

HEALTHCARE AND AI

RISK, REWARD, HYPE, AND REALITY

OVERVIEW

Perhaps no industry stands to transform so dramatically around artificial intelligence as healthcare. From assessing total cost of care and patient risk to making meaning from vast data sets to identify trends and promote wellness across populations, AI-powered technologies can improve processes for health plans and care providers alike.

Yet the healthcare industry must take a measured approach to this AI-driven transformation. Oxford Economics and NTT DATA recently surveyed 1,000 executives and employees — including 72 from health plans and 122 from providers — in order to understand progress toward adoption of these technologies and identify pain points for organizations making the transition.

KEY FINDINGS

- 1 Overall, health plans and providers are roughly on par with the overall survey sample** in terms of their progress toward implementing AI; health plans are slightly further ahead.
- 2 Executives may be underestimating AI risk;** employees are more likely to be concerned about big-picture ethical issues and less likely to say their organization has taken steps to address them.
- 3 AI is expected to boost employee performance** in terms of productivity, efficiency, and innovation in the years ahead — which could translate to meaningful patient outcomes.

THE PACE OF AI ADOPTION IN HEALTHCARE

AI for healthcare could have a meaningful impact on human lives. Providers can use analytics to understand and tailor treatments to individual patients; health plans can use predictive tools to control costs and support patient wellness. AI adoption is under way among providers and health plans in our survey sample, but implementation could be faster.

- Roughly one-third of executives from health plans and health providers describe the pace of technology adoption at their organization as fast. Health plan respondents are more likely to describe the pace of their process change as fast (51%, vs. 19% of providers and 27% across all industries surveyed), which could aid implementation.
- 80% of health plans and 75% of providers say they are effective in equipping employees with cutting-edge technologies, vs. 67% across sectors.
- While more than two-thirds of health plans and providers say the speed of their AI implementation is sufficient, less than half have implemented AI in at least one business area.

Executives who say the speed of AI implementation at their organization is sufficient



Executives who say their organization has fully implemented AI in at least one business area



HEALTHCARE, AI, AND RISK MITIGATION

The promise of big rewards comes with big risks. Healthcare providers and health plans must carefully implement AI to consider ethical issues—such as patient privacy and decisions about how care is distributed—at every turn.

Executives who say an AI application gained access to restricted data



Executives who say an AI application has ignored a command

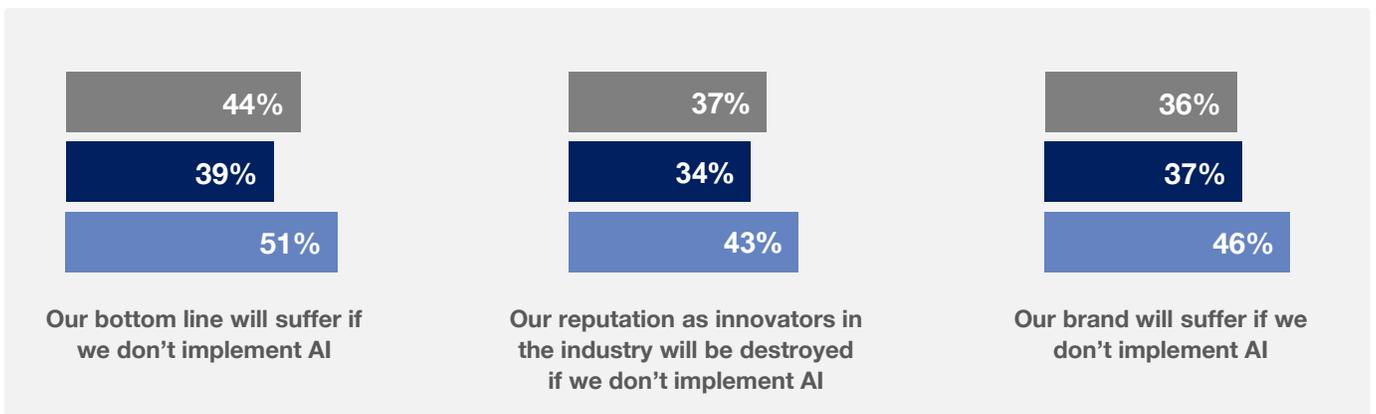
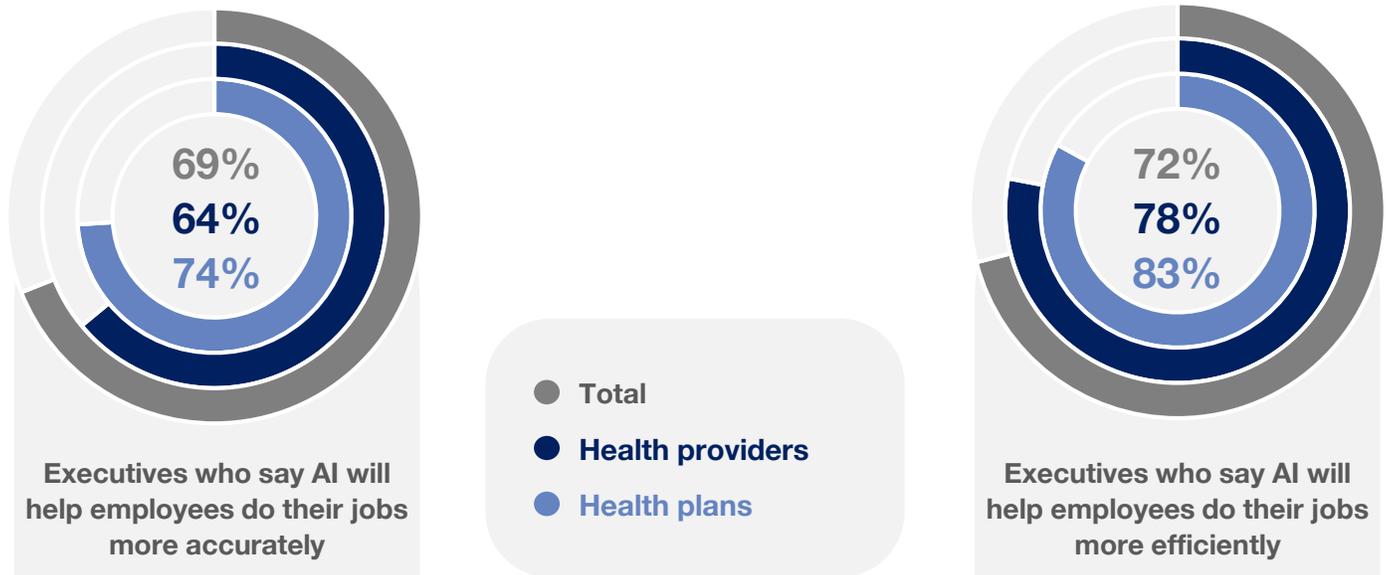


- Many are worried about the risks of AI: around one-fifth of employees from health plans and providers expect AI to discriminate against a minority group. Even in the early days of AI, some executives have already experienced an AI application gaining access to restricted data or ignoring a command.
- Employees and executives do not always see eye to eye about the level of risk posed by AI. Health plan employees are more likely to worry about AI's impact on social equality (19% say so, vs. 10% of employees across sectors and 3% of health plan executives).
- Health sector employees are less likely than executives to say their organization has taken steps to reduce risk, like sponsoring training programs or increasing the diversity of project teams.
- Increased transparency among patients, providers, and health plans should help build trust and architect ethical AI systems.

THE AI REWARD

Not all benefits of AI in healthcare will be visible to patients. Analytics, automation, and artificial intelligence are expected to improve employee productivity and performance—which could translate into meaningful results in terms of organizational operations and big-picture outcomes.

- Nearly three-quarters of executives from health providers (73%) and health plans (74%) say AI has been implemented strategically to optimize certain processes.
- Executives expect AI to improve employee performance. Roughly two-thirds to three-quarters of plans and provider executives expect AI to help employees do their jobs more accurately, and well over three-quarters say it will help them do their jobs more efficiently.
- Some employees have already seen the benefits of AI to their work. Well over half of employees from health providers and health plans say AI has improved their ability to develop new products or processes.



RECOMMENDATIONS



Patients are eager to get more involved in their overall health and wellness, and would welcome more proactive care from their health providers and plans in terms of preventive medicine and personalized information. Using analytics and AI to better understand and reach out to patients should boost overall care and wellness.



Explainability of an AI solution is critical to transparency and ethics. Determine how your organization designs and communicates about AI in care management and decision-making, and understand how those tools should inform the way you work with others in the ecosystem.



Design every tool with ethics in mind. Combining data from multiple health plans and across the system, performing regular audits, and increasing the diversity of developers and other staff members are key steps in avoiding AI risk.

ABOUT THE RESEARCH

Oxford Economics was commissioned by NTT DATA to conduct a survey of 500 executives and 500 employees in the United States and Canada about progress toward adopting artificial intelligence. The survey was conducted in Q1 of 2020 via computer-assisted telephone interviewing.

- Respondents come from healthcare (health plans and health providers), insurance, financial services, retail, media/telecommunications, automotive, and public sector.
- Executive respondents are C-levels and direct reports; employees come from a range of non-executive seniority levels around the business.
- All respondents come from organizations with over \$500 million in revenue to more than \$20 billion in revenue.

For more information on the research study, see the full report:

