# AI in clinical decision making

## Supported by NAHSTIG

### Key Points

- AI in clinical decision making versus clinical decision support
- Trust and accountability in AI-assisted healthcare
- Data privacy, sovereignty, and consent considerations
- Sustainability models for AI implementation in healthcare
- Equity concerns in AI adoption
- Education and training needs for healthcare professionals
- Evaluation frameworks for measuring AI impact

### Discussion Items

*AI as Decision Support vs Decision Maker*

The group extensively discussed the distinction between AI for clinical decision making versus clinical decision support. There was strong consensus that AI should primarily serve as a support tool rather than an autonomous decision maker. Participants emphasised that clinical accountability must remain with healthcare professionals.

- Clinicians expressed concern about potential deskilling of the workforce if AI takes over decision-making functions, particularly for newer generations of healthcare professionals who are growing up with these technologies.
- Several participants noted that AI systems currently lack the human touch and contextual understanding necessary for complete clinical decision making.
- The group discussed how AI could help address administrative burden, which currently consumes approximately one-third to half of GP time according to surveys.
- Participants highlighted that different types of AI exist beyond large language models, including rule-based systems that can be more predictable and explainable.

*Trust, Accountability and Ethics*

Trust emerged as a central theme throughout the discussions, with participants exploring how to build trust in AI systems among both clinicians and patients.

- Accountability was identified as a critical concern, with strong agreement that clinicians must retain ultimate responsibility for decisions, even when AI tools are used.
- The group discussed the challenge of explaining AI decisions, particularly with "black box" systems where the reasoning process isn't transparent.
- Several participants raised concerns about how the Health and Disability Commission might handle sentinel events involving AI-assisted decisions.
- The group noted that patients generally trust their clinicians to make appropriate decisions about technology use, but this trust could be undermined if clinicians themselves don't trust the AI tools.

*Data Privacy and Sovereignty*

Participants explored the complex issues surrounding data privacy, consent, and sovereignty in the context of AI development and implementation.

- The Privacy Commissioner's recommendation for offline AI systems was discussed, along with the need for robust privacy guidelines and procedures.
- Participants debated the challenges of de-identification, noting that with sufficient data, AI can potentially re-identify supposedly anonymised information.
- Cultural perspectives on data sharing were explored, with some participants noting that different cultures have varying approaches to individual versus collective data ownership.
- The group discussed the tension between protecting New Zealand data sovereignty while still benefiting from international AI developments and research.

*Sustainability and Economic Models*

The economic sustainability of AI implementation in healthcare was identified as a significant challenge, particularly for smaller organisations and innovations.

- Charlene Tien Smith introduced the concept of "digital FTE" as a potential framework for thinking about sustainability of AI tools in healthcare.
- Participants discussed the high costs associated with AI development and implementation, noting that many promising innovations fail due to lack of sustainable funding models.
- The group explored potential funding approaches, including the possibility of monetising de-identified data to support system improvements.

- Several participants highlighted the need for collaboration across healthcare sectors to maximise resources and avoid duplication of efforts.

*Equity and Access*

Concerns about AI potentially widening existing healthcare inequities were prominent in the discussions.

- Participants noted that regions and populations with lower digital literacy or less access to technology might be left further behind as AI advances.
- The group discussed how AI systems trained on biased or incomplete data sets could perpetuate or amplify existing healthcare disparities.
- Several participants highlighted that the benefits of New Zealand AI innovations often flow overseas to wealthier markets rather than benefiting local populations.
- The need for targeted funding to support AI implementation in underserved areas was identified as a potential approach to addressing equity concerns.

**Next Steps**

- Develop core principles for AI use in healthcare, focusing on patient consent, data sovereignty, privacy, security, and clinical accountability.
- Create education and training programmes to help clinicians understand how to effectively and critically use AI tools.
- Establish evaluation frameworks to measure the impact of AI on health outcomes and system performance.
- Explore sustainable funding models for AI implementation, potentially including the concept of "digital FTE."
- Investigate ways to fine-tune international AI models with New Zealand-specific data while maintaining data sovereignty.

**Challenges**

- Balancing innovation with appropriate safeguards and validation processes
- Addressing the potential for AI to widen existing healthcare inequities
- Developing sustainable funding models for AI implementation
- Managing the tension between data privacy and the need for comprehensive data sets
- Preventing deskilling of the healthcare workforce as AI tools become more prevalent
- Building trust in AI systems among both clinicians and patients
- Creating appropriate regulatory frameworks without stifling innovation

**Additional Notes**

The meeting reflected a mix of excitement about AI's potential and caution about its implementation. Participants from various healthcare disciplines brought different perspectives, with some more enthusiastic about rapid adoption and others more concerned about potential risks. There was particular interest in how AI might help address workforce shortages and administrative burden, while still maintaining high-quality, patient-centred care. The group acknowledged that AI in healthcare is evolving rapidly, and what seems cutting-edge today may be standard practice within a few years. This underscores the importance of developing flexible frameworks that can adapt to technological changes while maintaining core principles around patient safety, privacy, and clinical accountability.