

How Collaboration Ensures Provider Tech Adoption



By Ed Finkel

At the Mayo Clinic, it was time to replace a quarter-century-old 3-D image viewing system. For both UChicago Medicine and Piedmont, the era of nose-in-keyboard provider stenography gave way to AI-generated appointment notes.



In all three cases, these health systems worked to engage providers in high-impact clinical technology decision-making processes, marrying their subject matter knowledge and experience as end users with the technical-heavy assessments and highly detailed systems requirements that information technology professionals are best equipped to handle.

“We find that our clinicians speak one language, medical-speak, and IT folks speak their technical language,” says Kay Thiemann, FACHE, emeritus executive administrator for Mayo and

executive director of the Brooks College of Health Leadership Institute at the University of North Florida. “They often don’t cross, they don’t connect. But it’s important [that they do] because the technology we select for providers impacts them every day, for every patient.”

Tripartite Structure at Mayo

Mayo Clinic aimed to replace its old 3-D image viewer with a new enterprise image viewer. It adds options and advanced functionality requirements, such as the ability to support additional image types, availability across multiple device types, and

native capabilities for emerging standards and integrations.

The system’s approximately 40,000 end users, who range from radiologists to pathologists to cardiologists, should see the new viewer go live in October. The path to bringing this new viewer online has required balancing several work cultures within a strong organizational structure.

To manage the diverse cultures, Mayo established an organizational structure with clinicians at the table driving decisions on which technology to use, and with IT present in a consulting

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role but free to speak up when they had information that could be impactful to the decision, Thiemann says.

“We asked ourselves, ‘How do you translate technical information ... in a way that the clinicians will understand, so they could make an informed decision?’” Thiemann says. “And then vice versa, ‘How could clinicians talk about the functionality they needed in a way that our IT staff could understand, and interpret clinicians’ needs, to help inform vendor selection?’”

To manage the work, the project created a “triad leadership model” with

physician leader Eric Williamson, MD, associate chair for radiology informatics and manager of the radiology AI program, partnering with Thiemann and Allison Latham, IT program manager.

Mayo needed to ensure that a wide range of end users had input into the needed functionality and performance, Williamson says. “They’re not a hive-mind,” he says. “It’s thousands of people in different locations with different practice patterns. We needed to come up with a product that met all of their needs and use cases.”

Latham recalls that she was asked on numerous occasions throughout the process to “say that in plain English.” She says, “It is really about delivering it to the folks making the decisions, providing the inputs in a way that is easily understandable.” After presenting a lot of numbers and tables and scores

initially, Latham and her team took more of a visual approach as the process went on.

Latham adds that Williamson, and two other physicians who served as leads on the project, helped to translate the technical requirements for their colleagues. “They took those concepts, features and requirements to the clinical team, in a way that was understandable. ... It was the first time I’ve seen that deliberate step inserted into that process. It was transformative.”

To ensure that clinicians were able to participate adequately without taking them out of their day-to-day work too much, the clinical selection committee met for 40 minutes, once per week over their lunch hour, Thiemann says. They were asked for a simple thumbs-up or thumbs-down on different aspects of the system “instead of getting into the minutiae of scoring,” she says. “That helped the clinicians not get down into the weeds of the technology too far.”

During these meetings, team members reviewed the responses to a request-for-information from an initial group of 15 vendors that contained a subset of nonnegotiable requirements considered foundational to the new viewer’s capabilities, such as compliance with imaging standards, the ability to display certain image types and the provision of adequate security.

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The group of candidates was reduced to five, who were sent a more detailed request for proposal. Two vendors were selected to participate in on-site demonstrations, after which the practitioners voted for their preferred vendor using a QR code, Thiemann says. “That method of voting is a little different than what we’ve experienced before,” she says. “Our clinicians were really happy with the level of engagement.”

“If you’re going to get healthcare provider—physician and nursing—input on a clinical tool, you have to get that tool in front of them, somehow,” Williamson adds. “Their time is very valuable. Nobody wants physicians, nurses and other healthcare providers filling out surveys or answering questions; we want them seeing patients.”

The demonstration process made sense and made it easy to participate. “If you talk techno-babble, they’re not going to understand it, and they’re going to find it frustrating and disengage,” he says. “We engaged them by asking, ‘Imagine you are using this tool in your clinical practice. What do you want it to do? If you’re going to be able to access this type of image in this type

of format, will that help you in your practice?’”

In addition to ensuring that IT did not drive the process, Latham says Mayo Clinic wanted to ensure that no one geographic location or practice area dominated that process. And enabling the end users to test out the potential systems was critical. “Come in and play with it. Come kick the tires,” she says. “We got great turnout to the on-site demonstrations. We weren’t sure anybody would show up. The enthusiasm from the attendees created a buzz that was really encouraging.”

Among the successes were the culture of teamwork that developed between all the groups and the communication among different parts of the organization and leadership, Thiemann says.

In addition, “We are going to end up with a best-in-class viewer that is going to have more features and functionality designed specifically for a clinical practitioner than I think I’ve ever seen before,” Williamson says.

Others considering such a tripartite structure should have a plan before they start engaging end users, but don’t get married to it, Williamson says. “The scope and direction of this project changed throughout the project based on what we were hearing from the end users,” he says. “We engaged the clinical practice, the people the viewer is designed for, and we did so openly and honestly: ‘We’re going to value your input. We’re not going to ask you questions

then disregard the answers because they don’t match what we have planned.’”

Even when ideas were turned down, Latham says the technical team documented that those interactions had happened and why a certain feature would not be workable in a transparent manner. The overall team also made meeting materials available for those who missed a meeting because they were in clinic at the time. “Make sure to maintain transparency and accessibility, so there’s not a sense that decisions are being made behind a curtain,” she says. “We wanted to make sure they knew they were being heard and in the driver’s seat.”

Leveraging AI to Reduce Physician Burnout

Both UChicago Medicine Sciences and Piedmont in Atlanta have turned to generative artificial intelligence and large language models to move their clinical documentation platforms beyond the electronic health recordkeeping of the past 10 to 15 years, which forces physicians to face their computers and type as they talk to patients.

“The amount of time that’s spent on documentation ... is one of the big factors in clinician burnout,” says Sachin Shah, MD, chief medical information officer and an associate professor of medicine and pediatrics at UChicago, which has partnered with an AI provider on a system that 200 providers began using in early summer. UChicago expects to ramp up the system to at least half of clinicians by the fall

and to adopt it systemwide—across more than 1,200 doctors and more than 1,000 residents and fellows—in the next year.

Physicians begin a patient encounter with an app on their device that starts recording the interaction as soon as they walk into the room, Shah explains. The clinician can directly engage the patient without splitting their cognitive bandwidth and eye contact with a screen. At the end of the encounter, they press “stop,” and the system generates a physician’s note within one minute that they can quickly glance over and correct as needed. “You can even highlight the text generated, and it plays the audio recording of that part to remind you of where in the conversation that detail came from,” he says.

While the app generates a full transcript of the conversation, what’s most notable is the way it distills the discrete elements into a complete progress note, Shah says. “It saves one to two hours of documentation time,” he says. “It’s a major game-changer from a quality-of-life standpoint. ... There’s that sense of focus on the patient, which is nice and very noticeable. That’s a major paradigm shift.”

At the outset of bringing its clinical documentation platforms into the 21st century, Shah gathered feedback from about a half-dozen physician informatics leaders who are front-line clinicians like himself and talked through what capabilities they needed from a clinician and patient standpoint, then researched potential

solutions and providers, “not the other way around,” he says.

Shah’s team spent time with leaders of potential vendors to better understand their vision and road map of the different platforms, and the team chose a vendor that “wanted to have a partnership to do strategic development and a lot of collaborative research,” he says. The current phase one trial with 200 providers across a diverse group of specialties will provide feedback over the next three months, and if all goes well, the system will transition to an enterprise-wide license, he says.

“We’re doing due diligence, a detailed analysis, closely following

the ROI and KPIs, rolling it out to a subset of providers and getting feedback,” he says. His team is asking questions such as, “What are the key problems? What are the key capabilities we want to develop? How does that map back to our strategic priorities?” We’re trying to get as diverse a perspective as we can,” he says.

In doing so, Shah says his team has closely collaborated with IT leadership to better understand the technical capabilities needed and the resources available. “As much as one group might like to make the decision, if it doesn’t make clinical sense, it’s not going to take off,” he says. “If it doesn’t make technical

Mayo Clinic’s Lessons Learned

- Include people of influence at every level on the project’s governance structure, communicating to senior leadership to ensure they are on board; take the same approach with the clinical selection committee from every practice.
- Manage expectations and balance priorities and risks between rapid versus more deliberative decision-making. “At certain points in the project, you get some pressure to do things quickly: ‘Let’s just get on with it.’ We had to avoid that temptation and be thorough in how we vetted and analyzed things,” Thiemann says.
- Stick with the teamwork aspect, and make sure everyone feels heard. “If they saw something that wasn’t going to work, technically ... we made it safe for them to raise their hands,” Thiemann says of the IT team.

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sense, that's also not going to work.”

Shah's informatics team is routinely involved in IT governance processes, including decision-making around prioritization and funding allocation based on institutional strategic priorities, clinical and operational needs, and return-on-investment across numerous potential domains.

“We meet regularly in governance and executive steering committee meetings with other key stakeholders, so that the decisions we make on what to prioritize, fund and implement are aligned across the health system,” he says. “It's not perfect, but the conversations are continually happening in both formal and informal settings, which helps ensure we

are all on the same page—and if not, that we can quickly reconcile.”

The hope is that over time, the tool will help with nursing documentation burdens, as well, Shah says. “This is a fundamental thing that everybody does; everybody is writing notes across the health system,” he says. “We're talking about changing everyone's daily workflow. We're talking about protecting health information. We're talking about following HIPAA regulations.”

Settling on the right technology has been straightforward compared to coordinating the change management piece, Shah believes. “We're addressing all the obstacles to making something a ‘new normal,’” he says.

“Paradigms shift slowly in medicine. ... It's such a complex endeavor. We're talking about patients, clinicians, care team members, different sites in a bigger health system, different different physicians, APPs, medical students, residents and fellows.”

Those diving into such a process need to realize that it will not all

come together quickly, Shah says. “You have to be thoughtful, consider most of what you need to do and have the right people at the table,” he says. “We're going to iterate on it. ... You have to succeed or fail fast—and learn from it.”

With “buzzy” technology like generative AI, “You want to resist the temptation to do something for the sake of doing it,” Shah adds. After settling on the use case, “engage the right stakeholders across the organization. You want to have your go-to people among all these stakeholders to say, ‘Here's what we're trying to do. Here's why we want to do it. Here's the strategic priority we're trying to address.’ If you have buy-in up front, everyone is going to be on the same page.”

Piedmont has undertaken a similar process as UChicago for a similar clinical documentation system. This was based on hearing physicians' frustrations related to documentation and excitement around the potential to improve interactions with patients, says Lacy Knight, MD, chief health information officer and an ACHE Member.

After a small pilot with around 20 users, Knight and his team put together demonstrations around what the technology does and how it works. “We engaged ‘super users’ who understand the nuances of technology early on,” he says. “Then we launched a formal program to get as many

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people enrolled as possible to use the software frequently.”

More than 300 physicians and advanced practice providers signed up for a 90-day evaluation period beginning in April. Teams went out to practices “to talk to doctors and providers about what the technology did, how it was going to work and to provide at-elbow training,” Knight says, adding that he and his team have gathered feedback via a formal survey, direct outreach to certain providers, and unsolicited emails and other input.

“We have been looking at what the impact has been, among the people who have used it often compared to those who have used it less often,” he says. “We completed assessments around specialties that seemed to take on technology faster than others and gave feedback to the vendor about enhancement requests.”

Piedmont also surveyed several hundred patients about the impact on their interactions with physicians and providers, he adds, of whom 84% strongly agreed that providers seemed more focused on them, and 86% said the provider spent less time typing.

Doctors who participated in a parallel survey said they were spending less time on visits and found they could close their charts faster than before. Of those who responded, 65% said the system reduced their cognitive burden, nearly the same percentage said they had better interpersonal interactions with patients and 54% said they had a better work-life balance.

“We were able to take some time and show people how it would work, so they would go from skeptical to believers in the technology,” he says. “We managed to enroll one-third of our outpatient physicians [out of 900] on this tool. And they save, on average, 15% of their time writing notes, is what we’ve seen in-house. And it’s also worth noting that the patients we surveyed are happier with their interactions.”

Knight urges those considering such an initiative to keep in mind that physicians are extremely busy and to

carve planned time out of their schedule, even if it means seeing fewer patients, so they have adequate opportunity to understand the power of a new technology.

Systems will also need to overcome resistance to behavioral change. “If they don’t have the confidence, it’s not going to be worth it in the end; there’s definitely a reluctance to adapt behavior to new technology,” he says. “A specific example is that AI software can’t record anything if you don’t talk about it. You have to talk out loud: ‘I want you to take this medication when you go home and follow up with this person.’”

In addition, when considering an AI-related project, some will have a mixed level of trust around how well it will work and how safe data will be. “There were some people who felt that they didn’t want to be very early in learning how the technology would work,” he says. “They wanted to let other people go first, work the kinks out, work the bugs out, without realizing that we were bringing a mature product into the system.”

Ultimately, Knight advises those considering similar initiatives to be very clear on their objectives and how they plan to measure success. “Physicians are data-driven,” he says. “So make sure you take the opportunity to provide enough data, in detail, upfront, to help them understand how it’s going to work.”

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