

Aide-Mémoire

Use of AI-created Clinical Documentation

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To:	Hon Simeon Brown, Minister of Health		
From:	Jon Herries, GM New Technology & Innovation, Data & Digital		
Copy to:	Hon Dr Shane Reti, Minister of Science, Innovation and Technology		
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Attachments	
Appendix 1:	Diagram of how the business process changes with the Tuhi App.
Appendix 2:	Videos of the Tuhi App

Purpose

1. This Aide-Memoire provides you with background and a current state update regarding the “*Tuhi*” Artificial Intelligence (AI) app. Videos of how the application looks and works are in Appendix 2.

Summary

2. The organisation has been developing the Tuhi App, an application that is designed to improve the productivity and experience for clinicians and consumers by using AI to write consultation notes based on the audio recording of the consultation.
3. It is currently a mobile iOS app and a web application that has been built in partnership with Awa Digital, a New Zealand based developer.
4. The Tuhi App has been developed in response to the enthusiasm shown from clinicians to use applications to improve their productivity and work experience. The app has been designed to address privacy, security and data concerns that have been raised regarding current overseas developed commercial products.
5. The nature of the Tuhi App, having been developed by Health New Zealand | Te Whatu Ora (Health NZ), has addressed the obvious risks around privacy, security and commercial incentives by having full control of these. Further, it has helped Health NZ understand these applications and the further opportunities these present through feedback identified during testing and having direct access to the AI models in use.
6. The Tuhi App is currently in use by 52 clinicians that have together created 403 patient notes.
7. Health NZ is undertaking testing and evaluation to ensure that the Tuhi App is effective, safe and useful, as well as acceptable to patients. The evaluation will guide decisions around potential scale up beyond this initial group.

Background

8. Health NZ became aware of international developments in the field of AI-created ambient clinical note generation applications in late September 2023. These applications were demonstrated to Health NZ’s National AI and Algorithm Expert Advisory Group in October 2023 and work was begun to understand the opportunities these applications presented.
9. In January 2024, a small project commenced to investigate with Awa Digital, an independent development partner, whether it was possible to implement one of these applications for use in HNZ. The resulting application is named Tuhi – which means to write, draw or record.
10. The reasons for development of a specific application were twofold:
 - a. Concerns were identified quickly around the privacy of the international applications being used, particularly those where users did not need to pay to use the platforms. Examination of terms and conditions suggested that New Zealand users’ data would be used to develop models and other products.

- b. Health NZ realised that international providers may never have enough demand from New Zealand to justify creating local versions of their applications, which deal with our accents, use of language, use of Māori in everyday conversations and our colloquialisms or our institutions.
11. The Tuhi App entered production in September 2024, which is a relatively fast delivery of a novel solution. Having control of the Tuhi App and the associated data made it relatively easy to address social license, privacy and security concerns of these applications as our experts could examine it easily.
12. Since Health NZ began the work on the Tuhi App, more research has been released that identifies some risks, along with the benefits of these applications. The risks include a failure of clinicians to correct mistakes made by the model, and the change in nature of care delivery increasing time at the bedside. It is these risks that have led to the need to evaluate the likely benefits and risks before deciding to scale the application.
13. Given the nature of the Tuhi App, which has the potential to be used by all frontline health workers in Health NZ (i.e. anyone who writes patient documentation), appropriate education about the risks and how to maximise the value of the Tuhi App is of great importance. A diagram of how this can impact on the clinical consultation can be seen in Appendix One.
14. The Tuhi App comprises a web application for use in a browser and an iPhone app (links to view a demonstration of the Tuhi App in action are in Appendix 2). The web application runs in secure Health NZ-controlled cloud environments. The application uses My Health Account Workforce to identify the user and ensure it is a qualified health professional who logs in. The organisation has spent approximately \$150,000 with suppliers to date, plus staff time.
15. Clinicians are currently providing feedback directly to the team about bugs and new features. There is also an opportunity to provide feedback built into the Tuhi App, and also directly for each consultation, using a simple five star rating system. This allows us to identify poor and good examples, from which we are able to remove any identifying information and add to the Tuhi App to provide more context to the model, which improves the next consultations.
16. The Tuhi App currently is integrated with the National Health Index (NHI) for identifying the patient. It is not integrated into the thousands of legacy systems in Health NZ, which would add complexity and cost. Instead, the clinician uses a simple and efficient copy and paste method to insert the notes into the clinical record.
17. The Tuhi App keeps the audio recording from the consultation, which is a critical change in practice where this was previously not collected. This presents opportunities as well as concerns for patients and clinicians. Discussion with the Health and Disability Commission confirmed that complaints would often be resolved faster and more amicably if a recording was available, and that it should be retained in line with the Public Records Act 2005.
18. Using recordings in the Tuhi App to generate notes also then drives a change in how the consultation is conducted. On the one hand, what was previously thought or unsaid needs to be verbalised, which potentially drives improved transparency and rapport building. On the other hand, it may also pick up patient vulnerabilities or other risk

factors not previously noted (for example, child abuse or drug use) and / or drive an increase in visit time to explain what was previously not discussed.

Discussion

Scaling the application within Health NZ

19. Health NZ began an evaluation of the Tuhi App in November 2024 and is continuing to refine the evaluation to ensure that clinicians are able to participate, given their focus on delivering care. This evaluation will confirm productivity gains and also ongoing costs.
20. Beyond technical validation of the Tuhi App, we are gathering feedback on application performance, related to care settings and opportunities for new features from clinicians. The key questions to be answered are:
 - a. Whether New Zealanders are comfortable with HNZ using technology like this.
 - b. Whether clinicians are comfortable using technology like this, and does it improve their effectiveness (eg. productivity and quality or safety).
 - c. Can we measure how much this improves productivity and quality or safety.
21. The application now has 52 active users who have created 403 notes for patients. From a technical perspective, the scaling of the application requires little technical work. However, changes in practice have already been identified (see paragraphs 12, 17 and 18 above) and these are the largest barriers to adoption.
22. This is consistent with the experience in Tend, a digital first, multi-site, vertically integrated General Practice service who have developed their own application like Tuhi for their practices. Tend have found that some clinicians get real value from their application and are willing to change practice, while others find it challenging to accept in their practice.

Access to the application outside Health NZ

23. The Tuhi App is also likely to be of benefit to employees of our contracted health providers. GPs, community providers, Aged Care providers, ACC providers and midwives, all write clinical notes.
24. All AI tools have an increased cost over existing digital tools. Current technology costs for the Tuhi App are approximately S9(2)(b)(ii) which, while high, we expect to reduce. When seen in contrast to the 15 minutes dictating a letter and then more time validating it once it returns from the transcriptionist, there is significant potential for improvements in productivity from these applications.
25. If Health NZ decides to provide access to other users, we would look at matters such as S9(2)(g)(i) to help ensure ongoing development and costs are covered for these users.

The wider opportunity this approach suggests

26. S9(2)(g)(i)

S9(2)(g)(i)

27. S9(2)(g)(i)

28. S9(2)(g)(i)

These are currently lower priorities than making progress with clinicians to improve their notes.

Next steps

- 29. We will progress the formal evaluation of Tuhi and other selected Ambient Dictation commercially available products, while we continue to support it at current levels. We will progress the evaluation and development based on money and resources available.
- 30. The team would be happy to provide a live demonstration for you of the Tuhi App and provide an opportunity to talk to some of the users.

Appendix 1: Diagram of how the business process changes with the Tuhi App

Expected Experience – existing and new



Appendix 2: Videos of the Tuhi App

S9(2)(b)(ii)