# Rapid Cycle Quality Improvement (RCQI): What Do Grantees Need to Know?

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# Key Elements of Quality

- Will: to do what it takes to change to a new/improved system
- Ideas: on which to base the design of the new/improved system
- Execution: of the ideas (know-how)

## Have You Heard of...

- Total Quality Management
- Continuous Quality Improvement
- Six Sigma DMAIC
- Lean
- The Model for Improvement
- Others?

#### **Quality Improvement**

VS.

#### **Quality Assurance**

- Systems focused
- Fallibility Recognized
- Teamwork
- Errors seen as opportunities for learning

- Individual Focused
- Perfection Myth
- Solo practitioner
- Errors punished



"Every system is perfectly designed to get the results it gets"

#### Model for Improvement

Aim

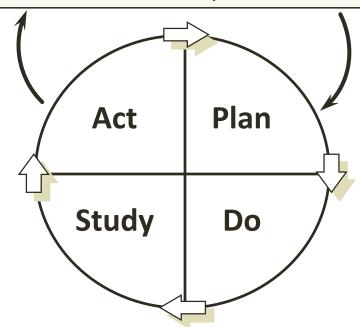
Measures

Changes

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?



# What are we trying to accomplish?

## Aim Statement

- What will you do
- How much will you improve
- For Who
- By When

## **Smart Goal**



# Example – Advanced Nursing edu.

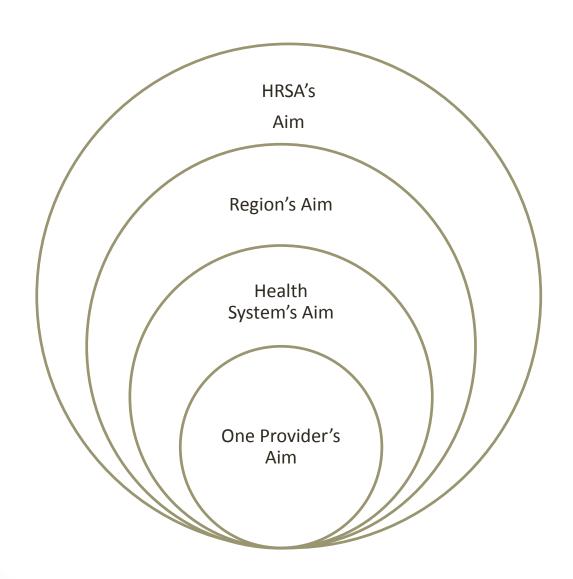
- By June 2016, XYZ University will ensure that 100% of clinical preceptors are prepared to facilitate a positive clinical experience for students. All preceptors will undergo an annual clinical competency evaluation and will score at least 90% competency in four domains:
  - Student evaluation
  - Goal setting
  - Teaching strategies
  - Demonstration of organized knowledge"

# Example – Geriatric Workforce

By June 2017, improve primary care engagement in the early identification of Alzheimer's disease and related dementias (ADRD) so that:

- At least 90% of patients 75 years of age or older are assessed for ADRD at least once per year
- 90% or more of those identified with ADRD have education provided directly to the primary caregiver

## The Aim – A Simple and Powerful Tool



# How Will We Know if a Change is an Improvement?

# How Do We Know That a Change is an Improvement?

- Quality Improvement is about changing and improving care provided
- It is <u>not</u> about measurement.
- However .....

# Measurement Assumptions

- The purpose of measurement in QI is for <u>learning</u> not judgment
- All measures have limitations, but the limitations do not negate their value
- Measures are <u>one</u> voice of the system. Hearing the voice of the system gives us information on how to act within the system
- Measures tell a story; goals give a reference point

#### **Performance Measurement in 3 Worlds**

Aspect	Improvement	Accountability	Research
Aim	Improve care	Compare, reassure, spur change	New knowledge
Methods Test Observable	Yes	N/A. Evaluate current performance	Test blind or controlled
Bias	Accept stable bias	Adjust data to reduce bias	Design to eliminate
Sample Size	Just enough data, small sequential samples	N/A. Report 100%	Just in case data
Hypothesis Flexible	Yes. Revised as learn and test	No hypothesis	Fixed hypothesis
How to determine improvement	Run or Shewhart charts	No focus on change	Hypothesis, Statistical tests: F-test, t-test, chi square, p value
<b>Testing Strategy</b>	Small sequential tests	No tests	1 large test
Data confidential	Data used only by those involved in improvement	No subjects. Data is for public	Subjects protected

## Measures

- Outcome
- Process
- Balancing



# A Closer Look

#### **Process Measures**

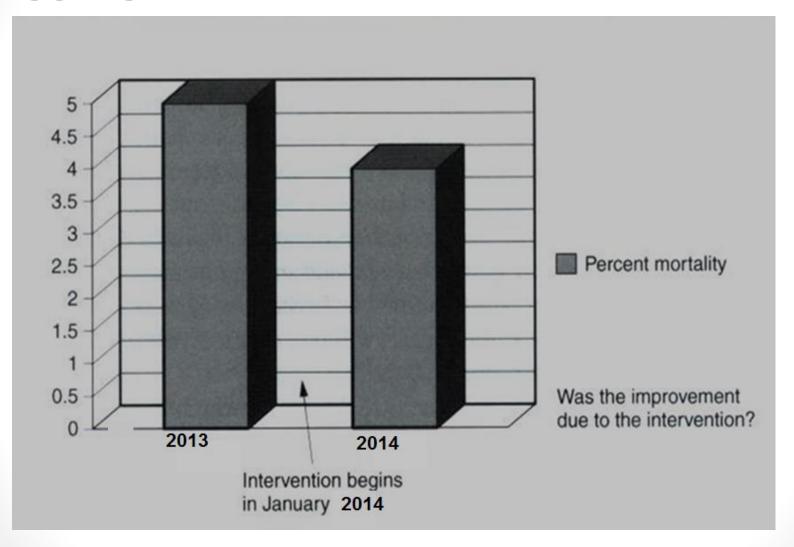
- Data collection may be time limited
- Are within your control
- Are linked to your ideas (changes)
- Are a means to the endsnot the ends

#### **Outcome Measures**

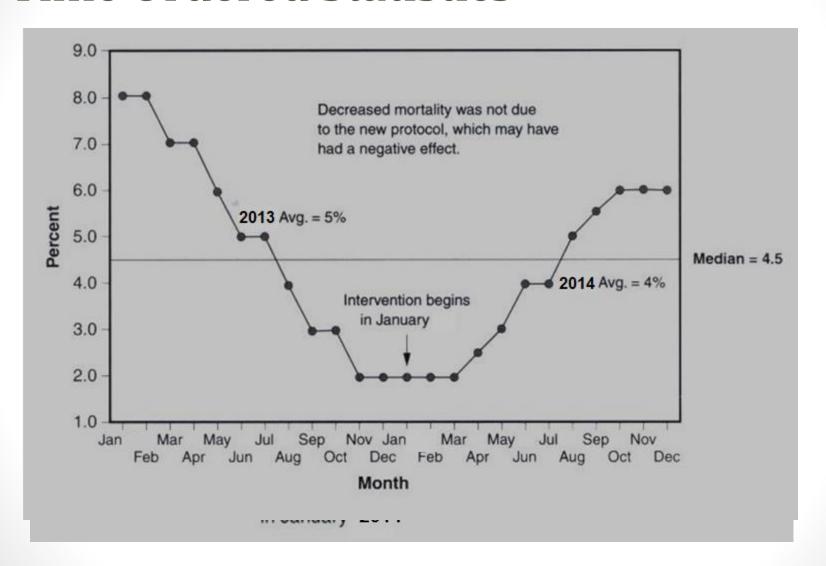
- Are patient focused
- Reflect how care is experienced differently by a family
- Sometimes take time to "move the marker"
- Are in your aim!

# How we display our data influences how we use our data

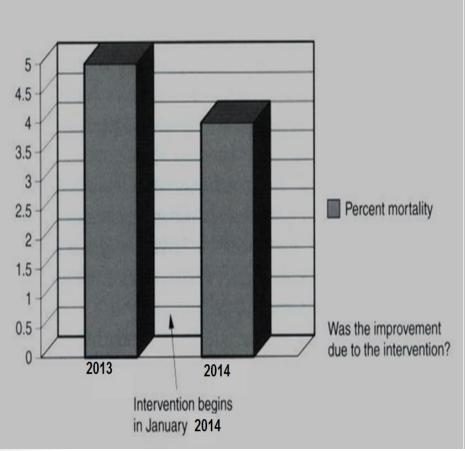
# Aggregate Statistics

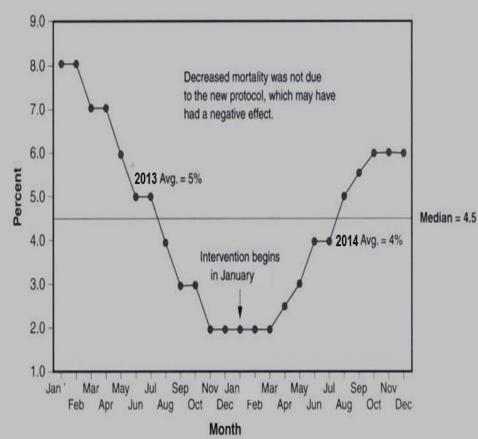


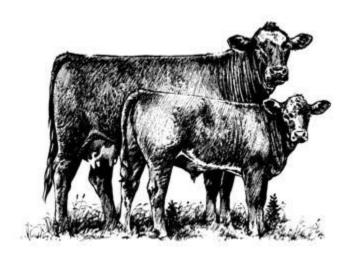
## Time Ordered Statistics



# Aggregate vs. Time Ordered







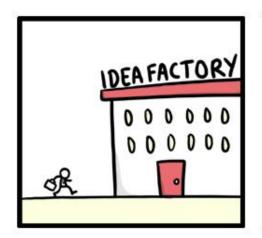
"You can't fatten a cow by weighing it"

Palestinian Proverb



What Changes can we make that will result in improvement?

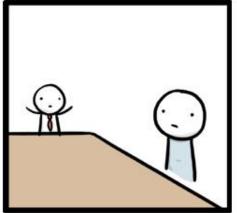
# Ideas











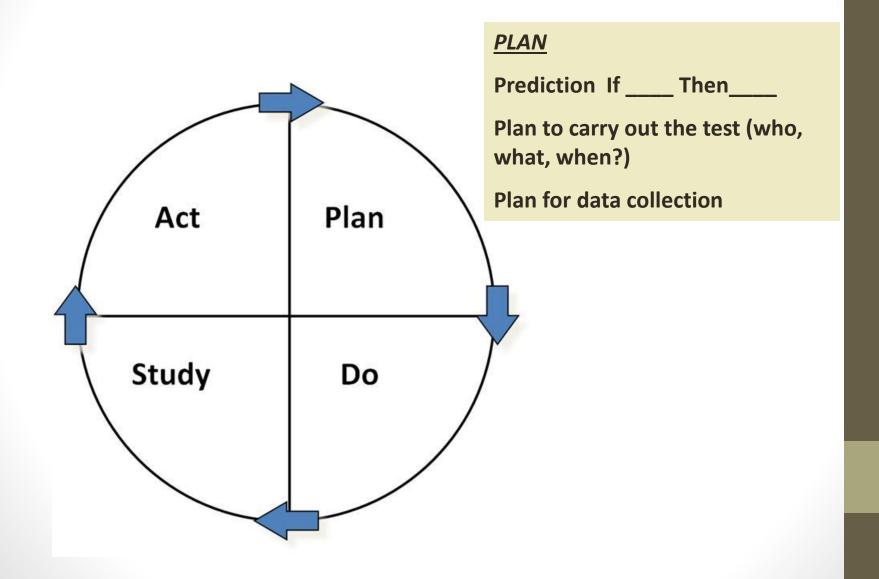


# Why we PDSA

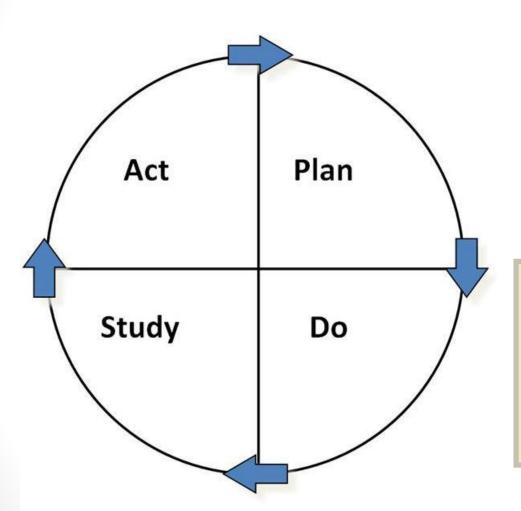
- Fast We have a short attention span
- Low risk no harm option
- Try everything
- Create confidence
- Learn how to adapt
- Evaluate side-effects
- Build momentum
- Decrease resistance
- Make REAL improvement



# Learning with the PDSA cycle: Plan



# Learning with the PDSA cycle: Do



#### <u>DO</u>

Carry out the plan

Document observations – successes/unexpected issues

Begin analysis of data

Learning with the PDSA cycle: Study

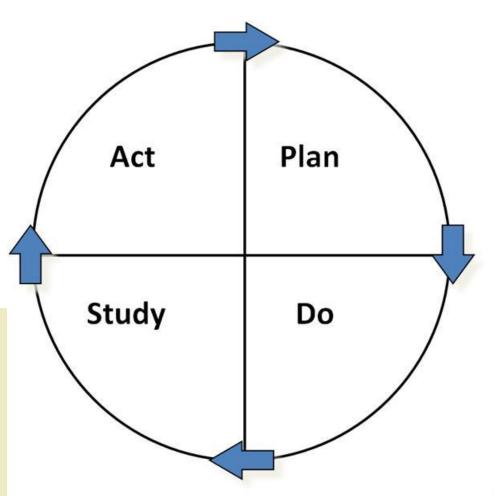
**STUDY** 

**Compare to prediction** 

What did you learn

What was unexpected

What about the data



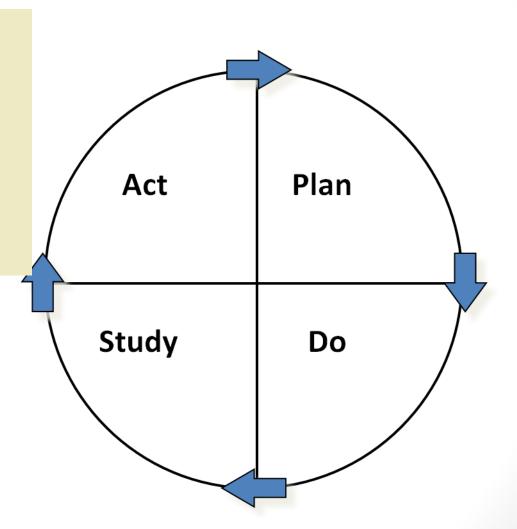
# Learning with the PDSA cycle: Act

#### <u>ACT</u>

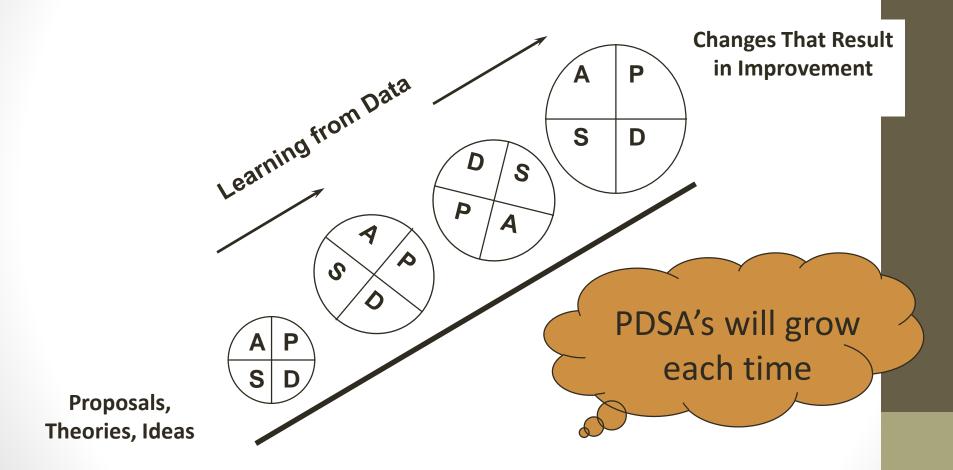
Select an action based on the results of the test:

- Adopt
- Adapt
- Abandon

If appropriate, plan next test



# Use of the PDSA Cycle



# Common Hang Ups

- Starting too big
- Decision by committee
- Implementing too quickly
- Decisions without data
- Spreading too quickly
- Tasking not testing
- Talking not doing

# Simple yet balanced

How will we know a change is an improvement

What are we trying to accomplish

What changes will lead to improvement

Improved Outcomes

