REPORT

How Healthcare Systems Are Addressing Operational Challenges With AI

Leaders Channel Concerns of Burnout and Compliance Into Expectations for Automation

Microsoft | HEALTHCAREDIVE

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As healthcare leaders face enduring operational pressures and complexities, they're enthusiastic about the potential impacts of artificial intelligence (AI). According to a survey from Microsoft and Healthcare Dive, 60% of healthcare executives say their organizations have already implemented AI to address operational challenges — with the most perceived value gleaned from facilitating compliance and supporting clinician well-being.

However, in the next two years, even more AI uptake is expected, with growth among functions in which leaders report more inefficiencies, such as clinical documentation. As that enthusiasm intersects with concerns about accuracy and data security, there's ongoing pressure for healthcare organizations to evaluate new investments wisely.

In this report, we'll discuss the survey results as a pulse check on AI implementation opportunities and barriers.

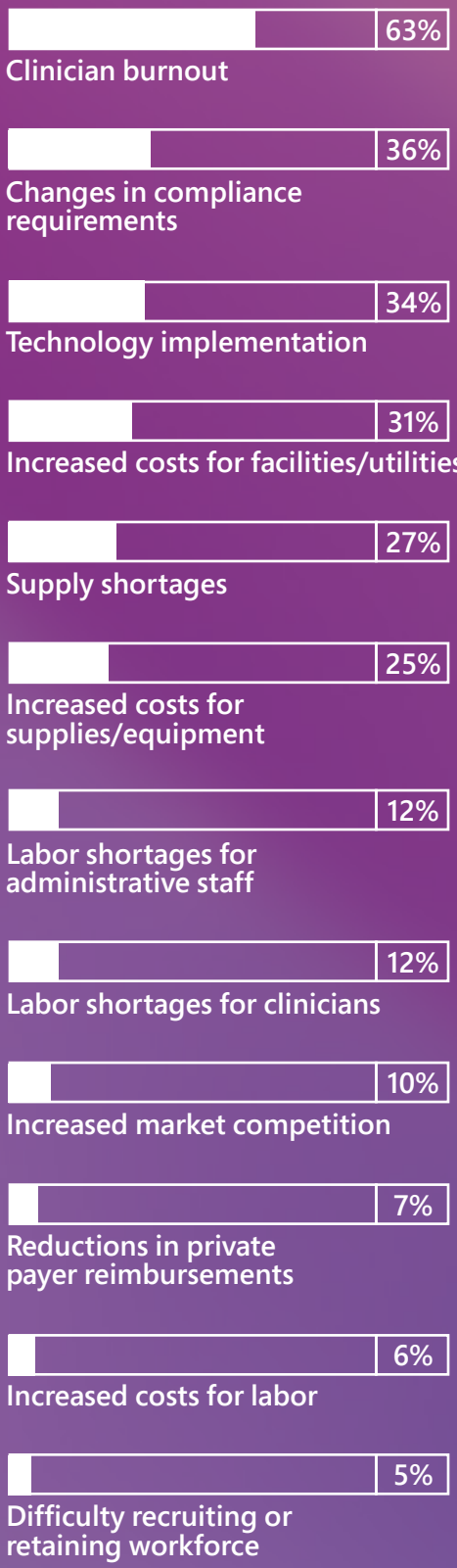
Operational challenges and inefficiencies are (still) endemic to healthcare.

It's not revolutionary news, but the reality is: Healthcare is buckling under the extreme weight of systemic challenges.

And there's one challenge in particular that's especially resilient: clinician burnout. More than 6 in 10 healthcare executives listed it as a top operational concern, a carry-over from even pre-pandemic days when experts predicted that up to half of clinicians had burnout symptoms.

According to the survey, additional operational challenges included evolving compliance, technology implementation, and increased costs for facilities/utilities. These concerns indicate a clash of internal demands with external forces, making it even more arduous for operational teams to address.

Respondents shared their organization's top three operational challenges

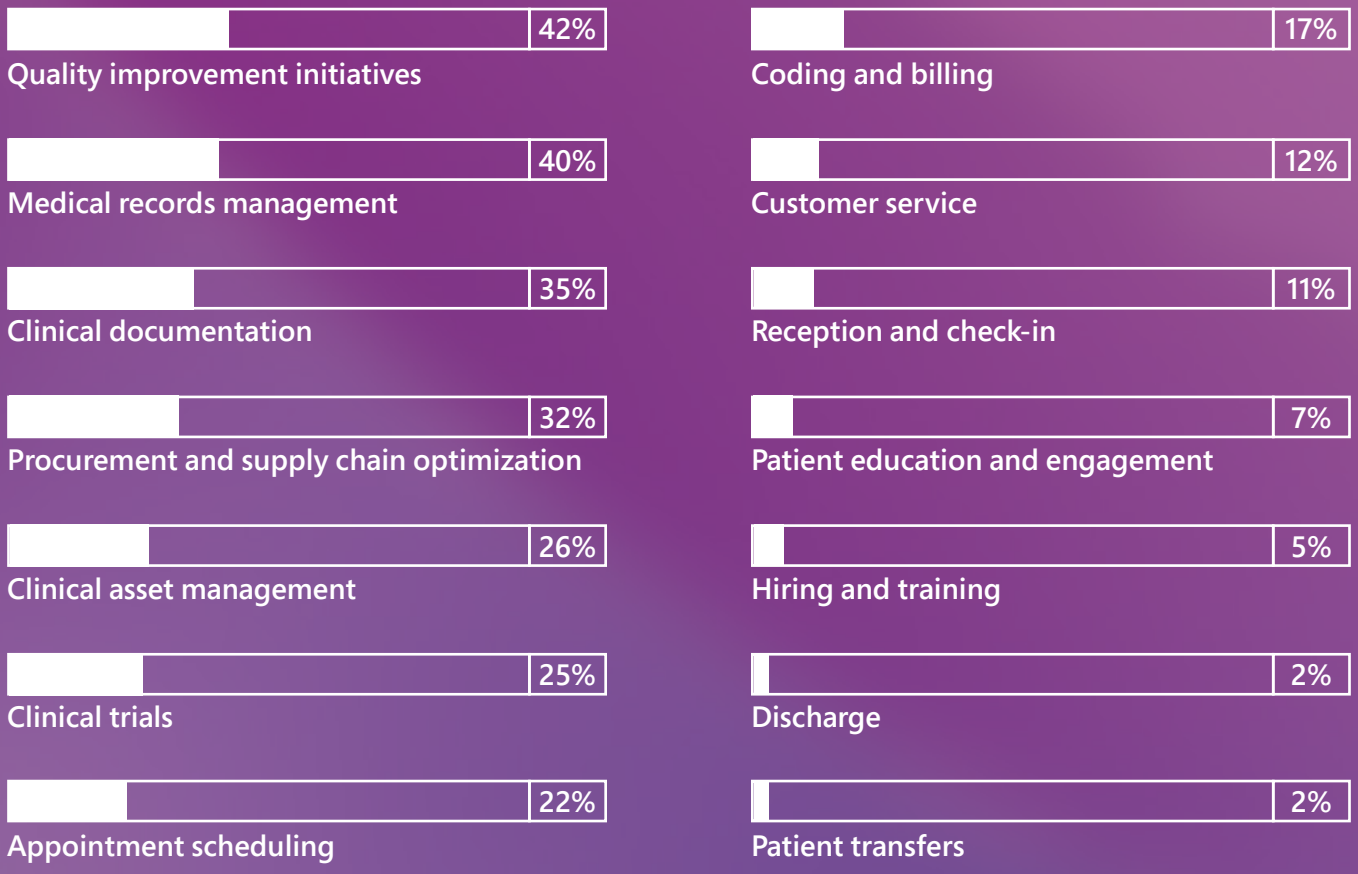


When asked which functions were most vulnerable to these and other operational inefficiencies, respondents pointed to a few key areas — quality improvement initiatives, medical records management, clinical documentation, and procurement/supply chain optimization.

Jared Pelo, Microsoft's chief medical information officer, said those same areas besieged by operational inefficiency have the most to gain from digital transformation. He's often at the center of such conversations. Through Microsoft Cloud for Healthcare, Pelo and his team work to bring solutions to providers across demonstrated needs for clinical documentation, security and compliance, and more.

"You have to wonder how much longer the healthcare system can survive these ongoing, familiar challenges," he said. "But I think there's clear hope and consensus in leveraging technology as a path forward — not just to address these concerns issue-by-issue, but in a more orchestrated way."

Respondents indicated the top three workflow areas with the highest operational inefficiencies



For example, Pelo pointed to the recent announcement of Microsoft Dragon Copilot which enables health systems to streamline documentation, surface information, and automate tasks across care settings. It's an extensible workspace that brings together natural language and ambient speech capabilities with advanced generative AI.

"In addition, organizations can use Microsoft Copilot Studio to build their own AI healthcare agents and plug them into the physician workflow — Dragon Copilot — which can then initiate multiple activity streams across multiple stakeholders to address some of these larger operational concerns," he said. "Say you have a particular quality improvement initiative around social determinants of health. You can take the visit transcript, and, if an SDOH need is identified, you build an agent into the workflow that allows you to message a social worker. You can take from that transcript wholly and then help address all those top-priority challenges in an automated, streamlined way."

For that potential to come to life, however, healthcare systems must be ready to fully embrace the power and potential of AI. Fortunately — as we'll share in the next section — they already are.

Confidence is high in AI's potential to address operational pressures.

As health systems work on strategies for operational inefficiency, they likely won't face resistance from leadership about using AI. Quite the opposite: Most respondents (92%) said that their organizations' leadership has increasingly encouraged using AI to achieve operational efficiency.

In fact, most organizations are already AI users: 60% of respondents said their organizations have implemented AI tools to address operational challenges. Of organizations that have implemented AI, the top-reported benefits of those tools aligned with the top-reported challenges health systems experience overall: compliance and clinician burnout.

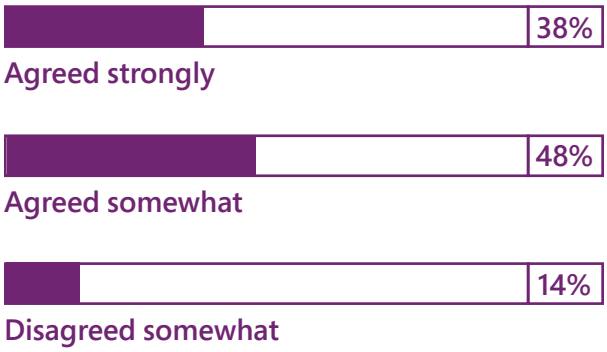
Respondents indicated to what extent they agreed or disagreed with the following statement: "Our organization's leadership has increasingly supported the use of AI to achieve operational efficiency."

60%

of healthcare executives said their organizations have already implemented AI tools to address operational challenges.

Inherent in these benefits is the bottom line — and there was widespread agreement that using AI could help there, too. When asked whether they agreed that AI could improve their organizations' financial performance in the next five years, 86% of healthcare executives said they did.

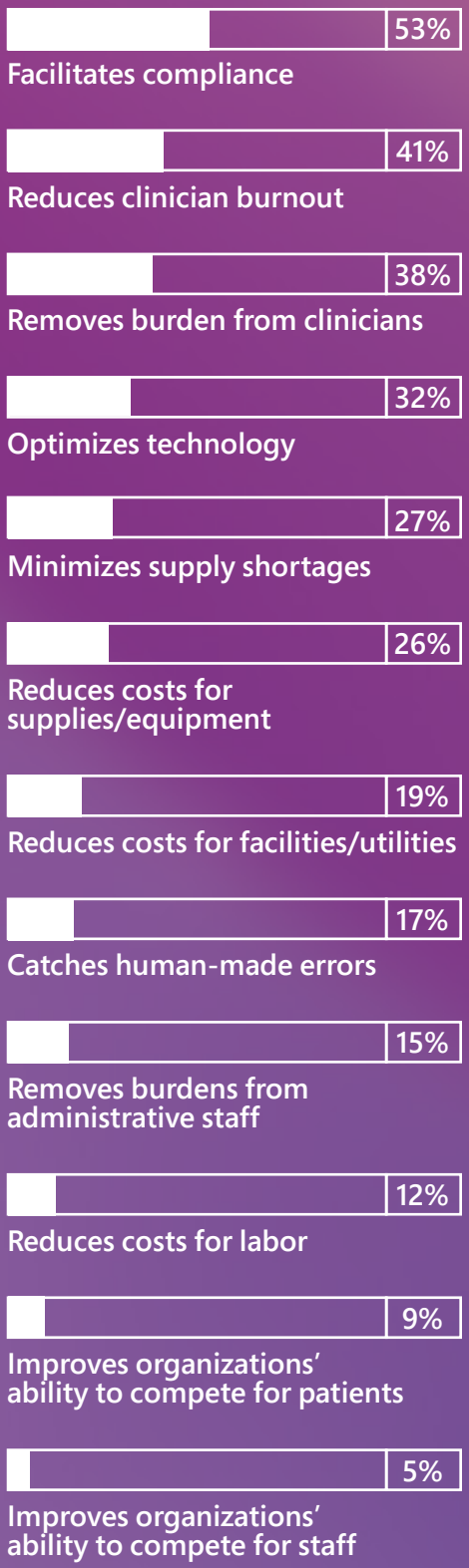
When asked to indicate to what extent they agreed or disagreed with the following statement: "AI has the potential to improve our financial performance in the next five (5) years," respondents stated:



Pelo noted that leaders are beginning to recognize the financial benefits of AI solutions.

"Within the next year, no clinician is going to want to practice medicine without a healthcare AI solution. AI goes beyond automating clinical documentation — it also performs everyday tasks such as creating referral letters and orders. It's like having an actual medical assistant doing things for you in the room."

Respondents identified the benefits that AI has brought to their organization*



**selecting up to three*

Some functions, such as clinical documentation, are expected to see a dramatic increase in AI uptake.

Healthcare systems currently use AI for multiple activities. The top reported uses for 2024 were: appointment scheduling (40%), reception and check-ins (40%), coding/billing (31%), and medical records management (31%). Other functions included further down the list were: clinical documentation (10%), clinical decision support (8%), and patient education and engagement (2%).

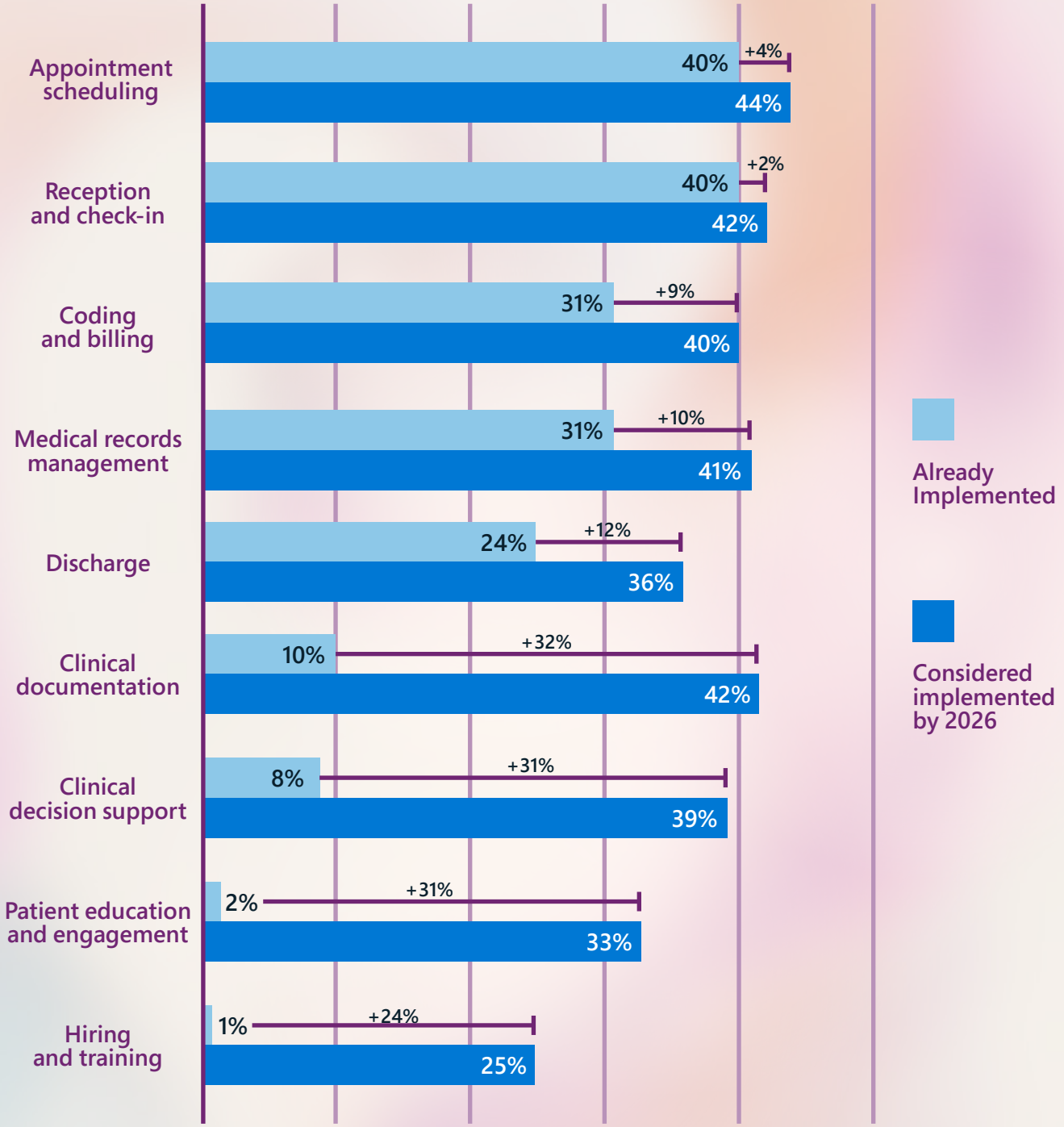
Pelo pointed to a pattern in current AI usage trends. Right now, most organizations that use AI are adopting tools for their immediate revenue needs. And other areas, like clinician satisfaction, are mostly embraced by early adopters at this point.

"Understandably, leaders initially want to implement solutions where the healthcare dollars are," he said. "If someone doesn't schedule or check in with you, or you don't code them, there is no money. But once those priorities are addressed, you can then invest more in other areas, including clinician and patient experience."

Survey respondents validated that as well. When asked which functions they plan to implement AI for in the future, 42% of executives said they plan to implement an AI tool for clinical documentation by 2026, a jump of 32 percentage points. AI use for clinical decision support and patient education/engagement increased similarly.

"I think this indicates an acknowledgment and even a reckoning among health systems about the necessary changes for the future," said Pelo. "Clinical documentation and patient education will experience significant advancements because it is essential to provide improved experiences for both clinicians and patients. Otherwise, they will go elsewhere."

Respondents indicating the stage of AI implementation at their organization across the following functions.



Concerns about accuracy and data security were cited as barriers to implementation, likely pushing leaders to prioritize those features when looking for vendors.

Despite their interest in advanced technologies, some leaders hesitate to adopt AI because of concerns about accuracy and/or data security. Exactly 3 in 4 respondents — 75% — selected each of those areas when asked which barriers are holding them back from AI. Similar percentages of respondents said they'd have the same worries over the next five years.

"The importance and also the vulnerability of healthcare data has taught us all about how critical data security and accuracy really is," Pelo said. "At Microsoft, we are committed to safety, security, and privacy."

Beyond security and accuracy, other perceived barriers limiting AI uptake included user interface complexity (37%). Consequently, that's one of the reasons why Dragon Copilot was designed the way it was, Pelo added — to improve the user experience.

"With Dragon Copilot, you'll have this one solution that combines natural language and ambient speech with generative AI to interact with your EHR data, surface information, and perform tasks by just talking naturally," he said.

Rounding out the list of AI barriers was an undefinable ROI (35%). Even so, ROI doesn't generate itself, Pelo said, which is why organizations should be intentional when establishing measurable goals and selecting solutions.

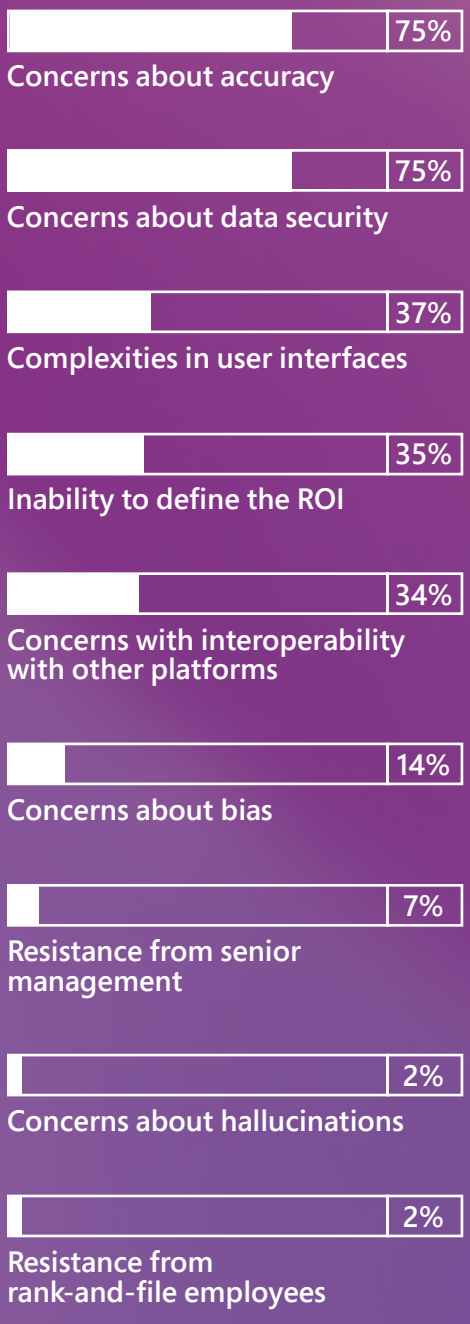
"You need to build the program in such a way that you can identify and then reach desired outcomes. An important part of that is 'Who are your partners?'" We have dedicated resources to ensure success. Microsoft Cloud for Healthcare is designed by and for the healthcare industry. Pelo himself is an emergency physician, as are many others on the Microsoft team.

"Your vendors need to understand medicine — how it works at all angles, from billing and coding to the patient journey itself," he added. "A reliable partner is one that understands that whole ecosystem so that they can drive that ROI for you so that it's set up to succeed from the start."

About the Research

The findings of this research are based on a survey conducted by Healthcare Dive in October 2024. A total of 130 healthcare executives who work for US-based hospitals/ health systems participated in the research.

Respondents indicated the biggest barriers preventing them from investing in AI tools*



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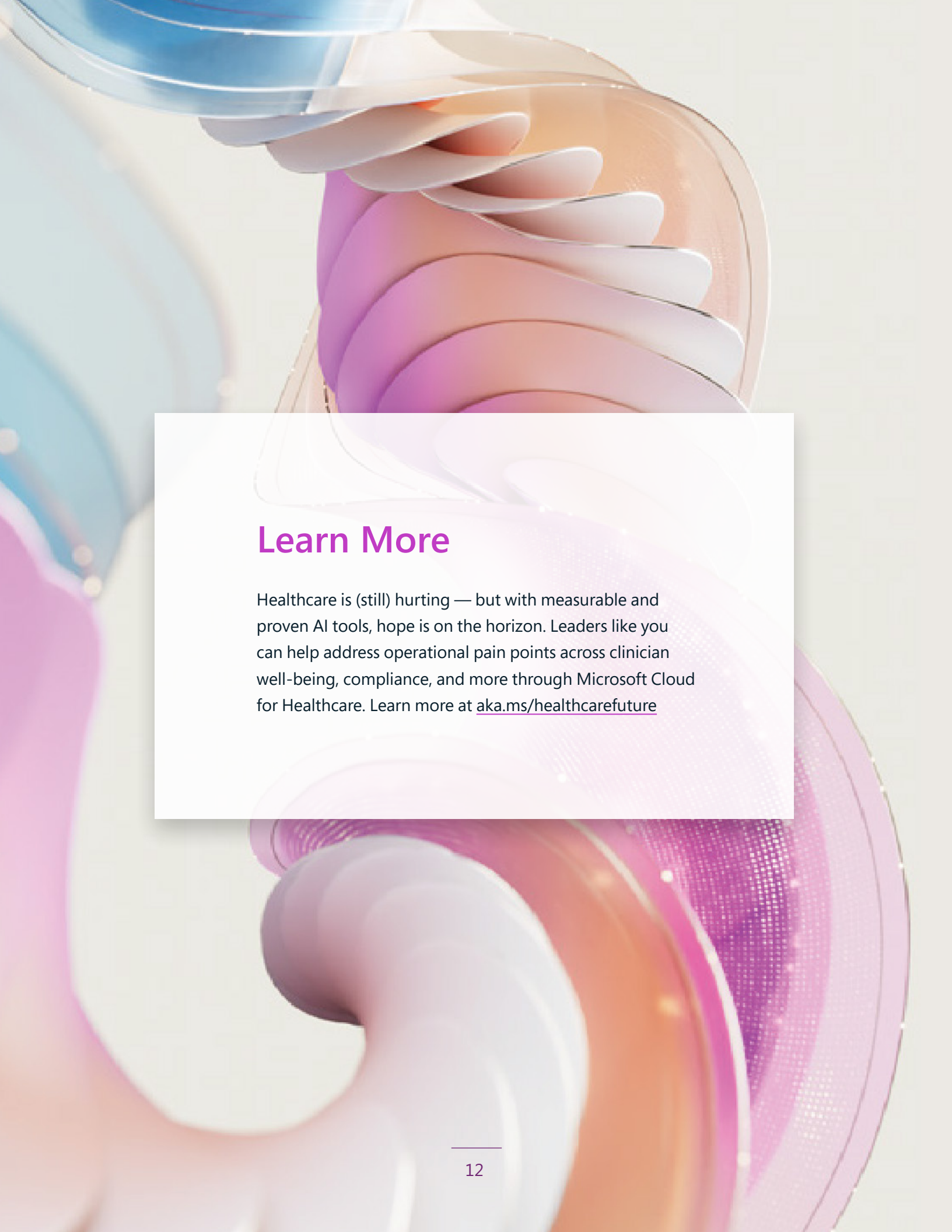

Learn More

Healthcare is (still) hurting — but with measurable and proven AI tools, hope is on the horizon. Leaders like you can help address operational pain points across clinician well-being, compliance, and more through Microsoft Cloud for Healthcare. Learn more at aka.ms/healthcarefuture

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Microsoft conversational, ambient, and generative AI solutions increase productivity, reduce administrative burdens, and empower the healthcare workforce with new ways to capture clinical information and apply real-time intelligence for better decision making. Our Azure cloud architecture is optimized for scale, resiliency, and cost management to help improve performance and create value faster. Together, we're creating better healthcare experiences across the continuum of care.

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