

Quality Management in Health Care



IMPROVING PERFORMANCE

Topics Covered in This Lecture

- Application of the Plan-Do-Check-Act cycle (a performance improvement model)
- Other popular performance improvement models
- Performance improvement tools
 - Qualitative
 - Quantitative

2

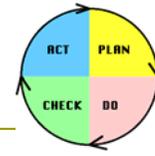
The most common model used to describe performance improvement is PDCA (plan, do, study, act) cycle. Some times this model is referred to as the Plan-do-study-act (PDSA) cycle.

In this lecture I'll give you a practical example of how this model is applied in a real-life situation. I'll also briefly describe some other commonly used performance improvement models and explain the difference between models of improvement versus the improvement tools used during an improvement project.

In the 2nd half of the lecture I'll discuss process improvement tools and techniques. Often people confuse performance improvement models with the tools and techniques used during application of the model. While an organization should have clearly defined steps for process improvement initiatives, such as the Plan-Do-Check-Act model, during the life of an improvement project many different tools may be used.

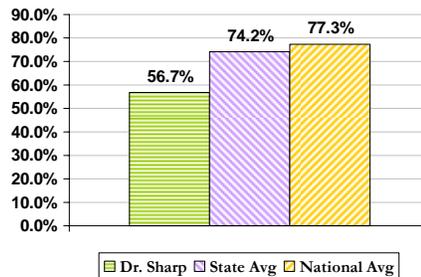
Some of these tools are qualitative; meaning that they used to describe customers, a process, or a circumstance. Other tools are quantitative – meaning they are used to quantify or count customers, a process, or a circumstance.

Improvement Project



- Dr. Sharp's office has low rate of patient immunizations (per HEDIS report from managed care plan)

Percentage of children and adolescents who have received the recommended immunizations for their age group



3

I'll walk you through an example of a performance improvement project in an outpatient clinic. This example is based on the Plan-Do-Check-Act model of performance improvement. It has, however, been simplified a bit for this lecture.

Dr. Sharp has just received his report card and individual HEDIS (Health Plan Employer Data and Information Set) data from the managed care plan with which he contracts. He and his office manager are both dismayed to see the immunization rate is much lower than both the expected rate and that of his peers. Dr. Sharp is sure that there must be some mistake in the findings of the health plan and immediately suggests notifying the plan about this error. He is especially concerned since the largest employer group in his city will report this information for their employees to use in health plan and provider selection.

A conversation with the health plan confirms the accuracy of the report, and Dr. Sharp realizes that he must take some action to improve the immunization rate in his practice. Dr. Sharp feels certain he is providing age-appropriate immunizations for his patients and begins to think about things in his practice that might impact his immunization rates. He has been told that inadequate documentation is one common reason for low immunization rates and wonders if this could be an issue. Dr. Sharp decides to ask some of the staff to meet and discuss ideas for improving the immunization rates.

Other Improvement Models

Improvement Model	Primary Theory	Intended Effect
Rapid Cycle Improvement	Improve performance through incremental process changes	Achieve pre-defined measures of success
Six Sigma	Reduce process variation	Reduce variation in complex processes
Lean Thinking	Remove waste	Create value-added processes

4

In the past few years a number of hybrid process improvement models have been introduced into the business world and some are beginning to be applied in health care organizations. Whether these methodologies have “staying power” has yet to be determined. Three of the currently popular process improvement models are:

- Rapid cycle improvement
- Six Sigma
- Lean thinking

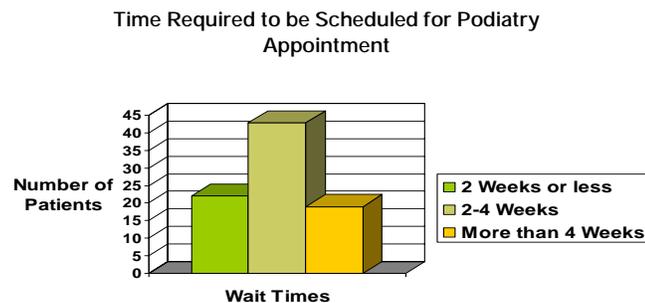
Shown on the slide is the primary improvement theory underpinning each model and the intended effect of an improvement project that uses the model (read through slide material). The steps of each of these performance improvement model are very similar to the plan-do-check-act cycle. In the next few slides I'll describe the steps of these improvement models.

Histogram

A bar chart that shows the distribution of data. It's like a "snapshot" of the process.

When are Histograms used?

- To summarize large data sets in a picture form
- Compare measurements to expectations
- Assist in decision making



5

Histogram is a bar chart that shows the frequency of the values in a set of data. Data are plotted in increasing or decreasing order based on the frequency count for each data value.

Development steps:

1. Collect numerical data on the number of occurrences, errors, or other phenomena observed and count the data points.
2. Determine the range of your group of data. Decide how many bars your histogram will have and divide the range by the number of bars to determine how many intervals each bar in the histogram will cover.
3. Decide on the scale for the y-axis