

Australia

Taking healthcare everywhere

Addressing staff shortages and patient needs with new care delivery models





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Research premise

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

The Future Health Index – now in its eighth year – is based on proprietary research conducted in 14 countries.

In 2023, the Future Health Index explores how healthcare leaders and younger healthcare professionals view the role of new care delivery models, which integrate physical and virtual care within and beyond hospital walls.



Countries included in the research

Australia

Brazil

China

Germany

India

Indonesia

Italy

Japan

Netherlands

Poland

Saudi Arabia

Singapore

South Africa

United States

Healthcare leaders are C-suite or senior executive decision makers/influencers working in a hospital, medical practice, imaging centre/office-based lab, ambulatory centre or urgent care facility.

Younger healthcare professionals are defined as those aged between 18 and 40 who have completed their first medical/nursing degree and are working as a healthcare professional in a clinician role (all specialisations, except psychiatry and dental care).



Foreword

Fast-tracked by the pandemic, the past three years have given us a glimpse of the future of healthcare delivery: one that extends beyond hospital walls into the home and the community, with digital technology connecting care across settings. There is no going back now. This year's Future Health Index shows how healthcare leaders and younger healthcare professionals are aligned in their vision to innovate new care delivery models that meet patients where they are.

Healthcare leaders around the world are challenged with maintaining quality care through staff shortages, while financial pressures add to the strain. Meanwhile, patient expectations are also different from what they were pre-pandemic. As digital transformation has continued to accelerate in every aspect of our lives, from how we buy to how we work and learn, our best and most convenient experience anywhere is now what we expect everywhere – including in healthcare.

Healthcare leaders recognise that optimising current ways of working will only get them so far. A new paradigm of care delivery is needed. The 2023 Future Health Index report offers clues to what that will look like. Investments in AI and virtual care continue to be on the rise, showing commitment from healthcare leaders to lean into the potential of digital technology to improve efficiencies, experiences, and outcomes. At the same time, they are looking to expand care delivery into lower-cost settings outside the hospital. Or, as I like to say, we are moving to a future of "your care, your way", where patients will benefit from a wider range of virtual and in-person access points.

Younger healthcare professionals welcome this shift. In fact, as this year's survey findings show, they are asking for it. Younger healthcare professionals are keen to be at the forefront of digital innovation. Just like healthcare leaders, they envision a more personalised and connected approach to healthcare, orchestrated around the patient's needs, and with digital technologies such as Al supporting them in their day-to-day work.

But both groups also realise they cannot get there alone. Even more so than in previous Future Health Index reports, partnerships emerged as a key theme this year. Both healthcare leaders and younger healthcare professionals say that closer collaboration between providers is needed to deliver integrated patient care across settings. They also see a key role for data/IT providers and health technology companies, to help liberate data and turn it into meaningful insights when and where they are needed. And finally, they are turning to partners for help in improving environmental sustainability – an area where healthcare has much to gain.

I invite you to explore the survey findings in more detail in this report and reflect on what they mean for your organisation. Where will you take healthcare next? I hope that, as you set out on that journey, you find inspiration from both current and future healthcare leaders in Australia and throughout the world.



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When I think of the future of healthcare delivery, I think of 'your care, your way'.

Shez Partovi

Chief Innovation & Strategy Officer and Business Leader Enterprise Informatics, Philips

Foreword

Australia's healthcare sector has demonstrated its agility and ability to innovate at speed. The three years of the pandemic propelled us to extend primary and even tertiary health beyond the hospital setting. As we continue to navigate a new path, we have sought the views of those who lead us now and the emerging leaders of the future.

This global survey of healthcare leaders and younger industry professionals – the largest of its kind in the world – recognises the challenges we face and offers solutions. There are global skills shortages, growing patient expectations, and the pressure to do more with less. We know the overwhelming majority of leaders (97%) are currently grappling with financial pressures. However, there is an optimism and a belief that these challenges will be overcome through new care delivery models that also meet patient needs.

The Future Health Index 2023 highlights the need to overhaul our ways of working to meet demand, and the ways in which this is already happening. The insights and process efficiencies devised using machine learning and artificial intelligence (AI) are increasingly sought after as part of the solution. Leaders are investing in these technologies to optimise their workflows and mitigate staff shortages. Most vounger Australian healthcare professionals (72%) want more future investment in AI to help them care for patients, notably around diagnostics. And it may become a drawcard for recruitment, with nearly half of the younger healthcare professionals surveyed telling us the use of AI tools would be a factor in where they choose to work.

Younger industry professionals are keen to adopt increased efficiencies and productivity through digitally-enabled tools and equipment, knowing these supports will also allow remote monitoring and management of patients outside in-patient settings. Together with current leaders, younger colleagues want to bring care closer to the patient.

Healthcare professionals want to engage with partners to make this happen. Leaders and younger healthcare professionals are reaching out to health tech providers and IT/data companies to improve patient care. We can assume this will accelerate with time, with the younger generation agreeing that closer collaborations will empower them in their patient care. Another area of desire for collaboration is around sustainability and environmental responsibility, where Australian healthcare professionals want to share knowledge and best practice.

We are living in a time of rapid change. This is bringing new challenges and opportunities that leaders and younger professionals are embracing with new ideas. At Philips, we believe technology and partnerships will be at the forefront of innovation, allowing us to meet the needs of our patients now and into the future.



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Closer collaborations will empower younger healthcare professionals in their patient care'.

Matt Moran

Managing Director, Australia & New Zealand

Key findings at a glance



Three main themes emerge from the 2023 Future Health Index, showing how healthcare systems are innovating care delivery to meet evolving patient needs with increasingly strained resources. Each of these themes is explored in more detail in the following chapters.

Chapter 1
Tackling workforce shortages with innovation

Faced with acute workforce shortages and growing financial pressures, healthcare leaders are seeking to streamline processes for improved efficiencies. They are ramping up their investments in workflow technologies to alleviate pressure on staff, while partnering with organisations to help reduce the impact of workforce shortages. This is welcomed by younger healthcare professionals, who are also eager to embrace new digital technology and consider it a factor in choosing where to work.



Chapter 2
Bringing care closer to the patient with new delivery models

Healthcare leaders and younger healthcare professionals share a common vision for a more distributed healthcare system that meets patients where they are. Virtual care continues to be on the rise, expanding the reach of intensive and critical care beyond hospital walls. At the same time, both surveyed groups also desire the further growth of ambulatory and community-based care services to help improve patient access, convenience and health outcomes.



Chapter 3
Partnering across the healthcare ecosystem

As payers are expecting more cost-effective care that delivers better outcomes, healthcare leaders are partnering across the healthcare ecosystem to overcome technology barriers, break down data silos, and deliver more integrated care that improves patient outcomes. In addition, they see a role for partnerships in furthering environmental sustainability in healthcare — a topic that is also top of mind for an eco-conscious generation of younger healthcare professionals.



Faced with severe workforce shortages — described as the single biggest challenge facing healthcare in Australia¹ — along with funding crises², Australian healthcare leaders are taking decisive action and seeking to streamline processes to improve efficiencies. As they build new revenue streams, they are also embracing technology, particularly workflow, cloud-based tools, digital health records and centralised command centres. This is welcomed by younger healthcare professionals who see great potential in Al and consider it a factor in choosing where to work.

Managing the financial crisis in healthcare

Gearing up to face funding challenges

With a health system that was already at breaking point further impacted by the pandemic, Australian healthcare leaders are facing a funding crisis³.

Most (92%) are taking action to help ease critical financial pressures. Of these, 58% are building new revenue streams to reduce the impact of

financial pressures. Australian healthcare leaders are more likely to be doing so than those in the US (44%) and Singapore (43%).

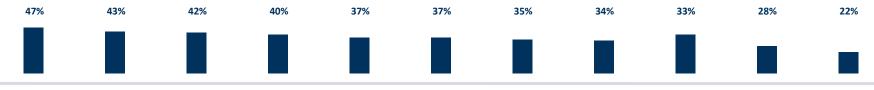
Together with the Australian government's record commitment to healthcare funding -AUD\$537 billion over the next four years – these new revenue streams may expand access to improved, affordable healthcare⁴.

Automation as a solution

Among Australian healthcare leaders taking action to mitigate financial pressures, technology is a key means to achieving this. In terms of specific solutions being used, almost half (47%) are streamlining patient processes (e.g. automating appointment booking),

and 43% are streamlining internal processes (e.g., automating administrative tasks or improving workflows) (see Figure 1). Australian healthcare leaders are more likely than the global average to be doing each one, with 36% globally streamlining patient processes and 33% streamlining internal processes.





Streamlining patient processes Streamlining internal processes

Exploring new purchasing models to lower costs

Sharing functions with other facilities

Refocusing the on the most

hospital/facility away from new investments to profitable services core services

Shifting spend Merging with other hospitals/ health systems

Pausing the purchase or

Reducing the length of upgrade of new hospital stay equipment and where possible technology

Reducing

energy usage

Pausing recruitment

Using digital technologies to address staffing pressures

Reducing the impact of workforce shortages

Australia is facing unprecedented workforce shortages, including an estimated shortage of over 100,000 nurses by 2025. Predicted to reach at least 110,000 in the next decade and well over 400,000 by 2050, the skills shortage in aged care is of particular concern⁶.

When asked what steps they were taking to reduce the impact of workforce shortages, about half of Australian healthcare leaders (49%) say their hospital or healthcare facility is using or planning to use digital health technologies (see Figure 2).

Among those, 51% are seeking to mitigate staff shortages through workflow technology e.g., through patient flow automation or digital health records (see Figure 3). Nearly half are using cloud-based technology (43%), while 41% cite mobile check-in or registration for patients – all pointing to an opportunity for digital innovation to alleviate pressure on staff while streamlining the patient experience.

The most selected answer globally was technology that connects with out-of-hospital settings (43%), whereas this result was significantly lower in Australia – placed sixth with 29% of respondents opting for it.

Figure 2



of Australian healthcare leaders are using or planning to use digital health technologies to help reduce the impact of workforce shortages

Taking a partnership approach

Healthcare leaders in Australia are collaborating with organisations to reduce the impact of workforce shortages, but to a lesser degree than some other countries. Almost half of healthcare leaders (45%) are working with community centres/groups, a higher percentage than globally (34%). One-third (36%) selected other hospitals, meanwhile health technology companies are a solution for 35% of Australian leaders – both results showing similar trends to that of global.

Younger healthcare professionals in Australia are aligned with their senior colleagues, desiring collaboration with community centres/groups, health technology companies (both 38%), other hospitals as well as retailers/pharmacies (both 33%). These results were in line with the global results but often lower than Germany and the US. w

More than half of healthcare leaders (57%) also acknowledge that their hospital/facility does not have enough staff to roll out new ways to deliver care, a result higher than Germany and Singapore (both 40%).

Figure 3: Technologies that Australian healthcare leaders are using or planning to use to reduce the impact of workforce shortages

Vorkflow technology	51%
loud-based technology to support ccess to information from any location	43%
Nobile check-in/registration or patients	41%
or patients	71/0
ritical decision support technology	39%
communications technology	33%
echnology solutions that connect	
vith out-of-hospital settings	29%

Al investments continue

Consolidating previous AI investments

Last year's report revealed an appetite for AI among Australia's healthcare leaders, with most (89%) planning to invest in the following three years. Today, the numbers have shifted somewhat, potentially suggesting substantial investments already made: 44% of Australian leaders are currently investing in AI, with 63% planning to do so three years from now.

Al to support younger healthcare professionals

Currently, 34% of younger healthcare professionals in Australia would most like to invest in AI for clinical decision support compared with just 25% of healthcare leaders who feel the same, suggesting leaders may not appreciate the potential as much as their younger colleagues (see Figure 4). Additionally, nearly one-third (31%) of younger healthcare professionals want to invest in AI to optimise operational efficiency, compared with 21% of healthcare leaders.

Al to optimise operational efficiency could include automating documentation, for example, or scheduling patients, staff or tasks. In this way, Al-enabled applications could play a vital role in enabling more efficient use of resources to mitigate the impact of workforce shortages.

Looking forward to three years from now, however, both healthcare leaders (34%) and younger healthcare professionals (38%) would like to see investment in Al to integrate diagnostic information (such as imaging, pathology, and a patient's clinical history). Recent clinical studies have shown its potential to save valuable time in diagnostic decision making, while supporting the clinician experience, for example, in cancer care7.



Figure 4: Current investment in AI among Australian healthcare leaders, and desired investment from younger healthcare professionals



Digital innovation vital for younger healthcare professionals

Attracting and retaining new healthcare talent

Younger healthcare professionals surveyed in this year's research welcome investments in AI and other digital innovations. In fact, they are explicitly asking for it.

Younger healthcare professionals, aware of the benefits of AI to their working lives, want their organisation to invest in it. When it comes to choosing a hospital or healthcare facility in which to work, 45% of younger healthcare professionals say being at the forefront of AI in healthcare is a key consideration (see Figure 5), meanwhile 39% cite AI as a digital technology that would most improve their work satisfaction.

However, Australia falls behind some of its peers when it comes to training. Just over half (58%) of Australian respondents agree that the quality of training provided matched their expectations. While this is in line with the global average (56%), the result is lower than Singapore (70%). To back this up, 50% of younger healthcare professionals in Australia stated that better training on new technologies would enable them to feel more empowered to improve patient care, a result higher than the global average (38%) and Germany (35%). This provides an opportunity for healthcare facilities to help upskill their employees, including in emerging digital healthcare technologies, so as to improve the provision of care.

Figure 5

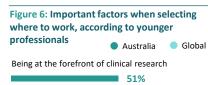


of Australian younger healthcare professionals say being at the forefront of AI is an important factor in choosing a workplace

Important factors for younger healthcare professionals

Also important to younger healthcare professionals when choosing where to work are being at the forefront of clinical research (51%), as well as reputation factors including a strong record of patient outcomes (50%) and the hospital/practice's reputation (46%) (see Figure 6). All three of these were higher than the global average, as well as younger healthcare professionals in Germany and Singapore.

Style of work also seems to be an important consideration, as 50% selected a culture of collaboration, including elements of multidisciplinary and inter-speciality collaboration. Under half (46%) also opted for professional autonomy, including that younger healthcare professionals have the flexibility to dictate care plans for their patients. These results were more in line with their global peers but still higher than Germany and Singapore.







Being at the forefront of connected care delivery (e.g., streamlined clinical care pathways)

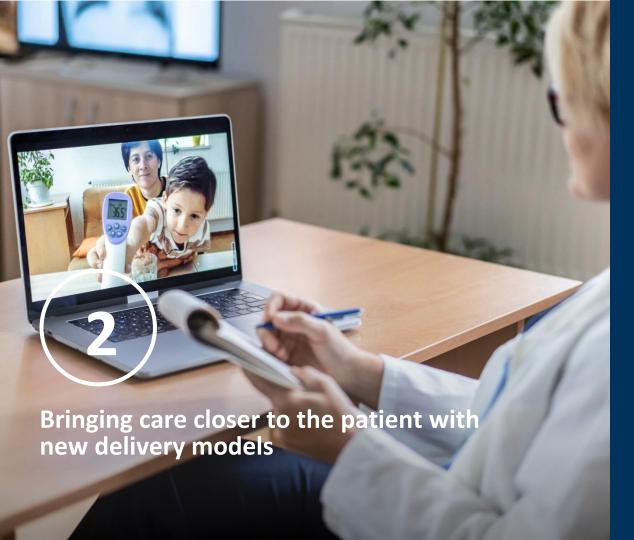


Professional autonomy (e.g., flexibility to dictate care plans for my patients)



The hospital/practice's reputation





Australian healthcare leaders and younger healthcare professionals are aligned in their vision of a more distributed healthcare system that meets patients where they are. Virtual care continues to play a key role. Looking forward, both healthcare leaders and younger healthcare professionals also envision further expansion of care beyond hospital walls, with additional services likely to offer more benefits for patients.

Extending care beyond the hospital walls

Virtual care is here to stay

The pandemic transformed Australian primary care with rapid adoption of digital technologies, complementing in-person primary care with telehealth and virtual models of care8. The benefits were particularly important to millions of Australians living in remote, regional and rural areas, due to the shortage of doctors and the distances required to travel to specialist facilities. Two thirds of the country's population lives around the regional coastlines and the remainder live across rural and remote areas. sometimes more than an eight-hour drive to the closest township, meaning access to health services can be a problem9.

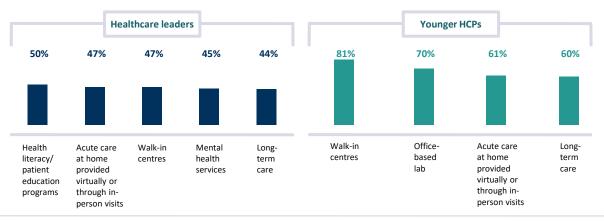
Half (52%) of Australian healthcare leaders think that virtual care has already had or will have the biggest impact in improving patient care. Even more younger healthcare professionals (61%) are optimistic about the technology. Over onethird (38%) of Australian healthcare leaders are planning for investments in virtual care over the next three years, reflecting the global average (32%) and US response (38%).

Delivering more services. to more patients

Three years from now, Australian healthcare leaders want to provide more services or shift services offered to patients (see Figure 7). This includes health literacy and patient education programs (50%), acute care at home provided virtually or through in-person visits (47%) and walk-in centres (47%).

Younger healthcare professionals want to see care continue to expand beyond the hospital too, although their choices are slightly different from the leaders. Younger healthcare professionals would most like their hospital or facility in the future to provide walkin centres (81%), office-based labs (70%) and acute care at home (61%).

Figure 7: Top selected services leaders and younger healthcare professionals want their facility to provide three years from now



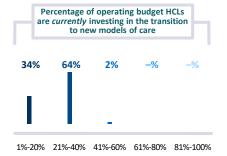
A system primed for new ways to deliver care

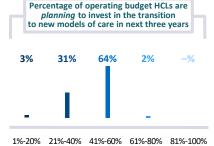
Investing more in new models

Healthcare leaders and younger healthcare professionals in Australia have a confident outlook toward care delivery models that integrate physical and virtual services.

Over half of healthcare leaders (64%) are currently investing between 21% and 40% of their operating budget in the transition to new models of care delivery (see Figure 8), while the same amount plan on investing even more of their budget in the next three years (41% to 60% of budget).

Figure 8: Australian healthcare leaders' investments in new models of care delivery





Perhaps as a result of substantial government investment8, healthcare leaders (67%) and vounger healthcare professionals (69%) agree that they are well equipped to work effectively with new care delivery models, higher than the global average of 59% for each group (see Figure 9).

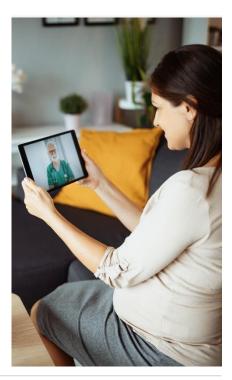
Figure 9: Australian healthcare professionals who say they are well equipped to work effectively with new care delivery models



Healthcare leaders



Younger healthcare professionals



A move to diversify care delivery

Expanding access to care

Reflecting the Australian government's strategy of further digitising the healthcare system, half (52%) of healthcare leaders and younger healthcare professionals combined also welcome the technologically advanced nature of new ways to deliver care (see Figure 10).

Given the challenges of the country's geographically dispersed population¹⁰, many benefits are focused on increased access to care for patients.

healthcare

treatment

understanding

More than half (60%) of Australian healthcare leaders and younger professionals combined believe that new ways to deliver care are likely to be able to offer better care for more patients (60%). Additionally, around two-thirds of Australian respondents agree that these new models can offer more choice for patients on where (65%) and how (62%) their healthcare is delivered. Faster access to diagnosis/care (63%) and improved patient safety, leading to a decline in adverse events (57%), are also seen as likely outcomes of new ways to deliver care.

healthcare

population health

Multiple benefits for patients

When asked about the benefits of new ways to deliver care besides improved patient outcomes, healthcare leaders and younger healthcare professionals see other patient benefits of these delivery models too (see Figure 10). In fact, foremost among all benefits is increased patient compliance and adherence to treatment plans, selected by 58% of respondents. When it comes to other patientspecific benefits, half (48%) cited improved patient education and 39% selected more convenient locations for patients.

patients

Figure 10: Patient-focused benefits of new ways to deliver care, as selected by both Australian leaders and younger healthcare professionals 58% 52% 45% 39% 39% 35% 33% Improved patient Collaboration with Offsetting Increased patient More More Increased More cost-More Increased Improved compliance/ technologically education and local communities environmentally efficiency effective convenient revenue staff staff adherence to advanced awareness/ to improve sustainable healthcare locations for satisfaction shortages opportunities

Shaping the future of patient care

Focusing on patient outcomes

While Australian respondents embrace the benefits that technology and new models of care delivery will deliver for patients, they also know that a better understanding of patient needs is crucial for optimal care.

Compared with less than one-third of healthcare leaders globally (32%), nearly half (49%) of Australia's leaders said that their hospital/facility is consulting with vulnerable and underserved populations to gather data that ensure new ways to deliver care are improving patient outcomes (see Figure 11).

Younger healthcare professionals would like their management to focus more on technology-oriented initiatives to ensure new models of care improve patient outcomes (see Figure 12). Both younger healthcare professionals and leaders are aligned on community collaboration, with 48% of younger healthcare professionals and 47% of leaders identifying building partnerships outside the healthcare system as a strategy to improve patient outcomes.

Figure 11: Actions healthcare leaders are taking to ensure new ways of care deliver improved patient outcomes



Consult with vulnerable and underserved populations



Invest more in

staff training

Utilise research to better understand patient needs

48%



Build partnerships outside the healthcare system

Figure 12: Actions younger healthcare professionals want management to take to ensure new models of care deliver improved patient outcomes



Make better use of existing technology



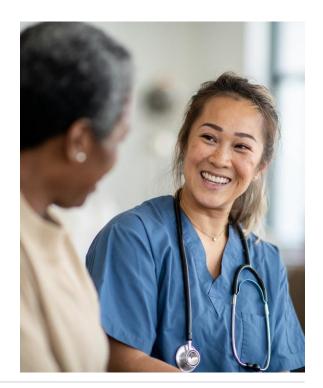
Build partnerships outside the healthcare system



Update existing technology solutions



Consult with vulnerable and underserved populations





With payers expecting more cost-effective, high-quality care, healthcare leaders are partnering across the healthcare ecosystem to effectively deliver new types of care. Such partnerships can help advance environmental sustainability in healthcare, an area where Australian healthcare leaders face multiple challenges.

Relationships with payers are evolving

A push for more cost-effective integrated care delivery

With new care delivery models emerging, healthcare leaders are seeing their relationship with payers change. Payers are now expecting more cost-effective, high-quality care delivered in partnership with other providers across care settings.

This shift is evident in Australia, with its complex combination of service providers and other healthcare professionals from a variety of organisations, including Australian state and territory governments, as well as the nongovernment sector¹¹. Today, most Australian healthcare leaders (98%) agree that the relationship with payers is changing in some way. Over half (54%) see payers being more selective/demanding of them compared to 34% globally, 21% in Germany and 27% in Singapore.

Depending on their situation, healthcare leaders have varying experiences with payers. Almost half (47%) of Australian healthcare leaders agree that payers are reducing the services they seek (see Figure 13). A similar number (45%), however, say that payers are increasing the types of services sought.

Figure 13: Ways in which healthcare leaders' relationships with payers are changing

Payers are more selective/ demanding of their partners	54%
Payers are trying to reshape the financial models upon which agreements are based	50%
Payers are reducing the services they seek from us	47%
Payers are increasing the types of services they seek	45%
Payers are looking for more synergistic partnerships	44%
Payers are asking us to work with new partners	42%



Partnering across care settings

Expanding the reach of care

Australian vounger healthcare professionals recognise the contribution of partners in ensuring a healthcare ecosystem that brings care closer to the patient. Their desire for a culture of collaboration (50%) is higher than Germany and Singapore (both 19%) (see Figure 14).

Building partnerships outside their healthcare system was selected by nearly half (47%) of healthcare leaders as one of the actions they are taking to ensure that new ways of delivering care are improving patient outcomes. Younger healthcare professionals in Australia agree, with a similar proportion (48%) stating that they'd like their organisation to build partnerships outside of the healthcare system to ensure that new ways to deliver care improve patient outcomes. Both of these results are higher than the global average (34% and 36% respectively) as well as comparison markets.

Figure 14



Healthcare leaders selected health technology companies (36%), other hospitals and clinics (32%), community centres (32%), educational institutions, both medical and non-medical (30%), and IT or data companies (30%) among those with whom they are currently partnering. This reflects the wide array of stakeholders needed to effectively deliver new types of care (see Figure 15).

Figure 15: Healthcare leaders' current partners

Health technology companies	36%
Other hospitals and clinics	32%
Community centres	32%
Educational institutions	30%
IT or data companies	30%

Healthcare leaders' top two choices of partner align with the Australian government's goal of increased connectivity and collaboration among hospitals and facilities across the country¹².

Younger healthcare professionals are aligned with their colleagues in leadership, also selecting health technology companies as the top external organisation they would like their hospital/facility to partner with today (36%). Also present in the top five most selected partners were educational institutions (28%), other hospitals/clinics (27%), diagnostic imaging/screening centres (27%) and IT or data providers (26%).

Tapping into the power of technology

Critical success factors for delivering new models of care

Linked to their desire for partnerships with health technology and IT or data companies, Australian healthcare leaders and vounger healthcare professionals recognise the crucial role of technology in the healthcare ecosystem. Most healthcare leaders and younger healthcare professionals cite at least one technology-related factor as key to successfully providing new ways to deliver care (79%), a higher result than the global average (63%), including addressing interoperability/data standards across technological systems and platforms which was singled out as the single most important success factor of all.

Younger healthcare professionals also highlight technology as an area that they would like their organisation to work on to ensure new ways of delivering care improve patient outcomes. Half (50%) would like to make better use of the technology they already have access to, with 46% desiring existing technology solutions to be updated.

Both results are higher than the global average (34% and 32% respectively), as well as Germany (both 25%) and Singapore (25% and 27% respectively).

In addition, to realise their vision of delivering integrated care across a wider range of settings, healthcare leaders and younger healthcare professionals in Australia understand the importance of being able to share and interpret data in a meaningful way. Among both groups, a combined 41% believe that new care delivery will require the right data interpretation skills within their hospital or healthcare facility, another result higher than the global average (29%).

When it comes to the impact and adoption of new care delivery models, evidence is needed to convince both payers and providers. Two in five healthcare leaders and younger healthcare professionals (39%) want proof of improved outcomes or cost effectiveness. Other factors respondents believe will affect their success with new care delivery models include both patients' willingness to adopt new technologies (38%) and staff's (36%) willingness to adopt new technologies (see Figure 16).

Figure 16: Top selected success factors for providing new ways to deliver care, among healthcare leaders and younger healthcare professionals



Data interpretation skills within hospital/facility



Sufficient evidence of improved outcomes or cost effectiveness



Rollout of technology that drives efficiency in clinical and operational workflows



Opportunities for greener healthcare

The potential for more sustainable care

Both Australian healthcare leaders (67%) and younger healthcare professionals (70%) agree that new ways to deliver care are more environmentally sustainable.

This is significantly higher than Germany, where 44% of healthcare leaders and 38% of younger healthcare professionals say new care delivery is more sustainable. It is also higher than the global average of 57% for younger healthcare professionals.

Achieving environmental standardisation

More than one-third (37%) of Australian healthcare professionals combined named the government as the number one organisation that should be responsible for creating environmental sustainability standards in healthcare (see Figure 17). This compares to just 26% globally and 17% of German respondents.

While significant, this conceals a difference between healthcare leaders and their younger colleagues. Australian leaders are more likely than younger healthcare professionals to believe that government should be responsible for creating sustainability standards (42% compared to 32%). One-quarter (27%) of both groups suggested individual hospitals or health systems should be the most responsible. Their answers differ when medical technology companies were considered, with 13% of leaders ranking these organisations first, compared to 20% of younger healthcare professionals. These results could suggest that while the onus of responsibility lies with government, individual hospitals and health technology companies should also have a role in creating environmental standards for healthcare.

Figure 17: Healthcare professionals who think the government should be most responsible for creating sustainability standards

Australia	37%
Global	26%
Germany	17%
Singapore	12%
US	8%



Taking action to keep environmental sustainability on track

Barriers to environmental sustainability initiatives

While Australian healthcare leaders are implementing environmental sustainability initiatives, they face multiple obstacles seemingly to a greater extent than their global peers.

Figure 18: Barriers to implementing environmental sustainability initiatives. according to healthcare leaders



Lack of access to appropriate technology



Lack of standardisation across the healthcare industry

Healthcare leaders' greatest challenge in implementing environmental sustainability initiatives is a lack of access to appropriate technology (60%), followed by the lack of standardisation across the healthcare industry (50%) (see Figure 18). The lack of access to appropriate technology is highest of all countries (on average, 31% globally) and, if addressed, could help organisations deliver more sustainable care.

More so than their global peers, Australian healthcare leaders named lack of specific regulation (49%), lack of implementation strategy (45%), and lack of interest from the board (44%) as barriers to greener healthcare. Globally, one-third of leaders or less cite lack of specific regulation (33%), lack of implementation strategy (32%) and lack of interest from the board (30%) as harriers.

Overcoming sustainability challenges

Healthcare leaders in Australia are facing barriers to implementing sustainability initiatives, and they plan to use multiple methods – many of which require partnering or consulting with those outside their hospital or facility - to address them.

Healthcare leaders believe that the best way to overcome the challenges in implementing environmental sustainability initiatives is knowledge sharing (see Figure 19). Almost half (47%) indicate that the best source is their

peers (see Figure 18). Leaders also emphasise the importance of creating a business case for driving initiatives (46%) and setting clear and ambitious targets and measuring progress (42%).

In addition to defining, setting and tracking sustainability goals, more than one-third of Australian leaders see value in recruiting more staff with specialist skills (37%), and in working with or consulting a third party to deliver or support sustainability programs (36%).

Figure 19: How healthcare leaders plan to overcome barriers to sustainability initiatives



Share best practice examples/learn from peers

Create a business case for driving initiatives

Set clear and ambitious targets and measure progress

Recruit more staff with specialist skills Work with or consult a third party to deliver/support programmes



Building a collaborative healthcare ecosystem

Current healthcare leaders and younger professionals share a common goal for our industry - to deliver personalised, patient-centric care when and where it is needed. Together, we are working to build more efficient and effective models of care.

Technology and partnerships are the key drivers making this happen. We already have witnessed the vision of the "home hospital" made into reality when it was needed during the Covid experience.

Now, two out of three Australian healthcare leaders (64%) are investing between 21% and 40% of their operating budget to transition to new models. The majority (79%) believe those models that are assisted by technologies will be the most successful and effective.

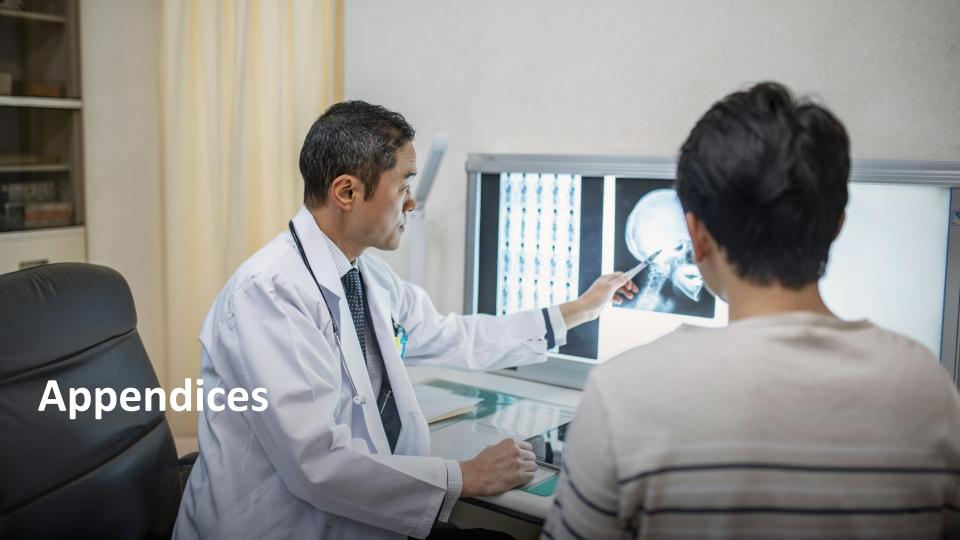
We welcome the future of working across traditional industry silos to build partnerships. Healthcare professionals, data scientists, health tech and environmental specialists will all have a part to play in developing and refining health delivery.

With our shared vision for patient care and a renewed willingness and enthusiasm to embrace innovation, we are excited to be at the forefront of the transformation of healthcare in Australia.

Matt Moran

Managing Director Philips Australia & New Zealand





Research methodology

Research overview and objectives

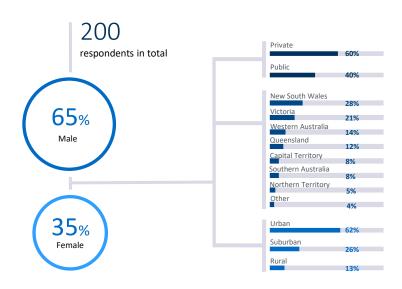
Commencing in 2016, Royal Philips has conducted original research every year with the goal of understanding the ways various countries around the world are addressing global health challenges and how they are improving and expanding their ability to care for their communities. Building and expanding on previous years, the Future Health Index 2023 focuses on addressing staff shortages and meeting patient needs with new care delivery models, speaking to both healthcare leaders and younger healthcare professionals* globally.

The first Future Health Index, released in 2016, measured perceptions of how healthcare was experienced on both sides of the patientprofessional divide. The following year, the research compared perceptions to the reality of health systems in each country that was studied. In 2018, the Future Health Index identified key challenges to the large-scale adoption of value-based healthcare and overall improved access, evaluating where connected care technology could speed up the transformation process. In 2019, the Future

Health Index explored the healthcare experience for both patients and healthcare professionals and how technology was moving us to a new era of healthcare delivery transformation. In 2020, the Future Health Index examined the expectations and experiences of healthcare professionals aged under 40. In 2021, the Future Health Index report considered how healthcare leaders were meeting the continuing demands of the pandemic and what the new reality of healthcare post-crisis might look like. Last year's Future Health Index, the 2022 report, concentrated on the role of digital tools and connected care technology in meeting the complex needs of healthcare leaders.

In 2023, the Future Health Index looks to both healthcare leaders and younger healthcare professionals - those aged 40 and under in 14 countries to quantify the experience and expectations of those in different roles and at various stages of their healthcare careers. It focuses on their perception of new care delivery models, which integrate physical and virtual care within and beyond hospital walls.

Details of the 2023 Australian sample:



2023 quantitative survey methodology

The quantitative study was executed by iResearch, a global business and consumer research services firm employing a mixed methodology of online and telephone surveying.

1,400 healthcare leaders and 1,400 younger healthcare professionals in 14 countries (Australia, Brazil, China*, Germany, India, Indonesia, Italy, Japan, the Netherlands, Poland, Saudi Arabia, Singapore, South Africa and the United States) participated in a 15-20-minute survey in their native language from November 2022 - February 2023. 100 healthcare leaders and 100 younger healthcare professionals in each of the 14 countries completed the survey.

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) Healthcare leaders	Estimated margin of error (percentage points) Younger healthcare professionals	Interview methodology
Australia	200	+/- 6.0	+/- 6.0	Online and telephone
Brazil	200	+/- 5.5	+/- 6.5	Online and telephone
China	200	+/- 6.5	+/- 7.2	Online and telephone
Germany	200	+/- 6.0	+/- 6.8	Online and telephone
India	200	+/- 5.2	+/- 6.0	Online and telephone
Indonesia	200	+/- 6.5	+/- 6.5	Online and telephone
Italy	200	+/- 6.5	+/- 6.5	Online and telephone
Japan	200	+/- 5.5	+/- 6.0	Online and telephone
Netherlands	200	+/- 6.2	+/- 6.4	Online and telephone
Poland	200	+/- 5.5	+/- 6.0	Online and telephone
Saudi Arabia	200	+/- 6.0	+/- 6.5	Online and telephone
Singapore	200	+/- 5.5	+/- 7.0	Online and telephone
South Africa	200	+/- 6.5	+/- 6.8	Online and telephone
United States	200	+/- 6.0	+/- 7.0	Online and telephone
Total	2,800	+/-	6.23	

Question localisations

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.

^{*} 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 or younger healthcare professional population in each country. However, this is estimated since robust data is not available on the number of healthcare leaders or younger healthcare professionals in each country surveyed.

Glossary of terms

Ambulatory care centre

Outpatient care centres (e.g., urgent care, walk-in clinics, etc.).

Artificial intelligence (AI)

Al refers to the use of machine learning and other methods that may mimic intelligent human behaviours, resulting in a machine or programme that can sense, reason, act and adapt to assist with different tasks.

As-a-service models

Methods of delivering hardware, software and/or services on a subscription basis.

Automation

The application of technology, programmes, robotics or processes to support people in achieving outcomes more efficiently.

Used here to refer to a variety of clinical and/or operational information amassed from numerous sources including but not limited to digital health records (DHRs), medical imaging, payer records, wearables, medical devices, staff schedule and workflow management tools, etc.

Digital health technology

A variety of technology that transmits or shares health data. The technology can take a variety of forms, including but not limited to home health monitors, digital health records, equipment in hospitals/healthcare facilities, and health or fitness tracker devices.

Distributed care

Instead of having patients come into a central location, distributed care brings care to the patient. Increasingly, healthcare could be delivered through a decentralised network of ambulatory clinics, retail settings, and homebased monitoring, coaching, and treatment.

Early adopters of digital health technology

Early adopters are defined as those who indicated that, compared to other hospitals or facilities, they are among the first to adopt an innovation or they adopt innovations before most others.

Global non-governmental organisations

A nonprofit organisation that operates independently of any government.

Healthcare ecosystem

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

Health technology companies

Companies that sell or provide medical equipment, wearables, health apps and other technology to healthcare organisations, patients, and the general public.

Healthcare leader

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

Healthcare professional

All medical staff (including doctors, nurses, surgeons, Payer specialists, etc.), and excludes administrative staff.

Healthcare professional-to-healthcare professional virtual care

Virtual communication between healthcare professionals through sharing images. recommending treatment plans, etc.

Healthcare professional-to-patient virtual care

Communication between healthcare professionals and their patients via video calls, patient portals, etc.

Integrated care

Collaboration between the health and care services required by individuals to deliver care that meets patient needs in an efficient way.

Interoperability

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

Late adopters of digital health technology

Late adopters are defined as those who indicated that, compared to other hospitals or facilities, they adopt innovations later than most others.

New ways to deliver care

This defines the way in which health services are provided. New ways to deliver care combine the needs of patients, caregivers and providers. to achieve the best possible care through integrated services within and beyond hospital walls.

Out-of-hospital services/settings

Care centres such as ambulatory surgical centres. office-based labs, etc.

A payer is a person, organisation, or entity that pays Workflows for the care services administered by a healthcare provider. Payers are usually, but not always, commercial organisations like insurance companies: government or public sector bodies: or individuals.

Predictive analytics

A branch of advanced analytics that makes predictions about future events, behaviours, and outcomes.

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.

This refers to all staff, including physicians, nurses, administrative employees, 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 organisations are built. This includes both IT infrastructure and traditional infrastructure that is sufficiently advanced such that it can be considered modern technology.

Telehealth/virtual care

The distribution of health-related services and information via electronic information and telecommunication technologies.

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 organisations – and can occur sequentially or simultaneously.

Younger healthcare professional

A healthcare professional working in a clinician role (all specialisations, except psychiatry/dental care), under the age of 40.

Sources

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The Future Health Index is commissioned by Philips.

To see the full report, visit www.philips.com/futurehealthindex-2023

The Future Health Index 2023 report examines the experiences of almost 3,000 healthcare leaders and younger healthcare professionals and their expectations for the future. The research for the Future Health Index 2023 report was conducted in 14 countries (Australia, Brazil, China, Germany, India, Indonesia, Italy, Japan, Netherlands, Poland, Saudi Arabia, Singapore, South Africa and the United States). The study comprises a quantitative survey conducted from November 2022 – February 2023.

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