

PROFESSION



John Toussaint, MD, brought the lean-management approach to ThedaCare as CEO. Part of the method is "visual management," which involves tracking everything from big-picture goals to small improvement steps on white boards and in other ways that are highly visible. Photo by Ted Grudzinski / AMA

Primary care case study: Quality at every step

■ From the first phone call to the care plan, primary care doctors at one health system are reimagining patient-centered care.

By KEVIN B. O'REILLY ([HTTP://WWW.AMEDNEWS.COM/APPS/PBCS.DLL/PERSONALIA?ID=KOREILLY](http://www.amednews.com/apps/pbcs.dll/personalia?id=koreilly)) amednews staff — Posted July 1, 2013

Before he even walks into an exam room to greet a patient, Kimberly, Wis., family physician Montgomery "Monk" J. Elmer, MD, already has a good indication of how the patient's health is holding up. On a rainy day this spring, he had good news for Jim DeBruin, a jovial 79-year-old patient with diabetes visiting for a routine follow-up visit.

"So you're still passing," Dr. Elmer said as a smile spread across his face. In his hand, he held a printout of DeBruin's laboratory test results, showing his glycated hemoglobin reading of 7.6%.

"As long as we're under eight, you're OK," Dr. Elmer added. DeBruin's blood had been drawn only minutes earlier by a medical assistant at the clinic, which is part of the ThedaCare health system in Appleton, Wis. The sample was analyzed at a lab on site at the clinic.



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This just-in-time approach to lab testing and patient care is a principal example of how physician leaders at ThedaCare have earned an outsized reputation within health care for their widespread implementation of the so-called lean-management methods that helped Toyota Motor Corp. become the world's biggest automaker. Although taking a manufacturing approach to medicine is most commonly associated with hospitals, ThedaCare is implementing the idea aggressively in primary care.

A few minutes into the visit, Dr. Elmer swiveled a flat-panel computer monitor toward DeBruin so the patient could see the progress he had made since his last visit.

"I know I haven't been behaving myself. I know I've gained a little weight," DeBruin said. Nonetheless, his daughter had helped DeBruin take his medications faithfully and his A1c had dropped from 7.8% six months earlier.

Soon, Dr. Elmer left the room for another appointment, and medical assistant Megan Gudex returned. She reviewed the patient's prescription renewals and scheduled his next appointment, printing out a copy of his visit summary for him to take home with the improved A1c results. At ThedaCare's clinics, 70% of patients get new appointments the same day, and most phone calls are answered by a person within 20 seconds.

This is all part of what lean-management proponents call "one-piece flow." That is the creation of a seamless series of steps that get the job — in this case, the delivery of primary care — done more efficiently for everyone involved. The approach is helping ThedaCare physicians and other health professionals achieve outstanding clinical quality results.

Highly ranked care

In the most recent results publicly reported by the Wisconsin Collaborative for Healthcare Quality, ThedaCare's 22 primary care clinics earned the top ranking on half of the chronic disease and preventive care measures, such as the proportion of diabetics with good blood-sugar control and the percentage of eligible patients screened for cervical cancer. Of the 25 measures in the report, which draws on data from July 1, 2011, to Dec. 31, 2012, ThedaCare was among the top three performers 21 times.

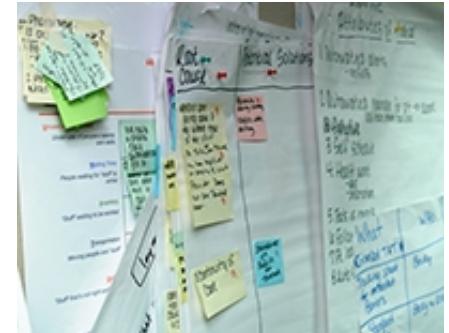
In 2006, Dr. Elmer's four-physician clinic was the first ThedaCare site to explore using the lean approach to redesign care. The changes came as physician leaders examined where the system was falling short in primary care, said John Toussaint, MD, the ThedaCare CEO who pushed for implementation of lean management. In 2008, he moved to a position as CEO of the ThedaCare Center for Healthcare Value, an independent nonprofit that helps leaders at other health care organizations learn how to use lean techniques.

"We had done a lot of work with the outpatient setting," Dr. Toussaint said. "What we found is that the patients who came into the office generally didn't leave the office with a single plan of care, and the reason they didn't was because we didn't have any lab results, x-ray results or results, period. We made everybody come in the week before to take their blood tests, etc., then at the time of the exam they needed five other things. Then they had to come back for the results, days or weeks later. ... We said, 'It could work a lot better than that!'"

Now, about 90% of the lab tests or imaging studies typically needed in primary care practice can be done on-site.

"Ninety-five percent of the time, the patient should now walk out of the office with the plan of care, with medication changes, referrals and follow-up items done right then and there," Dr. Toussaint said. "We're using these principles to streamline flow, to reduce the waste in the system, all focused on delivering a better patient experience."

One example of waste reduction in primary care is that whenever Dr. Elmer or another physician needs to remove a mole, he pushes a button in the exam room that beeps overhead. A medical assistant responds, and he asks for a ready-to-go, mole-removal kit with everything he needs to get the job done. He does not have to leave the exam



The tools of quality improvement at ThedaCare are low-cost: Post-it notes and easel pads usually suffice in place of iPads or pricey planning software. The most valuable ingredient, officials say, is physicians and other health professionals' willingness to brainstorm together as teams to improve care. Photo by Ted Grudzinski / AMA

room, and the medical assistant does not have to waste time looking high and low for supplies.

Streamlined but still time to talk

This approach to care is not just about patient convenience or efficiency, as the publicly reported quality results attest. Primary care physicians working at ThedaCare say the just-in-time availability of lab results helps them get the message through to patients.

"If I had to go back to where I had to wait for the lab work, I'd think, 'What a wasted visit,'" said Jennifer Frank, MD, a family physician at ThedaCare's 10-physician clinic in Neenah, Wis. "And when patients know they are getting their labs done at the time of the visit, it can reinforce changes because, see, the A1c is at goal. It helps the patient. ... It's very meaningful for them."

"And I can go through it with them personally, and talk with them about their goals," she added. "I think it improves compliance, and we know what's going on at the time of the visit and can have a face-to-face visit rather than the patient having a conversation about the results later with my nurse. ... You have this feeling as the patient that you're actively managing what you're there for, and it's actually a meeting about my diabetes and we have everything we need."

This primary care redesign is not over. Rather, under the lean-management approach, every element of care delivery is open to constant betterment.

"Lean is really just the scientific method applied to daily work," Dr. Toussaint told a group of about two dozen physicians and administrators at ThedaCare for a two-day site visit this spring. "In this process, there are no solutions, only new experiments to be run."

As an example of the commitment to continuous improvement, each clinic has corkboards used to track targeted metrics such as patient satisfaction, how often lab results are completed within 15 minutes, and the percentage of eligible adult patients getting the pneumococcal vaccine. And in the break room, there is more than just coffee and a watercooler. There, physicians and others track improvement ideas big and small from conception to completion. At all of ThedaCare's clinics and five hospitals, thousands of staff improvement ideas were implemented in 2012.

The doctors and other team members also hold a daily morning huddle to review patients who are scheduled that day and anticipate problems that throw things off schedule or present special coordination challenges.

Physicians also are expected to participate in at least one "rapid improvement event" each year. That comes when a clinic has identified a problem that is harming quality, driving up costs or in some other way creating a situation in need of significant change. An interdisciplinary team of people at the clinic is given a week off from normal duties to scrutinize a given process, how it works, how it would function ideally, and what would be pragmatic to change, given time and cost restraints.

Department cuts 29 steps

The professionals participating in the improvement event use a standard problem-solving framework developed at Toyota, where they outline the problem, propose solutions and identify how to implement and track progress. They then present the findings at an organizationwide meeting so others can learn. This spring, for example, professionals in the ThedaCare billing department took one week to eliminate 29 steps in their work process that were contributing to costly billing mistakes.

For Dr. Frank, an openness to change is necessary for working within the lean approach to medicine.

"The idea is, let's just try doing things this new way for one week to see how it goes," she said. "That's a normal thing to do around here. It does not have to be that big a deal."



Family physician Montgomery "Monk" J. Elmer, MD, says there is room for flexibility within the lean-management system used at ThedaCare. "We do not dictate to every one, 'Thou shalt do it this way,' because everyone's style of medicine is different. We recognize that factor." Photo by Ted Grudzinski / AMA

And despite “buying into the Kool-Aid a little bit” about how the lean methodology can improve care delivery, Dr. Frank sounded a note of caution.

“It’s important to remember that this is a manufacturing process in its purest form, and health care is not manufacturing,” she said. “You have the inherent variability of patients, with all their complexities and nuances. They are not widgets; they are not cars. There’s a certain point at which you have to accept that variability and that the system won’t be as clean as you might like it. We shouldn’t get so focused on the process that we lose sight of our mission, our goals and our professionalism.”

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ADDITIONAL INFORMATION

An efficient system makes for happier doctors

Physicians at ThedaCare in Appleton, Wis., say use of the lean-management approach that prizes efficient processes not only boosts clinical quality but also leads to more satisfied practicing doctors. While the American Medical Group Assn. reported a 6.8% physician turnover rate nationwide in 2012, ThedaCare lost just 2.8% of its doctors last year.

The health system’s structures are “designed to support a physician in the flow of patient care,” said Mark B. Hallett, MD, ThedaCare’s senior medical director.

“When doctors describe a good day, they say, ‘I was able to stay on time, keep up with dictation as I went, and I was able to adjust when thrown a curve ball,’ ” Dr. Hallett said. “In clinical practice, there’s enough variation that every day can’t be a good day, but from a standpoint of making sure our physicians have more good days than not, we think we’re succeeding.”

Doctors and employees are surveyed regularly about their professional satisfaction. For physicians and nurse practitioners, satisfaction rates at ThedaCare clinics have hovered between 80% and 90% during the last six months. By contrast, about one in three doctors is burned out, and nearly half of physicians report experiencing at least one symptom of burnout, according to a nationwide survey of more than 7,000 physicians published Oct. 8, 2012, in *JAMA Internal Medicine*.

Pay based on several factors

About two-thirds of physician compensation at ThedaCare is based on production, while the remainder is based on a combination of performance on measures related to clinical quality, patient satisfaction and the group’s financial achievement. Meanwhile, one of the key metrics that the system’s chief executives track at weekly meetings is the number of total days employees missed because of work-related illnesses and injuries. They look for patterns and seek improvements that could keep doctors and other health professionals safer on the job.

Although nearly all ThedaCare physicians are employed by the system, they appear to have a say over their practice environment. For example, doctors have been encouraged to use a dictation service that employs vocabulary-driven electronic health record templates to save on costly transcription services. But after trying the service, Montgomery “Monk” J. Elmer, MD, a family physician at ThedaCare’s clinic in Kimberly, Wis., found that the records generated often were inaccurate and required manual corrections that doubled the amount of time he spent doing dictation.

That added up to nearly an hour wasted every day. Dr. Elmer took his case to the practice administrators and now uses the traditional software program, including transcriptionist service, to complete his dictation. He typically finishes his workday and is out the office door by 5:30 p.m.

The lean-management approach not only can strip out waste but also can improve physician morale, said John Toussaint, MD, who brought the idea to ThedaCare as CEO.

“Too much paperwork, not getting test results when you need them, always running late — all those things are related to a process that’s fundamentally broken,” he said. “Until you step back and really redesign that, you’re going to be expecting different results using the same process, and that will make you crazy.”

— *By Kevin O'Reilly*

How to plan for quality improvement

When doctors and other health professionals and administrators at ThedaCare's physician practices discuss operational changes that could improve quality, they use a problem-solving framework employed by Toyota Motor Corp. and other high-reliability organizations.

- **Background:** Why are you talking about this?
- **Current situation:** Where do we stand? What's the problem?
- **Goal:** Where do we need to be? What is the specific change you want to accomplish now?
- **Analysis:** What is the root cause of the problem? What requirements, constraints and alternatives need to be considered?
- **Recommendation:** What is your proposed countermeasure?
- **Plan:** What activities will be required for implementation, and who will be responsible for what and when?
- **Follow-up:** How will we know if the actions have the impact needed? What remaining issues can be anticipated?

Source: ThedaCare Center for Healthcare Value

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EXTERNAL LINKS

“The promise of Lean in health care,” *Mayo Clinic Proceedings*, January (link:

<http://www.ncbi.nlm.nih.gov/pubmed/23274021>)

“Redesigning Acute Care Processes In Wisconsin,” *Health Affairs*, March 2011 (link:

<http://content.healthaffairs.org/content/30/3/422.extract?sid=ae6b961-a32f-4915-b34c-0b62bbd37690>)

“ThedaCare's business performance system: sustaining continuous daily improvement through hospital management in a lean environment,” *The Joint Commission Journal on Quality and Patient Safety*, September 2011 (link:

<http://www.ncbi.nlm.nih.gov/pubmed/21995255>)

ThedaCare's most recent results on the Wisconsin Collaborative for Healthcare Quality public report (link:

http://www.wchq.org/reporting/wchq_measures_summary.php?provider_id=31&clinic_id=0&benchmark=1)

“At Virginia Mason, Collaboration Among Providers, Employers, And Health Plans To Transform Care Cut Costs And Improved Quality,” *Health Affairs*, September 2011 (link: <http://content.healthaffairs.org/content/30/9/1680.abstract>)

“The Group Health Medical Home At Year Two: Cost Savings, Higher Patient Satisfaction, And Less Burnout For Providers,” *Health Affairs*, May 2010 (link: <http://content.healthaffairs.org/content/29/5/835.abstract>)

“Writing The New Playbook For U.S. Health Care: Lessons From Wisconsin,” *Health Affairs*, September/October 2009 (link: <http://content.healthaffairs.org/content/28/5/1343.abstract?sid=371802dc-75f4-4244-b698-b0a6f547e28e>)

“Going Lean in Health Care,” Institute for Healthcare Improvement, 2005, last modified April 2011 (link:

<http://www.ihi.org/knowledge/Pages/IHIWhitePapers/GoingLeaninHealthCare.aspx>)

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