**Wednesday's Words of Quality- Deviation Management as Key Driver of Knowledge-Based Continuous Improvement (2017 September)**

**Deviation Management as Key Driver of Knowledge-Based Continuous Improvement**

*"We still waste more than we use. We waste men, we waste materials, we waste everything, and consequently we have to work too hard and too long to accomplish what in the end amounts to very little. But at least we are learning that we cannot get anywhere without the kind of management which extends from the smallest detail to the whole purpose of what you are about."* -Henry Ford

**Conclusion:**
In our pursuit of high reliability, we have focused on creating a Lean laboratory enterprise whose consistency of execution is guided by quality management systems and structures. These management systems are designed to deepen the effectiveness of our continuous improvement culture by promoting managers' understanding of the variation in the work they are charged with overseeing and fostering effective engagement of their employees in process improvement. This has resulted in gains in standardization of processes, workflow efficiency, and mitigation of risk for our employees and customers. This new focus on managers having good knowledge of the quality of their work product in turn promotes consistent execution and higher levels of performance.

In the Henry Ford Health System, your medical laboratories have used Lean management as our business system over the past 12 years to achieve not only a top-down but also a bottom-up approach to deliver on strategy deployment and continuous improvements throughout our laboratory product line. To function as a business system, Lean requires a series of management subsystems that guide human behaviors toward expected outcomes.

Previously in this column, I addressed the advantages of whiteboards as a means of engaging all employees in the identification of in-process deviations, mistakes, defects and waste so that "no problem" does not become a problem. That is, so that problems at the level of the work can be proactively addressed and eliminated using Lean methods of problem resolution and process redesign.
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In our mature Lean business system, we have gone beyond whiteboards to recognize that there exists yet a large number of deviations experienced by our workforce and our customers that we have failed to consistently identify and target for improvement. The apt analogy of flying a plane blind without instruments in zero visibility comes to mind.

In any work system of management that requires continuous improvement, how does one know what to tackle next and specifically how to make effective change to eliminate problems? What provides and prioritizes that guidance to a manager?

Through a structured Lean subsystem that we call **Deviation Management**, we have sought knowledge of these undocumented opportunities that each employee experiences first-hand. The attached manuscript describes our Deviation Management subsystem and outcomes from 2012-2016 in greater detail.

This system is designed to support managers and supervisors in understanding the outcomes of their work and driving continuous improvements from the level of the work with their engaged and

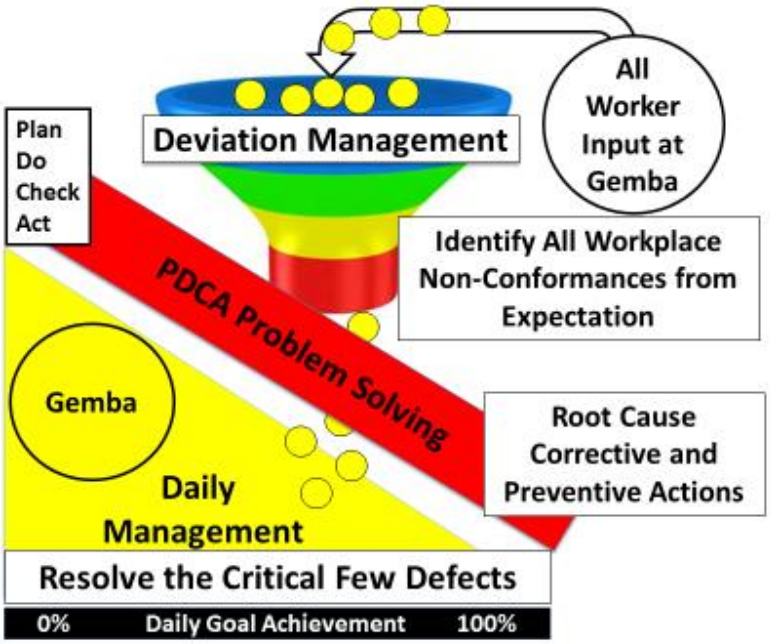
empowered team members. This “level of the work” is known as the gemba in Lean parlance for the actual place where value is created in the workplace.

Our intent in developing a Deviation Management subsystem was to provide structure to empower all employees to own the responsibility of more comprehensively recording workplace defects that they encountered, contributing to real-time corrective action and root cause analysis and to subsequently work through our accountable Lean culture to eliminate prioritized deviations with PDCA problem solving and process change.

The fuel that now drives our engine of risk reduction and continuous improvement is derived from Deviation Management—knowledge of what we receive from “suppliers” and what we deliver to “customers” that does not conform to expectations. This manager-owned system with participation of all employees is designed to move beyond sporadically used whiteboards to capture in real time a standardized taxonomy of defects and variations from expected work practices as experienced by all involved.

This focus on improvement at the level of the work is especially germane in the business of health care, where process defects may readily escalate to medical errors that currently account for the number 3 cause of death in the United States. The Joint Commission recognizes the culture of Lean as a component of “robust process improvement” that should be pursued for health care to be effective in achieving high reliability exhibited by consistent excellence in quality and safety. It is our sincere desire that our shared experiences here will serve others to drive continuous improvement through culture change, Deming-style philosophy of management, workforce education, and new business management systems that support this transformation. In our view, these elements are essential to pursue a new condition where health care is highly reliable.

This Deviation Management subsystem and related Lean concepts are explored in more depth next week in the 2-day Lean Silver Certification Course, September 21-22, 2017.
https://www.henryford.com/hcp/academic/pathology/production-system/on-site-training




Deviation management and daily management are two key quality management subsystems that engage all employees in structured Lean problem solving at the level of the work (gemba).