

The Digital Health Tipping Point



One hundred hospital leaders share their take on digital health solutions, including which have the highest ROI, highest satisfaction, highest utilization, and more



Executive Summary

As recognition grows regarding the value of digital health solutions, hospital and health system leaders face increasing pressure to optimize their digital health approach and successfully drive their organizations forward.

Yet, the digital health solution market is exploding—both in the number of solution categories to consider as well as the number of solutions to evaluate within those categories. Sifting through the noise to determine which categories and solutions to invest in, and when, is extraordinarily difficult.

This report from Panda Health features data points and insights that were gathered with one overarching objective: To help hospital and health system leaders make more informed, more effective, and more impactful digital health decisions.

Based on an independent survey of 100 hospital and health system leaders conducted in September 2023, the report explores:

- **The present state vs. future state of digital health solutions** (which solutions are most widely implemented within hospitals and health systems today and how that will change by the end of 2024).
- **The perceived value of digital health solutions** (the solutions hospital leaders believe are the most overstated and understated in value).
- **The future impact of digital health solutions** (the solutions hospital leaders believe will have the most positive impact on hospitals and health systems in the future).
- **The solutions that provide the highest ROI** (a ranking based on input from hospital leaders).
- **The solutions that hospital leaders are most satisfied with** (a ranking based on input from hospital leaders).

As noted, hospital and health system leaders face growing pressure to drive digital transformation within their organizations. Based on the insights gathered for this report, it appears that pressure—and the pressure to move quickly with digital health decision making—is only going to ramp up. Among the 16 digital health solutions evaluated for this report, only four had been adopted by more than half of the surveyed hospital and health system leaders. By the end of 2024, the survey data predicts that 11 of the 16 solutions will have met or will exceed that threshold.

As hospital leaders prepare for the year ahead, true market intelligence—like that outlined in this new report—is critical to support a winning strategy.

A Note from Panda Health

This report was inspired by a report Panda Health released in June 2023, also based on an independent survey of 100 hospital and health system leaders. Dubbed [The Great ShakeUp](#), the report provided a “Churn Score”—a predicted amount of rip and replace activity that would occur over the next 1 to 2 years—for several digital health technologies. The Digital Health Tipping Point report answers additional questions that were spurred during the creation and release of [The Great ShakeUp](#), specifically related to the experience hospital and health system leaders are having with their current digital health solutions and their future digital health strategies.

Key Findings

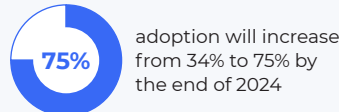
Most commonly adopted solutions:
Cybersecurity



Least commonly adopted:
Virtual nursing



Most in-demand:
Self-service patient scheduling



Most overstated in value:
Virtual nursing



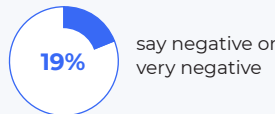
Most understated in value:
Cybersecurity / Behavioral health (tied)



Most positive future impact:
Remote patient monitoring



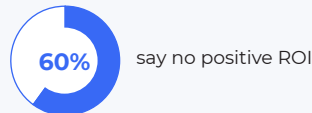
Least positive future impact:
Virtual nursing



Highest ROI:
Self-service patient scheduling



Lowest ROI:
Hospital at home



Highest satisfaction:
Cybersecurity



Lowest satisfaction:
Hospital at home



Solutions evaluated:

- Autonomous medical coding
- Behavioral health
- Clinical surveillance
- Cybersecurity
- Digital care coordination/ care journey orchestration tools
- Digital care navigator/chatbot on website
- Digital patient intake
- Data lakes and data fabric
- Hospital at home
- Patient acquisition and activation
- Patient and employee wellness
- Patient engagement
- Remote patient monitoring
- Self-service patient scheduling
- Telemedicine/e-visits
- Virtual nursing

Present State vs. Future State

Which solutions will experience the highest increase in adoption?

The most commonly adopted digital health solutions, as of September 2023, are cybersecurity and telemedicine, with more than 80% of hospitals currently using this technology. The digital health solutions with the lowest reported rates of adoption are virtual nursing, hospital at home, and digital care navigators/chatbots.

Many hospital leaders plan to adopt new digital health solutions by the end of 2024, and for many of these solutions, the increase in adoption will be significant:

- Self-service patient scheduling (from 34% adoption to 75% adoption)
- Digital patient intake adoption (from 31% to 70%)
- Patient engagement adoption (from 40% to 75%)

“Defining priorities and investing in the right solutions can help address long-standing challenges such as workforce shortages, degraded financial performance, and increasing consumer expectations. Trying to invest across every category with as many disparate solutions, will only serve to exacerbate the very challenges the health system is trying to solve.”

Thomas Kiesau, Chief Innovation Officer, Chartis

Current Adoption	Adoption by End of 2024
Cybersecurity: 84%	Cybersecurity: 97%
Telemedicine/e-visits: 80%	Telemedicine/e-visits: 92%
Patient and employee wellness: 62%	Patient and employee wellness: 81%
Behavioral health: 54%	Behavioral health: 71%
Patient engagement: 40%	Patient engagement: 75%
Remote patient monitoring: 38%	Remote patient monitoring: 64%
Self-service patient scheduling: 34%	Self-service patient scheduling: 75%
Clinical surveillance: 32%	Clinical surveillance: 60%
Digital patient intake: 31%	Digital patient intake: 70%
Data lakes & data fabric: 30%	Data lakes & data fabric: 49%
Patient acquisition and activation: 23%	Patient acquisition and activation: 57%
Digital care coordination/care journey orchestration tools: 23%	Digital care coordination/care journey orchestration tools: 53%
Digital care navigator/chatbot on website: 15%	Digital care navigator/chatbot on website: 41%
Hospital at home: 14%	Hospital at home: 30%
Virtual nursing: 13%	Virtual nursing: 31%
Autonomous medical coding: 11%	Autonomous medical coding: 36%

More adoption, more strategy

As hospitals implement more digital health solutions, many are recognizing the need to form a comprehensive digital health strategy for their organizations. Nearly three-quarters of survey respondents (70%) said their organization has a formal digital health strategy in place for the acquisition and optimization of digital health solutions. That’s up from a [February 2022 survey](#) of 100 hospital leaders, in which only 52% of respondents said their organization had one.

Perceived Value

Which solutions are the most overstated and most understated in value?

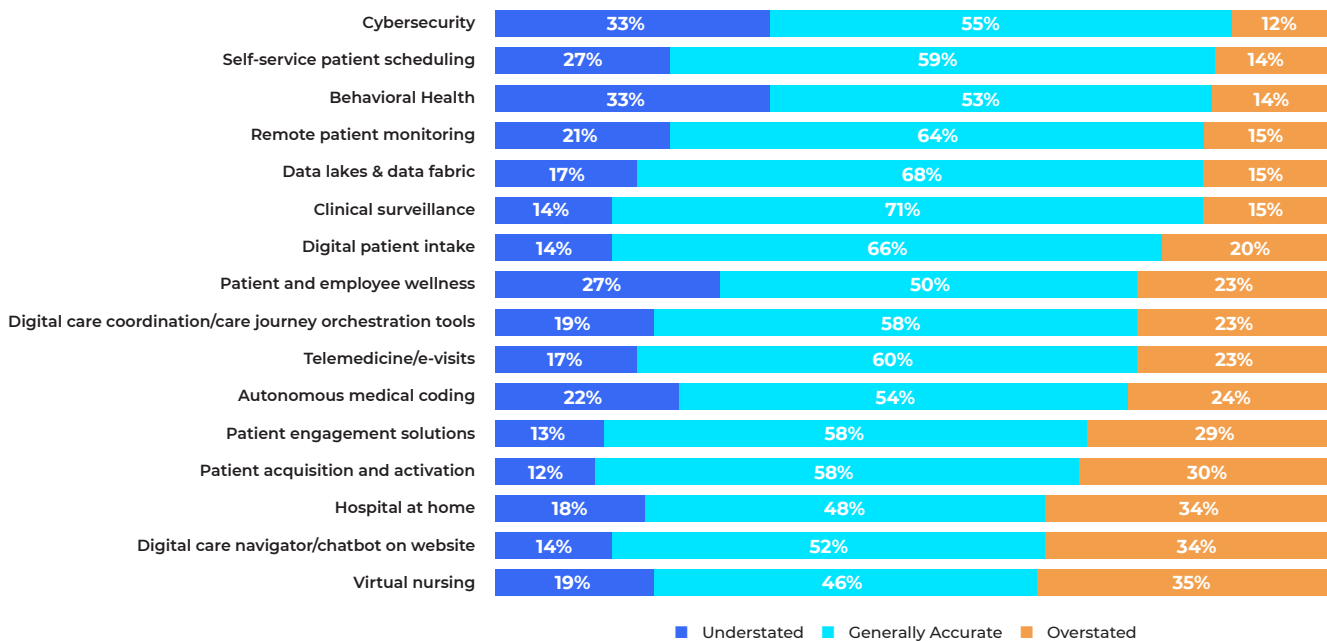
When evaluating the overall value of digital health solutions, hospital leaders generally believe that the promised value aligns with the reality. Still, there are some exceptions.

More than one-third of respondents, for example, said the value of virtual nursing is overstated. About the same percentage of respondents said the value of cybersecurity and behavioral health solutions are understated.

“There’s been a lot of ‘hype’ over the past couple years about certain digital health solutions, but most hospital and health system leaders have continued to have a healthy dose of skepticism about overall value—particularly when it comes to newer solutions. The organizations that emerge as digital transformation leaders over the next few months, will need to create strong, trusted, and efficient solution evaluation processes, so that they can innovate both confidently and quickly.”

Ryan Bengtson, President & COO, Panda Health

Thinking about the value each of the following solution categories promised to provide hospitals/health systems, overall, do you believe that value is overstated, understated, or generally accurate?



Hospital leaders’ top digital health priorities

Hospital leaders identified the following as their top three digital health priorities over the next three years (ranked in order of most common response):

- #1. Improving workflow and operational productivity
- #2. Reducing overall costs
- #3. Improving patient outcomes

Other responses included: Improving consumer satisfaction (#4), addressing staffing shortages (#5), improving clinician satisfaction (#6), generating additional revenue (#7), attracting new patients (#8), reducing patient leakage (#9), reducing denials (#10), improving health equity (#11), improving reputation management (#12), and improving collections rate (#13).

Future Impact

Which digital health technologies will have the most positive impact on hospitals and health systems?

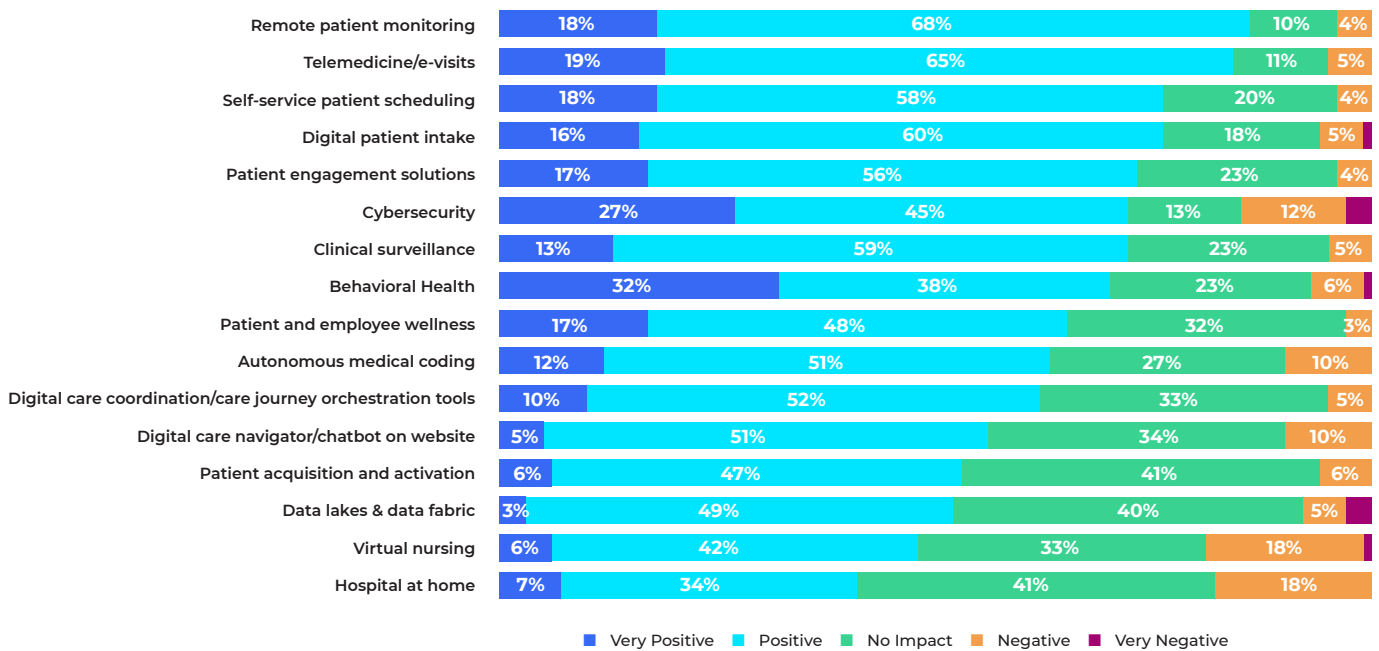
According to the report, more than 80% of hospital leaders believe remote patient monitoring and telemedicine will have a positive future impact on hospitals and health systems.

Hospital leaders believe virtual nursing and hospital at home will have the least positive future impact on hospitals and health systems in the future (with only 41% and 48% saying the impact of these solutions will be positive or very positive).

Panda Health Take:

While hospital at home solutions performed poorly across various metrics, including future impact, it's important to remember that this technology is one of the latest to hit the market and the current adoption rate is still low (only 14%). It will be interesting to see how, and if, these metrics change as the market and hospital leaders grow more experienced with implementing and applying hospital at home.

Please rate the overall future impact each solution will have on hospitals/health systems:



Remote patient monitoring and telemedicine: The CMO viewpoint

About 85% of all survey respondents believe remote patient monitoring and telemedicine solutions will have a positive impact on hospitals and health systems in the future. Among all C-suite survey respondents, CMOs were the most optimistic regarding the long-term effects of these technologies. In fact, every CMO surveyed (14 in total), said remote patient monitoring and telemedicine will have a positive or very positive future impact.

ROI Driving Solutions

Which digital health technologies drive the most ROI?

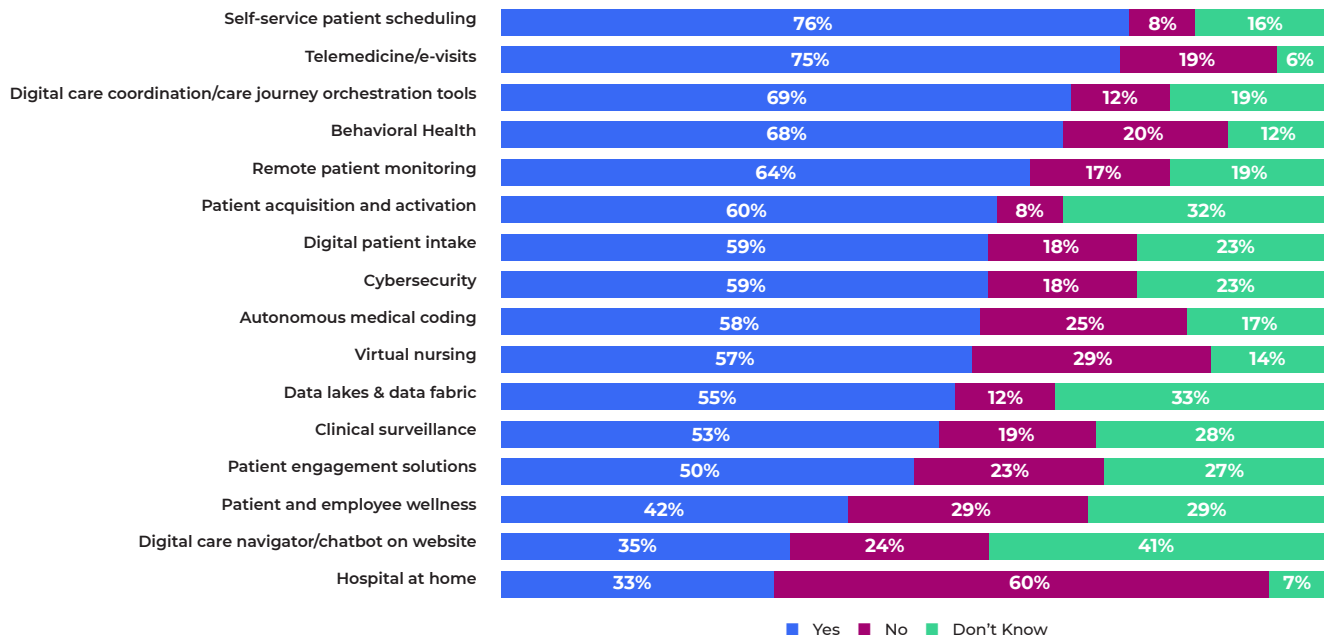
Most hospital and health system leaders believe their digital health solutions yield a positive ROI. Of all technologies evaluated, survey respondents revealed that self-service patient scheduling and telemedicine/e-visits provide a strong return.

The three solutions hospital and health system leaders said do not yield a positive ROI were hospital at home, patient and employee wellness, and virtual nursing. In fact, almost two-thirds of survey respondents who currently use hospital at home technologies report the solution does not provide a positive ROI.

“ROI is among the many factors hospital leaders consider when evaluating digital health solutions. Each solution requires its own scrutiny based on the problem it intends to solve, its intended outcomes and the existing technology ecosystem. Nevertheless, ROI remains crucial for leaders dealing with increasing budget constraints, workforce shortages, and the need to prioritize impactful yet cost-effective solutions.”

Josh Sol, MBA, Managing Director, FTI Consulting

Are you receiving a positive ROI from these solutions? (only asked to survey respondents currently using each solution)



The link between ROI and solution satisfaction

ROI is, of course, important when evaluating new digital health solutions and current performance, but the survey findings underscore that ROI should not be the only consideration. For example, digital care coordination/care journey orchestration tools rank #3 on the list of ROI driving solutions, but rank #9 when it comes to hospital and health system leaders' overall satisfaction. Similarly, patient engagement solutions rank #13 on the list of ROI driving solutions, but rank #6 when it comes to overall satisfaction. The findings indicate that the most comprehensive digital transformation strategies will prioritize “softer” value measures in addition to ROI.

Top Satisfaction Driving Solutions

Which solutions are hospital leaders most satisfied with?

Generally, hospitals feel either satisfied or neutral about the digital health solutions they have implemented. The top 3 solutions in which current users report the most satisfaction are cybersecurity, telemedicine/e-visits, and self-service patient scheduling.

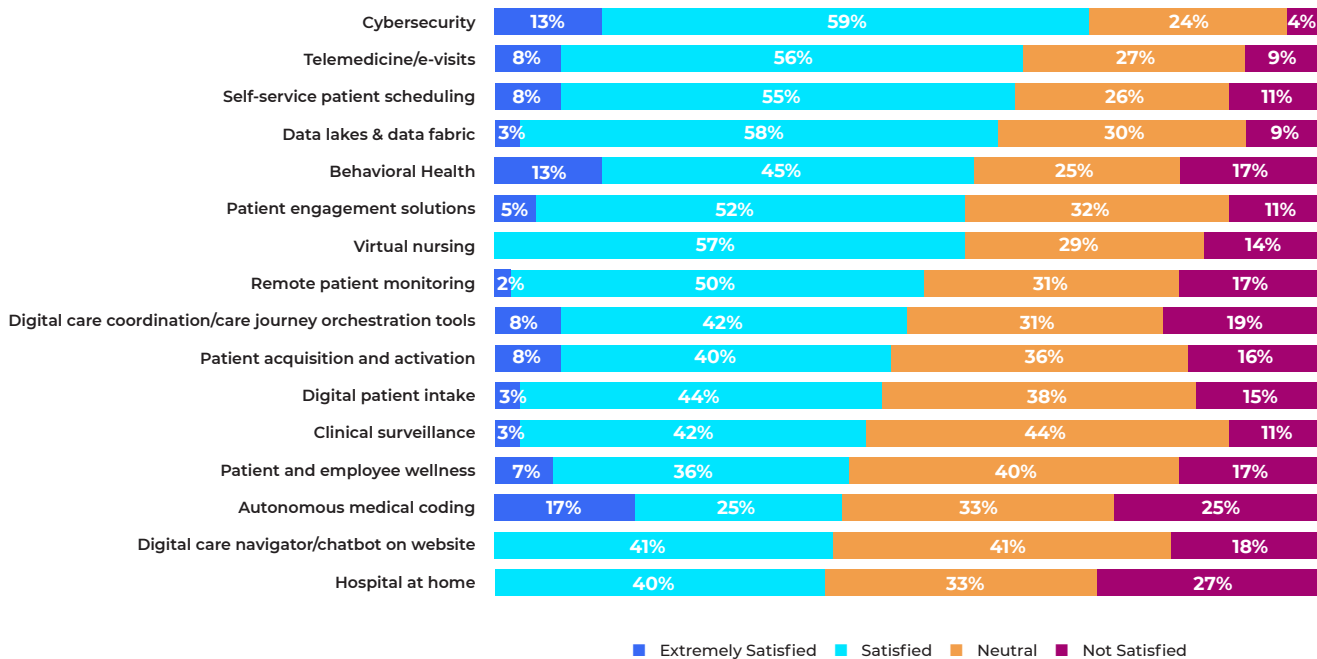
What's driving the high level of satisfaction for each of these solutions? Current users cited the following as key drivers:

- **Cybersecurity:** Provides expected ROI (50%)
- **Telemedicine/e-visits:** Improves patient satisfaction (69%) and efficiency (61%)
- **Self-service patient scheduling:** Improves patient satisfaction (72%) and efficiency (60%)

Panda Health Take:

When planning for the year ahead and considering new solutions to adopt, leaders should leverage lessons learned through partnerships with their early vendors to ensure that promising technologies deliver on higher user satisfaction and organizational value.

How satisfied are you with each solution?
(only asked to survey respondents currently using each solution)



Low satisfaction, high churn

The low level of satisfaction with hospital at home solutions corresponds with another survey finding, in which respondents shared whether their organization is likely to replace their current vendor when their contract is up for renewal. Of the 16 solutions evaluated, hospital at home ranked #1 in this category, with one-third of current users saying they are likely to partner with a different vendor. The most common reasons survey respondents cited for wanting to replace their hospital at home vendor were low patient/consumer satisfaction and a poor user experience.

Final Thoughts

The best digital health strategies are built from a strong foundation of market intelligence and research, but also take into account each organization's unique needs, priorities, objectives, workflows, patient demographics, reimbursement structure, current technology use and integrations, and more.

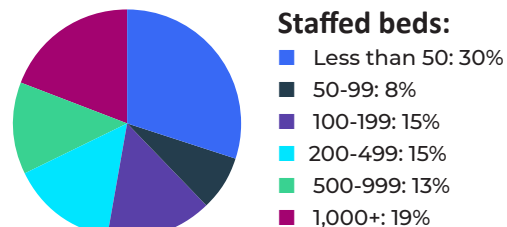
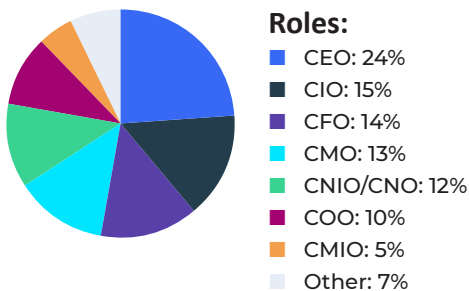
As hospital and health system leaders work to evaluate the ever-increasing amount of digital health categories and solutions in the year ahead, Panda Health can help with analysis and insights that are backed by thousands of data points and an unmatched team of digital health advisors.

Join Panda Health Today

All U.S. hospital and health system employees can now access the Panda Health platform at no cost.

About the Respondents

This market report is based on an independent survey commissioned by Panda Health and conducted by Sage Growth Partners in September 2023. Survey respondents hailed from hospitals and health systems across the country, with most employed by short- and long-term acute care hospitals, critical access hospitals, and specialty hospitals.



Panda Health transforms how health systems connect with, explore, and adopt leading digital health technologies that improve the lives of patients and providers. Panda's deep market intelligence and personalized guidance de-risks the digital health procurement process. Panda was founded in 2020 through a partnership between [CentraCare](#), [Gundersen Health System](#), and [ThedaCare](#), with the development and investment firm [Fitzroy Health](#).



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