

Discussion Paper: Navigating Digital Health Tensions in a New Zealand Health Organisation

Purpose

This discussion paper translates a leadership presentation on digital health “tensions” into a practical framing for a New Zealand health organisation. It is intended to support executive, clinical, digital, and operational leaders to discuss how digital investment, governance, implementation, and assurance can be balanced in a way that improves care, protects trust, and enables delivery at scale.

The framing is timely for New Zealand because Health New Zealand describes digital health as the use of digital technologies and accessible data to help New Zealanders manage their health and wellbeing, and is building standards-driven national capabilities such as the Digital Services Hub and shared digital health initiatives (Health New Zealand | Te Whatu Ora, n.d.; Health New Zealand | Te Whatu Ora, 2023b). At the same time, national interoperability work such as NZ Core Data for Interoperability reinforces that common data definitions and standards are now foundational to system-wide improvement rather than optional technical extras (Health New Zealand | Te Whatu Ora, 2023a).

Context for New Zealand

New Zealand health organisations are operating in a demanding environment shaped by rising public expectations, constrained resources, fragmented legacy systems, and the need to maintain privacy, cyber security, clinical safety, and equity at the same time. The current national direction also places growing emphasis on interoperability, secure information exchange, and more unified digital capabilities across the system (New Zealand Government, 2025; Te Whatu Ora, 2020).

For an individual health organisation, this means digital decisions can no longer be treated as isolated IT projects. Digital tools influence clinical workflows, information quality, service coordination, consumer experience, organisational resilience, and the ability to manage risk. In practice, leaders are often not choosing between a clearly right and clearly wrong option; they are positioning the organisation between competing but legitimate priorities.

The central proposition

The most useful leadership question is not “which side is correct?” but “where should this organisation sit on each tension now, and what evidence would justify moving?” That approach suits the New Zealand setting, where national standards and architecture are strengthening, but local organisations still need enough flexibility to respond to community needs, workforce realities, and service maturity (Health New

Zealand | Te Whatu Ora, 2023a; Te Whatu Ora, 2020).

A discussion paper for a New Zealand health organisation should therefore adopt a “sweet spot” model. This means deliberately balancing standardisation with adaptability, system direction with local ownership, and innovation with assurance. The aim is not compromise for its own sake; it is disciplined positioning based on clinical value, readiness, risk, and equity.

Five tensions for discussion

1. Technology-led vs clinical community-led

The first tension concerns where digital initiatives begin. If a programme starts mainly from the technology, the organisation may gain speed, standardisation, and architectural clarity, but may solve the wrong clinical problem or alienate frontline users. If it starts only from local clinical preference, it may gain ownership yet create fragmented workflows, inconsistent practice, and limited interoperability.

For a New Zealand health organisation, the productive middle ground is to start with a clearly defined care problem and then shape a digital response that is standardised enough to scale and safe enough to govern, while still flexible enough to fit service realities. This aligns with national expectations that digital services should be standards-driven and interoperable, while still supporting care delivery in diverse settings (Health New Zealand | Te Whatu Ora, n.d.; Health New Zealand | Te Whatu Ora, 2023a; Te Whatu Ora, 2020).

Questions for organisational discussion include:

- Which clinical, operational, or population health problem is this initiative actually trying to solve?
- Which parts of the solution must be common across the organisation or sector?
- Which parts should remain locally adaptable to support service design, clinician workflow, or community context?
- How are clinicians, consumers, and frontline staff involved in shaping usability, not just reviewing a nearly completed design?

2. Central control and command vs diffused power

The second tension concerns governance. Too much central control can suppress initiative, slow learning, and disconnect implementation from frontline realities. Too much diffusion can create duplication, uneven controls, unclear accountability, and incompatible solutions.

In the New Zealand environment, stronger national direction is increasingly

visible through common standards, shared platforms, and a more unified health system architecture (Health New Zealand | Te Whatu Ora, n.d.; New Zealand Government, 2025). A sensible organisational response is not to centralise everything, but to centralise the elements that most affect safety, interoperability, cyber security, identity, architecture, procurement principles, and risk appetite, while decentralising adaptation, sequencing, and service-level learning.

This is especially important in areas such as information sharing, cyber assurance, and integration. Where risks are systemic, control settings should be coherent. Where workflows differ by service line or locality, local leaders need room to tailor implementation within agreed guardrails.

3. Directed development vs open development

The third tension is about how change is designed and decided. Highly directed development can produce speed and clarity, particularly where non-negotiable compliance, safety, procurement, or time constraints exist. However, a process that is too closed can undermine trust and reduce adoption. Fully open development can improve legitimacy and engagement, but may drift, stall, or over-compromise.

The practical position for a New Zealand health organisation is to be explicit about what is fixed and what is open. Leaders should clearly state the required outcomes, timeframes, standards, safety constraints, and decision rights, while making the path transparent enough that stakeholders understand how choices are made. This approach is consistent with contemporary New Zealand guidance on clinical governance and clinical quality and safety (Health New Zealand | Te Whatu Ora, 2025; Health Quality & Safety Commission New Zealand, 2024).

Organisational choices are stronger when they distinguish between:

- Non-negotiables: privacy, cyber security requirements, clinical safety, interoperability standards, legal obligations, and core data definitions (Health New Zealand | Te Whatu Ora, 2023a; Te Whatu Ora, 2020).
- Adaptable: workflow sequencing, change approach, training methods, user interface refinements, and local implementation supports.

4. Market intervention vs free market

The fourth tension asks how much leaders should intervene when the market does not naturally deliver the outcomes the system needs. In health, free-market behaviour alone may not produce interoperability, shared infrastructure,

equitable access, or investment in public-good functions. Vendors and providers may optimise for local advantage rather than whole-of-system value.

These matters in New Zealand because the Health Digital Investment Plan emphasises a modern, unified and resilient digital health system, with investment in data and interoperability, technology, clinical experience, and digitally enabled models of care (New Zealand Government, 2025). For a health organisation, this suggests selective intervention: use standards, procurement rules, funding conditions, architecture review, and assurance processes where the market will not move on its own; reduce intervention where services are mature, interoperable, and demonstrably safe.

Selective intervention is particularly justified where there are high externalities, including shared cyber risk, medication safety, patient identity, referral integrity, discharge communication, and longitudinal record access. In these domains, under-standardisation creates costs and risks that are borne by the wider system, not only the local purchaser.

5. Bystander vs participant

The fifth tension concerns the organisation's role in achieving adoption. A passive stance may suit commodity services, but it is often inadequate when successful uptake depends on workflow redesign, staff capability, trust, and cross-organisational coordination. On the other hand, overly hands-on leadership can create dependency or crowd out local accountability.

A New Zealand health organisation should generally act as an active participant where adoption depends on capability building, change leadership, service redesign, and shared accountability. Health system improvement is not achieved by policy statements alone. It depends on implementation capacity, relationships, measurement, and the ability to land change in the real world.

Why clinical informatics, clinical governance and clinical safety matter

This discussion can be strengthened by making it explicitly clear that clinical informatics, clinical governance and clinical safety are not supporting functions at the edge of digital transformation. They are core disciplines that determine whether digital change creates value or introduces risk.

Clinical informatics

Clinical informatics connects service design, information flow, decision support, usability, interoperability, and benefit realisation. It helps ensure the organisation is not simply digitising existing inefficiencies. In practical terms, clinical informatics should

shape problem definition, workflow design, data standards use, user engagement, and measures of success.

Clinical governance

Clinical governance provides the structure through which leaders and clinicians share accountability for quality, safety, effectiveness, equity, and improvement. The national framework ‘Collaborating for Quality’ sets out a high-level framework for clinical governance in health services in Aotearoa New Zealand and includes practical questions for reflection and local application (Health Quality & Safety Commission New Zealand, 2024). In digital programmes, clinical governance should influence prioritisation, risk review, change approval, benefits assessment, and monitoring after go-live.

Clinical safety

Clinical safety is essential wherever digital tools influence decision-making, handover, alerts, prescribing, documentation, referral, scheduling, or access to information. A system can be technically functional and still be clinically unsafe if it produces misleading information, delays action, fragments records, or increases cognitive burden.

Clinical safety should therefore be treated as a design discipline, not just a sign-off activity. This includes hazard identification, testing against real clinical scenarios, escalation pathways, post-implementation monitoring, and clear accountability when safety issues emerge. Health New Zealand’s response to the Clinical Quality and Safety Review notes alignment with the HQSC clinical governance framework and the strengthening of governance structures and monitoring systems for quality and safety (Health New Zealand | Te Whatu Ora, 2025).

Organisational capabilities needed to navigate the tensions

The presentation’s capability model translates well into the New Zealand context. At least eight capabilities deserve attention if a health organisation wants to move from digital ambition to reliable delivery.

Capability	Why it matters for a New Zealand health organisation
Strategy	Creates a clear target state linked to service, equity, workforce, and infrastructure priorities rather than disconnected technology projects.

Capability	Why it matters for a New Zealand health organisation
Relationships	Supports trust across executives, clinicians, digital leaders, Māori and consumer partners, vendors, and regional or national stakeholders
Rapid iteration	Encourages learning through staged delivery instead of high-risk, all-at-once implementation
User experience	Improves adoption by designing around clinicians, administrators, consumers, and whānau rather than around system constraints alone
Implementation	Provides the operational capability to move from approval to sustained use in practice
Measurement	Tracks benefits, safety, adoption, and workflow outcomes rather than only milestones or go-live dates.
Change management	Recognises that uptake depends as much on people, roles, confidence, and communication as on technology
Policy levers	Uses standards, approval rules, procurement conditions, and incentives to support the desired direction

These capabilities align with the broader national environment. Health New Zealand’s digital programme highlights secure access, standards-driven integration, and shared digital services, while the interoperability agenda reinforces the importance of common data and exchange models (Health New Zealand | Te Whatu Ora, n.d.; Health New Zealand | Te Whatu Ora, 2023a; Health New Zealand | Te Whatu Ora, 2023b).

Implications for organisational governance

A New Zealand health organisation could use the five tensions as a practical governance tool for investment, prioritisation, and oversight. Rather than asking only whether a project is affordable or technically feasible, governance groups should ask where the initiative sits on each tension and whether that position is deliberate.

A useful governance approach would include:

- A requirement for every major digital initiative to articulate the care problem, expected value, and equity implications.
- Explicit identification of what must be standardised and what may be adapted locally.
- Clear clinical governance and clinical safety involvement from discovery through post-implementation review (Health New Zealand | Te Whatu Ora, 2025; Health Quality & Safety Commission New Zealand, 2024).

- Architectural and cyber review for initiatives that affect data sharing, identity, integration, or hosted services (Health New Zealand | Te Whatu Ora, n.d.; Te Whatu Ora, 2020).
- Benefits measures that include adoption, workflow performance, safety indicators, consumer impact, and data quality.
- A staged investment model that supports iteration where uncertainty is high.

Implications for cyber security and trust

For New Zealand health organisations, cyber security should sit inside this discussion paper as part of the “safety and trust” tension set, not as a separate technical stream. Increasing digital interdependence, broader data sharing, and platform integration increase both opportunity and exposure. That means decisions about architecture, standards, vendor access, identity, logging, resilience, and information governance are leadership decisions as much as technical ones (Health New Zealand | Te Whatu Ora, n.d.; Te Whatu Ora, 2020).

The key practical implication is that cyber security should be embedded early through guardrails rather than added late as an approval hurdle. This is particularly important where organisations are integrating with shared digital services, exposing APIs, or depending on external platforms within a standards-driven ecosystem (Health New Zealand | Te Whatu Ora, 2023b; New Zealand Government, 2025).

Questions for leadership discussion

The following questions adapt the presentation into prompts suitable for a New Zealand health organisation:

1. Which of the five tensions is currently creating the greatest friction in the organisation’s digital agenda?
2. Where is the organisation over-correcting toward one side of a tension, and what is that costing in quality, safety, trust, or delivery?
3. Which capability gap is most limiting progress: strategy, relationships, implementation, measurement, change management, user experience, policy levers, or informatics?
4. What should be standardised across the organisation, region, or sector, and what should remain locally configurable?
5. What is the next small move that would improve trust, readiness, and value at the same time?
6. How will clinical governance, clinical informatics, and clinical safety be embedded in every major digital initiative rather than consulted late?

7. Where do cyber security and privacy requirements need to be defined as non-negotiable guardrails to support safer innovation (Health New Zealand | Te Whatu Ora, 2023a; Te Whatu Ora, 2020)?

A suggested organisational position

A balanced position for a New Zealand health organisation would be:

- Problem-led, not technology-led.
- Standards-led, but not centrally over-engineered.
- Clinically governed, with clear safety accountabilities.
- Open enough to build trust but directed enough to make decisions.
- Interventionist where interoperability, trust, cyber security, or equity will not emerge unaided.
- Actively involved in adoption, workflow redesign, and benefits realisation.

This position is consistent with the direction of travel in New Zealand digital health, where system-wide interoperability, secure access to data, shared services, and more coherent digital investment are increasingly emphasised (Health New Zealand | Te Whatu Ora, 2023b; New Zealand Government, 2025; Te Whatu Ora, 2020).

Closing discussion statement

The main challenge for digital health leadership is not choosing an extreme. It is recognising the real tensions between ambition, adoption, assurance, and value, then positioning each initiative deliberately as conditions change. For a New Zealand health organisation, the strongest discussion is therefore not about buying more technology, but about governing digital change so that clinical value, safety, trust, interoperability, and organisational capability advance together.

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NOTE: this article is based on a presentation by Andrew Ingersoll, including the specific AI prompts given within this presentation.