Introduction to Quality Improvement

Objectives

- To gain an understanding of:

  - Quality improvement

  - Various Quality Improvement Methods

  - How to apply the Plan-Do-Study-Act (PDSA) cycles for quality improvement.

What is Quality Improvement?

➢ Quality improvement in healthcare refers to systematic efforts to enhance patient outcomes, experiences, and overall effectiveness of healthcare services.

➢ It involves continuously assessing and refining processes, systems, and practices to ensure that healthcare delivery meets or exceeds established standards and achieves desired outcomes.

To improve a system...

- You need to :
  - Know your customers (patients/residents).
  - Understand where the system is failing - Identify what is wrong.
  - Identify step that needs fixing.
  - Implement change.

Quality Improvement Methods

Healthcare employs various methods and tools to enhance the delivery of care, improve patient outcomes, and optimize processes. Commonly used methods include:

- **Plan-Do-Study-Act (PDSA) Cycle**
  - a systematic framework for testing and implementing changes in healthcare processes. It involves four stages: Plan, Do, Study, Act.
- **Root Cause Analysis (RCA)**
  - a method for identifying the underlying causes of adverse events, errors, or near misses in healthcare by systematically investigating the sequence of events leading to the incident, identifying contributing factors, and developing corrective actions to prevent recurrence.
- **Failure Mode and Effects Analysis (FMEA)**
  - a proactive risk assessment tool used to identify potential failures in processes, products, or systems, and their potential effects on outcomes.
- **Clinical Practice Guidelines**
  - evidence-based recommendations for healthcare providers to guide decision-making and standardize care for specific conditions or procedures to improve consistency, quality, and efficiency of care delivery.
- **Interdisciplinary Team Collaboration**
  - healthcare professionals that work together to identify problems, develop solutions, and implement changes to improve patient care.
- **Data Analytics and Performance Metrics**
  - tools used to collect, analyze, and interpret data on clinical outcomes, process metrics, and patient experience measures, such as length of stay, readmission rates, and patient satisfaction scores, help monitor progress and identify areas for improvement.
- **Continuous Training and Education**
  - to ensure that healthcare providers are equipped with the knowledge and skills needed to deliver high-quality care and participate in quality improvement initiatives effectively.

Example: Two-Step PDSA Model

Step I: Ask 3 Questions

What are we trying to accomplish?

The Aim

How will we know that a change is an improvement?

The Measure

What change can we make that will result in improvement?

The Change

Step 2: PDSA

PDSA Cycle

- **P**lan a change

- **D**o the change

- **S**tudy the results

- **A**ct on the results

Change Concepts

- Eliminate Waste
- Improve Workflow
- Optimize Inventory:
- Change the Work Environment
- Producer/Customer Interface
- Manage Time
- Focus on Variation
- Error Proofing
- Focus on the Product or Service

IHI, 2012

One of the basic principles of quality improvement is that in order to improve, you have to be able to measure where you are.

All improvement will require change,

but not all change will result in improvement

PDSA Cycle

- Start with a **PLAN**
  - Objectives
  - Questions and predictions
  - A Plan to carry out the cycle by asking
    - who,
    - what,
    - where,
    - when
  - A Plan for data collection

- **Do**: the action part of the process
  - document problems and unexpected results
  - collecting and analyzing data
  - meeting with involved parties
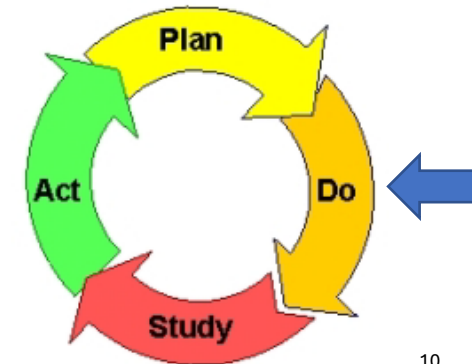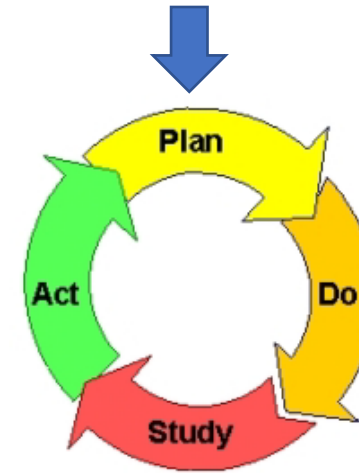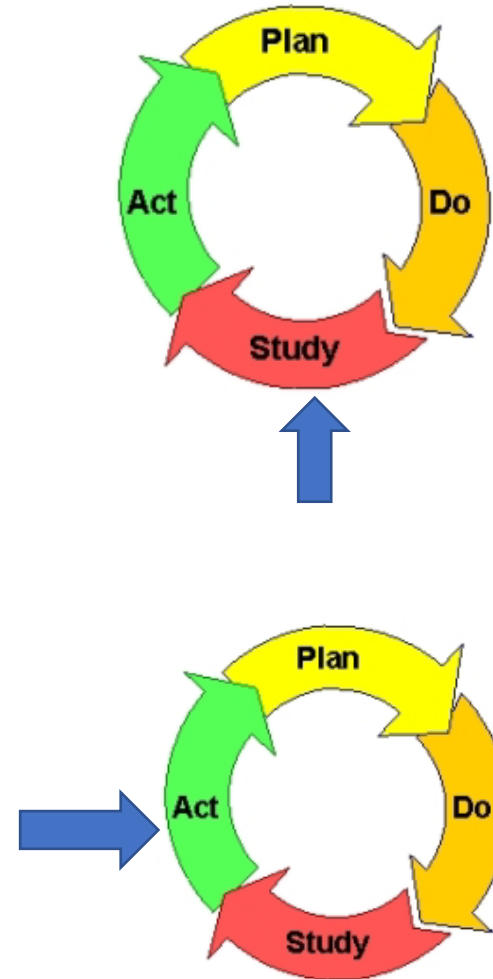
PDSA Cycle

- **Study**
  - Analyze process improvement data
  - Compare data to prediction
  - Summarize what was learned

  - Some focus areas of improvement are:
    - Clinical Outcomes
    - Cost
    - Access to Care
    - Satisfaction
    - Community Service
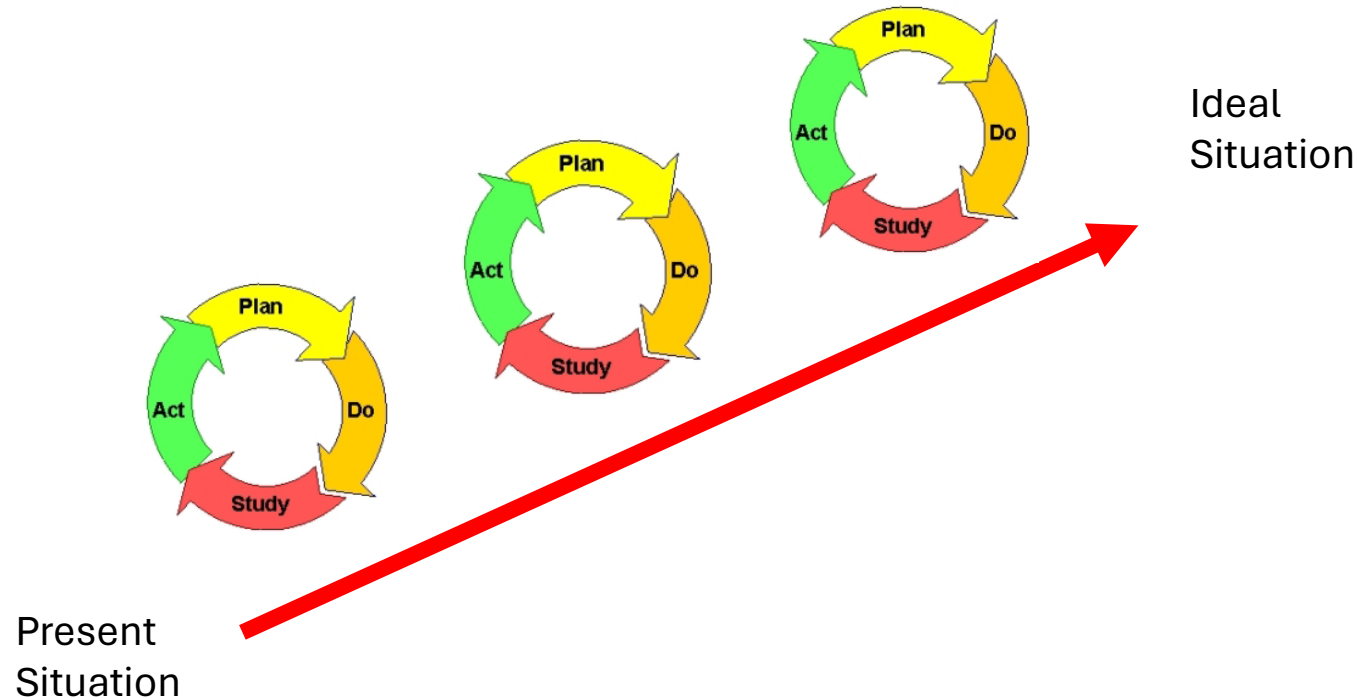   - Regular Satisfaction Surveys
- **Act**
  - What changes are to be made

Start the next cycle

Continuous Improvement

- Start small and think ahead a few steps.

- Test changes.

- Continuous improvement often requires a few sequential PDSA cycles.

Next Steps: Implement & Spread the CHANGE

Change usually comes after a series of successful tests

- Educate and train everyone involved.
- Make changes to job descriptions, policies, procedures, forms.
- Address supply and equipment issues.
- Assign day-to-day ownership for the maintenance of the new process.

(Langley, Moen, Nolan, Nolan, Norman & Provost, 2009)

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