


National **MCH** Workforce Development Center
Advancing Health Reform Implementation


Using Quality Improvement Tools to Address Challenging Problems

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“The Only Thing that is Constant is Change.”
-Heraclitus






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Session Objectives

- Define quality improvement principles
- Discuss QI tools to help generate and test actionable solutions



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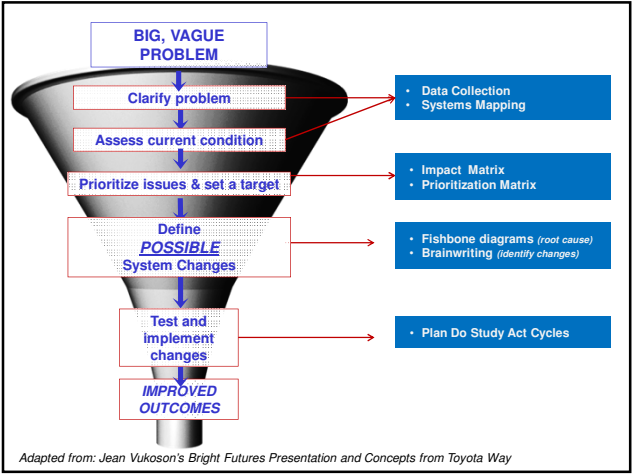
Quality Planning	Quality Control & Improvement	
	 <p>Process not Achieving Desired Results (An Opportunity for Improvement)</p>	<p>Model for Improvement</p> <p>What are we trying to accomplish? How will we know that a change is an improvement? What change can we make that will result in improvement?</p>  <p>Quality Improvement</p>
Time		

Visual adapted from Marni Mason of MCPP Consulting; based on Joseph Juran's Trilogy

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Key Features of QI

- Focus on **systems**, not individuals
- Ideas for change from **customers, stakeholders & front line staff**
- The “intervention” is design **iteratively** through testing
- Frequent, **ongoing measurement** and data driven decision making
- **Never ending** process (never “done”)

QI Tools

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Impact Matrix

- Used to prioritize ideas
- Helps identify changes that will give you the biggest “bang for the buck”

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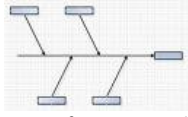
Prioritization Matrix

Instructions

- Identify and jot down the overall goal(s) for your project.
- Set criteria by which you will rank each change idea.
- List all criteria on the horizontal axis, and all change ideas on the vertical axis.
- Ask each team member to assign each opportunity for improvement a value based on the specified criteria.
- Review the total scores and focus on the opportunity for improvement that ranked the highest.

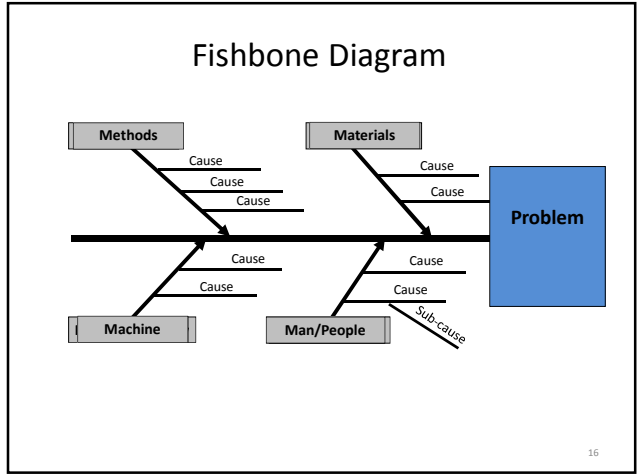
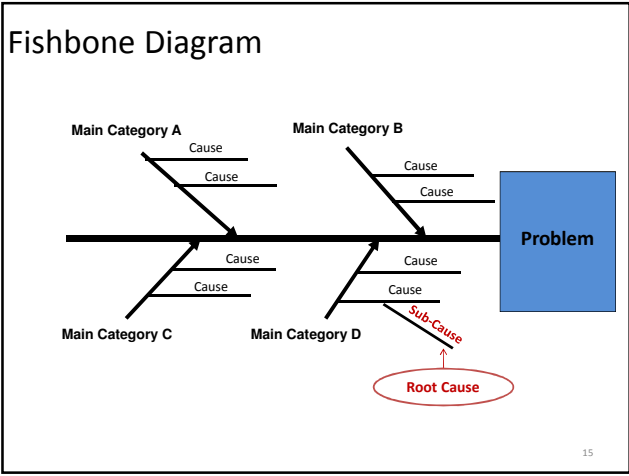
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Fishbone Diagram

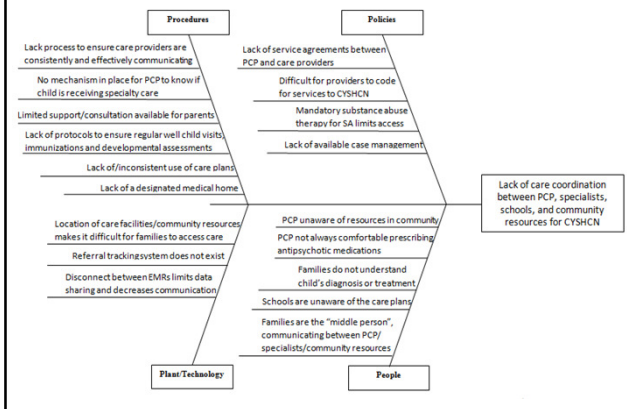


- What it is?
 - A visual display that allows teams to organize information and identify *multiple* causes of a problem
- Why use it?
 - Provides structure during brainstorming
 - Enables team to think through all potential causes
 - Creates a snapshot of the team’s collective knowledge
 - Breaks problem into smaller pieces
 - Focuses on causes rather than symptoms
 - Helps prioritize and focus on specific areas

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Fishbone Example: Care Coordination



Fishbone Diagram

Instructions

- Identify your problem and put it at the "head" of the fish
- Determine major categories for the diagram
 - Consider: **P**rocedures, **P**olicies, **P**lace/Technology, **P**eople
 - Consider: **M**ethods, **M**achine, **M**aterials, **M**an/People
- Identify factors that fall under each category
 - Data collected from observations, focus groups, surveys
 - Brainstorm ideas as a group
- Evaluate your diagram
 - Look at the "balance" of the diagram
 - Focus on the category that has the most factors
 - Prioritize the factors within the category
 - Determine if you need to use the 5 Whys to drill down to find root cause
- Identify potential solutions for each prioritized factor
- **TEST, TEST, TEST** each solution with Plan-Do-Study-Act cycles®

Brainwriting

Brainwriting

- What it is?
 - Alternative form of brainstorming
- Why use it?
 - Everyone contributes ideas
 - Reduces threat of ideas being blocked by others
 - Quick way to generate many innovative ideas



Brainwriting Example

	Idea 1	Idea 2	Idea 3
1	AAA	BBB	CCC
2			
3			
4			
5			
6			

6 3 5 Method
(6 people, 3 ideas, 5 minutes)

	Idea 1	Idea 2	Idea 3
1	AAA	BBB	CCC
2	DDD	EEE	FFF
3			
4			
5			
6			

	Idea 1	Idea 2	Idea 3
1	AAA	BBB	CCC
2	DDD	EEE	FFF
3	GGG	HHH	III
4			
5			
6			

Brainwriting

6 3 5 Method Instructions

- Identify and write down a problem statement/issue
- Distribute a worksheet to each person
- Each person has 5 minutes to writes 3 ideas on **Row 1** of their worksheet
- Pass complete worksheet to person on the right
- Each person has 5 minutes to review the worksheet & add 3 new ideas in **Row 2** of worksheet
- Continue process until multiple rows have been filled

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Alternative Brainwriting Methods

• Gallery Brainwriting

- Write problem statements on flip charts
- Each person selects a flip chart, reviews problem statement & writes 3 ideas on post-it notes (**1 idea/post-it**)
- Rotate to the flip chart on the right, review problem statement, read the ideas, add 3 new ideas and/or enhance the other ideas
- Continue until everyone has visited each flip chart



• Index card

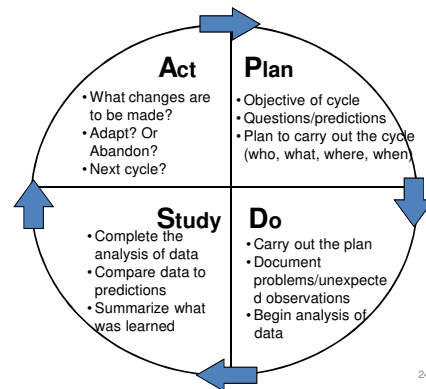
- Display the problem statement at the front of the room
- Each person writes 3 ideas on an index card & passes it to person on their right
- Each person reviews ideas on card, adds 3 new ones or enhances the other ideas
- Continue process for 20-30 minutes



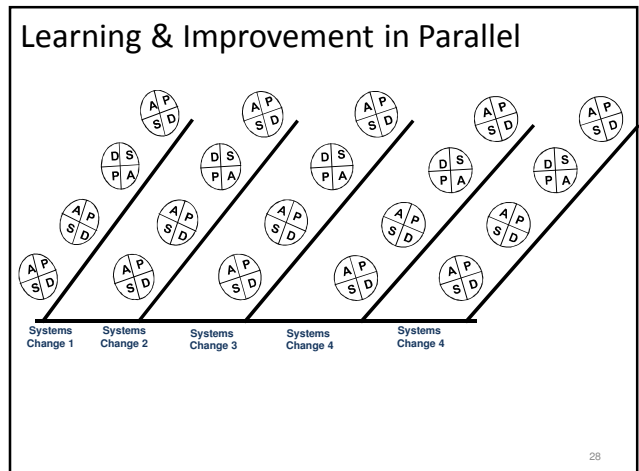
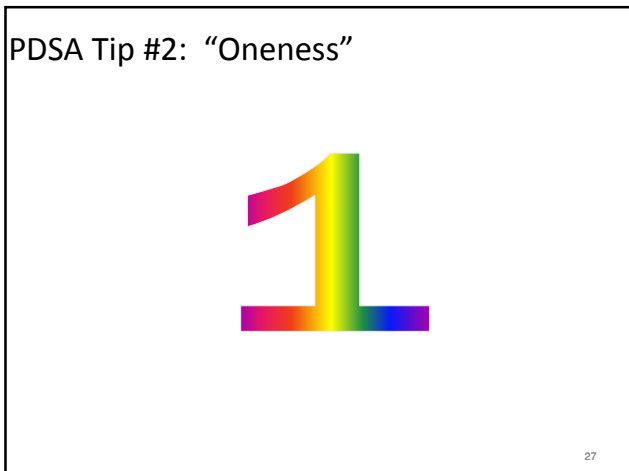
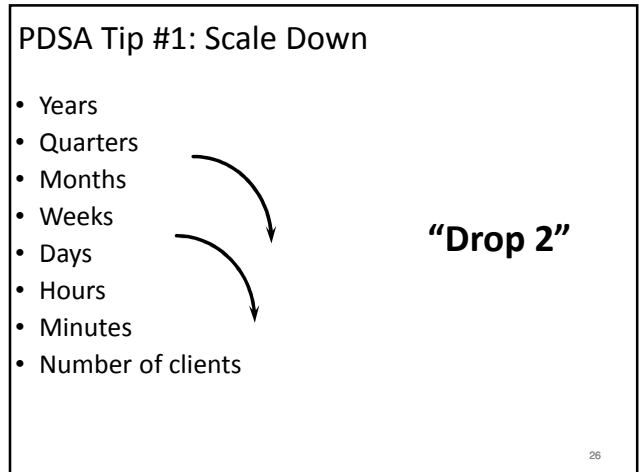
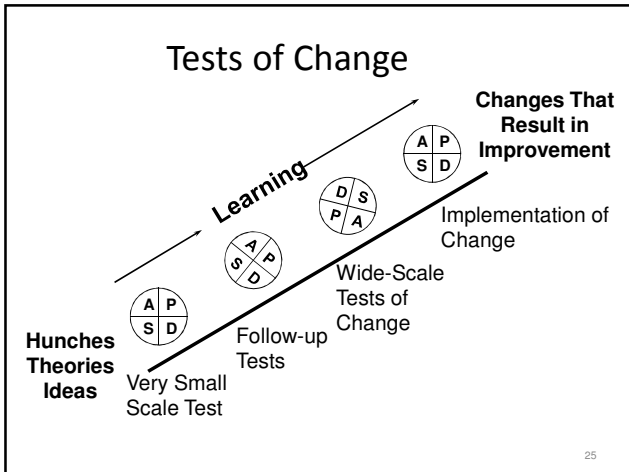
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PDSA Cycle

Use to tested changes



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PDSA Cycle Forms

PDSA Cycle Tracking Form

Name of Person Testing Change: _____

Change Area Tested: _____

Cycle No.	PLAN	DO	STUDY	ACT
1	<ul style="list-style-type: none"> What did you test? How did you test it? What did you expect to happen? 	Date Tested	<ul style="list-style-type: none"> What did you learn? What worked well? What could be improved? 	<ul style="list-style-type: none"> How will you adjust the change now?
2				
3				
4				
5				

Date: _____

PLAN

Objective for this cycle (What do you hope to learn): _____

Specific questions to address: _____

Predictions/Hypotheses (What do you think will happen when test is done?): _____

Plan for change or test: who, what, when, how, where

Plan for data collection: who, what, when, how, how long

DO Carry out the change/test. Collect data.

Note when completed, observations, problems encountered, and special circumstances.

STUDY Analyze data (quantitative and qualitative).

Summarize data.

ACT Document what was learned. Should you adjust, adopt, or abandon the change? Are you confident that you should expand scope of test or implement?

What changes are needed for the next cycle?

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How might you use QI tools to address problems/challenges within Maternal Child Health?

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References

- Tague, N. *The Quality Toolbox*. Milwaukee, WI; American Society for Quality; 2005.
- Public Health Foundation. *The Public Health Memory Jogger II: A Pocket Guide of Tools for Continuous Improvement and Effective Planning*. GOAL/QPC; 2007.

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