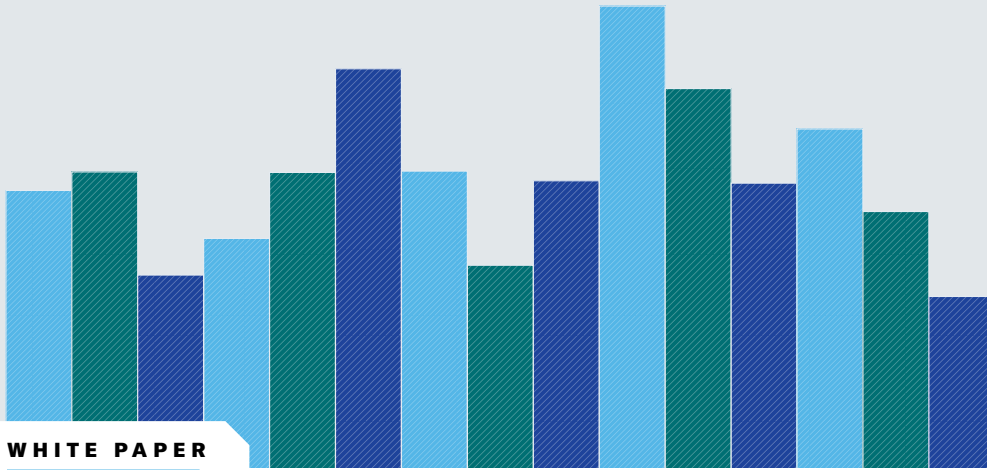




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ANALYTIC SERVICES



WHITE PAPER

# AI in the Health Care Industry:

## Driving Efficiency and Better Patient Experiences



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**Amit Khanna**  
**General Manager and**  
**Senior Vice President**  
**Salesforce**

Roughly 15% of U.S. health care spending<sup>1</sup> is wasted on purely administrative costs, presenting a potential cost savings of up to \$570 billion<sup>2</sup> for payers and providers. Artificial intelligence (AI) could be the solution, with a February 2024 study by the Forrester Research firm revealing that 82% of health care leaders view AI as a top focus area to drive operational efficiency.<sup>3</sup>

Patients are also becoming more open to AI innovation, starting with nonclinical use cases. A January 2024 Salesforce survey found that more than half of U.S. adults are comfortable with the use of AI for activities such as scheduling appointments and estimating medical expenses.<sup>4</sup> Offloading these administrative and operational tasks to AI presents an opportunity for health care organizations to free up care teams to spend more time with their patients.

But quality data is an essential foundation for meaningful automation and intelligence. The health care industry currently generates 2.3 zettabytes of data around the globe, and most of that information is dispersed across thousands of different systems and goes largely unused.<sup>5</sup> Unlocking this trapped data could redefine our access to treatment, our understanding of diseases, and even our ability to create groundbreaking medicines—not by reinventing the way data is stored but by reimagining the way it's processed, accessed, and disseminated throughout an organization.

With unified and contextualized data in place, AI is poised to increase access, improve quality, and reduce costs—all critically needed advancements in a world

where health care costs continue to rise while life expectancy is dropping. Still, AI needs to be used in the health care industry in an especially secure and trusted manner—with an emphasis on accuracy, safety, and ethics. It must be helpful rather than harmful. It must augment what humans do, not replace them. It must be accessible within the flow of a user's work.

Salesforce is boosting the efficiency of care teams, service agents, and system administrators by enabling them to harmonize information from electronic health records and other systems of record; automate manual tasks, such as answering questions about benefits coverage and deductibles; segment at-risk populations for targeted outreach and care; and digitize medical assessments to streamline and improve the patient experience.

We have sponsored this report by Harvard Business Review Analytic Services to examine how organizations can develop trusted AI strategies that keep pace with today's fast-moving world while driving greater business value and outcomes. Through interviews with analysts, academics, and other health care experts, this paper outlines the challenges and opportunities that health care companies face moving into this next era of AI.

Alongside this research, the insights offered in this paper can help health care organizations build an AI strategy that establishes a well-governed data ecosystem that provides a contextualized foundation to drive lasting impact on care experiences and costs through intelligence and automation.

1 Health Affairs, "The Role of Administrative Waste in Excess U.S. Healthcare Spending," October 6, 2022.  
<https://www.healthaffairs.org/doi/10.1377/hpb20220909.830296/>.

2 McKinsey & Co., "The Gathering Storm: The Uncertain Future of US Healthcare," September 16, 2022.  
<https://www.mckinsey.com/industries/healthcare/our-insights/the-gathering-storm-the-uncertain-future-of-us-healthcare>.

3 Salesforce, "Applications of AI in Health & Life Sciences 2024 Study," February 2024.  
<https://www.salesforce.com/form/industries/healthcare/ai-in-healthcare-report/>.

4 Salesforce, "Bot Docs? Not Likely: 69% of US Adults Uncomfortable Being Diagnosed by AI," March 7, 2024.  
<https://www.salesforce.com/news/stories/ai-in-healthcare-research/>.

5 World Economic Forum, "How to Harness the Power of Health Data to Improve Patient Outcomes," January 4, 2024.  
<https://www.weforum.org/agenda/2024/01/how-to-harness-health-data-to-improve-patient-outcomes-wef24/>.

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# AI in the Health Care Industry: Driving Efficiency and Better Patient Experiences

The cost of health care continues to climb. London-based management consultancy PricewaterhouseCoopers Ltd projects a 7% increase in the cost of treating patients in the United States in 2024, up from increases of 6% in 2023 and 5.5% in 2022.<sup>1</sup> “Since Covid, there has been a giant upheaval, and costs are trending higher than they’ve ever been,” says Samuel Miller, vice president, technology and product development, at Albany, N.Y.-based CDPHP Health Plan, where the top strategic goals are improving financial performance, increasing quality of care, and growth.

A look at the contribution of administrative spending reveals an area ripe for improvement. *Health Affairs*, a peer-reviewed health policy journal, estimates that administrative expenses account for as much as 30% of U.S. health care spending and that half, or \$570 billion, of that expenditure is wasted on ineffective activities that do not improve patients’ lives.<sup>2</sup> **FIGURE 1**

This administrative burden has a direct impact on health care employees, who may suffer burnout or frustration in providing patient support and care because resources are being diverted to matters having to do with neither. Meanwhile, research by New York consulting firm McKinsey & Co. reveals that consumers are particularly frustrated with some of the most important steps in their health care journeys—getting coverage, understanding benefits, finding care, and saving and paying for care.<sup>3</sup>

Driving these health care administration inefficiencies and costs are often disparate, dispersed, and low-quality data. What’s more, the bulk of health care data is unstructured, which historically has made it even more difficult to aggregate and analyze.

## HIGHLIGHTS

**Health care costs are growing** more each year, with **administrative outlays accounting for a significant portion** of the expense.

**Inefficient processes** resulting from disparate, dispersed, low-quality, and unstructured data lead to **frustration and burnout for employees and higher costs, poor experiences, delays, and diminished access to care for consumers**.

**Artificial intelligence** has the potential to help payers and providers **streamline administrative processes, reduce costs, and provide better care**.



“It takes a long time to bring clinical AI applications to the bedside, due to the risks and regulatory approvals involved. I’ve advocated for focusing on administrative AI because it’s easier and administrative costs are way too high,” says Tom Davenport, professor at Babson College, fellow of the MIT Initiative for the Digital Economy, and author.

FIGURE 1

### Administrative Inefficiencies Add Up

Half of all health care administrative costs are wasteful

15%–30%	\$285 billion–\$570 billion*
Health care spending on administrative expenses	Total administrative spending that is wasteful

\*In 2019 dollars.

Source: Health Affairs, October 2022

Artificial intelligence (AI), however, may help change this narrative. Health care payers and providers that invest in aggregating and sorting their data via a unified data store or warehouse (which enable organizations to manage both structured and unstructured data within a single operating environment) have the opportunity to harness the power of AI to analyze vast stores of data, deliver actionable insight, and drive transformational change in both consumer-facing and operational capacities.

A broad array of use cases, from customer service and member engagement to care management and risk prevention, have the potential to boost productivity, deliver greater personalization, improve decision making, enhance security, increase agility, and ultimately improve the quality and speed of care. “There probably isn’t a corner of the organization where AI or machine learning couldn’t add value,” says Emily Kagan, senior vice president and chief of consumer digital services at New Hyde Park, N.Y.-based Northwell, the largest health care provider in New York state, serving more than two million consumers. “This is the kind of technology that really could go anywhere.”

The health care industry, however, is historically a technology laggard. As a July 2023 article in the *New England Journal of Medicine* noted, even as AI is transforming industries like financial services, retail, and transportation, AI adoption in health care is only in its early stages.<sup>4</sup> Health care’s risk-averse approach to technology adoption is understandable.

In fact, six in 10 Americans said they would be uncomfortable with their providers relying on AI in their health care to do things like diagnose or recommend treatments, according to a 2023 Pew Research Center survey.<sup>5</sup>

Still, the adoption of trusted, compliant technologies to address administrative inefficiencies that thwart the delivery of timely, personalized, and effective health care is one of the more straightforward and lower-risk opportunities to integrate AI capabilities. “It takes a long time to bring clinical AI applications to the bedside, due to the risks and regulatory approvals involved,” says Tom Davenport, the President’s Distinguished Professor of Information Technology and Management at Babson College, fellow of the MIT Initiative for the Digital Economy, and author of the book *Advanced Introduction to Artificial Intelligence in Healthcare*. “I’ve advocated for focusing on administrative AI because it’s easier and administrative costs are way too high.”

This paper will clarify not only how AI will drive value and improve the health care consumer experience but also what actions health care organizations can take to accelerate their AI adoption in a trustworthy manner, such as keeping doctors, patients, and others in the loop and ensuring transparency. It will also examine the vital role data plays in the industry’s current and future use of AI—from bots to natural language processing to generative AI (gen AI)—to help health care professionals and executives bolster the patient experience and other business outcomes.

### Health Care’s Data Problem

A combination of demographic changes, evolving patient expectations, regulatory complexities, and workforce shortages is driving significant changes in the health care industry. Health care payers and providers must increasingly look to technology-enabled solutions to stand out in a crowded marketplace.

“It’s becoming more difficult to differentiate amongst competition, so you can’t scale and achieve your goals and be a successful five-star health plan without improving upon human productivity,” says CDPHP’s Miller. “AI will play a super important role in that.”

AI can help automate intake workflows, optimize scheduling, and streamline prior authorizations and reviews, for example. A recent Accenture study estimated that 39% of all working hours in health care could be automated or augmented by language-based AI alone in an industry in which moments matter. **FIGURE 2**

Looking ahead, AI could be applied to clinical and nonclinical data from multiple sources brought together in a unified data store to build a real-time health care consumer profile that can be used across touchpoints to help health care organizations better engage with patients, educate them, identify their potential risks, and direct them to care. Wider adoption of AI capabilities available today could result in savings of 5% to 10% in U.S. health care spending—or roughly \$200 billion to \$360 billion annually in 2019 dollars, according to a working paper published by the National Bureau of Economic Research.<sup>6</sup>

Establishing a foundation of unified data for AI usage could eliminate a variety of manual tasks and lessen the administrative burden in health care. “There is application for some form of AI in every health care business process—clinical, administrative, financial, operational,” says Tom Kiesau, chief innovation officer and managing partner of digital and technology transformation for health care consultancy Chartis. “The question is whether it’s a good application based on the costs and benefits, risks and rewards.”

There is no shortage of examples of administrative waste in the health care system. “There’s a lot of duplication of work and unnecessary workflows,” says Nikhil Bhojwani, managing partner at health care consultancy Recon Strategy. Consider claims submissions, prescription renewals, and prior authorization requests, all of which often involve phone calls, faxes, and—at best—optical character recognition software to



To say that health care data is part of the problem would be inaccurate. “Data is the problem. It’s highly dispersed and inconsistent, and there’s a large share of unstructured data systemically built into the process,” says Tom Kiesau, chief innovation officer and managing partner of digital and technology transformation for health care consultancy Chartis.

make unstructured data machine-readable. There is very little, if any, automation and no intelligent automation involved.

The impact of inefficiency hits payer and provider employees first in the form of increased effort, and the exasperation created trickles down to health care consumers. “More work goes further up the cognitive chain than it would if we had more automated systems in place. Doctors are suffering from burnout, further exacerbating the supply-demand imbalance in health care,” says Kiesau of Chartis. “And these failure points create more friction for consumers.”

To say that health care data is part of the problem would be inaccurate. “Data is the problem,” says Kiesau. “It’s highly dispersed and inconsistent, and there’s a large share of unstructured data systemically built into the process. The main means of communication is still telephony. The health care tech stack is severely outdated, and data sits in legacy technical systems, which complicates the ability to create integrated data systems.”

Financial, operational, and patient data all live separately. While providers may have electronic health record (EHR) systems, these legacy systems are often incapable of sharing data with other systems, are not equipped for managing unstructured data, and lack customer relationship management (CRM) capabilities. And many health care provider and payer organizations have grown by acquisition, resulting in multiples of the same types of software.

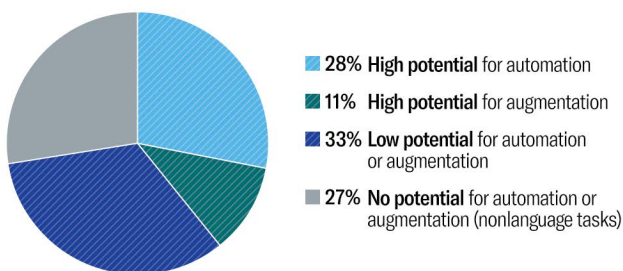
In addition, data standards (both clinical and administrative) were slow to arrive in health care. “We’ve only just gotten there, while other industries have had standards for a long time,” says Recon’s Bhojwani.

FIGURE 2

### Generative AI Could Streamline Health Care Work

Large language models could automate or augment a significant portion of health care work

Potential gen AI impact on health care work hours



Source: Accenture survey, March 2023

As a result, many AI applications in health care have been somewhat narrow to date. “When you can pull all of this data together is where the power of AI really comes in,” says Kiesau.

Transforming administrative functions through the integration of AI requires a robust data foundation. “Data is the coin of the realm,” says Northwell’s Kagan. Today, data management is a black box, she says. “We do all of that data management with emails, spreadsheets, and phone calls. It drives everyone crazy,” she continues. “There are 1,001 ways that not having clarity in the process gets in the way of employee and patient experience.”

Many payers and providers were knee-deep in addressing these difficulties just as AI was taking off. “Health care was already struggling with digital transformation, and now there’s this new tool in the toolkit,” Kagan says. “The question is how we can make it all work together.”

Northwell is in the midst of an ambitious transformation involving the implementation of a new modern data platform, replatforming its EHR system, and consolidating on a major cloud-based CRM system. “When we pull it off, we’ll have the opportunity to bring all these data sets together,” Kagan says. “The real excitement is around what we can enable with AI. When the data is right, the sky’s the limit.”

## Where AI Can Help

A major consideration when integrating AI capabilities into health care is consumer concern about such technologies, particularly when it comes to clinical AI applications. Clinical AI could prove powerful, but unchecked, it carries great risks. “The problem is if AI misses something and there’s not a human check on that. No one wants to be involved in that,” says Kiesau.

Administrative AI use cases are a lower-risk yet valuable place to focus. “We see much more focused applications on the administrative side,” Kiesau says.

One area of significant activity has been revenue cycle processes like authorization, billing, and payments, which are labor intensive for both payers and providers. “There are big rooms of people, and all they do is try to get paid for services they provide,” says Babson’s Davenport. “These are incredibly inefficient processes involving mostly manual data entry and phone calls.”

For record keeping and reimbursement, health care organizations have to correctly code all medical treatments—a challenging task given there are more than 55,000 different codes, says Davenport, noting that some companies are implementing code-assistance AI that can interpret clinical notes and then input the right codes.

There are a host of other problems AI can address, as well, like managing capacity more effectively. “If you have extra mammogram capacity, could you automatically reach out



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CDPHP—a community-based, not-for-profit health plan that serves more than 36 counties in New York, Pennsylvania, Vermont, and Massachusetts—is exploring AI modeling to identify trends and better understand health care consumers. Generative AI could take that a step further, says Miller. “We’re a 400,000-member plan with large contact centers, and we’re still not able to touch all of our members,” he explains. “Could generative AI help us? The payer and insurance industry is trying to figure out how to make people feel as though they’re getting value from our product.”

CDPHP is also piloting AI-powered querying of contract repositories for employees or consumers to easily ask questions such as which insurance contracts are coming up for renewal and whether a certain treatment is covered and how much it would cost. “No one reads these big contracts, and we have to create a way to understand them,” says Miller. “That’s the number one reason people call their insurance company.”

For Melanie Dixon, director of IS tech solutions at New Orleans-based Ochsner Health Systems, with locations in Louisiana, Mississippi, and Alabama, the biggest challenge is figuring out which application to try first. “The way I see AI having an impact is in creating capacity, particularly for our providers,” Dixon says. “They spend so much of their time after hours answering emails, and it’s overloading them. How could we use generative AI to help them answer some questions?”

At Northwell, there are a wide array of opportunities to use AI or machine learning on trusted data sources. “Even beyond the direct clinical opportunities, we can start looking for patterns around referrals and combining those data with other data sets—patient-provider matching, utilization of specialties,” Kagan asserts. “We can start tackling really





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important problems like provider burnout by looking for correlations in scheduling.”

In addition, there is fertile ground for automating back-office processes in HR, finance, and the supply chain. Then there’s the possibility of pairing gen AI with large, trusted data sets, like internal knowledge bases. “Those are all use cases we have in active exploration,” Kagan says. “Then there will be opportunities to use these technologies to perform care planning not only at the disease or condition level but [also] at the individual patient level. Those will be really transformative. We’re looking at every part of the organization—patient care, administrative, operations.”



**“We want to take the right measures to figure out if the ROI is really there, make sure our data is in a great place, and put in the right checks and balances because [AI] technology is changing so fast,” says Dixon.**

## Building the Right Foundation

So, the health care industry has a big data problem, and data is central for providers to capitalize on AI. Given how much clinical and nonclinical potential the technology has for the sector, it behooves health care organizations to get their data houses in order. “It’s less a tech barrier than a barrier of will,” says Bhojwani.

What’s required is a foundational investment in data systems. But “since health care systems have been struggling financially during and post-Covid, data systems investments aren’t really sexy,” says Kiesau. Still, what needs to happen on the data front is relatively clear, if not cheap or easy. “It’s old-school blocking and tackling to build an integrated, scalable, and QA-able data system,” he adds.

Integrated data is a big priority for CDPHP, which, as both a payer and an operator of health care providers, aspires to an integrated delivery system. “There are all sorts of things we can take advantage of in a way that you can’t as just a payer, and all of those things require an understanding and adoption of data that supports AI,” says Miller.

Ochsner Health Systems is using part of 2024 to build a steering committee to determine where to invest in new AI solutions and in software and systems to aggregate and clean its data. “We recognize that with any new technology, there is a cost associated with it, and not just the cost of adopting and using it but of doing it right and ethically,” says Ochsner’s Dixon.

The company’s innovation group has been doing AI work for some time, but generative AI is a new frontier. “We want to take the right measures to figure out if the ROI is really there, make sure our data is in a great place, and put in the right checks and balances because the technology is changing so fast,” Dixon explains. One of the priority use cases is integrating AI with the health systems chatbot to crawl its own data, which demands “identifying a single source of truth,” she says. “We have that for each of our types of data and touchpoints, but how do you have one source of truth and maintain that over time, not just with AI but with data management?”

Keeping data clean, current, and reliable in a health care setting is an ongoing challenge, says Kagan. “These data represent living systems like people and practices that change over time,” she asserts. “Keeping all of that data current is a big job.”

Northwell is pushing data governance down to the local level using a unified data store. “There are certain data elements we can trust that people in the practice know best,” says Kagan. “We want to push that data as close to the data owners as possible to perform living hygiene and maintenance in systems with data governance rules baked in.” If the parking garage on the west side is under construction and patients need to park on the east side, for example, the practice can update that data, which may then be used in automated notifications to patients.

The transition to local data ownership and governance will take some time. “We have to build up a lot of trust,” Kagan says. “If we want employees to trust the data, they have to trust the processes by which the data are maintained and trust that the systems will update the data when they enter it.”

Technology partners and vendors are an essential piece of the AI puzzle for both payers and providers, so most health care organizations will be evaluating the AI that’s built into the software that they buy. Such an approach requires first that payers and providers build an operating model and technology infrastructure that enable them to take advantage of their partners’ AI capabilities. “The question becomes what does a health care company have to build to capitalize on their vendor offerings?” Kiesau says.

Secondly, payers and providers need to know what to look for from their strategic technology partners when it comes to AI. “If [health care organizations] have to rely on the vendor to own and manage the data and run the algorithm, then the practical cost of ever moving off that vendor becomes enormous,” says Kiesau. “If providers can build and maintain the underlying data structures, swapping AI partners becomes a more viable option over time. But not enough health care organizations





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are proactively dictating how these AI capabilities will fit into their broader application frameworks.”

Northwell, for one, is looking to its enterprise software partners (EHR, workplace systems, CRM) to integrate AI capabilities with their platforms in a way that adds value for customers. “We’re working with each, saying, ‘What have you got, and when will it be ready for us?’” says Kagan. “It’s a great opportunity for us because they have big teams doing great work, and it’s easier when these capabilities are baked into a core platform.”

## How to Begin

If health care organizations want to eliminate administrative waste, build more trusted relationships with health care consumers, and deliver better care at lower operational costs, time is of the essence to establish a responsible AI posture, which includes organizational structures for controls, governance, and ethical guardrails. “Just get started. None of us are AI experts until we have to be,” says Dixon. “Now is the time to do it. You can’t wait.”

**Make AI an enterprise priority.** There are two types of health care organizations: those that are approaching AI in a cohesive way and those that are making one-off decisions in pockets of the organization. “You have some leaders who really get it and are all in, with their eyes wide open about the risks and considering in a thoughtful way the impact on their labor force and patients,” says Bhojwani. “And you have others suboptimizing what they’re doing. They may be using AI in their CRM system or within the cardiology group, but there’s no integrated approach to thinking about all of the initiatives and optimizing data, platforms, and governance.”

Payers and providers that want to get the most out of their AI investments will likely take a deliberate, enterprise approach. For instance, to guide decision making at Northwell, senior leaders from HR, ventures, nursing, revenue cycle management, technology, operations, and other key clinical departments have come together. “We’re thinking about AI holistically because it touches every area of what we do,” Kagan says.

**Embrace AI experimentation.** The default for some health care organizations is to limit gen AI use, even while people are already using tools like ChatGPT in their personal lives. “Thinking you can block [gen AI] with a firewall and crack down on it doesn’t make sense,” agrees Miller. “You need to create policy, educate people, and let them ideate how to best use it for everyday tasks.”

CDPHP has launched an AI innovation hub that enables employees to offer use cases for the pipeline. “We are looking for ways to test some of these theories with our technology platform partners,” says Miller. “A payer of our size is not going to create our own LLM [large language model] or be on the cutting edge. But we want to follow very quickly as some of our vendors and industry leaders identify use cases.”

The key is to balance the innovation that’s sparked at the edges with some centrally managed governance and guardrails, says Bhojwani. “You want to find ways for the parts of the organization that acutely feel these pain points to drive some of the solutions.”

Northwell also has an AI catalyzer to empower the safe exploration of AI capabilities. “We offer access points for gen AI tools within a walled garden, so people can experiment or use it in a way that keeps our network safe,” Kagan notes.

**Plan for the long term.** AI is not like other software that you simply roll out and upgrade periodically. “It needs to be structurally managed and actively monitored to mitigate emerging risk and trust issues,” says Kiesau.

Kagan describes AI as an organic system. “I tell people to think not about training AI but [about] raising it,” she says. In other words, health care organizations will need to figure out what it will take to manage these systems long term and put in place the organizational and operation model to do that. Sometimes gen AI may be the right tool. Other times, the effort involved in maintaining it will not make sense. In many cases, machine learning—something Northwell is deploying broadly—may be a better option. In all cases, it’s important to plan for ongoing maintenance, says Kagan, noting that investing in machine learning operations, a framework for standardizing the development and deployment of machine learning systems, is critical.



**“There are ongoing costs to keep data up to speed for AI. It’s not like adopting a [software as a service] system with low marginal costs,” says Nikhil Bhojwani, managing partner at health care consultancy Recon.**

While other sectors may need to keep retraining data, the health care industry needs to invest heavily in this area. “If you use AI for fraud detection in credit cards, the algorithms work in many situations. In health care, you may have an algorithm that works in one hospital that won’t necessarily work in another, or a slight tweak in the EHR may mean it no longer works,” says Bhojwani. “There are ongoing costs to keep data up to speed for AI. It’s not like adopting a [software as a service] system with low marginal costs.”

**Create an approach for evaluating and scaling AI.** Health care organizations need clear criteria for how proofs of concept (PoC) are evaluated and an understanding of what is required to move from experimentation to implementation. “Many organizations build some use cases but have no concept of how to get it into production, which is much more expensive. So, you have lots of PoCs that never get deployed,” says Davenport. “Production means you have to integrate with existing systems, and people who are using those systems will have to be retrained.”

Kiesau advises the creation of a governance model that monitors AI use cases and applications, tracks their performance, and determines which are creating value and which are not. “It’s not magic. You need program management for AI,” says Kiesau. “The new trend will be AI officers overseeing the governance and operating model and tracking returns and benefits.”

**Unify the data.** Health care organizations do not suffer from a lack of data but rather from an inability to bring structured and unstructured data, along with metadata, together from multiple sources. Health care payers and providers can take advantage of the increasing volumes of data available via regulated application programming interfaces, but only by investing in a unified data store can they combine various types of data from different sources in a way that AI can use that data to their full potential.

**Invest in data and content management.** Another key step is getting the right data infrastructure in place, including foundational systems and cloud-based data. AI requires accurate, high-quality data to learn. “Even in administrative settings, you need a foundational set of data,” says Kiesau. “There are some systems where the data is so bad that if you drop an AI model into it, you’ll create huge aberrations or missed insights.” Yet many payers and providers have disconnected systems, resulting in incompatible data as well as duplicates, errors, and omissions that impact data access and use. “Most health care organizations deal with data and content sprawl, so data and content management is key,” says Miller.

In addition, health care organizations must put security and privacy controls in place to protect highly sensitive patient data wherever it travels. “Ultimately, it’s a data stewardship and governance problem—which are boring concepts to some, but vital,” says Kagan. “We need to care for our data bodies the way we care for physical bodies.” Northwell is implementing a modern data platform to enable data sharing across silos and using its CRM platform partner’s unified data store to help it make data hygiene a distributed function.

**Pick the right partners.** Platform partners will play a lead role in the adoption of AI capabilities in health care organizations. But Bhojwani cautions against being too dependent on a particular platform. Flexible interfaces and connectivity are key. A system that offers tools out of the box to build integrations and automations is a worthwhile investment.

When evaluating new vendors, Kagan is cautious. “Lots of vendors will flash AI at you to make their offering seem more robust and sophisticated,” she says. “But we’re always looking at what problem we’re trying to solve. Is it a problem where bringing some degree of AI will really help us move forward? And is the partner positioned well to take advantage of data and technology to make it so?” Training AI models can be a long and bumpy road. “We want a partner who will be with us through the trials of seeing if it will work,” says Kagan. “This isn’t a hobby. We need them beside us working this into the organization.”

Sticking with pillar platforms when it comes to integrating AI is a priority for CDPHP. “They’re going to be able to address things like security and privacy for us,” Miller says.

At Ochsner Health Systems, Dixon is holding vendor summits where partners can present their AI capabilities and walk through the potential ROI. “We want them to take us through the entire journey of what they can provide, not just show us how cool this thing is at a high level,” he says. “What can we accomplish with it?” What Dixon is particularly interested in right now is a unified data store that could create AI opportunities on multiple fronts.

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**Put the customer at the center.** As noted, health care consumers are wary of how AI is used in their care. And health care organizations are driven first to do no harm. While other industries may be able to take more liberties introducing AI into consumer-facing interactions, “we have a much bigger responsibility to our patients,” says Dixon. “Our patients are our priority, and they can go to another provider if they’re not happy. We have to be very thoughtful and not jump too quickly into AI.”

At Northwell, which conducts some 5.5 million patient interactions a year, patient-family advisory councils are involved in evaluating the use of AI. “Their perceptions matter so much. We have to be thoughtful about that and transparent about what we’re doing,” says Kagan. “We bring our patients in for design sessions. We put samples in front of them. When they can codesign with us, it isn’t something that’s happening *to* them.”

**Bring users into design.** AI will offer no value if frontline workers refuse to use the solutions. “The way it is received by the organization or built into the workflow is where it’s all going to fall apart if you don’t think about change management,” says Bhojwani. Health care employees should be as involved as health care consumers in design to not only build better solutions but also increase the likelihood of adoption.

Northwell involves its doctors, nurses, and other staff in AI design. “It can’t be something that’s done *to* them, as was the case with the first round of EHR systems,” says Kagan. “We want them at the table codesigning with us.”

**Keep humans in the loop.** Even in administrative AI applications, the goal is not to replace human interactions with machine solutions. “We always want to keep that human touchpoint,” says Dixon. “We never want it to feel automated.”

This goal requires keeping humans in the loop in both training and testing AI, as well as in the ultimate application. “With generative AI, it’s almost scary what it could do,” says Miller. “If you’re letting generative AI interact with members and only checking one in 1,000 interactions, it will take too long before you figure out something’s wrong.” Therefore, it’s essential to prove out use cases that work in parallel with human processes.

Clear training and quality controls are key. If a doctor is using AI to take notes, it’s essential to ensure that the physician isn’t just automatically approving them. “You need to create approaches to validate the output, monitor the technology, and provide proactive feedback to prevent very public failures,” Kiesau says.

Northwell puts checks and balances in place to ensure compliance with guidance about how to use AI next-best-action applications. “What we really want to do is create responses that would still come from providers and sound




**The ultimate impact that AI can have on health care will be determined by the humans involved. While AI will take over specific tasks, these machine capabilities will serve to augment the capabilities of health care employees or health care consumers and change how things get done.**

like what they would have said,” says Kagan. “One of the most intimate types of interactions you have is with your health care provider, and that trust is bred face to face. Our goal is for AI to support that interpersonal relationship—say, get you into the door of the provider’s office—and then step out of the way.”

**Adopt a responsible AI framework.** “In health care, the issues of privacy, safety, and bias are heightened” when it comes to AI, says Bhojwani. Responsible AI is a framework that espouses principles like harm avoidance, fairness, accountability, and transparency. The framework for trustworthy and responsible AI developed by the National Institute of Standards and Technology can be a good place to start when developing rules and processes for the creation, testing, deployment, and monitoring of AI. The Coalition for Health Care AI—a coalition of academic health systems, organizations, and expert practitioners of AI and data science—is also developing guidelines for the adoption of credible, fair, and transparent health AI systems to drive high-quality health care.<sup>7</sup>

**Begin reimagining how work gets done.** The ultimate impact that AI can have on health care will be determined by the humans involved. While AI will take over specific tasks, these machine capabilities will serve to augment the capabilities of health care employees or health care consumers and change how things get done. Seamless integration with not only existing infrastructure but also new, optimized processes is essential so that employees can focus on providing support and care to health care consumers.

“That’s the piece most people don’t talk about—the reengineering of workflows that will happen,” says Bhojwani. “That’s tremendously important.” In addition to the steps



**“With generative AI, it’s almost scary what it could do. If you’re letting generative AI interact with members and only checking one in 1,000 interactions, it will take too long before you figure out something’s wrong,” says Samuel Miller, vice president, technology and product development, at CDPHP Health Plan.**



“There’s a massive shortage of care providers and care being delivered around the world. People should be getting more care than they are. The risk of continuing down this road and not using AI is that even more people won’t be getting the care they deserve and [will be] dying sooner,” says Recon’s Bhojwani.

above, payers and providers need to start reimagining the way they operate and how the integration of AI might transform administrative processes to improve health care employee experience, administrative efficiency, and ultimately health care outcomes for consumers.

### A Future with Less Friction

Health care providers and payers are at the earliest stages of utilizing AI to address long-standing administrative inefficiencies. But with the right foundational investments, partnerships, and evaluation, significant improvements could be made. While data management and integration may not make headlines or dominate boardroom discussions, addressing data sourcing and unification is essential to curating data that AI can use and can pave the way for transformational changes in health care administration and outcomes.

“I could imagine a future in which you have a lot less friction in the health care system as a whole, and that makes experiences better for patients, providers, and others who work in the space,” says Bhojwani. “I can imagine a situation where the entire structure of how we get health care changes.”

On the flip side, the prognosis is not good for those health care organizations that fail to address administrative waste amid rising costs and limited supply to meet growing demand. “There’s a massive shortage of care providers and care being delivered around the world. People should be getting more care than they are,” says Bhojwani. “The risk of continuing down this road and not using AI is that even more people won’t be getting the care they deserve and [will be] dying sooner.”

Health care’s historical “wait and see” approach likely won’t serve it well now. “There are proven examples and discrete use cases already providing value,” says Kiesau. “Health care organizations need to get in the best position to start developing and evaluating the impact AI can have now.”

### Endnotes

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