Digital transformation in healthcare: Survey analysis

Healthcare industry survey reveals insights about the state of digital transformation

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Dear friends,

Perhaps no other industry has been as severely impacted by COVID-19 as healthcare. The pandemic caused a significant disruption to the industry's clinical and business operations and greatly accelerated the adoption of technology across the continuum of care.

By investing in digital technologies, healthcare organizations can enhance communication and collaboration among caregivers, improve the overall patient experience, and efficiently deliver care to patients outside traditional healthcare facilities. While many organizations understand the need to blend physical capabilities with digital technologies, the constant evolution of technology makes choices more complicated. How can you be sure that your digital solutions will work for your specific clinical and operational needs?

At AT&T Business, we're invested in helping you efficiently deliver the best care for your patients. We are always here for you—ready to provide support when you need it and making sure you stay connected. No matter what lies ahead, we make your success a priority by remaining alert and responsive and by anticipating your business needs. That's why we've partnered with the College of Healthcare Information Management Executives (CHIME) to survey its members on the state of digital transformation in healthcare.

Through this report, you will learn how C-suite leaders at healthcare organizations across the country view the state of their digital transformation and their top priorities and challenges for the months and years ahead.

We hope this resource provides additional insights to help make your digital transformation journey successful.

— Joe Drygas, VP, Industry Solutions Healthcare, AT&T Business

Executive summary

Key questions every healthcare organization must ask themselves: **"How healthy are our networks and tech systems, and how well are we progressing with our digital transformation initiatives?"**

Many of us started the digital transformation in a rush. With the onset of the COVID-19 pandemic in the spring of 2020, there was no other choice. Now organizations are taking a breath, revising hurried decisions, and planning their next steps.

Digital transformation has the potential to improve overall patient care. With that as the motivation, organizations need an enterprise design strategy to replace quickly implemented point solutions. This involves planning.

Before diving into unfamiliar territory, it's good to find out what others are doing. With this goal in mind, a recent survey conducted by the College of Healthcare Information Management Executives (CHIME) for AT&T Business, asked key players in healthcare—decision makers and IT professionals—a series of questions. Metaphorically, we did a CAT scan on the industry and how well it's adopting and adapting to cutting-edge technology.

At AT&T Business, we're bringing you this report to share the status of the digital transformation in the healthcare industry, what's driving the transformation, how satisfied leaders are with their transformation progress, challenges that could jeopardize that progress, top priorities for the future, technology complications that affect the patient experience, and finally, recommendations for improving your digital transformation.

The survey indicates that healthcare organizations should carefully choose their top digital transformation priorities and, where appropriate, take advantage of 5G and cloud technology, as well as managed networking opportunities. The insights in this report serve as a benchmark to help you evaluate where you are and your next step forward.

About the respondents

We surveyed senior healthcare IT leaders from the College of Healthcare Information Management Executives (CHIME) and other affiliated organizations to generate the results featured in this report. The majority of respondents (94%) are from CHIME, a professional organization for Chief Information Officers and other senior healthcare IT leaders.

Six percent of the respondents are members of nonprofit professional associations that CHIME manages, including the Association for Executives in Healthcare Information Security (AEHIS), Association for Executives in Healthcare Information Technology (AEHIT), and the Association for Executives in Healthcare Information Applications (AEHIA). Members of these associations include information security, technology, and applications leaders who influence health investment and technology decisions.

Which of the following best describes your organization?

The respondents also represented hospital systems of varying sizes. Of 91 respondents, 65% represented large multi-hospital systems and Integrated Delivery Networks.

Other
18.7%

Integrated Delivery Network
27.5%

Multi-hospital system
36.3%

Stand-alone hospital
17.6%
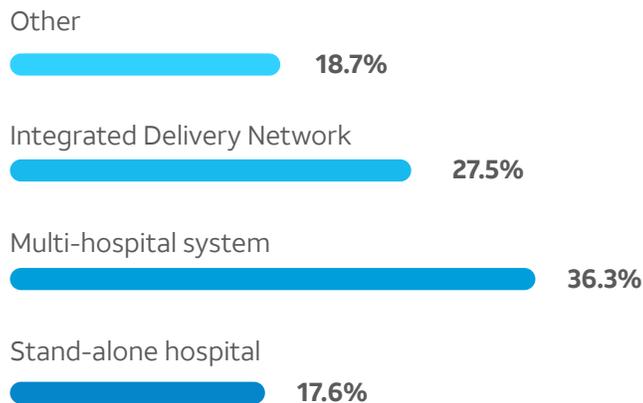
What is the size of your organization?

Forty-five percent represented healthcare systems with greater than 500 beds.

30.77%
200 or fewer beds

24.18%
201 to 500 beds

45.05%
Greater than 500 beds
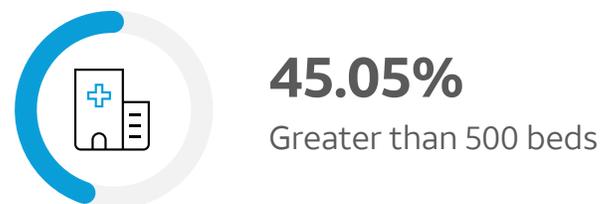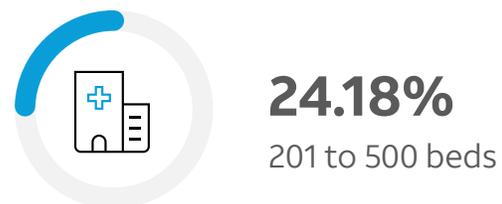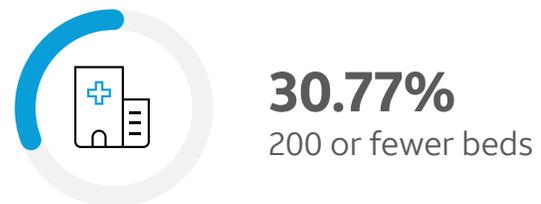
Key insights

- **Digital transformation in the industry is well underway:** **89%** of respondents said they had fully executed some or all of their digital transformation projects.

- **Improving care quality and patient experience are the major drivers:** **46%** said improving patient outcomes and overall quality of care was the No. 1 objective.

- **Industry executives are generally pleased with the results of their efforts:** **92%** of their initiatives were very or somewhat effective.

- **Challenges still exist that could jeopardize further progress:** **28%** said a lack of unified vision or strategy in their organizations was the top challenge that affects the patient experience.

- **Improving the patient experience with technology is proving to be difficult—and executives are looking for help from 5G:** **34%** said improving the patient and guest experience is the challenge they are struggling the most to solve with technology, and 30% said 5G will have the biggest impact on in-facility patient experience over the next 1-3 years.

- **Virtual care remains a top priority moving forward:** **22%** said they were most interested in telehealth and remote patient monitoring solutions over the next 1-3 years.

# Digital transformation in the healthcare industry is well underway

This result is good news and indicates that the industry has embraced digital transformation to improve efficiency. This efficiency benefits hospitals, care providers, and patients by bringing care directly to the point of service.

With the pandemic, healthcare had to accelerate the adoption of virtual care solutions. Healthcare organizations must now make sure that the individual systems and technology chosen at the beginning of the pandemic are compatible with other systems in the organization. Moving forward, healthcare organizations should continue the momentum with a solid plan that focuses on top priorities for the future, while tackling any roadblocks.

Which of the following best describes your organization's current state of implementing technological solutions to transform care delivery?

Eighty-eight percent of respondents said they had executed some or all of their digital transformation projects, while 12% were either in the beginning stages or had no plans in place.

Fully executed (60% or more)

16.48%

Implemented most initiatives (40-60%)

25.27%

Implemented some initiatives (20-40%)

46.15%

In the planning stage (0-20%)

7.69%

No plans

4.40%

Improving care quality and patient experience are the major drivers

This survey question reinforces the need for digital transformation. Organizations now use improved connectivity and other technological innovations to monitor patients remotely, reducing the vulnerability caused by gaps in care. Improved data sharing capabilities and access to cloud resources also helps clinicians improve the overall quality of care. By migrating care to the home, patient outcomes are often better.

If you had to choose just one, what is the number one objective driving your technology decisions?

17.95%

6.41%

21.79%

0.00%

5.13%

46.15%

2.56%

Enhancing competitive position to grow revenue and share of market

Reducing the cost of operations

Improving patient satisfaction scores and the overall patient experience

Complying with government laws and regulations

Providing virtual care for patients, including those in under-served rural communities

Improving patient outcomes and overall quality of care

Enhancing communication and collaboration between clinicians

Forty-six percent said that improving patient outcomes and overall quality of care was their top objective. Twenty-two percent cited improving patient satisfaction scores and overall patient experience as the most important reason, and 18% said improving competitiveness and growing market share was most important.

It's not surprising that those who choose a career in healthcare are motivated by improving patient quality of care. The industry shift from an activity-based to value-based care also substantiates these results.

Industry executives are generally pleased with the results of their efforts

Improving the overall quality of care means improving connectivity, communication, data sharing, and data analysis so information can move smoothly and freely across the continuum of care. The advent of 5G combined with improved Wi-Fi connectivity are important factors moving forward.

Modern communications technology now provides healthcare organizations the connectivity solutions needed to reach rural or underserved communities, so patients living in these areas can benefit from remote monitoring and care. Ultimately, it's about providing equity in healthcare through technological innovation.

It's important to note that improved operational efficiency and greater market share tends to follow better patient outcomes.

How would you rate your organization's progress at achieving its digital transformation goals?

Ninety-two percent of respondents said their initiatives were very or somewhat effective. Even though healthcare leaders are generally pleased with their results, it's important to strive for near 100% satisfaction. It may be a problem with the clinician workflow, instead of a technology issue.

Keith Fraidenburg, Executive Vice President and Chief Operating Officer for CHIME, says, "Healthcare systems today rely on having access to patient and diagnostic information, 24/7, 365 days a year, with no downtime. Lives are at stake, so healthcare is different than any other industry. Since the stakes are so much higher, expectations for technology are higher, too."

Ineffective
1.28%

Not very effective
5.13%

Somewhat effective
66.67%

Very effective
25.64%

Extremely effective
1.28%
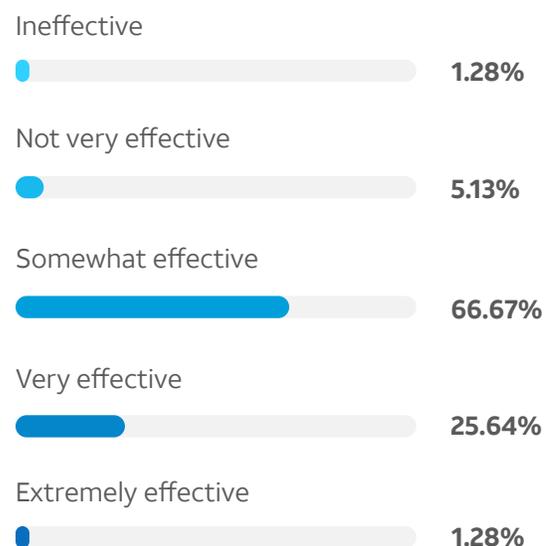
But challenges still exist that could jeopardize further progress

Lack of unified vision or strategy may be tied to a lack of budget. A hospital's profit margins, or the difference between profit and loss, is razor thin. Also, the pandemic hit health organizations hard, with respect to financial loss. Trying to drive digital transformation when there are competing resource needs may result in a lack of unified vision, which prevents putting the necessary funds towards digital transformation.

Non-profit healthcare organizations are managed differently than other organizations. There's a more democratized approach to decision-making, and a particular physician or department may influence these decisions. They're all competing for a limited budget, and each has worthwhile goals.

What is the top obstacle your organization faces in its digital transformation?

Lack of expertise for implementing solutions
5.13%

Long-term viability of investment
2.56%

Which vendor or solution to choose
3.85%

Limited understanding of solutions
3.85%

Clinician workflow change resistance
11.54%
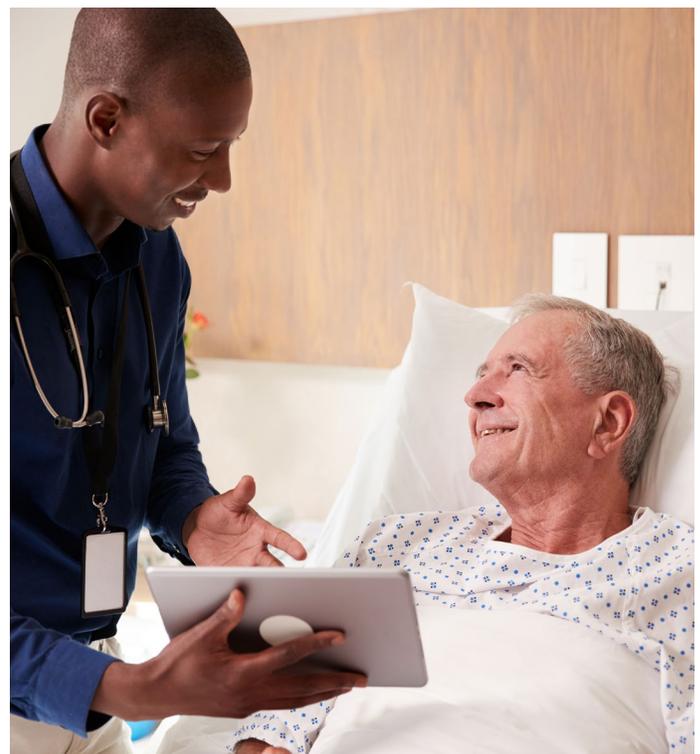
Challenges to address first

████████ **8.97%**

Return on investment is unclear

███ **3.85%**

Lack of available budget

█████████████ **14.1%**

Lack of unified strategy

██████████████████████ **28.21%**

Leadership of urgency

███ **3.85%**

Keith Fraidenburg says: "From CHIME's perspective, most of the real change management with respect to the digital transformation effort is not about the technology. Usually, technology represents about 5 to 10% of the change in the organization, process is about 15 to 25%, and the remaining 70 to 80% has to do with changing people's mindset and culture."

The challenge is to understand clinical workflows and how digital transformation integrates with it. When the integration requires change, healthcare organizations need to work with the people affected and help them embrace it. Clinicians want to provide the best possible care. Digital transformation efforts should let them do this without technological expertise.
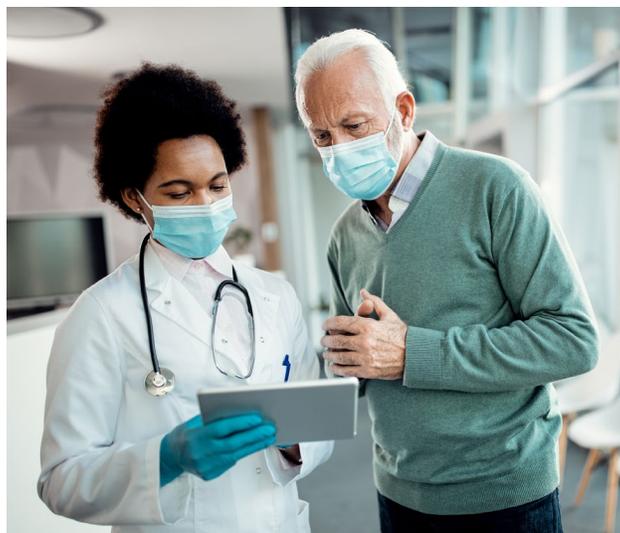
"From CHIME's perspective, most of the real change management with respect to the digital transformation effort is not about the technology.**"**

— **Keith Fraidenburg**, **Executive Vice President and Chief Operating Officer for CHIME**

Improving the patient experience with technology is proving to be difficult

— and executives are looking for help from 5G

Better cellular and mobile network technology has improved enterprise data flow. First responders can receive crucial information in an instant, remote workers can quickly send patient data to a healthcare team, and patient wearable sensor data automatically transmits to the clinician. Fast, secure wireless networks are now seen as data flow enablers, instead of just the power behind our smart phone.

But the question isn't whether to use Wi-Fi or 5G. Both are necessary since they're used in different ways. 5G appears to be well-suited for equipment and patient scheduling, modifying workflows on the go, patient intake and discharge, and creating other operational efficiencies. Meanwhile, Wi-Fi will also continue to provide guests the ability to stream entertainment, patient education, and training content, and install and play games.

"The pandemic drove healthcare organizations to expand or initiate digital technologies for patient care. Now, these services are progressing to an enterprise-grade architecture, which will improve scalability, flexibility, and reliability. In a future where everything is connected, a secure wireless infrastructure will help drive improved health and better access to healthcare."

— **Joe Drygas, VP, Industry Solutions Healthcare, AT&T Business**

Where do you envision 5G having the most impact over the next 1-3 years?
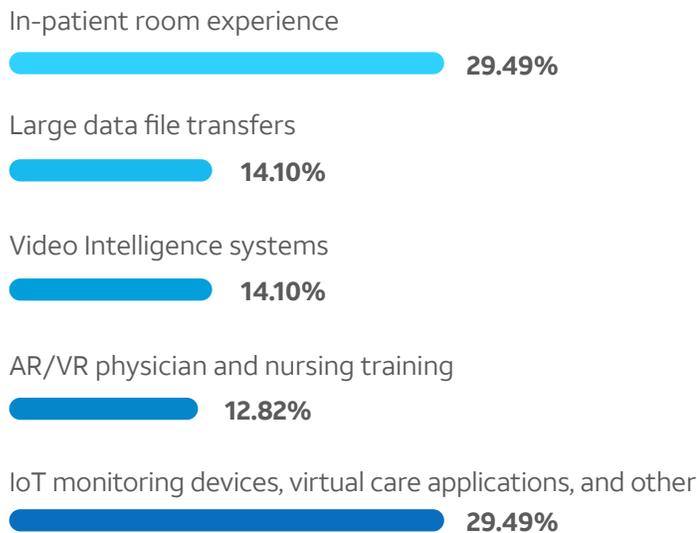
In-patient room experience
29.49%

Large data file transfers
14.10%

Video Intelligence systems
14.10%

AR/VR physician and nursing training
12.82%

IoT monitoring devices, virtual care applications, and other
29.49%

The benefit of 5G is for enterprise data flows. Durable medical equipment manufacturers are enabling 5G on their devices. For example, 5G is being used to transmit patient wearable sensors data, or ventilator quality control data. Wi-Fi networks will also continue to be important for smart devices that make use of local unlicensed wireless for patient entertainment and engagement.

Virtual care remains a top priority moving forward

Prioritizing IT efforts is difficult. Decision-makers must focus on the strategy moving forward and stay away from tactical efforts that aren't cohesive. The transition to managed network services is slowly catching on, allowing healthcare IT to focus on the problems related to their organization.

"As security demands rise, healthcare entities should focus on business continuity, partnering with managed security services to keep the operation safe and stable. In general, healthcare IT technical talent is moving up the technology stack, prioritizing their unique requirements instead of the base infrastructure."

— **Joe Drygas, VP, Industry Solutions Healthcare, AT&T Business**

Looking out over the next 1-3 years, which of the following technology solutions are you most interested in implementing?

Because of the pandemic, the focus on virtual care is not surprising. Telehealth has been available for several decades, but until recently, insurance providers reimbursed at a lower percentage or not at all. The Federal Public Health emergency prompted Medicare to reimburse telehealth visits at the same rate as an in-person visit. Other insurance providers followed suit, making virtual care a financially viable option for healthcare organizations. This fundamentally changed the business of healthcare.

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Survey respondents were also interested in artificial or augmented intelligence as a top priority. With artificial intelligence, a physician can analyze vast volumes of data to help with a difficult diagnosis.

Conclusion

From a network communications perspective, the top priority for healthcare organizations is to refine and optimize the solutions quickly implemented due to the pandemic and develop them into an enterprise-wide strategy. The goal is an enterprise design with cohesive IT solutions that make sense in terms of the organization's infrastructure.

Mobile networks are now built for enterprise data flows, and technology such as 5G and cloud services are available. With this technology, we can move towards more equitable healthcare by bringing remote patient monitoring and telehealth to rural and less-affluent urban areas.

Healthcare organizations are moving towards managed services so that IT has the time to focus on digital transformation goals. With managed services, the day-to-day voice, data, network, and security operations work is no longer part of the IT workday, allowing time to focus on problems related to their organization.

Finally, with the advent of telehealth and remote patient monitoring, clinicians can easily share data and communicate with patients. And by catching health issues early, technology is helping patients avoid hospital stays.

Ultimately, digital transformation moves healthcare organizations towards their primary goal—improving quality of care and the patient experience.

Why AT&T Business

Technology is complex. Transformation is fast. It can be difficult to know you're making the right connectivity choices. We can help you enhance the patient experience, link caregivers, and connect patients to care—all while protecting private and proprietary data.

Contact your AT&T Business representative to learn more.

More about CHIME

CHIME is a global non-profit organization that facilitates collaboration, exchange of ideas, and professional development for more than 5,000 members. On behalf of its members, CHIME advocates for the effective use of information management to improve healthcare.

CHIME members are healthcare Chief Information Officers, Chief Medical Information Officers, Chief Digital Transformation Officers, and Chief Innovation Officers who are the highest-ranking IT executives within their organization. These organizations include large hospital systems, community hospitals, for-profit hospitals, small or rural hospitals, physician practice groups, clinics, radiology groups, and organizations that exchange healthcare information. Participants must apply and qualify for CHIME membership. A typical CHIME member oversees the information services department and chairs the information technology steering committee in their organization. Members are typically responsible for telecommunications, EMR implementations, IT infrastructure support, and health informatics.