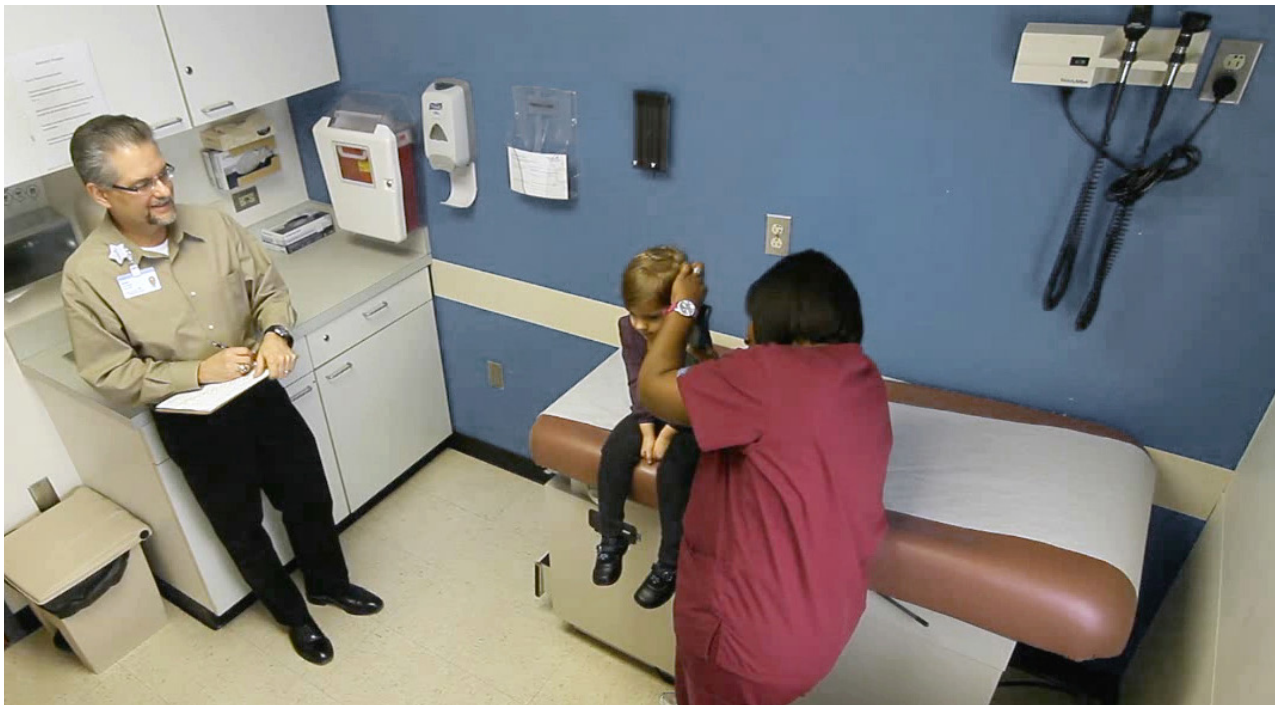
HermanMiller
Case Study

Spectrum Health Medical Group Academic General Pediatrics Clinic

Grand Rapids, Michigan, US



“We exist to improve people’s health, so it’s natural for us to continually improve the ways we deliver care. Lean is doing that for us.” Dennis Arbogast has an explanation for why Spectrum Health Medical Group (SHMG) is so keen on Lean. Others at the Michigan healthcare organization sum it up in one word: results.

Less Waste Makes Care Better And Staff Happier

The journey to better results at Spectrum Health Medical Group (SHMG) began in 2010. The health organization had experimented with Lean practices, but it wanted to know more. Bringing together three separate business units to create one new and unified business made it the right time to act. So it turned to a company in its own backyard, a firm that had learned from Toyota what Lean can do to improve results: Herman Miller.

Spectrum Health Medical Group's Academic General Pediatrics Clinic is a busy teaching clinic with a rotation of over 50 residents and eight attending physicians. It is also a large practice with a total of 17 exam rooms.

The Herman Miller experience with Lean began in the mid-90s when the Toyota Supplier Support Center agreed to work the company. Part of the process essentially meant a Toyota person was embedded on site. Herman Miller and Spectrum decided a similar approach was needed. And that's when Ted Larned, who works with Lean in Herman Miller's Healthcare division, learned he'd be working at Spectrum for the next two years.

Welcome To The Clinic

Ted landed at Spectrum's Academic General Pediatric Clinic in Grand Rapids, Michigan. His first step was to identify a person at the clinic he could coach. Dennis Arbogast fit the bill, and Ted began coaching him on the Lean processes that his company calls the Herman Miller Performance System (HMPS).

Dennis' work was to observe the clinic staff and their work flow, identify problems, and then apply HMPS processes and thinking to creating solutions. Initially, Ted and Dennis' scope was the entire clinic. But the clinic is an academic teaching setting; residents' schedules changed so frequently that it was difficult to find the focus and routine necessary to analyze conditions and identify problems.

Eventually, Dennis' observations were focused on one hallway within the clinic and working with one nurse: Stacy Lewis. Each day, Dennis would observe Stacy, noting things that gave her difficulty, made her work harder, or resulted in uneven processes. "Part of my training involves learning to observe processes as they are going on so we can highlight problems as they happen," explains Dennis. "We actually want to see problems take place in real time so that we can gather all the data about what took place and what the factors were that contributed to the problem. We want to be in a situation where we aren't stepping around problems, but we are actually highlighting them."

From Ted, Dennis had learned about Plan, Do, Check, Act (PDCA), a way to identify a current condition resulting in a problem and then apply scientific processes to improve the condition. It is at the heart of the HMPS approach to continuous improvement. The PDCA process is straightforward:

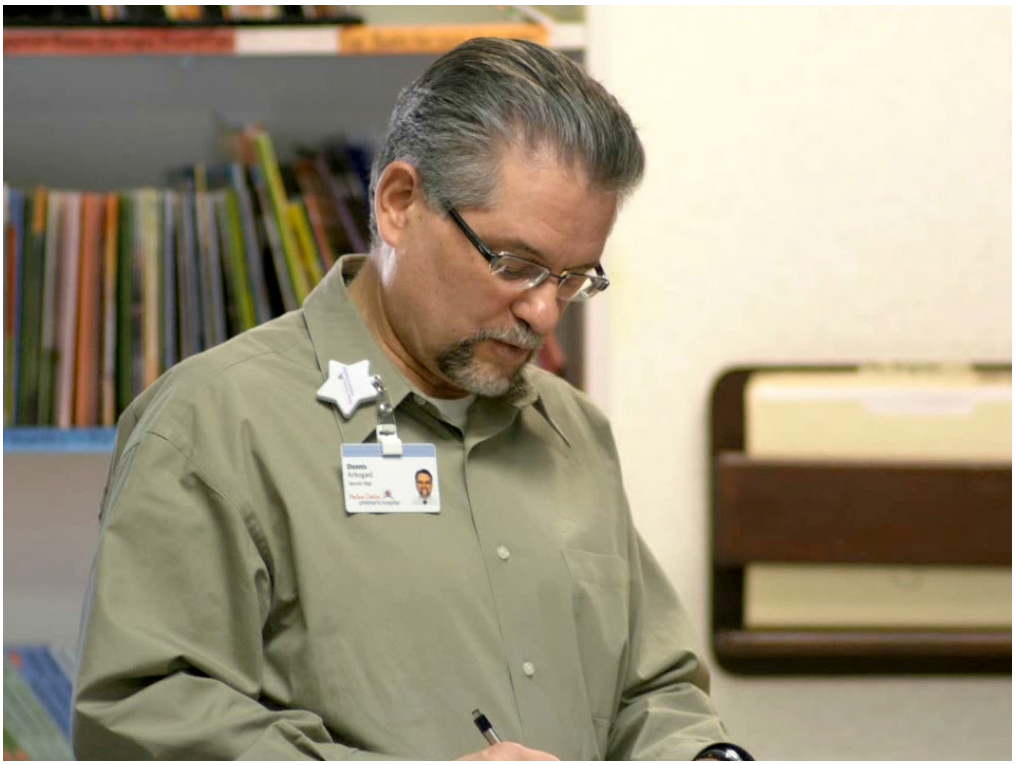
- **Plan**: Choose a countermeasure (Understand and analyze the problem. Develop a hypothesis about how to approach it. Develop a countermeasure or solution. Develop a plan to test the solution.)
- **Do**: Try your idea (Test and measure. Learn by doing.)
- **Check**: Evaluate against the target (Did I get the results I anticipated? Did the result equal the plan? Did it create new problems?)
- **Act**: Take action based on results (Standardize, communicate, and share the process. Spread the idea to other areas. If no improvement resulted, capture and share the learning. Begin the process again.)

Using Available Tools Wisely

Dennis, armed with stopwatch and notebook, observed Stacy throughout her workday—for many days. One of the many PDCAs he recorded focused on what happens when a patient arrives.

He observed that after a patient arrived at the clinic and was checked in, the registration staffer placed the patient's chart in a wall pocket at the front desk. When nurses saw that a chart was "up," they knew a patient was registered and would walk the 30 feet from the exam room areas to the front desk to see if it was their patient who had checked in. However, there was no indication provided ahead of time about whose patient it was. As a result, all the nurses would walk down the hall to check. If it was not their patient, they would walk back down the hallway and back to their work. That amounted to a lot of unwarranted exercise.

Dennis recognized this condition of excess walking and work interruption as a waste and looked at why it happened. He learned that the clinic's electronic scheduling and medical records system had a signal that would let each nurse know when their patient–not every patient–registered. The electronic system was new to the clinic, so not all staff members had learned to use it. Dennis worked with Stacy to check the electronic system to see when her patients had been registered.



Dennis Arbogast was first coached by Ted Larned, healthcare lead with the Herman Miller Performance System team. Dennis is now the facilitator at the clinic, coaching other staff members on HMPS.

Now Stacy only walks to the reception station when she knows she will be greeting her patient. She is saving time, reducing wasted steps, and eliminating unnecessary distraction.

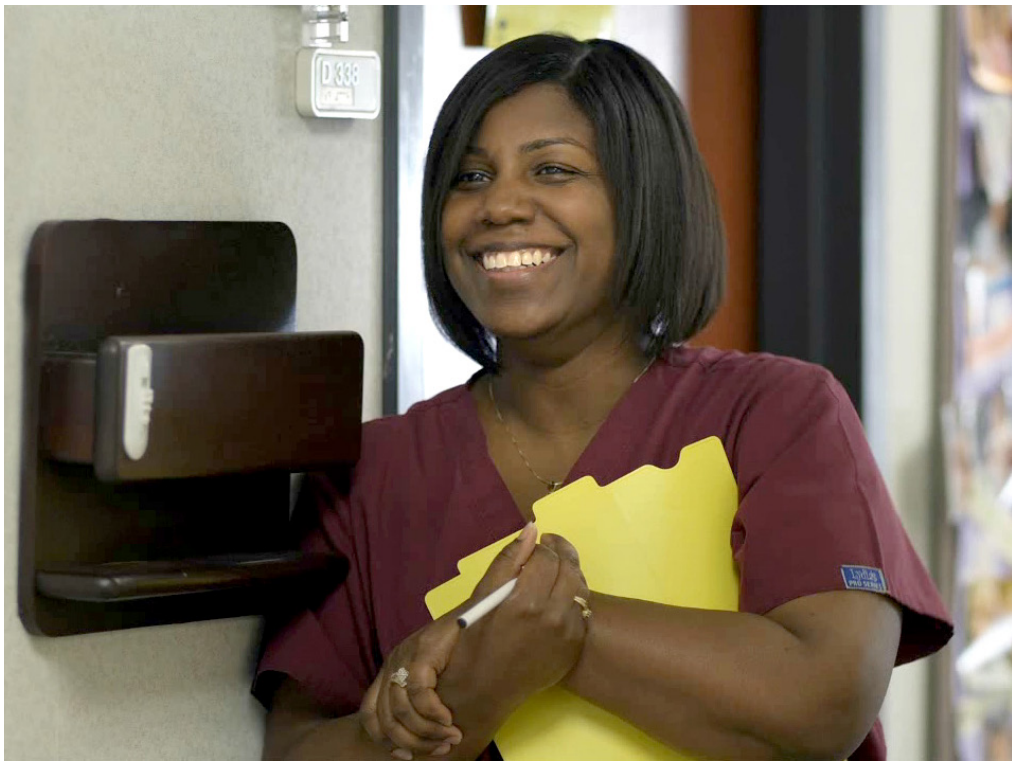
"Once Stacy learned to use the electronic system to notify her that her patient had arrived, she realized how much time she had wasted," explains Dennis. "She was surprised at how much extra time she had." Stacy, happy with the efficiency this brought, noted that, "Now I have time to do other things. I can stock my rooms. I can give a patient extra help."

Clearing Up Traffic Flow

As Dennis observed Stacy taking patients' vitals, he saw that she always took the measures in the same order: height, weight, and blood pressure. He also saw that in this shared space nurses and patients often had traffic problems when there was more than one nurse trying to take vitals. Dennis drew a picture of Stacy's motion during this process and saw that she skipped around and backtracked because the order of the measuring devices didn't match the order that she, and the other nurses, followed. This caused the traffic problems as well as the awkward flow in a small space.

Dennis rearranged the vitals station to match the order of the nurses' work. The traffic jams went away, and time was saved that had previously been wasted in working around a situation. "The result now is a smooth flow from the beginning to the end," he says. "Reorganizing the station reduced several seconds when taking vitals, cut out the back-and-forth steps, and made things run a lot smoother."

Stacy adds: "Addressing the vitals area was one of the first things Dennis and I worked on together. It was a bit nerve-wracking with Dennis watching me with my patients as he checked his stopwatch and took notes. But then I realized that moving equipment around really did make a difference. I became comfortable working with Dennis analyzing the way I work. I learned to understand and appreciate what we did together."



The results of Dennis Arbogast and Stacy Lewis' Herman Miller Performance System work have made her work more organized, predictable, and satisfying.

Offsetting Appointments Frees Time For Care

In the clinic, each nurse works with two doctors. Dennis observed that nurses often got busy and called for help from other nurses. But other times, he noted the nurses had nothing to do. He looked at scheduling as one possible cause for the stressful condition of uneven work flow.

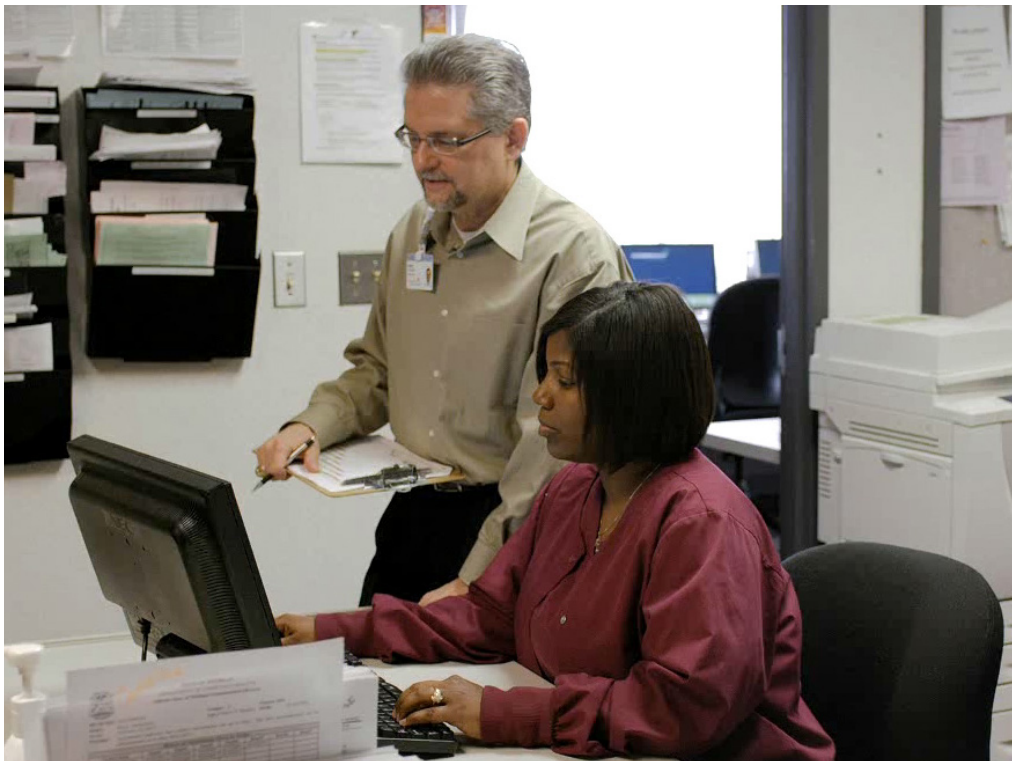
Dennis measured how often patients were roomed on time per the schedule. The success rate was about 30 percent. As he analyzed the schedule, he saw that it was set up to require a nurse to be in two places at once several times a day. The nurse was expected to be in two exam rooms with two patients who both had 8:50 appointments, for example. Dennis worked with the scheduler to offset appointments by 10 minutes. This gave Stacy time to do her work and eliminated the need for her to be in two places at once. With this change, the clinic is now rooming about 70 percent of the patients on time, and nurses are rarely calling for help.

"The scheduling change was one of our biggest successes because it leveled things out and stabilized Stacy's day," says Dennis. "In fact, this change stabilized the entire flow of her hallway. Now Stacy knows she has enough time to focus on her patient without distraction or feeling rushed."

For Stacy, the schedule change has made what she calls "the biggest difference in my job. Now I know I have time to focus on one patient and give them the attention they need. I can approach the day feeling organized and calm and go home feeling satisfied that I've done a good job."

Little Improvements Add Up

The three examples shared here have improved Stacy's work considerably. The pace of patient interaction has been leveled and cycle times have improved. Waste has been reduced in terms of time, travel, and distraction. As a result of these improvements, Stacey's day is organized and her schedule predictable.



Dennis Arbogast and Stacy Lewis' Herman Miller Performance System work focused on one hallway and four exam rooms. Improvements they made there are now being applied throughout the clinic.

For Stacy Lewis, Lean efforts have improved her efficiency, giving her more time to spend with patients.

The changes Dennis and Stacy have made in one hallway are now being implemented through the clinic. The offset schedule, for example, is now clinic-wide.

The goal with any HMPS initiative is to add value; it isn't about cutting staff. In fact, one of Toyota's agreements when it first began coaching Herman Miller was that Herman Miller would not cut staff as a result of continuous improvement.

People's jobs may change as a result of HMPS work, however. Dennis and Stacy's process improvements allowed the clinic to redeploy a staff member to train and assist staff on the electronic medical records system—a job that was incredibly important because the system was just being implemented and staff needed help. Having a person available to become expert, trainer, and troubleshooter added a great deal of value to the clinic and its operations. Now that the staff is familiar with the electronic records system, this staff member has become Dennis' facilitator. Dennis has taken on the role of coach, the job that Ted initially came to the clinic to do.

HMPS learning and expertise is branching out at Spectrum. Its staff is becoming familiar with the tools and scientific processes that help make improvements repeatable and standardized. Ted has moved into other areas of Spectrum, working with new staff members to continue the work of making HMPS thinking a natural and daily activity throughout Spectrum.

The results Spectrum is seeing from using HMPS are typical of the experience in other healthcare organizations. In one clinical lab, a redesign based on HMPS and an analysis of work and process flows increased throughput by 40 percent using the same staff, same space, and same products. In another case, HMPS principles led to standardized med rooms with safety features that decrease distractions and incorporate visual cues. The results are reduced errors and better quality. These examples, along with the experience of Spectrum, illustrate how the knowledge gained by Herman Miller on its Lean journey is being used to help healthcare facilities design adaptive environments that enable continuous improvement.

Case Study

Topics
Performance

Applications
Caregiver Work Environments
Patient Care

Project Scope
1 hallway with 4 exam rooms

Year Completed
Ongoing