

Quality Improvement Basics

Nancy Wolf, RN, CIC, CPHQ
Project Manager
Stratis Health



1

Objectives

At the conclusion of the session participants will be able to:

- Understand the importance of the six overarching aims for improvement in health care
- Identify three foundations of quality improvement
- Describe a quality improvement framework



2

The Institute of Medicine

- To Err is Human
- Crossing the Quality Chasm
 - Six overarching "Aims for Improvement" for health care:
 - » Safe
 - » Timely
 - » Effective
 - » Efficient
 - » Equitable
 - » Patient-centered



3

Defining Quality Improvement

- TQM (total quality management)
- CQI (continuous quality improvement)
 - PI (performance or process improvement)
- Six sigma
- Lean
- Balanced scorecard
- Others?



4

Defining Quality Improvement

- Doing the right thing well
 - What is the right thing?
 - » Evidence based practice
 - » Regulatory guidelines
 - » Standards of practice
 - What is well?
 - » Benchmarking



5

Defining Quality Improvement

Turning what we know

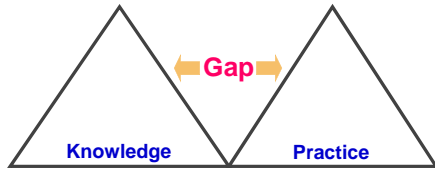
into 

everyday practice



6

Opportunities to Improve . . .



. . . are identified where there is a gap between what you know and how you practice



7

Quality Assurance vs. Quality Improvement

	QA	QI
Model	Monitor and correct performance outliers	Processes/systems are in place that will affect performance today
Program Scope	Focused on organizational mistakes	Focused on outcomes and processes of organizational services
Population	Problem prone areas	High-risk, high-volume, problem prone areas
Data Collection	Retrospective data collection	Concurrent data collection Proactive risk reduction



8

From QA to QI

QA	QI
Monitoring crash cart checks	Developing a code blue evaluation process: <ul style="list-style-type: none"> ■ Adequate number/type of staff response ■ Timeliness of team member response ■ Equipment availability/malfunction ■ ACLS guidelines followed? ■ Mock code blue drills



9

From QA to QI

QA	QI
Monitoring radiology aprons for cracks	<ul style="list-style-type: none"> ■ Minimizing radiology wait times ■ Developing a "same day" mammography program ■ Developing a mammography registry and patient reminder system ■ Maintaining confidentiality in the waiting room



10

Foundations of QI

- Customer focused
- Process oriented
- Data driven



11

QI Foundation #1: Customer Focused

- Who do we serve? Who are our customers?
 - External
 - Internal
- What does it take to delight our customers?
- How can we help co-workers see how their work affects others in the process?



12

QI Foundation #2: Process Oriented

- Everything we do is a process
- 85% of quality problems can be traced back to a process problem
- Well-defined processes reduce variation



13

QI Foundation #3: Data Driven

How does measurement improve quality?

- By helping us:
 - understand the variation that exists in a process
 - monitor a process over time
 - see the effect of a change in a process
- By providing:
 - a common reference point
 - a more accurate basis for prediction



14

QI Foundation #3: Data Driven

- Keep data collection and measurement simple
 - What data is currently collected that could be used?
 - Is another unit/department already collecting the data?
 - Can data be collected concurrently?
- Don't use "gut" reactions only



15

QI Model for Improvement



Nolan application: *The Improvement Guide*. Langley, Nolan and others.

QI Model for Improvement

- Encourages learning by testing change on a small scale
 - Pilot the change in one unit, with one physician, on one shift, etc.
- Eliminates studying the problem to death
 - Moves the team from contemplation to action
- Minimizes data collection/data overload
- Works well with "small numbers"
- Uses three questions as a framework



17

1. What are we trying to accomplish?

- Improvement begins with setting aims
 - State aim clearly
 - » Gain agreement from team
 - Make aim measurable
 - » Use a % goal
 - Make aim achievable
 - » Should be a "stretch"



18

1. What are we trying to accomplish?

Sample Aim:

90% of patients admitted to the nursing home will have a skin assessment done within 24 hours.



19

2. How will we know that a change is an improvement?

- Measurement allows us to determine if change is improvement

Sample Measure:

% patients admitted with heart failure in the last two months who have documented assessment of left ventricular function, including ejection fraction, for each hospital encounter



20

3. What changes can we make to achieve our aim?

Follow the journey of a patient with heart failure through your hospital:

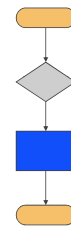
- Admission: ED/Clinic/Home Care/LTC
- Inpatient Care: Med/Surg or CCU
- Rehabilitation: Cardiac Rehab
- Discharge: Home Care, LTC, Assisted Living, Public Health, Clinic



21

3. What changes can we make to achieve our aim?

- Understand how current process works
- Flow chart the actual process-not what you want it to look like-but the reality
- Look for:
 - redundant tasks
 - logical placement of tasks
 - forgotten tasks
 - delays
 - missed opportunities
 - continuity of care across units/disciplines and settings



22

3. What changes can we make to achieve our aim?

- Are physicians ordering an LVEF assessment for heart failure patients?
 - If not, ask why?
- What can we put in place to make sure each inpatient admission has documentation of previous assessment results, if done?
 - Brainstorm with the team or QI committee



23

3. What changes can we make to achieve our aim?

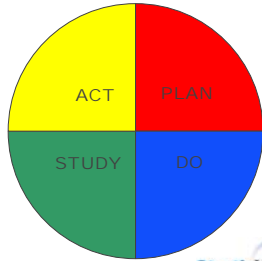
- Look for ways to limit variation in the process, streamline, and simplify
- Learn what has worked at other facilities
- COPY, COPY, COPY
- You don't need a perfect solution the first time
 - You need to start!



24

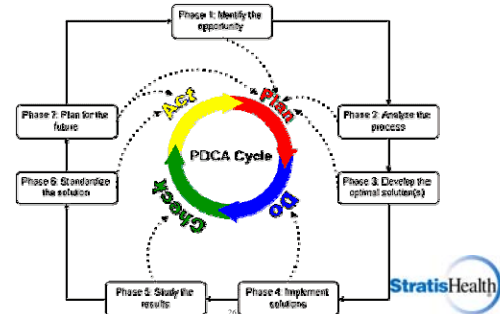
Model for Improvement

- Plan
- Do
- Study
- Act



25

Model for Improvement



<http://quality.dlsu.edu.ph/tools/mgt.html>

Plan

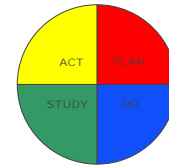
- What change are we testing?
- Who is included in the test?
- When are we testing?
- Where are we testing?



27

Plan

- Prediction: What do you expect will happen?
- Develop aims
- Develop measures



28

Plan

Process Measure:

Measures an activity that is carried out to provide care or service

- code blue team response time

Outcome Measure:

Measures what happens or does not happen as the result of a process

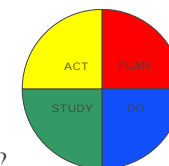
- code blue survivors



29

Plan

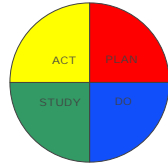
- What data are we already collecting?
- What additional data do we need?
- What is our plan to communicate with others?



30

Do

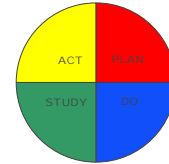
- Test the plan on a small scale pilot
 - Implement the change
 - Collect process data
 - Make observations



31

Study

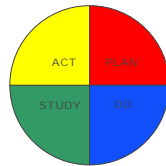
- Evaluation
- Analyze data
- Compare data to recommendations, plan, and goal
 - **What was learned?**
 - » Problems
 - » Successes
 - » Surprises
- Are you satisfied with results?



32

Act

- What changes should we make before the next cycle?
- What will the next test be?
- Are we ready to implement more broadly?
- How will we maintain gains?
- Establish a new plan-PDSA cycle



33

Why Document PDSA?

- Because JCAHO and state survey require it
 - **Regulatory**
- Because the Medicare Conditions of Participation require it
 - **Payer**
- Because the hospital quality improvement plan requires it
 - **Organizational policy**
- Because you want to demonstrate the good work your unit/department is doing
 - **Communication tool and affirmation**



34

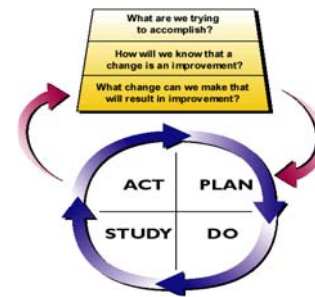
PDSA Documentation

Plan	Do	Study	Act
<ul style="list-style-type: none"> ■ What are we trying to accomplish? - Aim ■ How will we know that a change is an improvement? - Measures ■ What changes can we make to achieve our goal? - Strategies 	<ul style="list-style-type: none"> ■ Implement solutions - Rapid cycle PDSA 	<ul style="list-style-type: none"> ■ Study the results - Display data (graphical or table) - Trend data over time - Describe what the data mean? 	<ul style="list-style-type: none"> ■ Standardize the solution - Make system/process changes ■ Plan for the future - Next steps?



35

Model for Improvement



Nolan application:
The Improvement Guide, Langley, Nolan and others



36

Final Thoughts

- "It is not enough to just do your best or work hard.
You must know what to work on."



- W. Edwards Deming



37



*Stratis Health is a non-profit independent
quality improvement organization
that collaborates with
providers and consumers to improve health care.*

This material was prepared under a contract with the Centers for Medicare & Medicaid Services (CMS).
The contents presented do not necessarily reflect CMS policy.



38