21 October 2024

Consultation on Safe and Responsible AI in Health Care Legislation and Regulation Review
Department of Health and Aged Care
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To whom it may concern,

RE: Consultation on Safe and Responsible AI in Health Care

The Australian Healthcare and Hospitals Association (AHHA) welcomes the opportunity to contribute to the Department of Health and Aged Care's consultation on the benefits, risks and possible regulatory solutions to enable the safe use of AI in health care settings across Australia.

For more than 70 years, AHHA has been the national voice for public health care, maintaining its vision for an effective, innovative, and sustainable health system where all Australians have equitable access to health care of the highest standard when and where they need it. It is a voice that respects and brings together the evidence, expertise, and views of each component of the system, recognising that siloed views will not achieve the outcomes-focused, value-based health care system Australians deserve.

There are inherent risks and benefits to the use of Artificial Intelligence (AI) in healthcare. Appropriate use of AI will be an important enabler to driving value-based health care and ensuring sustainability of health systems. With the volume of data held within the health sector, AHHA recognises the opportunity that AI holds for the provision of high-quality, high-value care. Realising this opportunity, and mitigating the potential harms of irresponsible and rushed AI implementation, requires strong governance to overcome the cultural and structural challenges in health care and the organisation of health systems that impact the data from which AI models will be built and the environments into which they will be employed. Doing so can enable and drive the equitable and sustainable delivery of the health outcomes that matter to people and communities, made possible with technology.

Low-Value Care
Every year, the Australian healthcare system improves the health and lengthens the lives of many Australians. Yet, waste is endemic within the system, characterised by low-value services and potentially avoidable healthcare use. Estimates suggest that only 60% of healthcare is delivered in-line with evidence-based guidelines, while 30% is wasteful or of low-value, and 10% is care that leads to harm[1].

Low-value care fundamentally undermines the provision of value in healthcare, recognised as unnecessary care which:

- Duplicates or promotes redundant testing, treatments and procedures,
- Lacks evidence, and has the potential to cause harm, or
- Costs of the intervention do not provide proportional added benefits[2].

Digital health and data are key components of achieving high-value care, however, successfully bringing together data from diverse sources to ensure the right information is in the hands of the right person at the right time for informed decision-making, has remained a significant challenge. AI provides an opportunity to achieve this, moving beyond collecting, pulling and storing data as digital system have previously done, to support the triangulation of data as evidence to generate real-time insights and drive the outcomes that matter to people and communities

Further still, since every test, service and procedure ordered, whether through human or AI decision-making, has a carbon footprint, low-value care provision also holds an environmental and economic cost. It has been estimated that, in Australia, financial savings from reducing low-value treatments in public hospitals could amount to $4billion per year[3], while the environmental cost has been estimated at over 8000 kilotonnes of CO_2e emissions saved per year through a reduction in low-value care provision[4].

However, without sufficient preparation and planning to localise and adapt AI systems to understand the needs of people and communities, there is risk that the provision of low-value care may increase. Existing inequities and systemic biases reflected in the data can risk increasing low-value care for individuals and communities. This could further entrench inequities and biases and increase the carbon footprint of low value care[5].

Sustainability

The potential for improving health outcomes and driving value through AI is significant. Yet, and beyond the previously described environmental costs arising from the provision of potentially AI driven low-value care, the associated data storage and resource-intensive machine learning processes generate substantial carbon emissions[6].

Evidence has indicated that the energy use and emissions associated with AI are largest in the preliminary training and development of AI algorithms[7]. Importantly, this is during the period most crucial to challenging systemic biases and establishing appropriate and informed responses to health data for value-based decision-making. Even once completed, AI learning models consume large amounts of network connectivity bandwidth in their operation, presenting an additional sustainability challenge to rural and remote health services and systems in Australia.

Critically, if AI is implemented in healthcare to drive improvements in health, but inadvertently contributes to the climate crisis, then the value of AI is undermined by the consequential effects of climate change on the health and wellbeing of people and communities.

Particularly as the use of AI is scaled up in health systems, it is imperative to embed goals of sustainability through adaption and mitigation strategies to promote shifting towards ‘Green AI’, which use lower-energy hardware and ensures that tracking of energy consumption and carbon emissions is transparent[8].

Governance and leadership

AI is not inherently 'good' or 'bad'. While it offers significant potential advantages in healthcare, there are also substantial risks associated with its implementation. The challenge of AI lies in the consequences of getting it wrong – that is – the harm done to people and communities. But this is a challenge that health systems and services deal with daily in their decision-making, from the procurement of resources to education and training policies. What drives navigation and management of these risks in care delivery is effective leadership and robust governance. The same framework must be applied to the implementation and use of AI in health care.

Healthcare executives are responsible for the oversight and outcomes of the organisation, and accountable for the systems, practices and decisions made throughout the organisation that ensure reliable results. In the use of AI, this would include decisions made by AI and the systems and controls established to direct and constrain AI functionality. Realising this requires leadership to accept accountability for the use of AI and its outcomes, rather than attributing responsibility to the AI system itself.

This would include, for example, embedding organisational culture and values into the AI system in training to enable continuity of care with preexisting standards. Much of a service's culture and values are implicit, embedded within the behaviour or staff through policies and processes. An AI system has no equivalent of human understanding of context, of common sense, morality or knowledge to guide its output and navigate away from systemic biases and inequities. Driving a value-sensitive design for outcomes-based decision-making requires committed and sustained governance and oversight into technical system development and ongoing review[9].

It has been estimated that nearly 80% of digital technology projects in health care fail due to uncertainty, abandonment, and an unwillingness to adopt digital health interventions to support implementation[10]. Given the many risks associated with *successfully* establishing AI in healthcare settings, clearly identifying the full risk appetite and digital maturity of a health system or service through effective governance and executive buy-in is paramount to avoiding the consequences of poorly implemented AI.

By prioritising responsible and accountable governance, we can enable the equitable and sustainable integration of Artificial Intelligence into the health care sector to realise and leverage the benefits of technology and drive the health outcomes that matter to people and communities.

We would be happy to discuss any aspect of this response further.

Yours sincerely,

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Chief Executive

[1] Braithwaite J, Glasziou P, Westbrook J (2020) 'The three numbers you need to know about healthcare: the 60-30-10 Challenge', *BMC Med*, 18(1): 102, doi: https://doi.org/10.1186/s12916-020-01563-4

[2] Hoban E, Haddock R and Woolcock K (2021) 'Transforming the health system for sustainability: environmental leadership through a value-based health care strategy', *Deeble Issues Brief No 41.* Australian Healthcare and Hospitals Association, Canberra, Australia.

[3] Pickles K and Haddock R (2022) 'Decarbonising clinical care in Australia', *Deeble Issues Brief No 48.* Australian Healthcare and Hospitals Association, Canberra, Australia.

[4] *Ibid.*

[5] Hoban E, Lewis S, Woolcock K and Haddock R (2024) 'Transforming for value-based health care: Lessons from NHS Wales', *Deeble Perspectives Brief No 30.* Australian Healthcare and Hospitals Association, Canberra, Australia.

[6] Hoban E, Haddock R and Woolcock K (2021) 'Transforming the health system for sustainability: environmental leadership through a value-based health care strategy', *Deeble Issues Brief No 41.* Australian Healthcare and Hospitals Association, Canberra, Australia.

[7] Bloomfield P, Clutton-Brock P, Pencheon E, Magnusson J and Karpathakis K (2021) 'Artificial Intelligence in the NHS: Climate and Emissions', *The Journal of Climate Change and Health*, 4(1): 100056, doi: https://doi.org/10.1016/j.joclim.2021.100056

[8] Hoban E, Haddock R and Woolcock K (2021) 'Transforming the health system for sustainability: environmental leadership through a value-based health care strategy', *Deeble Issues Brief No 41.* Australian Healthcare and Hospitals Association, Canberra, Australia.

[9] London A (2022) 'Artificial Intelligence in medicine: Overcoming or recapitulating structural challenges to improving patient care?', *Cell Rep Med*, 3(5): 100622, doi: https://doi.org/10.1016%2Fj.xcrm.2022.100622

[10] Reddy S, Nguyen L, Cooper P, Huggins K, Ugalde A, Peeters A, Crowe S, Bhoyroo R and Haddock R (2023) 'Digital maturity models for primary health care', *Deeble Perspectives Brief No 26*. Australian Healthcare and Hospitals Association, Canberra, Australia.