healthcare innovation

PEOPLE. PROCESS. TECHNOLOGY TRANSFORMATION.®

The Future of Healthcare: AI, Cybersecurity, and Value-Based Care

A comprehensive look at the forces shaping healthcare in 2025 and beyond including insights on evolving payment models, rural health strategies, AI's clinical impact, and cybersecurity best practices.
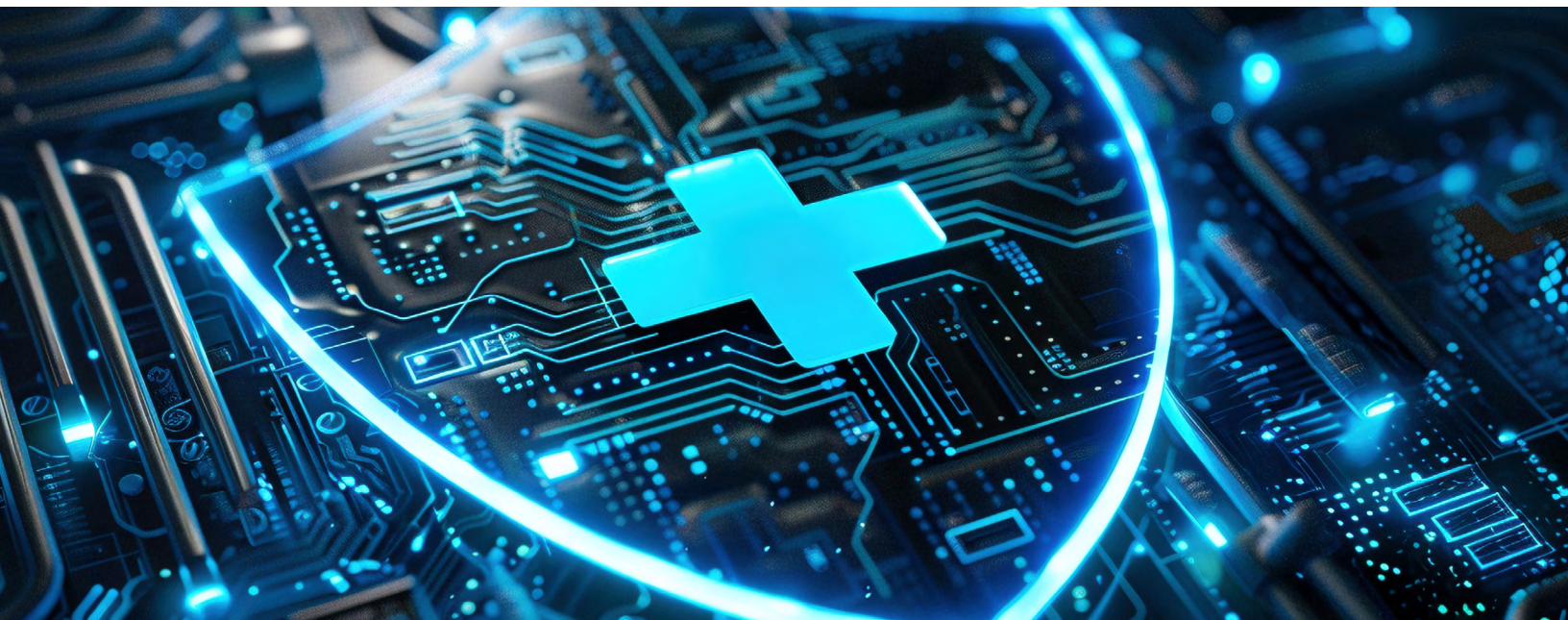
Table of Contents

healthcare
innovation
PEOPLE. PROCESS. TECHNOLOGY TRANSFORMATION. ®

Authors

David Raths,
Contributing Senior Editor, *Healthcare Innovation*

David Raths is a Contributing Senior Editor for *Healthcare Innovation*, focusing on clinical informatics, learning health systems and value-based care transformation. He has been interviewing health system CIOs and CMIOs since 2006.

Follow him on Twitter @DavidRaths

Mark Hagland,
Editor-in-Chief, *Healthcare Innovation*

Mark Hagland has been Editor-in-Chief since January 2010, and was a contributing editor for ten years prior to that. He has spent 30 years in healthcare publishing, covering every major area of healthcare policy, business, and strategic IT, for a wide variety of publications, as an editor, writer, and public speaker. He is the author of two books on healthcare policy and innovation, and has won numerous national awards for journalistic excellence.

Pietje Kobus,
Associate Editor, *Healthcare Innovation*

Pietje Kobus has an international background and experience in content management and editing. She studied journalism in the Netherlands and Communications and Creative Nonfiction in the U.S. Pietje joined Healthcare Innovation in January 2024.

CMS Innovation Center Ending Several Payment Models Early

Primary Care First, Making Care Primary models as well as the End Stage Renal Disease Treatment Choices model to end in 2025

David Raths

The CMS Innovation Center has announced it will end several alternative payment model programs at the end of 2025, including the Primary Care First and Making Care Primary models as well as the End Stage Renal Disease Treatment Choices model.

The Innovation Center statement said the early termination of Primary Care First and Making Care Primary does not signal a retreat from its support of primary care providers, but rather "a need to focus on different approaches that are consistent with the CMS Innovation Center's statutory mandate and produce savings."

Most models selected for early termination are within two years of their end date. Also ending early is the Maryland Total Cost of Care model, which was planned to run through 2026.

Primary Care First was scheduled to run through 2026, and Making Care Primary was scheduled through 2034.

ESRD Treatment Choices was supposed to end in 2027. The Innovation Center said it would propose terminating it through rulemaking.

CMS is considering options to reduce the size of the Integrated Care for Kids (2020 – 2026) awards or make other changes to the model.

Further, the CMS Innovation Center will no longer pursue two previously announced but not yet implemented models:

- Medicare $2 Drug List
- Accelerating Clinical Evidence

The CMS Innovation Center said it has determined its other active models can meet the Center's statutory mandate—either as is or with future modification—and therefore will continue moving forward.

At a congressional hearing last June, Elizabeth Fowler, Ph.D., J.D., director of the Innovation Center, was pressed to explain why so few of its alternative payment models have produced cost savings.

In a meeting of the Health Subcommittee of the the U.S. House Energy and Commerce Committee, Cathy McMorris Rodgers (R-Wash.), chair of the House Energy and Commerce Committee, began by outlining her concerns.

The Innovation Center, also known as the Center for Medicare & Medicaid Innovation (CMMI) was created to help improve how Medicare and Medicaid pay for healthcare and to be an engine in our drive towards value-based care, Rogers said. "CMMI was given a 10-year, $10 billion budget and extremely wide-ranging authorities with limited built-in congressional oversight. The only
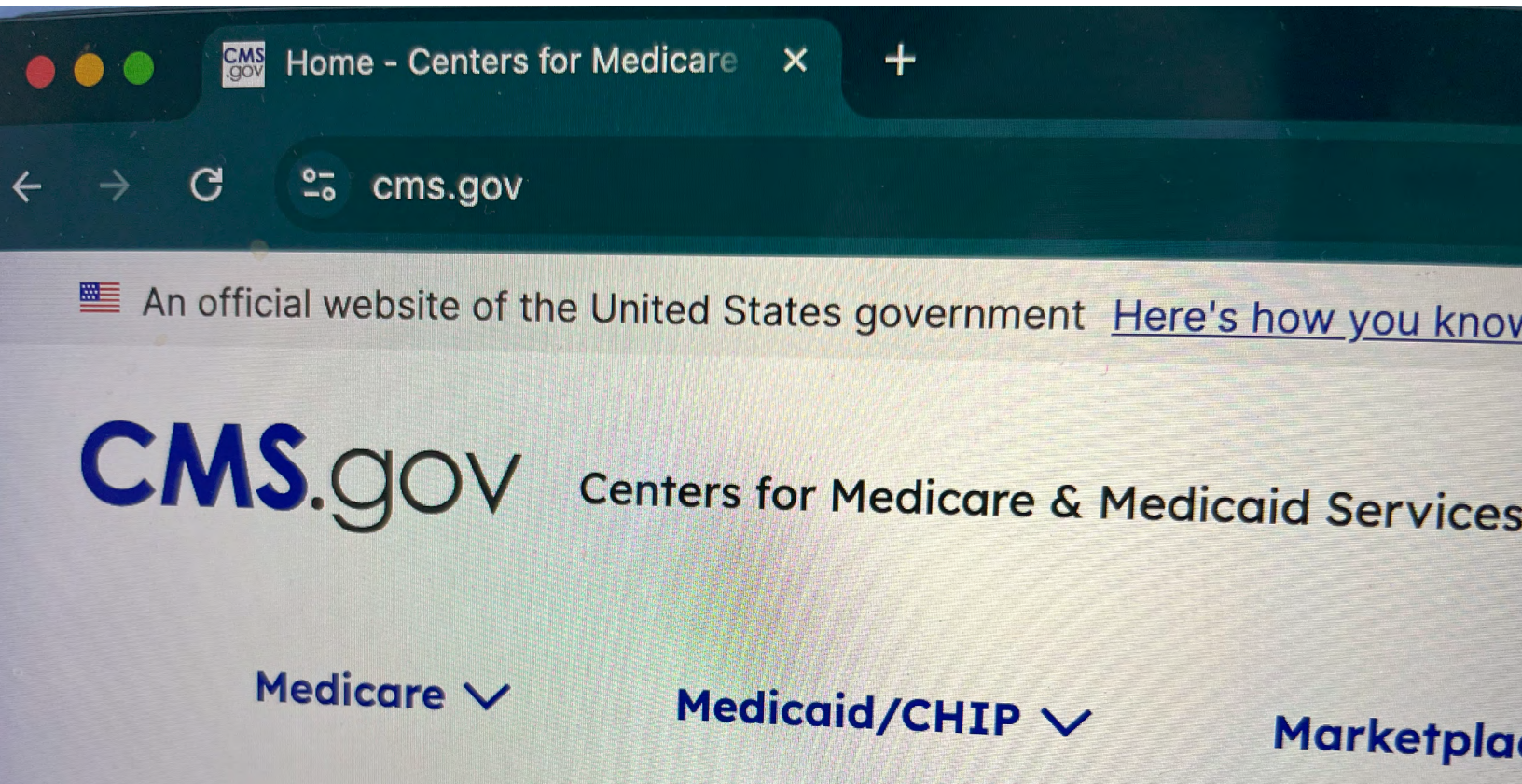
directives Congress gave CMMI were to achieve two goals: lowering the cost of delivering care and improved patient outcomes."

Over the last decade and a half, CMMI has tested over 50 models to accomplish both those goals. When CMMI was created, the savings it was projected to generate were to be used to offset spending by the Affordable Care Act, Rogers continued. Originally, CBO estimated that CMMI would save $1.3 billion over its first decade of operation. That same model also projected CMMI would save as much as $77.5 billion in its second decade from 2020 to 2023. "However, when CBO looked at the actual results in a September 2023 report, the disparity between those expectations and the reality proved to be staggering. Instead of reducing spending by $1.3 billion in the first decade, CMMI increased spending by $5.4 billion. For the second decade, instead of saving $77.5 billion, CBO is now projecting CMMI to increase spending by $1.3 billion. I have a hard time believing any objective observer could look at the results thus far and describe CMMI as a success. So how do we move forward?"

The CMS statement said that by ending these models early, it will save taxpayers $750 million.

The Innovation Center now says it plans to announce a new strategy based on guiding principles to make Americans healthier by preventing disease through evidence-based practices, empowering people with information to make better decisions, and driving choice and competition. This announcement streamlines the focus of CMMI's models and will help build a health system that improves quality and lowers costs while helping Americans live healthier lives, the statement said.

What's the Future of Value-Based Care for Rural Hospitals?

Janice Walters, executive director of the Rural Health Care Redesign Center, recently discussed working with rural hospitals under a global budget in Pennsylvania

David Raths

Over the last year, 18 rural hospitals closed or converted to an operating model that excludes inpatient care, according to a new analysis from the Chartis Center for Rural Health. That brings the total number of closures since 2010 to 182. During this week's Value-Based Payment Summit, Janice Walters, M.S.H.A., executive director of the Rural Health Care Redesign Center in Harrisburg, Pa., said more innovation is needed in rural payment models as she discussed her experience working with 18 rural hospitals under a global budget in Pennsylvania.

Walters' organization led the Pennsylvania Rural Health Model, a CMMI demonstration model transitioning hospitals from a fee-for-service model to a global budget payment. It ran from 2019 to 2024. Payment for the global budget came from multiple payers, including private and public insurers. Instead of hospitals getting paid when someone is admitted to the hospital, they received a predictable amount of money at a specified time to provide services in the community. The goal was that through this change in payment model, the hospitals would be able to transform care locally to better meet the health needs of the community. This included opportunities to assess items that may traditionally fall outside of the role of the hospital, such as transportation and broadband Internet access.

Walters said alternative payment models are necessary in rural settings as she described an imbalance of demographics and utilization in the fee-for-service payment model. "Even most of the value-based work that's happened today is tied to fee for service or volume of activity," she said. "I think the biggest thing that rural communities or healthcare leaders face is that you need to be able to provide a large volume of services in order to keep healthcare access in these communities. And there's lots of data out there that shows that the population of rural communities is actually shrinking. So as the demographics have moved to more urban centers, getting paid for the volume of services you provide is no longer a strategy that works in rural areas."

Because the current course is not sustainable, we need to use innovative thinking about redesign and change, Walters stressed. "But the reality is, we have to preserve what we have in order to have a foundation to build upon."

Rural hospitals are looking at higher costs, but she said it helps to think in terms of achieving savings. "Changing the trajectory starts with thinking about cost avoidance, and thinking about the consequences if we continue at the pace that we're on," Walters added. "There is lots of data to support that rural healthcare costs are higher, but it's because of how the current system is designed. Unfortunately, I think we've got exactly what the current system is designed to create. I think we have to change our thinking of how we define cost as well, as improving health and wellness, and also bring cost avoidance into that conversation, which has not historically been done."

The Pennsylvania Rural Health Model, was the first CMMI demonstration specifically focused on rural health with a global budget framework. "I believe it's been wildly successful, maybe not through the lens of how our federal partners view success, but as it relates to keeping our hospitals open through the pandemic. It is important to note we launched this program in 2019," she said. "At the end of the day, we had 18 hospitals that voluntarily chose to do this, which in and of itself, is a success story that the hospital leaders could see the burning platform for change, and raise their hand to test something new, because they knew the fee-for-service paradigm is not going to be sustainable for them. All of our hospitals stayed open during the pandemic. All of them chose to stay in the program through the duration. So that's a testament to what that budget has been able to produce for them."

The program had two equally important pillars, Walters explained. One was the alternative payment that helped stabilize the hospital's finances so that they could focus on health and wellness activities in their community. The second was the development of a transformation plan, where they asked each participant hospital to write a strategic plan around moving from volume to value. She said this was really about teaching them skill sets. "Developing a value-based transformation plan is not something that came naturally to our rural hospital leaders."

Some of the hospitals stood up walk-in clinics, because, for the first time they didn't have to worry about keeping their hospital open. "They could say, through my budget I'm going to have this revenue, and now I can start investing in population health and wellness," she said.

"We've got some favorable data as it relates to reducing what's called avoidable utilization, which is fancy term for saying providing the right care in the right setting, reducing care that did not need to be provided in the emergency room but provided in primary care settings, focusing on keeping folks out of the hospital who don't need to be in the hospital through better outpatient services."

Her organization also is working with provider organizations considering the Rural Emergency Hospital designation, which is a relatively new attempt by CMS to try to meet some of the challenges that rural hospitals are facing with respect to providing acute inpatient care. The program allows rural hospitals to close down their inpatient operations and maintain a freestanding emergency department and outpatient care services. In exchange for doing that, Medicare provides them with a facility fee and a Medicare outpatient payment add-on for providing those outpatient services.

It's the first new licensure type rural hospital in decades. Walters called it a a step in the right direction as it offers a blend of an alternative payment and fee-for-service reimbursement. "I think it's a tool in the toolbox for the smallest of small rural hospitals to keep access to care," she said. "It has preserved some rural hospitals. But we've got larger rural institutions that are in need of better solutions."

At HIMSS25, Thinking About AI and Its Impact on Frontline Clinicians

A panel of clinician and other leaders looked at issues around clinician engagement in AI

Mark Hagland

At HIMSS25 taking place at the Venetian Sands Convention Center in Las Vegas, the discussion at the AI Preconference Forum on Monday morning turned to the crucial set of questions on how to engage clinicians and others, in the adoption of artificial intelligence (AI) in patient care organizations.

The first panel of the morning, entitled "Navigating AI Integration Through Change Management and Workforce Inclusion," was moderated by Attila Hertelendy, Ph.D., of Florida International University. He was joined by Spencer Dorn, M.D., M.P.H. MHA, of the University of North Carolina at Chapel Hill; Irene Louh, M.D., an adult intensivist at Baptist Health in Jacksonville, Florida; Mark Sendak, M.D., MPP, of the Duke Institute for Health Innovation in Durham, N.C.; and Scott Hadaway of ServiceNow.

Hertelendy asked Dr. Dorn about his hopes for AI in terms of improving the worklives and the productivity of frontline physicians, nurses, and other clinicians. "That's one of the great hopes: we have this magical technology; can we apply it in ways that relieve the burden and the drudgery?" Dorn said. "In many ways, I'm optimistic. But we have to be level-headed and realize that some burden might be relieved, and some new burdens might be added as well."

"AI is so promising for healthcare, for our workforce and teams," Dr. Lowe said. The core of the healthcare provider is that we want to care for our patients and really improve patient health. Over time, healthcare has made it more difficult because of the structure and function, so any way we can really relieve that burden, is important; there are a lot of opportunities leveraging AI, so this is a really exciting time to be in healthcare and healthcare IT."

Dr. Sendak emphasized that "I would say that most of the use cases that I have worked on, putting AI into clinical practice, do try to relieve some of the clinical load, for frontline physicians. So one of the first use cases for us was identifying gaps in care for patients with increasing kidney disease and other chronic disease, trying to help the primary care doc in managing care and making sure folks are getting referrals, prescriptions, etc.; as well as identifying emerging sepsis."

"How do we create strategies to engage our employees, to prevent skepticism and engage with trust?" Hertelendy asked the panelists.

"Frontline workers *should* be skeptical of AI, not necessarily cynical, but skeptical; we've all been promised so many things in the past," Dorn said. "I don't think we should expect clinicians to run to this with open arms. Second, AI is kind of a meaningless term at this point, with so many different technologies discussed at the same time, that some baseline education could go a long way. And third, aligning around a common goal. Why are we engaging with these technologies?"

"I feel there are a few different camps" in her health system, Louh opined. "There's the camp of, I've been sold something that sounds great, and some people are idealistic that will solve all the world's ills; there's the very skeptical group, who are also burned out on technology, as with the EHR. And I echo Spencer on this: education and awareness is an area where we've seen benefit through transparency. We've implemented LLMs for draft responses; that's commonplace now.

But really level-setting with our clinicians and team members so they know that this will take work and partnership to work. When we create those partnerships with our physicians, nurses, MAs and staff, to really build those models, that will reap rewards. We didn't go to medical school to do this, so this requires a lot of learning on everyone's part. And there's a lot of technology that doesn't work, so we do need to be skeptical and figure out what works and doesn't."

Responding to a question about the anxiety that many clinicians have right now, Hathaway said, "Scott Hathaway: Clinicians show up with a huge burden on their backs. And now they have to talk to an AI that they may believe is smarter than they are or has access to more information. And it does feel like a black box. And we have to be able to provide transparency" to how AI really works.

"Are you hearing concerns about job loss?" Hertelendy asked. "Let's take a step back," Dr. Sendak said. "I am confident—we're looking at a nine-figure shortfall in our organization. But it's not going to be, will AI take my job, but instead, will my job be eliminated because AI will be used when people are eliminated? I'm married to a front-line primary care physician. We're in a dire shortage of behavioral healthcare services," among others, he noted.

"There's another piece, and it gets minimized," Louh said. "We have a nursing shortfall in this country; we have a physician and a provider shortfall in this country. And in certain ways, we don't have a choice. It is real: people are worried about losing their jobs. And change is hard for people. And can we think about AI in a way, to really solve some of these problems? At the end of the day, we're all human, and we need the investment and the architecture to solve this."

"I think less about replacing healthcare workers, though there is a risk for certain highly repetitive tasks that machines can approximate; but it's more likely that we'll all continue to work, but the nature of our work will change.," Dorn noted. And he went on to say that "One of my favorite studies from *JAMA* last year found that models can outperform physicians, but it turns out that most physicians were using the large language models like search engines, but they're not actually search engines. So we need to help people understand that this is a different class of technologies; having some basic literacy education would help."

"And how do you create space for your team members who are burdened, and where does that fit in our organization?" Louh said. "About two months ago, we retrained all our nurses on our EHR, on which we had been live for about two-and-a-half years. We wanted to help them level up how they use the EHR. It required space, time, and money. It was very useful and helpful, but required c-suite-level engagement. But it decreased documentation time for our nursing staff and made them happier; they understood the tools better. And we need to do that with regard to AI. Just take the basic predictive model for sepsis: what's it for? What's it not for? How do you use it, and critically think about what you're seeing? Those kinds of concepts are really important."

"How can we build solutions for our frontline clinicians? And it's unrealistic to me to think that every primary care doctor should be doing independent due diligence on algorithms. There's a behavioral health crisis among our youth, and so that's not something that frontline clinicians should be doing. I've seen a positive ripple effect, where we'll create an algorithm for a particular use case, and then other groups will adopt similar strategies. And that is classic innovation strategy. And at a national level, we're seeing a massive digital divide, with maybe a few dozen organizations—Duke, UNC, New York Presbyterian—we're in a network and are advanced. But how do we help safety-net hospitals, critical-access hospitals, federally qualified health centers, how do we help them to adopt technology? And how do we help leaders make decisions to help their frontline caregivers?" Helping patient care organizations across the U.S. healthcare system to be able to effectively adopt AI will be crucial, he emphasized.

Accenture Report: Generative AI Offers Promise

A new report by Accenture finds optimism among healthcare execs over generative AI

Mark Hagland
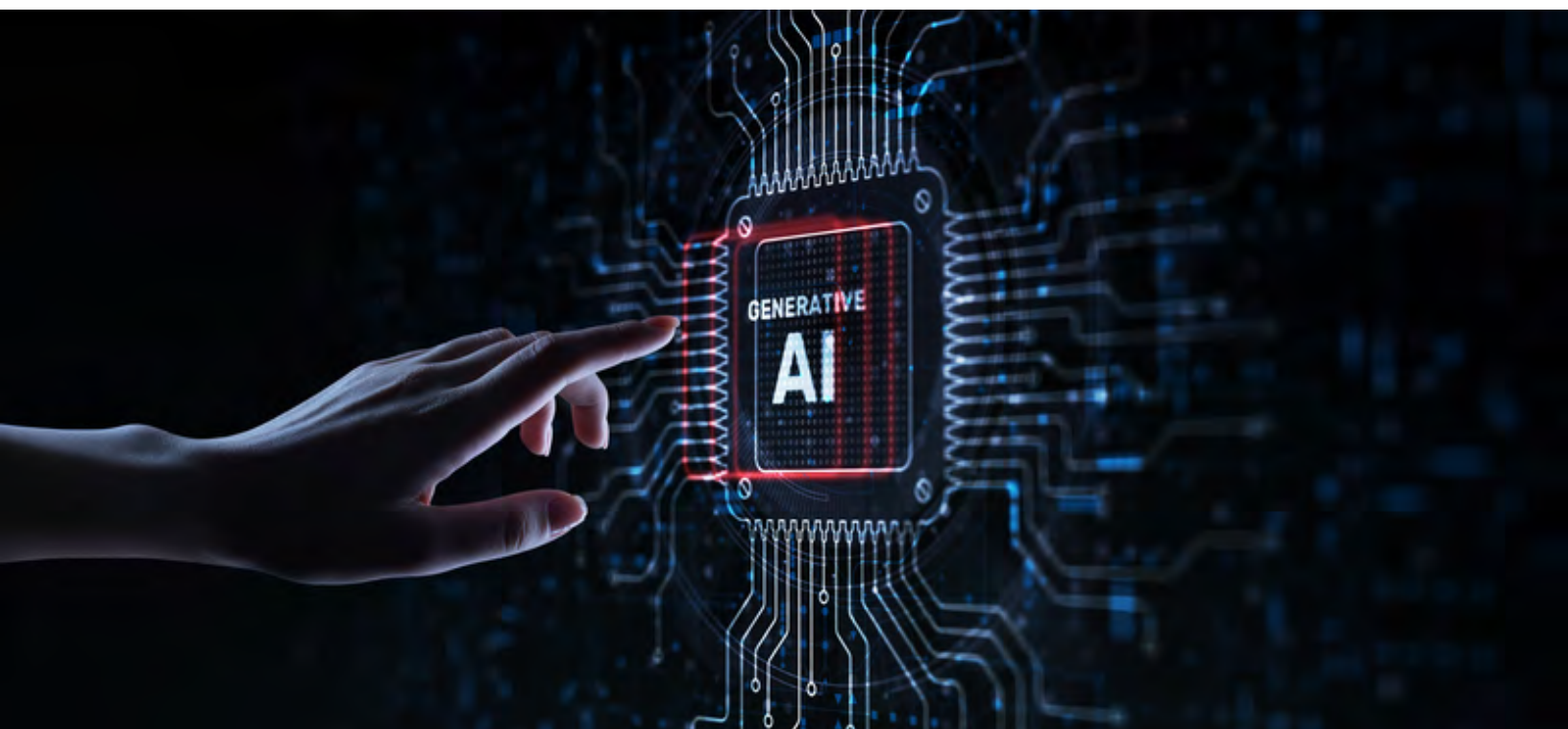
With the demand for healthcare services growing daily because of an aging population and an explosion in chronic disease, experts are predicting huge shortages of nurses and significant shortages of physicians, in the coming years. Fortunately, a new survey finds that generative AI (artificial intelligence) is a set of tools that senior leaders of patient care organizations are planning to implement broadly in order to help address issues such intensifying clinician shortages.

Indeed, the survey of 300 c-suite patient care organizations by Accenture offers some hope for the future. That report, entitled "Gen AI amplified: Scaling productivity for healthcare providers," and authored by managing director Tejash Shah, M.D., and senior managing director Kaveh Safavi, M.D., J.D., of Accenture Global Health, find that fully 77 percent of those leaders surveyed are hoping that generative AI will deliver significant productivity gains, even as 83 percent say that employee efficiency is a top priority.

Shah and Safavi identify four key elements that will be required for generative AI adoption to succeed in patient care organizations:

healthcare innovation
PEOPLE. PROCESS. TECHNOLOGY TRANSFORMATION. ®

- Building a reinvention-ready digital core. "Scaling gen AI requires a robust digital infrastructure," they write. "Healthcare providers need to prioritize cloud integration, data accessibility and governance to support organization-wide AI activities."

- Strengthen data quality and strategy. "High-quality, centralized data is a prerequisite for reliable gen AI output," the authors write. "A robust data foundation enhances predictive analytics" to fuel clinical and operational uses.

- Prioritize responsible and secure AI deployment. "As gen AI's role in healthcare grows, securing data privacy and ensuring responsible AI use are moare more important than ever," the authors emphasize.

- Forge strategic partnerships to accelerate innovation. "In-house resources alone cannot drive scaled gen AI," they insist. "Strategi collaborations with technology leaders, academic institutions and service providers offer essential expertise, support and the ability to stay at the forefront of gen AI advancements."

So what are the biggest opportunities for generative AI in patient care organizations? Among survey respondents, 83 percent cited "increase employee efficiency," 82 percent said "drive revenue growth," while only 18 percent cited "increase market share," and only 17 percent said "improve medical decision making."

And which outcomes do executives anticipate will be most positively impacted by the implementation of generative AI? The two overwhelming answers from survey respondents are "revenue growth" (82 percent) and "productivity gains" (77 percent).

And the report's authors cite "five imperatives for a reinvention strategy": "lead with value; understand and develop an AI-enabled, secure digital core; reinvent talent and ways of working; close the gap on responsible AI; drive continuous reinvention."

Live from HIMSS25: Not Having an Incident Response Plan is Not an Option

At the cybersecurity pre-conference forum, healthcare leaders discuss privacy standards for secure health data

Pietje Kobus

At the HIMSS 2025 cybersecurity pre-conference forum on March 3, a panel discussed privacy standards for secure and interoperable health data. Hannah Galvin, CMIO with Cambridge Health, moderated the panel. Last year's Change Healthcare breach quickly came up. This was a game changer, the panel indicated.

"That particular ransomware attack was as a result of a vulnerability on a very commonly used remote access tool," Alex Enriquez, cybersecurity solution lead with Avanade, Inc., mentioned. "A lot of us, all of us, were impacted by COVID." The question then was: How do we get people access to the organization while not traveling? That's where MFA (multi-factor authorization) came in.

Erika Riethmiller, VP and chief privacy officer with UCHealth, noted that healthcare is such a target for attackers. "Not having an incident response plan on the privacy side of things is simply not acceptable anymore," she cautioned. Riethmiller told the audience that her organization still feels the downstream effects of a 2023 attack.

We need requirements, Riethmiller reiterated about the new security rule notice of proposed rulemaking (NPRM) introduced in December by the Health Department of Human Services (HHS). "The amendment was hugely powerful from a privacy perspective. When we respond to HHS inquiries about breaches, infamous releases, and disclosures, we automatically submit a one-pager about how we comply with the NIST cybersecurity framework.