How to Start Quality Improvement Project

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Disclosure

Presenters reported no financial interest relevant to this presentation
Objectives:

- Understand the Model of Improvement
- Develop an Aim Statement for your Project
- Understand the tools you will need to plan your project
- Develop a Plan for your Project
Agenda

- Introductions-5 minutes
- Brief Overview of Quality Improvement methods – 10 minutes
- Review Data for potential areas of improvement-5 minutes
- Develop an Aim Statement for your project-15 minutes
- Develop a Cause and effect Diagram-15 minutes
- Develop a project plan-20 minutes
- Group Discussion-20 minutes
Where to begin?
The PDSA Cycle

Identify an area for improvement and define an improvement goal; create a plan to achieve your goal.

Use what worked and revise based on what you have learned.

Examine your data. How did it go? What would you do differently next time?

Embark on your learning plan; collect data to measure your improvement.
A Model for Quality Improvement

What are we trying to accomplish? (AIM)

How will we know that a change is an improvement? (MEASURE)

What change can we make that will result in improvement? (CHANGE OPPORTUNITIES)

ACT

PLAN

STUDY

DO

Testing ideas before implementing change

Langley et al., The Improvement Guide, 1996
<table>
<thead>
<tr>
<th># Qualifying Diabetes Patients</th>
<th>836</th>
</tr>
</thead>
<tbody>
<tr>
<td>% who Met At Least 4 Outcomes</td>
<td>30%</td>
</tr>
<tr>
<td>% with Good Blood Sugar Control (A1c &lt; 8)</td>
<td>61%</td>
</tr>
<tr>
<td>% with Good Blood Pressure Control (BP &lt; 140/80)</td>
<td>46%</td>
</tr>
<tr>
<td>% with Good Cholesterol Control (LDL &lt; 100 or on Statin)</td>
<td>86%</td>
</tr>
<tr>
<td>% with Good Weight Control (BMI &lt; 30)</td>
<td>32%</td>
</tr>
<tr>
<td>% Not Smoking</td>
<td>71%</td>
</tr>
<tr>
<td>% who Met All 4 Care Processes</td>
<td>64%</td>
</tr>
<tr>
<td>% Blood Sugar Control Test (A1c test completed)</td>
<td>98%</td>
</tr>
<tr>
<td>% Kidney Management (Urine microalbumin screen or ACE/ARB Rx)</td>
<td>95%</td>
</tr>
<tr>
<td>% Eye Examination (Eye exam completed)</td>
<td>72%</td>
</tr>
<tr>
<td>% Pneumonia Vaccination (Received at any time)</td>
<td>90%</td>
</tr>
</tbody>
</table>
What is an Aim?

- Connects your vision to your process
  - Vision is overall goal
    - i.e. “We want to reduce complications from Foley catheters by reducing inappropriate Foley catheter use”
  - Point in process is the system problem you identified

- Should completely represent the project
Part 1: Identify your Target for Improvement

- Choose an area that you want to improve
- Choose one and describe it below
- Write your Aim Statement below

*(Make sure the aim is relevant, clear, realistic, and lends itself to assessment.)*
Aim statement should be SMART

- Specific
- Measurable
- Achievable
- Reasonable
- Time-limited
Within the next decade, we will safely put a man on the moon.
Characteristics of Aim Statements

- **It is precise.** *It includes a numerical goal.* Example: Decrease missing adult data summary sheets as a percent of requests by 50%...

- **It is feasible.** Example: The goal is set at a 50% decrease. This is more achievable than trying for "zero defects," at least at first.

- **It is measurable.** Example: The general outcome measure is clear: the rate of data sheet submission as a percent of requests.

- **It includes a time frame.** Example: The team wishes to achieve the change in 6 months
Tips for setting aims

- State the aim clearly
- Include numerical goals that require fundamental change to the system.
- Set stretch goals.
- Avoid aim drift
- Be prepared to refocus the aim.
Sample aim statements:

Patient Satisfaction

- Within 9 months we will achieve a > PMAS 90% rating on routinely monitored patient experience surveys from our patients regarding overall rating of quality

- By December 2011, we will achieve at least 50% PMAS on routinely monitored patient experience surveys from our patients regarding wait times
Your Turn
Tools for QI Projects

- Flowchart
- Cause and Effect Diagram
- Change Concepts
Flowchart the Process

- A flowchart must include the **actual events** as they typically occur.
- To truly develop a flowchart that is representative you must **“walk the line”**
  - Talk to the staff involved in the process
  - Talk to staff about the “history” of the process
  - Identify unique contextual issues
Create a Flowchart of the Events in Your Clinical Case
(15 minutes)
Cause-Effect Diagram

- Determine area for improvement
- List areas that may cause/impact the improvement
- Method for analyzing process dispersion
- Relates causes and effects

**Advantages:**
- Good brainstorming tool and helps to focus on issues at hand

**Disadvantages:**
- Subject identification of causes and relationships between factors
Patients are reporting overall quality as excellent less than 50%.

- **Waits and Delays**
  - Depend upon transport
  - Depend upon lab & x-ray response
  - Subspecialty clinics overbooked
  - Follow-up unclear & unreliable

- **Equipment**
  - No isolation room
  - Rooms not ready
  - Insufficient prosthetic supplies
  - Supplies not stocked
  - Records not always sent

- **Staff**
  - Not enough time
  - Consult not able to be scheduled
  - Primary care clinic overbooked
  - Follow-up not easily arranged
  - Insufficient prosthetic supplies
  - Primary care clinic overbooked

- **Providers**
  - Data entry is burdensome
  - Physicians d/c patients
  - Not focused on teaching
  - No evaluation process
  - Process not well outlined
  - Objectives unstated

- **Nursing**
  - Data entry is burdensome
  - Process & policies unclear
  - Staff morale is low
  - Often work at cross purposes (ie. answer phone, draw labs, call x-ray, transport patients)
  - No clear triage guidelines

- **Residents**
  - Data entry is burdensome
  - Physicians d/c patients
  - Morale is low
  - Process of care delivery unclear
  - No evaluation process
  - Goals & Objectives unclear & not well communicated
Create a Cause Effect Diagram of the Clinical Problem
(15 minutes)
Change Concept:

A general notion or approach to change that has been found to be useful in developing specific ideas for changes that lead to improvement.
Groups of Change Concepts


- Eliminate waste.
- Improve work flow.
- Change the work environment.
- Provider-Patient interface.
- Focus on time.
- Focus on variation.
- Error proofing.
- Focus on service provided.
TURP: Pre-Change

Patient checks in → TURP → Learn to self-cath → D/C

LOS = 5.0 days
Cost = $20,000
TURP: Change Concept

Patient checks in → TURP → Learn to self-cath → D/C

REORDER SEQUENCE
TURP: Post-Change

Learn to self-cath → Patient checks in → TURP → D/C

LOS = 1.2 days
Cost = $5,000
Part 2: Develop a Plan with Your Team

- Create a plan to achieve your aim by listing specific, measurable steps you will undertake. The last step of your plan should explain how you will know if you have accomplished your aim.

*(Make sure that the plan is short-term, specific, measurable, and achievable.)*
Reasons for Pilot Test Challenges

- Change was not well executed
- Support processes inadequate
- Hypothesis/hunch was wrong
  - Change executed, but doesn’t result in local improvement
  - Local improvement, but no impact on the more global outcome measure
- “If you want to learn about a system, try to change it.”
Schedule of Plan Development and Group Meetings ...

Today: Develop plan and discuss with peers. Have your AIM statement completed before leaving today (PART 1 & 2)

Interim: Put plan into action. Collect baseline data. Have your plan in a power point presentation. Progress report at the next meeting.

Next Meeting: Review and evaluate your progress accomplishing your set aim. You will bring your results in a power point to discuss in the meeting with the group (Part 3)
Thank You

Questions?