





FEATURE

Digital transformation

From a buzzword to an imperative for health systems

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THE DELOITTE CENTER FOR HEALTH SOLUTIONS AND THE SCOTTSDALE INSTITUTE

The COVID-19 pandemic was an accelerator of shifting consumer preferences and care-delivery innovation. See how, by embracing a digital mindset, health systems can transform their relationship with consumers.

Executive summary

The COVID-19 pandemic accelerated the convergence of several trends in the health care industry, particularly consumers prioritizing convenience and access to care. Leading health systems view digital transformation as a way to become more consumer-friendly while simultaneously changing their operations, culture, and use of technology.

The Deloitte Center for Health Solutions collaborated with the Scottsdale Institute to better understand how health systems are using digital to transform health care. To understand the digital transformation journey of health systems, we engaged Scottsdale Institute members in multipronged research: We conducted a survey of technology executives of 25 health systems, interviewed five health system technology leaders, and facilitated a moderated panel discussion of technology leaders from three health systems. We found that:

• Health systems consider digital capabilities a path to fundamentally transform their relationship with consumers. Most survey respondents are hoping to achieve better patient experience (92%) as the top desired outcome from digital transformation. Health system interviewees and panelists discussed taking a consumercentered, outside-in approach—designing processes and experiences from a consumer's

- perspective as a way to build their trust and loyalty—to improve patient experience and build on newer forms of care delivery using digital technology.
- While the digital transformation journey is long, health systems are focusing on interim milestones to show value. When asked how far they are from an ideal digital state, most survey respondents (60%) rated their organizations as midway through their journeys. Health system interviewees and panelists acknowledged that the transformation journey is longer than they had initially expected as the opportunities and definition of digital transformation expand. They also discussed a need to create frequent checkpoints to measure the value of the initiatives, rather than waiting until the completion of the initiatives to measure returns on investments (ROIs).
- Talent, data, and setting key performance indicators (KPIs) are challenges to overcome, in addition to budget. Survey respondents, interviewees, and panelists alike discussed how the quality and quantity of talent to support digital transformation initiatives was one of the biggest barriers to overcome. And, one-third of respondents said talent is their top investment priority in the next 3 years. To address challenges with data, survey respondents and interviewees reported investments in data

interoperability and creation of the right KPIs as top priorities in the next 3 years. Despite budget being a top reported constraint, two in three respondents expect investments in digital transformation initiatives as a percentage of total information technology (IT) budget to increase in the next 3 years.

• An executive champion is key to digital transformation success. Survey respondents consider leadership (80%) and management of implementation (68%) to be the key accelerators of digital transformation, and culture (60%), communication ownership, and transparency (48%) the key barriers. Health system interviewees and panelists recognized organizational leadership as a crucial factor for the success of their digital transformation efforts.

Our recent health care consumer survey findings show that consumers are increasingly exercising agency, engagement, and control over most decisions about their health and well-being. To meet consumers where they are, health systems should consider accelerating their digital transformation efforts by establishing a governance model, creating a digital culture, recruiting and retaining the right talent, and measuring the success of their initiatives.

Introduction

Over the past two decades, many hospitals and health systems adopted digital technologies in their various functional areas. In many cases, however, they took a piecemeal approach to numerous initiatives—from installing electronic health record (EHR) systems to building apps to trying disruptive technologies such as artificial intelligence (AI)—while remaining largely focused on the same business and customer models.²

The COVID-19 pandemic significantly altered this status quo for the health care industry. Virtual health and care delivered in the home became the model of not only necessity but also preference. But this change was not as sudden as it might look. The pandemic was an accelerator of several trends, including shifting consumer preferences, rapidly evolving technologies, newer talent models, and clinical innovation. In the face of these trends, as hospitals and health systems work toward adapting their businesses, a well-defined approach toward digital technologies will likely be at the core of this transformation strategy.

RESEARCH METHODOLOGY

The Deloitte Center for Health Solutions collaborated with the Scottsdale Institute to better understand how health systems are using digital transformation to help future-proof their organizations. We conducted a multipronged research project, engaging with large- and mid-sized health system members of the Scottsdale Institute between May and July 2021 that included:

- A survey of technology executives of 25 health systems
- Interviews with technology leaders from five health systems
- A panel discussion with technology leaders from three health systems

Key research findings

HEALTH SYSTEMS CONSIDER
DIGITAL CAPABILITIES A PATH TO
FUNDAMENTALLY TRANSFORM THEIR
RELATIONSHIP WITH CONSUMERS

Health systems acknowledge the acceleration in consumer agency and activation in the last few years.³ As consumers increasingly take charge of their health decisions, health systems are aligning digital investments to their overall business strategy—a strategy focused on consumers, according to roundtable panelists and interviewees. Almost all our survey respondents (92%) noted that better consumer satisfaction and engagement are the top outcomes their organizations want to achieve from digital transformation, followed by

improved care quality (56%). Closely aligned to the top outcomes, functions receiving most digital investments today are patient experience (88%), IT/cyber (80%), and clinical care delivery (68%) (figure 1).

Health system interviewees likewise discussed taking a "consumer-centric" approach, focusing their digital investments on improving patient experiences and newer forms of care delivery, especially since the onset of the pandemic. This is consistent with our recent research on opportunities for consumer-facing technologies in health systems to build a better health care experience. As one of the interviewees said, "With COVID-19, it became necessary to accelerate consumer-facing technologies, and now there's no looking back."

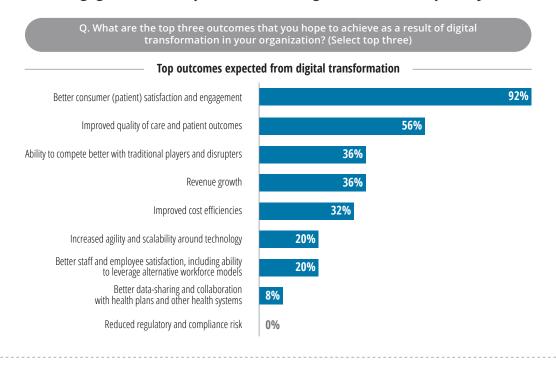
AS HEALTH CARE ORGANIZATIONS TRANSFORM DIGITALLY, CYBERSECURITY IS PARAMOUNT

Threats to cybersecurity are one of the biggest challenges health systems have faced amid rapid digitalization in the last few years. Since the onset of the pandemic, health care facilities have been among the top targets for ransomware attacks and will likely continue due to the large amount of personal-sensitive data.⁴

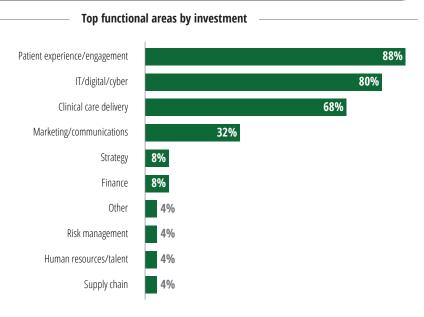
As consumers become the center of digital transformation efforts, privacy and security of patient information are among the top digital priorities for health systems. In our survey, cybersecurity was among the top three investment priorities today and also in the next 3 years. Interviewees also discussed how their cybersecurity units worked hand in hand with digital transformation teams to ensure greater transparency and ownership. Without a matched focus on cyber, health systems open themselves to additional risks as they increase digital activities.

FIGURE 1

Consumer engagement is a top outcome and digital investments priority



Q. In which functional area(s) is your organization investing in digital transformation efforts the most today?



Notes: Total responses = 25; the responses are not mutually exclusive. Source: Scottsdale Institute-Deloitte, Health System Digital Transformation Survey, 2021.

In addition, taking a nonconventional approach toward user experience, akin to consumer technology companies, was a recurring theme for interviewees and roundtable panelists. For example, one of the interviewees mentioned how digital technology is aiding more real-time feedback from patients, and they do not have to wait for months to get results from regulatory reporting (e.g., HCAHPS survey). This quick feedback obviously helps resolve consumer issues much more rapidly than previous nondigital solutions. Similarly, one of the panelists discussed how their organization is taking a "design-thinking approach to reimagine all their processes-both clinical and nonclinical." Using this approach, they initiate planning with the starting points for different consumers and how they might access their health care services.

We also asked our survey respondents how they planned to achieve the transformation—what technologies they were investing in now and what they planned for the next few years to transform their business and customer models. Respondents reported investments in insights and analytics (76%), virtual health services (68%), and cloud (56%) as top priorities today. Health system interviewees corroborated these are top investment priorities. They said their focus is on building

"A patient's journey is not just in the hospital. There is a "before" and an "after" (or a "not at all") and what we need to do is be able to stitch that together, making sure we are caring and understanding the context and then where we can leverage those digital tools to be there for them."

Chief digital officer, large regional health system

unified data and business intelligence (BI) capabilities. This forms a strong base for real-time business analytics, predictive analytics, and AI. One interviewee noted they need to focus on the entire technology spectrum, not just on next-inclass technologies. For them, better communication technologies for their call centers are just as important an investment as AI pilots.

ATRIUM HEALTH: PATIENT JOURNEY BEYOND HOSPITAL VISITS

For Atrium Health, a North Carolina-based integrated health system, the pandemic acted as a catalyst for their digital transformation efforts. As our roundtable panelist Omer Awan, chief data and digital officer at Atrium Health, put it, "We have been working on digital efforts for a while, but it wasn't until the beginning of last year that we really embarked upon a multiyear digital acceleration."

Atrium Health, like many health systems, ramped up its virtual health capabilities last year owing to the pandemic. Mr. Awan said that as the impact of the pandemic tapers off, one of the priorities for Atrium would be to not lose momentum toward virtual health and improve focus on better patient and caregiver experiences. He discussed how Atrium looks at virtual health holistically, with well-being, remote monitoring, and care management being as important as virtual visits. To ensure a better patient and caregiver experience, Atrium is deploying technologies such as chatbots to better understand consumer expectations.

Atrium is layering predictive analytics and AI at several patient touchpoints to understand and preempt consumer needs. As Mr. Awan notes, "We still haven't seen the best of AI and there's so much potential" to transform user experience and care delivery.

WHILE THE DIGITAL TRANSFORMATION JOURNEY IS LONG, HEALTH SYSTEMS ARE FOCUSING ON INTERIM MILESTONES TO SHOW VALUE

Digital transformation means something different to every health system, every stakeholder. However, most survey respondents and interviewees agree that it is more than just transferring paper processes to a digital environment. Digital transformation is a new way to deliver care, improve processes, and meet the well-being needs of consumers. Deloitte defines digital transformation as the use of digital technologies to radically improve the performance or reach of an organization. In a digitally transformed business, digital technologies enable improved processes, engaged talent, and new business models. This can take significant time and can expect scrutiny of efforts. It therefore requires a thoughtful approach to ensure alignment with end goals while also demonstrating value along the way.

While survey respondents were at different stages in the digital transformation journey, none of them said they were close to an ideal digital state. Most survey respondents (60%) said their organizations were no more than midway through their digital transformation journey. Slightly more than half of respondents said they have 3 or more years left until completing their digital transformation. In addition, 20% are still in planning stages and another 40% may not have a well-defined strategy (figure 2).

Expansion of opportunities for digital transformation has made the journey longer than they had initially expected, according to some health system interviewees. As these health systems progress further into their longer-term

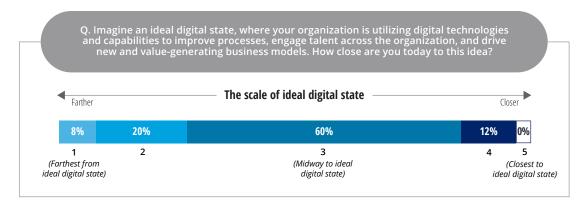
"Four years ago, digital transformation made it onto our health system strategy map. Then, I would have said, [we would be completely integrated] 5 years from where we started. But today, realizing the challenge of the work, I don't know the way we will look 5 years from now. Lots of work to do, so can't say [how long digital transformation will take]."

Senior vice president, a large integrated health system

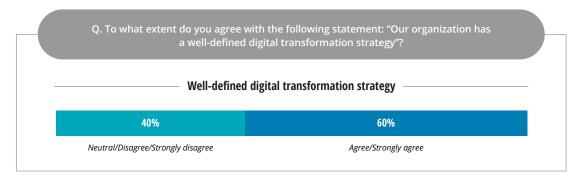
strategies, they are realizing that they are still at the beginning of their digital transformation journey, and that this journey is not just about digital technologies but about transforming health care as a whole. They also discussed a need to create frequent checkpoints to measure the value of the initiatives—rather than waiting until the completion of the initiatives to measure ROI—because it is such a lengthy journey. Organizations should consider setting goals for specific milestones at different stages to ensure value at various stages and check whether they are on course for end objectives.

FIGURE 2

Surveyed health systems are at various stages of their digital transformation journey







Note: Total responses = 25.

Source: Scottsdale Institute-Deloitte, Health System Digital Transformation Survey, 2021.

UNIVERSITY OF WISCONSIN HEALTH (UWH): DIGITAL AS THE DNA OF THE ORGANIZATIONAL STRATEGY

UWH, one of the top academic medical centers in the country, has been at the forefront of integrating digital into their organizational strategy over the last few years. "Digital strategy is not and should not be separate from the organizational strategy," declared Cherodeep Goswami, system vice president and chief information officer at UWH, kicking off the roundtable. As a colead of the digital program, one of his biggest priorities is to convert his organization from "doing digital" to "being digital." In that vein, he identified key areas where digital is enabling a broader organizational transformation:

- Easier access for patients, caregivers, and clinicians
- · Improved care delivery with a focus on personalized medicine and specialty care
- · Lower cost structure and thus better financial performance

Digital is helping UWH transform itself organizationally, and as Mr. Goswami puts it, "Digital should be the building DNA of every organization's broader transformation efforts."

TALENT, DATA, AND APPROPRIATE KPIS ARE CHALLENGES TO OVERCOME, IN ADDITION TO BUDGET

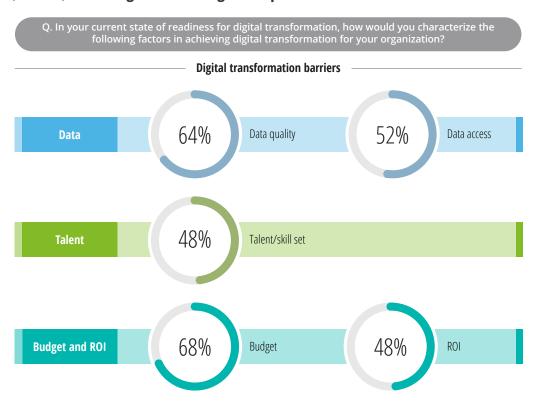
Health care leaders face several challenges on their transformation journey. Data quality and access and talent were major barriers to digital transformation for survey respondents (figure 3). Budget is also important. Survey respondents, interviewees, and panelists shared how they are addressing these challenges.

• Data and measurement: To address challenges with data, survey respondents reported investments in data interoperability and API solutions as top priorities for the next 3 years. Beyond regulatory compliance, interoperability can help achieve broader goals of increased care coordination, value-based care, and health equity. In addition, the majority of survey respondents said they have created KPIs to measure some or most of their

digital transformation initiatives. Interviewees discussed how KPIs have evolved over time. For example, a few years ago, the "number of app downloads" was an important KPI to measure patient uptake. However, many organizations now are measuring advanced metrics such as monthly active users and average session length to measure engagement and satisfaction. Interviewees and panelists also discussed the need to create and measure some bold, nonconventional concepts. For instance, an interviewee mentioned how their organization has started measuring the "lifetime consumer value." This health system is willing to refer patients to competitors if they cannot provide the service themselves, with the hope that patients will return to them with their next health care question. The objective is to build a long-term relationship with the patient and become a trusted advisor over a lifetime, not merely a provider at one point in time.

- Talent: Survey respondents, interviewees, and panelists alike discussed how the dearth of talent to support digital transformation initiatives was one of the biggest barriers to overcome. Only 12% of respondents said they had enough full-time equivalents (FTEs), and only a third had the right skill sets to support digital transformation. However, a third of respondents also said talent is their top investment priority for the next 3 years. Panelists discussed the need to expand the talent pool beyond traditional areas—both geographically (taking advantage of virtual work and the expanded geographic scope they
- can recruit from) and outside of the industry (e.g., consumer-tech companies with different perspectives and skill sets).
- Budget: Despite budget being the top constraint, two in three respondents expect investments in digital transformation initiatives as a percentage of total IT budget to increase in the next 3 years compared to today. One panelist discussed how several potential capital investments across the organization, not only digital, are vying for limited budgets. Hence, ROI becomes the key criterion for prioritizing budget allocations.

Data, talent, and budget are among the top barriers to overcome



Notes: Total responses = 25; the responses are not mutually exclusive. Source: Scottsdale Institute-Deloitte, Health System Digital Transformation Survey, 2021. "When you are tracking everything, you are tracking nothing. We are trying to reduce that. The first question we have is, 'How does this attach to the KPIs we have in the organization?' The decision is made by the highest level of the organization."

— Senior vice president, integrated experience, a large faith-based health system

AN EXECUTIVE CHAMPION IS KEY TO DIGITAL TRANSFORMATION SUCCESS

According to survey respondents, leadership (80%) and management of implementation (68%) are accelerators of digital transformation (figure 4).

Interviewees underscored the importance that organizational leadership understands and supports digital transformation efforts and follows through with appropriate resources, staffing, and decision-making authority. This allows digital transformation leaders to think outside the box, speed up product development cycles, and change organizational culture around digital.

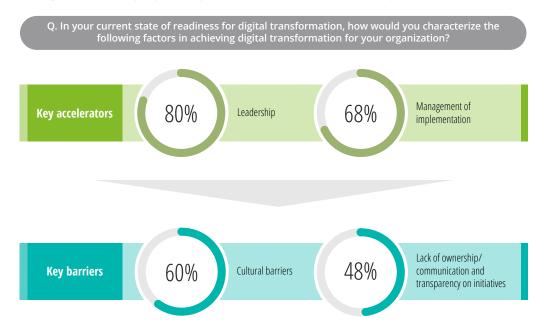
Similarly, interviewees stressed how important change management is in the process of digital transformation. Without coordination and communication across teams, implementation becomes much more difficult. This parallels survey findings where respondents stated that organization culture (60%) and lack of ownership/communication (48%) are barriers to digital transformation. Because multiple teams, including digital transformation, IT, cybersecurity, innovation, clinical, and front office, can be involved in consumer-facing initiatives, a governance process should be in place to prioritize projects and give all stakeholders a shared understanding of goals.

"C-level support is really important. We have to be partners with other teams but having a separate entity (specific governance for digital transformation) was a key to success."

— Senior vice president, a large integrated health system

FIGURE 4

Leadership and managing change are key accelerators of digital transformation



Notes: Total responses = 25; the responses are not mutually exclusive. Source: Scottsdale Institute-Deloitte, Health System Digital Transformation Survey, 2021.

SCL HEALTH: GOVERNANCE AS THE KEY TO DIGITAL ACCELERATION

Faith-based SCL Health has been providing health care services to communities in Colorado, Montana, and Kansas for several decades now. Amid trends such as consumerism and newer competition from other industries, "it is time to reimagine the services we provide, and also reposition our organization ... and digital transformation is the biggest enabler in achieving this," according to roundtable panelist Craig Richardville, SVP and chief information and digital officer, SCL Health.

When Mr. Richardville joined SCL Health 2 years ago, one of his first priorities was to align the IT and digital services (DS) units into one—ITDS. He created an ITDS leadership team that owns all ITDS initiatives across the organization and partners with functional leaders such as the chief medical officer and chief marketing officer on the governance committee. This has helped accelerate planning and implementation of diverse ITDS efforts.

Leadership and governance are crucial to all digital transformation initiatives and, as Mr. Richardville said, "We have the right people sitting in the right (ITDS) seats and this really helped transform the whole organization."

Conclusion

Health systems recognize that digital transformation is essential to improving health care and strengthening customer relationships. It is more than just investments in technology—it results in changes in organizational culture and employee engagement; it is an enterprise investment that requires enterprisewide participation. To move forward digitally, many leading health systems are embracing six key principles:

- Create a digital leadership and governance structure aligned to overall business strategy.
- Build a culture for digital with leadership driving support through communication and transparency at all organizational levels.
- Prepare for next-generation talent with a focus on right quantity and quality of workforce.

- Understand that cybersecurity is the other half of digital and should be integrated at every stage of digital implementation for stronger risk management.
- Play the long game through flexibility and scalability of implementation to manage ever-evolving technologies.
- While the journey is long, create measurable, accountable, and scalable KPIs to understand the success of digital initiatives with multiple milestones along the journey.

The impact of digital transformation will be felt across all aspects of health care, helping enable easier access to care, improving quality, and decreasing the cost of care. Consumers can connect quickly and conveniently with their preferred provider. In addition to stronger consumer relationships, digital transformation can also help improve operational and financial efficiencies and bring health systems' long-term strategies into reality.

Endnotes

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Acknowledgments

Project team: The authors would like to thank **Madhushree Wagh** who assisted in designing the survey tool and the interview guide, interpreting the survey data and analyzing interview findings, and writing sections of the report.

The authors would also like to thank **Nick Wong**, **Stacy Tucker**, **Courtney Olson**, **Laura DeSimio**, **Zion Bereket**, and the many others who contributed to the success of this project.

This study would not have been possible without the participants who graciously agreed to take part in the survey, interviews, and the panel discussion. We thank them for being generous with their time and insights.

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