QI Basics and the Model for Improvement
What is Quality Improvement?

- Quality improvement (QI) consists of systematic and continuous actions that lead to measurable improvement in health care services and the health status of targeted patient groups.
Why is quality improvement science important?
Pick your favorite chocolate
YOU'RE AN ALL AMERICAN WHO LOVES BASEBALL, MOM & APPLE PIE. YOU'RE A CHEERLEADER FOR YOUR PROGRAM, LEVEL-HEADED, AND A GOOD PR PERSON. YOU'RE ALSO KIND, THOUGHTFUL, AND ALWAYS REMEMBER EVERYONE'S BIRTHDAY. YOU ARE NURTURING, DEPENDABLE, LOYAL, AND HELP OTHERS TO "SHINE". OTHERS OFTEN TURN TO YOU FOR HELP.
Krackel

YOU'RE CREATIVE, OPTIMISTIC, ALWAYS SEE THE CUP AS HALF FULL. YOU'RE MESSY (MESSY DESK OR CLASSROOM) BUT ORGANIZED (EVENTUALLY FIND A MISSING ITEM OR BELIEVE YOU WILL). YOU LIKE TO BE A HANDS-ON PERSON. YOU'RE A LITTLE OFF-BEAT, FUNNY, FRIENDLY AND OUTGOING PERSON WHO IS ALWAYS WILLING TO HELP. YOU LIKE THE SURPRISING THINGS IN LIFE, THE "KRACTEL". YOU LIKE SITUATIONS THAT ALLOW FLEXIBILITY, CHANGE AND GROWTH.
Mr. Goodbar

YOU'RE ANALYTICAL AND LOGICAL. YOU GATHER DATA FIRST BEFORE GIVING AN OPINION, PLAY THE DEVIL'S ADVOCATE AT MEETINGS, TEND TO SEE ALL THE POSSIBILITIES AND DRIVE PEOPLE CRAZY BY SHARING ALL THE "WHAT IFS". YOU HATE DEADLINES AND PUT OFF STARTING THINGS; YOU'RE A PROCRASTINATOR. YOU LIKE TO BE THE EXPERT BUT IN YOUR OWN TIME FRAME. YOU CAN ANALYZE THINGS TO DEATH. YOU LIKE THERE TO BE RULES THAT EVERYONE FOLLOWS. YOU LIKE A LOT OF STRUCTURE AND HATE SURPRISES.
Special Dark

YOU'RE A PATIENT, THOUGHTFUL INDIVIDUALIST AND PROBLEM-SOLVER. YOU LIKE TO SEE A PROJECT THROUGH FROM START TO FINISH. YOU'RE A GOOD GRANT WRITER AND WORK WELL WITH DIFFICULT PEOPLE. YOU ARE REFLECTIVE AND INSIGHTFUL AND HAVE LITTLE PATIENCE FOR INCOMPETENCE OR LIARS. YOU SET HIGH STANDARDS FOR YOURSELF AND OTHERS. YOU ARE DEPENDABLE, RESOURCEFUL, AND LOYAL.
The QI Team

- Needed to understand complex processes
- No one person knows all the dimensions of a process
- Requires representatives of all work areas
- Multi area staff commitment is required for total staff buy in
- Team work fosters creativity
Plan Do Study Act
Model for Improvement

- 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?

Act → Plan → Do → Study → Act...
What are we trying to accomplish?

The aim statement should answer:

- What will we improve?
- For whom?
- How much? (Specify number goals for outcomes)
- By when?

INCREASE THE NUMBER OF TEENS (AGES 13-18) RECEIVING WELL CHILD CHECKS BY 40% BY DECEMBER 2017.
Model for Improvement

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Act  Plan  Study  Do
How will we know that a change in an improvement?

To answer this question, it requires the use of **measures**.

The measures you choose to collect data on should be:
- Qualitative or Quantitative
- Easy to collect
- Able to integrate collection into everyday activities

3 types of measures

**Outcomes** - tells How is the system performing

**Process** - Process tells you if the parts/steps in the system performing as planned

**Balancing** - tells you if unanticipated consequences are occurring in one part of the system as a result of making changes to another part of the system
Examples of Measures

Outcomes: Number of teens who received well child checks

Process: Number of teens who were given a behavioral health screen.

Balancing: Number of teens seen who did not have a primary care provider listed in their chart.
Model for Improvement

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?

act  plan
study  do
What changes can we make that will result in improvement?

<table>
<thead>
<tr>
<th>Vague, creative</th>
<th>Specific, actionable</th>
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<tbody>
<tr>
<td>• Increase teen well check rates</td>
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<tr>
<td>• Make continuity of care a system priority</td>
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<td>• Identify patients' PCP</td>
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<td>• Develop phone script for schedulers</td>
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<td>• Pilot phone script for one day</td>
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Each idea becomes a test for a PDSA cycle
1. Define your Aim statement
2. Define measures
3. List Ideas for changes

Steps 1 and 2 stay constant, step 3 can be fluid.

Revisits your aim often and take measurements routinely
Model for Improvement

- 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?

Plan -> Do -> Study -> Act -> Plan
**Act**
- What changes are to be made?
- Next cycle?

**Plan**
- Objective
- Questions and predictions (why)
- Plan to carry out the cycle (who, what, where, when)
- Plan for data collection

**Study**
- Complete the analysis of the data
- Compare data to predictions
- Summarize what was learned

**Do**
- Carry out the plan
- Document problems and unexpected observations
- Begin analysis of the data
Act
• What changes are to be made?
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Hunches, Theories, and Ideas

DATA

Changes That Result in Improvement

Source: The Improvement Guide, p. 103
DISPLAYING DATA WITH RUN CHARTS

# of Teens Seen for WCC

- Policy change that requires all sports physicals also be given WCC
- Policy found to be unsustainable and caused major schedule conflicts

Baseline

- Flyer handed out at sick visits explaining incentives for Teen summer WCC
- Phone prompt for from desk staff introduced

Cold season... what could they do to improve?