
STRATEGIES TO ACHIEVE A SUCCESSFUL QUALITY IMPROVEMENT INITIATIVE

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NOTHING TO DISCLOSE

Learning objectives

- To become familiar with the role of value in the creation and conduct of a successful quality improvement initiative
- To understand the role of data in motivating and guiding a successful quality improvement initiative
- To understand the importance of social aspects in achieving a successful quality improvement initiative

Useful Quality Improvement Observations

- “Every **system** is perfectly designed to get the results it **does.**” - *E.W. Deming*
- “The definition of lunacy is keep doing what you’ve always done and expect a different result!” - *A. Einstein*
- “The process is the outcome” - *J. Gould*
- “The process is people” - *more Gould*
- Change requires attention to both technical and social issues

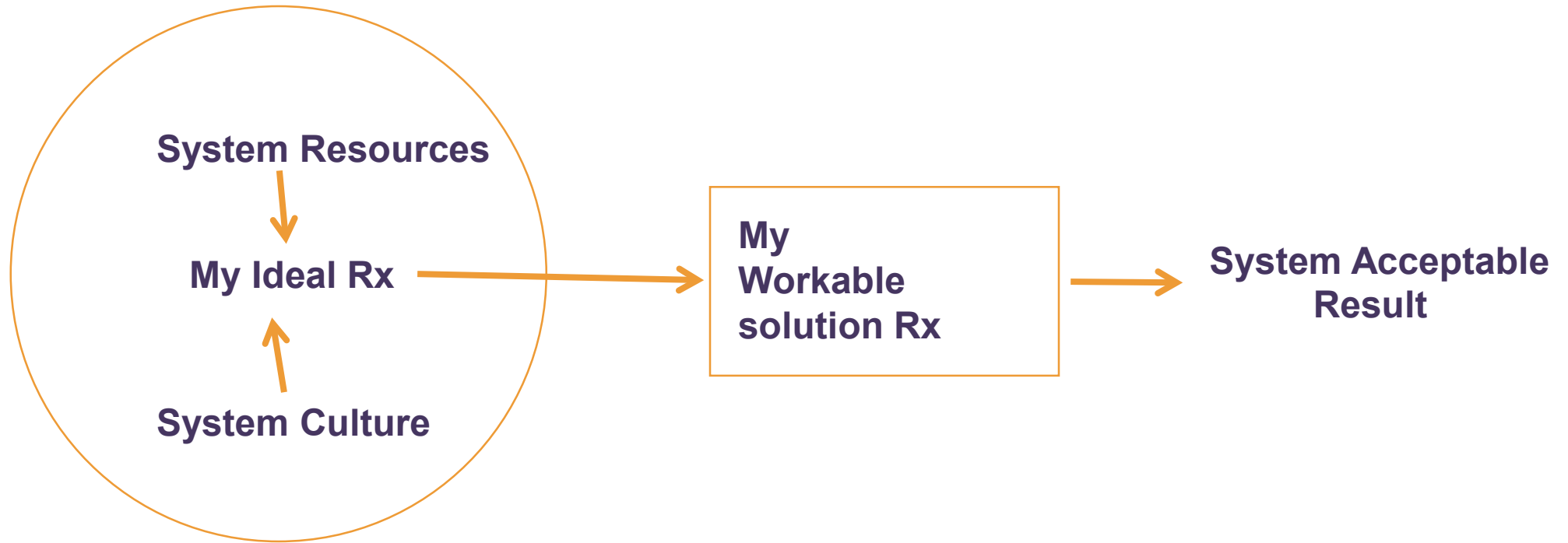


**The immediate goal of quality improvement
is process change**

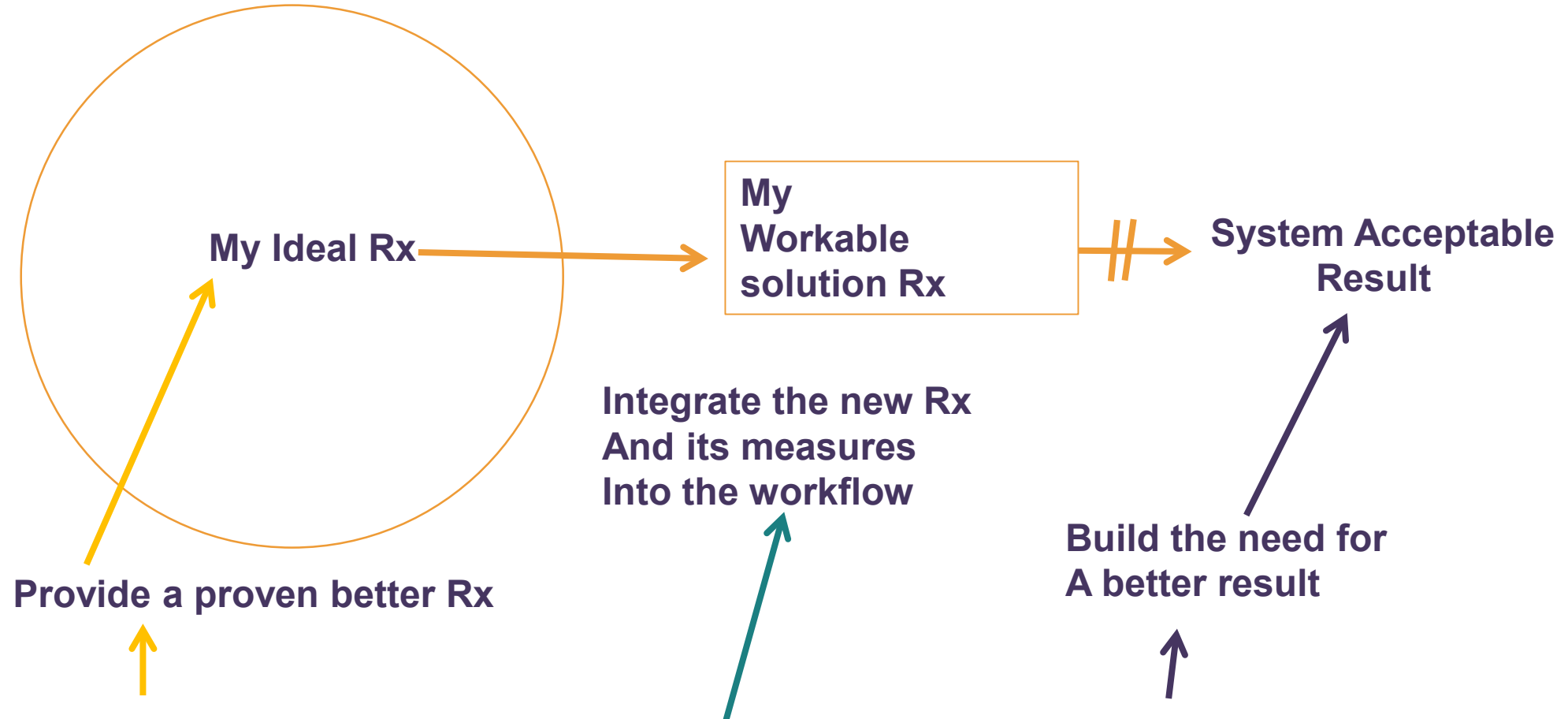
Our goal is change.

But why is it so difficult ?

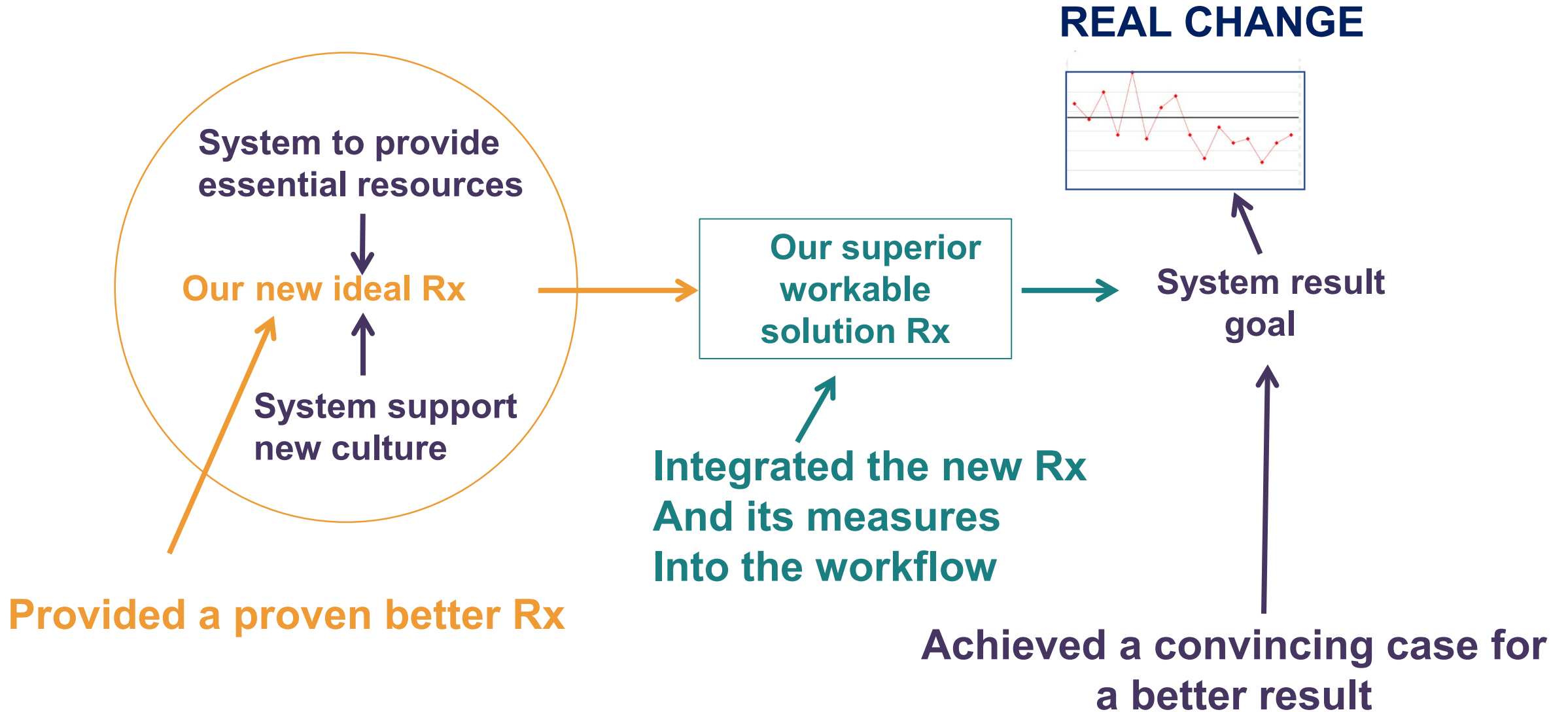
Why is change so difficult?



Typical reaction to proposed change



This has worked a long time for me , I already have too much to do, so why rock the boat ?



Change is difficult because it must effectively achieve

- Personal and System Motivation
- Integrated New Process design
- Low burden Monitoring
- System Support
- Universal Acceptance/Participation , i.e. culture

Change challenges enumerated

1. We have to build a strong case for why we should go to the trouble to change.
2. We need to have proven effective processes.
3. We need front line understanding of our own process and where it should be modified.
4. We need to incorporate measurement into the workflow.
5. We need to have the three essential drivers; local champions, engaged leadership, measurement.

Task 1 : Choosing a Process to Improve

1. Why do we want to do this ?
 - Value to patients/family
 - Value to Practitioners
 - Value to nursing staff
 - Value to medical and nursing leadership
 - Value to hospital leadership
2. Who touches the process ...who are our front line experts
3. Can we identify key Champions
4. Can we pull it off ?

Why do we want to do this ?

- Document where **we** are.
- Establish the value of changing what **we** do
 - Moral Argument - “ **we** are creating super bugs”
 - Scientific Evidence - “ *breastmilk reduces NEC*”
 - Waste Reduction - “ *less nursing time, supplies, labs*”
 - Family Satisfaction - “*fewer needle sticks*”
 - Professional Standing – “**we** are in the lowest quartile after risk adjustment”
 - *Aligns with Hospital’s Quality / Safety goals*
- Demonstrate that change is possible

Who Touches the process and must be involved ?

- Simple Optimal Decision Making
 - Minimal rules, judgments, org consensus, **leadership support**
ANS, Pre-Eclampsia Rx, early term delivery , antibiotic hard stop
- Complex Internal Re-processing
 - Involves **multiple NICU roles**, new ways of doing things, equipment issues
CLABSI Elimination
- Interlocking Activities Optimization
 - New ways of doing , new ways of interdepartmental interfacing
Obstetric Hemorrhage..ER staff , Blood Bank, Del Room Team, Transport
Breast Milk ... Prenatal, Del Room , Milk Bank, Lactation , Neo / Nursing

Bringing Key Players on Board.

- **Champions: MD , Nurse, “?????”**
 - Highly respected colleagues
 - Validate the need for change & motivate working for change
- **NICU Director/ Nursing Director**
 - Validates the importance of the need to change
 - May provide structural facilitation, time, resources
- **Hospital Leadership:**
 - Recognition of importance to the overall strategic mission
 - Provide needed resources

Can we pull it off ..Check list

- Have you developed a strong case for the need to change ?
- Have you identified a proven Change strategy ?
- Have you identified frontline experts to maximize integrating your project into the workflow and minimize the burden of data collection ?

- Is the project in line with your hospital's quality goals ?
- Why is the project important to the hospital CEO ?
- What are the other QI projects going on and what priority do the chiefs of the NICU Medical and Nursing give to your project ?
- Will the Director of Nursing and Neo provide time for the Neostaff to engage in education and PDSA discussions ?

Task 2 : Creating a **Smart** AIM

- **S** Specific statement of exactly what you will do
 - Improve , Increase, Decrease
 - The number of, the Percentage of , the quality of “X”
 - In ...population or Patient Group
 - From baseline amount to Target amount
 - By ..target Date

M Measurable

Process measures

% Cultures before Rx

Outcome measures

Number of Antibiotic Days

Balancing measures

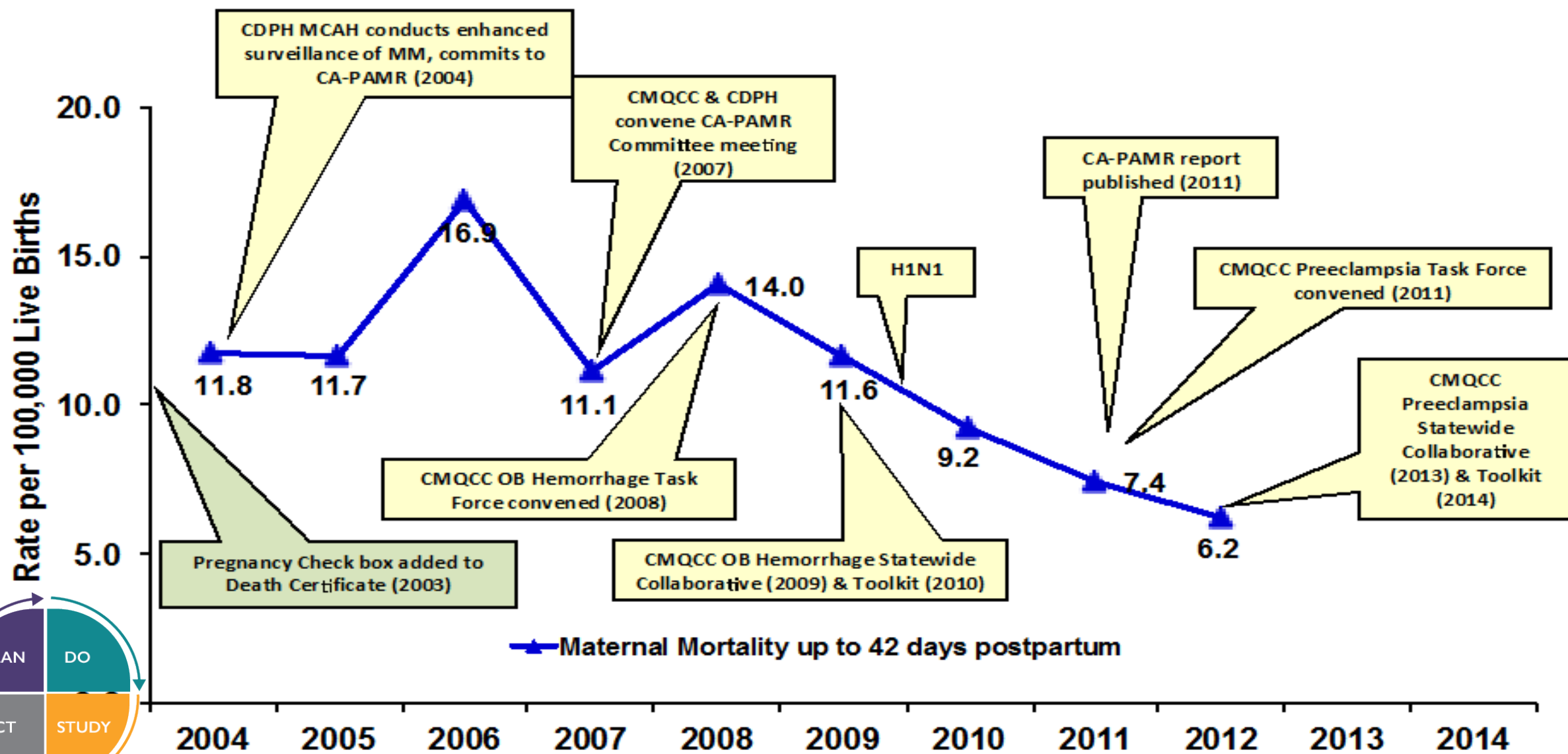
Readmission for sepsis

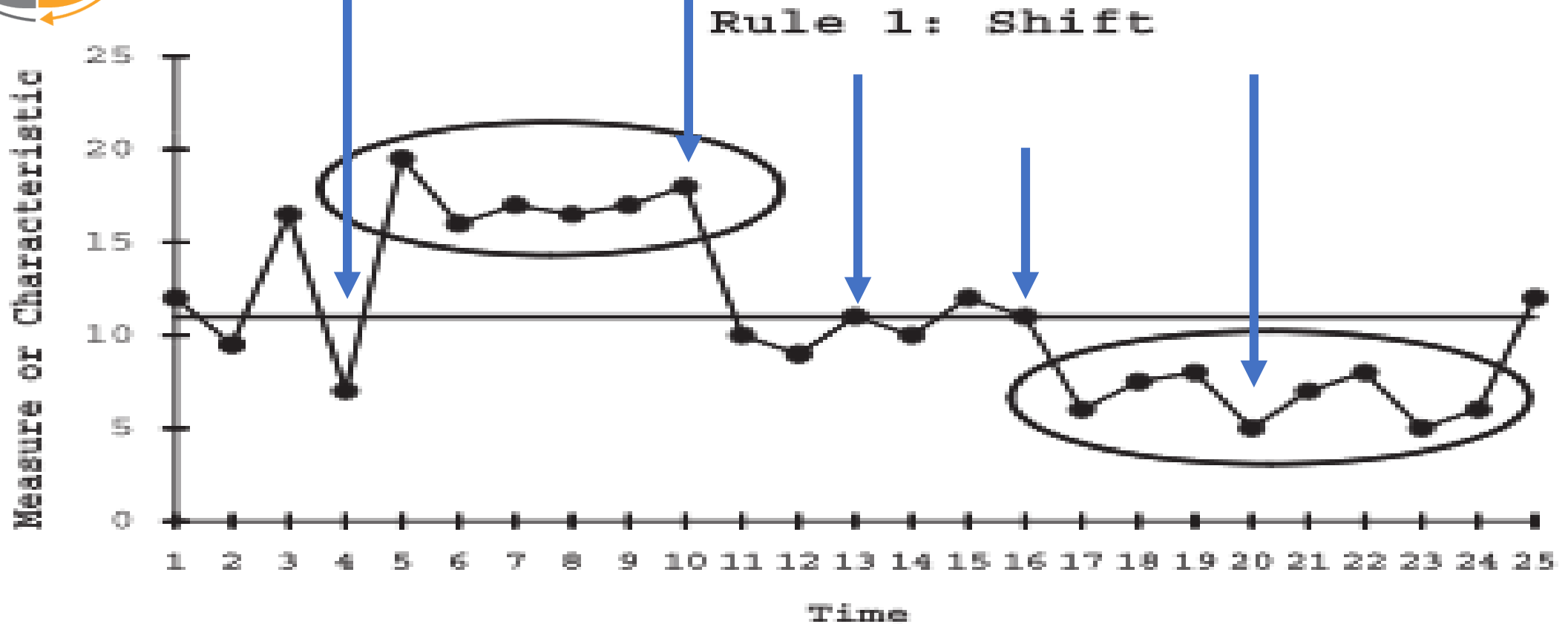
Minimal information needed
Integrate into the workflow



CMQCC Success: Reducing Maternal Mortality

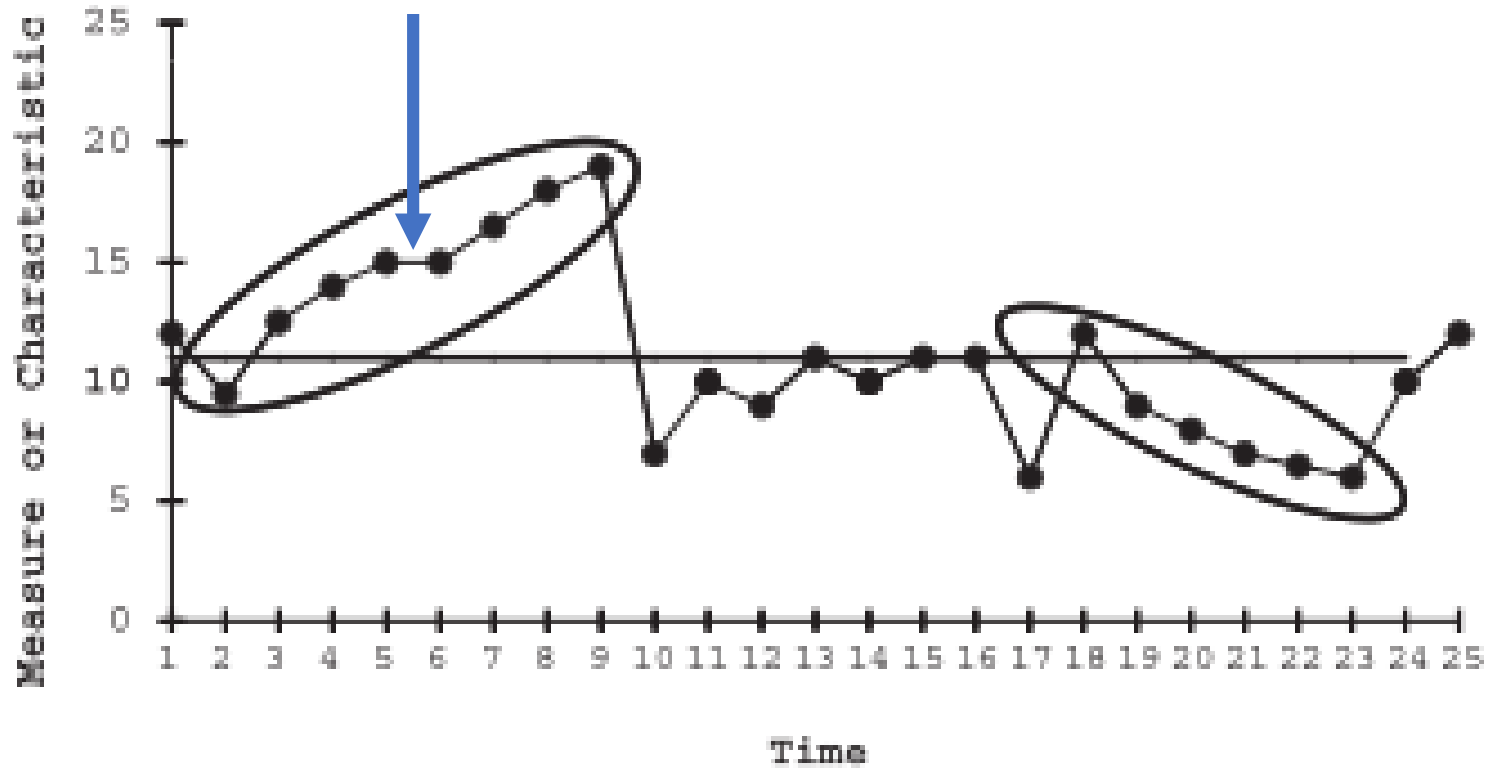
Maternal Mortality Rates, California Residents: 2004-2012





Change is 6 above or below the median

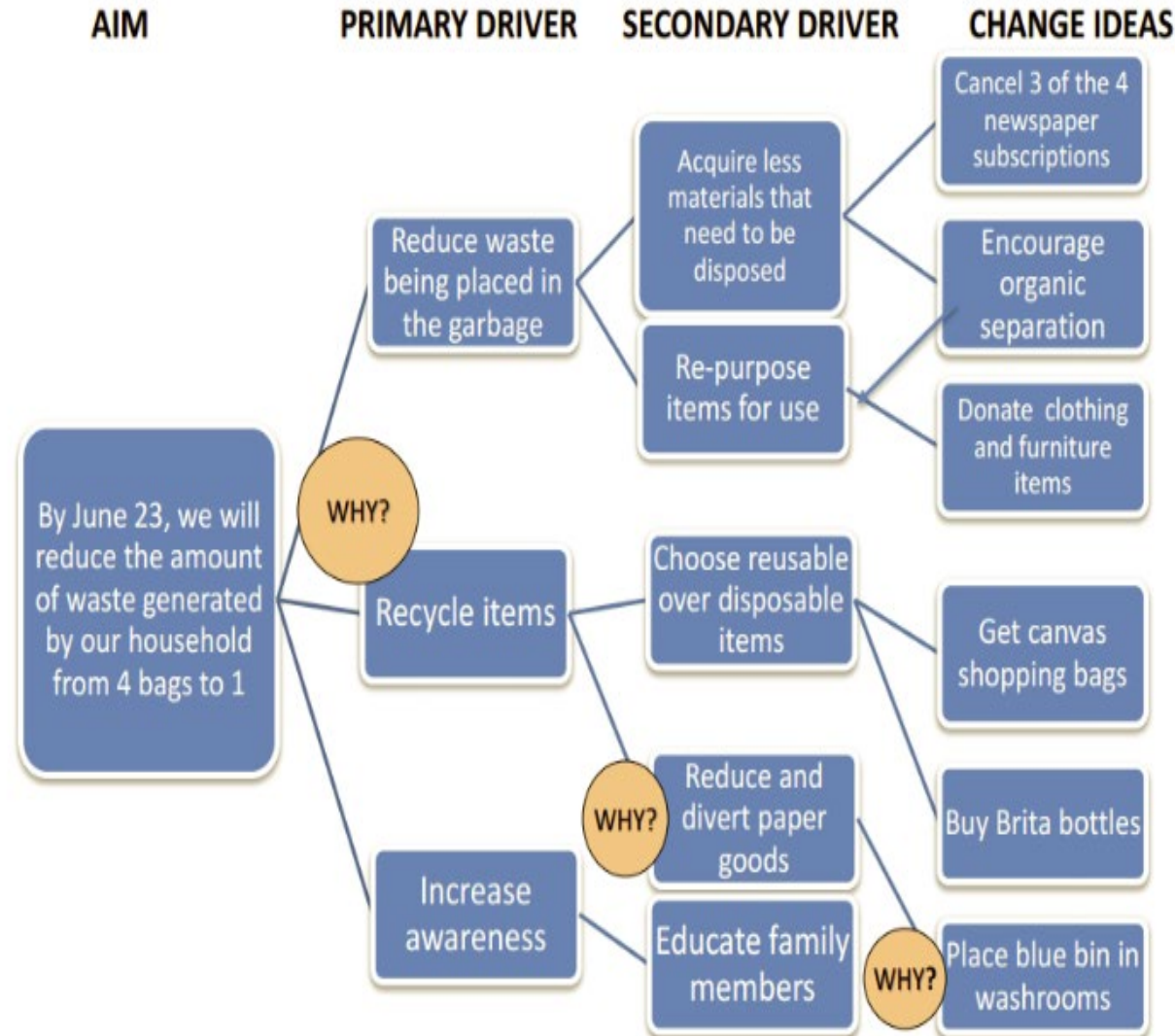
Rule 2: Trend



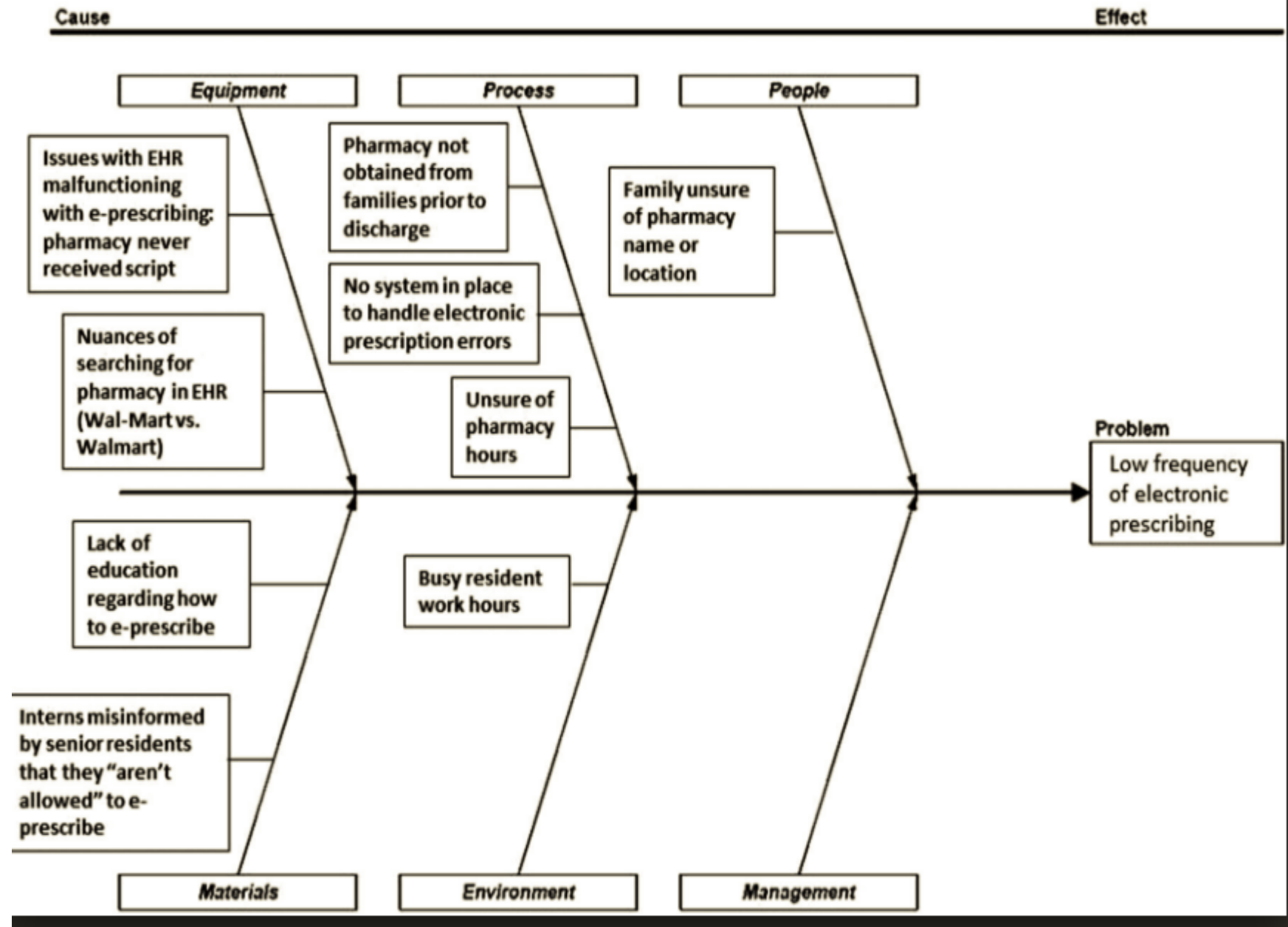
5 points going up or down indicates a trend

Smart.....Attainable

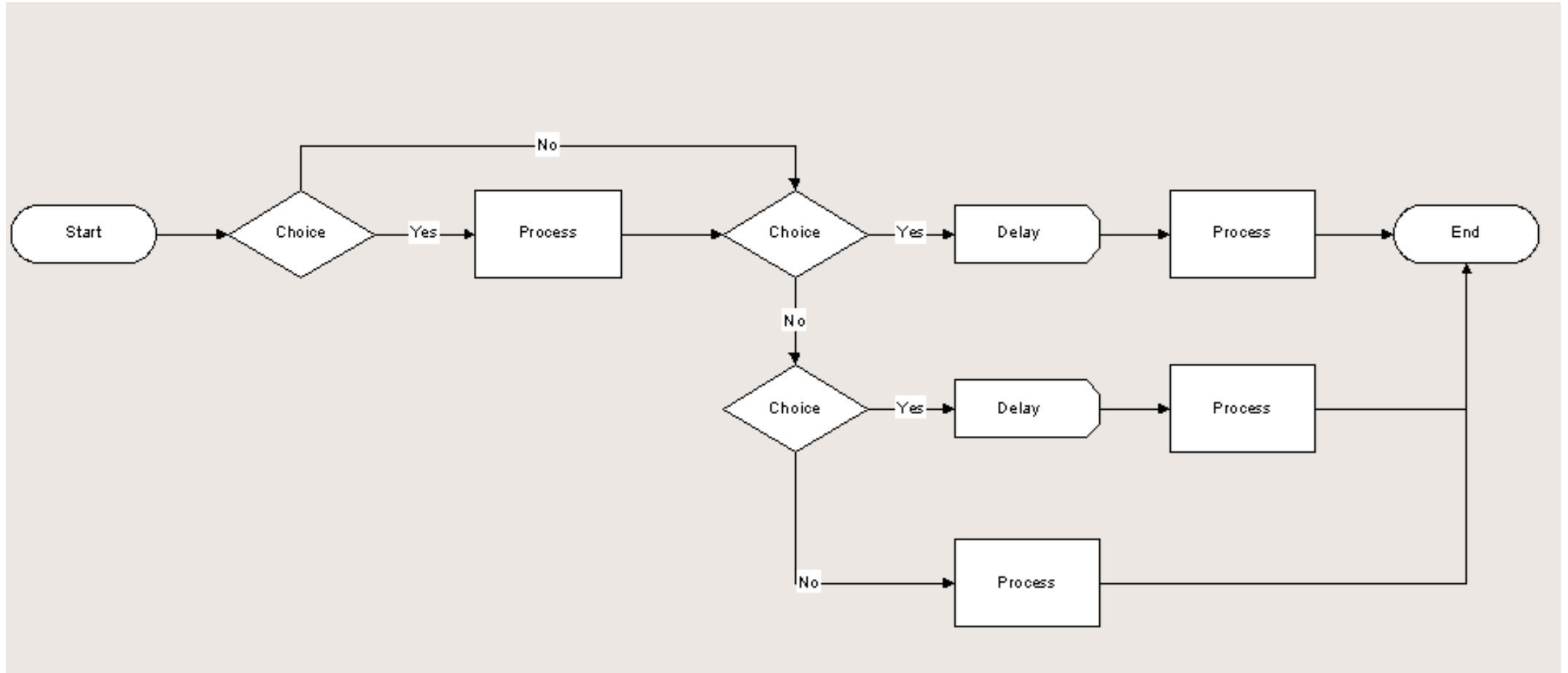
- Driver Diagram
 - <https://qi.elft.nhs.uk/resource/driver-diagrams/>
- Fishbone Diagram
- Process Flow Diagram
- Force Field Analysis



- Fishbone Diagram
- Ishikawa cause-effect



Process Flow Diagram // Front Line Development



Process Flow Diagram // Front Line Development

- **! Act at the Gemba for front line driven change !**
- “How do **we** do it” ..“How can **we** do it better with clues from the bundle”.
- **“How do we incorporate our changes and measures into our workflow?”**

Satoshi Kusuda, MD



Round at NICU with staff



Make an improvement plan on each weak aspect

Force Field Analysis

<http://www.health.state.mn.us/divs/opi/qi/toolbox/forcefield.html>

Smart.....

Attainable

Issue: Explore collaboration between local health departments

Ideal State: Optimal services for constituents and clients

+	Driving Forces		Restraining Forces	-
	Reduced duplication of services	-->	<--	Loss of autonomy/independence/local control
	Maximize dollars and resources	-->	<--	Fear of the unknown
	Shared training and collaboration among staff	-->	<--	Services spread over large geographical area
	Pre-existing connections between commissioners	-->	<--	Union and non-union employees

SMART..... Relevant

Reduce Cather related blood stream infections by 50% in VLBWs with central lines by 12/30/18

Area of Impact	Impact	Measument
Personnel	Decrease Nursing Needs	Nursing Intensity per CC Infant
Equipment	Decrease Use of Pumps	Line Days per CC infant
Materials	Decrease Catherters/setups	Setups per CC infant
Plant	Decrease LOS	LOS in CC Infants
Laboratory	Decrease ID lab work	Lab work per CC infant
Imaging	Decrease ID Imaging	X rays per CC infant
Blood Bank	Decrease Blood Transfusions	Transfussions per cc infant
Pharmacy	Decrease Antibiotic days	Antibiotic use rates
Nutritionals	Better Growth/Less TPN	% undergrown at discharge
Family / Infant	Decrease Stress	Satisfaction Survey results

Moving forward from Smart Concept to Process Change to improved Outcome

- Leadership Support \$.....Time.....Walk-rounds
- Respected Champions Change is difficult and takes time
- Frontline Design.....Ownership..... Commitment to success
- Rapid tests of Change Redefinition of Failure

- The Entire Team is essential for success
- Each Member is an expert at their job
- Any innovation must be integrated
- It must demonstrate Improvement



Collaboratives: to Join or not to Join

- Its difficult to go it alone
- Interventions selection and rollout sequence
- Metric selection, and comparative reporting
- Community of learning
- Report out timetable commitment ... incentive to keep up
- **Topic may not be available**
- **Cost of participation**

How do **WE** keep momentum

- Keep Working Towards Consensus
- Set and meet goals and timelines
- Monitor, Monitor, Monitor (collect ,review, adjust)
- Focus on Systems not Individuals
- Prominently Display progress and standing
- Celebrate success with team and leadership
- Continue education
 - New evidence to support your new approach
 - New estimates of the value of your achievements

3 essentials

1. Front line participation to design an intervention and measures that are integrated into the workflow
2. Without data, no way to know where you are or if you are moving in the right direction.
3. Get leadership support



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The American Journal of Maternal/Child Nursing, In press for print publication November 1, 2016 issue
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- 3. Thematic Analysis of Barriers and Facilitators to Implementation of Neonatal Resuscitation Guideline Changes**
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- 4. Explaining Michigan: developing an ex post theory of a quality improvement program**
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Squire 2.0 Framework for reporting your Q.I.

- Your context
- Significance of your problem
- Your Smart Aim
- How you chose your intervention
- What were your measures
- What steps did you take and did they work....annotated run chart

- What Barriers and how to over come them

3 big insights

1. Change requires meeting both **technical** and **social** challenges
2. Change is rarely quick and easy
3. We improve our cooking and clinical outcome by **doing, tasting, and adjusting**