

# On the Frontlines of Innovation

Executives weigh in on big tech, barriers  
to innovation and the future of healthcare



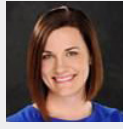
## PARTICIPANTS INCLUDE:



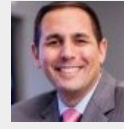
**Karen Murphy**  
PhD, RN, Executive Vice President and CIO with Danville, Pa.-based Geisinger



**Stephen Morgan**  
MD, Senior Vice President and Chief Medical Information Officer at Roanoke, Va.-based Carilion Clinic



**Kerri Schroeder**  
Bank of America Healthcare Credit Executive



**Peter M. Fleischut**  
MD, Senior Vice President and Chief Transformation Officer for NewYork-Presbyterian (New York City)



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# On the Frontlines of Innovation

## Executives weigh in on big tech, barriers to innovation and the future of healthcare

By Brian Zimmerman, Custom Content Editor, Becker's Healthcare

Digital innovation has ushered in an era of extraordinary convenience across consumer-driven industries. Today, consumers in areas such as retail and banking experience highly personalized, streamlined interactions that fit neatly into the chaos of modern life. Conversely, the healthcare industry has either been reluctant to, or incapable of, keeping pace with these industries when it comes to consumer-facing innovations. While advancements in clinical care — such as the rise of genetic medicine — have abounded in recent years, many industry decision-makers have been reluctant to overhaul longstanding processes and workflows in favor of holding tight to the status quo and fee-for-service thinking.

This, however, is changing. More and more hospitals and health systems are bringing on tech-savvy executives — in either established roles or newly inaugurated positions, such as chief digital officer — to drive innovation in care delivery and patient engagement, among others. That the healthcare industry is a “laggard” when it comes to innovation may be a trope that soon drops from the industry’s thought-leadership lexicon. More than half of the healthcare administrators that participated in a 2019 Advisory Board survey said “hardwiring innovation into planning, improvement and staff culture” had become a key response to industry disruption at their organization, making it the most-

selected potential response to disruption on the survey. In the same survey the year prior, that response ranked eighth.

This increased emphasis on innovation is evidenced by how hospitals and health systems allocate funds. In a 2019 survey of healthcare executives conducted by Becker’s Hospital Review and Bank of America, more than 67 percent of respondents said their organization’s budget for new technology had increased in the last two years.

Although hospitals and health systems have intensified efforts to make their operational processes more innovative in recent years, the desire to do so isn’t exactly new for many executives. They have craved innovation for much

longer. According to a handful of executives who spoke with Becker's during a roundtable discussion sponsored by Bank of America, the healthcare industry's sluggish progress on operational innovation can be attributed more to a set of challenging circumstances and limited resources rather than a lack of will.

Discussion participants included:

**Karen Murphy**, PhD, RN  
Executive Vice President and CIO  
with Danville, Pa.-based Geisinger

**Stephen Morgan**, MD  
Senior Vice President and Chief  
Medical Information Officer at  
Roanoke, Va.-based Carilion Clinic

**Kerri Schroeder**  
Bank of America Healthcare  
Credit Executive

**Peter M. Fleischut**, MD  
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Presbyterian (New York City)

**Neil Gomes**  
Chief Digital Officer and Executive  
Vice President of Technology  
Innovation and Consumer  
Experience at Philadelphia-based  
Thomas Jefferson University and  
Jefferson Health

During the conversation, Dr. Murphy said part of the reason healthcare has been labeled a laggard on innovation is because hospital and health system leaders have been working in a "very, very complex ecosystem, and traditional finance models support the continuation of that very complex ecosystem." In short, healthcare delivery and reimbursement are built in a way that nurtures the status quo.

Ms. Schroeder said financial barriers can slow down the adoption of new technologies. "Oftentimes investments in clinical assets take priority in the competition for capital spending within the system," she said. "Investments in back office and operations sometimes fall lower on the priority list. However, we're starting to see a real shift toward prioritizing some of those initiatives... because they're becoming so important to maintaining relationships with patients."

With reimbursement tied to patient satisfaction and competition among providers on the rise, hospitals are investing in technology to improve patient retention and engagement. This push to innovate may also be fueled by the entry of tech giants like Amazon and Apple into healthcare—these companies have vast expertise in consumer engagement and well-established consumer-centric infrastructures. However, the relationship between providers and tech giants is not completely adversarial—in addition to taking the reins on healthcare services for their own employees, tech companies are developing tools that will help hospitals and health systems deliver a better experience to patients.

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**Kerri Schroeder**  
Bank of America Healthcare Credit Executive

This e-book examines the barriers to innovation in healthcare, the relationship between big tech and providers, and the importance of ensuring all efforts to innovate processes or incorporate new technologies take the needs of individual providers and patients into consideration. The content is based on results from the Becker's-Bank of America survey and the executive roundtable discussion.

## 'Technology isn't strategy' — The importance of people, processes and culture

While the roundtable participants agreed that technology adoption is on the rise, several made a point to emphasize that technology alone won't solve healthcare's more intractable problems. If applied without end-users' needs in mind, new solutions may worsen more problems than they solve, like physician burnout. About 70 percent of more than 4,000 Rhode Island physicians surveyed in 2017 said they'd experienced stress related to health information technology, according to a study published in the *Journal of the American Medical Informatics Association*. The prevalence of burnout among clinicians should serve as a reminder to hospital and health system

leaders that technology should empower, not burden, staff.

Dr. Fleischut — who heads innovation initiatives at NewYork-Presbyterian Hospital, which comprises 4,069 beds and experiences more than 3 million patient visits annually — said the application of certain technologies in healthcare operations has stalled at times. Dr. Fleischut said in order to increase the likelihood of adoption, new solutions should be tailored to support the people and processes necessary to execute on the organization's larger strategies. "You can't just implement technology for technology's sake," he said.

Carilion Clinic's Dr. Morgan, who has championed the use of technology to improve care quality and physician efficiency since 1999, echoed this sentiment. He argued that the integration of new technology must align with an organization's overall strategy, otherwise the effort will likely falter. "It's not just about technology," Dr. Morgan said. "You need people, processes and technology to make innovation work." In 2018, Carilion Clinic earned designation as a Next Generation Innovator from the National Quality Forum and was

listed among healthcare's Most Wired by the American Hospital Association's Health Forum.

As the founding director of Geisinger's Steele Institute for Health Innovation, Dr. Murphy oversees several initiatives aimed at addressing the rising cost of care and improving care delivery. One such effort, currently in its planning phases, aims to reduce clinician clerical burden with the aid of artificial intelligence. The AI-powered clinician digital assistant will capture and synthesize patient-provider conversations, thereby allowing physicians to focus directly on the patient interaction without concern about documenting every detail in real time via keyboard. In this instance, the innovation is designed to support Geisinger's overall strategy of delivering better outcomes and a more satisfying experience to both patients and individual providers across the system's 12 hospital campuses.

"Our goal to distinguish ourselves from competitors is to really focus on service," Dr. Murphy said. "Technology isn't strategy, it enables strategy."

Before new technology can be incorporated into workflows, leaders must first ensure they've built a cultural framework that supports the successful adoption and application

of new solutions. Executives focused on innovation should first ensure their providers and clinical leaders are aligned in pursuit of the same long-term goals. When staff members think of innovation at their facility, they shouldn't simply recall the most recent application of a new solution, but rather think of their organization's big picture — their steadfast commitment to continually improving processes for the purpose of achieving more economical care that supports better outcomes.

### 3 tips for overcoming barriers to innovation

A culture of innovation accounts for and prevents barriers to progress, such as a lack of physician buy-in. During the discussion, executives shared insights that could help organizations overcome common barriers to the adoption and successful application of new technologies.

Here are three tips for overcoming barriers to innovation:

#### 1. Engage physicians and prioritize change management:

Failure to generate buy-in among providers is one of the primary barriers to the adoption of new processes and technologies. More than 45 percent of respondents to

the Becker's-Bank of America survey selected provider adoption as one of their organization's primary barriers to innovation, making it the second-most-selected obstacle on the survey behind budgetary constraints.

Physician engagement is an essential component of innovation. Beyond ensuring individual providers are aligned behind the same goal, physician voices should also be heard when selecting new technologies or designing new processes and workflows.

According to Mr. Gomes, who heads up the design and implementation of digital innovations at Thomas Jefferson University and Jefferson Health,

which has an annual operating budget of more than \$5 billion, healthcare leaders sometimes struggle to communicate the vision of innovation efforts.

"I think we just have to become way better storytellers," he said, citing difficulties leaders sometimes encounter when addressing common concerns around how technologies, such as AI and automation, will affect workflows and patient interactions. "We have to communicate that the solutions we're working on actually address some of the concerns physicians have about technology taking time away from direct interactions with patients."

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"I can see ... some of the work big tech is doing being really complimentary for healthcare providers. On the other hand, they're also starting to put a toe into territorial waters... so, positioning your organizations to compete with those disruptive forces is really critical to maintaining patient relationships long-term and maintaining relevancy with folks, particularly those younger, healthy consumers."

**Kerri Schroeder**  
Bank of America Healthcare Credit Executive

Ms. Schroeder, who also serves as Bank of America's national credit executive for its healthcare businesses, agreed with Mr. Gomes, adding that employees will sometimes be inclined to stick with the complicated and inefficient processes they're familiar with rather than learn something new. Therefore, Ms. Schroeder said it's important for executive leadership "to paint a compelling vision for how change and innovation will shape the company in the future and how ultimately those changes will benefit the organization as a whole."

## 2. Fix broken processes before going digital:

Dr. Murphy said projects designed to eliminate paper and speed up workflows should not simply digitalize the paper-based processes already in place. The application of new digital solutions offers providers the chance to reassess current workflows and protocols. Slapping fresh paint on a broken system will not solve a

hospital's or health system's deeper operational inefficiencies.

"We should not be digitalizing current processes — the processes should be new," Dr. Murphy said. "If you digitalize a bad process, you might come up with the bad digital innovation...we need to be keenly aware of each process we digitalize."

Dr. Murphy's comments emphasize the importance of addressing strategic concerns prior to the launch of innovation efforts. Processes should be assessed and conceptually optimized prior to the launch of a digitalization effort.

## 3. Innovate with the patient in mind:

With patient satisfaction tied to reimbursement and patients paying more out of pocket for healthcare services than in the past, patient engagement has become a primary target for quality improvement efforts. Healthcare executives looking to help position their

organizations for a consumer-centric future should focus on innovations that could better serve healthcare's most important stakeholder — the patient. Launching innovation programs without first giving careful consideration as to whether the efforts will help patients undermines both ongoing and future attempts to integrate technology. Giving priority to solutions that don't ultimately improve the patient experience or care quality in some way can be a waste of resources in today's increasingly value-based, consumer-centric healthcare industry. Patients want improved access to care, more convenience and a more transparent financial experience.

Mr. Gomes suggested providers have struggled to reach patients in the past because decision-makers at these organizations have not traditionally thought about patients as individual people who exist outside the boundaries of their medical need. "Patients just consider themselves as people, especially when they leave the hospital. If you think about patients as people, then you're going to think about different ways you can engage them outside the hospital," he said.

Building on Mr. Gomes' comments, Dr. Murphy said providers should consider including patients in the design process of solutions rather

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### Neil Gomes

Chief Digital Officer and Executive Vice President of Technology Innovation and Consumer Experience at Philadelphia-based Thomas Jefferson University and Jefferson Health

than just relying on assumptions about what patients want, adding that health systems can take a page from the big tech disrupters' playbook when it comes to consumer engagement.

"We need to be much more engaged with patients as opposed to just thinking we know what patients want," Dr. Murphy said.

## Big tech — Friend or foe?

The entry of Silicon Valley blue chips like Amazon, Apple and Google into healthcare promises disruption in an industry plagued by rising costs and rife with inefficiency. For years, these tech giants have done what leading healthcare organizations aspire to do — know and, in some cases, predict their customers' needs. It's not completely clear what the entry of these companies into healthcare means for hospitals and health systems. Speculation from industry thought leaders varies: Some worry about competition for patients as Apple and Amazon launch primary care clinics for employees, others have expressed excitement about collaborative opportunities and access to new consumer products. These dual outlooks were represented in Becker's conversation with executives.

Ms. Schroeder said she believed current projects in development with big tech companies could yield significant benefits for providers. Additionally, the cooperative effort between Google, Amazon, Microsoft and others to create healthcare data-sharing standards could help untangle one of healthcare's thorniest technology problems — interoperability. On the other hand, Ms. Schroeder does believe some of these companies will compete with traditional healthcare organizations for patients.

"I can see...some of the work big tech is doing being really complimentary for healthcare providers," Ms. Schroeder said. "On the other hand, they're also starting to put a toe into territorial waters ... so, positioning your organizations to compete with those disruptive forces is really critical to maintaining patient relationships long-term and maintaining

relevancy with folks, particularly those younger, healthy consumers."

While tech giants have the edge over health systems in terms of delivering a consumer-friendly digital experience, health systems have the edge over tech giants when it comes to care management, especially for more critically ill patients. Tech companies will likely not be able to deliver healthcare services completely independent of traditional providers. Still, during the conversation, multiple executives said they're already working on projects to compete with big tech, describing the entry of these companies into healthcare as a galvanizing force in the industry.

"This is a call to arms to try to figure out how we start to move forward faster [on the digital experience], take some risks and fail fast, because we do feel the competition," Dr. Morgan said.

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**Stephen Morgan, MD**

Senior Vice President and Chief Medical Information Officer  
at Roanoke, Va.-based Carilion Clinic

Mr. Gomes described big tech's entry into healthcare as a "wake-up call" that could bring about major change. "I see it as a big positive," he said. "Sometimes to move forward on innovation, especially transformative and not incremental innovation, you have to have good reason for it, and many times that good reason is new competition."

## A bright, value-based future

Mr. Gomes' comment describing industry disruption as a great opportunity was indicative of a general theme that underpinned the executive roundtable conversation and emerged from the Becker's-Bank of America survey—optimism.

More than 80 percent of survey respondents said they were either moderately optimistic, optimistic or very optimistic about their organization's ability to remain competitive in the future. This optimism exists in the face of some considerable financial

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**Karen Murphy, PhD, RN**

Executive Vice President and CIO with Danville, Pa.-based Geisinger

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constraints—more than 32 percent of respondents said their organization's most recent annual operating margin was 3 percent or lower and more than 72 percent listed budgetary constraints as a primary barrier to innovation.

So, the optimism about healthcare's future? It's possible they agree with Geisinger's Dr. Murphy, who believes a true transition to value-based care will come to fruition. Currently, most providers occupy a liminal space between fee-for-service and value-

based models—having to navigate bifurcating care continuums may be exhausting resources and limiting the capacity of some organizations to initiate meaningful innovation.

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