Healthcare delivery organizations (HDOs) continue to grow in size in the United States—a trend that’s intended to improve systemwide efficiency, bargaining power, and the bottom line. HDOs that span a large area also have to contend with the task of managing resources, including human capital.

The healthcare technology management (HTM) departments situated within these HDOs face a similar challenge. In addition to being able to span potentially vast distances, the departments must handle an increasingly large and complex equipment and device workload. For HTM professionals at a large, growing HDO, the need exists to work through the different cultures and equipment makeup of the various facilities.

For SSM Health, a health system based in St. Louis, MO, that spans 24 different hospitals across Wisconsin, Oklahoma, Missouri, and Illinois, it became clear that a system designed for HTM operations of the past was no longer effective at meeting the demands of this increasingly heavy workload.

“We kept saying, ‘Here’s another project you have to work on.’ And what we started hearing loud and clear was that managers didn’t have time to focus on operations or managing their staff anymore,” said Heidi Horn, vice president of HTM at SSM Health.

“Over the years, we started taking on more and more responsibilities, such as project work and clinical equipment purchasing. We were being pulled in too many different directions, and it felt like the quality of our work was slipping because of it. People were stressed out. We knew something had to give.”

Although the situation was tough, it presented an opportunity to find a better way going forward.

**Challenge**

By 2016, the HTM management situation at SSM was in “crisis,” Horn said. HTM managers and technicians were increasingly involved in clinical equipment purchases and projects that became more and more complicated with expanding scopes. All the while, the HDO acquired more hospitals that needed to be implemented into the system. Due to demand from the health system based on its changing needs, the scope and sophistication of services HTM provided was burgeoning along with the volume of work. Adding positions was not an option, and HTM managers in individual hospitals were charged with making sure that all necessary tasks got done (Figure 1).

“When all the independent biomed departments at each facility came together 20 years ago, we were strictly a clinical equipment maintenance organization, and that’s how we were organized,” said Heidi Horn, vice president of HTM at SSM Health.

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“They were spending the majority of their time planning equipment installs, getting purchase quotes, or reviewing service contracts. Some were very good at it and enjoyed that type of work. Others didn’t enjoy it and weren’t as good at coordinating complicated projects and keeping things on task and on budget.”
Having too much on HTM’s plate caused daily operations to suffer. Staff reported being under “extreme stress.” Often, people on the ground felt they had to choose between their maintenance work and other priorities.

“The managers were kind of ramrodding all the projects because they also had daily operations to worry about. That’s ’putting out the fires, making sure preventive maintenance gets done—everything that a modern-day HTM department needs to do,” said Richard Tevis, director of HTM operations for SSM Health in Wisconsin.

Related issues included HTM work being duplicated across sites due to a lack of overall, systemwide coordination and each region of the system doing things differently.

“We were not leveraging the size of our organization to better itself,” said Ben Stock, director of clinical equipment systems and project support at SSM Health. “We were making decisions in silos even though we are a systemwide HTM department.”

In one example, Horn described an operating room integration project in which staff based in Wisconsin were approaching the problem in a completely different way than those based in Missouri, who had already completed a similar project and figured out that we could essentially carve off these positions from the operations side and create new titles and positions and without adding staff,” Horn said.

Using these references, Horn worked to devise a new HTM department structure. In this paradigm, HTM would be divided into two divisions: 1) an operations division that focused specifically on clinical equipment maintenance, safety, and regulatory compliance and 2) a clinical equipment technology management division dedicated to equipment purchasing, service contract management, cybersecurity, and project management (Figure 2). This would be possible without changing staffing levels by creating new specialist positions that would span the entire SSM system, thus breaking down its regional walls.

After developing the rough idea, Horn refined its implementation. She got on the phone with her directors and managers to get an on-the-ground sense of what would and wouldn’t work based on their needs, reporting relationships, and common sense.

“I think that’s the important part: It wasn’t just me making decisions. I was always going back to the team and saying, ‘Okay, here’s what I’m thinking about doing. What are your thoughts?’” Horn said. “And they got a chance to look at new job descriptions and the organizational chart and make suggestions.”

Horn explained that nobody was eliminated; rather, the reorganization involved a shifting of workloads. “Because we were able to decrease the workloads of the technicians and
operations managers, we then could move other technicians and managers to the new technology management openings without back filling their positions."

Instead of having 110 staff members trying to do all of the tasks for which HTM is responsible—and all of them doing it differently—SSM developed functional specialist positions so that a few people were dedicated to performing key functions. Some of these specialized positions were brand new, such as establishing a dedicated medical device cybersecurity expert and clinical systems engineers. Meanwhile, the job descriptions of the HTM operations managers were rewritten so that they focused on clinical equipment maintenance and regulatory compliance responsibilities.

"Because we now have a systemwide team dedicated to managing complicated projects and device integration, lessons learned can be transferred very easily now," Horn said. "That's made our projects much more efficient, and they go smoother."

**Conclusion**

The catchphrase for SSM Health's HTM reorganization project, which began implementation in 2017, became known as "back to basics." That means ensuring that there's time to focus on what Horn calls "the heart of HTM." Sometimes, that means having to remind people that their current "back to basics" role is their primary responsibility—not the previous role that was part of a system that no longer worked.

"The hardest thing actually has been getting people to stop doing the work that they had been doing before—the project management work, equipment purchasing, etc.,” Horn said. “Sometimes we’ve had to gently remind people that something isn’t their job anymore. Overall, it’s been a big shift.”

Although still in its early stages, the reorganization of SSM Health's HTM department into divisions has been a major kick start to streamlining operations. It’s led to a marked improvement in efficiency by allowing for more and better work to be done without adding additional staff.
One example of streamlining success was standardizing processes for SSM Health’s four regional HTM coordinators. In the past, these regional coordinators were solely responsible for their region and, as a result of working in isolation, developed unique processes that other coordinators couldn’t duplicate. In the new system, SSM leadership identified best practices to be adopted by all regions and trained coordinators on standardized processes.

“Now when one coordinator is on vacation, the other three can pick up the work so that everything doesn’t stall out,” Horn said.

For Robert Jakubczak, system manager of HTM operations at SSM health, now that most nonoperations tasks are handled by the technology management division, his operations team can focus on performing maintenance services, ensuring equipment works reliably, and meeting regulatory requirements.

“Tasks like looking at legal documents took up a lot of my time that I couldn’t dedicate to the operations of the business. Now we have a dedicated person for doing that, so I can focus on making sure we’re getting preventive maintenance done on time or managing the vendors,” Jakubczak said. “We used to have different managers that might interpret things differently, such as how calls should be dispatched. Now we have a standard process for doing that. We’ve learned having one process systemwide is much easier to manage and more efficient than having a different process for each facility.”

The key to making it all work? It comes down to standardization and communication: making sure that everyone works the same way, focuses on their assigned responsibilities and doesn’t start moving out of their “swim lane,” and communicates with one another.

“Communication between the technology side and the operations side is the key piece to this,” Tevis said. “But it has made quite a bit of difference. I think it gives focus to the operations side on the things that they really need to be doing, while providing the hospitals with the technology support they need.”

Managers representing SSM Health’s HTM divisions (left to right): Bob Thompson, manager of clinical equipment systems and project support; Sam Wright, operations manager; Ben Stock, director, clinical equipment systems and project support; Andrew Goe, clinical systems engineer; Mike Vohsen, manager, clinical equipment systems and project support; Mike Fuson, operations manager; Tammy Steffens, computerized maintenance management system product specialist; Jim Anderson, director, contract management; Heidi Horn, vice president, HTM; Bob Jakubczak, system manager, HTM operations; Brian Hill, operations manager; Joseph Haney, operations manager; Jake Verbeten, manager, clinical equipment systems and project support; Jaamaul Little, operations manager; Patrick Shell, supervisor, devices and asset management; Joey Smith, HTM security analyst; Endia Pelley, HTM coordinator; Tim Jackson, operations manager; Tim Nagel, coach, biomedical engineering; and Tara Schulte, clinical equipment, capital, and contract analyst. Not Pictured: Rick Tevis, regional director of operations; Randy Schleicher, operations manager; Darryl Jones, operations manager; and Tammy Gardner, operations manager.