health care and quality experience, including as a labor and delivery and neonatal nurse, and at Georgia Hospital Association (GHA) as an advocate for patient safety and quality. She also represents GHA as a maternal/child expert with the Georgia Department of Public Health. Lynne is also TeamSTEPPS Master Trainer and a Lean Six Sigma Blackbelt. In addition, Lynne is a member of the leadership team for the GA Perinatal Quality Collaborative and currently serves on the Maternal Mortality Review Committee.

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# Learning Objectives

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- **Learn Today:**

- PDSA
- A3
- GAP Analysis

- **Use Tomorrow:**

- Pick one quality tool to use tomorrow for a QI Project



# The Model for Improvement and PDSA

- Common quality improvement methodologies
- Root cause analysis
- The Model for Improvement:
  - Using the Plan Do Study Act (PDSA) Tool



# What Are We Trying To Accomplish?

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- Improvement begins with setting aims
  - State aim clearly
    - Gain agreement from team
- Make aim measurable
  - Use a percent goal
  - Make the goal a SMART goal
- Make aim achievable
  - Aim should be realistic

# The Three Questions and the PDSA Cycle

1. What are we trying to accomplish?
2. How will we know that change is an improvement?
3. What change can we make that will result in an improvement?





# Tips for Launching PDSA Cycles

- Be clear about the problem you're trying to solve.
- Look for ways to limit variations in the process (streamline and simplify).
- Learn what has worked for others.
- COPY, COPY, COPY.
- Remember, you don't need a perfect solution the first time.



# Plan

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- What change are you testing with the PDSA cycle(s)?
- What do you predict will happen and why?
- Who will be involved in this PDSA? (e.g., one staff member or patient; one shift?)
- When and where will the change be tested?
- How long will the change take to implement?
- What resources will they need?
- What data needs to be collected? What data have you already collected?
- Are you measuring a process or an outcome?

# Do

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Test the plan with a small-scale pilot.

- Carry out the test.
- Collect data you identified as needed during the Plan stage.
- Document observations, including any problems and unexpected findings.

# Study

## Evaluation

- Analyze data.
- Compare data to your benchmarks and the predicted outcome or goal.
- What was learned?
  - Problems
  - Successes
  - Surprises
- Are you satisfied with the results?



# Act

Based on what was learned from the test:

- What changes should be made before the next cycle?
- What will the next test be?
- Are you ready to implement more broadly?
- How will you maintain gains?
- Establish a new plan: PDSA cycle



## Act (cont'd)

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Based on what was learned from the test:

- **Adapt:** Modify the changes and repeat PDSA cycle.
- **Adopt:** Consider expanding the changes in your organization to additional staff, patients, departments or units.
- **Abandon:** Change your approach and repeat PDSA cycle.





# Act: Adopt the Rule of Five

- Spread the success incrementally
- Try five units, individuals, etc., as the next step to spread change
- Prevents going too broad, too quickly



# Confirm Appropriate Use of PDSA

- The test or observation was **planned** (including a plan for collecting data and a prediction about results).
- The plan was attempted (**do** the plan).
- Time was set aside to analyze the data and **study** the results.
- **Action** was rationally based on what was learned.

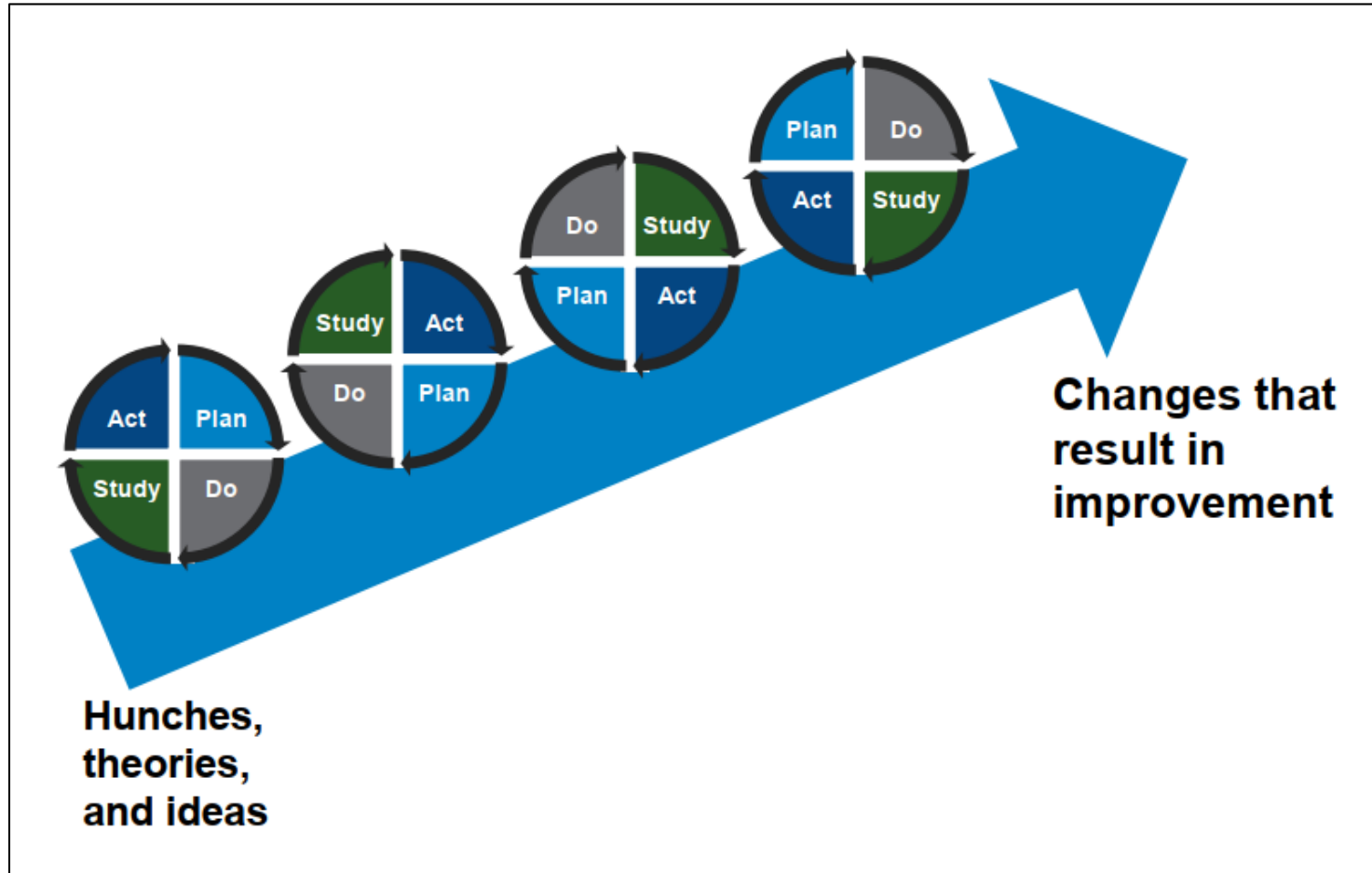


# Hints for Planning Useful Cycles

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- Think a couple of cycles ahead of the initial test.
- Scale down the size and decrease the time required for the initial test.
- Use temporary supports to facilitate the change during the test.
- Be innovative to make the test feasible.
- Involve front line staff for success and buy-in.

# Repeated Use of PDSA Cycle



# PDSA Documentation



### QI Basics

#### The Model for Improvement and PDSA Worksheet

The Model for Improvement and Plan-Do-Study-Act (PDSA) Worksheet helps teams to plan, conduct, analyze, and monitor progress of a quality improvement (QI) effort with tests of change to help meet the aim or goal.

Adapted from...

**Introduction**  
The questions in the Model for Improvement help a team to clearly state what they are trying to accomplish, develop measures to determine whether improvement has been made, and identify opportunities to advance improvement. This prepares the team to test a change in the Plan-Do-Study-Act (PDSA) cycle by planning it, trying it, observing and studying the results, and acting on what is learned.

**How to Use**  
This tool should be completed by the quality improvement project team.

- Answer the first three questions in the Model for Improvement (overall project aim and measures). Link back to your Charter to help address the answer to question one.
- Examine and document the process currently in place, using process mapping.
- Identify potential opportunities for improvement. These could be:
  - Points where breakdowns occur
  - Waste or delays
  - Variation in workflow
  - Redundant or unnecessary steps
- Use QI tools and methods to understand the root cause of problems identified.
- Decide what you will change in the process based on your analysis by answering the third question of the Model for Improvement. Changes often could arise from:
  - Identifying better ways to do things that address the root cause of the problem
  - Learning and copying what has worked at other organizations
  - Examining the best available evidence for what works (evidence, studies, guidelines, etc.)

#### The Model for Improvement: Three Questions

1. What are we trying to accomplish (aim)?
2. How will we know that change is an improvement (measures)?
3. What change can we make that will result in an improvement?

#### Plan-Do-Study-Act Worksheet

**Plan - What exactly are we going to do? (Add rows to table below as needed.)**

Describe test of change	Person responsible	When to be done	Where to be done	Other notes

**Plan - What exactly are we going to measure to evaluate the test of change? (Add rows to table below as needed.)**

Measurement	Baseline (if known)	Prediction	Outcome/Result (to be populated after the Do phase)

# Tips for Using PDSA in Your QI Team

- Teach the PDSA tool to the group.
- Discuss and answer the three questions of the Model for Improvement as a group:
  - What are we trying to accomplish?
  - How will we know the change was an improvement?
  - What change can we make that will result in an improvement?
- Assign individuals roles for the PDSA steps.





# Tips for Testing Changes

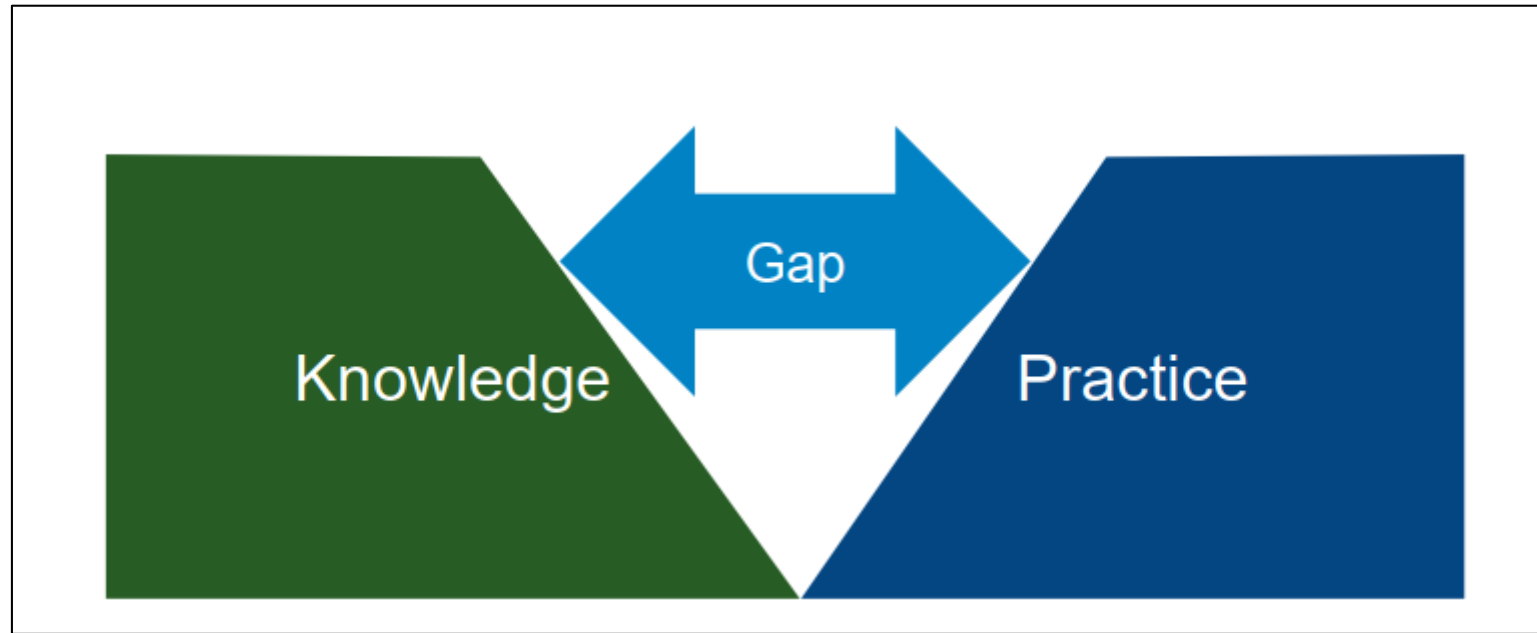
- Continue to test changes on a small scale.
- Involve care teams that have a strong interest in improving care.
- Study the results after each change.
- Involve others who do the work.
- Ensure changes in one area don't adversely affect another.



Source: <https://www.hrsa.gov/sites/default/files/quality/toolbox/508pdfs/qualityimprovement.pdf>

# Gap Analysis

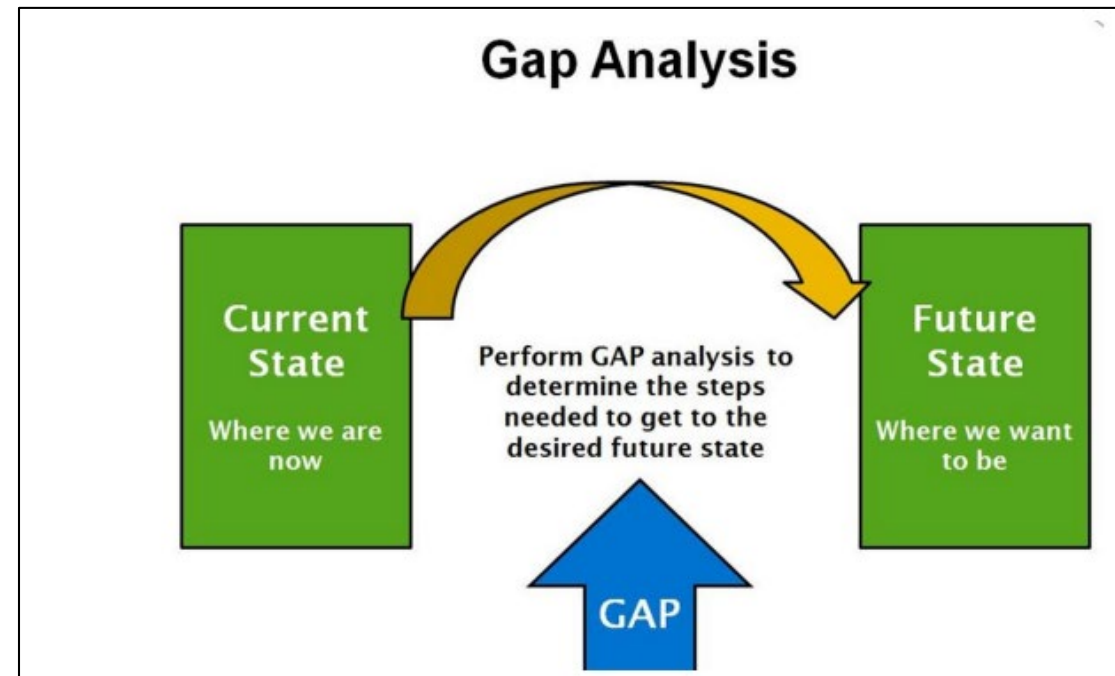
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Opportunities to improve are identified where there is a gap between what we know and how we practice.

# What Is a Gap Analysis?

- Definition: Gap Analysis involves comparing your current state against your desired state and then determining what steps are needed to improve your state.



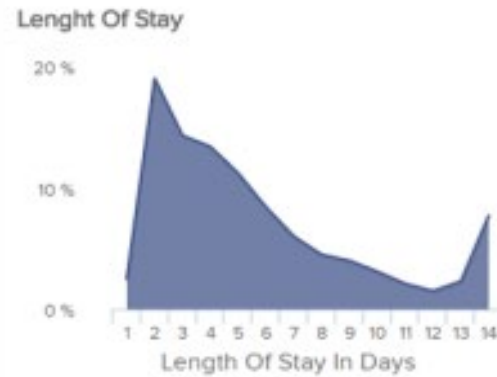
# Start by Asking the Right Questions

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- Where are we now (current state)?
- Where do we want to be (desired state)?
- How are we going to close the gap (get from the current state to the desired state)?

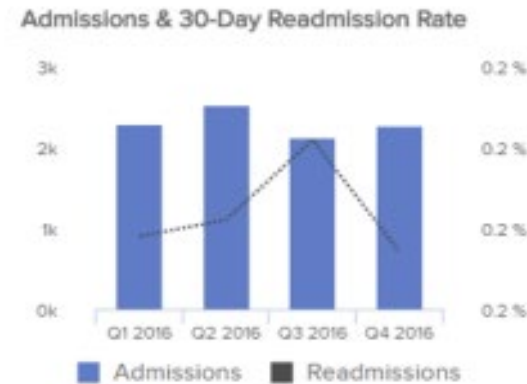
# Identify the Current State

## Scorecards and Dashboards



**3.5 days**

Avg Length Of Stay



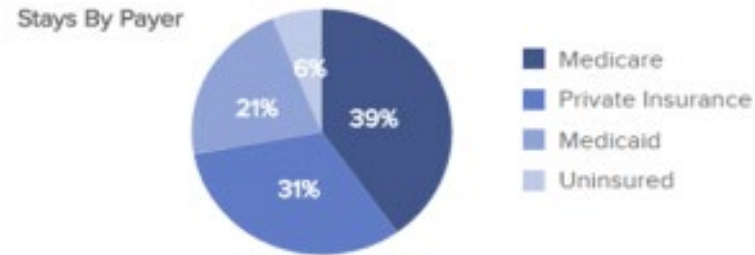
**20.4%**

Avg 30-Day Readmission Rate



**\$ 9,700**

Avg Treatment Costs All Ages



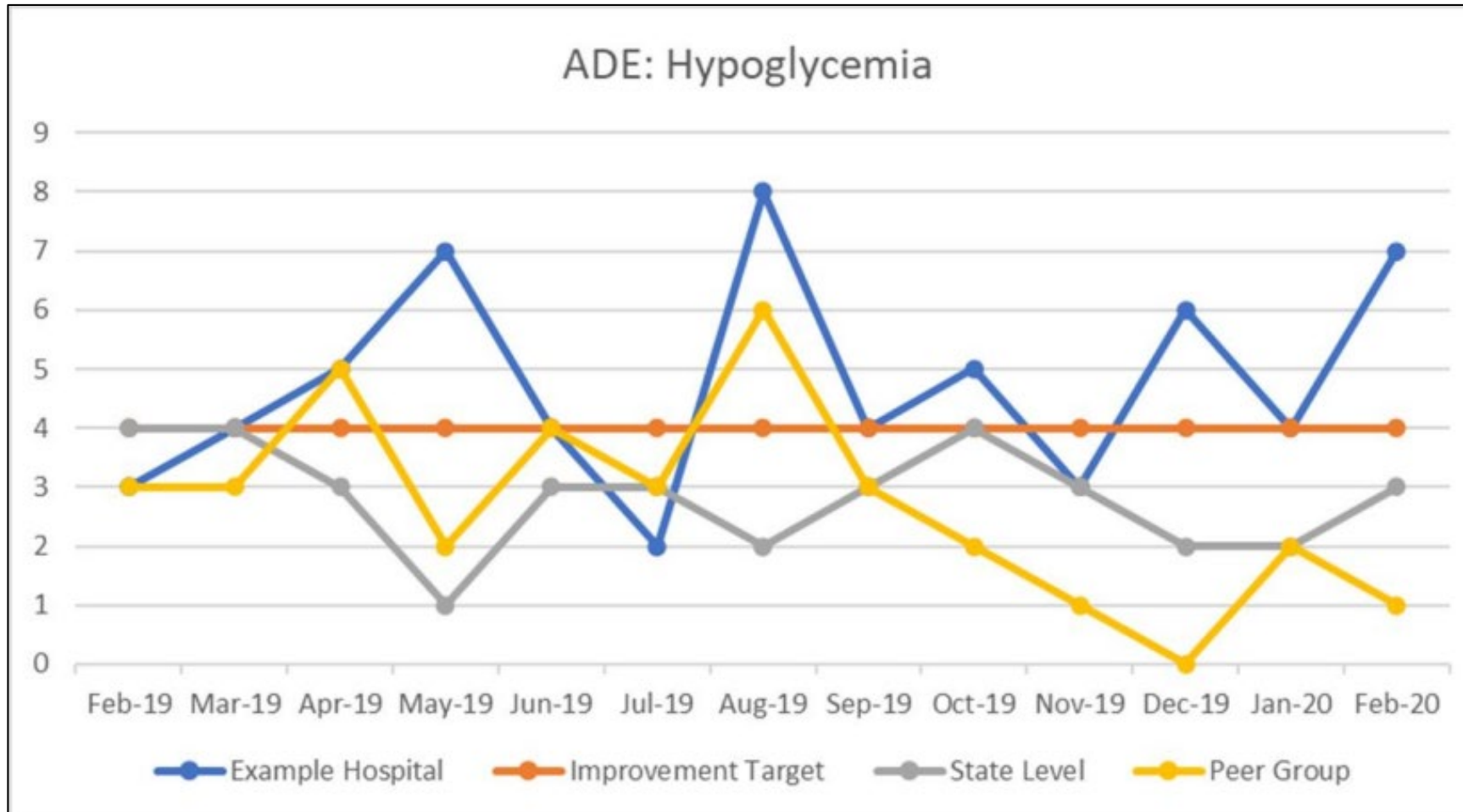
### Avg Nurse Patient Ratio



Day Shift: 1 : 4    Night Shift: 1 : 8

- \* Trauma Units: 1 : 1
- \* Emergency Rooms: 1 : 3
- \* Surgical Rooms: 1 : 5
- \* Rehabilitation Units: 1 : 6
- \* Nursery Units: 1 : 8

# Identify the Desired State





# Closing the GAP

- Use the current state and compare it to the desired state.
- Decide how you will achieve the desired state.
- Manage what you measure.



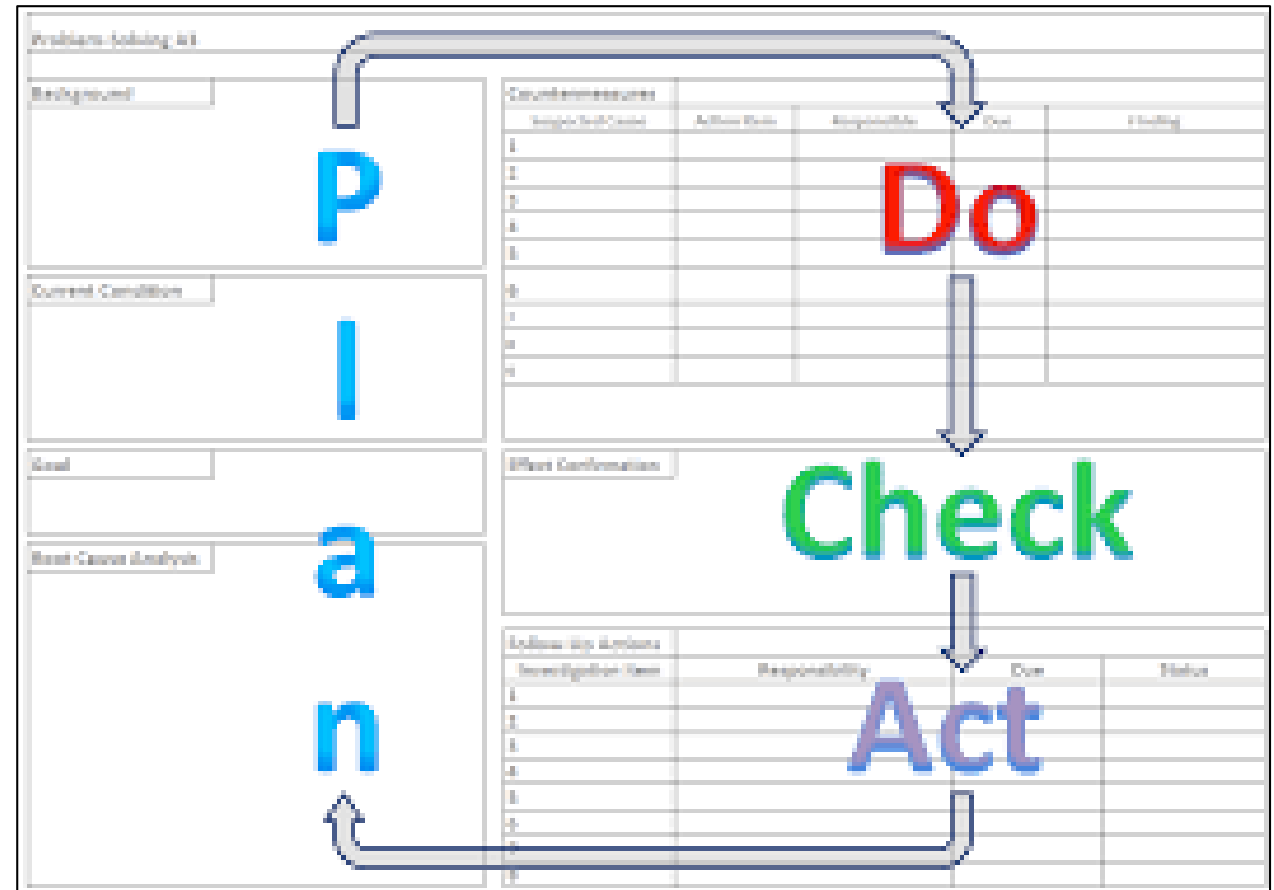
# What Is an A3?

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- Now that you have completed a project, you're ready to present the project.
- You can use an A3 to help guide your PDSA cycle.

# What Is an A3?

- Developed by Toyota
- A3 is storytelling
- A3 refers to the type of paper the report is printed on (11 x 17)



# Why Use an A3?

- Often, when changing a process, we go straight to problem-solving.
- A3 gets to root causes.
- It helps engage people in the process.
- It allows for critical thinking.



# What Are the Parts of an A3?

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- Background
- Current conditions
- Target/Goal
- Analysis
- Proposed countermeasures
- Plan
- Follow-up

# What Are the Parts of an A3?

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Background:

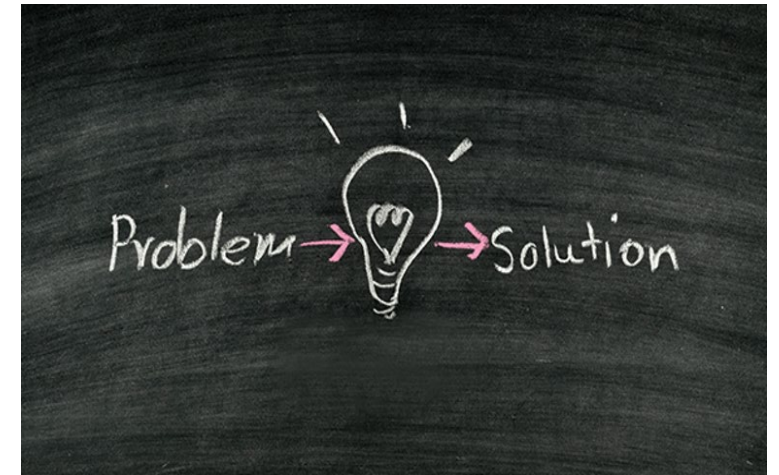
- What were the reasons you chose this topic?
- Importance of the problem.
- What are you trying to do?



# What Are the Parts of an A3?

## Current Condition:

- Based on the background, what does the problem look like in its current state?
- What makes you think there is an issue?
- Good to have data—graph, pareto chart, etc.



# What Are the Parts of an A3?

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## Target/Goals:

- What is the specific target or goal?
  - Who, what, why, when
- What does success look like?
  - How will you measure it?

This should relate back to the problem statement.

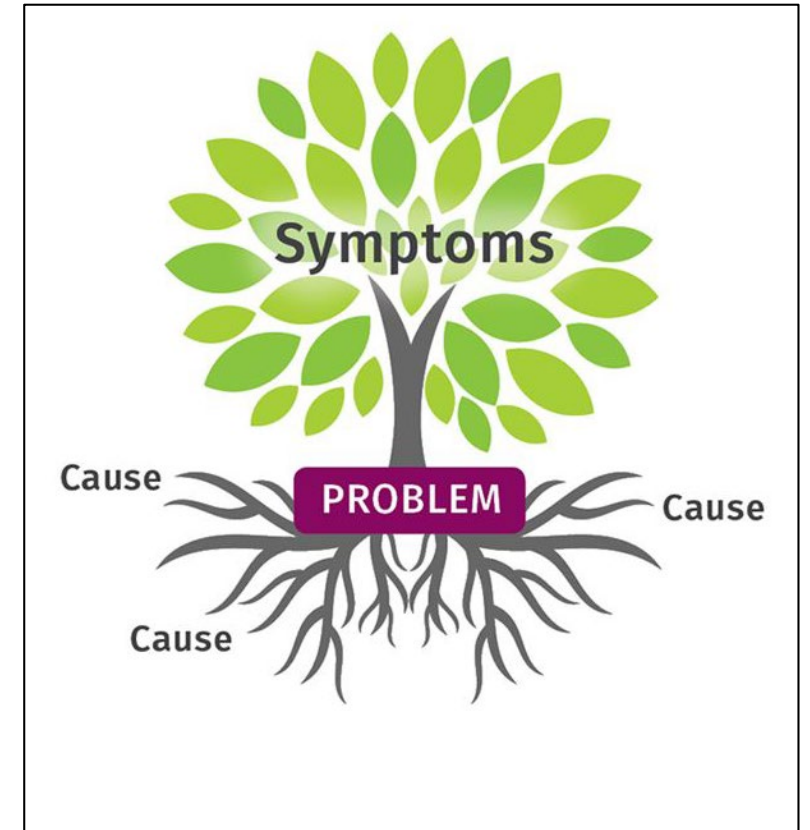




# What Are the Parts of an A3?

## Analysis:

- What is the root cause of the issue?
  - Ask five whys
  - Fishbone
  - Root cause analysis
  - Pareto
  - Scatter diagram
  
- What is preventing us from moving forward?



# What Are the Parts of an A3?

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## Proposed Countermeasures:

- Specifically address root cause from analysis
- How will you reach the proposed target/goal?
- How will this allow you to change the current state to a future state?
- Are there alternatives that need to be considered?

# What Are the Parts of an A3?

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## Plan:

- How will you accomplish your goal?
  - Timelines
  - Who, what, why, when
  - Measures to be used and who/how will collect
- How will you know you are successful?
  - Post graphs
  - Data tables

# What Are the Parts of an A3?

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## Follow-up:

- What issues can be anticipated?
  - Failure modes
  - Unintended consequences
- Successful Implementation?
  - Standardize
  - Spread



# Conclusion

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- A3 is a great way to tell the story of a problem and the plans to correct it.
- It involves critical thinking and a team approach.
- It allows people to know exactly who is doing what in the process and when.
- Shows success.
- It addresses issues needed to accomplish the task.

# Title: What you are talking about

initials

				Owner
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<b>Background</b>
<i>Why you are talking about it.</i> <i>- What is the business reason for choosing this issue?</i>
<b>Current Conditions</b>
<i>Where things stand today.</i> <i>- What's the problem with that, with where we stand?</i> <i>- What is the actual symptom that the business feels that requires action?</i> <i>Show visually – pareto charts, graphs, drawings, maps, etc.</i>
<b>Target/Goal(s)</b>
<i>The specific outcome required for the business.</i> <i>- What is the specific change you want to accomplish now.?</i> <i>- How will you measure success?</i>
<b>Analysis</b>
<i>The root cause(s) of the problem.</i> <i>- Why are we experiencing the symptom?</i> <i>- What constraints prevent us from the goal?</i> <i>Choose the simplest problem-solving tool for this issue:</i> <i>- Five whys</i> <i>- Fishbone</i> <i>- QC Tools</i> <i>- SPC, Six Sigma, Shainin, Kepner Traego, others...</i>

<b>Proposed Countermeasure(s)</b>
<i>Your proposal to reach the future state, the target condition.</i> <i>- What alternatives could be considered?</i> <i>- How will you choose among the options? What decision criteria?</i> <i>How your recommended countermeasures will impact the root cause to change the current situation and achieve the target.</i>
<b>Plan</b>
<i>A Gantt chart or facsimile that shows actions/outcomes, timeline and responsibilities. May include details on the specific means of implementation.</i> <i>- Who will do what, when and how?</i> <i>Indicators of performance, of progress.</i> <i>- How will we know if the actions have the impact needed?</i> <i>- What are the critical few, visual, most natural measures?</i>
<b>Followup</b>
<i>Remaining issues that can be anticipated.</i> <i>- Any failure modes to watch out for? Any unintended consequences?</i> <i>Ensure ongoing P-D-C-A. Yokoten as needed.</i>

# Key Takeaways

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- **Learn Today:**

- PDSA
- A3
- GAP Analysis

- **Use Tomorrow:**

- Pick a quality tool to help enhance your PI project



# HQIC Quality Improvement Series

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**Session 1: Setting the Foundation**

**Session 2: Building a Team, SWOT Analysis, SMART Goal Setting**

**Session 3: PDSA, A3, GAP Analysis**

*Thank you for your support for this 3 part series.*

Melody Brown and Lynne Hall

[www.quality.allianthealth.org](http://www.quality.allianthealth.org)



# Questions?

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Email us at [HospitalQuality@allianthealth.org](mailto:HospitalQuality@allianthealth.org) or call us 678-527-3681.

# Closing Survey


## Help Us Help You!

- Please turn your attention to the poll that has appeared in the lower right-hand side of your screen.
- Completion of this survey will help us ensure our topics cater to your needs.



# HQIC Goals

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## Behavioral Health Outcomes & Opioid Misuse

- ✓ Promote opioid best practices
  - ✓ Decrease high dose opioid prescribing and opioid adverse events in all settings
  - ✓ Increase access to behavioral health services
- 



## Patient Safety

- ✓ Reduce risky medication combinations
  - ✓ Reduce adverse drug events
  - ✓ Reduce *C. diff* in all settings
- 



## Quality of Care Transitions

- ✓ Convene community coalitions
- ✓ Identify and promote optical care for super utilizers
- ✓ Reduce community-based adverse drug events

# Making Health Care Better *Together*

## **COLLABORATORS:**

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Comagine Health  
Georgia Hospital Association  
KFMC Health Improvement Partners  
Konza

## Hospital Quality Improvement



@alliantqio



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**Thank you for joining us!  
How did we do today?**

Alliant Health Solutions



AlliantQIO



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