future health index 2024

Better care for more people

Bridging gaps in healthcare

Brazil report

Contents

Research premise

This is the largest global survey of its kind, analyzing the priorities and perspectives of healthcare leaders.

In 2024, the Future Health Index, now in its ninth edition, explores how healthcare leaders view their organization's ability to deliver timely, high-quality care to everyone. The report focuses on the gaps that stand in the way, as well as examining ways of overcoming them.

This year, the Future Health Index is based on proprietary quantitative research conducted in 14 countries and supported by qualitative interviews in four of these countries: Singapore, South Africa, the United Kingdom, and the United States.

Responses from almost

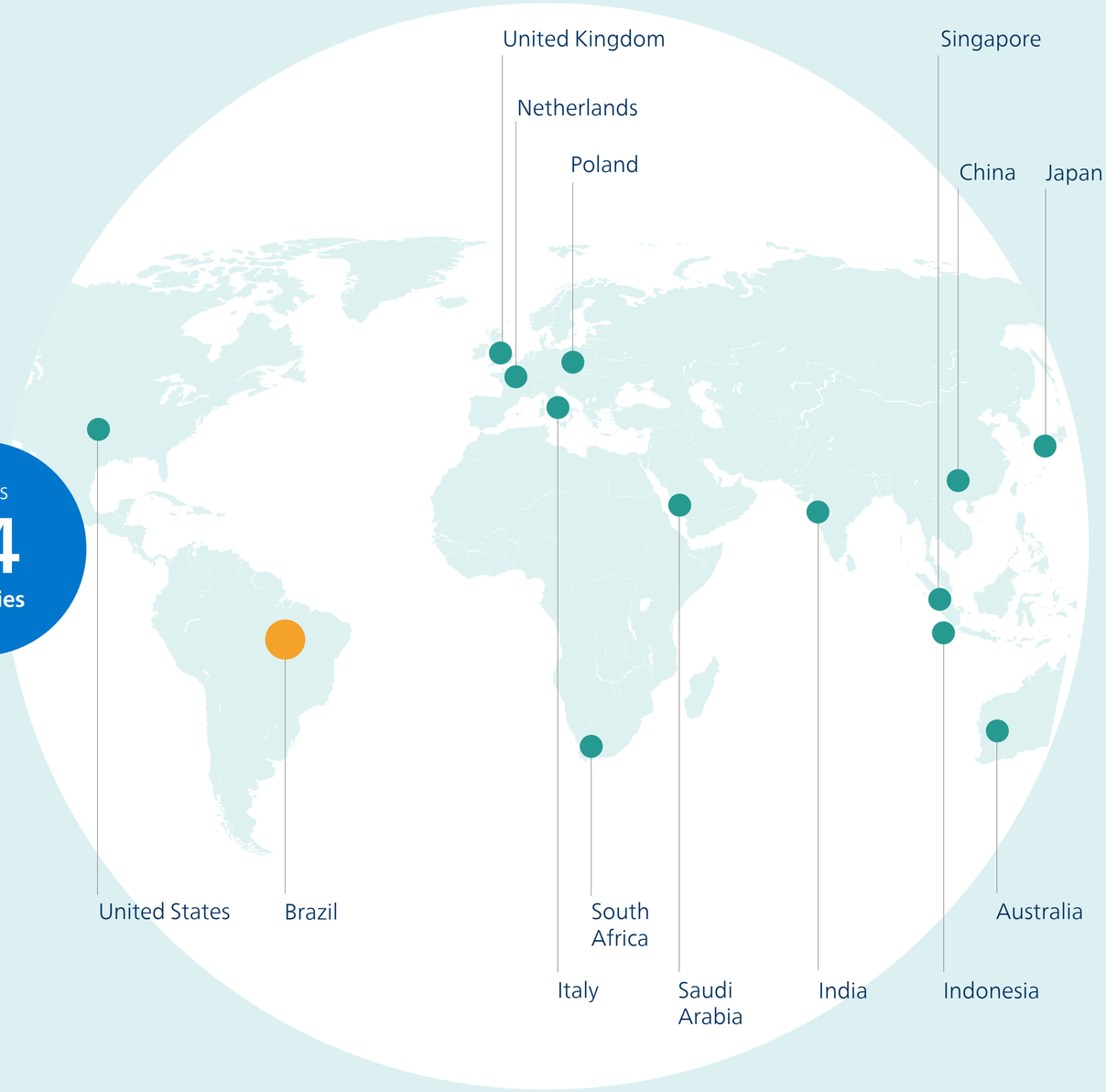
3,000

healthcare leaders

Across

14

countries



Delivering better care for more people

Timely access to care is a cornerstone of a well-functioning healthcare system. But increasingly, long wait times and staff shortages are making it difficult for people to get the care they need, when they need it. Not just in remote and rural regions, but even in metropolitan areas. And for those who already struggled to get timely and appropriate care, the barriers may only be getting bigger. The result: delays in treatment and reduced access to services, which are putting patients at risk and adding even further pressure to healthcare systems in the long run.

That's the stark reality painted by healthcare leaders in this year's Future Health Index. They recognize that to keep healthcare systems sustainable in the face of growing patient demand, we urgently need to rethink how and where care is delivered. The good news is that healthcare leaders are taking firm steps in this direction.

Through new care delivery models and AI-enabled innovation, healthcare leaders are addressing the critical gaps in today's healthcare systems. Increasingly, they are automating workflows to free up time for staff and reduce waiting lists. They are embracing virtual care and remote patient monitoring to extend the reach of care. And they are implementing AI to turn information overload into meaningful insights that elevate the expertise of healthcare professionals, helping them to consistently deliver high-quality care.

At Philips, we are committed to partnering with healthcare providers on this journey. We see the potential for a future where people everywhere, no matter who they are or where they live, can access the care they need, when they need it. What we hear from healthcare leaders is that they believe in the same future.

A future that can only be achieved in partnership, by bringing together stakeholders from across the healthcare ecosystem to collaborate and develop scalable solutions. That's how we can ultimately deliver better care to more people.

As we shape this future together, we must do so in a sustainable way. By now, it has been well demonstrated that environmental health and human health are inextricably linked. As you navigate these challenges with your organization, I hope you take inspiration from the path that other healthcare leaders set out in this report.

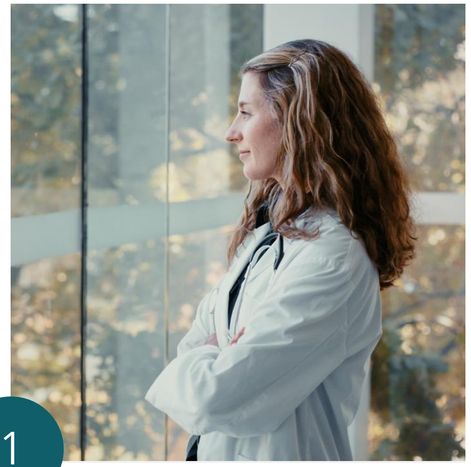
"How can healthcare providers deliver high-quality care everywhere regardless of patient location, staff availability, and other resource constraints?

That's the question we must address through innovation and collaboration."

Shez Partovi

Chief Innovation & Strategy Officer and Chief Business Leader of Enterprise Informatics at Philips

Executive summary



1

Bridging the **sustainability** gap

Balancing financial viability with a desire to reduce environmental impact, healthcare leaders are cutting costs, improving efficiencies and reducing energy consumption to secure the future of healthcare, and also contribute to a healthier planet. Partnerships play a role too.

2

Bridging the **staffing** gap

Healthcare leaders are turning to automation, telehealth and virtual care to alleviate pressure on hospital staff, reduce waiting lists and extend the reach of patient care.

3

Bridging the **insights** gap

Strategies like improved data security and accuracy and AI for clinical decision support are increasingly used by healthcare leaders to harness the growing volume of patient data.

1

Bridging the sustainability gap

Keeping healthcare financially viable

Challenges make it difficult to provide quality care

Public spending on healthcare in Brazil is forecast to increase by US$97 billion between 2024 and 2029.[1] However, changing demographics and costs related to the Covid-19 pandemic mean the financial sustainability of health systems is a concern.[2] Reflecting this, the majority of Brazilian healthcare leaders in our survey say they are facing financial challenges, with 87% seeing a direct impact on the quality and timeliness of care their organizations can provide. One way care is impacted is by organizations having to delay or limit investment in medical equipment and technology solutions (41%).

Cost cutting now and in the future

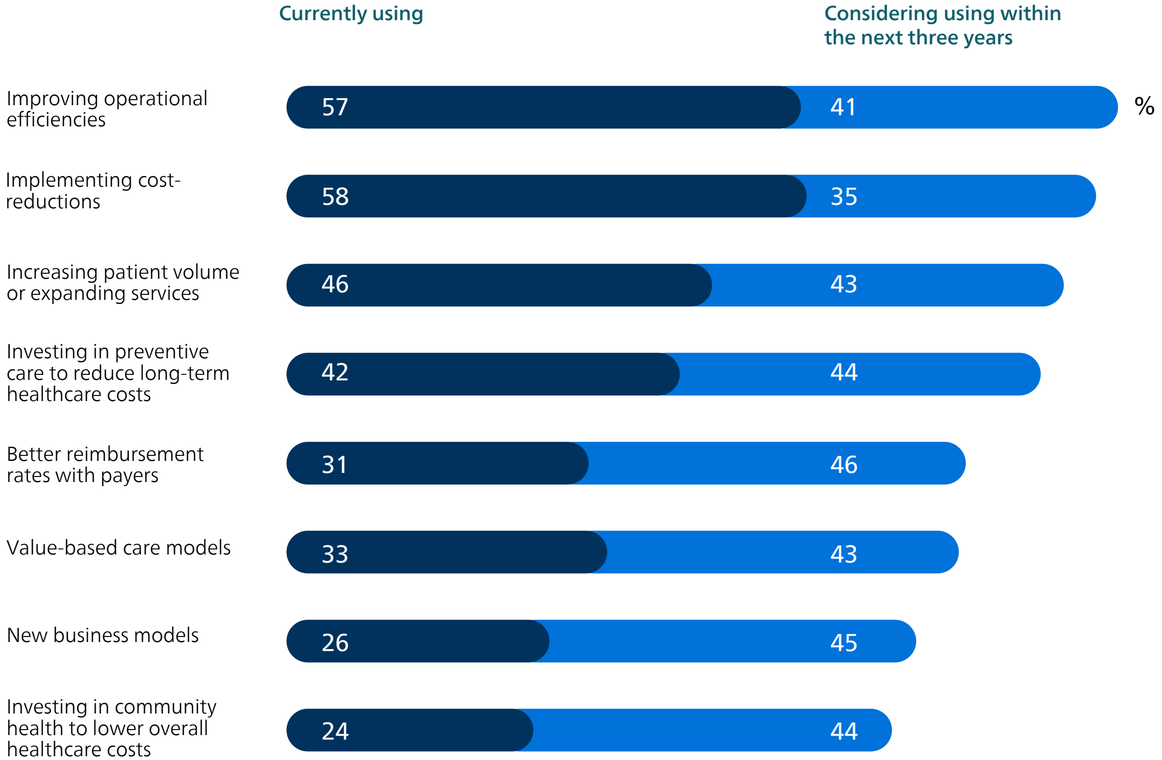
Healthcare leaders are taking necessary measures to remain financially viable and ensure continuity of care. Their most frequently used strategies are implementing cost reductions and improving operational efficiencies.

Thinking longer term, they are considering strategies like investing in preventive care to reduce long-term healthcare costs and investing in community health to lower costs overall.

94%

of healthcare leaders in Brazil are facing financial challenges

Financial strategies leaders are currently using or considering using



Improving timeliness and quality of care requires a collective effort

Healthcare leaders in Brazil are looking beyond their organizations for ways to enhance the care they deliver for the communities they serve. In particular, they see a role for partners to promote community health, improve care coordination and reduce health disparities.

Alongside the likes of health technology companies (42%) and educational institutions (33%), they also see a vital role for insurers/payers (44%) and government (44%) in helping them to improve the timeliness and quality of care for the patients and communities their organizations serve.

Emphasis on government collaboration reflects the widespread use of public-private partnerships (PPP) within the healthcare sector in Brazil. Many of these PPPs have improved financial sustainability by upgrading management efficiency and bringing innovation to hospitals, helping to accelerate the modernization of the national health system. Many also include sustainability criteria as part of these partnerships.[3]

Areas in which healthcare leaders require help from external partnerships to improve care

Spotlight

Improving access to care via a public-private partnership in Bahia

Bahia, one of Brazil's largest states, was struggling to maintain hospitals and deliver health services due to a lack of healthcare infrastructure and staff shortages.

As a result, the government formed a public private partnership (PPP) with a medical technology company, and a diagnostic chain. The consortium aimed to provide better access to healthcare through the provision of a new reporting center and 44 pieces of equipment including 12 imaging units placed in 12 hospitals throughout the state.

This collaboration has allowed specialist medical staff to rapidly relay diagnostic information to referring doctors in under-served areas. The project led to R$ 120 million in investment in healthcare equipment and infrastructure, and allowed the consortium to process 183,000 exams in one year. As a result, around 3.3 million have people received exams in the past decade.

Acting today for a sustainable tomorrow

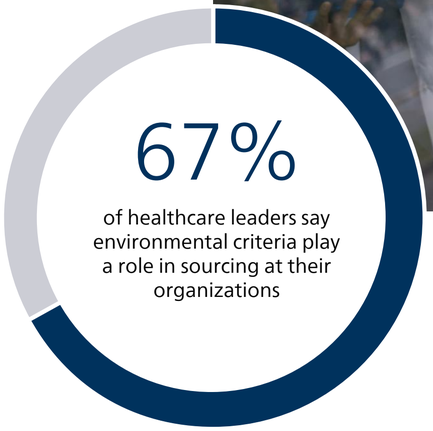
Healthcare leaders are going green to reduce costs and carbon footprint

As organizations seek to overcome financial and operational challenges, they are recognizing that effective solutions to such problems include environmental considerations. By reducing their environmental impact, healthcare organizations can achieve savings that benefit both their bottom line and the environment.

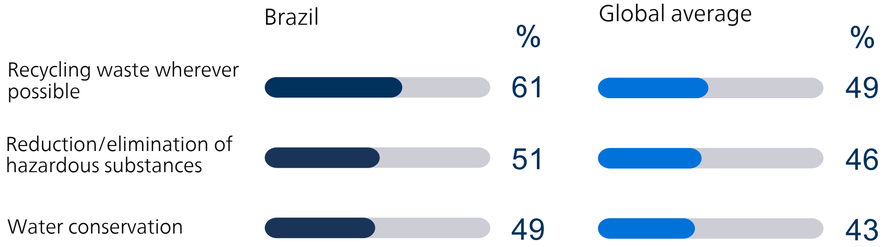
One area where we see this is procurement: two-thirds of Brazilian healthcare leaders say environmental criteria currently play a role in their sourcing or tendering processes.

Healthcare leaders cut back on waste, energy and water

Healthcare leaders are also actively implementing a range of other sustainability strategies to reduce their environmental impact. Many of these actions not only address environmental issues, they typically cut costs too. Their most implemented strategies include recycling waste, reducing the use of hazardous substances and conserving water. In particular, they are more likely than the global average to already be recycling waste wherever possible.



Environmental sustainability strategies healthcare leaders have already implemented



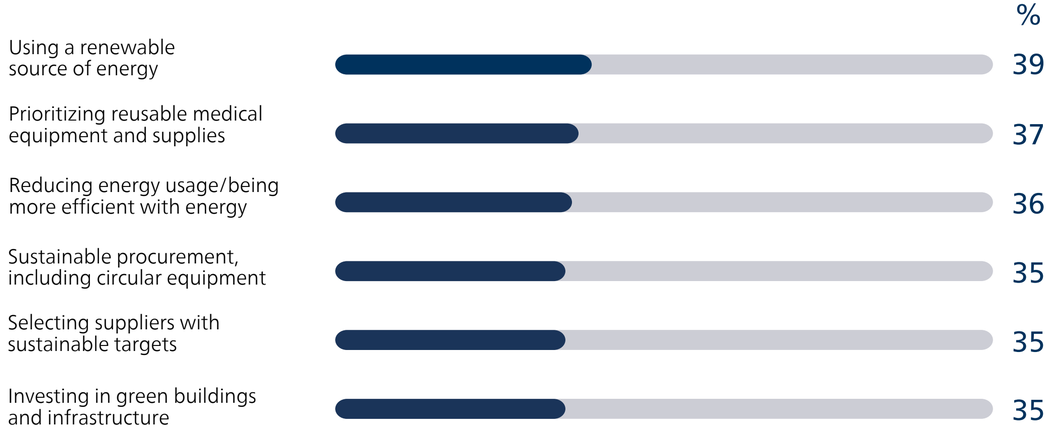
Planning for the future of sustainable healthcare

Looking to the future, healthcare leaders in Brazil plan to implement further strategies to address environmental impacts. Our research identifies energy usage as one pillar, including the use of renewable sources and the reduction, or more efficient use of, overall energy efficiency.

Circularity is also set to become an important sustainability strategy. For example, around one third of Brazilian healthcare leaders plan to prioritize reusable medical equipment in the next three years. They also identify sustainable procurement, such as circular equipment, as a future action.

There is an opportunity for collaboration to accelerate progress towards a carbon-neutral healthcare sector too. More than one in three healthcare leaders in Brazil plan to select suppliers with sustainable targets/initiatives.

Environmental sustainability strategies healthcare leaders plan to implement in the next three years



Spotlight

A circular approach to reducing environmental impact

Sustainable procurement, including circular equipment, is a top strategy for healthcare leaders in Brazil. Doubling the recent global circularity rate of 8.6% would cut emissions by 39%, and reduce usage of virgin resources by 28%.[5]

In healthcare, refurbishment of pre-owned systems enables hospitals and other facilities to extend their resources within a restricted budget, without compromising on quality.

Purchasing models can also support circularity. With usage- and outcome-based business models, hospitals can access the functionality of, high-quality imaging, analytics and informatics, without upfront capital expenditure. These models have the added benefit of supporting multiple opportunities for re-use and recycling, thus contributing to the sustainable use of resources.

Large equipment is leading this trend with some hospitals acquiring MRI scanners that have been refurbished. These are typically pre-owned systems that have been thoroughly upgraded and quality-tested.

2

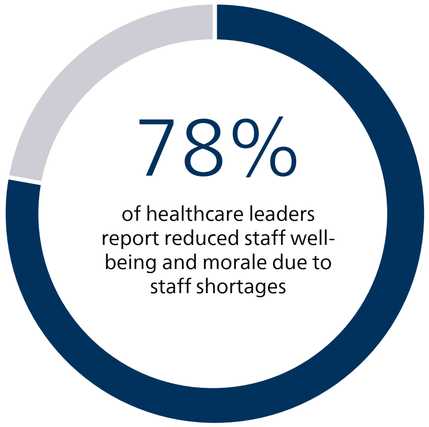
Bridging the staffing gap

Staff shortages take their toll

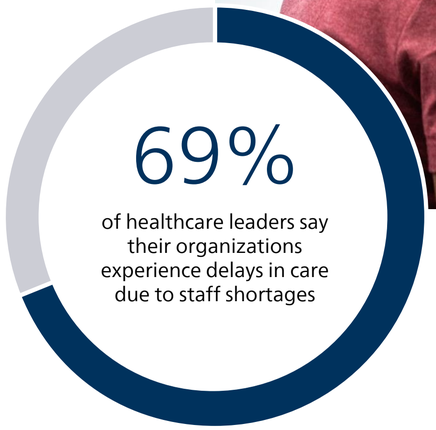
Patients and staff impacted by lack of available healthcare professionals

The healthcare staffing crisis, as seen in last year's Future Health Index[6], has not abated. More than three quarters of healthcare leaders in this year's survey report increased incidence of burnout, stress and mental health issues in their workforces, deterioration of work-life balance, and reduced morale and engagement. This incidence is higher than the global average of 66%.

Patients, too, are experiencing the consequences of staff shortages and the burden that under-staffed medical units put on healthcare professionals. Around two thirds of healthcare leaders say delays in care, also resulting from staff shortages, are an issue – whether it's longer waiting times for treatments or procedures (55%), or increased waiting lists for appointments (53%).



of healthcare leaders report reduced staff well-being and morale due to staff shortages



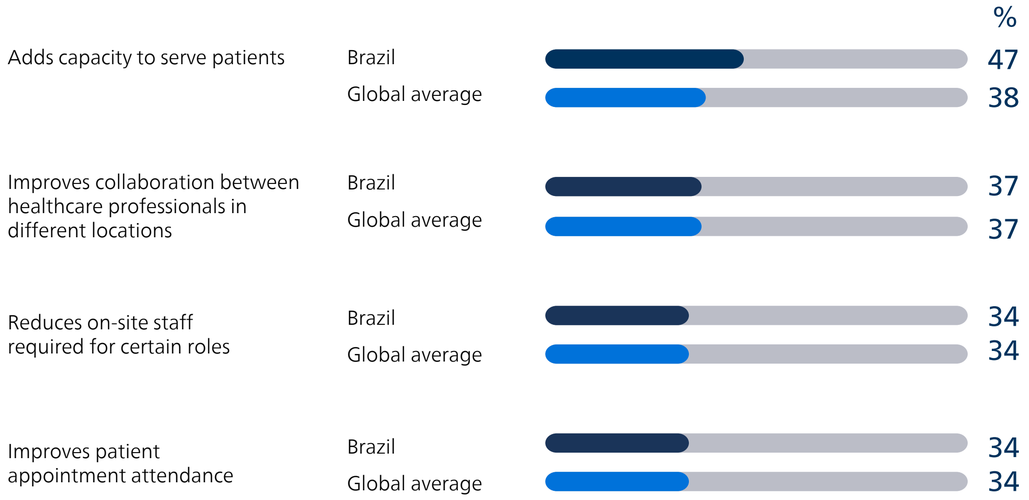
of healthcare leaders say their organizations experience delays in care due to staff shortages

Virtual care addresses staff shortages and patient access

Empowering a distributed workforce to serve patients

Healthcare leaders in Brazil are turning to technology as one way to address the staffing crisis. In particular, they are starting to see the positive impact of virtual care in easing staff shortages at their organizations. Seven in ten (70%) healthcare leaders note that implementing virtual care at their organizations has already helped ease the impact of staffing issues. The most-cited benefits of virtual care include increased capacity to serve patients and improved collaboration between healthcare professionals in different locations.

How virtual care helps to ease staffing shortages at leaders' organizations



Spotlight

Bringing specialized care to hard-to-reach patients

Brazil's public health system delivers basic healthcare relatively successfully; however, it struggles to provide specialized care, especially in remote, hard-to-reach locations. For example, in rural low-income Northeast Brazil, 60% of the population lives over 10km from the closest higher complexity healthcare centre.[7]

Virtual care is emerging as one of the best ways to provide specialist care to patients from remote regions and diagnose conditions before they lead to complications. As a result, non-profit organization Saúde Alegria Sustentabilidade Brasil (SAS Brasil) worked with a medical technology company to deploy a digitally connected healthcare solution to Brazilian cities with fewer than 50,000 inhabitants and a low Human Development Index.[8]

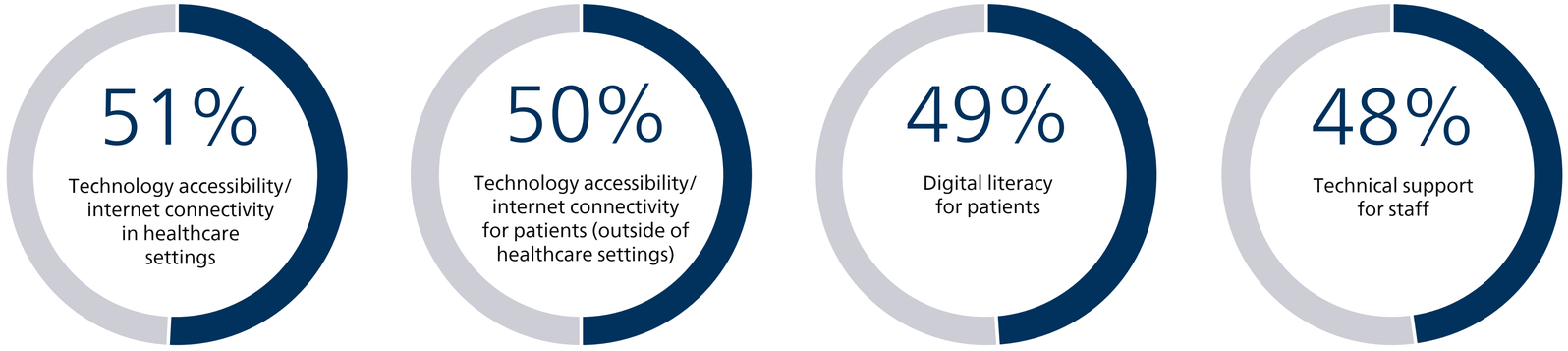
This strategy involved installing virtual care units equipped with connectivity, medical equipment and computers to empower local health workers in rural areas. As a result, patients with chronic illnesses like diabetes and hypertension requiring constant monitoring and screening have had better access to care. SAS Brasil has provided access to equipment like ultrasounds, electrocardiograms and a software for monitoring pregnancies. The organization was the first ever to perform a tele-ultrasound exam in Brazil.

Barriers to virtual care remain

Healthcare leaders recognize that virtual care can contribute to a growing digital divide by limiting access to care for those who lack the necessary technology or skills. To advance the delivery of virtual care, Brazilian healthcare leaders identify a range of critical success factors around the accessibility of the technology, as well as interoperability. They are more likely than the global average to cite tech accessibility/connectivity and digital literacy for patients as critical success factors, alongside technical support for staff.

As healthcare organizations continue to adopt virtual care, it is important to ensure all communities have access. Collaboration between government, non-profit and private sector partners is needed to expand the necessary digital infrastructure.

Success factors leaders consider critical for virtual care delivery



Use of automation to ease staffing pressures already underway

Leaders are optimistic about its potential, but staff are skeptical

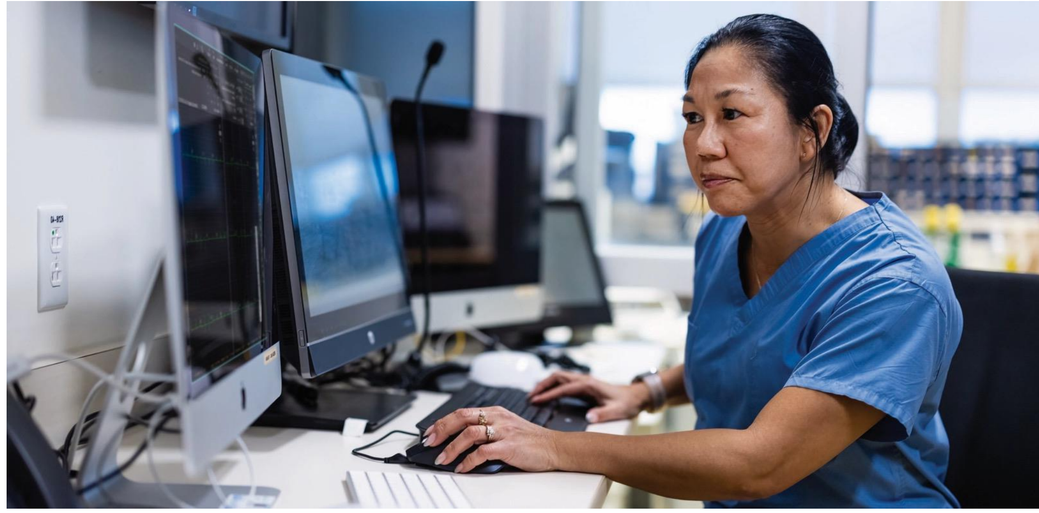
Leveraging automation is another way Brazilian healthcare leaders are alleviating pressure on healthcare professionals.

The vast majority (94%) believe automation will save healthcare professionals time by reducing their day-to-day administrative tasks. Currently, staff are frequently frustrated by the admin tasks like reports and notetaking which distract them from providing care to patients. As a result, healthcare leaders are seeking ways to make time-consuming admin easy and effortless using technology.[9] 65% of healthcare leaders said that their organizations have implemented automation for clinical documentation or note-taking. 71% highlighted automation for appointment scheduling, the second highest result behind Singapore, and 68% are automating patient check-in. These results indicate that Brazilian health systems are already taking steps to incorporate automation in everyday practice.

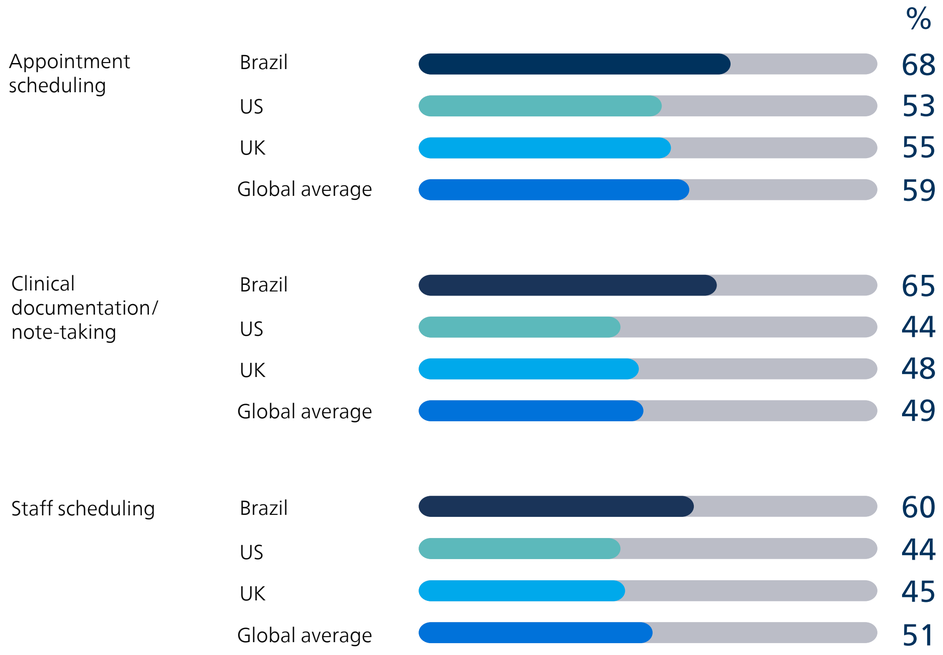
In the next three years, over two fifths (43%) see workflow prioritization as the biggest opportunity for automation. This can help manage patient volume without compromising on quality – for example, through automated triaging systems.

Staff are skeptical

However, healthcare professionals may be less convinced. While 83% of healthcare leaders believe that the use of automation will allow staff to perform at their highest skill levels, almost half (49%) believe that healthcare professionals at their organization are skeptical about the use of automation.



Current use of automation to improve productivity and ease staff shortages



3

Bridging the insights gap

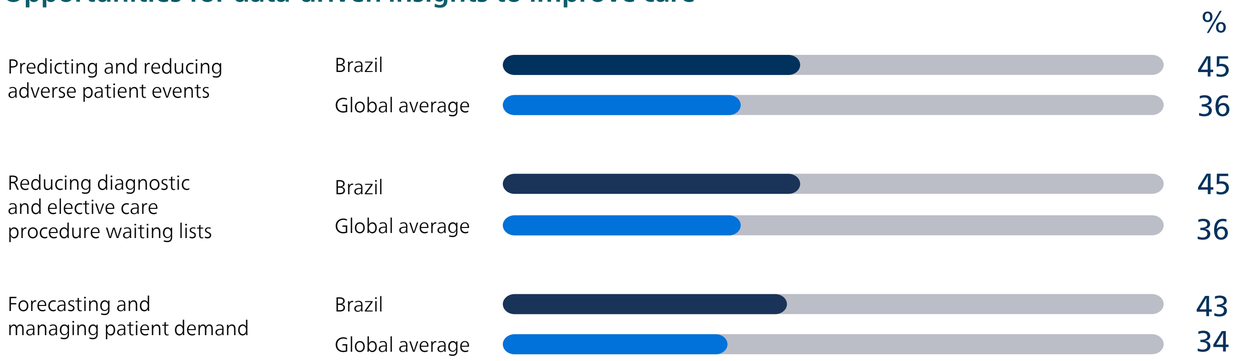
Healthcare leaders want better data integration

Healthcare leaders see potential, despite grappling with data management issues

Effective patient care relies on accurate and timely access to data, and Brazilian healthcare leaders recognize the potential to improve patient care through data-driven insights. Leaders in our survey see the biggest opportunities for data-driven improvements in predicting and reducing adverse patient events, and reducing diagnostic and elective care procedure waiting lists. A higher proportion of leaders in Brazil opted for these opportunities than the global average, showing they recognize the potential of a data-driven approach to treatment.

However, healthcare professionals are struggling to pull disparate data into cohesive patient stories. Nearly all healthcare leaders say their organizations experience data integration challenges that impact their ability to provide timely, high-quality care. Inefficiencies resulting from these challenges are causing increased operational costs and impacting productivity by leading to unnecessary repeat tests and scans. More than two fifths of leaders also note that data integration challenges mean less time is spent caring for patients.

Opportunities for data-driven insights to improve care



Improving data privacy and accuracy for better care outcomes

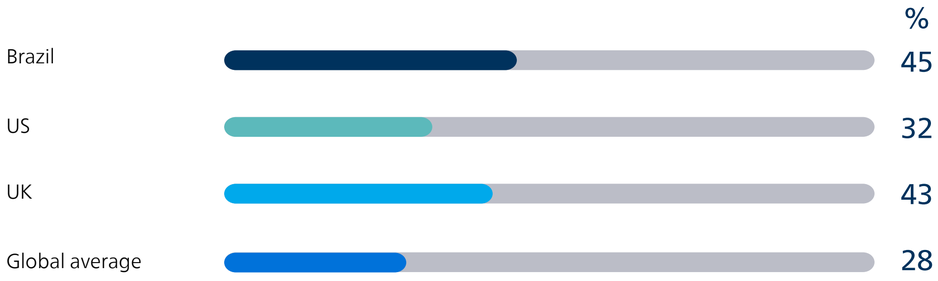
Healthcare leaders identify ways to improve patient information handling

To deliver on the possibilities of data-driven care, healthcare leaders in Brazil recognize they need to get the foundations right first.

When asked what needs to change in how healthcare data is handled, they highlight a need for improved data security, improving the accuracy of data, and achieving interoperability between different platforms and healthcare settings.

Brazilian leaders see partnerships as crucial to achieve these improvements, with almost half viewing IT or data providers as vital for improving care.

Leaders who consider IT or data providers vital partners in improving care quality



Changes to how healthcare data is handled for better care outcomes

51% Improved data security/privacy

45% Improved accuracy of data

45% Improved interoperability between platforms/healthcare settings

Improving access to care with data driven insights

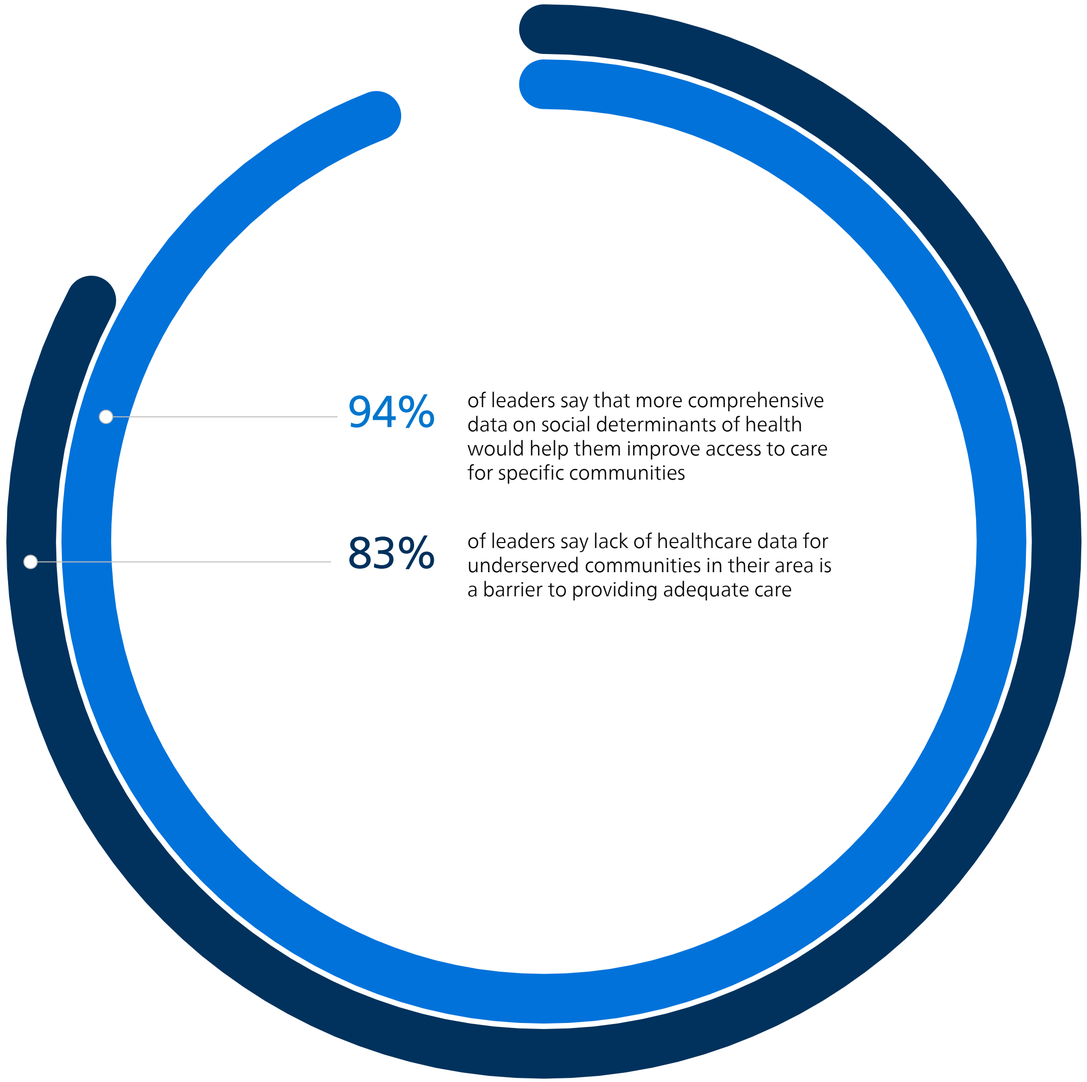
Social determinants of care: the missing data piece?

Many healthcare leaders in Brazil believe that data-driven insights are important for reducing health disparities. They believe that data should be used to monitor health equity metrics (53%) and facilitate targeted outreach and interventions for specific populations (46%) that may not always have the right access to care. These insights can also play a role

in identifying and addressing healthcare delays that may disproportionately affect certain communities (49%). For example, by analyzing data on patient demographics, medical histories, and social determinants of health, providers can identify patient populations that may be at higher risk for chronic conditions and take proactive steps to provide preventive care, such as offering screenings for diabetes and heart disease.

Unfortunately, the relevant data needed to generate those insights is often missing. The vast majority of healthcare leaders in Brazil say that a lack of healthcare data for underserved communities in their regions is a barrier to providing adequate care. Further, almost all healthcare leaders say that more comprehensive data on social determinants of health would improve access to care for specific communities, and four in five (80%) agree that without more local or regional data, it's difficult for their organizations to work on strategies to overcome disparities in health outcomes.

These challenges underscore the need for more comprehensive data collection and analysis to reduce health disparities. Addressing gaps in data can provide healthcare leaders with valuable insights that enable them to deliver better care to more patients.



The AI revolution: from exploration to implementation

Healthcare leaders introducing AI into the hospital and the home

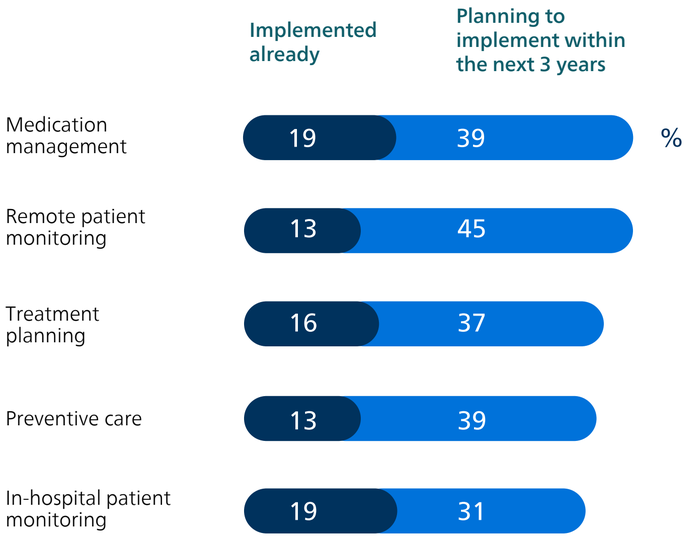
For the past few years, artificial intelligence (AI) in healthcare has been an area of intense research and development. Now it's finally moving from research to implementation, including in clinical decision support. Nearly a fifth of healthcare leaders say that their organizations have already implemented AI for radiology, medication management and in-hospital patient monitoring.

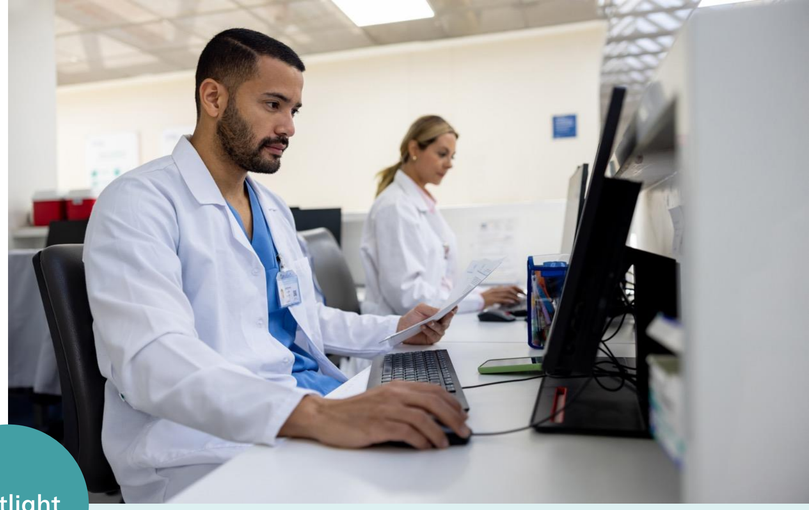
A greater proportion of healthcare leaders say that their organizations are planning to implement AI within the next three years. Reflecting an increased focus on virtual care and other sustainable care delivery models, implementing AI in remote patient monitoring is a key area for the future.

Generative AI adoption set to rise

Generative AI has caught the attention of healthcare leaders in the past year since its rapid emergence into the public domain. Potentially recognising that AI innovation could help unlock new efficiencies and insights from patient data, two-thirds (67%) of leaders are either currently investing or planning to invest in such technology within the next three years.

Current and future implementation of AI for clinical decision support





Spotlight

AI saves time for doctors and patients

Several hospitals in Brazil have implemented AI in in specific areas to help alleviate pressure on staff. One example, German Hospital Oswaldo Cruz, has partnered with health technology and start-up companies to implement an AI-enabled virtual assistant that improves staff time management.[10]

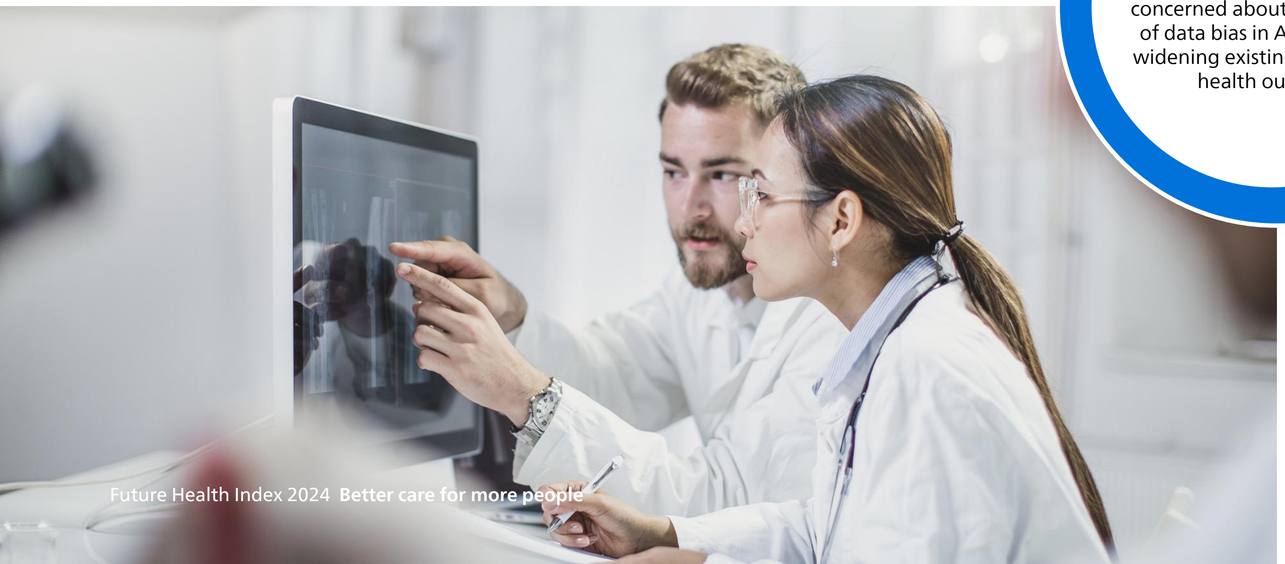
Due to advances in large language models (LLMs), the hospital has been able to roll-out smart software that automates data entry, data extraction and environmental documentation. The software listens to conversations between doctors and patients to pre-populate a patient's chart and test requests or prescriptions.

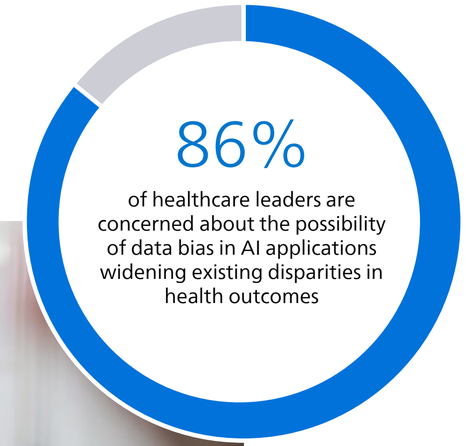
Currently, doctors spend more than 50% of their workday on administrative tasks such as creating electronic medical records.[11] The AI virtual assistant is saving much of this time by extracting key data from unstructured clinical notes. This also has an added benefit for patients: with administration done more quickly, they can be discharged sooner, improving their quality of care.

Ensuring the responsible use of AI

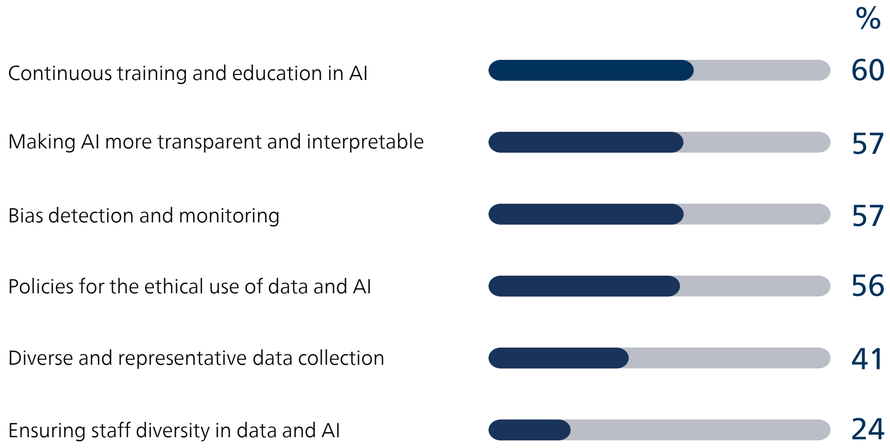
While there is widespread excitement about the possibilities of AI in healthcare, there is also a shared recognition that it needs to be implemented in a responsible way to avoid unintended consequences. The vast majority of healthcare leaders in Brazil agree that they are concerned about the possibility of data bias in AI applications widening existing disparities in health outcomes.

To address this risk, healthcare leaders say it is important to focus on education. Another strategy that healthcare leaders point to is increasing transparency in AI and ensuring it is interpretable for clinicians.





Healthcare leaders' top strategies to mitigate the risk of data bias in AI applications



Appendices

Research methodology

2024 quantitative survey methodology

The quantitative study was executed by GemSeek, a global business and consumer research services firm employing a methodology of online (CAWI) surveying.

2,800 healthcare leaders, 200 in each of the 14 countries included (Australia, Brazil, China*, India, Indonesia, Italy, Japan, the Netherlands, Poland, Saudi Arabia, Singapore, South Africa, the United Kingdom, and the United States), participated in a 15-to-20-minute survey from December 2023 to February 2024.

Where relevant, the survey was translated into the local language. In some instances, certain questions needed to be adjusted slightly for relevance within specific countries. Care was taken to ensure the meaning of the question remained as close to the original, English, version as possible.

Below shows the specific sample size, estimated margin of error** at the 95% confidence level, and interviewing methodology used for each country.

	Unweighted sample size (N=)	Estimated margin of error (percentage points)	Interview methodology
Australia	200	+/- 7.0	Online
Brazil	200	+/- 7.0	Online
China	200	+/- 7.0	Online
India	200	+/- 7.0	Online
Indonesia	200	+/- 7.0	Online
Italy	200	+/- 7.0	Online
Japan	200	+/- 7.0	Online
Netherlands	200	+/- 7.0	Online
Poland	200	+/- 7.0	Online
Saudi Arabia	200	+/- 7.0	Online
Singapore	200	+/- 7.0	Online
South Africa	200	+/- 7.0	Online
United Kingdom	200	+/- 7.0	Online
United States	200	+/- 7.0	Online
Total	**2,800**	**+/- 2.0**	

2024 qualitative interview methodology

The qualitative portion of the Future Health Index 2024 was also conducted by GemSeek. To provide context and additional depth to the quantitative data, the survey results were supplemented with findings from a series of 45-minute, English language interviews with healthcare leaders. These interviews were conducted February to March 2024. There were eight participants, two from each of the following countries: Singapore, South Africa, the United Kingdom, and the United States.

* Survey data is representative of mainland China only and does not include Taiwan or Hong Kong.
** Estimated margin of error is the margin of error that would be associated with a sample of this size for the full healthcare leader population in each country. However, this is estimated since robust data is not available on the number of healthcare leaders in each country surveyed.

Sources

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Glossary

Artificial intelligence (AI)
AI refers to the use of machine learning and other methods that may mimic intelligent human behaviors, resulting in a machine or program that can sense, reason, act and adapt to assist with different tasks.

Automation
The use of technology and software solutions to perform tasks and processes with limited human involvement. It may involve the application of digital tools, machines, and computer systems to streamline and optimize various aspects of healthcare delivery, administration and management.

Clinical decision support
The provision of information to help inform decisions about patient care.

Data bias
A flaw that occurs when certain elements of a dataset are missing, underrepresented or overrepresented.

Data-driven insights
Information gathered from the analysis of raw data and used to inform decision-making.

Data integration
Used here to refer to a variety of clinical and/or operational information amassed from numerous sources including but not limited to electronic medical records (EMRs), medical devices, and workflow management tools.

Decarbonization
The process of removing carbon, or material containing carbon, from a substance or object.

Generative AI
Artificial intelligence algorithms that can be used to produce content such as text, images, audio or other data in response to inputted prompts.

Healthcare ecosystem
Describes the locations of care and services provided, the people involved in care delivery (including patients, family members and caregivers), and how they work together to improve efficiencies and optimize experiences.

Healthcare leader
A C-suite or senior executive working in a hospital, medical practice, imaging center/office-based lab, or urgent care facility who is a final decision-maker or has influence in making decisions.

Healthcare organization
The hospital or healthcare facility for or in which the healthcare leader works.

Healthcare professional
Individuals who are directly involved in providing healthcare services to patients (including doctors, nurses, surgeons, specialists, technologists, technicians, etc.).

Interoperability
The ability of health information systems to work together within and across organizational boundaries, regardless of brand, operating system or hardware.

Remote patient monitoring
Technology that provides care teams with the tools they need to remotely track the health of their patients outside of conventional clinical settings (e.g., at home), collaborate with the patients' other healthcare professional(s) and help detect problems before they lead to readmissions. Examples of this include cardiac implant surveillance, vital-sign sensors at home, etc.

Social determinants of health
Non-medical factors that influence health outcomes, such as the conditions in which people are born, grow, work and live.

Staff
This refers to all employees within a healthcare organization, including healthcare professionals, IT, financial services, administrative support, facilities, etc.

Sustainability
Meeting the environmental needs of the present without compromising the ability of future generations to meet their own needs.

Technology infrastructure
Foundational technology services, software, equipment, facilities and structures upon which the capabilities of nations, cities and organizations are built. This includes both IT infrastructure and traditional infrastructure that is sufficiently advanced such that it can be considered modern technology.

Timely, high-quality care
For the purposes of this survey, this phrase reflects healthcare being provided to all patients and the communities served by a healthcare organization.

Underserved communities
Includes people who receive fewer health care services and/or encounter barriers to accessing health care services (e.g., economic, geographic, cultural, and/or linguistic barriers).

Virtual care
The use of telecommunication technologies that remotely connects a patient to a healthcare professional, or a healthcare professional to a healthcare professional.

Workflows
A process involving a series of tasks performed by various people within and between work environments to deliver care. Accomplishing each task may require actions by one person, between people, or across organizations – and can occur sequentially or simultaneously.

The Future Health Index is commissioned by Philips.

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The Future Health Index 2024 report explores how healthcare leaders view their hospital's ability to deliver timely, high-quality care to everyone. A quantitative survey was conducted among almost 3,000 healthcare leaders from 14 countries (Australia, Brazil, China, India, Indonesia, Italy, Japan, the Netherlands, Poland, Saudi Arabia, Singapore, South Africa, the United Kingdom and the United States). This was supplemented by eight qualitative interviews of healthcare leaders, two from each of the following countries: Singapore, South Africa, the United Kingdom and the United States. Both the quantitative and qualitative research stages were conducted between December 2023 – March 2024.

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