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Commentary: 'Lean Thinking' Can Improve Health Care

Hospitals can do more with less

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Some may think throwing more money around will solve all the ills of American medicine. At the Cancer Treatment Centers of America, we think otherwise as a result of our own experiences.

For instance, consider what happens when a pharmacist prepares a treatment for a cancer patient. Filling a prescription may not seem like a complicated task, but when we examined the process at one of our hospitals, we discovered it involved 32 steps, which together took a lot of time.

We slashed those steps in half by using "lean thinking" techniques pioneered by Toyota, the carmaker. We eliminated a lot of waste.

That's resulted in better patient care, and we're now putting into practice a similar strategy across our four facilities in suburban Chicago, Philadelphia, Seattle, and Tulsa.

Achieving Savings

We know other hospitals and health care organizations can also achieve significant savings by borrowing productivity techniques from the manufacturing world and by changing the way they think about what they do.

That will enable physicians and nurses to spend more time caring for patients and will produce what the medical industry terms better "outcomes"--what patients call "cures." And we think it could work for the national health care system overall.

It all starts with developing a patient-centered plan.

That's what we did at our Midwestern Regional Medical Center in Zion, Illinois. With nearly 700 employees, the hospital provides cancer treatment services through its pharmacy, laboratory, imaging, radiation oncology, nutrition, naturopathy, psychoneuroimmunology, and nursing departments, among others.

Improving Turnaround Time

Starting in the pharmacy, we set a goal of increasing safety and cutting chemotherapy turnaround time (TAT) by 20 percent.

That meant improving the processes for the preparation, dispensing, and delivery of chemotherapy medication orders. We wanted to ensure patients received their chemotherapy medication when they needed it, without delay.

We then mapped the pharmacy department's current "value stream." We observed and then analyzed the number of steps and the total cycle time of each process. We quickly discovered that not all chemotherapy treatments could have the same TAT.

So we reframed the goal, creating a lean-thinking target for each treatment process.

Once we create the value stream, we look at the TATs and cycle times. We determine what the future state should look like, and use it to develop a future state map. That eliminates from the process any steps and time that don't add value. Today, most hospitals cannot prepare chemo as fast as we can.

Explaining the Process

To help make the process clear, we created visual aids for our pharmacy employees. We posted signs related to quality, safety, and scheduling throughout the pharmacy. For example, we created signs pointing to the location of particular drugs in the storage room. We created new work instructions and posted them prominently.

We also scheduled daily meetings for pharmacy employees, and established action plans for streamlining processes.

We started seeing significant improvements in the production process of our hospital.

Previously, pharmacy supplies were stored in a materials management warehouse, and initial orders were placed with the warehouse. As you can imagine, we eliminated many steps from the process by making the system more real-time. All supplies needed on a daily basis as determined by the daily staff meetings were entered into a simple spreadsheet.

In this revised process, pre-established levels of drugs are determined daily when inventory is ordered, and the deliveries are made directly to the pharmacy itself.

Optimizing Procedures

We also optimized the pharmacy's unit-dosing procedure. Previously, when doctors ordered drug doses the pharmacists had to prepare them by hand. That generally took 30 minutes. When we set the goal of cutting the preparation time, the pharmacists found they could use prepackaged drugs in many cases.

This added value to the system and eliminated unnecessary steps. Moreover, it improved patient care, reducing the time of overall treatment.

Having seen this work in the pharmacy, we are implementing the same kind of system across the Midwestern Regional Treatment Center, as well as our other hospitals. We're seeing the impact of "lean" thinking across the board.

Training Coaches

We've trained "lean coaches" to work in each hospital department, identifying processes and steps, seeking to establish the lean-thinking culture throughout our facilities.

Staff members at every level of the organization now are using these problem-solving tactics and are being empowered to take the steps needed to eliminate waste.

We recommend other health care organizations--whether small clinics or large research hospitals--embrace this kind of lean thinking. Late last year, our lean-thinking department prepared a briefing on the topic at one of our hospitals for former U.S. House Speaker Newt Gingrich, who heads the Center for Health Transformation.

We believe lean thinking can cut public health care costs as well. That challenges conventional wisdom, but our experience shows the medical community can actually do more for patients, with less.

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