

## **Rx for health care: An injection of lean business principles**

**By David Veech**

In 2008, Americans spent more than \$2.4 trillion on health care, according to The National Coalition on Health Care. Some industry experts estimate that \$600 billion or more of that money was wasted due to delay, defects and other inefficiencies.

Up to this point, the national debate has focused not on health *care*, but on health care *insurance*. To be sure, it's an important issue. But improving health care insurance is not enough. We need to improve the efficiency of health care delivery itself. That's the surest way to significantly reduce spiraling health care costs.

To accomplish that goal, more and more hospitals, clinics and doctors' offices are turning to the same lean business principles that made Toyota the world's most efficient and successful automotive company. In fact, one leading-edge hospital, Virginia Mason Medical Center in Seattle, sent its entire managerial staff to Japan to study the Toyota Production System and tailor it to health care.

Of course, medicine is not manufacturing, but there are similarities. As with manufacturing and many other enterprises, health care relies on multiple complex processes to achieve the final result. The lean approach analyzes the entire organization and focuses on improving process flow and eliminating waste.

Lean thinking begins with identifying value-added and non-value-added steps in every process, then eliminating all non-value-added steps. For example, walking is wasted motion. When medical facilities are redesigned to minimize unnecessary movement of doctors and patients, patient flow improves.

Thoughtful design, rapid implementation and continuous improvement are hallmarks of the lean approach.

Results can be dramatic – faster patient flows, better outcomes, lower costs.

After its lean transformation, Virginia Mason reported an 85 percent reduction in how long patients wait to get lab results back. The 350-bed hospital saved \$6 million in planned capital investment, freed 13,000 square feet of space, cut inventory costs by \$1 million, reduced staff travel time around the hospital, and decreased infection rates. Most important, the hospital greatly improved patient satisfaction.

Another example: While most emergency room visits take two hours or more, Robert Wood Johnson University Hospital in New Jersey does it in 38 minutes on average. The hospital even offers a 30-minute door-to-doctor guarantee. They did it by rethinking the emergency experience from the patient's point of view.

Lean health care is not new. It's been around for at least a decade. But it is still not widely adopted for two reasons:

- 1) It is presumed to be expensive, and
- 2) It requires a total commitment from the organization.

The perception that lean is expensive is simply erroneous. In virtually every health care setting, a lean transformation program returns the original investment several times over. Some lean transformation companies will even guarantee that the savings realized will exceed the cost of implementing lean.

In fact, some of most-effective lean solutions are simple and inexpensive to implement. For instance, Millnocket Health System in Maine re-organized and color-coded all medical supplies – using red labels and containers for all syringes and IV supplies, blue for respiratory supplies, green for bandages and dressings, etc. This simple step enabled medical workers to find what they needed faster and with fewer mistakes.

Another example: At the Community Medical Center in Missoula, Mont., a bottleneck in the recovery room limited to four the number of joint replacements that could be done in a week. But a few simple process changes – such as posting physicians' beeper numbers in a prominent place – reduced time in the recovery room from 90 minutes to 62 minutes, That freed up the facility for a fifth operation each week and lowered patients' bills, which add up for every minute spent in the recovery room.

The second objection – that lean requires a total commitment – is accurate. For lean principles to take root, leaders must 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 a number of institutions, including several Louisville hospitals, have implemented some lean practices, most organizations have a long way to go. Mark Graban, author of "Lean Hospitals," estimates that only about 10 percent of U.S. hospitals have fully implemented lean systems. That leaves about 4,500 of the nation's 5,000 hospitals with room for improvement.

A lean transformation program is not easy to implement. But the health care industry cannot continue to rely on double-digit price increases every year. Something must be done.

If we're going to solve the health care crisis – not just the health insurance crisis – we must control costs and inject efficiency into the system. Lean health care is the most promising way to do that.

So the next time you have a long wait at a medical office, maybe you should tell your doctor, "Take two lean seminars and call me in the morning."

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