Using the Plan, Do, Study, Act Model to Implement a Quality Improvement Program in Your Practice

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> The secret of getting ahead is getting started. The secret of getting started is breaking your complex, overwhelming tasks into small, manageable tasks, and then starting on the first one.
>
> —Mark Twain

UNDERSTANDING HOW QUALITY IS DEFINED AND WHY QUALITY IS IMPORTANT

Working to improve the quality of care provided to our patients has become one of the cornerstones of modern health care. Yet, how healthcare quality is defined has changed over the years. Understanding how quality is defined and how to implement a quality improvement program in your practice using the Plan, Do, Study, Act (PDSA) model will help you develop methods to measure quality, enhance it, and report it in ways that will improve patient care and future reimbursement.

The traditional paradigm where quality could be demonstrated by the presence of good provider credentials, high caliber facilities or equipment, the style in which care was provided, or patient outcomes is now considered incomplete. This paradigm provided a basic framework from which to understand quality improvement, but it ignored the important concepts of cost and efficiency. A newer paradigm was put forth in the year 2000 when the Institute of Medicine (IOM) published a new definition of quality, describing it as the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. Essential elements for quality were suggested, including reducing unnecessary variation, applying evidence-based medicine and best practices, error reduction, process improvement, promoting a culture of safety, and creating a culture of accountability. In the document *Crossing the Quality Chasm*, published in 2001, the IOM more clearly defined quality, recommending that high-quality care should be safe, effective, efficient, timely, patient centered, and equitable.

As healthcare professionals are increasingly burdened with regulations and requirements, it is easy to be cynical when discussing the concept of quality in medicine. However, efforts to enhance quality can simultaneously improve the care we provide for our patients, reduce waste, and save money. With the advent of Medicare CHIP and Reauthorization Act (MACRA), it can also increase reimbursement and ultimately help differentiate your practice from the competition. The PDSA model can provide a solid foundation from which to start the process of quality improvement for your practice: plan what will be done, do it, study and analyze the results, and act on the results to make improvements in what you are doing.

INSTITUTING QUALITY IMPROVEMENT PROGRAMS: FIRST STEPS AND OVERCOMING BARRIERS

Instituting quality measurement and improvement programs in your practice, however noble the goal, can be intimidating, expensive, and overwhelming. Discussing the importance of quality with your practice is a good place to start, preferably in both group and individual settings. The group culture may need to be changed and this takes time, effort, persuasiveness, and patience. Once your group seems ready to accept that improving quality of care is important and necessary, physician champions from the group should be chosen to lead the initiative. At times, a change in how your group reimburses itself may even be required. Potential barriers including cost of IT systems, cost of personnel needed to measure quality, and cultural elements of resistance to change must be identified as early as possible so that a plan to overcome them can be devised (**Table 1**). In summary, the first step is to engage your group and recruit physician champions, and to identify and have a plan to overcome potential barriers to implementation. Once you have "buy in" from your practice and have carefully considered the barriers to moving forward, you are ready to implement and execute the PDSA model (**Figure 1**).

IMPLEMENTING AND EXECUTING THE PDSA MODEL

The first step in implementing PDSA is actually defining the metrics, i.e., what is it that is going to be measured. It is preferable that

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the metrics are valid, objective, not controversial, easy to measure and report, and can be modified/improved on with the proper feedback. It is also important that you have established benchmarks, against which to compare your performance results. Metrics and benchmarks may already be available to you from sources such as ACG guidelines or the Agency for Healthcare Research and Quality. Next, the process of what is going to be done and how it will be done must be defined. Each step should be clearly outlined and responsibilities must be assigned for each step in the process. Each member of the team should fully understand their roles clearly and there should be one person in charge of overseeing the process and managing the personnel in charge of the project. The methods used to measure the metrics must be understood and used appropriately. After results are obtained, feedback should be given to the participants in a manner that is non-threatening, easy to interpret, and easy to understand. Often electronic "report cards" can accomplish this.

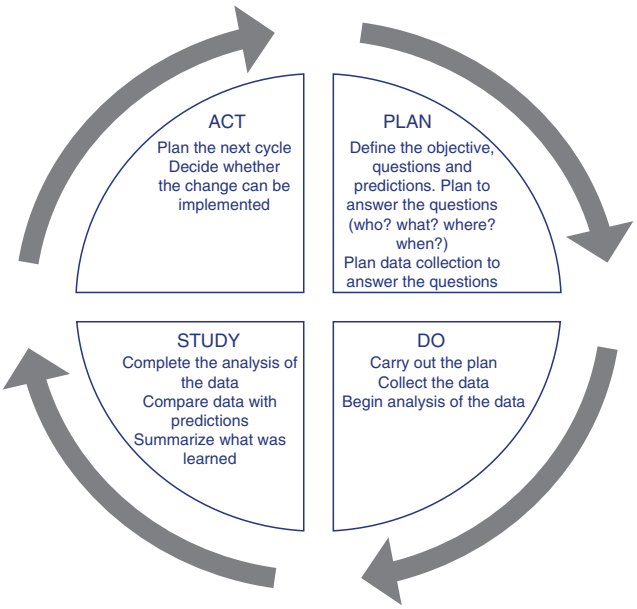

Figure 1. Implementing and executing the Plan, Do, Study, Act (PDSA) Model.

A simple example of a quality improvement project would be measuring quality in the performance of colonoscopy. Metrics and benchmarks are well established (e.g., cecal intubation rate, adenoma detection rate, withdrawal time, and so on). These performance indicators can be easily measured via an "endowriter" such as CORI. Put at least one person in your practice in charge of running the reports. In our practice, we use our endoscopy center manager. Once the program is set up, it takes <30 min to generate the reports. Hand the reports out to each endoscopist at pre-specified intervals, such as quarterly (**Figure 2**). Review your performance as a group. Market positive results to your patients

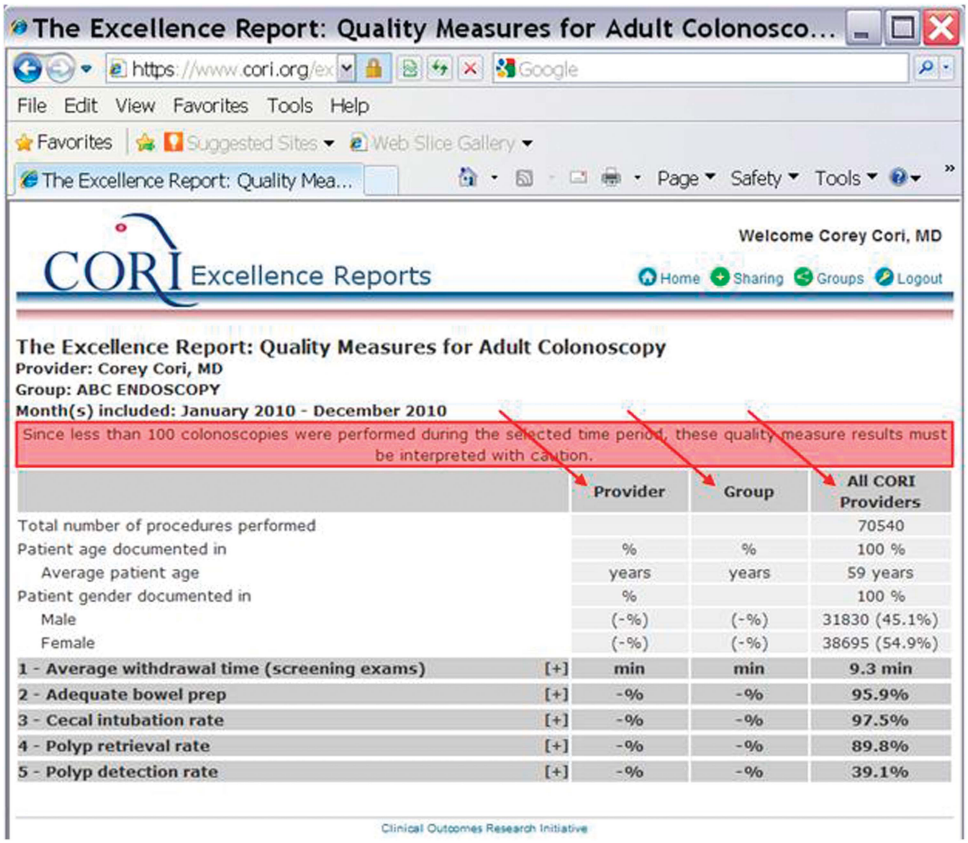

Figure 2. Browser view of CORI, an endowriter to measure performance indicators.

Table 1. Steps and challenges of the quality improvement process

	Steps	Potential barriers/challenges
First steps	Engage group to embrace quality improvement	Overcoming ingrained culture bias against quality improvement in medicine
	Select physician champion(s)	Lack of interested physicians to lead the project
P	Identify focus of quality improvement program	Identifying valid metrics and benchmarks
	Create a quality improvement plan	Lack of time or organizational skills to create a plan
D	Execute the plan	Lack of dedicated personnel or information technology infrastructure for necessary plan execution
S	Review the results	Participants not caring about results or measurement process
A	Act to improve quality	Not developing a specific quality improvement plan

and referring doctors, and use the data to negotiate higher rates of reimbursement from payers. Take the results that are substandard and institute a program to drive improvement in results. For example, you can use educational videos, have low performers shadow high performers, and so on—use evidence-based approaches when possible, but do not be afraid to be creative. Always remember that before starting a program, it is important to have a predetermined plan in place regarding how you will drive improvement in your results.

In summary, the quality movement is important and it is here to stay. Setting up quality improvement programs on the basis of the PDSA model in your practice will put you at an advantage, especially as reimbursement models in this country change over the next several years. Choose valid and measurable metrics that your group can agree on (plan), put a detailed process in place to execute the plan (do), review how you did (study), and work to improve your deficits especially with a predetermined plan (act), and you are well on your way. Eventually, apply this formula to every disease state and quality will permeate your practice.

> There is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage, than the creation of a new system. For the creator has the enmity of all who would profit by the preservation of the old institutions and merely lukewarm defenders in those who would gain by the new one.
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> —Machiavelli, *The Prince*, 1518.

CONFLICT OF INTEREST

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