

Virginia mason hospital

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What were reasons for implementing lean management at Virginia Mason Hospital? Lean thinking begins with driving out waste so that all work adds value and serves the customer's needs. Identifying value-added and non-value-added steps in every process is the beginning of the journey toward lean operations. In order for lean principles to take root, leaders must first work to create an organizational culture that is receptive to lean thinking. The commitment to lean must start at the very top of the organization, and all staff should be involved in helping to redesign processes to improve flow and reduce waste.

Although healthcare differs in many ways from manufacturing, there are also surprising similarities: Whether building a car or providing health care for a patient, workers must rely on multiple, complex processes to accomplish their tasks and provide value to the customer or patient. Waste — of money, time, supplies, or good will — decreases value. And the CEO of VM realized several reasons for them to implement lean management to improve the poor performance of the old system: 1. The path to better quality and safety is the same as the path to reduced cost.

2. VM's old system is full of waste (non-value-added activities), need to systematically reduce and eliminate that waste. 3. Improvement is not coming from a technological arms race. What is VMPS and what are its main principles? The Virginia Mason Production System (VMPS) is a management method based on manufacturing principles that seeks to continually improve how work is done. Using this method, Virginia Mason (VM) identifies and eliminates waste and inefficiency in the many processes that are part of the

health care experience, making it possible for VM staff to deliver the highest quality and safest patient care.

By streamlining repetitive and low-touch aspects of care delivery, staff and providers spend more time talking with, listening to and treating patients. Virginia Mason's vision is to be the Quality Leader in health care. This vision requires adopting a paradigm shift from expecting errors and defects, to believing that the perfect patient experience is possible. Key to accomplishing this is understanding that staff who do the work know what the problems are and have the best solutions. VMPS strategies range from small-scale ideas tested and implemented immediately to long-range planning that redesigns new spaces and processes. VM uses several continuous improvement activities, such as Rapid Process Improvement Workshops (RPIWs) and kaizen events focused on incremental changes, as well as 3P workshops intended to completely redesign a process. VM has held 850 continuous improvement activities involving staff, patients and guests. VM leaders saw value in the TPS principles of making quality and safety a top priority, relentlessly focusing on the customer, reducing waste (of which health care has an abundance), and engaging staff in continuous improvement.

The idea behind VMPS is to achieve continuous improvement by adding value without adding money, people, large machines, space or inventory, all toward a single overarching goal — no waste. Explain main wastes of resources that VMPS targets. The idea behind VMPS is to achieve continuous improvement by adding value without adding money, people, large

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VMPS has six areas of focus:

- “ Patient First” as the driver for all processes to eliminate
- The creation of an environment in which people feel safe and free to engage in improvement--including the adoption of a “ No-Layoff Policy”
- Implementation of a company-wide defect alert system called “ The Patient Safety Alert System”
- Encouragement of innovation and “ trystorming” (beyond brainstorming, trystorming involves quickly trying new ideas or models of new ideas)
- Creating a prosperous economic organization primarily by eliminating waste
- Accountable leadership

Instead of doctors waiting until the end of the day to go through a stack of patient records, they now write comments and recommendations immediately after seeing the patient before going to see the next one. The time saved increases the time a physician can spend with a patient. Most of the cost of medical care involves clogs in the flow of information -- paper forms, lab results, phone messages, often leading to irritated patients.

Two details on this list bear further explanation. The No-Layoff Policy is critical to the success of implementing lean management. People will more fully commit and engage in improvement work if they are not worried about improving themselves out of a job. Attrition, typically steady in health care, will enable most organizations to reassign staff to other necessary work. A culture shift is important here as well: Staff, especially in health care, do not typically view themselves as working for the organization, but for their individual department and/or care team. In lean thinking, the

patient/customer drives all processes, and staff/providers must come to understand that they work for the patient. This means they may be reassigned depending on the needs of the patients.

Secondly, the defect alert system is a fundamental element of the TPS, known as “stopping the line.” Every worker in the Toyota plant has the power and the obligation to stop the assembly line when a defect or error is identified or even suspected. Workers pull a cord, a light goes on, music plays as a signal for supervisors to come and help, and the entire assembly line either slows or stops (depending on the degree of the defect resolution time) while line workers and supervisors assess and fix the problem, often preventing an error from becoming embedded in the final product.

This typically happens many times a day. The theory behind stopping the line is that mistakes are inevitable, but reversible. Defects are mistakes that were not fixed at the source, passed on to another process, or not detected soon enough and are now relatively permanent. If you fix mistakes early enough in the process, your product will have zero defects. Mistakes are least harmful and easiest to fix the closer you get to the time and place they arise. The reverse is also true. What is patient safety alert system and how it works?

Virginia Mason used VMPS to develop a Patient Safety Alert (PSA) system requiring all staff who encounters a situation likely to harm a patient to make an immediate report and cease any activity that could cause further harm. If the safety of a patient is indeed at risk, an investigation is immediately launched to correct the problem. Most reports are processed within 24 hours

- a significant improvement from when reports took three to 18 months to resolve. Patient safety at VM has increased and professional liability claims have dropped.

Explain the main results of implementing VMPS. Since adopting VMPS, Virginia Mason teams have achieved significant organizational and departmental improvements:

- Reduced the time it takes to report lab test results to the patient by more than 85 percent.
- Improved the percent of time nurses spend in direct patient care from 35 percent to 90 percent.
- Reduced bedsores (a common problem in hospitals) from 8 percent to less than 2 percent, preventing 838 patients per year from acquiring bedsores.
- Saved \$1 million in supply expense in 2009. Reduced professional liability insurance 48.9 percent from 2004 to 2009.
- Reduced laboratory staff walking distance by 2.8 miles and removed 357 hours of lead time from lab operations.
- Pharmacy improved medication distribution from physician order to availability for administration from 2.5 hours to 10 minutes and reduced incomplete inpatient medication orders from 20 to 40 percent to less than 0.2 percent; both were achieved through process improvement and computer physician order entry (CPOE) implementation