



Healthcare Practice

# Generative AI in healthcare: Adoption trends and what's next

Surveyed healthcare leaders say their organizations are eager to use generative AI to help enhance how healthcare stakeholders work and operate, but some are still adopting a wait-and-see approach.

*By Jessica Lamb  
with Greg Israelstam, Rahul Agarwal, and Shashank Bhasker*



**The transformative power** of generative AI (gen AI) will likely reshape the healthcare industry over time, and organizations are beginning to take action. In our Q1 2024 survey, more than 70 percent of respondents from healthcare organizations—including payers, providers, and healthcare services and technology (HST) groups—say that they are pursuing or have already implemented gen AI capabilities (see sidebar, “Research methodology”).

**There is still a consistent portion of respondents without any plans to pursue gen AI or who are maintaining a wait-and-see approach.**

The Q1 2024 survey, which included 100 US healthcare leaders, was conducted in March and comes after the Q4 2023 survey of 100 US leaders, which was conducted in December 2023. As we look at the responses across these populations in both surveys, a few themes emerge.

## Research methodology

**To better understand** how healthcare organizations are thinking about generative AI (gen AI) use, McKinsey launched a research effort to gather insights from leaders in payer, provider, and healthcare services and technology (HST) groups. We surveyed US healthcare stakeholders about a number of topics, including their plans to use gen AI solutions, how they expect to adopt gen AI tools, their ROI measurements, their expectations for areas that will benefit the most from gen AI, and the roadblocks to scaling gen AI.

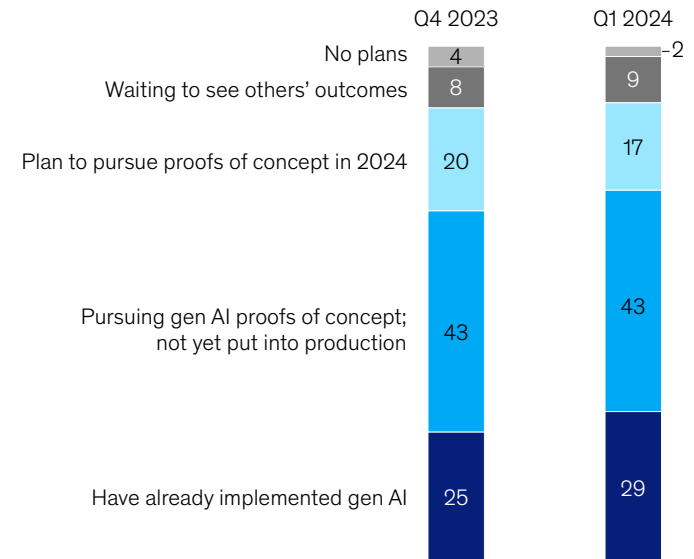
These surveys are not meant to be a comprehensive or an exhaustive view of all healthcare stakeholders or to predict their actions in the future. Instead, the surveys are meant to provide early insights into the potential of gen AI. The most recent survey included 100 respondents and was in the field for one week during March 2024. Among respondents, 33 percent were C-level executives, and 31 percent belonged to organizations with greater than \$10 billion in revenue. The first survey was fielded during one week in December 2023 and included leaders from 40 payers, 40 provider organizations, and 20 HST companies.

## Integration and intentions

In the Q1 2024 survey, a majority of respondents say that their organizations are either already using gen AI tools or are testing them out. Most of the surveyed respondents are in the proof-of-concept stage with gen AI, as stakeholders contemplate trade-offs among returns, risks, strategic priorities, governance, maturity, and other factors. Yet despite the industry's general interest in using AI, there is still a consistent portion of respondents without any plans to pursue gen AI or who are maintaining a wait-and-see approach.

## Most respondents say their healthcare organizations are at least pursuing generative AI proofs of concept, if not already implementing the technology.

**Healthcare organizations' plans to use generative AI (gen AI),**  
% of respondents (n = 100)<sup>1</sup>



<sup>1</sup>Respondents include 40 payer, 40 provider, and 20 healthcare services and technology groups; ~30% are C-level executives, and ~30% are from >\$10 billion revenue organizations.

Source: McKinsey US survey on gen AI in healthcare, Dec 12–14, 2023, and Mar 11–13, 2024

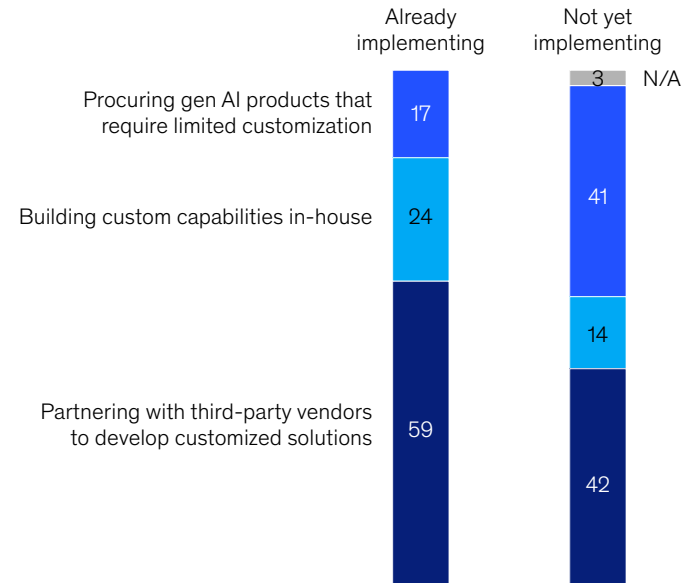
McKinsey & Company

## Partner or pioneer

Among those surveyed who are implementing gen AI, 59 percent are already partnering with third-party vendors to develop customized solutions, and 24 percent report plans to build solutions in-house, while only 17 percent expect to buy off-the-shelf gen AI products. Among those who haven't yet implemented gen AI, 41 percent say they intend to buy gen AI products, which may be driven by this population's concerns with risk (57 percent are not pursuing gen AI, because of risk considerations) and technology needs (29 percent).

## Surveyed organizations that are already implementing gen AI capabilities do so primarily through cobuilding partnerships.

### Healthcare organizations' plans for generative AI (gen AI) adoption, by implementation level, % of respondents (n = 100)



Source: McKinsey US survey on gen AI in healthcare, Mar 11–13, 2024

McKinsey & Company

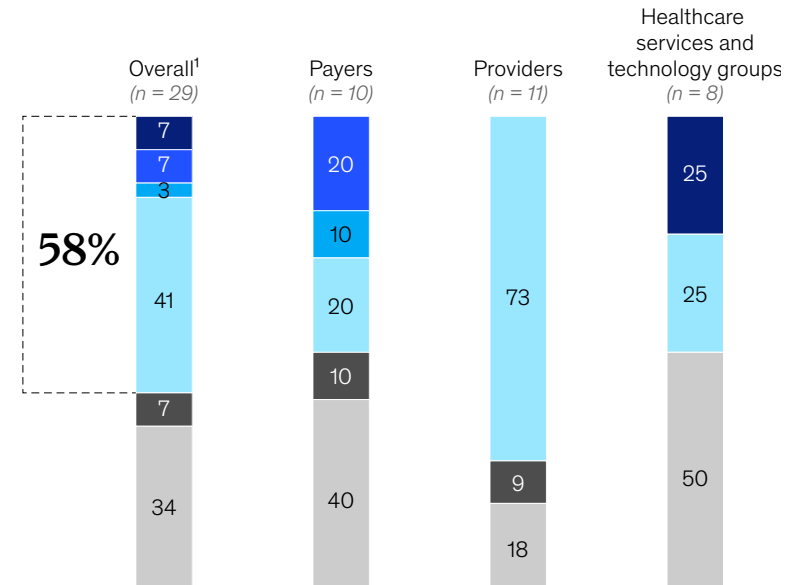
## The ROI for gen AI

As with any investment, it's critical for stakeholders to be able to realize the value that gen AI promises. A measurable positive impact serves as strong reinforcement for continued and expanded use and investment. While the number of respondents who have implemented gen AI is small, among those who have, most have not yet calculated the ROI or are waiting on measurable results. But about 60 percent of those who have implemented gen AI solutions are either already seeing a positive ROI or expect to.

## Among the respondents who report implementing gen AI, few have quantified its impact, but nearly 60 percent believe it yields a positive ROI.

### ROI of use cases for healthcare organizations implementing generative AI (gen AI), by organization type, % of respondents

- >4x
- 2-4x
- <2x
- Positive ROI; awaiting measurable impact
- Negative ROI; awaiting measurable impact
- Unclear value potential



<sup>1</sup>Figures do not sum to 100%, because of rounding.  
Source: McKinsey US survey on gen AI in healthcare, Mar 11-13, 2024

McKinsey & Company

## Gen AI's vast scope

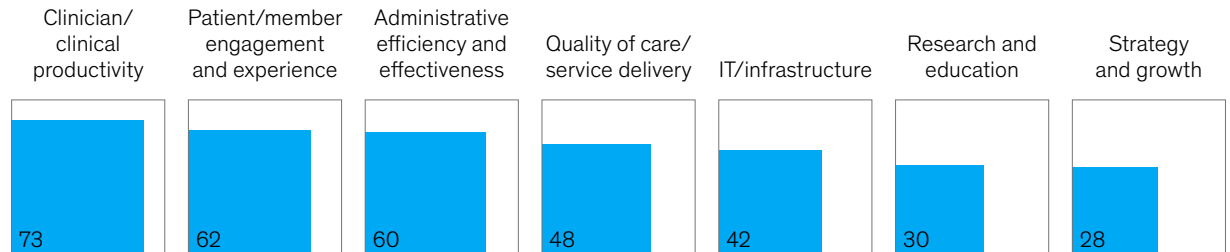
Gen AI may create tremendous value in areas that could fundamentally improve patient experience and streamline operations.

Specifically, clinician and clinical productivity is viewed by most respondents as an area where gen AI may have the highest value.

Furthermore, expectations for gen AI's potential in applications to improve patient and member engagement and experience, administrative efficiency and effectiveness, and quality of care and delivery indicate a diffusion of gen AI interest beyond clinical uses into areas that improve overall patient care interactions.

## Generative AI is thought to hold the highest potential value in improving clinical productivity as well as patient engagement and experience.

Areas believed to benefit the most from generative AI (gen AI), % of respondents (n = 100)



Source: McKinsey US survey on gen AI in healthcare, Mar 11–13, 2024

McKinsey & Company

## Hurdles to scale up

Risk concerns and considerations top the list of scale-up challenges faced by surveyed leaders, regardless of whether they work at a payer, provider, or HST company. This is likely due to the untested nature of the technology, the investment needed to build capabilities, and uncertainty around regulations. It signals the importance of governance and mitigation strategies to tackle the range of risk issues—from privacy to clinical outcomes—to ensure regulatory compliance and excellence in care. After risks, the next most prevalent roadblocks indicated by respondents are insufficient capability, data and tech infrastructure, and proof of value. This demonstrates healthcare organizations' limited tech readiness to deploy gen AI solutions and also to validate its capabilities.

## Risk concerns and considerations was the top challenge among healthcare organizations pursuing generative AI.

**Biggest challenges for organizations implementing or pursuing generative AI, % of respondents**



Source: McKinsey US survey on gen AI in healthcare, Mar 11–13, 2024

McKinsey & Company



After gen AI entered the global stage at the end of 2022, we now see the healthcare industry more actively considering its strategy for using this technology. While these surveys are small and do not represent an exhaustive view of all healthcare stakeholders, they are meant to provide early insights into gen AI's potential. As the survey results show, many healthcare leaders have begun pursuing plans to more broadly adopt the technology, which has in part been enabled by [strategic partnerships](#). Given the complexities regarding technical implementation and integration across a business, cross-functional collaborations allow organizations to bring in outside talent while taking advantage of building flexible and customizable gen AI solutions, compared with buying off-the-shelf solutions. Yet depending on an organization's tech maturity or how straightforward a use case is, buying publicly available gen AI products may offer a viable alternative to tap into the technology's value proposition. Direct purchases may make sense, particularly for functional uses that have matured faster, such as for customer service applications.

As gen AI deployment progresses, many surveyed leaders share that their organizations are focused on initially using this technology to support clinically adjacent applications, with clinical and administrative efficiency and patient/member engagement surfacing as areas believed to gain the most from gen AI. However, as organizations develop strong competencies in governance and risk management, we expect additional focus on core clinical applications as well, further improving the overall patient/member experience.

Despite gen AI's promise, [the path to responsible usage is not without its hurdles](#). Risks such as inaccurate outputs and biases are [particularly critical in healthcare when dealing with patients](#). As organizations introduce this new technology into workflows, AI risks seem to be top of mind for many surveyed healthcare leaders. Risks will need to be proactively mitigated, which starts with a concerted focus on establishing governance processes, frameworks, and guardrails to anticipate, identify, and manage risks. By doing so, healthcare organizations can use gen AI to help ensure that benefits are realized in line with regulatory expectations without compromising ethics or safety.

**As organizations develop strong competencies in governance and risk management, we expect additional focus on core clinical applications as well, further improving the overall patient/member experience.**



**Jessica Lamb** is a partner in McKinsey's New York office; **Greg Israelstam** is a consultant in the Chicago office, where **Shashank Bhasker** is an expert associate partner; and **Rahul Agarwal** is a senior expert in the New Jersey office.

The authors wish to thank Anna Dirksen, Valen Piotrowski, and Xuan Chai for their contributions to this article.

McKinsey  
& Company

Find more content like this on the  
**McKinsey Insights App**



Scan • Download • Personalize



Designed by McKinsey Global Publishing  
Copyright © 2024 McKinsey & Company. All rights reserved.