QUALITY IMPROVEMENT:
DIFFERENT METHODS AND MODELS FOR IMPROVEMENT: LEAN, SIX SIGMA AND THE MODEL FOR IMPROVEMENT
Lean, Six Sigma &
The Model For Improvement

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
Six Sigma, Lean, MFI

**Six Sigma**
- Define
- Measure
- Analyze
- Improve
- Control

**Lean**
- Identify Value
- Understand Value Stream
- Eliminate Waste
- Establish Flow
- Enable Pull

**Pursue Perfection**

**Model for Improvement**
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**Act**
**Plan**
**Study**
**Do**

Source: The Improvement Guide, API

Quality Improvement models presentation from IHI - Kaiser
Lean

- An improvement philosophy
  - “a set of ideas about how to do something or how to live”

- Term coined in the 1980s originally used to describe the Toyota Business Model

- Lean Philosophy:
  1. Puts the customer experience at the center of its work.
  2. Focuses on identifying and eliminating "waste."
  3. Ensures that all parts of a process are value-added.
  4. Strives for continuous improvement.
Six Sigma

- Improvement model that emphasizes measuring and reducing variation to decrease the number of errors within a process

- Two methods for Six Sigma improvement projects: **DMAIC** and **DMADV**
  - **DMAIC**: Define, Measure, Analyze, Improve, Control
  - **DMADV**: Define, Measure, Analyze, Improve, Control

- Typically led by someone with Six Sigma training

- Most organizations now adopt Lean Six Sigma
Model for Improvement

- Framework for testing and implementing changes that lead to improvement.

- Three fundamental questions part of every improvement project:
  1. What are we trying to accomplish?
  2. How will we know that a change is an improvement?
  3. What changes can we make that will result in improvement?
What Are We Trying To Accomplish?

Step 1: Create an Aim Statement

- An aim statement is an **explicit** description of a team's desired outcomes, which are expressed in a **measurable** and **time-specific** way.

“Our aim is to reduce our wait time in the lobby from 30 minutes on average to 20 minutes by July 2015.”
“How will we know that a change is an improvement?”

- Step 2: Choose measures for your project
“What changes can we make that will result in improvement?”

Step 3: Use change concepts to identify what you want to test

- Change concepts are general ideas used to stimulate specific, actionable steps that lead to improvement. (Safety Net Medical Home Initiative)

- Examples:
  - “Use substitution”
  - “Listen to customers”
  - “Standardization”
Step 4. Test a change

After discussing and selecting a change concept with your team, test your ideas using the PDSA cycle.

“What changes can we make that will result in improvement?”
Example Lean Tools & Concepts
The Five Why’s

- A technique to get to the deeper reason behind a particular problem
- When to use: When you want to get to the root cause of a problem
Spaghetti Mapping

- Process of mapping out a space and tracking the movement of people or products
- When to use: When you want to improve the physical flow of a process

Source: http://asq.org/cms_prd_consump/groups/public/documents/cover-image/104860.bmp
Now what?

- QI Managers: Consider incorporating one of these philosophies into your QI Plan
- Consider incorporating one or two of these tools into your work
  - Puzzled over why your MA’s haven’t used your new protocols? Use the Five why’s!
  - Trying to brainstorm ideas to get people to use your new EMR report? Do an affinity diagram!
  - Testing a change to a process? Use PDSA cycles
Need more information?

- Check your thumb drive for these tools
- Email us if you have any questions about these tools and how to use them (Data@orpca.org)

Other resources:

- The Institute for Healthcare Improvement - http://www.ihi.org/Pages/default.aspx
- Minnesota Department of Health QI Toolkit - http://www.health.state.mn.us/divs/opi/qi/toolbox/
- Tennessee Initiative for Perinatal Quality Care - http://tipqc.org/qi/jit/