PMAC | PRINCE MAHIDOL AWARD CONFERENCE 2025

A National Policy Roadmap for Artificial Intelligence in Healthcare

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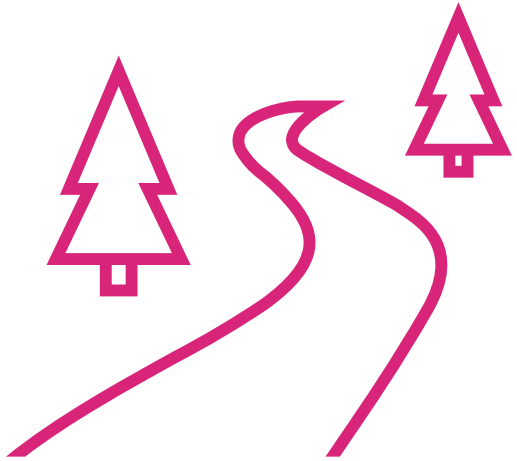
The Australian Alliance for AI in Healthcare

- The **Australian Alliance for Artificial Intelligence in Healthcare (AAAiH)** is a peak body that brings together over **100 national** and international partners and stakeholders in academia, government, consumer, clinical, industry organisations and other peak bodies.
- **Formed in 2018**, it supports the accelerated adoption of AI-enabled healthcare in Australia.
- Recent focus has been in strategic areas including **Safety, Quality and Ethics, and Workforce.**

What we wanted from the Roadmap?

- Seed the creation of a formal **national plan** by end of 2025 to create an **AI-enabled** Australian **healthcare system**.

- Identify short term achievable priorities that plug urgent gaps, and wherever possible **exploit existing structures and processes and organisations**.



Australian Alliance for Artificial Intelligence in Healthcare

A National Policy Roadmap for Artificial Intelligence in Healthcare

MACQUARIE University

CSIRO Australian e-Health Research Centre

RMIT UNIVERSITY

digital health crc

AIDH AUSTRALASIAN INSTITUTE OF DIGITAL HEALTH

How should artificial intelligence be used in Australian health care? Recommendations from a citizens' jury

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The known: Artificial intelligence (AI) will transform health care. Guidance regarding its use and governance is urgently needed, and should reflect public expectations about the technology.

The new: In a robust citizens' jury process, a diverse sample of Australian citizens recommended a national charter for health care AI and an independent decision-making body. They also emphasised that rigorous evaluation, fairness and patient rights, clinical governance and training, technical and data requirements, and community education and involvement were also critical areas requiring attention.

The implications: Australians welcome clinical applications of AI, provided that strong governance is in place. A coherent national approach is needed, as well as training, evaluation, and oversight in clinical practice.

Abstract

Objective: To support a diverse sample of Australians to make recommendations about the use of artificial intelligence (AI) technology in health care.

Study design: Citizens' jury, deliberating the question: "Under which circumstances, if any, should artificial intelligence be used in Australian health systems to detect or diagnose disease?"

Setting, participants: Thirty Australian adults recruited by Sortition Foundation using random invitation and stratified selection to reflect population proportions by gender, age, ancestry, highest level of education, and residential location (state/territory; urban, regional, rural). The jury process took 18 days (16 March – 2 April 2023): fifteen days online and three days face-to-face in Sydney, where the jurors, both in small groups and together, were informed about and discussed the question, and developed recommendations with reasons. Jurors received extensive information: a printed handbook, online documents, and recorded presentations by four expert speakers. Jurors asked questions and received answers from the experts during the online period of the process, and during the first day of the face-to-face meeting.

Main outcome measures: Jury recommendations, with reasons.

Results: The jurors recommended an overarching, independently governed charter and framework for health care AI. The other nine recommendation categories concerned balancing benefits and harms; fairness and bias; patients' rights and choices; clinical governance and training; technical governance and standards; data governance and use; open source software; AI evaluation and assessment; and education and communication.

In January 2024, the Australian government published its interim response to a consultation on "safe and responsible" artificial intelligence (AI) in Australia.[1] The consultation had the aim of determining how to govern this transformational technology in a manner that preserves public trust, mitigates risk, and supports safe and responsible practices. In clinical care, AI could bring great benefits and serious risks.[2] Australia currently lags behind other countries in health care AI development, deployment, and governance,[3] and health care-specific strategies are needed,[4,5] as recognised by the Australian

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Australian Centre for Health Engagement, Evidence and Values

Photo: Belinda Fabrianesi

1. AI SAFETY, QUALITY, ETHICS AND SECURITY	2. WORKFORCE	3. CONSUMERS

Priorities

Ensure patients receive safe, effective, and ethical care from AI healthcare services which have been developed in accordance with ethical principles, a safety framework and are appropriately monitored post-implementation	Understand knowledge gaps in the workforce and then train the current and future healthcare workforce in the use and implementation of AI-enabled healthcare services.	Help all Australians, including vulnerable consumers, safely use AI to navigate the complex healthcare system and be active participants in the management of their own care and wellbeing.

Key Recommendations

1. To better coordinate and harmonise the responsibilities and activities of those entities responsible for oversight of AI safety, effectiveness, and ethical and security risks, **establish a National AI in Healthcare Council**.	6. Support the development of **a shared code of conduct for the safe, responsible and effective use of AI** by health professionals and organisations.	8. Co-design and collaboratively implement a **nationally accessible program for digital health literacy** to inform the public of AI's benefits, risks and safe use, and increase public trust and confidence in AI.
2. To ensure AI in healthcare is safe, effective and therefore does not harm patients, it needs to be **developed and deployed within a robust risk-based safety framework**.	7. Assist professional bodies in accessing expertise and prior models to support the **development of profession-specific codes of practice for the responsible use of AI**.	9. Work together with Aboriginal and Torres Strait Islander communities to develop a **mechanism that collates health-related data for use in AI in a culturally safe and trusted manner** within their control, in line with principles of Indigenous Data Sovereignty.
3. For accreditation, healthcare organisations using AI should demonstrate that they meet **minimum AI safety and quality practice standards.**		10. Ensure **professional codes of conduct and training emphasises the role of clinicians in educating patients** about the responsible use of AI, as part of a commitment to shared decision making.
4. Urgently **communicate the need for caution in the clinical use of generative AI** when it is currently untested or unregulated for clinical settings, including the preparation of clinical documentation.		
5. Ensure the **national AI ethical framework** from the Department of Industry, Science and Resources supports the deployment of value-based clinical and consumer AI in routine practice.		

4. INDUSTRY	5. RESEARCH

Priorities

Support development of the local healthcare AI industry to become globally competitive and deliver significant clinical and economic benefits to Australia.	Ensure the development and deployment of AI in healthcare is based on the most up to date evidence, and that Australia retains world-class sovereign capability to use AI and support industry in the national interest.

Key Recommendations

11. Develop **national clinical AI procurement guidelines** in partnership with the jurisdictions, health services and industry.	16. Provide **significant targeted support for healthcare AI research** that builds sovereign capability and can translate to improved priority health services and support for industry.
12. Provide **support and incentives for local industry** (and SMEs in particular). a. Consider **expanding the R&D Tax incentives scheme to cover regulatory compliance** costs. b. Ensure the pathway to reimbursement for AI-based clinical services via Medical Services Advisory Committee (MSAC) is understood. c. Consider additional funding to support new products to come to market.	
13. Develop mechanisms to provide industry with ethical and consent-based **access to clinical data** to support AI development and leverage existing national biomedical data repositories.	
14. Support the development of a **National AI Capability Centre in Healthcare** (NAICCH) to assist industry (and SMEs in particular) to bring products to market.	
15. Assist future policy by **identifying emerging AI markets and opportunities**.	

Vision

An AI-enabled healthcare system delivering personalised healthcare safely, ethically and sustainably.

Mission

A fully funded national plan by 2025 designed to create an AI-enabled Australian healthcare system capable of delivering personalised healthcare, safely, ethically and sustainably supported by a vibrant AI industry sector that creates jobs and exports to the world, alongside an AI-aware workforce and AI-savvy consumers.

AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

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Literature Review and Environmental Scan Final Report

May 2024

AI Implementation in Hospitals: Legislation, Policy, Guidelines and Principles, and Evidence about Quality and Safety

https://www.safetyandquality.gov.au/our-work/e-health-safety

Artificial intelligence (AI) scribes

Page last updated 25 July 2024

What is an 'artificial intelligence scribe'?

An artificial intelligence (AI) scribe is a tool that can automate parts of the clinical documentation process for a medical practitioner. AI scribes can convert a conversation with a patient into a clinical note, summary, or letter that can be incorporated into the patient's health record.[1] AI scribes are also referred to as digital scribes, virtual scribes, ambient AI scribes, AI documentation assistants, and digital/virtual/smart clinical assistants.

An AI scribe cannot completely replace the work a general practitioner (GP) undertakes to prepare clinical documentation. The output of an AI scribe must be carefully checked for accuracy by a GP, as it can produce errors and inconsistencies. GPs are ultimately responsible for ensuring that the patient health record is accurate and up-to-date.

How do AI scribes work?

Rapid advancements in AI, automatic speech recognition (ASR), and natural language processing (NLP) over the last five years have seen AI scribes evolve from relatively simple speech-to-text services into sophisticated tools to assist with the preparation of clinical notes, discharge summaries, treatment summaries, and referral letters.

AI scribes use a microphone to capture speech that is taking place during a clinical encounter, then convert the audio data into text. The audio data should not be stored by the software vendor, and therefore it cannot be accessed by either the medical practitioner or the patient later. Using the text transcription and instructions received by the user, the AI scribe leverages the connections between the words and concepts on which it was trained to construct the clinical documentation for use in the patient's health record.[2]

GPs should carefully review the output prepared by an AI scribe for false positives and negatives and edit the text as required (adding any missing information or omitting incorrect information). The GP can then add their own notes and observations, and in some cases attach documents, before signing off on the documentation.

Meeting your professional obligations when using Artificial Intelligence in healthcare

Resources

Joint statement on professional responsibilities for prescribing and dispensing medicines

Meeting your professional obligations when using Artificial Intelligence in healthcare

Case studies

Further information about AI

Checklist for practitioners handling feedback and complaints

Code of conduct

Protecting patients from sexual misconduct in healthcare

Advertising hub

LGBTIQA+ Communities

Social media: How to meet your obligations under the National Law

Artificial Intelligence (AI) technology is rapidly becoming integrated into many areas of healthcare. This guidance explains how existing responsibilities in National Boards' codes of conduct apply when practitioners use AI in their practice.

This guidance will be updated regularly to reflect new developments in AI and share updates from other regulators.

Artificial intelligence in healthcare

AI can be defined as 'computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision making, and translation between languages'[1]. Some AI tools available for health practitioners are designed specifically for healthcare and have been developed for a therapeutic purpose, for example, to diagnose and treat patients or clients. Many more are general purpose and are being applied in a healthcare setting. Some professions are increasingly using new AI such as medical scribing tools to support workload management and efficiency in practice to develop or edit documents.

There are different types of AI including machine learning which encompasses generative AI, natural language processing and computer vision. Further information about each type can be found on the frequently asked questions page.

Key principles for health professionals

1. Accountability: You are responsible for delivering safe and quality care, not the manufacturer or supplier

2. Understanding: You need to understand enough about the AI to use it safely and meet professional obligations

3. Transparency: Inform patients and clients about use of AI and consider any concerns raised

4. Informed consent: Involve patients in decision to use AI that require input of their personal patient data

5. Ethics and legal: Ensure confidentiality, privacy and avoid unconsented use of data

Thank you!

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Join us to study AI in health care

- real-world use
- human-AI interaction design
- patient safety
- ethics
- AI in resource constrained settings
- environmentally sustainable health systems

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