



# Data science in New Zealand's health reforms - **seizing the opportunity**

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# New Zealand Health Reforms

Changes took effect on 1 July 2022

Replacement of 20 DHBs with Te Whatu Ora Health NZ

Formation of Te Aka Whai Ora The Māori Health Authority

Focus of Ministry of Health on policy and monitoring

Formation of Ministry for Disabled People

Locality planning

The screenshot shows the header of the 'Future of Health' website. The header has a dark blue background with white text. The main navigation bar includes links for 'Home / Kāinga', 'Pae Ora - Healthy futures campaign page', 'About the health reforms', and 'For the health'. Below this, there is a secondary navigation bar with links for 'Te Whatu Ora - Health New Zealand', 'Te Aka Whai Ora / Māori Health Authority', and 'Manatū Hauora (Ministry of Health)'. The main content area has a white background and features a heading 'Our new health care system' followed by a paragraph about the goals of the health reform. There are two links: 'Read more about the focus of change' and 'Read more about how the system is changing'. At the bottom, there is a purple box with white text that says 'We have a new national health system'.

**FUTURE OF HEALTH**  
**TE ANAMATA O TE ORANGA**

Home / Kāinga   Pae Ora - Healthy futures campaign page   About the health reforms   For the health

Te Whatu Ora - Health New Zealand   Te Aka Whai Ora / Māori Health Authority   Manatū Hauora (Ministry of Health)

Publications / Ngā Tuhinga   News / Ngā Karere

[Home](#) / [Pae Ora - Healthy futures campaign page](#) / Our new health care system

## Our new health care system

The goals of the health reform are designed to enable changes that will deliver an improved health system for all New Zealanders.

[Read more about the focus of change](#)

[Read more about how the system is changing](#)

**We have a new national health system**

# Why reform?



## Efficiency

No longer have 20  
different decision  
making boards

Interoperable systems

Workforce management  
and training

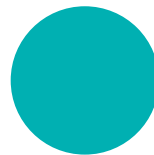


## Equity

Postcode lottery

Treaty focus

Reduce variation in care  
and outcomes

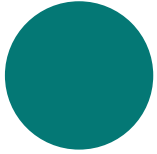


## Access

Closer to home through  
technology

Path to specialist care  
for everyone

# What could this mean for health data science?



## Data access

Standardised data systems easier to manage

National consent management

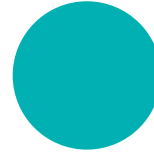
Marketplace for data and applications



## Ability to scale

Standardisation of data and systems leads to replicability

Monitoring frameworks for new technology



## Leadership

Governance for innovation

Adoption by specialty

Links beyond health

# Case studies







## Whānau like us

In the Whānau Ora model of care, priority outcomes are selected by whānau based on their own perception of need.

- Identifying the services that are most likely to be effective based on what we know about each circumstance
- Enrich the picture with the experience of community
- Build on wider PDH capability to understand “people like this”

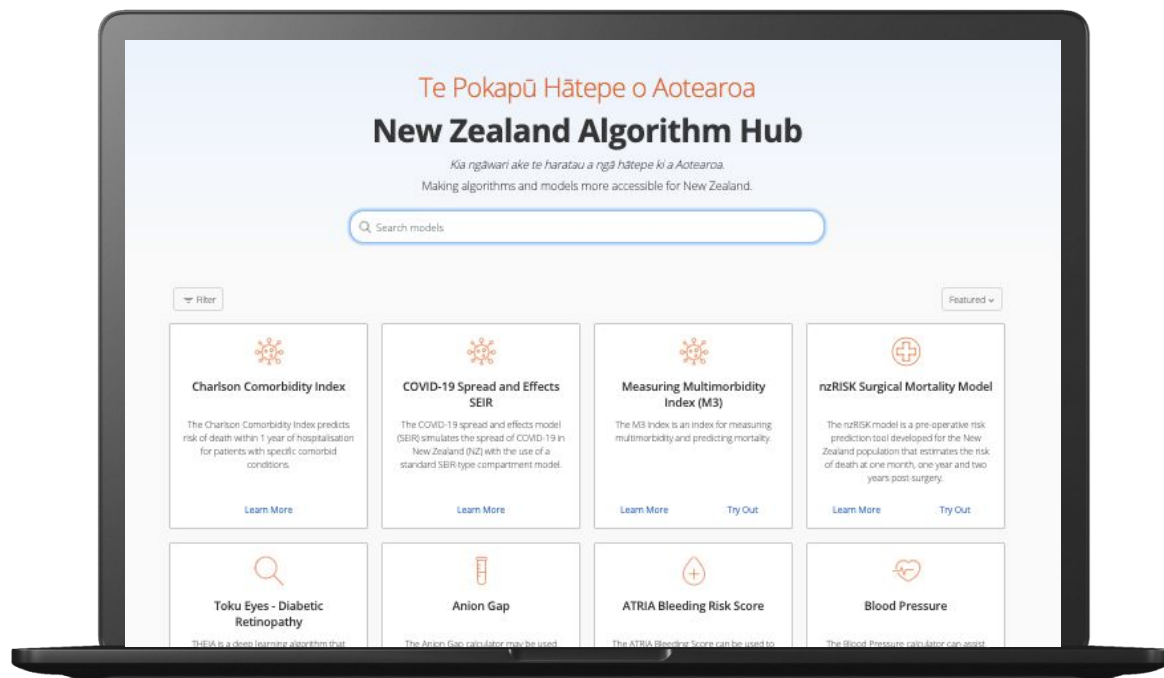
# COVID-19 Risk Score for Call Prioritisation

- Identify those most at risk of hospitalisation
- From reliable, national data
- Available at the time of a positive COVID-19 test
- In order to reach the most vulnerable first



# New Zealand Algorithm Hub

- Knowledgebase of validated content
- Three deployment channels
- Model lifecycle management
- Governance framework
- Stable, automated and scalable system

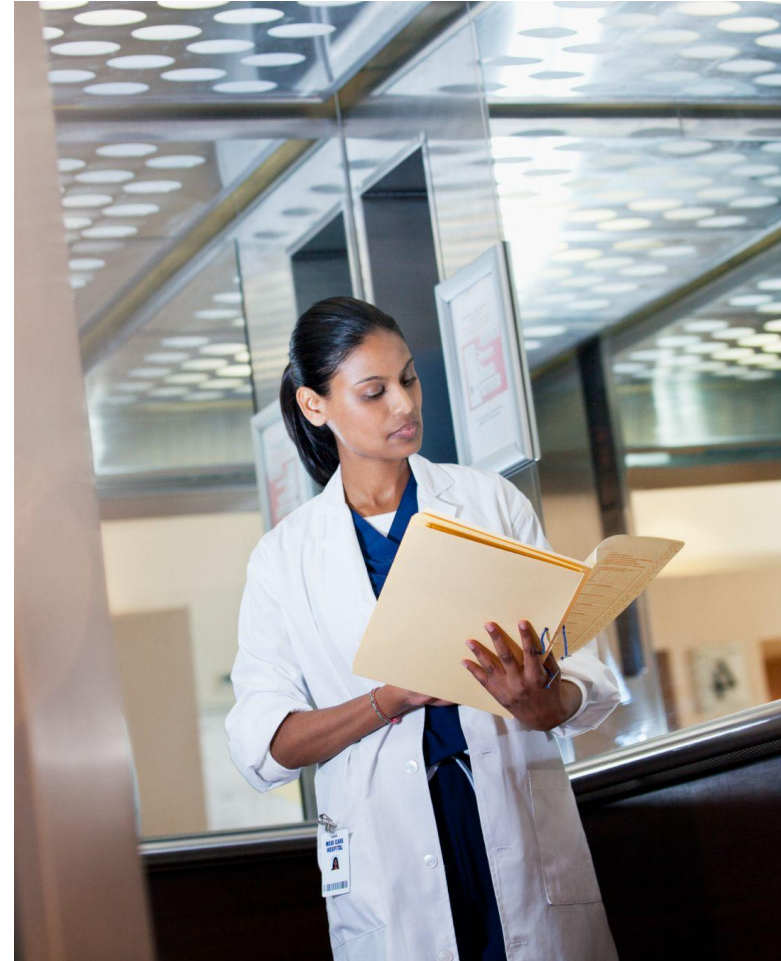




# AI for skin cancer diagnosis

Molemap / Kahu.ai have are launching a new service

- Triaging at GP practice
- Developing new camera prototype
- Equitable access to dermatologist capability



# Smart Coding

Father died of **MI** at age 69.

Patient had some symptoms concerning for a **heart attack**.

Thus the patient ruled out for **myocardial infarction**.

He continued to recover from his **cardiac infarction**.



Identified concept:  
**Myocardial infarction**  
**22298006**

## Parents

- > Ischemic heart disease (disorder)
- > Myocardial disease (disorder)
- > Myocardial necrosis (finding)
- > Necrosis of anatomical site (disorder)

## Myocardial infarction (disorder)

SCTID: 22298006

22298006 | Myocardial infarction (disorder)

en Heart attack  
en Myocardial infarction  
en MI - myocardial infarction  
en Myocardial infarction (disorder)  
en Cardiac infarction  
en Infarction of heart  
en Myocardial infarct

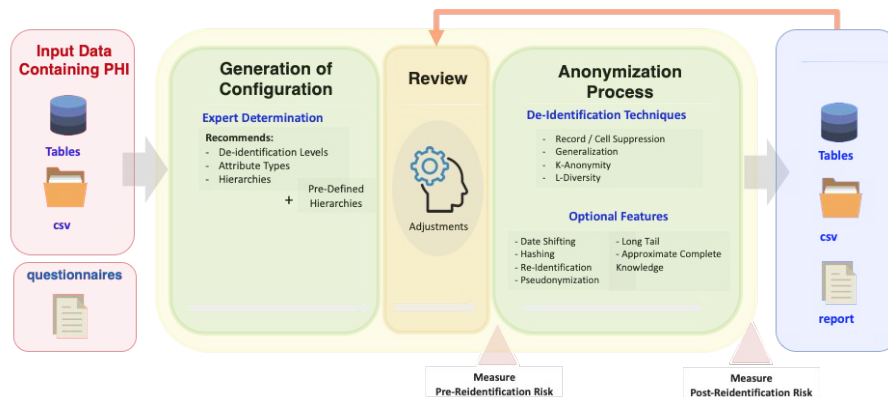
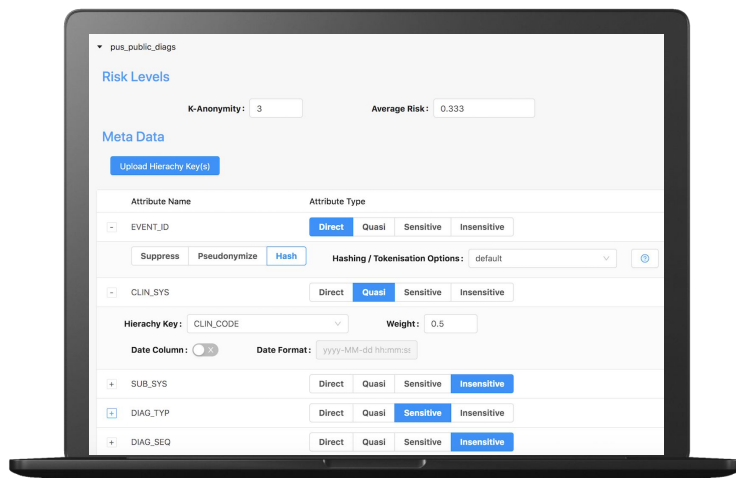
Associated morphology -> Infarct  
Finding site -> Myocardium structure

## Children (14)

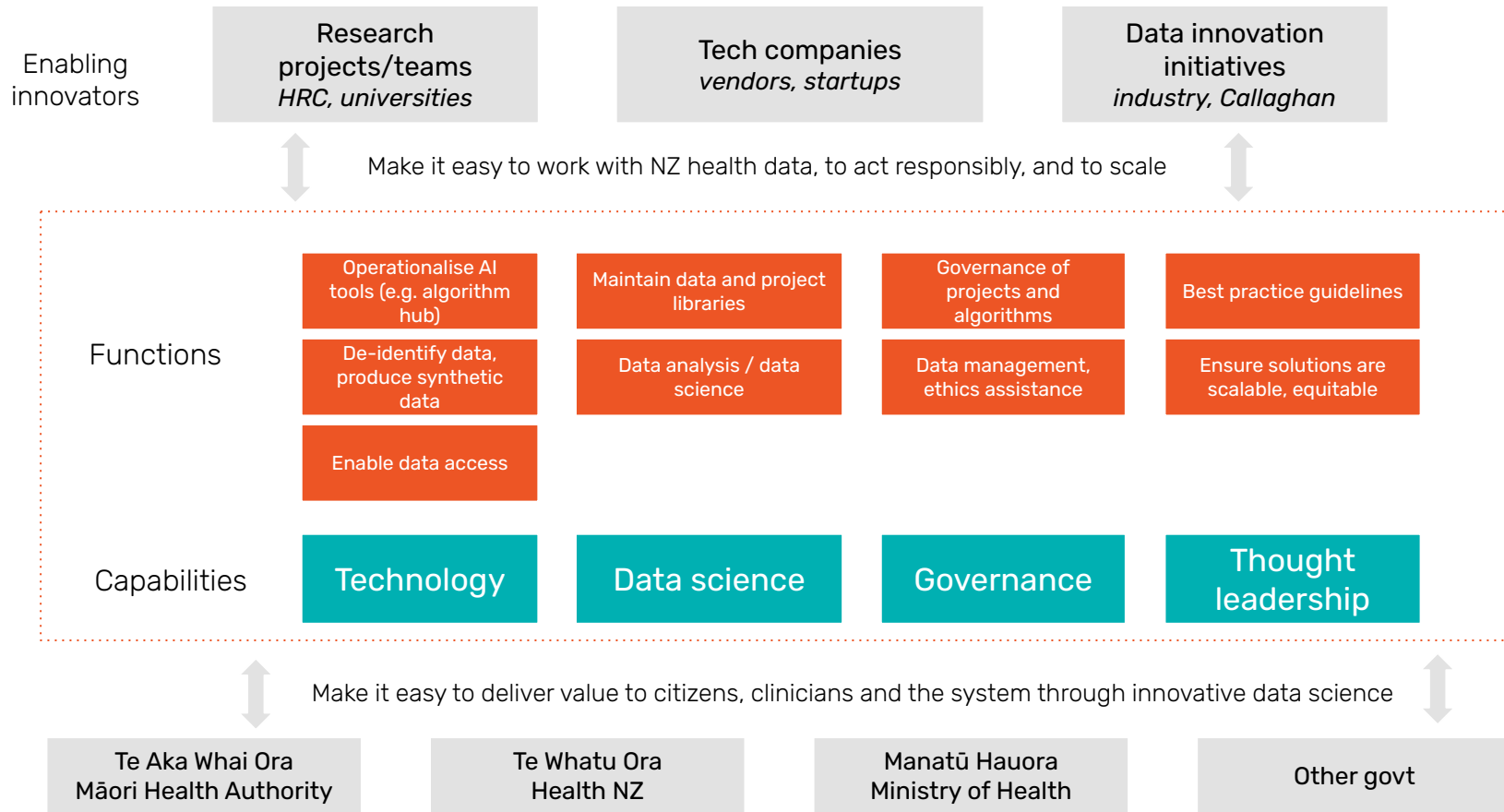
- > Acute myocardial infarction (disorder)
- = First myocardial infarction (disorder)
- = Microinfarct of heart (disorder)

# De-identifier

Enables health data sharing via a consistent, compliant and traceable end to end process for research, development and testing, and analytics.



# Unlocking the value in NZ's health data



# Never a better time to work in health data science



