



AI in telehealth

Supported by NZ Telehealth Forum and Resource Centre

Key Points

- Future vision for telehealth services utilising AI in 10 years •
- Steps needed to achieve the envisioned future of telehealth
- Role of regulatory bodies in the future of telehealth and AI
- Ranking of priorities for implementing telehealth with AI •

Discussion Items

Envisioning Telehealth with AI in 10 Years:

The workshop used a nominal group technique to gather ideas about what participants would want from telehealth services utilising AI in 10 years. Participants were encouraged to think broadly about telehealth, defined as "the provision of healthcare using digital technology where the provider and recipient are separated by time and/or distance." This definition encompasses video consultations, phone calls, emails, text messages, remote patient monitoring, and asynchronous communications.

Participants envisioned several key features for future telehealth services:

- Complete health records accessible during telehealth consultations, with patients having control over their data and its visibility
- Integration of personal health data from wearables and other devices with clinical records
- Al-assisted triage and re-triage in real-time, particularly for patients with chronic conditions
- Proactive rather than reactive care, with AI monitoring identifying issues before patients themselves notice symptoms
- Al agents that understand disease management models and can interface with supply providers
- Support for patients with low digital or health literacy to navigate the healthcare system
- Personalised health recommendations based on individual profiles

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Steps to Achieve the Future Vision:

Participants identified several crucial steps needed to realise their vision for telehealth with AI:

Data and Infrastructure:

- Creating a shared electronic health record with individual ownership and control
- Establishing baseline individual data collection to understand what's normal for each person
- Developing infrastructure in homes for monitoring vital signs and other health parameters
- Ensuring interoperability between systems to allow seamless data sharing

• Addressing the digital divide to ensure equitable access to telehealth services

Trust and Governance:

- Building social licence through co-design with consumers and healthcare professionals
- Developing mechanisms to mitigate bias in Al systems
- Creating clear consent systems that respect patient autonomy
- Establishing adequate funding models to support innovation and implementation
- Implementing robust auditing and regulatory compliance mechanisms

Workforce Considerations:

- Ensuring healthcare professionals are well-supported, adequately paid, and not overworked
- Providing education and training for the workforce to effectively use AI tools
- Developing hybrid care models that combine AI capabilities with human expertise

Role of Regulatory Bodies:

The discussion about regulatory bodies highlighted several important considerations:

- Current regulatory frameworks may be insufficient for the pace of AI development
- There may be a need for new regulatory bodies specifically focused on AI in healthcare
- Regulatory bodies need to be agile and responsive to rapidly evolving technology
- International coordination is essential as AI doesn't respect national boundaries
- Regulation should focus on ensuring safety while not stifling innovation
- Auditing compliance with regulations is as important as setting the regulations themselves





One participant noted that "a bot or an LLM can't sign a Hippocratic oath," highlighting the fundamental challenges in regulating AI in healthcare. Concerns were raised about the quality of AI-generated content and decisions, with examples of AI confidently providing incorrect information.

Ranking of Priorities:

After discussing the steps needed to achieve their vision, participants ranked the following priorities:

- 1. Adequate funding
- 2. Addressing the digital divide
- 3. Systems interoperability
- 4. Mitigation of imperfect data
- 5. Consent systems
- 6. Understanding what data is required to create individual profiles
- 7. Auditing and regulatory compliance
- 8. Social licence

Interestingly, while a shared electronic health record was mentioned by all groups, it consistently ranked lower in priority, suggesting participants viewed other foundational elements as more urgent prerequisites.

Next Steps

- Continue exploration of co-design principles with diverse stakeholders
- Develop frameworks for data sharing and interoperability
- Investigate approaches to mitigate bias in AI systems
- Consider new regulatory frameworks specific to AI in healthcare
- Explore funding models to support telehealth and AI implementation







Challenges

- Ensuring AI systems don't perpetuate or amplify existing biases in healthcare
- Building trust in AI systems among both healthcare providers and patients
- Developing regulatory frameworks that can keep pace with rapidly evolving technology
- Addressing the digital divide to ensure equitable access to telehealth services
- Managing the quality and accuracy of AI-generated content and recommendations
- Balancing automation with the need for human oversight and intervention
- Ensuring data privacy and security across jurisdictions

Additional Notes

- The workshop used mentimeter to collect and rank ideas anonymously
- Multiple tables discussed similar topics, with consistent themes emerging across groups
- Participants expressed concerns about the current state of AI, with examples of ChatGPT providing confidently stated but incorrect information
- Some participants advocated for local AI models that could run on personal computers rather than in the cloud, to address privacy concerns
- The definition of telehealth used was deliberately broad to encourage creative thinking
- The 10-year timeframe was chosen to encourage participants to think beyond immediate constraints

