

Australia needs a new prescription for healthcare – specifically, a focus on prevention and wellness, enabled by technology.

For several decades, Australia's healthcare system has increased life expectancy and improved quality of life. Now healthcare in Australia is under strain, challenged by an ageing population, chronic illnesses, evolving consumer behaviour, and changes in the type and frequency of emerging diseases.

In the decade to 2030, we predict:

- To get there, we need to:**

All healthcare providers must switch to electronic records as soon as possible. Social licence for this move will fundamentally depend on well-communicated privacy and cybersecurity frameworks.

Use of telehealth and AI-enabled devices must increase to support equitable outcomes for people living with disadvantage, to improve access and reduce financial burden.

Existing and new members of the national healthcare workforce must be supported and empowered to retrain, adapt and develop skills to use new digital technologies.

Government must support investment in improving pathways to commercialisation for Australian-developed medical technology.

Governments and industry are already working on these complex and sensitive issues, and through targeted action can maximise health outcomes and economic opportunities for Australia.

As individuals, Australians are prepared for a technology-supported transition – in fact, we expect it, although we have concerns about cybersecurity and ethics. There's still debate over the appropriate regulatory structures for this transition, but they are world-class and heading in the right direction. Greater preparation is required in our infrastructure, workforce skills, and economic and commercial environment, while continuing to ensure equity in our health system.

Levers for change

ATSE has made the following pragmatic recommendations, grouped under four key issues, to help policy-makers, industry and researchers accelerate positive change and use technology to revolutionise Australian healthcare over the coming decade.



RECOMMENDATION 1

MOST CRITICAL

Transition to interoperable electronic health records

All healthcare providers must switch to electronic records as soon as possible. Social licence for this move will fundamentally depend on well-communicated privacy and cybersecurity frameworks.

The most critical priority is the digitisation of health records. Integrated care relies on electronic health records, which are essential for efficient, accurate, timely and patient-centred care. Without a shift to electronic records, the fragmented healthcare system will not cope with increased volumes of data and the emergence of digital technologies, nor with personalised healthcare.

To underpin this transition, ATSE recommends:

- Conversion to electronic health records should be mandatory for all healthcare providers in Australia.
- The Australian Government should lead the development of interoperability standards for digital health.
- A public campaign should be launched to improve take-up and awareness of electronic health records
- Patients should retain the choice to opt out of having their information shared to a personal health record, such as My Health Record
- Creating a national framework to strengthen health data privacy and usage, and build social license for the transition.

We need the support of research and industry to build a future healthcare system based on digital technology, and have identified three critical questions for the next decade:

- How can existing and new technologies be integrated within different health settings or contexts? How do we 'join up' the health data ecosystem?
- How can we best build public confidence in digital health technologies?
- How can we shift perspective to value data, rather than regarding it as a burden?



RECOMMENDATION 2

Improve equity of access to healthcare through technology

Use of telehealth and AI-enabled devices must increase to support equitable outcomes for people living with disadvantage, to improve access and reduce financial burden.

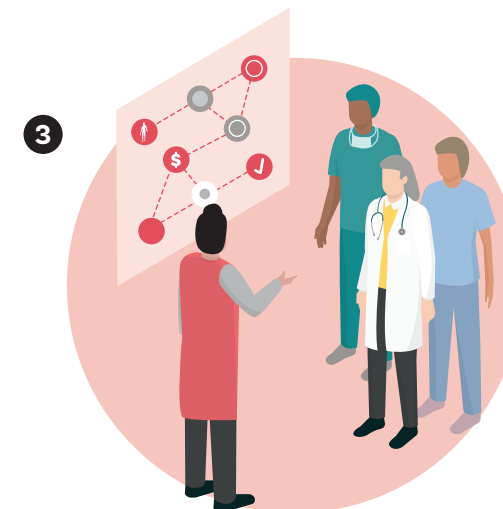
Embracing new technologies will be vital to ensure an inclusive wellness system that extends to regional areas, Aboriginal and Torres Strait Islander communities, and disadvantaged urban communities. Distance, communication difficulties, financial resources, education levels, accessibility, and shortages of healthcare workers all serve to disadvantage marginalised communities. Mobile and telehealth services can easily and inexpensively help Australians overcome most of these obstacles and access the best available care in a timely way.

To improve equity of access to healthcare for all Australians, ATSE recommends:

- Incentivising the adoption of technologies designed to improve equity of access to healthcare. Priority should be given to technologies that support integrated care models, such as telehealth, wearable monitors, apps, and AI-assisted reminders and scheduling.
- The healthcare sector should also expand its adoption of mobile technologies, which can be used effectively as a low-cost intervention and to deliver healthcare services to people when and where they need them.

We need to understand more about how these technologies will impact healthcare in Australia, with the most critical questions for the next decade being:

- How do remoteness, financial and cultural factors affect uptake of new health technology by patients and healthcare providers?
- What can be done to ensure health data is appropriately representative of minority groups in the population?



RECOMMENDATION 3

Support the existing and future healthcare workforce in the transition

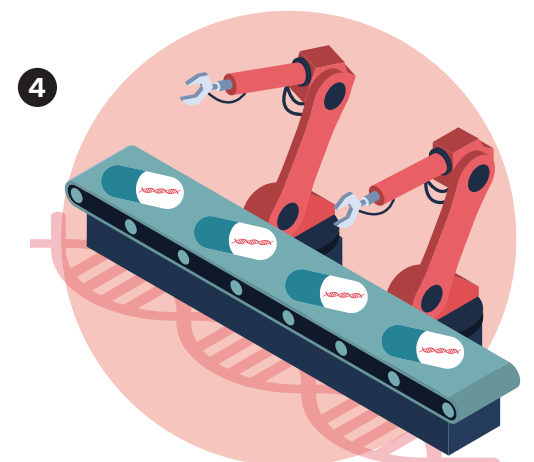
Existing and new members of the national healthcare workforce must be supported and empowered to retrain, adapt and develop skills to use new technologies.

Empowering the workforce to maximise the benefits of new technologies will result in increased efficiency, better decision-making and improved outcomes. To transition to a focus on prevention and wellness, the workforce needs to develop new skills. ATSE recommends:

- All levels of government should provide ongoing support for the healthcare workforce to retrain, adapt and develop.
- Universities and VET institutions, in collaboration with appropriate industry and professional peak bodies, should train future healthcare workers in digital health literacy
- Organisations responsible for continuous professional development should include new technologies and digital literacy in their curricula to upskill existing healthcare professionals
- State and territory departments of education should strengthen the content and teaching of health literacy, digital literacy, science, technology, engineering and mathematics

Digitisation will hugely disrupt the healthcare workforce in the coming decade. To support the transition, we need to know:

- How do future skill, job, infrastructure and technology needs map on to existing incentives and accreditation processes?
- How will automation and AI affect the healthcare workforce, both current and future?



RECOMMENDATION 4

Provide targeted support for a thriving health technology sector

Government must support investment in improving pathways to commercialisation for Australian-developed medical technology.

The research translation sector needs a boost to provide the healthcare system with its future tools. Despite generous government support, Australia's position as a world leader in health technology research is at odds with its poor record in translation and commercialisation. Government, academia and industry have a responsibility to ensure that there is support for – and a clear path to develop – timely, cost-effective and commercially successful products from initial research.

ATSE recommends:

- The Australian Government take a strategic approach to funding areas of high potential growth with strong market need and commercial potential.
- Research institutions, including universities, provide coaching in product development and commercialisation pathways to healthcare sector researchers.
- Commercialisation success should be substantively taken into account when awarding peer-reviewed competitive grants, along with publication and patent records.
- Governments should use their purchasing power to drive commercial opportunities, support innovation, and actively encourage value-based, preventative care.

To provide our MedTech industry the best competitive chance, we need to look to the global market:

- How can international best practice in policy and regulatory and investment frameworks be applied in an Australian setting?
- What government support would provide access to investment, skills and global supply chains?

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This investigation is part of a major three-year research project, funded by the Australian Research Council, examining the technology readiness of different Australian industry sectors. The first report examined the transport sector, this second looks at healthcare and the third will be on waste and the resource recovery sector.

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