2021

Future of Healthcare Report

HIMSS™

Executive Summary

THE 2021 FUTURE OF HEALTHCARE REPORT from HIMSS and its Trust partners—Accenture, The Chartis Group and ZS—offers a unique view into an industry in the midst of a transformation. The stakeholder groups represented within the report—health systems, clinicians, payers and patients—all expect substantial changes to impact their industry over the next five years.

A phased approach was leveraged to develop the report. HIMSS conducted a series of 12 qualitative interviews with subject matter experts from across the health ecosystem to identify the most pressing challenges faced today. Three of the highest priority areas—digital health, artificial intelligence (AI) and machine learning (ML), and financial health—were then used by the Trust partners as the starting point to design the quantitative approach.

The quantitative market intelligence in the Future of Healthcare Report was collected from March to April 2021 and represents 2,743 respondents in the United States—225 health systems, 309 clinicians, 147 payers and 2,062 patients.

HIMSS and the Trust partners asked this broad and representative range of healthcare stake-holders about their expectations of healthcare technology as well as their sense of the innovations and market dynamics that will help write healthcare's next chapter.

The insights that emerged reflect an industry undergoing a transition. The consensus among respondents is that new tools and technologies promise more accurate and expansive care, along with greater efficiency, even as the specifics of the path forward remain uncertain.

Digital Health

The pandemic hastened a transition to digital health, and there was a consensus among stake-holders that they plan to continue investing in digital health.

For example, 80% of health systems said they plan to increase their investment levels in digital health over the next five years. And in many cases those increases will be dramatic: 58% of health systems anticipate spending at least $10 million annually on digital health programs by 2026.

Three-quarters of clinicians also expect digital investment to increase over the same period, and 71% said they will maintain or increase their use of digital health tools after the pandemic. That aligns with the appetite for digital health among patients, more than half of whom indicated they would be amenable to a healthcare future that provides telehealth visits exclusively, so long as proper care is delivered on those visits. That all-digital inclination was especially pronounced among younger patients (60% of millennials, 56% of Gen X and 52% of Gen Z) and those living in urban areas (59%).

That willingness to embrace digital health may be due to favorable experiences with digital health tools during the pandemic. Nearly two-thirds (64%) of payers consider digital health initiatives

Three-quarters of clinicians also expect digital investment to increase over the same period, and 71% said they will maintain or increase their use of digital health tools after the pandemic.

to have had a significantly positive impact during the pandemic, while only 6% think digital health was substantially detrimental. Payers also expect clinicians to begin driving adoption of digital health tools: 17% of payers expect clinicians to lead the push toward digital by 2025, while only 8% of the same respondents think clinicians already fulfill that role.

Artificial Intelligence and Machine Learning

Industry players are watching with interest as AI/ML-reliant healthcare applications emerge. A third of health system respondents have AI/ML on their list of top areas of focus over the next five years.

Meanwhile, most clinicians (62%) haven't yet begun working with AI/ML tools but are interested in doing so. Indeed, clinicians anticipate wide-ranging applications, with 80% reporting that they expect to use AI in clinical settings for detection of diseases, and 73% expect AI/ML to deliver administrative benefits related to patient management. Clinicians do have some concerns, however—one-third believe AI will increase the risk of burnout.

Also, patients are mostly optimistic about AI/ML-enhanced healthcare. Many said they hope AI is able to deliver care improvements such as improved diagnoses and better treatments.
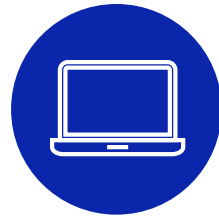
31%
OF THE PATIENT RESPONDENTS SAY THEY FEEL EITHER NEGATIVELY OR UNCERTAINLY TOWARD AI.

However, others expressed reluctance—20% of the patient respondents said they are uncertain about AI, meaning there is an opportunity to capture this population through education.

Nearly all payer respondents rank AI/ML gains as either a high or moderate organizational priority. Notably, more respondents from small and midsize payers listed AI/ML capabilities as a high priority (70%), than did their counterparts at large organizations (56%). Looking forward to 2025, payers expect clinical and claims operations to be the most affected by AI, even though those operational categories currently lag well behind others, such as member experience, with regard to AI/ML implementation.

Financial Health

Healthcare stakeholders diverge somewhat when it comes to their sense of the financial trends that will affect the industry in the coming years. Clinicians, for example, said Medicare reimbursement and financial incentives from payers are twice as important to their investment decisions as value-based care models. Yet the shift to value-based care is a central feature of the landscape

for payers and clinicians. Respondents from payer organizations expect a pronounced shift toward value-based models over the next five years, with 42% reporting that they believe the pandemic accelerated adoption of value-based care arrangements. And health system leaders said they expect value-based care arrangements to account for a growing share of revenue in the coming years—40% in 2025, compared to 32% currently.

Value-based care may also appeal to an increasing number of patients in the coming years. Affordability was the leading healthcare concern among patients (39%), but the priorities ranking just behind it—a desire for expanded access to services such as telehealth (22%), followed by improved quality of care, faster service, more time with doctor and greater prioritization of preventative care (combined 14%)—are often compatible with value-based care arrangements.

Contents

Health Systems

The future of health systems is digital. Over the next five years, 47% of respondents cited digital as a top organizational priority and 80% plan to increase their digital investments.

However, that means over half of respondents are not prioritizing digital.

"They've done virtual care, but they need to do a lot more," said Thomas Kiesau, director and digital leader for The Chartis Group, part of the HIMSS Trust partnership.

For those focusing their efforts on digital health, most plan to invest transformative levels of funds in the process. In fact, 24% of respondents plan to invest between $10 million and $19 million, while 15% plan to invest $20 million to $29 million, and 19% plan to invest $30 million or more by 2026.

Despite the high rate of anticipated digital health spending, a significant share of provider organizations are still unsure of the outlook, Kiesau observes.

"They need to invest eight-figure numbers in digital but they also have to keep investing in personnel and facilities," Kiesau said. "So unless they're tracking the performance results and quantifying returns, it can seem like they're just adding on more costs with no return."

Financially, most provider organizations believe that commercial payments will need to increase 10-20% over the next five years in order to support their long-term financial health.

And while there is a growing awareness of AI/ML, two-thirds of respondents said AI/ML is not a top priority for the next five years.

"There's a long list of capabilities on the horizon that health systems need to push out," Kiesau said. "Most haven't figured it out quite yet, but it's coming."

24%
OF RESPONDENTS PLAN TO INVEST BETWEEN $10 MILLION AND $19 MILLION

Digital Health Important But Not Prioritized for Many

What best describes the importance of digital health in your hospital or health system's strategy for the next five years?

Digital Health Importance

8%	**39%**	**40%**	**12%**	**2%**
The most important area of focus	One of the most important (top 3) areas of focus	On our general list of strategic priorities	An enabling tactic, but not a core strategy	An over-hyped distraction from core strategy
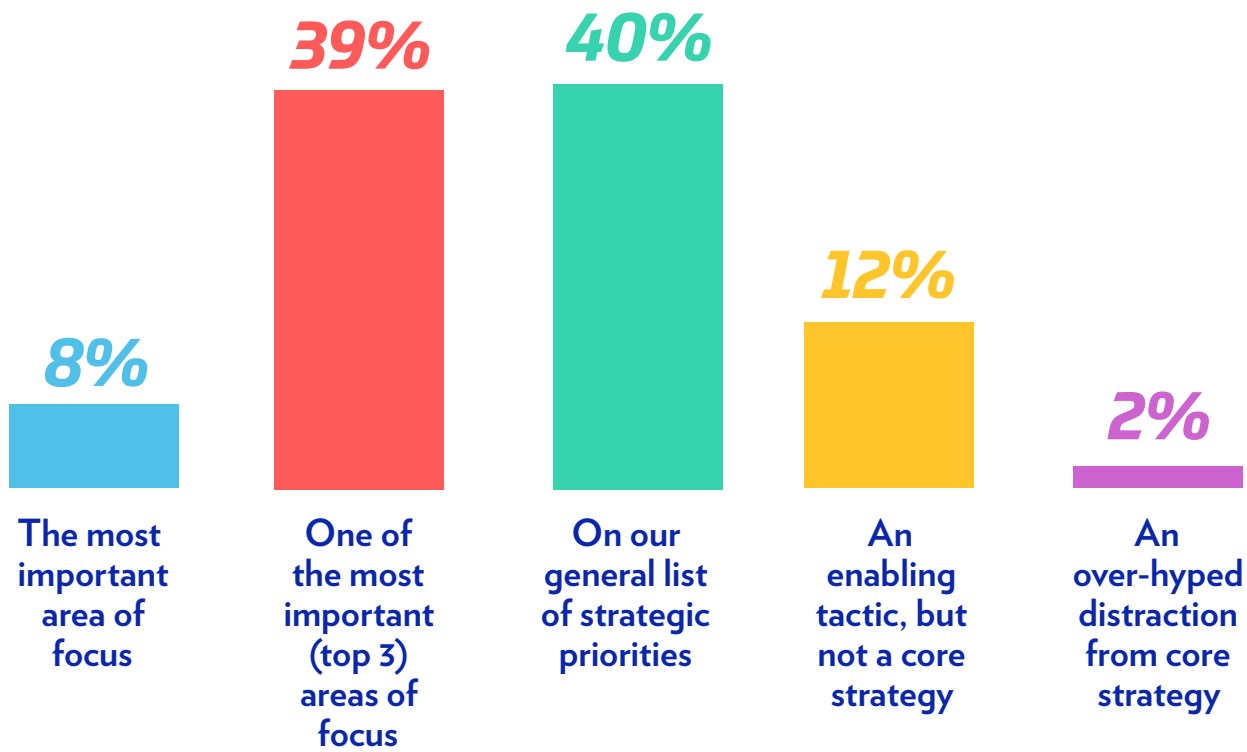
N = 225

47%
CITED DIGITAL AS A TOP ORGANIZATIONAL PRIORITY

58%
PLAN TO INVEST $10M+ IN DIGITAL HEALTH PROGRAMS

Clinicians

Over the next five years, more than three-quarters of clinicians said they expect a continued increase in investment in digital health tools.

"Clinician digital health adoption will not revert back to pre-pandemic levels," said Darryl Gibbings-Isaac, MD, clinical innovation subject matter expert with Accenture, part of the HIMSS Trust partnership.

The reason? Patients, he said.

"Patients are going to continue to demand this digital convenience," Dr. Gibbings-Isaac explained. "Digital tools enable location-agnostic care, and that's what patients want."

Advanced digital tools based on AI/ML show promise, according to clinicians. In fact, 77% of clinicians are either currently using some form of AI/ML or are interested in doing so in the future.

"What surprised me the most about the data is how enthusiastically clinicians are embracing AI/ML,"

Dr. Gibbings-Isaac said. "They're optimistic and excited about it, rather than threatened by the technology."

That said, only one in five clinicians have received any kind of AI/ML training to date. Many clinicians still express concerns around security, data protection and the trustworthiness of developers, according to Dr. Gibbings-Isaac.

"There's more work to be done in order for clinicians to fully trust in healthcare tech," he said. "Tools, transparency and training, however, will help them get there."

Financially, most clinicians were able to weather the COVID-19 storm—70% described their current financial position as stable. Looking forward, though, reimbursement—which includes increasing payments, simplifying documentation, reimbursing for phone calls and expanding telehealth coverage—was the area in which clinicians wanted to see change to help improve their financial situation.

77%

OF CLINICIANS ARE EITHER CURRENTLY USING SOME FORM OF AI/ML OR ARE INTERESTED IN DOING SO IN THE FUTURE.

Clinicians See Little Threat or Downside in Adopting AI

Q To what extent do you agree with this statement: digital health tools and artificial intelligence will take over easy tasks, leaving me with only hard tasks, and increase my risk of burnout

N = 309

33%

LITTLE DOWNSIDE
Disagree that digital health tools and AI will take over easy tasks, leaving clinicians with only hard tasks, and increase risk of burnout.

62%

NOT USING NOW, BUT INTERESTED
Respondents are not using AI currently, but interested in using in the future.

Q What is your experience with artificial intelligence tools and solutions?

N = 226

76%

NO THREAT TO JOB SECURITY
Respondents do not perceive AI to be a threat to their job security.

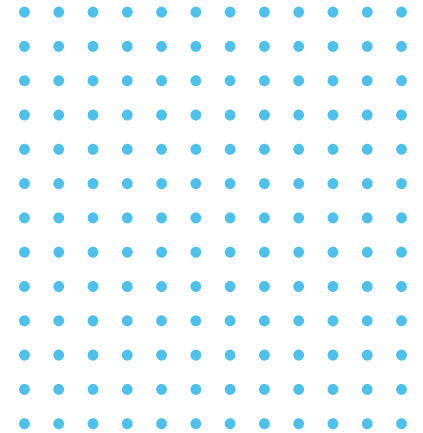*Q* Are artificial intelligence tools a threat to your job security?

N = 309

1/3

OF CLINICIANS BELIEVE THAT AI WILL INCREASE BURNOUT RISK.

Payers

A shift is happening in healthcare, according to Shreesh Tiwari, principal with ZS, part of the HIMSS Trust partnership.

"Like many other industries today, healthcare is shifting and getting more personalized," he said. "This is being driven by health IT startups and big tech."

Among payers specifically, respondents expect a higher integration between payers and other institutions for value-based care arrangements, an acceleration of integrated delivery models and an increased focus on treatment outside traditional channels.

"This is a fortunate off-shoot of COVID-19, when in-person care came to a screeching halt," Tiwari said.

Respondents expect the focus of digital health initiatives on member acquisition and retention to reduce over the coming years. However, respondents also anticipate the focus on personalized care to increase from 23% to 31% when comparing current versus future state.
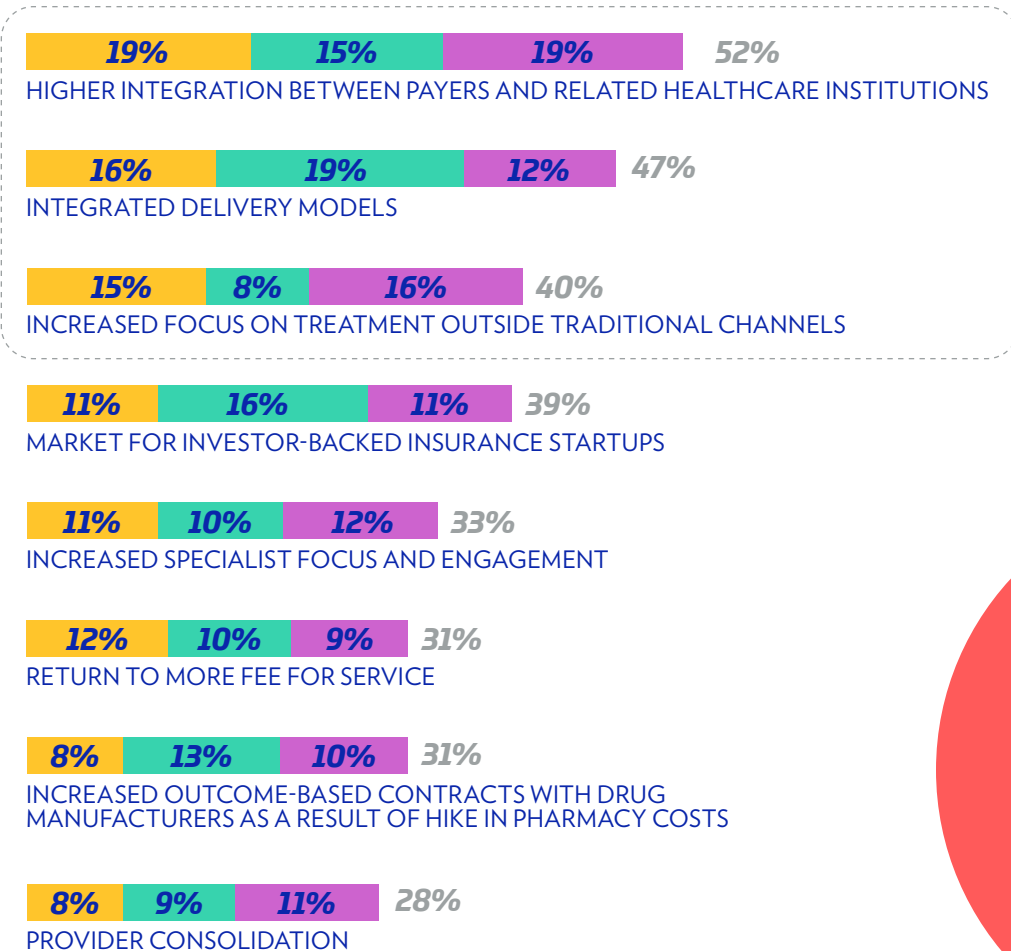
Over the last 18 months, Tiwari shared, payers have increased their adoption of and remained optimistic about AI/ML. In fact, half of payer organizations said that they have already seen a return on their investment in AI/ML, and almost everyone else broke even or did slightly better.

Looking ahead to 2025, payer respondents expect the focus of their AI/ML involvement to be on clinical and claims operations.

"Historically, bringing AI/ML into clinical operations has been a challenge because of the lack of data," Tiwari said. "But over the last few years, payers have made efforts to take this data out of silos, so there's now an increased data exchange between payers and providers. Better data means better accuracy and better ROI."

> " *Like many other industries today, healthcare is shifting and getting more personalized.*

Future of Value-Based Care

Looking ahead to 2025, payer respondents expect a higher integration between payers and other institutions for value-based care (VBC) arrangements, an acceleration of integrated delivery models and an increased focus on treatment outside traditional channels.

19% **15%** **19%** 52%
HIGHER INTEGRATION BETWEEN PAYERS AND RELATED HEALTHCARE INSTITUTIONS

16% **19%** **12%** 47%
INTEGRATED DELIVERY MODELS

15% **8%** **16%** 40%
INCREASED FOCUS ON TREATMENT OUTSIDE TRADITIONAL CHANNELS

11% **16%** **11%** 39%
MARKET FOR INVESTOR-BACKED INSURANCE STARTUPS

11% **10%** **12%** 33%
INCREASED SPECIALIST FOCUS AND ENGAGEMENT

12% **10%** **9%** 31%
RETURN TO MORE FEE FOR SERVICE

8% **13%** **10%** 31%
INCREASED OUTCOME-BASED CONTRACTS WITH DRUG MANUFACTURERS AS A RESULT OF HIKE IN PHARMACY COSTS

8% **9%** **11%** 28%
PROVIDER CONSOLIDATION

All respondents expect their respective payer organizations dealing with 10-25% VBC to scale up to **25-50%** and the ones with 25-50% to grow up to **50-75%** VBS arrangements.

~42% OF RESPONDENTS BELIEVE THERE WAS AN INCREASED ADOPTION OF VALUE-BASED CARE ARRANGEMENTS FOR PAYMENTS TO PROVIDERS AS A RESULT OF COVID-19.
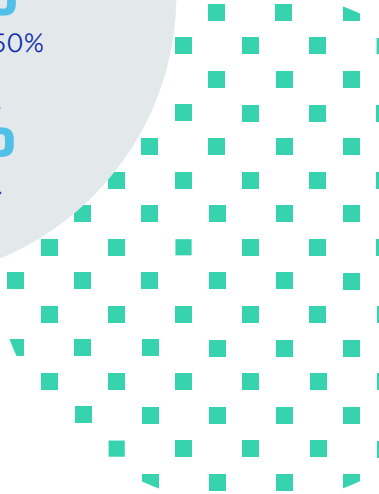
■ RANK 1   ■ RANK 2   ■ RANK 3

N = 134

Patients

As the COVID-19 pandemic continues, many patients have come to rely on digital health tools. When asked about the future, patients said that ideally, they would have about one-third of their healthcare visits through telehealth.

Also, their healthcare would ideally be more affordable and more accessible—39% of respondents said that in the next five years, they'd like to see less expensive healthcare, affordable medications and standard pricing, while 22% said they want universal access, equality, ease of access, more telehealth and a choice of any provider. Additionally, 53% of respondents said they would like complete transparency regarding healthcare pricing, compared with just 5% who said pricing is very transparent today.

"We have a gap to close in meeting patient expectations for pricing transparency," said Lauren Goodman, director of market intelligence at HIMSS.

When asked how they felt about all healthcare visits being virtual by the year 2025, 52% of those surveyed were somewhat or strongly in favor. Patients have also embraced at-home medical testing, with 63% of respondents reporting that they'd use at-home medical tests in the future to send data to their doctor, which would allow their doctor to properly diagnose, outline a treatment plan that may include a prescription and provide an update on the patient's current health status.

"Digital health is critical to healthcare's future especially when considering more than half would be in favor of only telehealth visits in four years should they have the same experience as in person. The favorability is even higher for Gen X, millennials and Gen Z," Goodman said.

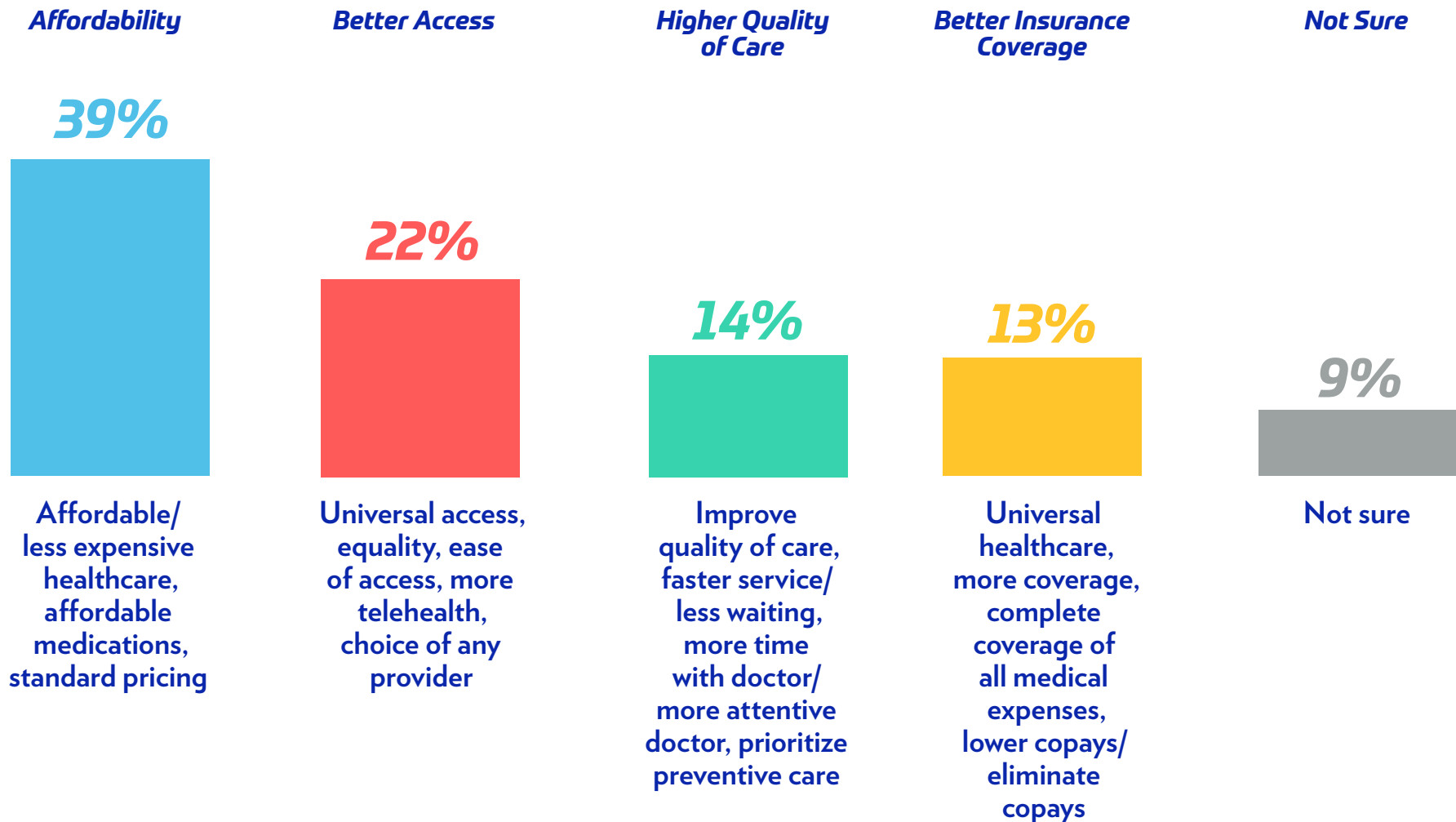Patients are hesitant about some technology, though.

When it comes to AI/ML, patients have concerns about data security. In fact, 60% of patients said they are concerned about data breaches and/or ransomware attacks in healthcare, and 40% want to know healthcare systems have better security systems and software in place to protect their data.
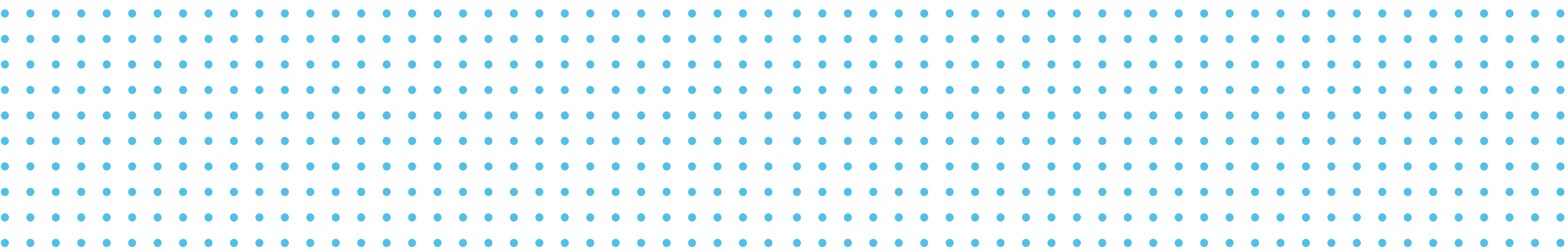
> **We have a gap to close in meeting patient expectations for pricing transparency.**

Affordability Is Top of Mind for Today's Patients

Ideally, in thinking of what could happen in the next five years, describe your ideal healthcare scenario.
What would you like healthcare to look like (other than free healthcare or universal/accessible healthcare)?

N=2062

Affordability	Better Access	Higher Quality of Care	Better Insurance Coverage	Not Sure
39%	**22%**	**14%**	**13%**	**9%**
Affordable/ less expensive healthcare, affordable medications, standard pricing	Universal access, equality, ease of access, more telehealth, choice of any provider	Improve quality of care, faster service/ less waiting, more time with doctor/ more attentive doctor, prioritize preventive care	Universal healthcare, more coverage, complete coverage of all medical expenses, lower copays/ eliminate copays	Not sure

HIMSS Trust Partnership

The HIMSS Trust partnership is a consortium of leaders from across the healthcare and technology space who are collecting, analyzing and reporting on in-depth, data-driven market intelligence. Insights gathered by the Trust will unveil trends and challenges to help the industry prepare and predict for the next three to five years.

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