

Coaching and Teaching Quality Improvement



Institute for Healthcare Quality,
Safety and Efficiency

SCHOOL OF MEDICINE

UNIVERSITY OF COLORADO **ANSCHUTZ MEDICAL CAMPUS**

Disclosures

NONE

Agenda

- 1 QI Refresh and Novice Pitfalls
- 2 Coaching Effective QI
- 3 Putting it all together



Session	Session Overview
Patient Safety	<ul style="list-style-type: none"> • Historical origins of patient safety movement • Safety Culture • Case Review • Second victim and how to support caregivers when errors occur
Applied Patient Safety	<ul style="list-style-type: none"> • Guide the development and participation in a systems-based case review conference.
Quality Improvement & Change Management	<ul style="list-style-type: none"> • Basics of Quality Improvement • Step-wise, practical implementation guide • Change Management framework overview for driving change
Acquiring Data to Drive Change	<ul style="list-style-type: none"> • Data sources to track improvement • Data analysis and organization • Data visualization
Spreading Change Locally and Nationally	<ul style="list-style-type: none"> • Diffusion of innovation framework • QI vs. research • Strategies for dissemination and publication • Grant opportunities
Coaching and Teaching Quality Improvement	<ul style="list-style-type: none"> • How to coach QI teams • Identifying and troubleshooting common QI missteps



YOU ARE
HERE





Quality Improvement Refresh and Novice Pitfalls

Tyler Anstett, DO

Heather Hallman, MHA, MSHS



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QI = Quality Improvement

Systematic and ***continuous*** actions that lead to ***measurable*** improvement in health care services and the health status of targeted patient groups.



Value

QI = ~~Quality~~ Improvement

Systematic and ***continuous*** actions that lead to ***measurable*** improvement in health care services and the health status of targeted patient groups.



$$\text{VALUE} = \frac{\text{Quality} + \text{Safety} + \text{Experience} + \text{Equity}}{\text{Cost}}$$



Quality

+



Safety

+



Experience

+



Equity



Cost



Models of Quality Improvement

PDSA/Model for Improvement

Six sigma

Lean





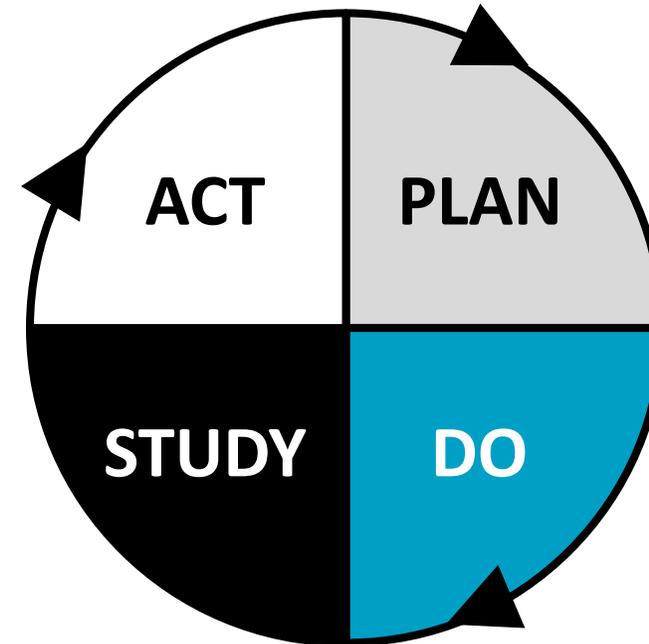
Institute *for*
Healthcare
Improvement

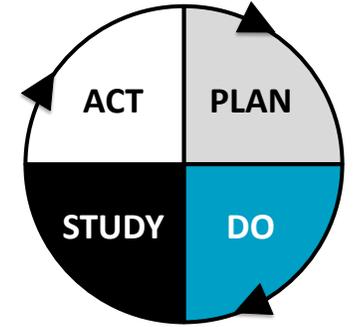
Model for Improvement

What are we trying to accomplish?

How will we know that change is an improvement?

What changes can we make that will result in an improvement?





Plan: identify your problem, analyze contributing factors, and determine an intervention

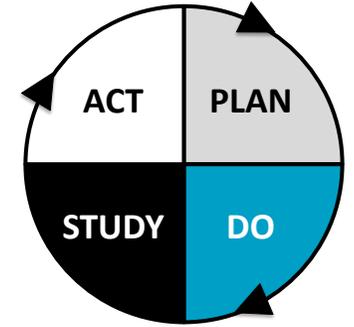
Do: implement the intervention

Study: evaluate the results of the intervention

Act: determine what to do next to sustain or improve



Institute *for*
Healthcare
Improvement



Plan: identify your problem, analyze contributing factors, and determine an intervention

**UNDERSTAND YOUR
PROBLEM FIRST !!!**



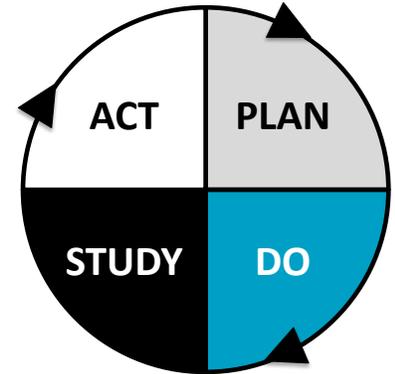
6σ

Six Sigma

“six” standard deviations from mean
(error rate of one per 3.4 per million)

DMAIC (*də-MAY-ick*)

Define, Measure, Analyze, Improve, Control



6σ

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“six” standard deviations from mean
(error rate of one per 3.4 per million)

**UNDERSTAND YOUR
PROBLEM FIRST !!!**



Lean

Maximize value while *through* minimizing waste.

改善

Kaizen



改善



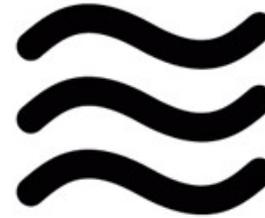
Eight Forms of Waste in Healthcare



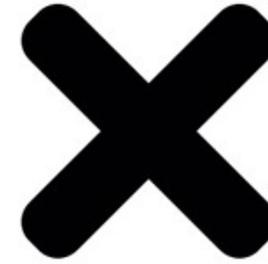
Underutilization



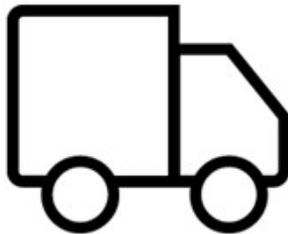
Inventory



Motion



Defects



Transportation



Waiting



Extra Processing



Overproduction



6σ

Six Sigma

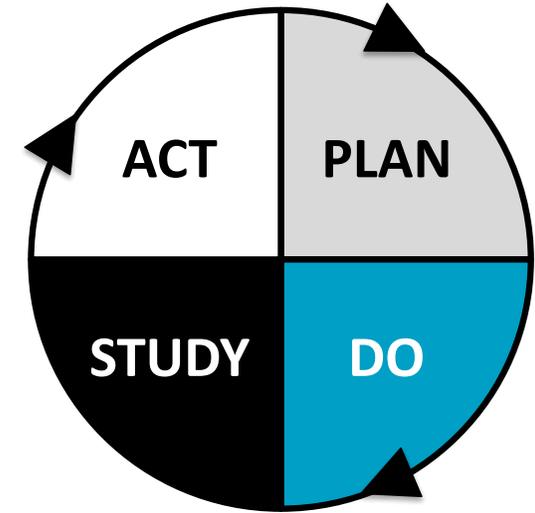
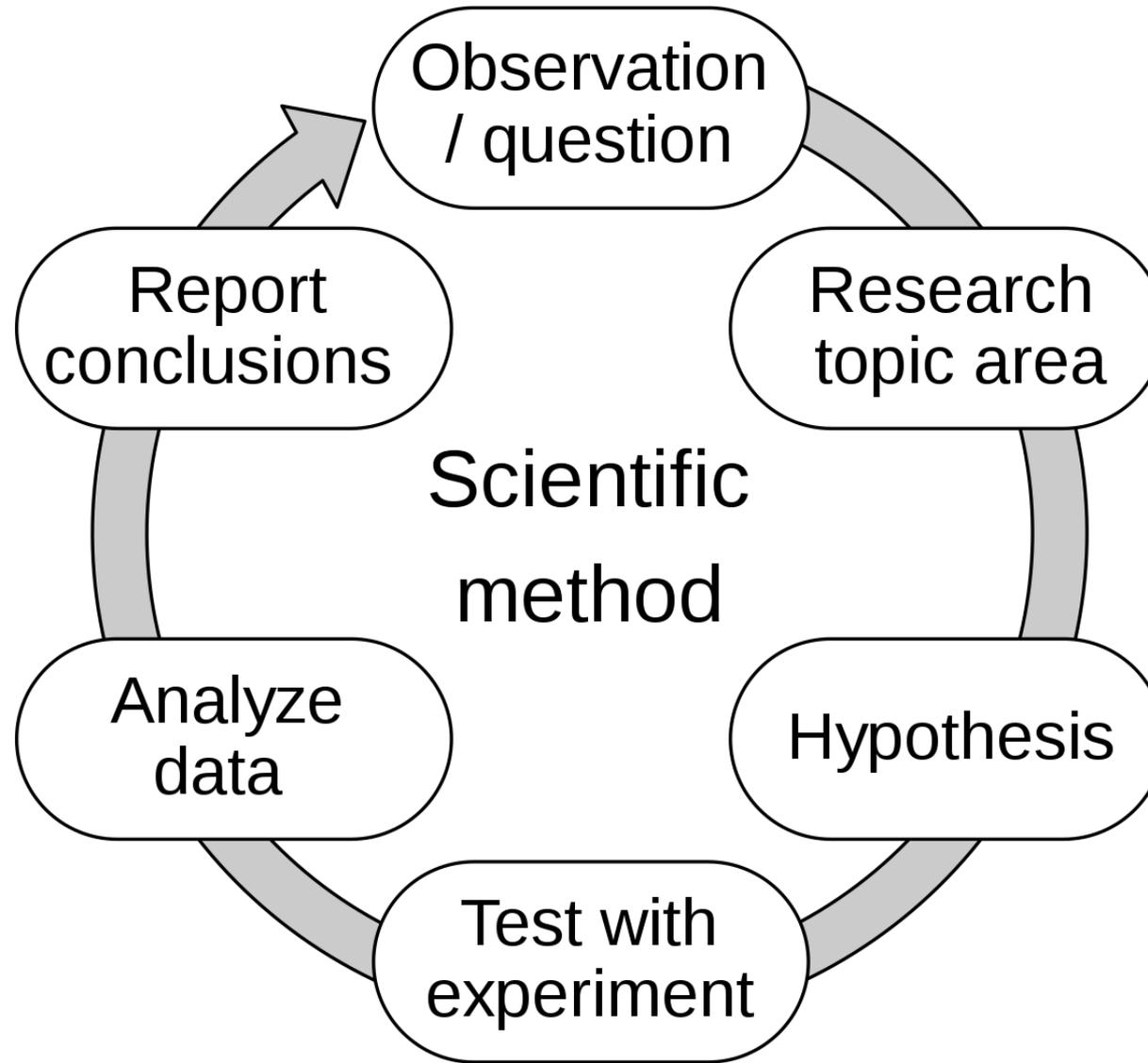
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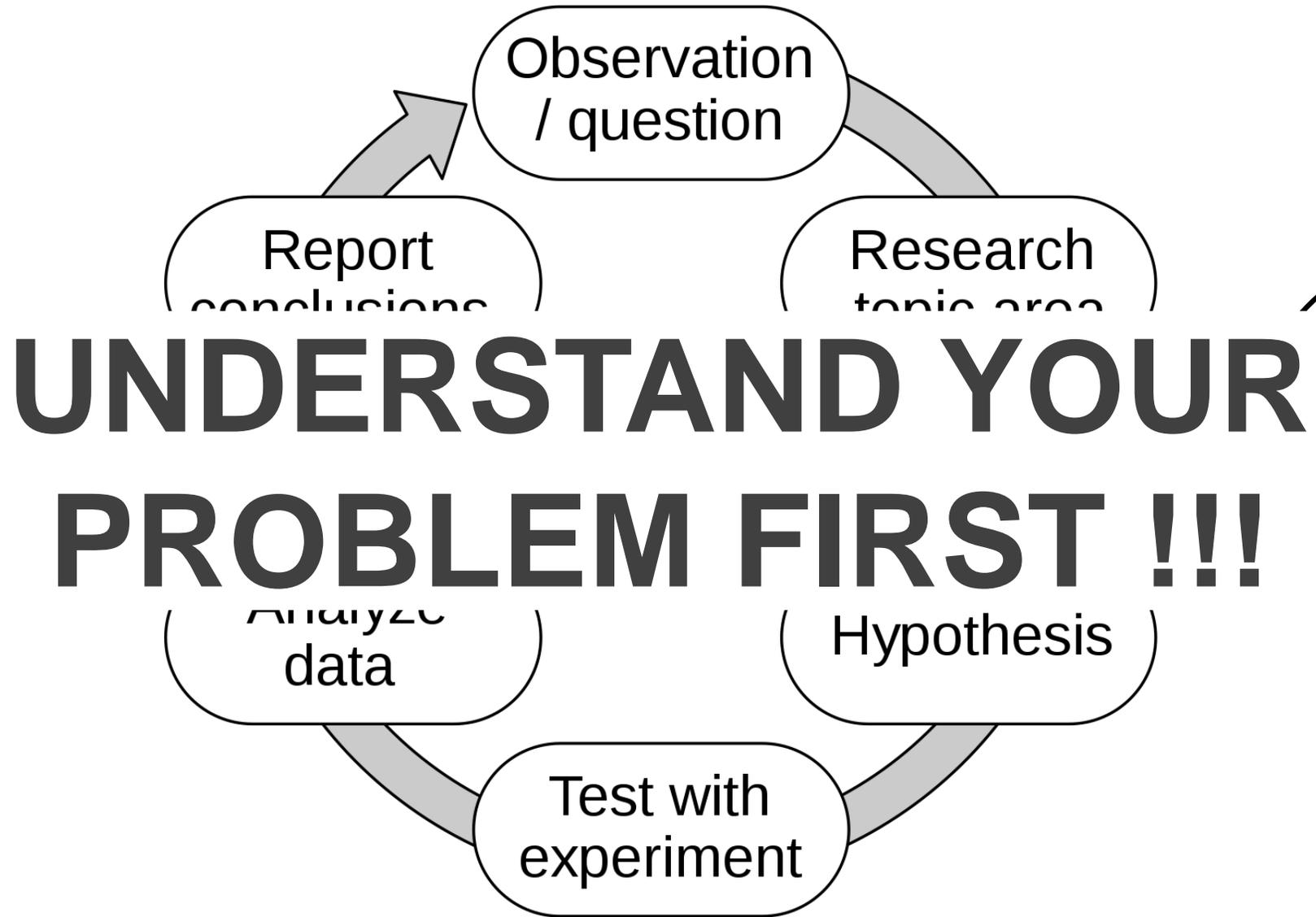
改善

Lean

=

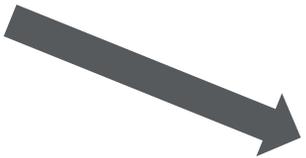
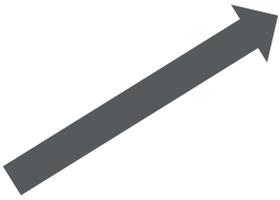








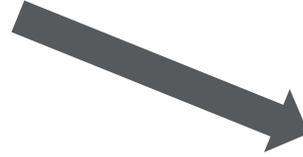
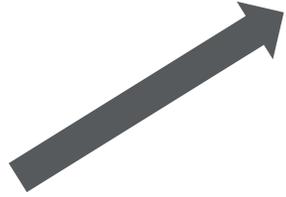
Sense a problem



No improvement



Sense a problem





Sense a problem



Sustained improvement



Agency for Healthcare Research and Quality

Order and Order Set Search

DELIRIUM

[Browse](#) [Preference List](#) [Facility List](#)

Order Sets & Panels

Name	User Version Name	Type
<input type="checkbox"/> <input type="checkbox"/> UCHS IP Delirium Assessment and Management		Order Set

Outcomes Following Implementation of a Hospital-Wide, Multicomponent Delirium Care Pathway

TABLE 3. **Unadjusted and Adjusted Clinical Outcomes for All Patients Combined and Medicine Unit Patients**

Clinical outcome	Unadjusted model result (95% CI)	P value	Adjusted model result (95% CI)	P value
All patients				
Length of stay proportional change ^a	1.00 (0.97-1.05)	.65	0.98 (0.92-0.99)	.0087
Total direct cost proportional change ^a	0.98 (0.96-1.00)	.17	0.99 (0.97-1.01)	.12
30-Day hospital readmission odds ratio	0.93 (0.86-1.00)	.039	0.86 (0.80-0.93)	.0002
Restraint rate ratio	0.83 (0.76-0.91)	<.0001	0.91 (0.71-1.16)	.45
Safety attendant rate ratio	0.51 (0.48-0.54)	<.0001	0.63 (0.41-0.97)	.034



Sense a problem



Sustained improvement



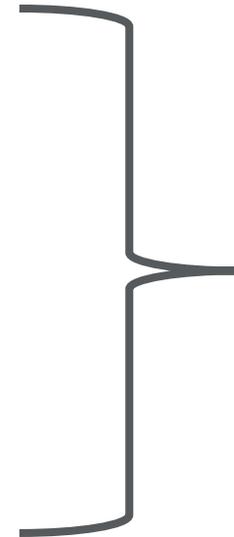
Six Steps for a Successful QI Project

1. Define the problem.
2. Identify areas that can be improved.
3. Decide how you will measure progress.
4. Explicitly state your goals (SMART)
5. Implement and measure small tests of change.
6. Build upon success and sustain the process.



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Understand your
problem



Six Steps for a Successful QI Project

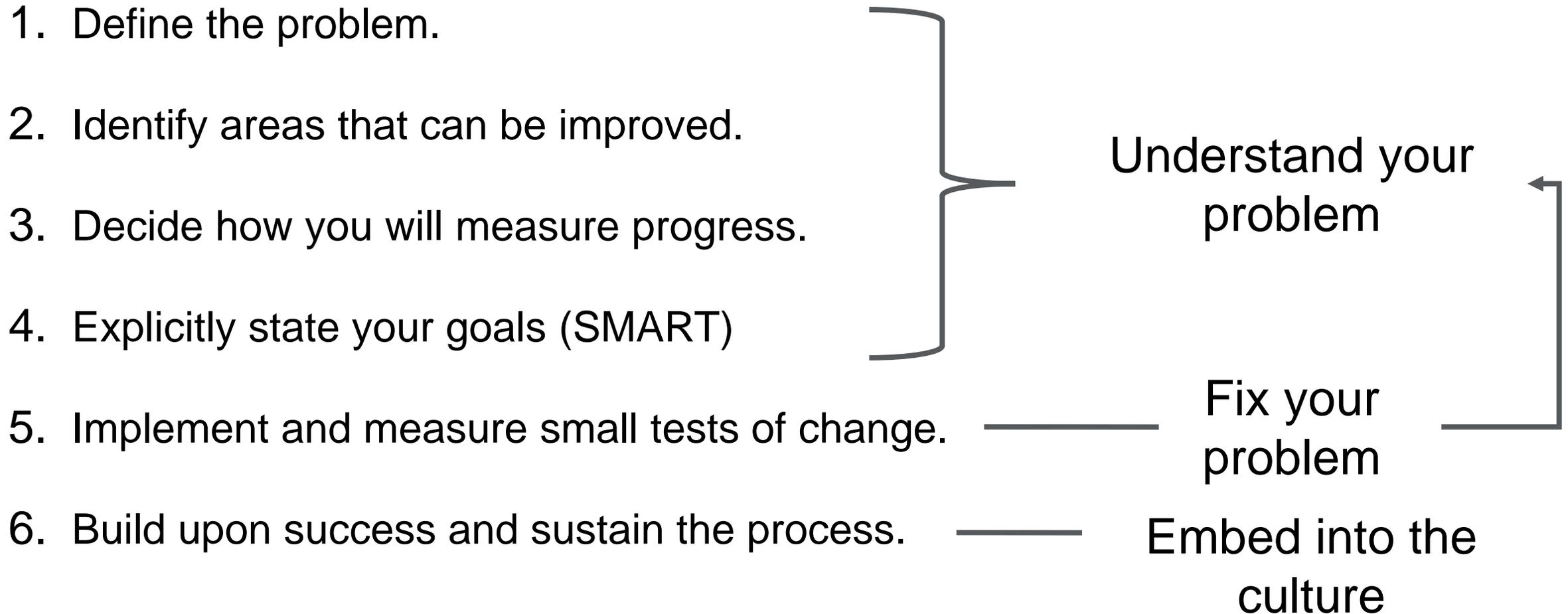
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Understand your
problem

Fix your
problem

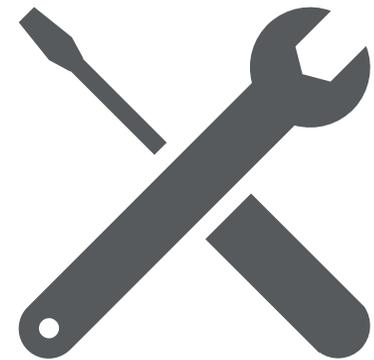


Six Steps for a Successful QI Project



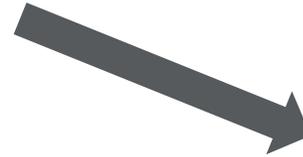
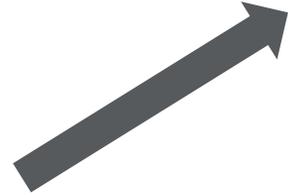
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Common Pitfalls in QI





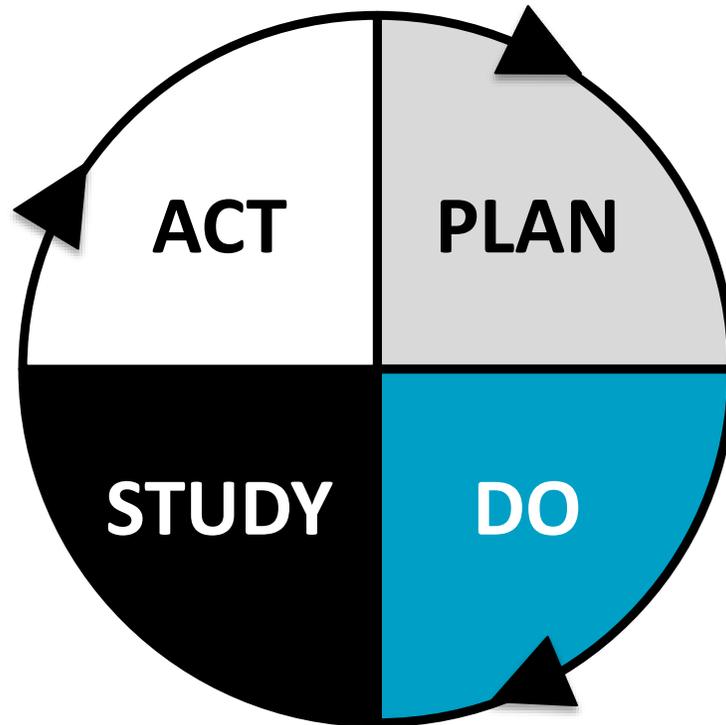
Sense a problem

No improvement





Predetermined PDSA Cycles



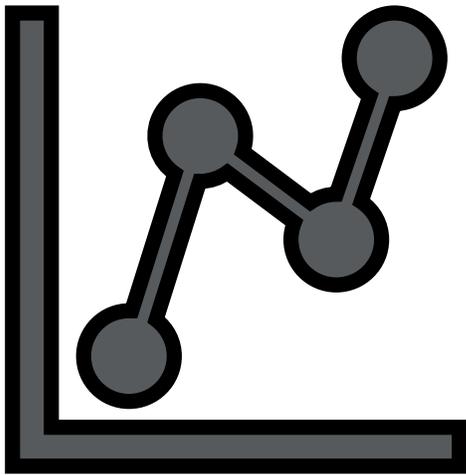


Survey = Intervention





Missing (or NO) data



Basic Statistics

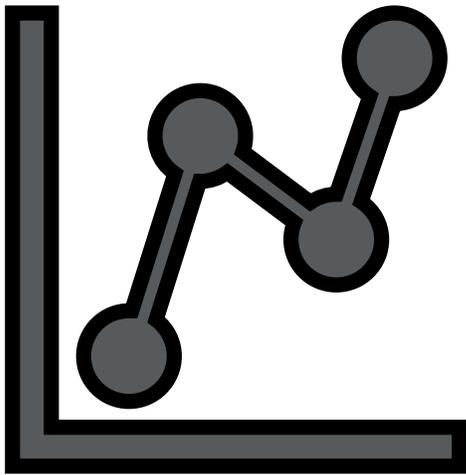
Ratings/Rankings

Manual chart review





Missing (or NO) data



Basic Statistics

Ratings/Rankings

~~Manual chart review~~





“In God we trust. All others must bring data.”

- W. Edwards Deming



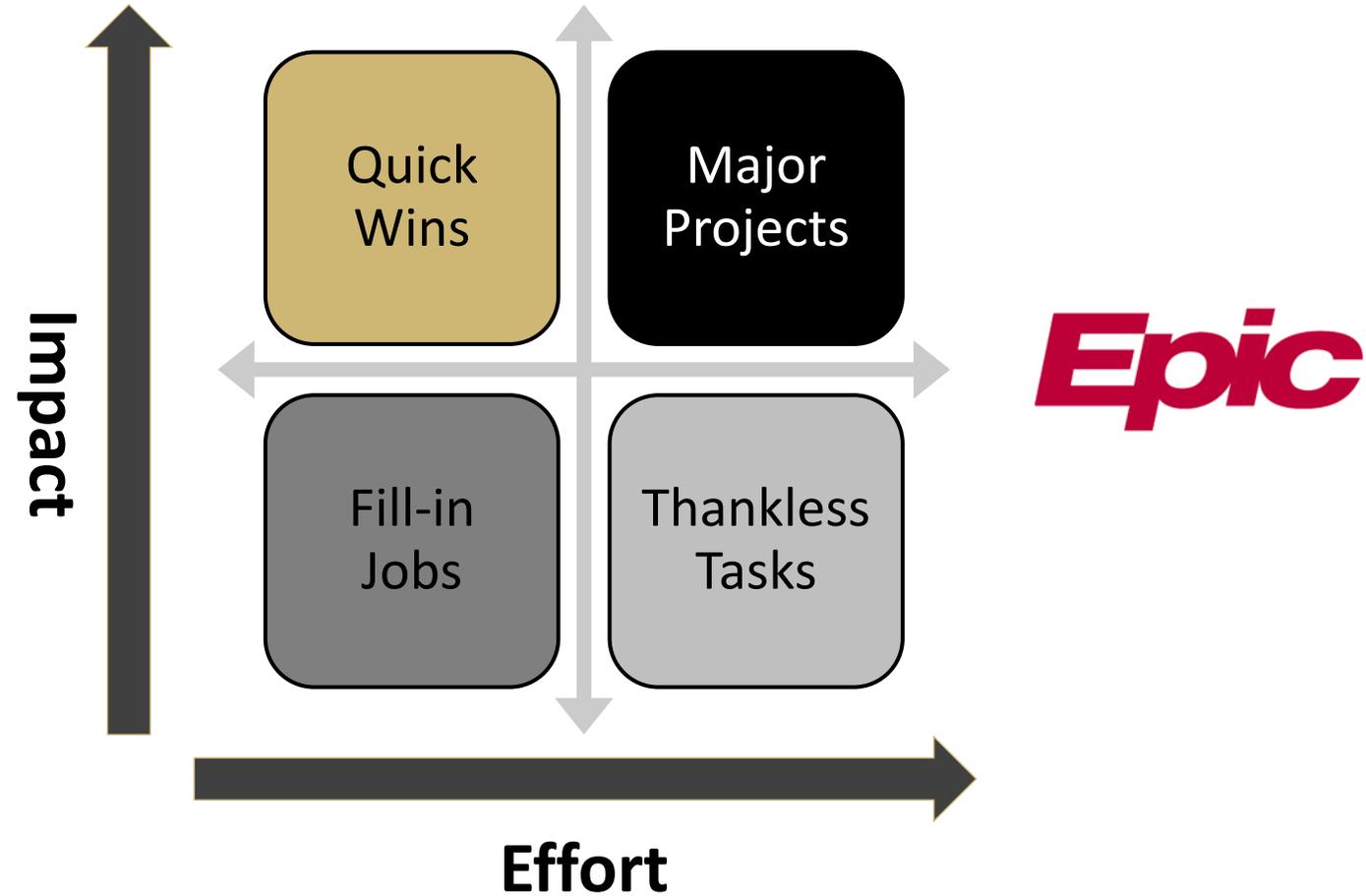
“The goal is to turn data into information, and information into insight.”

- Carly Fiorina, former executive, president, and chair of Hewlett-Packard Co.



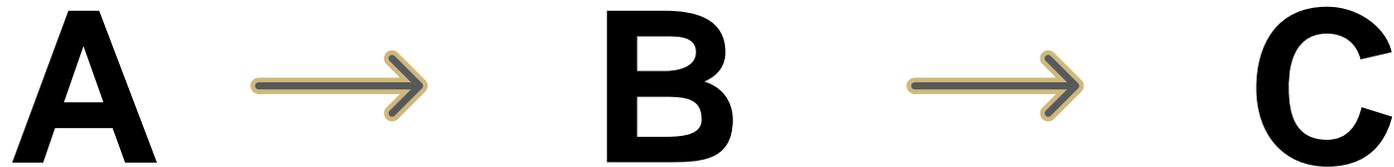


Over reliance on EHR-based solutions

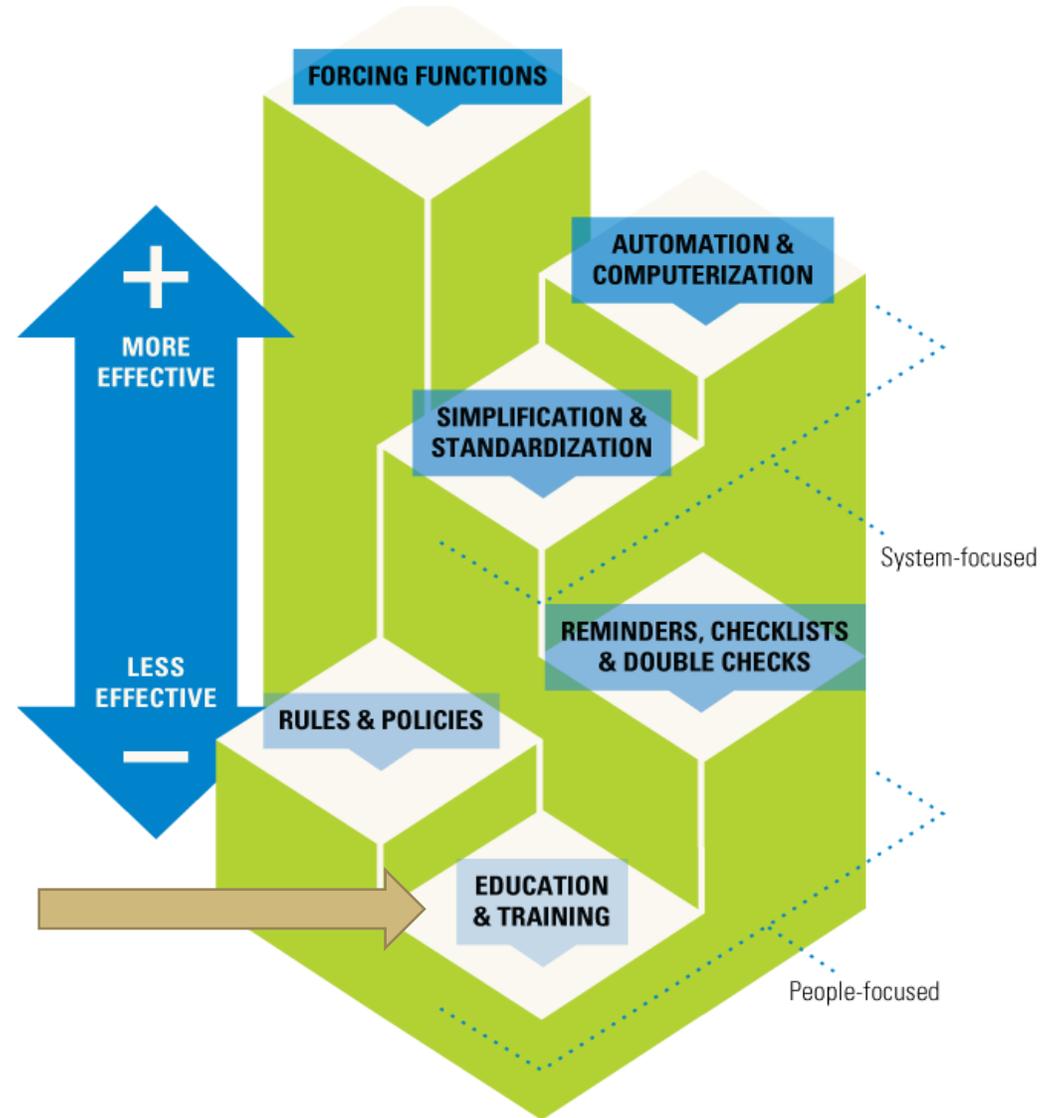




Not tracking process measures

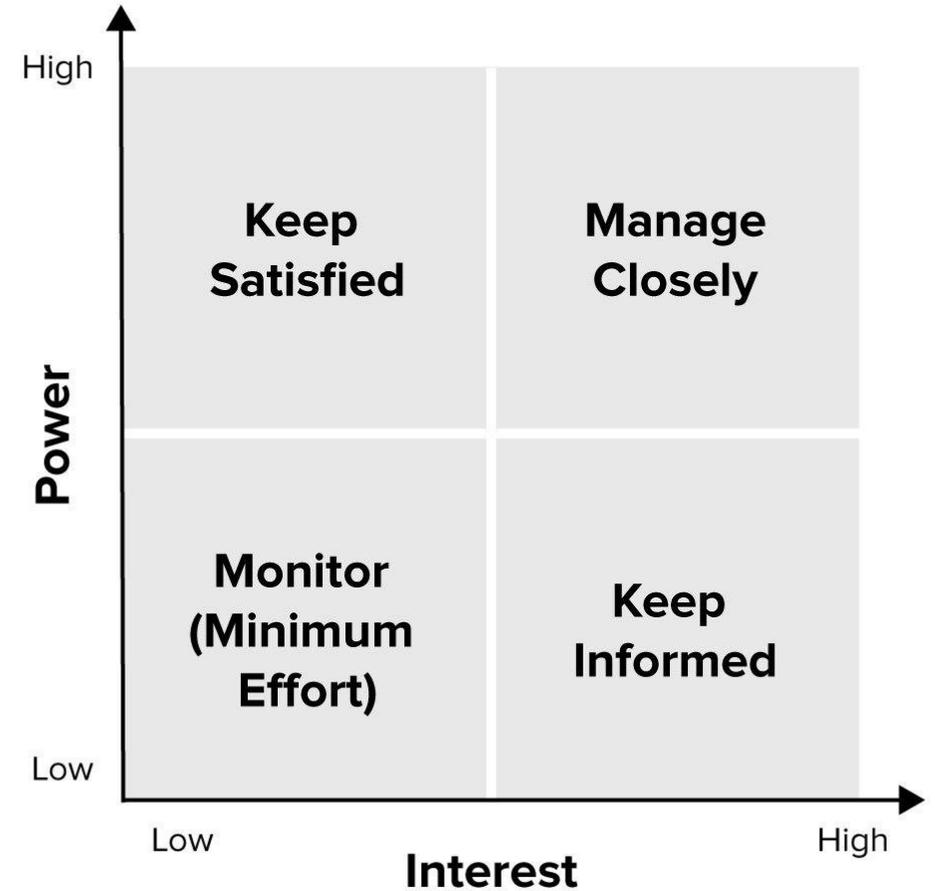


Over reliance on education solutions





Stakeholder management



A top-down photograph of two white coffee cups on a light-colored wooden tray. The cup on the left contains a latte with a thick layer of white foam. The cup on the right contains a dark coffee, possibly espresso. A hand is visible on the right side, holding the handle of the espresso cup. In the upper left, another hand is partially visible near a crumpled black and white checkered napkin. A semi-transparent white rectangular box is overlaid in the center of the image, containing text.

BREAK-TIME

Come back at ***
(MDT)!



Coaching Effective Quality Improvement

Adapted from work by: Ethan Cumbler, MD, FHM, FACP



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Objectives

1. Employ a framework for successful problem selection
2. Identify 3 coaching questions to maintain humble inquiry
3. Outline trainee expectations for coaching huddles



Leadership Development: QI Coach

“Coaches who can outline plays on a black board are a dime a dozen. The ones who win get inside their player and motivate.”

- Vince Lombardi



Coaching Principle #1: Don't overvalue (subject matter) expertise

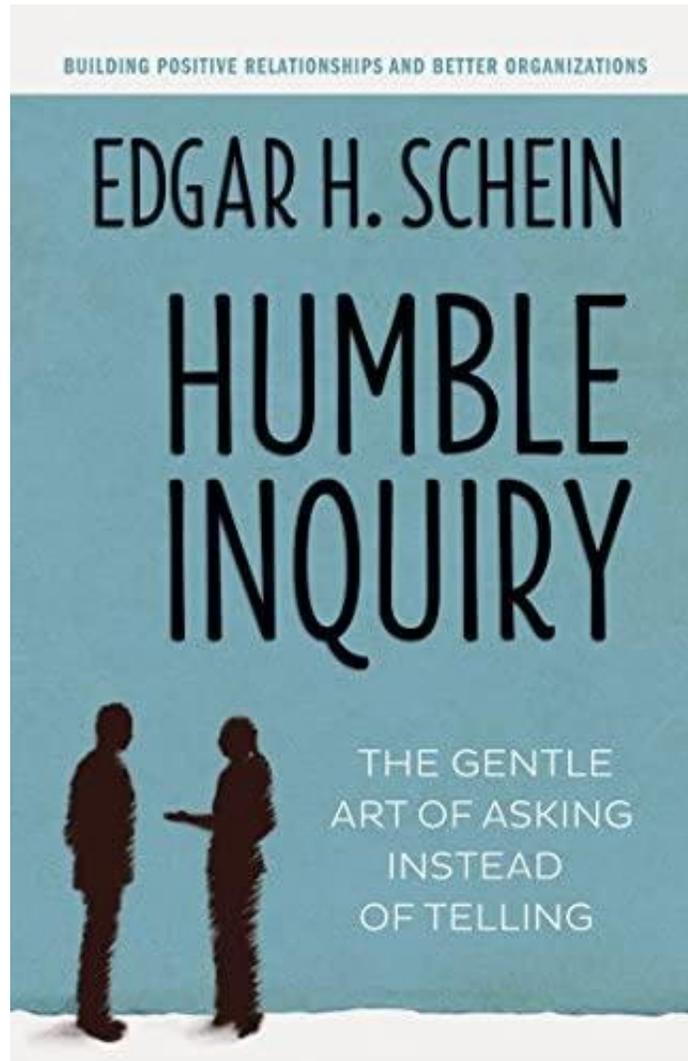
- Expertise in topic area is not essential
- Coaching Power sources
 - Inquiry
 - Inspiration
 - Connections



Coaching Principle # 2: Don't give advice, ask questions

- Predisposition to advice-giving
 - Societally/professionally trained
 - Compassion for problem-solver
 - Power, status, control
- Adverse outcomes
 - Fails to affirm
 - Solve the wrong problem (first thing they thought of, symptom)
 - Disempowers the problem-solver
- Solution: Stay curious longer





“The fine art of drawing someone out, of asking questions to which you do not know the answer, of building a relationship based on curiosity and interest in the other person.”



Humble inquiry

- What do you know about this problem? How do you know it?
- What do you need to know about this problem? How can you find it?
- Who else may be interested or impacted by this problem?



Problem Selection



Framework for Problem Selection: Is this the right problem?

- True problem
- Measurement of problem
- Scope of problem
 - Somebody else's problem
 - Too small/too large
- Alignment of effort
- Resources (may/may not include data)



Scenario #1



Dr. QC, thanks so much for agreeing to be my mentor and QI project coach. I can't tell you how much it means to me that you are putting your own reputation and credibility behind my project!

Ok, I have this amazing idea for a QI project. I totally know that patients are on oxygen longer than they need to be. What we aim to do is to speed the time that it takes to wean patients off oxygen. I am using as a model the ICU initiative to speed time to weaning off ventilators and get patients extubated sooner. The plan is that we will put in place a process so the nurses will do a trial of reducing the oxygen concentration for all patients by 1 liter every four hours. If the sats drop the patient goes back up. If they hold greater than 90 then it is weaned further 4 hours later. I think if we are successful, we can cut the percentage of hospital days that patients are using oxygen by 10%.

I am ready to start I just need your help getting the Chief Nursing Officer to mandate that the nursing staff begin this weaning protocol.

What do you think?

Framework for Intervention Ideating: Is this the right solution?

- Important root cause
- Feasibility
- High impact (Education solutions; EMR solutions)
- Influence or credibility with stakeholders



Humble Inquiry

- Based on data, what are all the potential interventions?
- Which of these interventions represents the best mix of effort and efficacy?
- How will you know if your intervention is working?
- What are your stakeholders reflections on this intervention?
- What barriers may you anticipate? Culture, resources, etc
- Let's pretend the intervention has failed. How/why might it have failed?



Scenario #2



Dr. QC, I am a third-year resident, and I am interviewing for positions out on the east coast. I want my career to include research on high value care. Let me tell you the project I want to do here at the VA I would love your help and coaching.

We all know patients have tons of unnecessary bloodwork done as part of routine morning labs. This not only drives up the cost of care but also unnecessarily phlebotomizes patients. I found this less-is-more article in Archives of Internal Medicine from 2011 which found in MI patients for every 50mL of blood drawn, the risk of moderate to severe hospital acquired anemia increased by 18%. Here is my project idea. Every time you open the chart in a hospitalized patient there will be a pop-up that shows the total amount of blood that has been drawn from that patient so far this hospital stay. I really think this is going to make people pause and rethink whether the tests they are ordering are absolutely necessary. I need a faculty sponsor for the project.

What do you think?



Coaching Principle #3: Allow (safe) failure

- Early and simulated
- Engage stakeholders
- Institutional or cross-institutional knowledge
- Usability testing



Coaching Tips



Codify Adaptability and Flexibility

Open

Explore many ideas

*Coach's job is to keep
discussion broad*

Narrow

Organize information

*Coach may elicit
constraints*



Close



Mechanical Prophylaxis

Pharmacologic Prophylaxis

Patient Adherence

At Least Three Strategies to Approach Problem

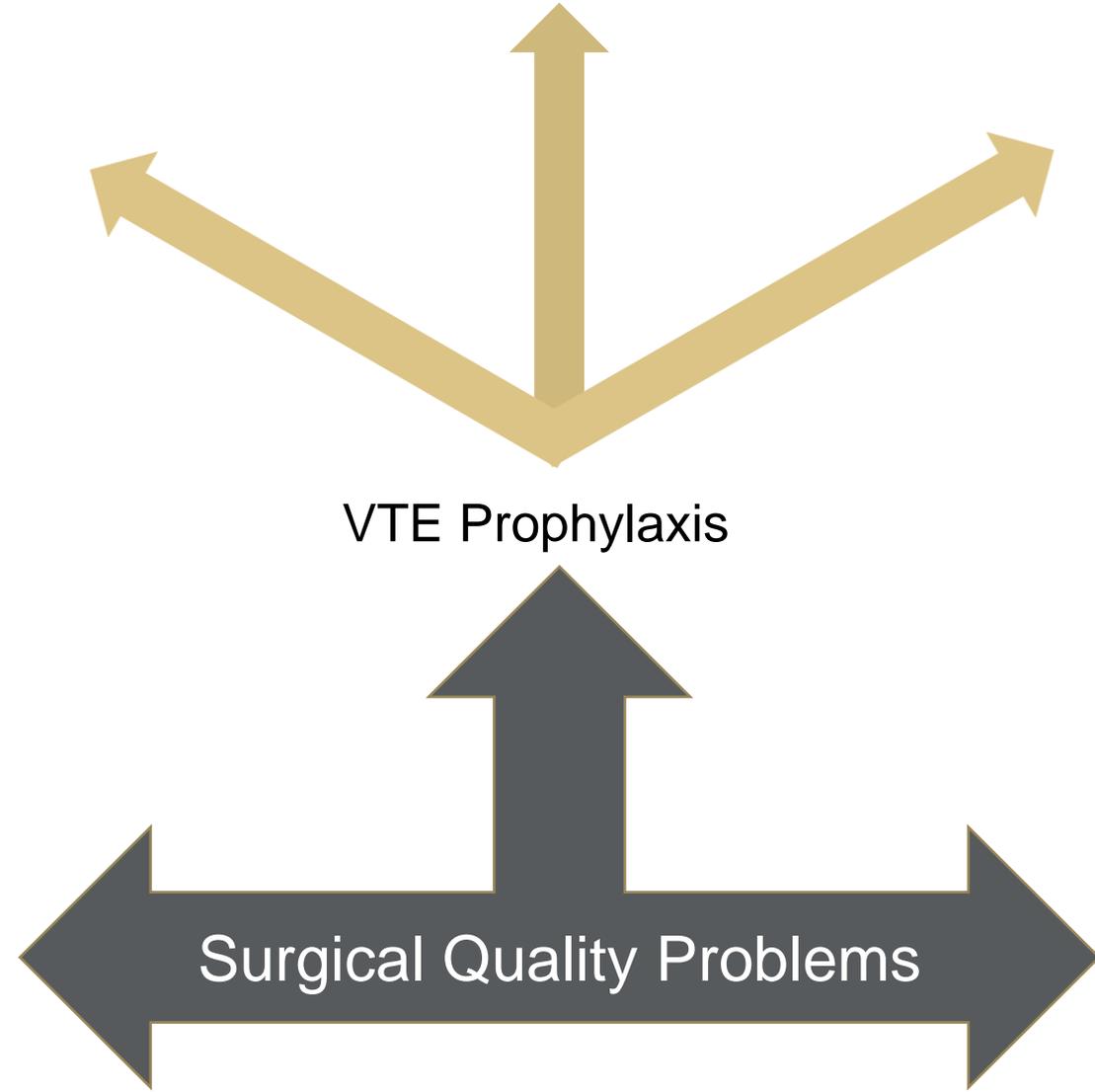
VTE Prophylaxis

C-Diff

Surgical Quality Problems

Surgical Site Infections

At Least Three Problems



Break-Out

15 mins



Expand the universe of possibilities

1. In addition to phlebotomy, identify two other low value care practices.
2. Within the problem of excess phlebotomy, brainstorm two other compelling solutions.



Example #2: Reduce venipunctures



Host effective meetings.

High efficacy coaching meeting

Team

- Report-out
- Identification of challenges and barriers
- Potential next steps

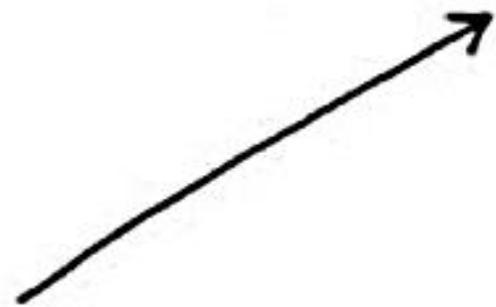
Coach

- Anticipatory planning
- Identification of blind spots
- Connection with people/resources
- Barrier removal



Maintain a Timeline

Success



what people think
it looks like

Success



what it really
looks like



Coaching Principles

1. Don't overvalue expertise.
2. Don't give advice, ask questions.
3. Allow (safe) failure.



Coaching Tips

1. Codify Adaptability and Flexibility
2. Hold effective meetings.
3. Maintain a timeline.



Putting it all Together

Evaluating a QI Project Proposal



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Evaluating Quality Proposals



In reviewing the proposal, please consider the following elements:

1. **ALIGNMENT:** do/does the metric(s) align with the priorities of the hospital? Department?
2. **ACTIONABLE BY TRAINEES:** can trainees improve or change the performance of the metrics selected?
3. **DATA:** does the program have access to data that accurately reflects performance on the metric? Can they reliably obtain the data?
4. **GOALS:** are the goals attainable? are they too easy?
5. **IMPACT:** will this improve patient care?



