



University of California
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TIPR Section 5.1: Introduction to Developing a Quality Improvement Project

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“Excellence is the unlimited
ability to improve the quality of
what you have to offer.”

Rick Pitino
Iona College Basketball Coach

Learning Objectives

Define Quality Improvement in healthcare

Understand the Institute of Healthcare Improvement Approach

Identify a Quality Improvement problem

Create a SMART goal

Create process, outcome and balance measures

What types of research questions can be answered in primary care settings?

	Clinical research	Implementation research	Quality Improvement
Goals	New or not fully tested intervention	Adapt an EBI for a new type of setting or population	Change with specific patients in a local context
Types of Questions	Does ASA reduce the risk of pre-eclampsia in pregnant women of AMA?	Does ASA for pre-eclampsia prevention work as well among women of AMA receiving care at CHCs?	Does having a clinic registry of pregnant women of AMA improve Rx of ASA compared to what we did before?
Types of interventions	Drug procedure, therapy, narrowly defined intervention	Evidence-based adapted intervention	Process change, training, work-flow redesign, staffing, IT solutions, etc
Types of Outcomes	Health outcomes. Patient behavior	Health outcomes but also adoption, adherence, tailoring, sustainability	Health outcomes but also costs/ efficiency/ process measures at system level

Quality Improvement in a nutshell:

Quality Improvement is a structured, **data-driven approach** to problem solving, which employs a standard methodology and tools to assess root cause, identify and test solutions, implement successes, and execute plans for sustaining optimal performance.



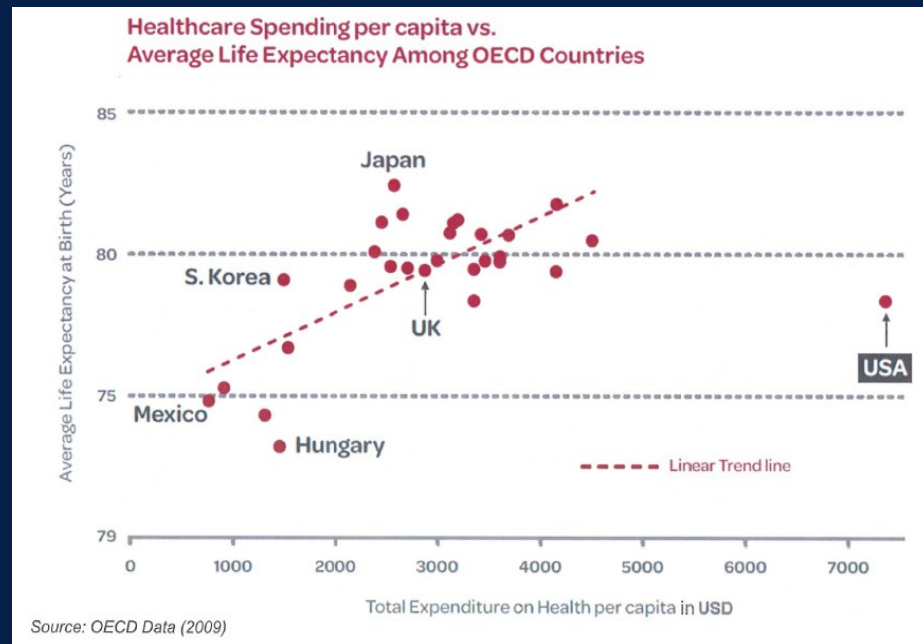
QI in High Performing Primary Care

Building blocks of Quality Improvement



Why do we care?

- USA is an outlier in terms of the costs we incur for health care but with similar life expectancy outcomes.
- Quality improvement directly impacts the quality and safety of care you provide patients.
- Your performance on national quality measures (HEDIS) will be measured, and may be made public.
- You can help your organization improve – and may be asked to serve in that role
- ACGME accreditation requirement



Model for Improvement

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

Assess

- Baseline data
- Fishbone
- Process Map
- Customer voice
- Data collection plan

Develop/Identify Change

- Standardize and simplify
- Apply evidence-based practices

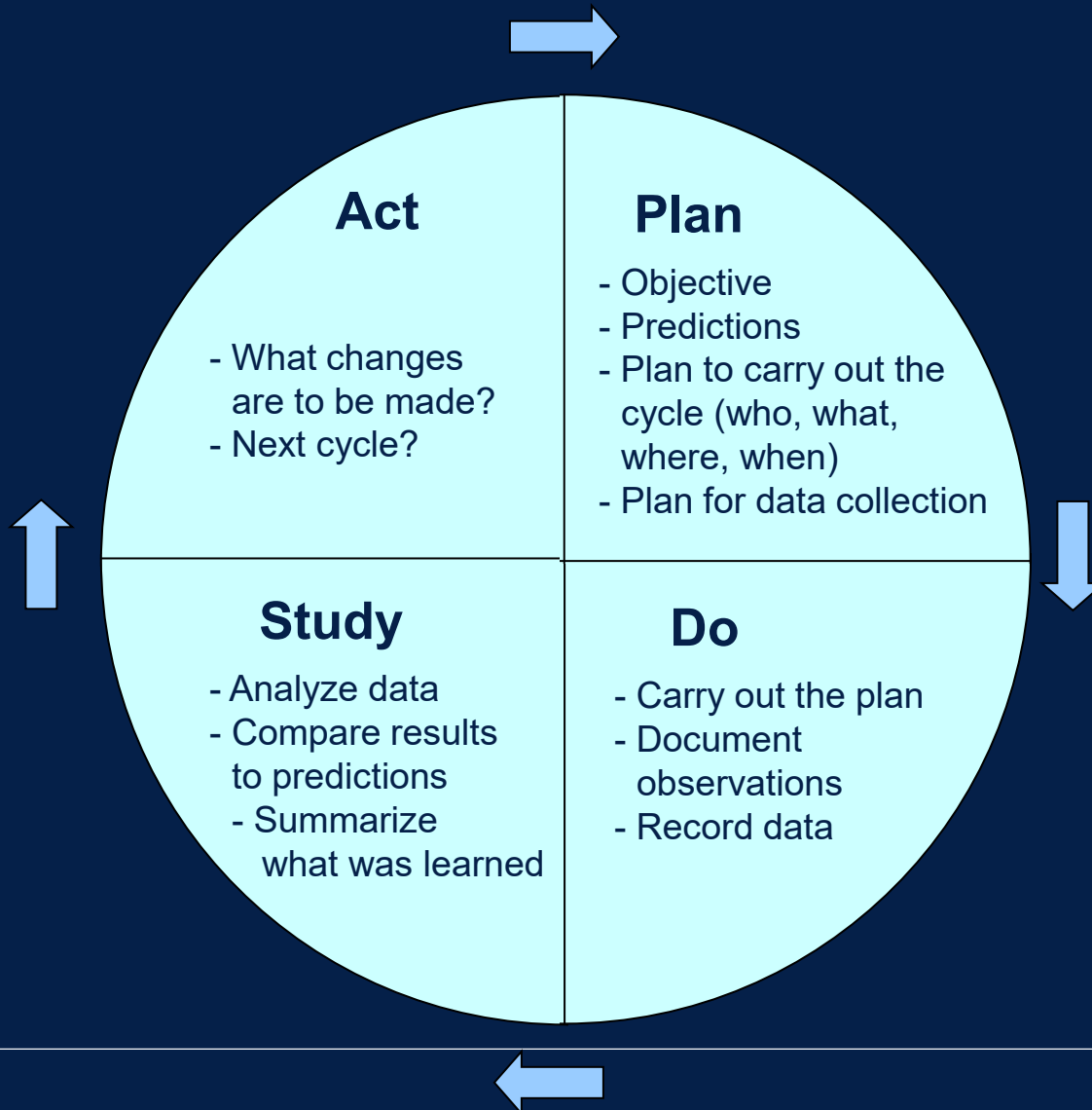
TEST

ACT!
PLAN!
STUDY!
DO!

Implement/Control

- Training
- Policy & procedures
- Feedback loops
- Error proofing
- Control charts
- Spread plan

The PDSA Cycle



Clinical vs. Operational Problem Solving: A Comparison

Clinical Approach	Quality Improvement Approach
Receive Substantial Complaint	Define the Problem & Set a Goal
Perform Work Up	Collect Baseline Data & Perform Gap Assessment + Root Cause Analyses
Make a Diagnosis	Identify & Prioritize Opportunities for Improvement/Change
Initiate Treatment	Test Recommended Changes & Implement Successes
Conduct Follow Up	Create & Execute Sustainability Plan

How do I know I have a problem?

- Eliminating waste of resources
- New process needs to be implemented
- Safety concern is expressed
- Established goals are not being met
- Patient complaints/dissatisfaction
- Inefficiencies are identified
- Errors are noted/reported
- Process is not producing the desired effect
- Any combination of the above

Problem Statements

A problem statement clearly identifies:

- The specific problem
- Its severity
- Data that quantifies the issue
- The potential or actual result / harm to the patient
- The financial impact

Example Problem Statements

Poorly written problem statements:

- 1) Our service scores are lower than the regional target, so we must improve them.
- 2) Wait times in the Pharmacy

Well written problem statements:

- 1) Our service scores for explaining medications are consistently below 60%, which indicates some members do not feel adequately prepared to take their medications. Research indicates this is a leading cause of readmissions and ED visits.
- 2) 25+ patients are regularly in the pharmacy check-out line. Members must stand and wait 30 minutes to pick up their medications. We receive on average 5 complaints per day, which creates a negative experience for anyone who walks through the building.

Example Problem Statement

State the problem:

1. What product, process or service is involved?

1. Exam rooms in the KP Vallejo Medical Center Family Medicine 1 and 3 modules are not stocked all of the time

2. Explain the problem.

1. No current stocking system
2. This causes staff to be frustrated and increased time searching for supplies

3. What are the expectations (target goal) for this product, process or service?

1. Consistently fully stocked exam rooms

■ Problem statement:

- The exam rooms in the KP Vallejo Medical Center Family Medicine 1 and 3 modules are not consistently stocked with needed supplies for patient care and there is no current system in place for stocking, resulting in staff frustration and increased time searching for supplies.
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Creating a SMART Goal



SMART Goal Stock Room Example

- Develop a system for MAs to keep Med1 & 3 exam rooms stocked (including which supplies, where they're stocked, who stocks them & how frequently) so that the percent of time the rooms are fully stocked can increase from 75% to 90% by 6/5/17.
 - **Specific:** MAs to keep Med1 & 3 exam rooms stocked
 - **Measurable:** percent of time the rooms are fully stocked
 - **Attainable:** Focusing on only 2 modules
 - **Results Focused:** primary outcome is assessment of when rooms are fully stocked
 - **Time bound:** by 6/5/17

How will we know that a change is an improvement?

- **Outcome measures** are primary outcomes of interest
 - High-level clinical outcomes
 - Financial outcomes
- Examples:
 - Mortality rates
 - Readmissions rates
 - Surgical site infection rates

Process Measures

- **Process measures** are the specific steps in a process that lead — either positively or negatively — to a particular outcome metric.
- Example:
 - Outcome measure: Length of stay (LOS)
 - Process measure: Length of time to obtain physical therapist clearance

Balancing Measures

- **Balance measures** are metrics that are tracked to ensure improvement in one area does not negatively impact another.
- Example:
 - Outcome measure: Length of stay (LOS)
 - Balance measure: Patient satisfaction

Stock Room Example

- Outcome Measure: % of time Med 1 and Med 3 exam rooms are fully stocked
 - Objective random checks with checklist
 - Staff/physician surveys
- Process Measure: frequency of provider leaving the room searching for supplies; # supplies stored in its appropriate drawer; organization of drawers
 - Pre-post survey; Objective random checks with checklist; photos of drawers
- Balance Measure: time to refill supplies and remove expired supplies

Project Charter

Project name:	Charter date:
Project co-leads:	Facility:
PI director/lead IA:	Mentor:
Project SMART goal:	

Problem statement and business case		Project team
Problem statement		• Sponsor(s): • Champion(s): • Co-Leads: • Front line Staff/Workgroup: • Project oversight: • Ad Hoc SMEs:
Stakeholder benefit (e.g. patient, staff)		
Expected financial impact		
Other business benefit		

Project timeline (add start/end dates)	Project measures
1. Identify a problem — 2. Speak to leaders/gain sponsorship — 3. Create a team — 4. Obtain and analyze baseline data — 5. Have a kick-off meeting — 6. Create a charter — 7. Document current process — 8. Identify changes/create future state process — 9. Test improvement ideas/fully implement successful changes — 10. Submit completed project storyboard —	• Outcome measures: • Process measures: • Balancing measures:
	Project scope
	• In scope: • As needed: • Out of scope:

Take Home Points

- It is important to understand how to identify if you have a problem
- Using the model for Improvement can help give structure to your QI work.
- Developing SMART goals will help you to define what you are trying to accomplish
- Using measures such as Outcome, Process, and balancing measures helps to know whether a change was an improvement