Michigan MLC-3 Year 3 Quality Improvement Learning Session

May 11 & 12, 2010

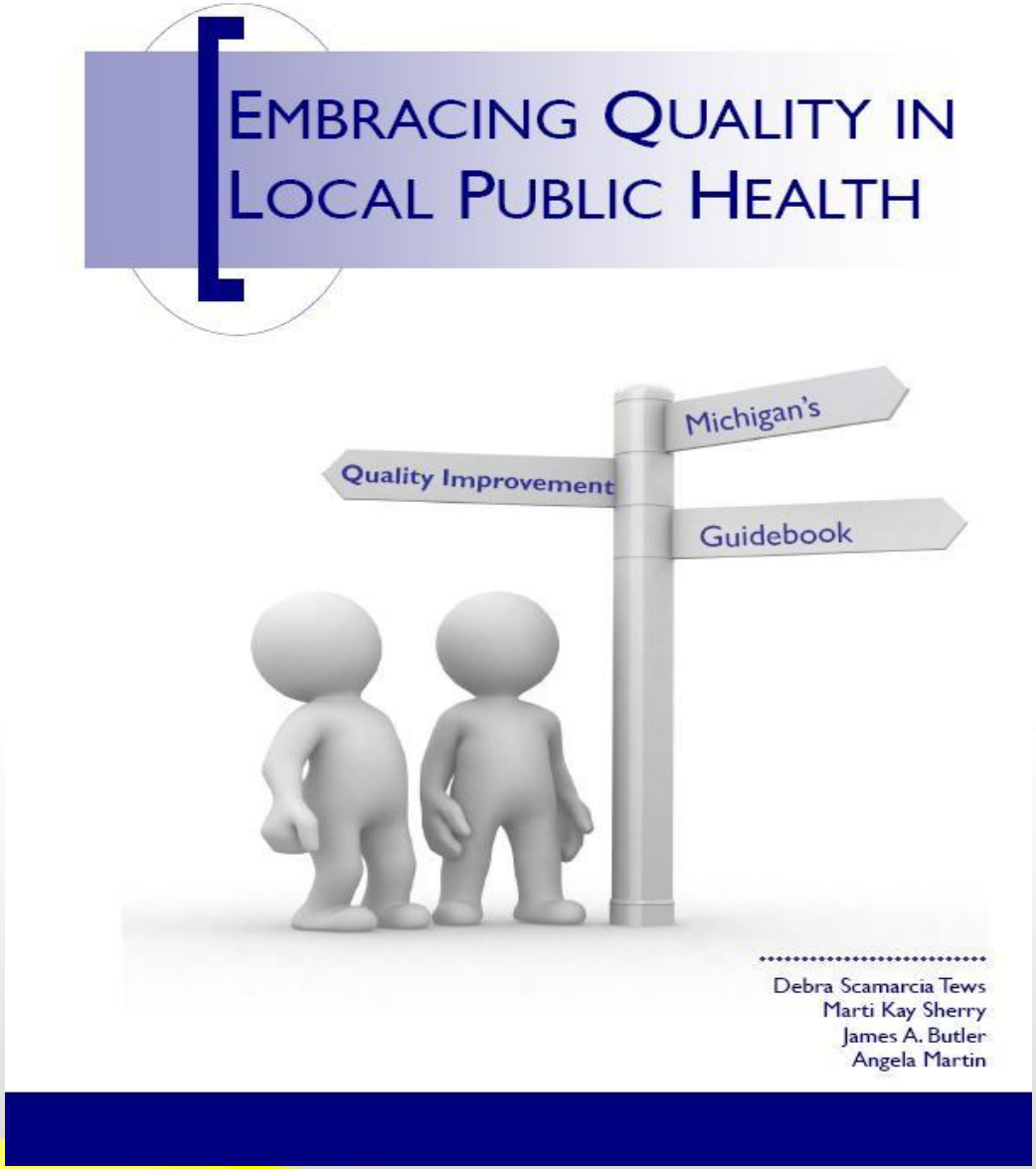
This better be good, I’m giving up my nap.

Four Basic Principles

- Develop a strong customer (client) focus
- Continually improve all processes
- Involve employees
- Mobilize both data and team knowledge to improve decision-making

Three Key Questions

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in improvement?



Where Do We Begin?

Guidebook: Content and Structure

PDSA is the primary focus. Other sections include:

- Customers & Stakeholders
- Importance of Data
- Writing an Aim Statement
- QI Tools & Measures of Improvement
- PH Example of PDSA
- Case Studies: Berrien, Genesee, Kent & Ottawa

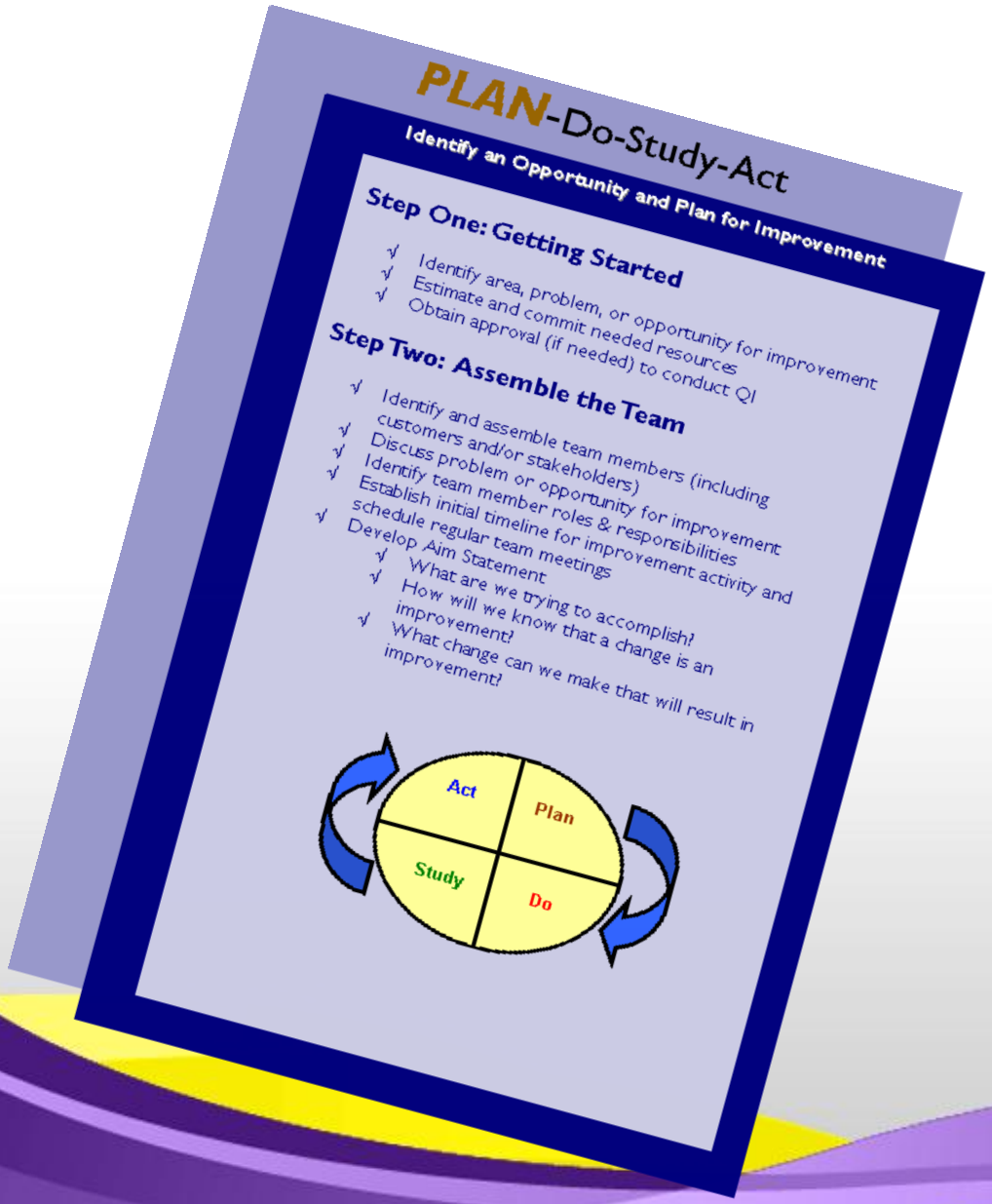
Plan-Do-Study-Act (PDSA)

- PDSA, made popular by Dr. W. Edwards Deming, is also known as Plan-Do-Check-Act (PDCA) is widely used by quality professionals, process improvement engineers & health care professionals
- Science based, data driven, iterative process improvement methodology
- Turns ideas into action and connects that action to learning

PDSA – An Introduction

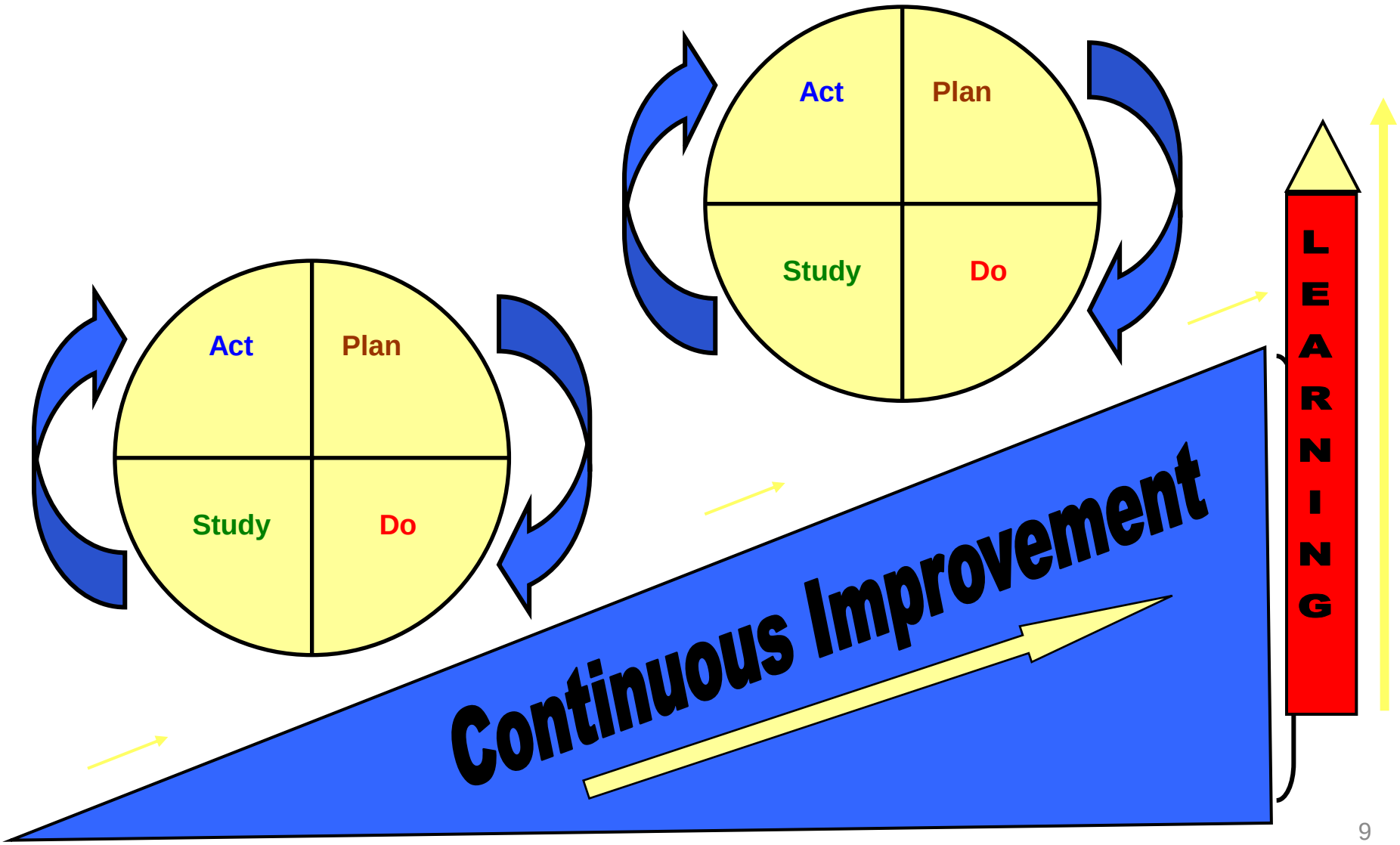
- PDSA
- Four stages
- Nine steps
- Repeatable steps
- Can be used by one person, a team, or department
- Used to improve existing processes

The PDSA Checklist



Quick Reference Guide

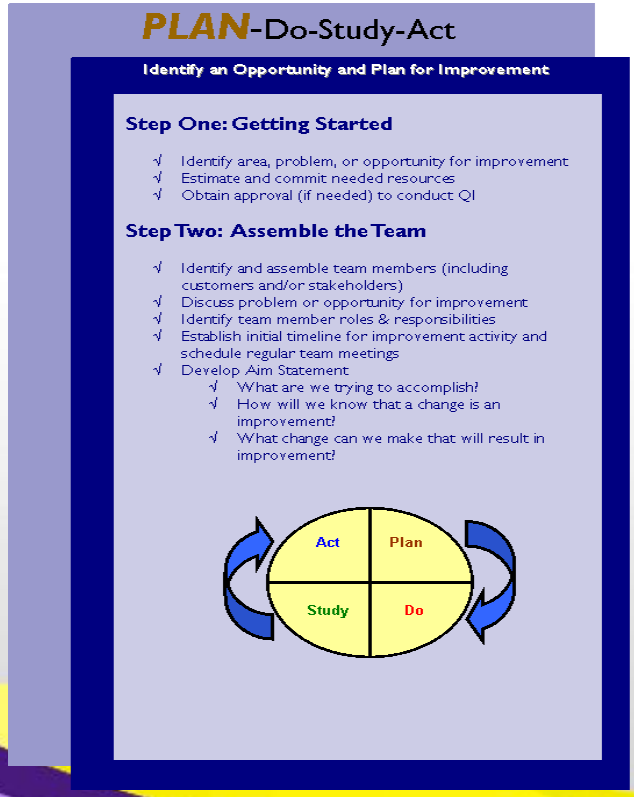
Continuous Improvement/Learning



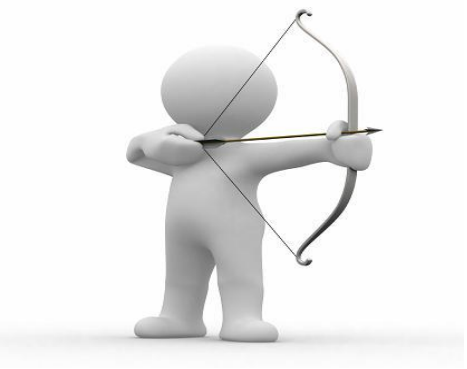
PLAN Stage

Getting Started-Assemble the Team

Steps One and Two



- Identify improvement
- Convene team
- Discuss the improvement
- Establish initial timeline
- Develop initial AIM statement



AIM STATEMENT

A concise, specific, written statement that defines what the team hopes to accomplish with its improvement, that describes ***what***, not ***how***

What?	What is the team striving to accomplish?
When?	What is the timeline?
How Much?	What is the specific numerical measure the team wishes to achieve?
For Whom?	Who is the population?

See page 29 of Michigan's Guidebook

Muskegon County
Goal - Reduce the rates of chronic disease in our community

- *A 20% reduction in the number of Tobacco Cessation class participants that relapse within 6 months due to weight gain or fear of weight gain by April 2009.*
- *PHMC and partners will increase the statistical significance of the collected data by 75% to determine program effectiveness for participants to reduce weight gain anxiety as a cause of relapse by April 2009.*

- *PHMC and partners will improve the quality of the tobacco cessation data collection process by 75% to determine program effectiveness by April 2009 for participants who cite their reason for failure as weight gain anxiety.*
- *A 50% increase in tobacco cessation participants completing the survey process by April 14, 2009.*

Questions?

I think I need an assistant to do this stuff.

Hey MOM!

SMART CRITERIA

Helpful when selecting an Improvement and writing an AIM Statement

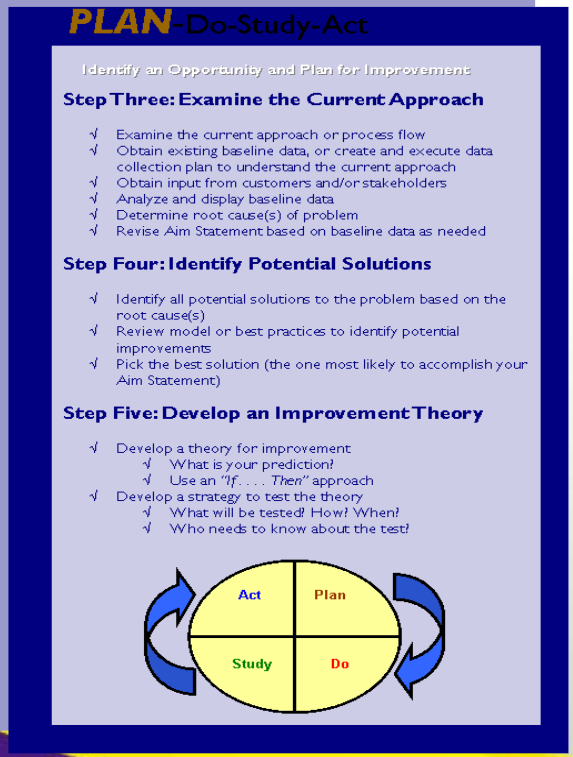
- S – Specific
- M – Measurable
- A – Achievable
- R – Relevant
- T – Time-bound

Work Session

- Break into teams
- Do Introductions if needed
- Identify a Recorder, a Reporter, and a Timekeeper, Enforcer (what – solutions)
- Discuss improvement chosen, identify improvement opportunity and problem you hope to resolve
- Create initial Aim Statement
- Be prepared to report

LUNCH

Examine the Current Approach
Process Mapping
Step Three



- What are we doing?
- How do we do it?
- What are the major steps?
- Who is involved?
- What do they do?
- What is being done well?
- What could be done better?

Process Mapping — sometimes called Flowcharting or IS Maps

See page 56 of Public Health Memory Jogger II

Quality Improvement Works on Existing Processes

- A process is a series of steps or actions performed to achieve a specific purpose.
- A process can describe the way things get done.
- Your work involves many processes.

What is a Process Map?

- A pictorial representation of the sequence of actions that comprise a process.

Why is Process Mapping Important?

- It provides an opportunity to learn about work that is being performed.
- Dr. Myron Tribus said,

  "*You don't learn to process map,*

  You process map to learn."
- Most processes today are undocumented or are evolving.

Dr. Deming said:

“You cannot improve a process until you understand it!”

“If you can't describe what you are doing as a process, you don't know what you're doing.”

Process Maps are Used to:

- Document the way we do our work.
  - Provide a reference to discuss how things get done.
  - Describe and understand the work we do.

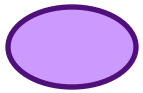
- Analyze and improve on processes.
  - Identify of areas of complexity and re-work.
  - To generate ideas for improvement.
  - Illustrate process improvements.

Preparing to Process Map

- Assemble the Team.
- Agree on which process you wish to document.
- Agree on the purpose of the process.
- Agree on beginning and ending points.
- Agree on level of detail to be displayed.
- Start by preparing an outline of steps.
- Identify other people who should be involved in the process map creation, or asked for input, or to review drafts as they are prepared.

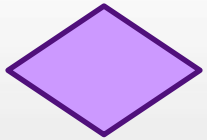
Symbols used to Process Map

- **Start & End**: An **oval** is used to show the materials, information or action (inputs) to start the process or to show the results at the end (output) of the process.



- **Activity**: A **box or rectangle** is used to show a task or activity performed in the process. Although multiple arrows may come into each box, usually only one arrow leaves each box.

- **Decision**: A **diamond** shows those points in the process where a yes/no question is being asked or a decision is required.



- **Break**: A **circle** with either a letter or a number identifies a break in the Flowchart and is continued elsewhere on the same page or another page.

Hints and Tips

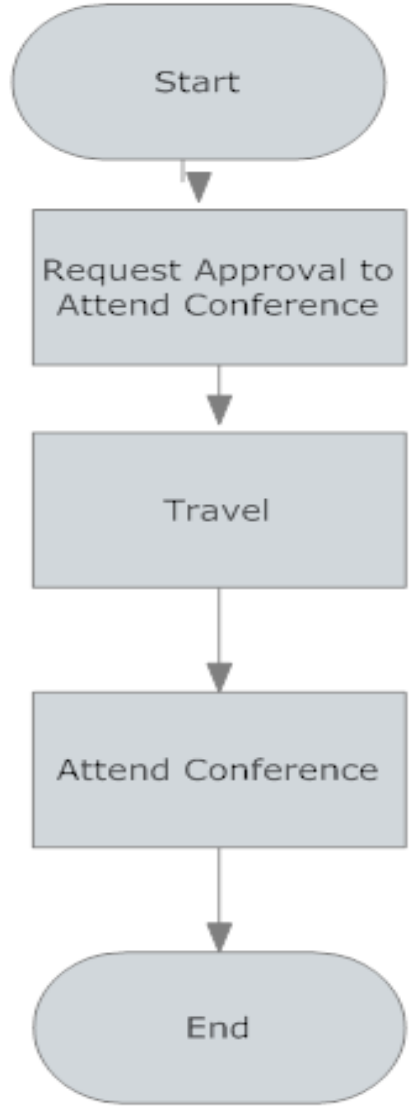
- Process Map what is, not what you would like the process to be.
- Process Mapping is dynamic. Use

  Post-it notes, dry erase markers, pencil, etc.
- All Process Maps must have start and stop points.

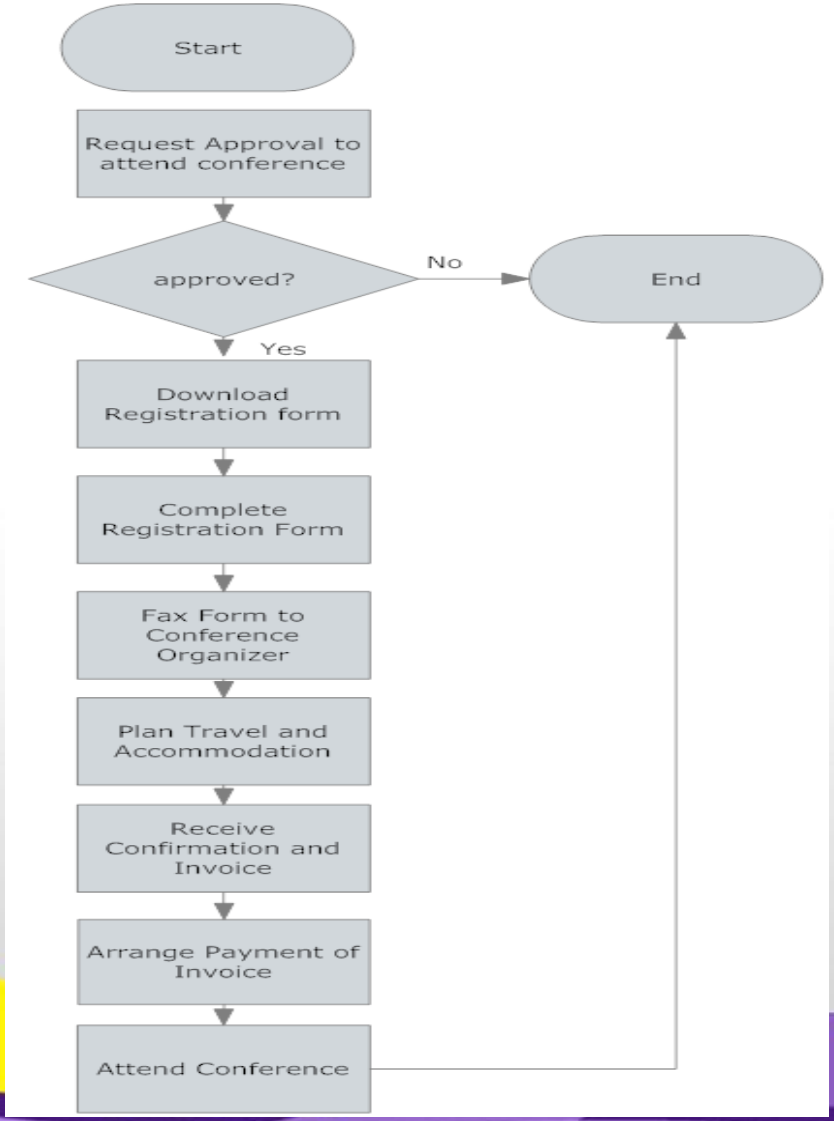
Process Map of Conference Approvals Sample Exercise

- Do a Process Map that documents the process used to obtain approval to attend conferences.

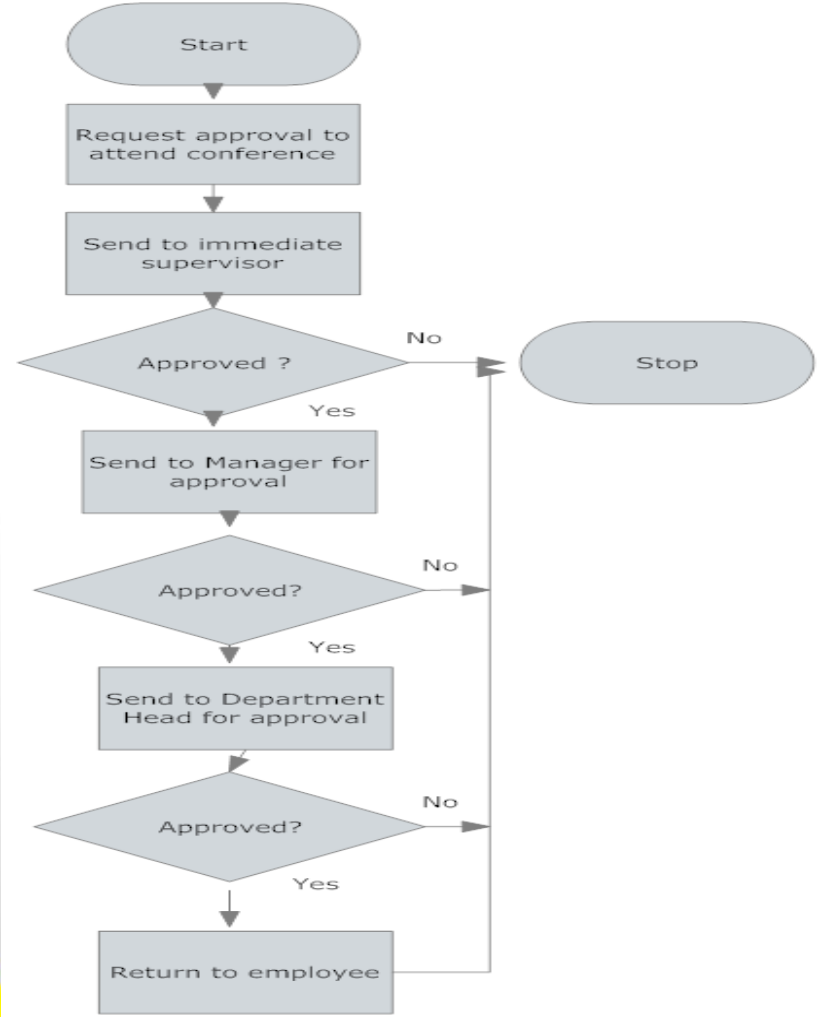
Sample One


Start
Request Approval to Attend Conference
Travel
Attend Conference
End

Sample Two


Start
Request Approval to attend conference
approved?
No
End
Yes
Download Registration form
Complete Registration Form
Fax Form to Conference Organizer
Plan Travel and Accommodation
Receive Confirmation and Invoice
Arrange Payment of Invoice
Attend Conference

Sample Three



Hints and Tips

- Brainstorming and Affinity Diagrams can be used to identify processes you wish to do a process map on.
- There is no single right way to do a process map. It is a tool to learn about your organization and work.
- Process Maps can be used in a variety of settings outside Quality Improvement, such as:
  - Orienting new employees
  - In-service presentations
  - Brainstorming possible process changes
  - Creating or revising policies and procedures that support the
  - process
  - Creating measures
  - Identifying logical outcomes of a process

Questions?

What's wrong with finger painting?

Work Session

- As a team, develop a Process Map documenting the existing process you plan to improve.

BREAK

Examine the Current Approach (cont.)
Step Three

- Obtain data from the current process
- Data Collection and Analysis

Bar Graphs
Exploring and Displaying Data

Bar Graphs: Purpose

- Displaying data in a way that is straightforward and easy to understand

- Bar graphs help to:
  - Create a visual picture of a dataset
  - Interpret results
  - Communicate results

Bar Graphs: When to use

- When you have or can collect numeric data (counts, percentages, etc)

- For example:
  - Sunny County Health Department completed a customer satisfaction survey of WIC clients before and after making a change whereby they brought immunization nurses into the WIC clinic.

Bar Graphs: Step by Step

- **Step 1:**
  - Decide what to graph
    - Variables
    - Type of Data
- **Step 2:**
  - Develop a method for collecting your data
    - Records
    - Surveys
    - Observations

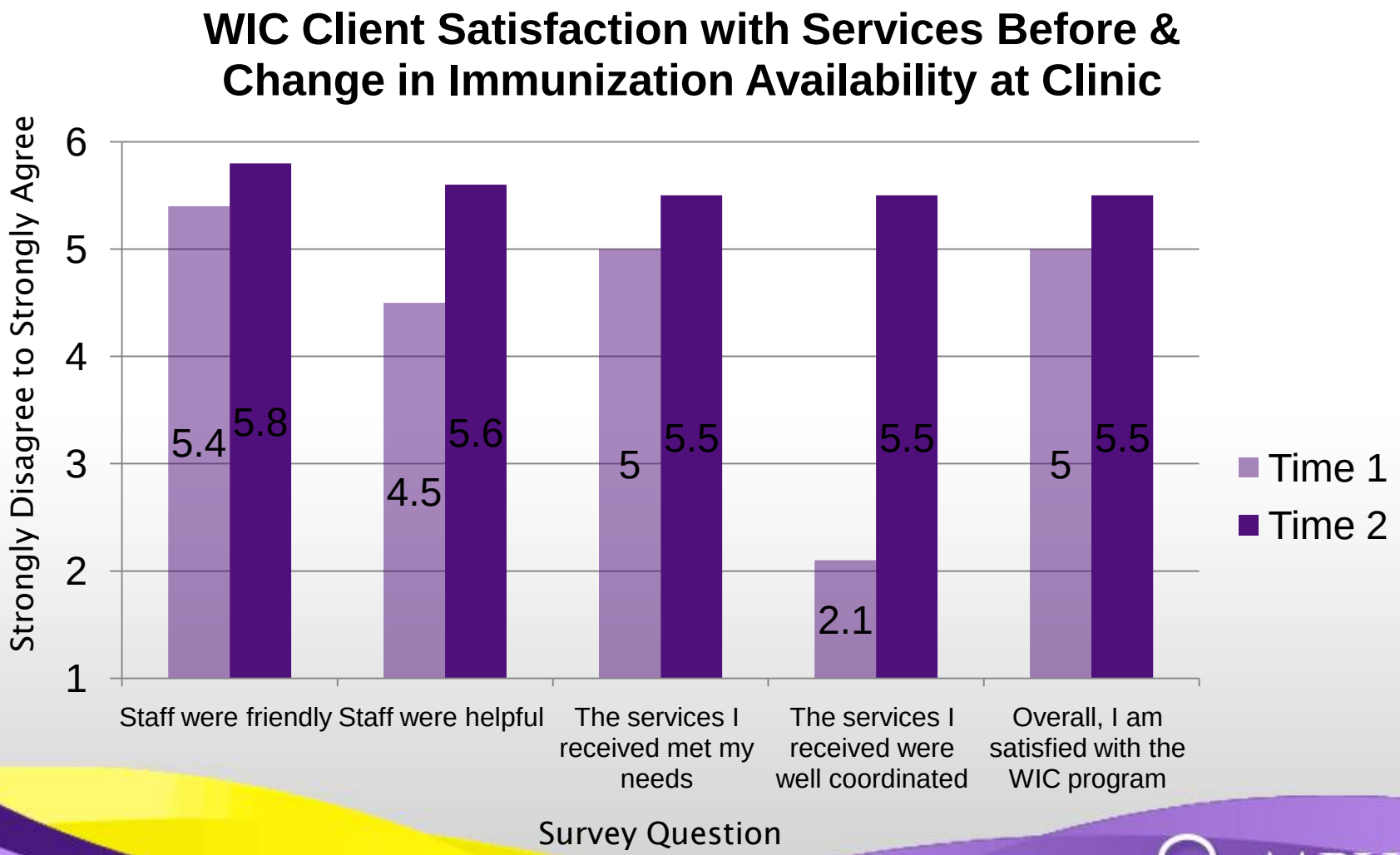
Bar Graphs: Step by Step

- **Step 3:**
  - Collect your data
    - Who, what, when, how many?
- **Step 4:**
  - Summarize your data
    - Excel is your friend
- **Step 5:**
  - Display your data
  - Example…

Bar Graphs: Example

Survey Item	Mean Answer Time 1	Mean Answer Time 2
Staff were friendly	5.4	5.8
Staff were helpful	4.5	5.6
The services I received met my needs	5.0	5.5
The services I received were well coordinated	2.1	5.5
Overall, I am satisfied with the WIC program	5.0	5.5

Bar Graph: Example



Bar Graphs: Step by Step

- **Step 5:**
  - Interpret your results
  - Returning to our example…

Exercise

Check Sheets
Quantifying Observed Data

Check Sheets: Purpose

- To turn observational data into numerical data
  - From records
  - Newly collected
- To find patterns using a systematic approach that reduces bias

Check Sheets: When to use

- When data can be observed or collected from your records
- Example:
  - When clients wait longer then 10 minutes to be seen, staff track the primary reason for the long wait
  - They believe long wait times may be caused by several conditions that they can observe:
    - The previous appointment went long
    - They couldn't find the chart
    - The provider was overbooked
    - Emergency appointments came up
    - They were short staffed

Check Sheets: Step by Step

- **Step 1:**
  - Decide what to observe
  - Define key elements
  - Established shared understanding
- **Step 2:**
  - Identify where, when, & how long
  - Think about confounding factors
    - That you want to eliminate
    - That you want to study

Check Sheets: Step by Step

- **Step 3:**
  - Design your check sheet
  - Develop a protocol

Problem/Project Name:				Name of Observer:			Other:	
Location of Data Collection:				Dates of Observation:				
	Dates of Data Collection							Total
Event								
A								
B								
C								
Total								Grand Total

Check Sheets: Step by Step

- **Step 4:**
  - Identify and train your observers
  - Practice & adjust
- **Step 5:**
  - Collect data
  - Review & adjust
- **Step 6:**
  - Summarize data across observations & observers
  - Study the results

Check Sheet: Example

Problem: Long clinic wait times (10 min+)				Name: J. Heany			Time: 12–8
Location: Sunnyside Clinic				Dates: 6/8–6/14/09			
	Date						Total
Reason	6/8	6/9	6/10	6/11	6/12	6/13	6/14	
Short Staffed	3	4	3	2	3	4	0	19
Overbooked	10	12	6	3	0	0	0	31
Went long	0	0	2	3	6	1	0	12
No chart	2	2	1	2	0	0	1	8
Emergencies	2	3	1	2	1	0	1	10
Total	17	21	13	12	10	5	2	80

Hints and Tips

- Make sure you're getting clean data
  - Define, train, check, adjust, & repeat!
  - Consider and address potential sources of bias
- Use "other" categories sparingly
- Strike a balance
  - Fine vs. inclusive categories
  - Few vs. many categories

Exercise

Data Points

Numbers 101

Data Points

Quantitative Data

- Quantitative Data
  - Information in numbers
  - Can be counted or measured
  - Can be analyzed using statistics
  - Answers questions about whether or how often something occurred
  - Answers questions about relationships between variables

Qualitative Data

- Qualitative Data
  - Information in observation & language
  - Rich, detailed, contextual, and descriptive
  - Generates theories, propositions, ideas, themes
  - Answers questions about how or why something occurred

Example: Sunny County HD

Quantitative

- Has 85 FTE
- Serves a population of 95,000 residents
- 85% of staff use the healthy snack market

Qualitative

- Has friendly staff
- Serves a community that values its rich diversity
- Has a healthy workplace environment

Data Points

- Measures of central tendency
  - Mean
    - Sum of values/number of values
  - Median
    - Middle value
  - Mode
    - Most frequent value

Data Points: Example

- Sunny County HD wants to reduce the number of violations identified during inspections of restaurants with no English speaking staff.
- They start by looking at baseline data:

Restaurant	# violations at last inspection
1	4
2	6
3	2
4	7
5	3
6	6
7	5
8	6

Data Points

- **Measures of variation**
  - Range
    - Difference between lowest and highest value
  - Standard Deviation
    - Measure of variation around the mean
    - Closer to 0 = less variation

Data Points: Example

Restaurant	# violations at last inspection
1	4
2	6
3	2
4	7
5	3
6	6
7	5
8	6

Range = 7 – 2 = 5

Data Points: Example

Restaurant	# violations at last inspection	X-Mean	X-Mean Squared
1	4	4-4.875=-.875	.766
2	6	6-4.875=1.125	1.266
3	2	2-4.875=-2.875	8.266
4	7	7-4.875=2.125	4.516
5	3	3-4.875=-1.876	3.516
6	6	6-4.875=1.125	1.266
7	5	5-4.875=.125	.016
8	6	6-4.875=1.125	1.266
		SUM	20.875

Standard Deviation = $\sqrt{[20.875/(8-1)]} = 1.73$

Exercise

Run Charts

Tracking Process Performance

Run Charts: Purpose

- To study data measured over time
- Run charts help to:
  - Study the performance of a process
  - Identify trends
  - Measure change in performance following a change in process

Run Charts: When to Use

- When you have, or can collect:
  - Quantitative data
  - On a measure of the performance of a process
  - Over time
- Example:
  - Each month the health department tracks the number of new BCCCP clients enrolled in the program to measure the impact of advertising the program in an additional local newspaper starting in April 2008.

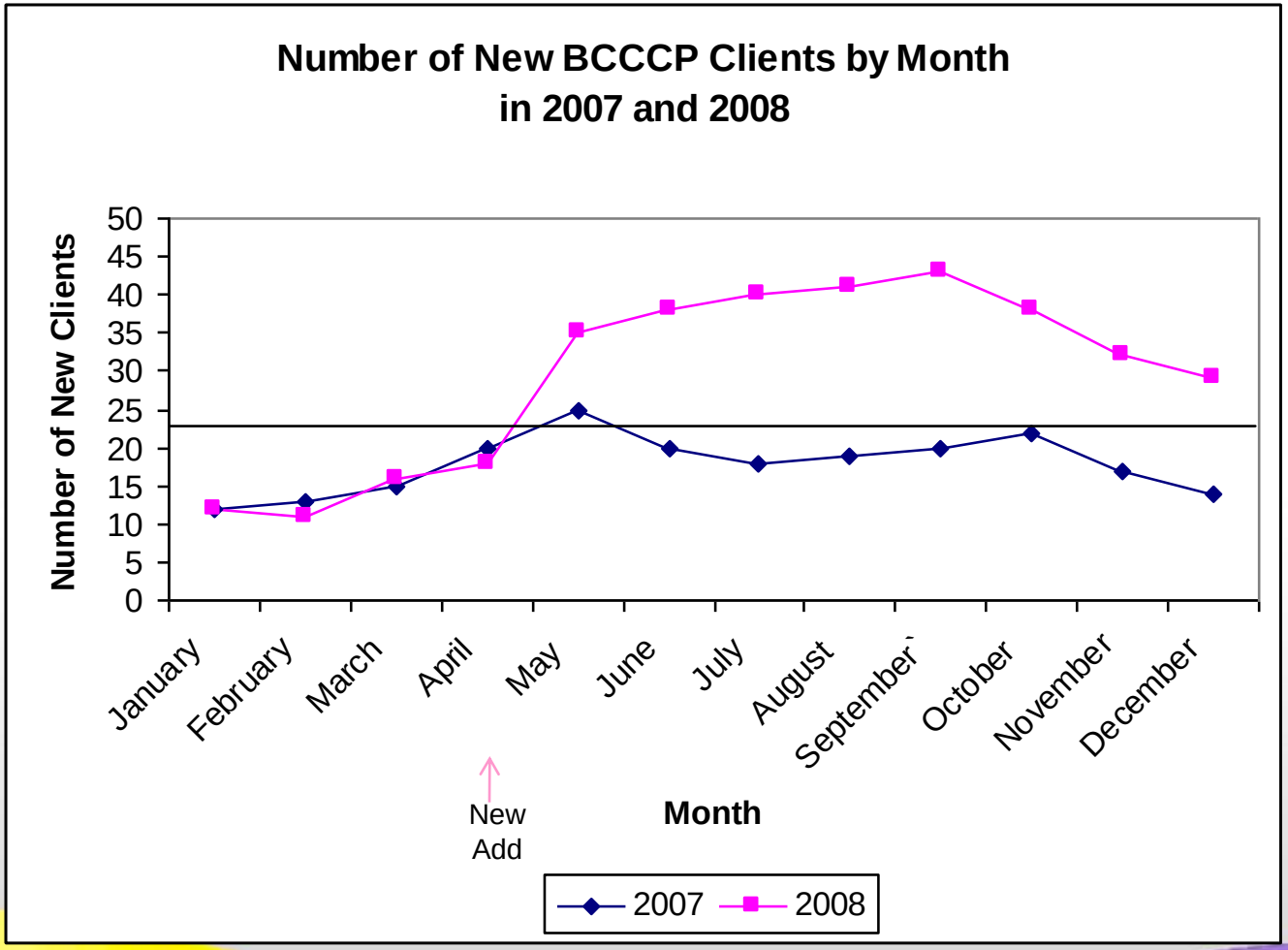
Run Charts: Step by Step

- **Step 1:**
  - Decide what data you need
    - Is the data you need already tracked?
    - Does it need to be collected?
  - Determine the timeframe & number of data collection points
    - Should you make your count annually, quarterly, monthly, weekly, daily, hourly?
    - Try to gather data from 20+ time points in order to establish a trend
- **Step 2:**
  - Gather your data

Run Charts: Step by Step

- **Step 3:**
  - Graph your data
    - On the Y-axis, set up a scale that corresponds with your measure
    - On the X-axis, set up a scale that corresponds with your measurement timeframe
    - Plot your data on the chart, placing one dot at each measurement point
    - Draw a line through your dots
    - Calculate the mean score and draw a line at the mean
    - Mark the timing of your change
  - Excel, Word, and other programs can help!
  - For example…

Run Charts: Step by Step



Run Charts: Step by Step

- **Step 4:**
  - Make sense of your results by examining your data
    - Does the mean reflect an appropriate level of service or outcome of your process?
    - Is there a trend that should be investigated?
    - Do you see a **shift** in your data? Are there 8 or more consecutive points on one side of the center line?
    - Do you see a **trend** in your data? Are there six consecutive jumps in the same direction (up or down)?
    - Do you see a pattern in your data? Does a pattern recur eight or more times in a row?
  - Back to our example…

Run Charts: Hints and Tips

- Every process will have some variation
  - Be cautious about assuming that variation from the average has meaning
- Be sure to track data over a long enough period of time
  - This will help you identify the true mean and the true level of variability within the process

Exercise

HOMEWORK

- List current data sources for the process
- How might the tools you learned about help display the data to help you understand more about the process?
- Will the data you identified help to meet your AIM Statement?

- Evaluations
- Questions
- Plans for Day Two

WELCOME BACK!

Day Two

I’m just overjoyed to be here again.

Problem Solving

- When confronted with a problem most people like to tackle the obvious symptom and fix it
- This often results in more problems
- Using a systematic approach to analysis the problem and find the root cause is more efficient and effective
- Tools can help to identify problems that aren't apparent on the surface (root cause)

Identify Possible Causes of the Problem

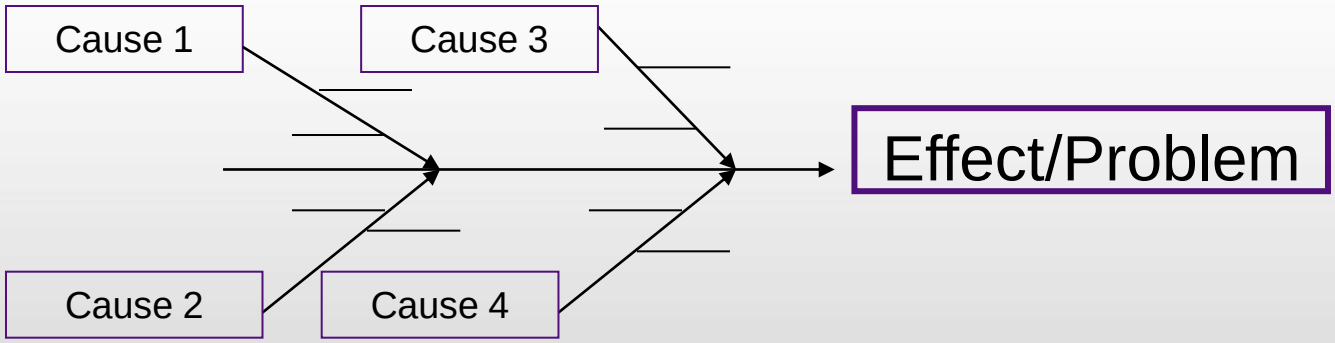
- Root Cause
  - Fishbone Diagrams
  - The 5 Whys

Fishbone Diagrams: Purpose

- To identify underlying or root causes of a problem
- To identify a target for your improvement that is likely to lead to change

Fishbone Diagrams: Construction

- Construction
  - Draw an arrow leading to a box that contains a statement of the problem
  - Draw smaller arrows (bones) leading to the center line, and label these arrows with either major *causal categories* or *process categories*
  - For each cause, identify deeper, root causes



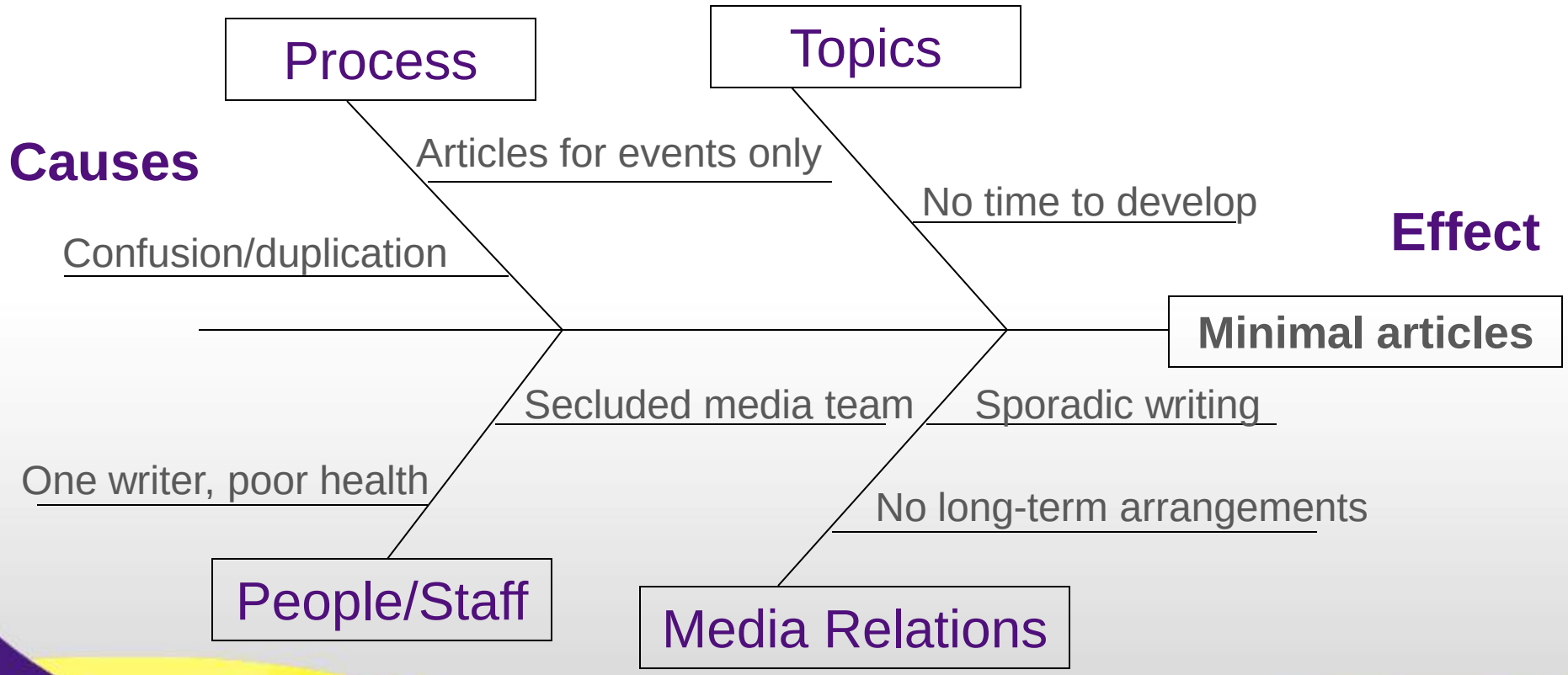
Fishbone Diagrams: Hints & Tricks

- Find the right problem or effect statement
  - The problem statement should reflect an outcome of a process that you **control or influence**
  - Be specific
  - Reach consensus
- Find causes that make sense and that you can impact
  - Generate categories through:
    - Brainstorming
    - Looking at your data
  - Ask “why?” to achieve a deeper understanding
  - Know when to stop
    - Stick to what you and your managers can control or directly influence
- Make use of your results
  - Decide if you need more data
  - Consider causes that come up again and again, and causes that group members feel are particularly important

Memory Jogger, page 32

Berrien County Fishbone

Root causes for lack of BCHD general PH articles



Five Whys

- The **5 Whys** is a question-asking method used to explore the cause/effect relationships underlying a particular problem. Ultimately, the goal of applying the 5 Whys method is to determine a root cause of a problem.

Wikipedia

Five Whys (cont.) Example

- My car will not start (the problem).
- *Why?* - The battery is dead (first why).
- *Why?* - The alternator is not functioning (second why).
- *Why?* - The alternator belt has broken (third why).
- *Why?* - The alternator belt was well beyond its useful service life and has never been replaced (fourth why).
- *Why?* - I have not been maintaining my car according to the recommended service schedule (fifth why, root cause).

Wikipedia

5 Why's and How's

- A major advantage to the 5 Whys technique is that it is relatively easy to use and apply.
- In many organizations, problem solving is a deductive exercise conducted in a meeting room where those doing the problem solving are separated from the actual process where the problem occurred. "Go and See".
- The 5 Whys requires skill to use well and most important, should be grounded in **observation, data, and not deduction**.

5 Whys Limitations

- Using 5 Whys does not always lead to root cause identification because:
  - Listing causes in the absence of data.
  - Assumes each symptom has only one sufficient cause.
  - Varying skill with which the method is applied.
  - The method is not necessarily repeatable.
  - Linear approach that does not pick up interactions.
  - Inability to distinguish between causal factors and root causes.
- If it is used with no data it can lead to bad judgment calls which pick the wrong root cause(s).
- Solutions are then implemented that address the wrong root cause.
- These wrong solutions may cause more problems and make the situation worst.

Questions?

Gee, Five Whys sounds like two year old talk.

I can't count to five!

Work Session

- As a team develop an initial Fishbone Diagram.

BREAK

Pareto Charts

80% of the Problem

Pareto Charts: Purpose

- To identify the causes that are likely to have the greatest impact on the problem if addressed
  - "80% of the effects come from 20% of the causes"
- To bring focus to a small number of potential causes
- To guide the process of selecting improvements to test

Pareto Charts: When to Use

- When you have, or can collect, quantitative or numeric data on several potential causes
- Thinking back to our previous example…

Pareto Charts: Step by Step

- **Step 1:**
  - Identify potential causes of the problem you wish to study
- **Step 2:**
  - Develop a method for gathering your data
    - Historical data
    - Collection of new data
      - Check Sheets
      - Surveys

Pareto Charts: Step by Step

- **Step 3:**
  - Collect your data
  - Each time the problem occurs, make note of the ***primary*** cause
  - Returning to our previous example & using a check sheet to collect data…

Pareto Charts: Step by Step

Problem: Long clinic wait times (10 min+)				Name: J. Heany			Time: 12-8
Location: Sunnyside Clinic				Dates: 6/8-6/14/09			
	Date						Total
Reason	6/8	6/9	6/10	6/11	6/12	6/13	6/14	
Short Staffed	3	4	3	2	3	4	0	19
Overbooked	10	12	6	3	0	0	0	31
Went long	0	0	2	3	6	1	0	12
No chart	2	2	1	2	0	0	1	8
Emergencies	2	3	1	2	1	0	1	10
Total	17	21	13	12	10	5	2	80

Pareto Charts: Step by Step

- **Step 4:**
  - Order your results & calculate the percentage of incidents that fall into each category
  - For Example:

Cause	Frequency	Percentage
Overbooked	31	39%
Short Staffed	19	24%
Went long	12	15%
Emergencies	10	12%
No chart	8	10%
Total	80	100%

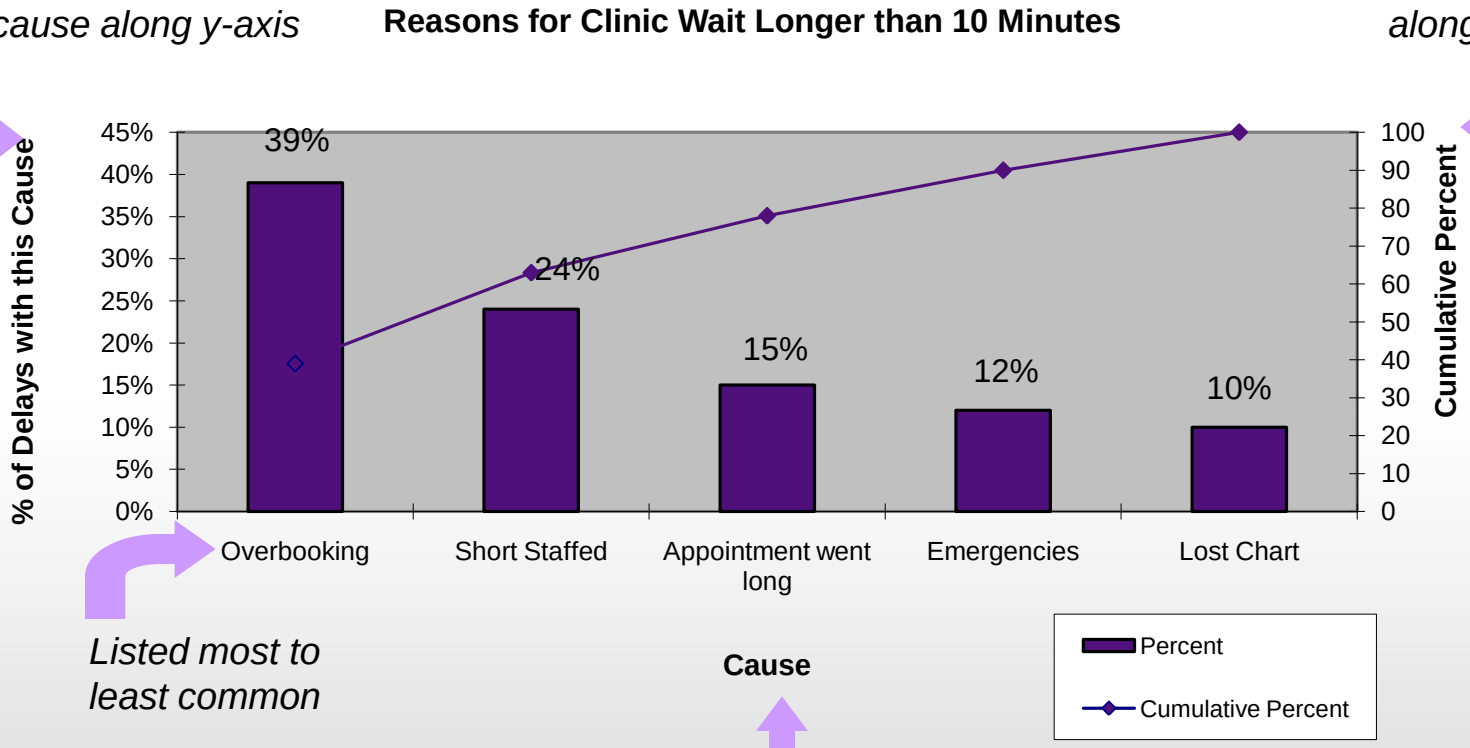
Pareto Charts: Step by Step

- **Step 5**
  - Display your data on a graph
    - The most commonly occurring cause should appear first, and the causes should appear in order
    - Word or Excel can be used, but paper and pencil work too
    - Label the x-axis (horizontal) with the causes, the left y-axis (vertical) with the percentage of occurrences with each cause, and the right y-axis with the cumulative percent.
    - Graph your data
  - For example…

Pareto Charts: Step by Step

% of occurrences with each cause along y-axis

Cumulative percent along y-axis



Listed most to least common

Causes along x-axis

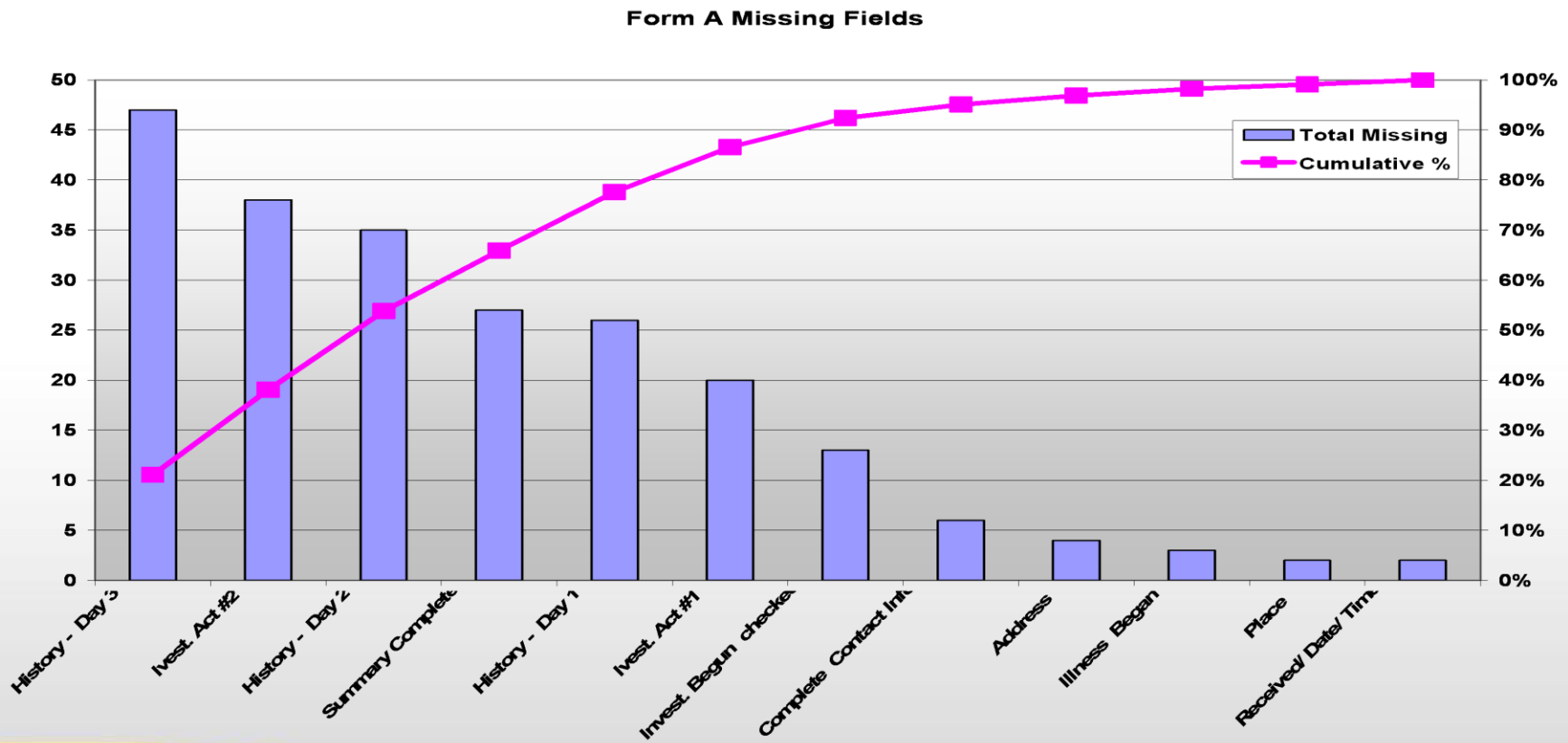
Pareto Charts: Step by Step

- **Step 6:**
  - Make sense of your results by examining your data
    - Are a few causes driving the problem?
    - Can this information help you make decisions about the solution you want to try?
    - Does this information impact how you want to structure your aim statement or theory of change (if-then)?
    - Can you use this information to measure your results?
  - For example…
    - Overbooking seems to be the most frequently occurring reason for delays in seeing patients, followed by staffing shortages.
    - Using these data, Sunnyside Clinic decided to try altering scheduling practices that avoid overbooking
    - Sunnyside Clinic used the following if-then statement:
      - If we double book 30% fewer clinic openings, then fewer than 10% of long wait times will be caused by overbooking.
    - Sunnyside Clinic continued to collect data for several weeks prior to and following their change so that pre- and post-trend data would be available for analysis

Pareto Charts: Hints and Tips

- You'll only learn about causes that you investigate - be inclusive!
- Check and double check your data
  - Little errors can make a big difference
- Results can be used in more than one way and they can be used differently at different points in time
  - Revisit your Pareto throughout your project – the meaning may change for you as you go

Genesee County Pareto



Exercise

Histograms

Examining Shape & Distribution

Histograms: Purpose

- To display the underlying distribution of the performance of a process
- For example:
  - Sunny County HD wants to examine the number of minutes it takes to complete restaurant inspections. They collect this data and have it available in a database for their last 100 inspections.

Histograms: When to Use

- When you have variable data measured on a continuous scale (height, time, temperature, etc.)
- When you have lots of data points (over 50)
- When you want to understand both the average and the distribution
- When you want to see if a change has resulted in an improvement

Histograms: Step by Step

- **Step 1:**
  - Decide what you want to measure
    - Make sure you can measure on a continuous scale
- **Step 2:**
  - Gather your data
    - Collect
    - Pull from records

Histograms: Step by Step

- **Step 3:**
  - Summarize your data
    - Find your **n** or number of data points
    - Find your **range**
    - Decide how many data points should go in each ‘bin’ or intervals
      - Too many bins – too spread out
      - Too few bins – too tight
      - Rule of thumb = $\sqrt{n}$
    - Decide on your bin width
      - Rule of thumb = Range/# bins
    - Decide on the intervals for each bin, starting at the lowest measurement

Histograms: Step by Step

- **Step 3:**
  - Summarize your data
    - Make a table

Bin #	Boundaries	Mid point	Frequency	Total
1				
2				
3…				

Histograms: Example

- Our data:
  - Number of data points = n = 100
  - Range (minutes) = 150-20 = 130
  - # Bins = $\sqrt{100}$ = 10
  - Bin Width = 130/10 = 13

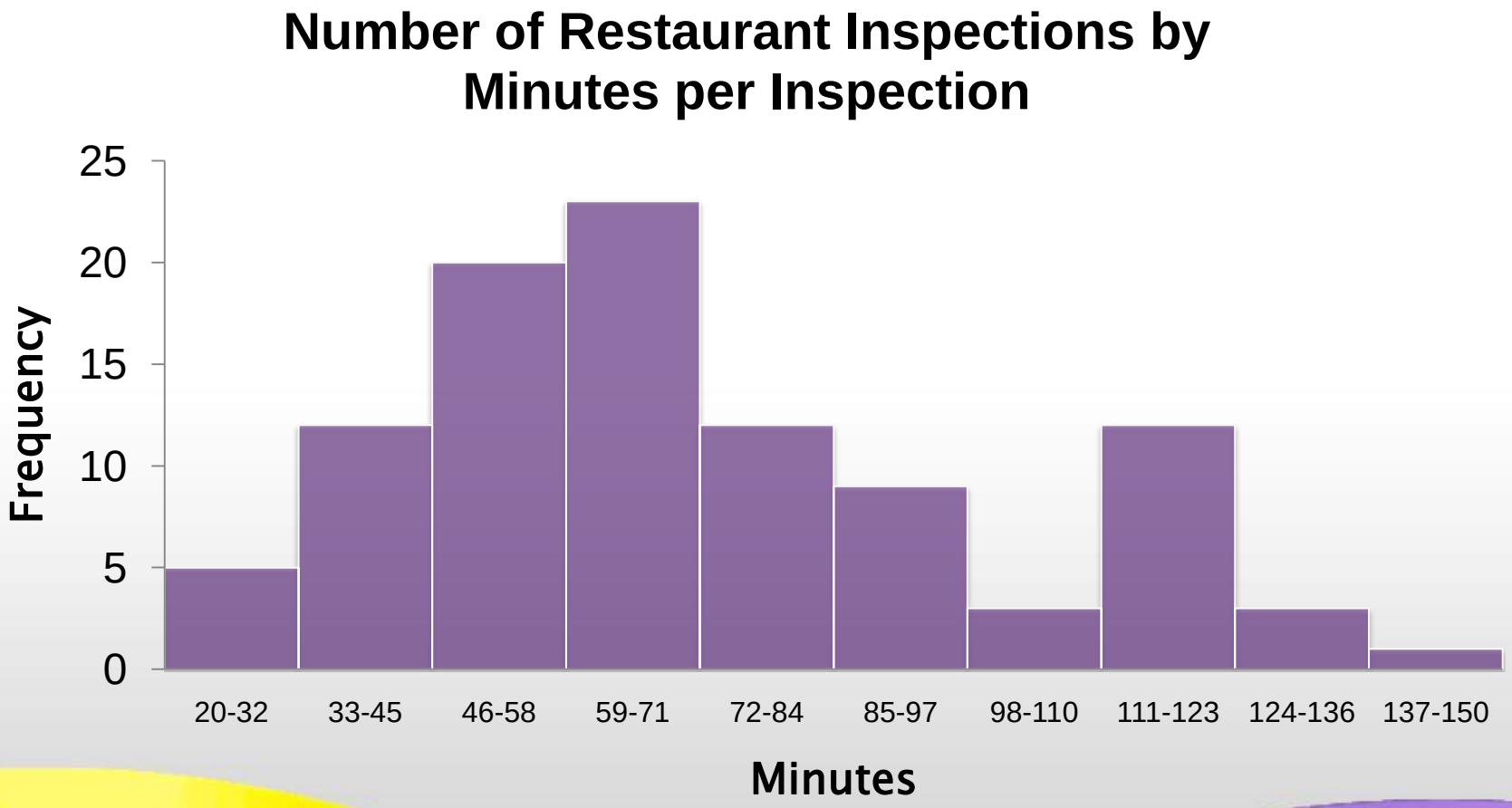
Histograms: Example

Bin #	Class Boundaries	Mid – point	Frequency	Total
1	20 – 32	26	IIIII	5
2	33 – 45	39	IIIII IIIII II	12
3	46 – 58	52	IIIII IIIII IIIII IIIII	20
4	59 -71	65	IIIII IIIII IIIII IIIII III	23
5	72 – 84	78	IIIII IIIII II	12
6	85 – 97	91	IIIII IIII	9
7	98 – 110	104	III	3
8	111 – 123	117	IIIII IIIII II	12
9	124 – 136	130	III	3
10	137 - 150	143	I	1

Histograms: Step by Step

- **Step 4:**
  - Graph your data
    - The vertical axis (y) stops at the highest frequency
    - The horizontal axis (x) includes each interval
    - Draw a bar over each interval that corresponds with the frequency for each bin
    - Label your graph
  - Example…

Histograms: Example



Histograms: Step by Step

- **Step 5:**
  - Interpret your results
    - Where is the center?
      - Is it in the ‘right’ spot?
    - What is the variation?
      - Is it within reasonable limits?
      - Can you explain outliers?
    - What is the shape?
      - Bi-modal?
      - Skewed?
    - Does it suggest a problem with your process?

Histograms: Hints and Tips

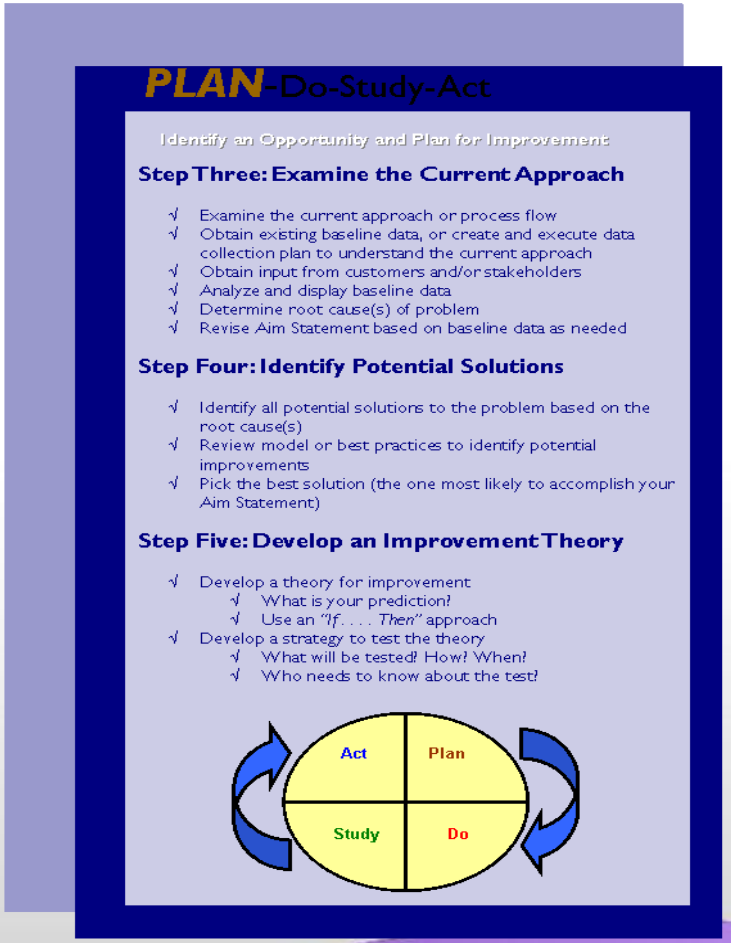
- Only use continuous data, and be sure you have enough of it
- Use histograms to examine changes in your distribution following a change in your process
- Don’t get caught up in the math – take it one step at a time

Exercise

LUNCH

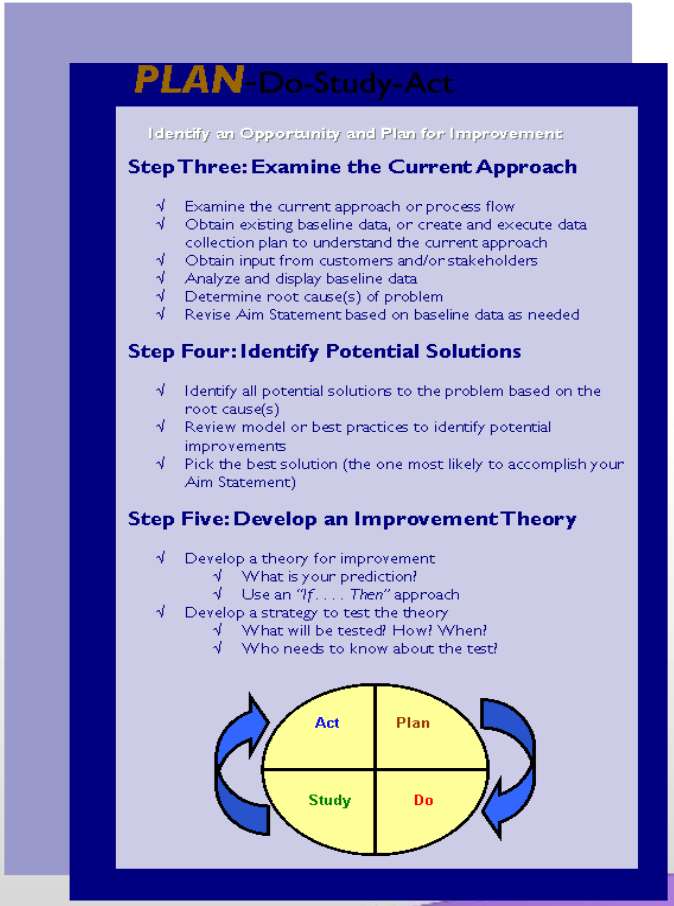
Identity Potential Solutions Step Four

- Using root cause
- Brainstorm for possible solutions
- Search for similar practices
- Narrow to those you have control or influence over
- Pick one most likely to accomplish
- Revisit AIM Statement



Develop An Improvement Theory Step Five

- Make a prediction
- Define outcomes
- Use If….Then technique
- Develop strategy to test the improvement theory



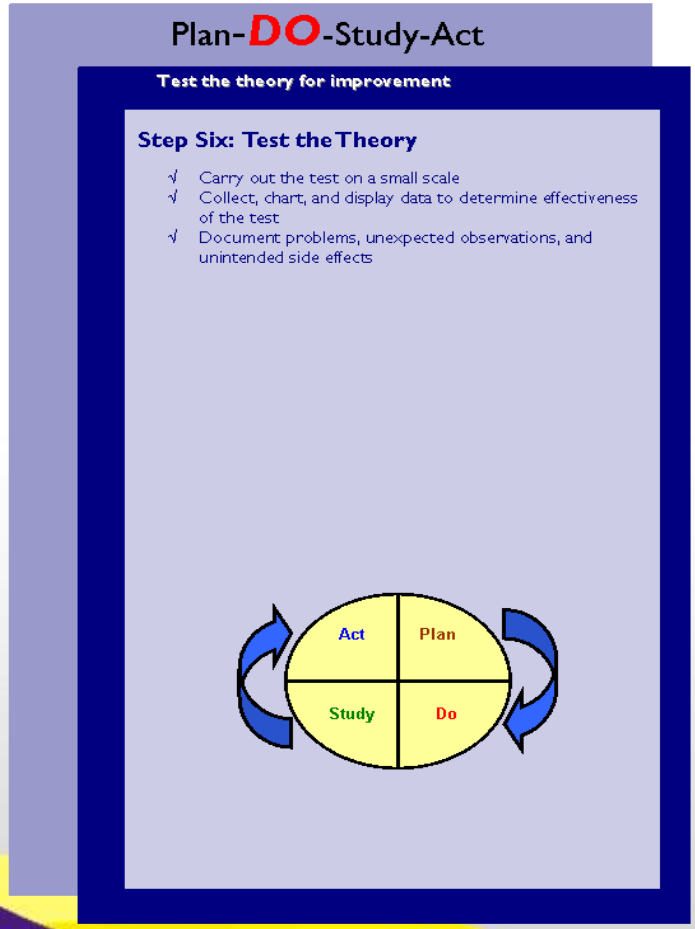
Let's see

If I eat too much,

Then I'll XXX too much!

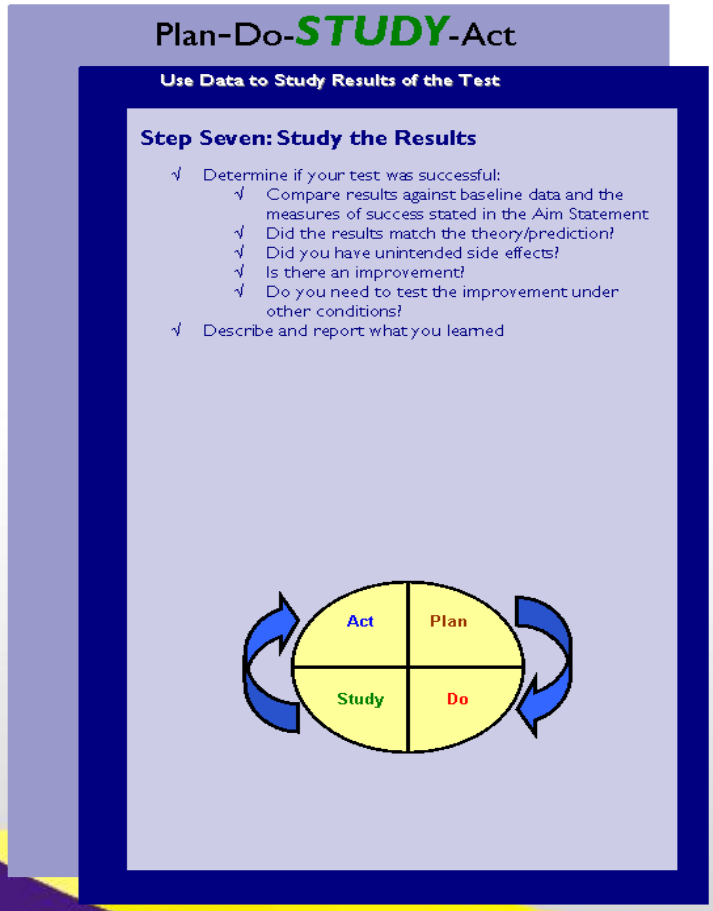
I've got it!

Do Stage - Test the Theory Step Six



- Test the theory (small scale)
- Document everything
- Consider using Rapid Cycle Improvement (RCI)

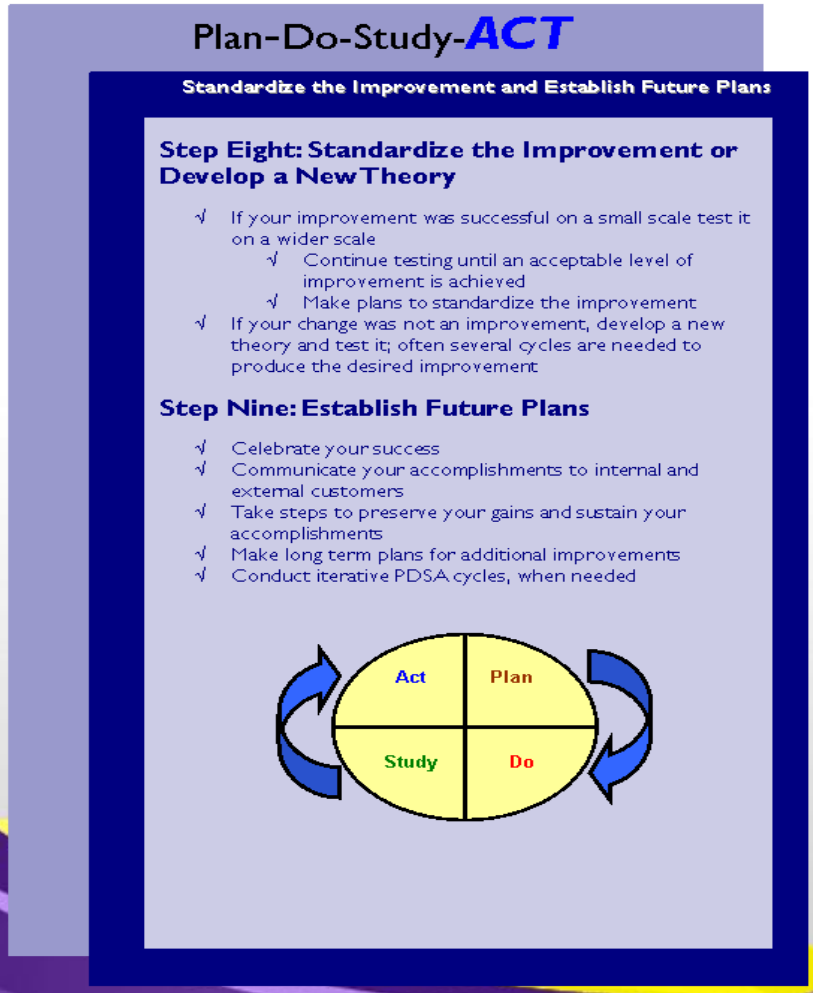
Study Stage- Study the Results Step Seven



- Test work?
- Results match prediction?
- Trends?
- Unintended side effects?
- Improvement?
- More testing?
- Report findings

I need a hug!

ACT Stage - Standardize or Repeat?
Future Plans
Steps Eight and Nine



- Test on larger scale?
- Implement?
- New theory?
- Plan for continuing
- Repeat PDSA?

Questions?

BREAK

Lessons Learned from Your Peers

- Think Big but Start Small
- Process Mapping – Document what is not what you want it to be
- Do not assume you know the solution
- Take time to think about the AIM Statement – Really think about it
- Keep moving forward, test & learn
- Keep others informed about the project – you will need their input

Remember:
Not all changes are Improvements

Deming said of all the changes he had observed, “only about 5% were improvements… the rest, at best were illusions of progress!”

How Will I Know that a Change is an Improvement?

- Data, pre-post
- Can be measures or observations
- If you can observe an event (or even its effects) you can measure it. If you can measure it you can improve it.

Variation & Stabilization

- Every process and measure has variation
- There are two types, Common Cause and Special Cause
- Important to understand the differences between Common and Special Cause
- Special Cause is unpredictable and can lead to unstable processes
- Improvement should focus on stable processes; data can you help determine stability (Section 3 Guidebook)

Quality Improvement Tools Grouping

Working with ideas/Concepts

- Fishbone/Cause and Effect
- Gantt
- Flowchart
- Storyboard
- Logic Model

Working with Numbers

- Pareto
- Run Charts
- Scatter Diagram
- Check Sheet
- Stratification
- Data Points
- Histogram
- Control Charts

Tool Sources

- Quality Improvement Guidebook, Page 98
- Public Health Memory Jogger II
- Tool Time (Langford Press)
- Internet/Google

NOTE: These are all referenced in the Guidebook beginning on page 98

Tools? No way!

Where are the Toys?

Fitting the Pieces Together

- As your project takes shape, be sure that you align the pieces:
  - The aim statement should align with your if-then theory
  - The if-then theory should align with your test
  - The test should align with your strategy for studying your results
  - The strategy for studying your results should align with your aim statement

Next Steps

- Meet and review notes from the Learning Session
- Revise AIM Statement
- Complete Process Map
- Complete Fishbone Diagram

Future Plans

- Schedule individual site visits week of 6/14/10
  - Review Final AIM Statement
  - Review Charter with Timelines
  - Review and Discuss Data captured (tools) and analysis to date
  - Review Plans for next steps
  - Review List of Key Participants
- Monthly Webinars beginning July addressing PDSA Steps 6 – 9
- Monthly Conference Calls with Mini-Collaboratives
- Quarterly Conference Calls with all

EVALUATIONS

WRAP-UP

- Questions
- Closing Comments
- Adjourn

Whew, glad we're done! Can I go home now?

Thank You!