

September 28, 2011

## Wednesday's Words of Quality

### STANDARDIZATION and PDCA

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This week I have been asked to address the HFMG Primary Care Advanced Performance Retreat on the topic of standardization. I have given my remarks and the issues confronting my clinical colleagues much thought.

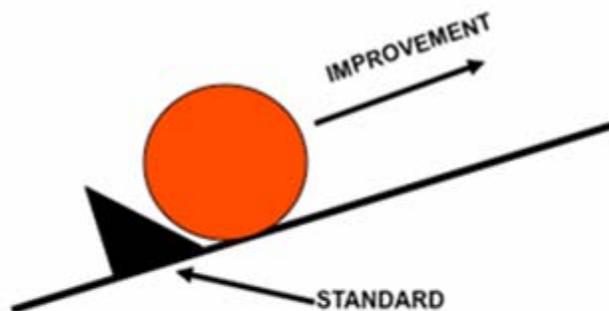
As leaders, many see standardization from the *macro* level of fixing something on a grand scale. That can be effective.

But I see it differently now.

My many years of following the management principles of Deming as practiced in the lean culture of Toyota tell me that another approach must be undertaken by leaders to be truly effective in creating and sustaining standardization.

That approach is at the *micro* level, or at the level of the worker, where the work actually takes place. In manufacturing this is known as the “shop floor”. For us in healthcare this is where we work with each other in service to each other and to the patient.

**Standardization** is the practice of setting, communicating, following and improving standards. A **standard** is defined as the current one best way to safely complete an activity with the proper outcome and the highest quality. A **standard** is not static but can be viewed as a milestone on the path to a target or goal. Mike Rother has depicted this misconception of a standard as a stop that prevents backsliding of current processes in the following figure (adapted from Rother M: Toyota Kata. New York :McGraw Hill, 2010).



Standards depicted as a wedge  
that prevent backsliding.  
**It doesn't work this way.**

Standardization relies on **standard work**- a defined *activity* that secures improvement and is a never-ending process of review and improvement. This also requires standardizing **connections**

(the hand-off) and **pathways** (steps in the process flow). These are the key elements of work design standardization that reduce variation that in turn leads to poor quality.

Standard work must be created by consensus of those who actually do that work. This is standardization at the **micro** level where the defects are received, made and passed on by the workforce.

Standard work is more granular than a written standard operating procedure. In order to be effective standard work must be defined at the level of:

**CONTENT**- Define the task and the details of the task

**SEQUENCE**- What order do the tasks happen?

**TIMING**- How long does it take to process?

**LOCATION**- Where are the tasks taking place?

**OUTCOME**- What result is clearly expected?

In this manner Standard Work -

- Becomes a baseline for all improvement activities
- Is the initial step to controlling variation and enhancing quality
- Is agreed-upon work procedure that meets requirements
- Is each process step defined & performed repeatedly in the same manner
- Removes variability; the enemy of quality, maximizing performance
- Minimizes waste; requiring costly rework, wasted time and resources
- Must be *adhered to, documented and communicated*
- *Must be audited for compliance*
- Is only good as it satisfies the current need
- Is not static but must be revisited and improved as conditions require
- Also entails defining standard connections and pathways
- Is hard work!

Standard work is the basis of standardization and yet not a very easy thing to obtain as a consistent practice of all workers doing the same task. Despite the presence of a standard operating procedure (SOP), workers can get quite creative when carrying out the steps of work defined in a SOP. Standard work also requires a production cycle with predefined connections

between "customers" and "suppliers" and a predefined pathway that the product or service travels. These are additional opportunities for standardization of work in order to minimize variation.

Our own experience with inefficient and defective work is that it is often associated with a violation of these work rules, defined by Spear and Bowen as the *DNA of the Toyota Production System*. We often find that we either don't have, could refine better or lack compliance with existing **standard work, connections or pathways**. (Spear and Bowen 1999)

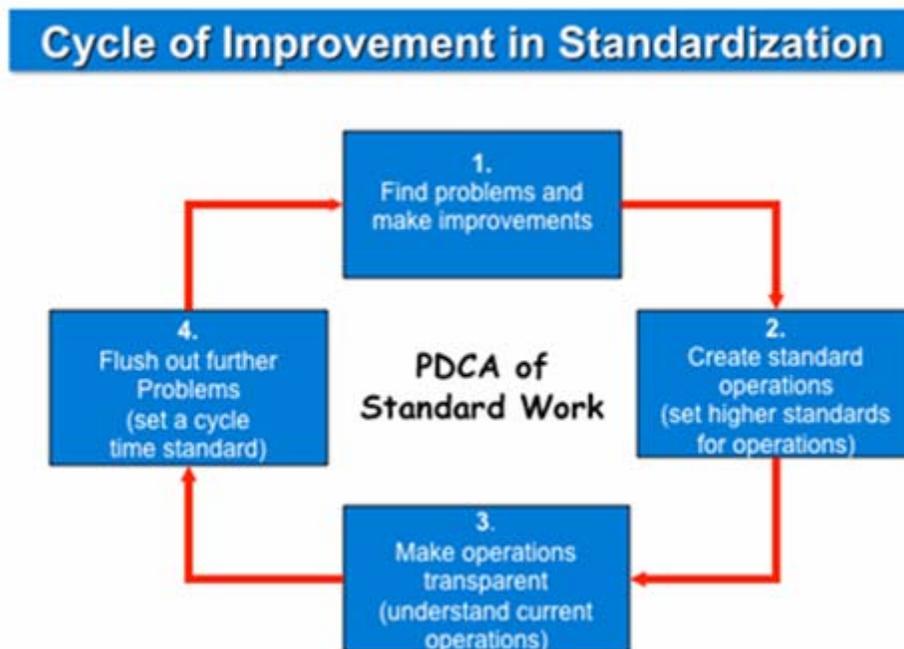
### Standard Work and PDCA Culture

To be effective in using standardization as an opportunity for continuous improvement, leaders must create for workers a means to discuss a no-blame defective handoff by meeting with their "customer" to discuss processes not people at fault.

Essentially, you need to foster a culture that drives the 4th work rule defined by Spear and Bowen in order to obtain PDCA based continuous improvement by the empowered worker, at the level of the work, with their leader, based on scientific data.

Each employee is a "customer" who receives a derivative of the specimen, and in turn, a "supplier" who processes the received derivative and forwards the product or service for the next step in the process. Communication within customer teams is encouraged to document defects and then to communicate these during customer-supplier meetings called to address a problem. In this setting, the "supplier" team is expected to understand the "customer's" expectation then re-evaluate and improve their own process steps to satisfy that requirement.

This approach adapts PDCA (Plan, Do, Check, Act) to the standardization process itself in pursuit of the perfect process. Standardization then, is dynamic, not static, and looks like this in the figure below.



Most importantly, standard work is **sustained by managerial support of a culture** to:

- Create structure for process improvement to take place by workers, aligned by work cell with their designated Team Leader (appoint one)
- Create opportunity for horizontal communication between work cells to take place based on requirements that drive work standardization (customer-supplier meetings)
- Support teamwork and ownership of the process by every worker
- Reward workers who suggest and make improvements
- Allow (don't punish) mistakes and encourage experimentation
- Create a system for capturing and implementing employee suggestions
- Offer training to every worker on improvement methods and optimal work design
- Hold regular meetings to drive and sustain quality initiatives

The **outcomes** of standardization can have wide ranging effects.

**For the HFMG:**

- Reduced variability
- Reduced waste
- Enhanced consistency, throughput, productivity
- Reduced costs \$\$ and rework
- Increased profit margins

**For our Patients:**

- Improved quality and clinical outcomes
- Shorter, more predictable lead and wait times
- Improved satisfaction and retention

**For the Workforce at all levels:**

- Easier to learn new operations
- Easier to shift to different operations within a cell or operations in other cells or work areas
- Easier to see problems and contribute improvement ideas
- Accountability and higher engagement

Standardization is hard work, and even harder when it must involve all employees engaged in the processes. But that's the rub. As Thomas Edison said- *"Opportunity is missed by most people because it comes dressed in overalls and looks like work."*

So stop fussing about what's wrong in your day and get to work in defined teams with your colleagues to make it a better day tomorrow. We are all involved in making our system of work better. Our patients are counting on us for that.