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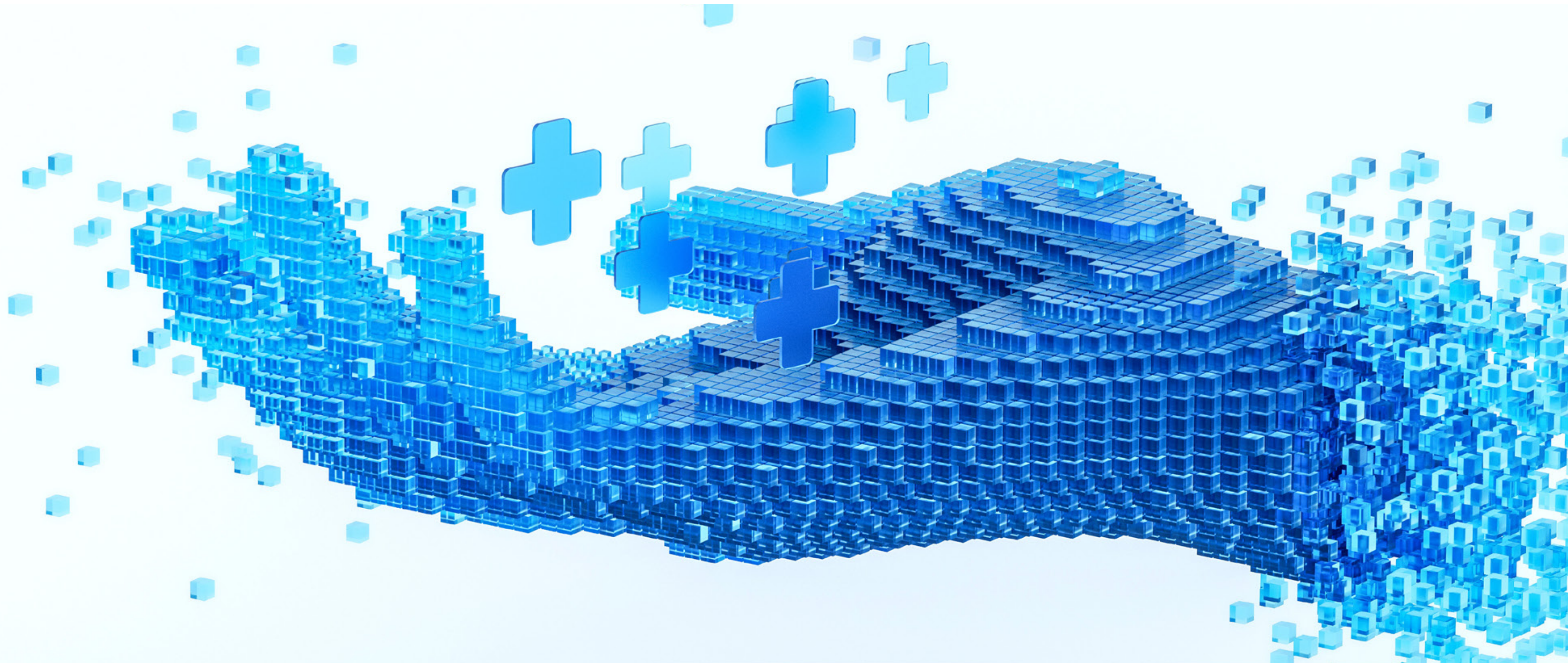
Healthcare Practice

Generative AI in healthcare: Adoption matures as agentic AI emerges

With half of US organizations in our survey now implementing gen AI, the focus is turning to integration, ROI, and agentic AI to realize value across healthcare domains.

by Jessica Lamb
with Amine Dahab and John Jones



April 2026

Over the past two years, healthcare leaders have shifted from questioning whether and where gen AI is relevant to focusing on how it can be used responsibly and at scale. Our latest survey of US healthcare leaders highlights several signals of gen AI's maturation: Half of leaders report that their organizations have already implemented gen AI, more than 80 percent have deployed their first use cases to end users, and while AI safety risks remain top of mind, implementation barriers are now equally urgent (see sidebar, "Research methodology").

Notably, half of respondents say their organizations deployed their first use cases more than six months ago. This cadence reflects increased confidence in both organizational capabilities and operational readiness, suggesting that healthcare organizations no longer view gen AI as experimental but increasingly as a core competency.

At the same time, the challenges that healthcare leaders face are evolving. Longstanding concerns around trust, safety, and governance now sit alongside the operational realities of integration. Against this backdrop, emerging interest in agentic AI points to the next stage of maturity—one in which organizations move from using gen AI to create content and support individual tasks to using agentic AI to take action and coordinate more complex processes end to end.

Research methodology

To better understand how healthcare organizations are thinking about implementing gen AI, McKinsey launched a research effort to gather insights from leaders in payers, clinical-care organizations, and healthcare services and technology (HST) firms. We surveyed US healthcare stakeholders about several topics, including their plans to use gen AI solutions and multiagent workflows, how they expect to adopt these tools, their ROI measurements, their expectations for areas that will benefit the most from gen AI, and the roadblocks to scaling the technology.

These surveys are not meant to provide a comprehensive or exhaustive view of all healthcare stakeholders, nor to predict their actions in the future. Instead, the surveys are intended to provide early insights into gen AI's potential.

This article is the third publication based on our survey research, following "Generative AI in healthcare: Current trends and future outlook" and "Generative AI in healthcare: Adoption trends and what's next."

This third article is based on the most recent survey, the fourth quarter 2025 McKinsey US Gen AI Healthcare Survey. The survey was conducted online, was in the field from September 17 to October 17, 2025, and included leaders from 50 payers, 50 clinical-care organizations, and 50 HST firms. Among respondents, 38 percent were C-level executives, and 24 percent were from organizations with more than $10 billion in revenue.

Advancing from proof of concept to deployment

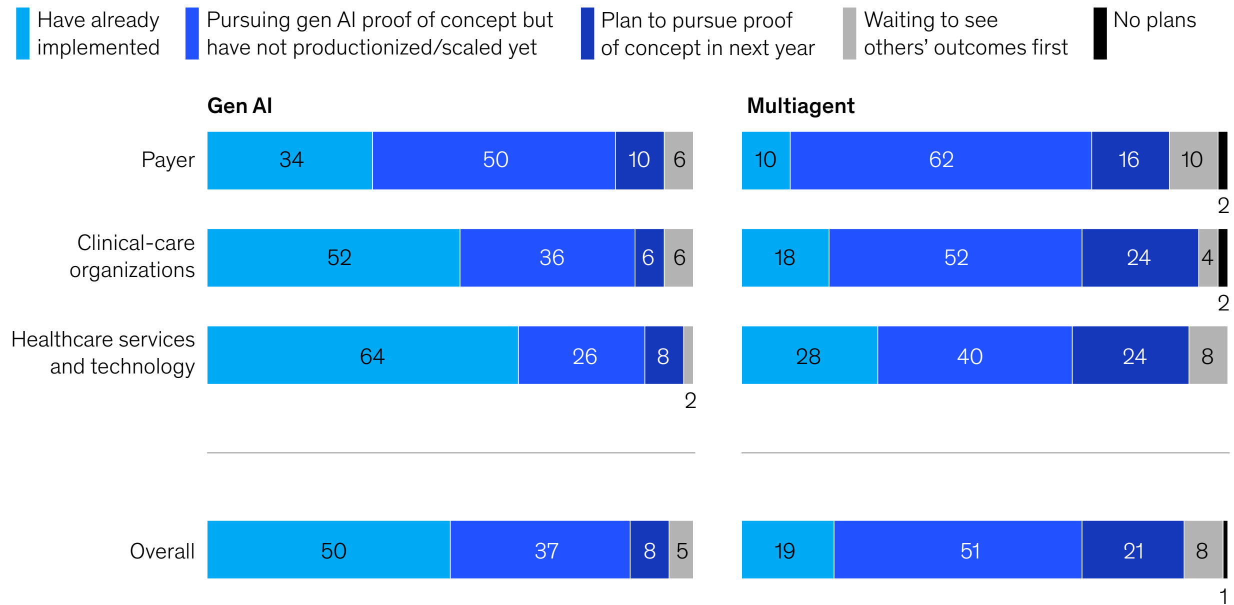
Our fourth quarter 2025 survey marked the first of our surveys in which the share of respondents reporting gen AI implementation at their organizations reached 50 percent. In the fourth quarter 2024 and fourth quarter 2023 surveys, 47 and 25 percent of respondents, respectively, said their organizations had implemented gen AI. This milestone signifies continued progression from proofs of concept to gen AI deployment. Another sign of this growing momentum is that for the first time, all respondents say they have at least some plans to pursue gen AI, indicating a decrease in organizational hesitation to use the technology.

Agentic AI is also drawing broad interest, despite its recency. Consistent with its status as an emerging AI capability, agentic AI lags behind gen AI in implementation, with 19 percent of respondents reporting that their organizations have reached that level of maturity. However, an additional 51 percent of respondents report that their organizations are pursuing agentic AI proofs of concept, and just 1 percent say their organizations have no plans to pursue AI agents.

Adoption rates vary across subsectors. Healthcare services and technology (HST) firms lead the way in implementation, while payers report implementation below 50 percent, according to our survey. The same subsector leadership pattern for implementation holds for multiagent systems, with a general lag in maturity across all subsectors compared with gen AI.

Gen AI adoption in healthcare is maturing, while multiagent workflows are gaining traction, according to our survey.

US healthcare leaders' adoption of gen AI and multiagent workflows, by subsector, % of respondents



Source: 2025 McKinsey US Gen AI Healthcare Survey, 150 healthcare leaders (50 payer, 50 clinical-care organizations, 50 healthcare services and technology), Sept 17–Oct 17, 2025

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Areas of highest potential

Survey respondents most frequently cite administrative efficiency as the domain with the greatest potential for both gen AI and multiagent workflows. For gen AI potential, software and infrastructure, patient or member engagement, and clinical productivity also rank prominently (each above a 50 percent response rate), but all three fall short of that level for multiagent workflows.

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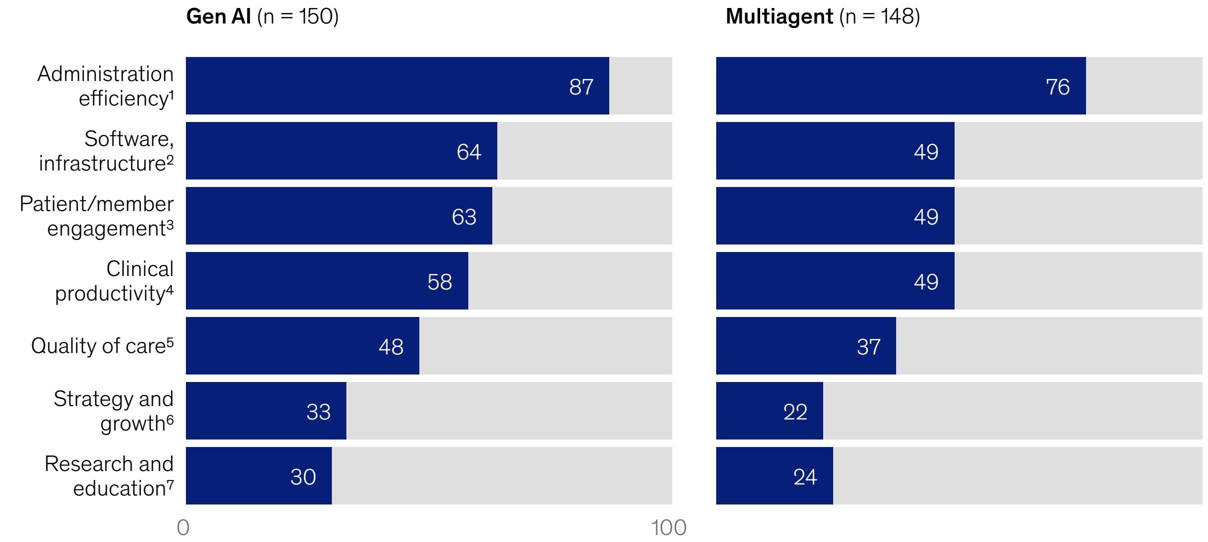
Domains of greatest potential for US healthcare leaders, % of respondents



[1]Revenue cycle, claims, finance, procurement, HR. [2]Software, infrastructure (phrased as IT/infrastructure on prior surveys). [3]Contact center, enrollment. [4]Acute and ambulatory provider operations, clinical workforce. [5]Clinical decision support, quality, medical/care management. [6]Growth, marketing, network. [7]Academic research, talent development.
Source: 2025 McKinsey US Gen AI Healthcare Survey, 150 healthcare leaders (50 payer, 50 clinical-care organizations, 50 healthcare services and technology), Sept 17–Oct 17, 2025

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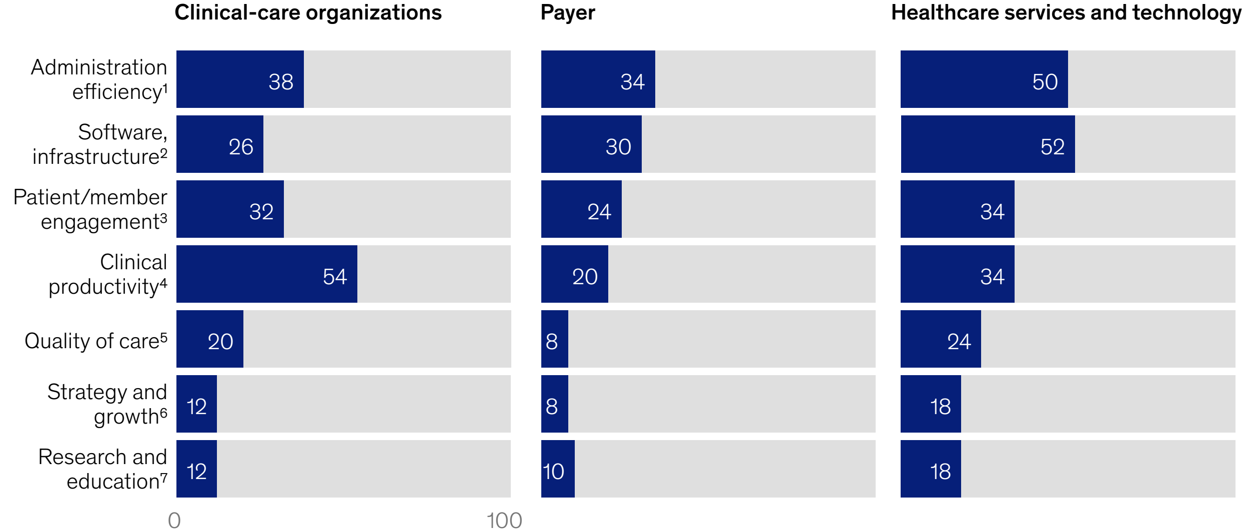
Where gen AI is being implemented

While administrative efficiency is the most frequently cited area of potential, a sector-level view of implementation indicates that clinical-care organizations are moving beyond using gen AI mostly for administrative tasks. Fifty-four percent of respondents from care organizations report that their organizations have already implemented gen AI for clinical productivity, making it the most widely adopted domain across subsectors. In contrast, several domains with high perceived potential—particularly software and infrastructure and patient or member engagement—appear less widely implemented, indicating a gap where organizations could focus next.

Use of gen AI for clinical productivity leads adoption, with more than half of surveyed care organization leaders reporting implementation.

US healthcare leaders' adoption of gen AI, by area of implementation and subsector, % of respondents



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Source: 2025 McKinsey US Gen AI Healthcare Survey, 150 healthcare leaders (50 payer, 50 clinical-care organizations, 50 healthcare services and technology), Sept 17–Oct 17, 2025

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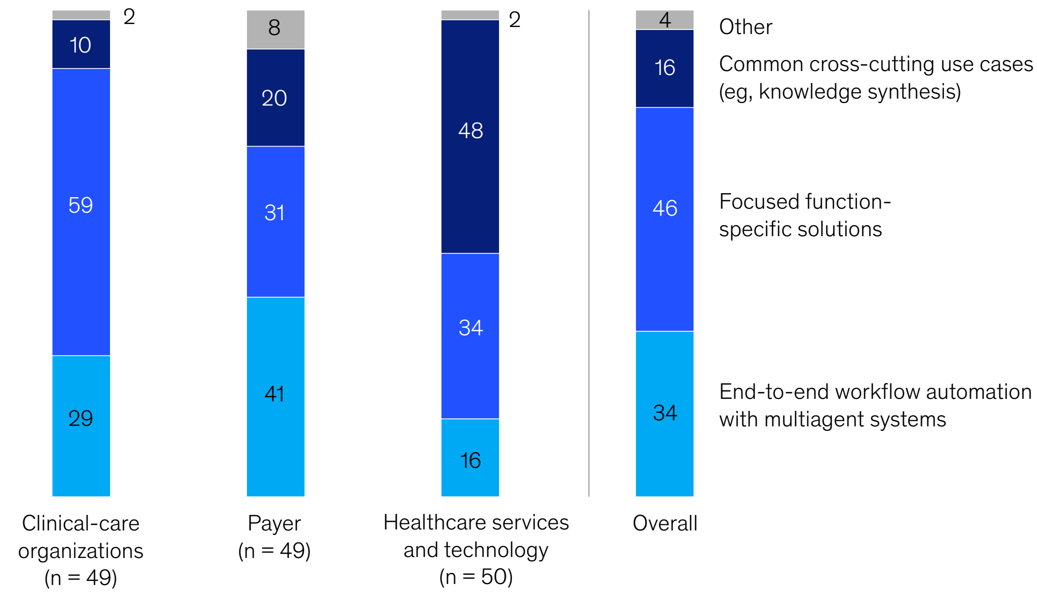
How multiagent systems are being used

Multiagent implementation also varies by subsector. Respondents from care organizations more often report using function-specific solutions, payers say their organizations target end-to-end workflow automation, and HST leaders focus on cross-cutting use cases. These patterns may reflect underlying differences in priorities and operating models for each subsector. Care organizations may gravitate toward function-specific solutions suited to specialized clinical workflows, while payers may pursue end-to-end automation to improve efficiency across standardized processes, according to our experience. HST firms may focus on cross-cutting use cases that can be reused and scaled across various customers.

Focusing on a domain (that is, the workflow end to end) is critical. McKinsey research across industries finds that high performers in generative and agentic AI pursue a domain-based end-to-end workflow approach, using the unique properties of AI agents to unlock greater value than cross-cutting or function-specific use cases.

Multiagent implementation varies by healthcare subsector, according to our survey, reflecting differences in priorities and operating models.

US healthcare leaders' adoption of multiagent workflows, by implementation model and subsector, % of respondents (n = 98)



Source: 2025 McKinsey US Gen AI Healthcare Survey, 150 healthcare leaders (50 payer, 50 clinical-care organizations, 50 healthcare services and technology), Sept 17–Oct 17, 2025

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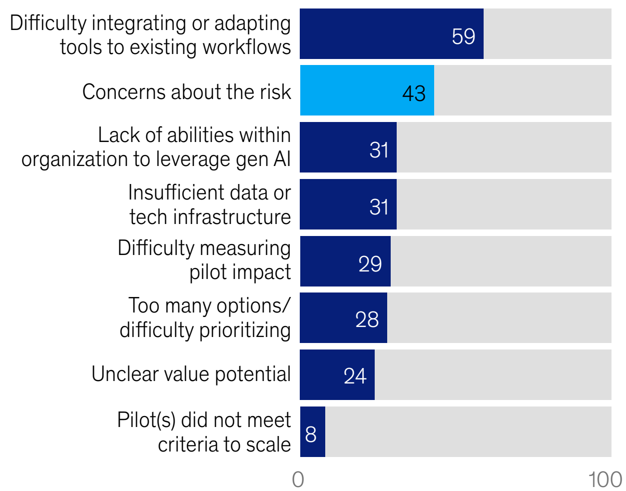
Barriers to scaling

As observed in prior surveys, healthcare leaders take risk and safety seriously when scaling gen AI solutions, with 43 percent of respondents reporting it as a roadblock to implementation. Among specific risks, respondents most frequently cite inaccuracies or biases, security risks, and regulatory compliance among their top three concerns. Many leaders also point to ethical and privacy concerns.

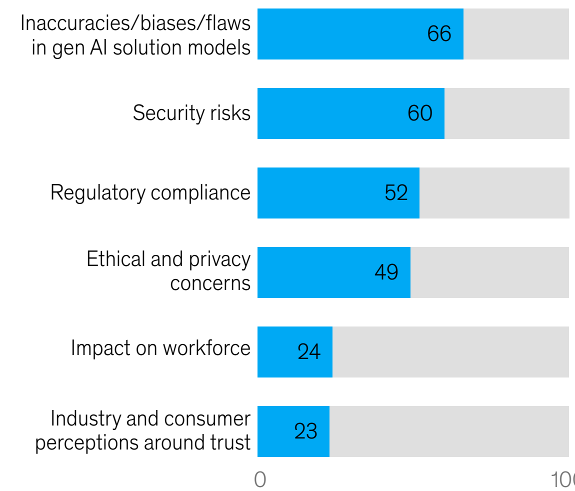
Operational barriers are now also top of mind, with integration challenges and a lack of internal capabilities ranking as the first- and third-most-cited barriers to scaling gen AI, respectively. This may reflect increasing organizational maturity in AI use: As organizations move beyond the planning and proof-of-concept stages, the primary challenge shifts from risk concerns to embedding gen AI into complex, legacy healthcare systems, where orchestration and workflow redesign become the primary constraints.

Surveyed healthcare leaders cite integration challenges and risk concerns as the top barriers to scaling gen AI.

US healthcare leaders' barriers to scaling gen AI,[1] % of respondents (n = 143)



US healthcare leaders' top risk concerns with gen AI,[2] % of respondents (n = 143)



[1]Question: If currently implementing/pursuing gen AI, what have been your biggest roadblocks to scaling gen AI opportunities? Select all that apply.
[2]Question: What specific risks are most concerning to your organization when scaling gen AI initiatives? Select three.
Source: 2025 McKinsey US Gen AI Healthcare Survey, 150 healthcare leaders (50 payer, 50 clinical-care organizations, 50 healthcare services and technology), Sept 17–Oct 17, 2025

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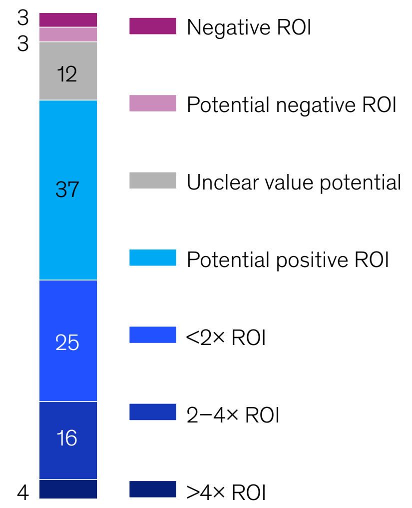
ROI expectations

While many industries are concerned about the return on their gen AI investments, our surveys consistently show that most healthcare leaders expect a positive ROI on their organizations' use of gen AI. In fact, the latest survey shows not only the highest overall proportion of leaders expecting a positive return (82 percent), but also the highest share of leaders quantifying that positive return (45 percent) since the survey began. Respondents who report quantified returns say ROI levels primarily range from less than two times to four times the initial investment.

Most surveyed healthcare leaders who have implemented gen AI expect a positive return on investment, with many reporting quantified returns.

US healthcare leaders' expected ROI among those who have implemented gen AI, % of respondents (n = 73)



Source: 2025 McKinsey US Gen AI Healthcare Survey, 150 healthcare leaders (50 payer, 50 clinical-care organizations, 50 healthcare services and technology), Sept 17–Oct 17, 2025

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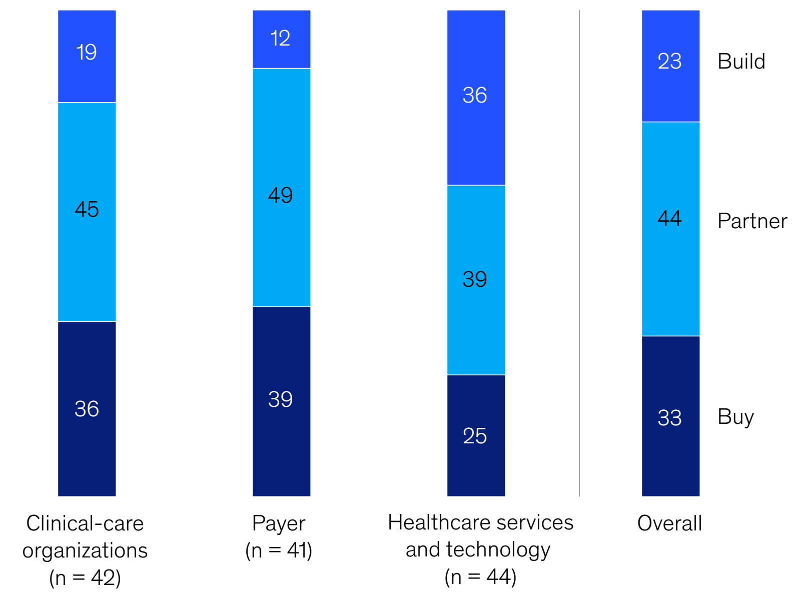
Operating models and partnerships

While partnering with third-party vendors to develop gen AI solutions continues to be the prevalent strategy for healthcare organizations overall and across subsectors, according to our survey, a larger proportion of HST leaders (36 percent) report a willingness to build in-house solutions compared with leaders from care organizations (19 percent) and payer organizations (12 percent). This may reflect greater implementation maturity among HST firms or a greater willingness to explore unique service offerings. Conversely, leaders from care organizations (36 percent) and payer organizations (39 percent) report that their organizations are considering off-the-shelf solutions. This may indicate a desire to incorporate AI tools quickly or more limited access to the internal capabilities required to build.

The proportion of those buying gen AI solutions has increased over the past year. In the fourth quarter 2025 survey, 33 percent of respondents who say their organizations are at least pursuing gen AI proofs of concept reported a buy strategy compared with 19 percent in the fourth quarter 2024 survey.

Healthcare organizations most often partner for gen AI, though health services and technology firms also often build solutions, per our survey.

US healthcare leaders' gen AI sourcing strategy, by subsector,[1] % of respondents (n = 127)



[1]Includes only respondents who indicated they were pursuing proofs of concept or had already implemented gen AI. Among the respondents, 4 declined to answer; these respondents are not shown.
Source: 2025 McKinsey US Gen AI Healthcare Survey, 150 healthcare leaders (50 payer, 50 clinical-care organizations, 50 healthcare services and technology), Sept 17–Oct 17, 2025

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Taken together, our latest survey findings suggest that healthcare could be entering a more consequential phase of AI adoption—one defined less by novelty and more by discipline. As organizations continue to implement gen AI at scale, competitive advantage will increasingly hinge on how well they integrate AI into core workflows, measure and capture value, and manage residual risks as applications expand in scope and autonomy. The growing interest in agentic AI underscores this shift: Moving from isolated applications to orchestrated systems will raise the stakes for design, governance, and execution.

For healthcare leaders, the challenge ahead is not simply to adopt AI faster but to build the organizational capabilities required to sustain and scale it. Those that do will be better positioned to translate technological progress into lasting operational and clinical impact.

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