HIGH IMPACT LEAN CONFERENCE KEYNOTE
"APPLYING LEAN IN HEALTHCARE"
JUNE 7TH, AME CANADIAN REGIONAL CONFERENCE

Extracted from Industry Week Magazine,

Lean Health Care? It Works!

A medical researcher has real-life proof that a TPS approach to health care slashes costs for all involved, and a group of Iowa manufacturers is making it happen.

By Patricia Panchek

At the Community Medical Center in Missoula, Mont., Orthopedic Surgeon Doug Woolley was frustrated. A bottleneck in the recovery room limited to four the number of total joint replacements he could do each week; he figured he had time to easily do one more. He asked ***Cindy Jimmerson, a nurse turned medical researcher who works with the hospital to implement lean, for help***. "So we did our observation," says Jimmerson. "We observed very good nurses working very hard and saw a bunch of system problems -- little tiny things that they work around without even thinking.

"We found three or four things that were not too big that we could [improve] -- things like posting somebody's beeper number in an obvious place, so they didn't call somebody else to call somebody else. We made those changes very quickly and tried them out the next Monday." The result? They reduced time in the recovery room from 90 minutes to 62 minutes. "Over four patients that gave us two more hours, which was more than enough time to recover another patient," says Jimmerson.

Think about it: After one lean event, the doctor, anesthesiologist and hospital are more productive. The patient's bill (which adds up by the minute in the intensive care recovery room) goes down. The nurses feel better about their work because they're not so frustrated by the work-arounds. Access to care for the patient -- who now waits six weeks to get in -- improves 20%. And the quality of care is improved. "Simple, simple stuff makes really dramatic change," asserts Jimmerson.

Why should executives of manufacturing companies' care what's happening in a 135-bed hospital in Montana? Because you're paying for it, and they're at the leading edge of a new effort that could dramatically reduce the amount you pay for health care -- bringing lean management principles to a cash-sucking cyclone that so far no one or nothing else has been able to stop. Further, says Jimmerson, "You have to demand this, because you're paying insurance premiums, paying when errors to your staff [keep them out of work longer than necessary] . . ." She points out that even the seemingly insignificant delays in an average doctor visit costs your company. To see a doctor for seven minutes, it's common to wait 15 or 20 minutes, she notes. "You're filling out replicate paper work, sitting in the waiting room, waiting in the exam room in your paper gown -- that's not care, that's all non-value-added waste."

A group of Iowa manufacturing executives has already taken Jimmerson's recommendation a few steps further: They're teaming up with their health-care providers, showing them the benefits, educating them on the principles and practices, and helping them to implement lean. "We're doing this with the hopes that somewhere along the line, we're going to save some money and that maybe our health-care costs won't be so astronomical," says David Speer, director of LeanSigma at Maytag Appliances, Newton, Iowa.

It's sobering to note just how fast health-care costs are soaring into the stratosphere. This year marks the third consecutive year of double-digit health-insurance premium increases -- and the

largest increase since 1990, according to the 2003 Annual Employer Health Benefits survey conducted by the Kaiser Family Foundation and Health Research and Educational Trust (HRET) Premiums rose 13.9% over the past year, the second consecutive year that increases have exceeded the rate of inflation by more than 10 percentage points.

In 1971, the U.S. spent 7.5% of its gross national product on health care -- about $75 billion. We now spend 14.5%, which is about $1.3 trillion. With an aging population, the growing impact of uncompensated care, the increased numbers of chronic health-care conditions and soaring drug costs, most health-care researchers predict that, unless something dramatic happens, it's only going to get worse.

Manufacturers, which are second to the U.S. government in providing employer-sponsored health care, will continue to shoulder much of that load. Some analysts raise the specter that rising health-care costs could spell doom for U.S. manufacturing, just as it contributed to the gutting of the nation's steel, railroad and textile industries. "We really see the rising cost of health care as one of the biggest obstacles to sustained recovery for the manufacturing sector," says Neil Trautwein, the National Association of Manufacturers' Director for Employment Policy. "As we compete in a market where we can't raise prices, we have to compete with foreign competitors who do not have these burdens. The pressure is becoming acute." A stark example of this comes from Deutsche Bank Securities. The firm estimates General Motors Corp.'s heath care and retirement medical benefit costs will rise to $19.14 per person an hour this year, while Toyota's will rise to $3.76. Further, GM carries 339,000 retirees, nearly three for every one of its 125,000 active employees. Toyota North America has 65 retirees, compared with 20,500 employees. Ford and Chrysler's metrics are similar to GM's. The situation in the auto industry has become so untenable that Goldman, Sachs analyst Gary Lapidus, has dubbed the Big 3 "HMOs with wheels," because of the billions they are forced to divert to fund pension and health care liabilities.

The insult to the injury of rising costs is that most of that money is wasted.

"The national numbers for waste in health care are between 30% and 40%, but the reality of what we've observed doing minute-by-minute observation over the last three years is closer to 60%," asserts Jimmerson. "[That's] waste of time, waste of money, waste of material resources. It's nasty." The waste, she adds, is not limited to administrative costs, which most research on health-care spending has documented. It's everywhere: patient care and non-patient care alike.

Even the cost of litigation, which has galvanized politicians to launch a wholesale war on malpractice lawyers and seek tort reform, pales by comparison, says Jimmerson. "If you put all the lawsuits on one side of the scale and everyday waste and everyday work on the other side of the scale, that scale would just flip those lawyers off into orbit. It's not even remotely close," she says. "That's a big joke if you think that the lawyers are the ones that are costing us. It's in little waste day after day."

Not convinced? Perhaps Community Medical is just one little, dysfunctional health-care system in a small town in the middle of America. Not so, says Jimmerson. She took lean to one of the most respected hospitals in the country -- Intermountain Health Care in Salt Lake City, a system with 25,000 employees and 121 hospitals and clinics. It's also, she notes, already one of the few profitable health-care systems in the country and is a leader in continuous improvement. "They've done some huge stuff," says Jimmerson. "We're working in IT, lab, surgery, on patient floors. . .this applies everywhere. I haven't taught anywhere [within health care] that you couldn't apply TPS," she says referring to the Toyota Production System from which lean management principles derive.

Separately, Virginia Mason Medical Center in Seattle, Wash., which has been implementing lean principles since 2001, has found similar success. The Center reportedly slashed the value of respiratory-care inventory supplies by 45%, it's radiation oncology staff cut the time from patient check-in to leaving the department from 42 minutes to 15, and one of its specialists cut the distance he walked daily giving him more time to spend with patients.

On the insurance side of the business, Dr. Dale Andringa, Chief Medical Officer of Wellmark Blue Cross Blue Shield, Des Moines, credits LeanSigma for helping the insurer realize "documented, hard-dollar savings of $3.7 million in 2002 by finding and eliminating non-value-added processes and waste." LeanSigma, a hybrid strategy combining lean and Six Sigma practices, also helped Wellmark recoup over $1.7 million in overpayment to physicians and capture over $280,000 in administrative savings, he says. Further it helped Wellmark improve the accuracy of member's eligibility records in their electronic enrollment process by 68% and improved call center responsiveness by 90%. So far in 2003, Andringa reports an additional $2 million in savings.

Helping Health Care Change

In Iowa, the group of manufacturers, which includes lean veterans Hon Industries, Maytag Corp., Pella Corp. and Vermeer Manufacturing Co., need no convincing. They've taken the lead in facilitating lean best practices at their local health-care systems, as well as gathering information about successful lean ventures in health care from around the country. To do this, they've formed a task force that includes the Health Policy Corp. of Iowa (HPCI) (a non-profit dedicated to reining in health-care costs while improving quality), The Iowa Manufacturing Extension Partnership (IMEP) and a group of interested health-care professionals from several health-care systems throughout the state. Formed less than a year ago, the group has launched or joined lean initiatives with three Iowa health-care providers, including the Pella Regional Health Center, which offers full-service in-patient acute care, outpatient clinics and long-term care with 47 inpatient acute beds and 109 long-term care beds; Mercy Clinics, Inc., Des Moines, a chain of 23 multi-specialty clinics with 125 doctors owned by Mercy Hospital Medical Center in Des Moines; and Unity Health System, Muscatine, an integrated health system and general hospital with 80 beds.

The task force is working to educate the health-care community about lean through conferences and demonstrations, facilitating networking and collaboration between lean practitioners and those willing to try lean, and has mapped and identified waste in the way money and information flows through the Iowa health-care system. Now the task force is digging deeper into the problems identified on the map, targeting specific practices for change. "We're identifying who owns the process that's causing the heartburn, and we're working on changing it," says Paul Pietzsch, president of HPCI and the task force coordinator. For example, the map notes that every insurance company and employer have specific "plan designs" and "rules of the game," all requiring different information on multitudes of forms. Also hospitals often send out incoherent payment statements, causing employers and insurers to return them or call for clarification. Until all the parties participated in the mapping process, none of them understood the impact this proliferation of forms has on the others in the health-care value stream.

Maytag's Speer says his involvement in the task force is similar to what he does as part of a subcommittee within IMEP. "We share what we know about lean with other companies of all sizes across Iowa," he says. "All we're doing is taking the [lean] concept to health-care [providers] and saying, 'What we've been doing in our industry fits your application as well. You should at least look at it.' Then we started a dialog, and that's where we are." He says a big benefit manufacturing executives bring to the process is their ability to simply get all the stakeholders together. Of the value-stream mapping event, he says, "This was the first time a group like this -- [people from] hospitals, health-care providers, third-party insurance providers and manufacturing executives -- had ever been together at one time in the same place."

Pietzsch adds, "We're just taking this one step at a time," working individually on holding demonstrations and events, while working collectively to finish the high-level map of the current state of health-care delivery processes. "But we're all moving in the same direction." Jimmerson's research shows that such an approach will work: "Rather than saying why is [health care] a big problem, we'll say why don't we get the bills out a little quicker and a little more accurately. It's the little things that contribute to the hole in the bottom line."

Average Annual Premium Costs per Covered Worker

Single Coverage		
	Employer Contribution	Worker Contribution
2000	$2,137	$334
2003	$2,875	$508

Family Coverage		
	Employer Contribution	Worker Contribution
2000	$4,819	$1,619
2003	$6,656	$2,412

Note: Family coverage is defined as health coverage for a family of four.
Source: Kaiser/HRET Survey of Employer-sponsored Health Benefits: 2000, 2003

Health Care & Retirement Medical Costs*

	General Motors	Toyota North America
2002	$16.38	$3.42
2003	$19.14	$3.76

*per person per hour
Deutsche Bank Securities

Number of Retirees

	General Motors	Toyota North America
Retirees	339,000	65
Employees	125,000	20,500
Ratio	nearly 3:1	1:315

U.S. companies' health-care costs for employees and retirees put them at a tremendous disadvantage compared with their younger and off-shore competitors -- and with an aging workforce, the disparity is projected to get worse.