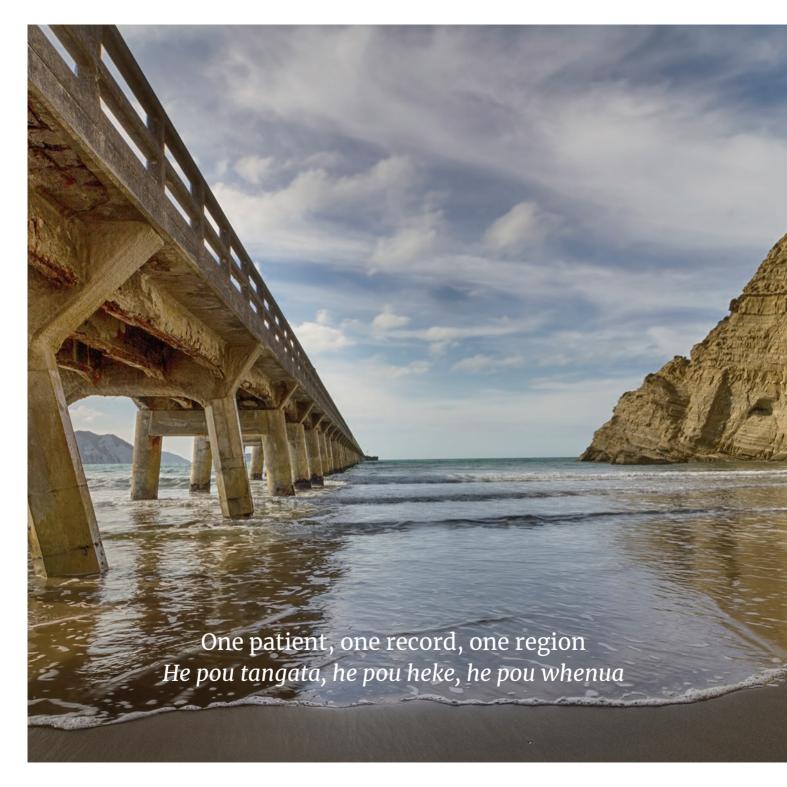


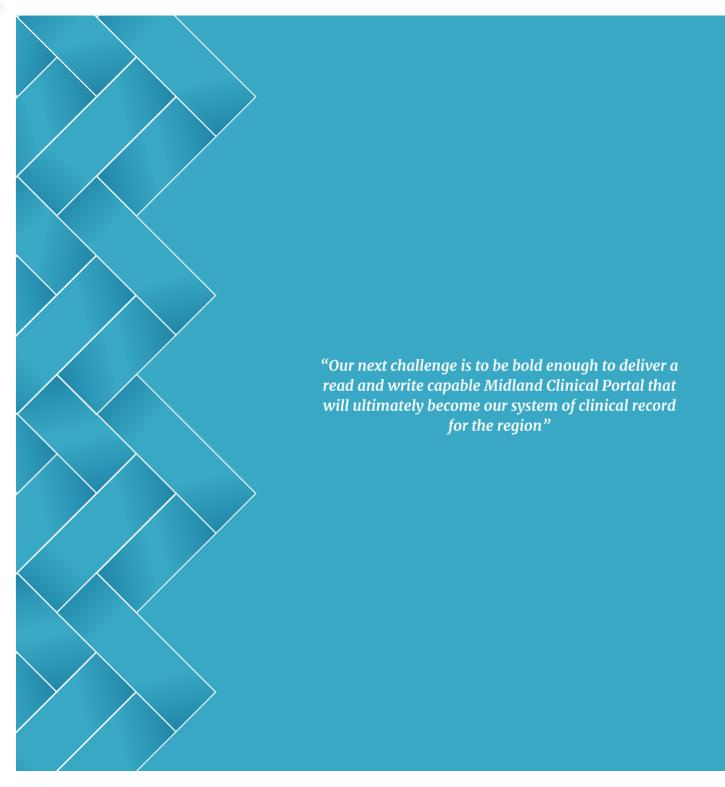
MIDLAND CLINICAL PORTAL

Enabling a borderless and patient-centred health system



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Foreword / He mihi

Kua tawhiti kē tō tātou haerenga mai, kia kore e haere tonu He tino nui rawa ō tātou mahi, kia kore e mahi tonu We've come too far, not to go further We've done too much, not to do more

As a region, we were courageous in our pursuit to set the foundations for the Midland Clinical Portal (MCP) and deliver a capability that provides Midland clinicians with read-only access to regional patient activity and information.

Our next challenge is to be bold enough to deliver a read and write capable MCP that will ultimately become our system of clinical record for the region.

Midland's population consists of a much higher proportion of Māori than any other region in New Zealand as well as having a high number of people living in rural areas and a higher proportion living in areas identified as high deprivation.

With the MCP, we have a unique opportunity to deliver comparable healthcare across the region as it will enable barriers across our various health settings to be eliminated.

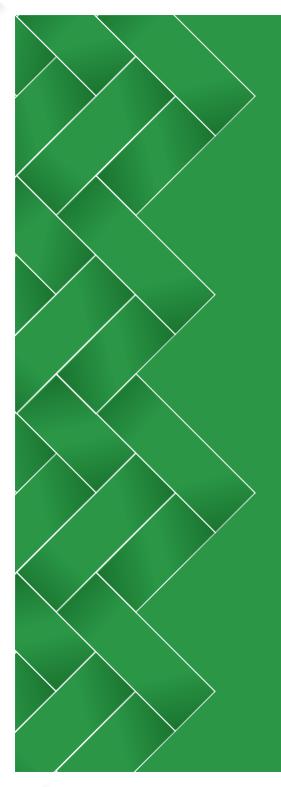
Since we launched the MCP and its read-only capability, Midland clinicians are increasingly recognising the value of having a shared repository of patient information.

For clinicians, timely access to relevant and more accurate patient information supports effective diagnostic and treatment decisions. For patients, it provides reassurance that their health needs are being met appropriately.

Once it becomes our system of clinical record, the MCP will provide clinicians with a single point of access to a patient's health and medical history, supporting a borderless and patient-centred health system while improving the health outcomes of our diverse population.

The Midland Clinical Portal – supporting *one patient, one record, one region*.

Rosemary Clements
Chair of the eSPACE Governance Group



"The Midland Clinical Portal has always been clinician-led and our overwhelming goal is to make it easier for all clinical staff to do their jobs and to support them by giving them the information and tools to do the right thing for their patients, at the right time"

*Feedback received from an emergency physician at Bay of Plenty DHB.

🗱 | Introduction / He kupu arataki

The Midland Clinical Portal is an investment from all five Midland district health boards, which recognise accessible clinical information and standardised processes across borders and health settings as a high priority.

As a clinician-led programme of work, the MCP is a clinical information system that seeks to improve the experiences of Midland clinicians by providing seamless access to an aggregated view of a patient's health information, regardless of location, healthcare setting or clinician-type.

Currently, patient information is often not easy for clinicians to access, is incomplete or at times, can be inaccurate, in addition to some information systems being localised and patient information being isolated.

In order to deliver quality, patient-centred care, our clinicians need access to the right information at the right time and for the right purpose. Robust and agile clinical information systems are a vital component of this, hence the MCP.

For the MCP to be fully realised, we must be open to new technologies and innovative solutions that threaten the status quo but more importantly, raise the quality and accessibility of healthcare across our region.

The governance bodies overseeing the development of the MCP are leading the way in this pursuit. Our Programme Board receives direction from the region's Chief Executive Governance Group and further guidance is received from the programme's clinical, design and operational authorities.

Collectively they are responsible for identifying potential opportunities, taking strategic risks in investing in innovations as well as play an active role in driving, implementing and reinforcing a borderless and patient-centred health system.

We must also enter an agreed delivery pathway that is safe, appropriate and manageable to each Midland DHB while ensuring the MCP remains at the forefront of technological solutions for the region.

To realise our shared vision of *one patient, one record*, we must work together as one region to plan, develop and deliver the MCP.

OUR VISION



OUR MISSION

To enable Midland clinicians to deliver quality, patient-centred care through the timely access of accurate and relevant patient information.

OUR STRATEGIC OBJECTIVES

- Support sound clinical decisions
- Reduce clinical risk
- Improve the experiences of patients and clinicians

> Midland clinicians

- Governance groups
- Regional and DHB Information Service teams
- > Regional networks

OUR VALUES

- >> Focus on people Kia hāngai te iwi
- >> Do the right thing well Whāia te mea tika
- > Act with integrity Mana tangata, ngākau pono
- ≫ Be courageous Kia māia, kia manawanui

OUR PRIORITIES

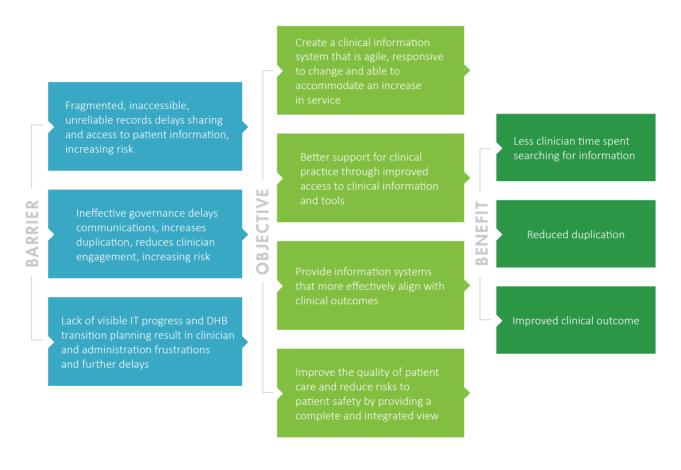
- > Improve clinical information systems
- > Enable comparable healthcare to be delivered across the region
- > Integrate across continuums of care
- > Improve quality of healthcare across all regional services

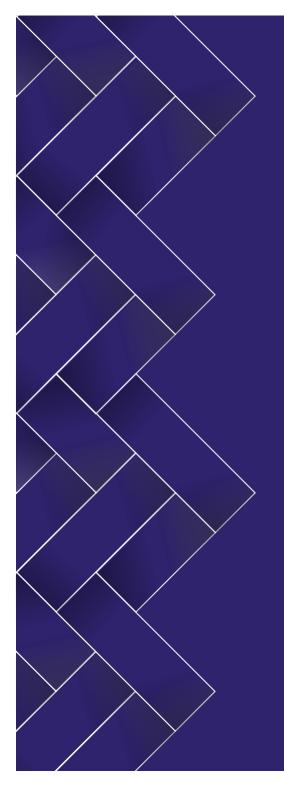
OUR ENABLERS

Investment Logic Map / He Haumi, He Whāinga

An Investment Logic Map (ILM) has been created for the Midland Clinical Portal to be used as a way to measure the effectiveness of the investment from our five DHBs.

Midland DHB clinical and executive leaders were involved in the development of the ILM which currently forms the baseline for the region's benefits realisation model, seeking to illustrate the value of the MCP to clinicians and the potential benefits to patients.





"The ability to have visibility across the Midland Clinical Portal definitely improves patient care, reduces ineffective time wastage, and supports a better patient experience ... the ability to access information on progress notes and real-time documentation from anywhere is fantastic"

*Response from the 2019 Benefits Survey when asked about the value recognised from the Midland Clinical Portal.

Midland Clinical Portal / He Pou Herenga

The Midland Clinical Portal is a clinical tool that will enhance the way in which we deliver healthcare to the people of the Midland region.

As an electronic platform, the MCP is supported by unified clinical data repositories and the visual integration of various clinical information systems, giving clinicians a single point of access to a comprehensive view of a patient's health documentation that is accessible and available across care settings, specialities and locations.

The overall aim of the MCP is to realise the region's vision of *One Patient, One Record*.

Read-only capability is currently operating across the Midland region, providing clinicians with access to a consolidated, regional view of patient demographic information; in-patient, out-patient and emergency department events; some current electronic form data; national and local DHB alerts; and, patient allergy information.

Create builds on from the MCP's read-only version to read and write capability, allowing clinicians to record data directly into the system. This capability will be implemented across the region in stages to allow each Midland DHB to enter a safe, agreed and manageable transition pathway. Once the

MCP becomes fully operational with 24x7 support it has the potential to become the region's system of clinical record.

Decision support provides clinicians with additional MCP features and enhancements to assist in clinical decision making. Features and enhancements are delivered purposefully, ensuring the MCP remains responsive to the growing needs of clinicians.

Recent enhancements to the system have included a visual integration of a direct data feed from the New Zealand ePrescription Service (NZePS), which contains a near complete record of a patient's dispensed medication history from community and non-hospital pharmacies nationwide.

Other features and enhancements to come will include visibility of forms and pathways; mental health records; transfer of care; laboratory and radiology results and orders; referral information; and potentially, medicines management, shared access to Starship and St John information systems and integration with primary health information systems.

Scope of the Midland Clinical Portal / Hōkaitanga a te Pou Herenga

The Midland Clinical Portal is made up of numerous projects that are tasked with developing a part of the solution.

Below is a description of each of the projects that make up the scope of the MCP.

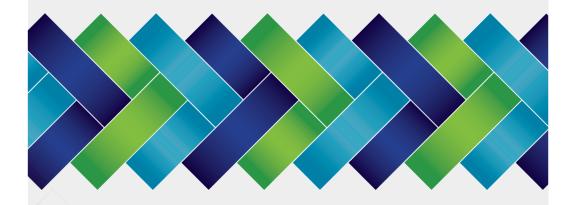


PROJECT	DESCRIPTION
Midland Clinical Portal Foundation	Regional visibility of limited clinical information and the foundation to implement technical and clinical enhancements.
Midland Clinical Portal Enhancements	A range of functionality to support the delivery of a robust and agile clinical information system, including the provision of capability to update and maintain the MCP in a streamlined fashion and the visual integration of links from MCP to external knowledge bases.
Midland Clinical Portal Integrations	Visibility of other clinical information systems within the MCP, including but not limited to the New Zealand ePrescription Service (NZePS), and potentially St John and Starship.
Technical Enabler	Delivery of the technical foundation to enable a read and write capable MCP and provision for Midland DHBs to transition from their current clinical operating systems and onto the MCP.
Transition	Provides the technical and clinical capability to allow Midland DHBs to cutover from their current clinical workstation (such as HealthViews, Concerto and CHIP) onto the MCP. To support a safe and manageable transition pathway, Midland DHBs will transition onto the MCP in the following sequence: 1. Hauora Tairāwhiti 2. Bay of Plenty DHB 3. Lakes DHB 4. Waikato DHB 5. Taranaki DHB

eMedicines	Discovery and implementation of an effective eMedicines solution for the region. eMedicines will be carried out in three phases:
	Phase One
	Requirements to inform the Strategic Assessment of the Midland Medicines Management Better Business Case.
	Phase Two
	Assessment of existing licensed solutions for their suitability followed by a recommendation on the preferred medicines solution to be implemented in the Midland region.
	Phase Three (pending approval and funding)
	Regional solution implemented to enable ePrescribing, eDispensing, eReconcilliation and eAdministration of medicines.
Mental Health & Addiction Services	Standardisation of forms and clinical documentation and pathways across the Midland region for Mental Health and Addiction Services.
a : 1a !:	Visibility of all radiology and laboratory results in the Midland region and the ability to acknowledge a result.
Regional Results & eOrders	Capability for authorised end users to order radiology, laboratory and/or Allied Health procedure in
& eolueis	patient context.
Community Access	Visibility of patient clinical information for authorised community end users caring for a patient.
D ()	
eReferrals	Implementation of a regional eReferrals System to support the Midland region.
Alarte & Warnings	Process for capturing allergy and alert information; enabling decision support capability; and, creating a
Alerts & Warnings	regional framework for allergy and alert management and use.

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Key Deliverables / Ngā Whakaarotau



CASE FOR CHANGE

All five Midland DHBs operate local systems with limited ability to integrate, creating inefficiencies, isolating patient information and increasing the risk of clinical error.



Waikato DHB Healthviews
Lakes DHB Healthviews
Bay of Plenty DHB CHIP
Hauora Tairāwhiti Healthviews
Taranaki DHB Orion Concerto

Released to the Midland Region

MCP Foundation

Regional patient encounter (ED,IP, OP) Clinical documentation Patient demographics National and local alerts Regional timeline

MCP Foundation

Performance improvements
Minor UI changes

MCP Foundation Break glass

Phone numbers
Auto refresh
Windowlet height
Address data
Encounters filter
Encounters screen
Historic users

MCP Foundation

Preliminary diagnosis prefixing
UI changes

MCP Foundation

Alert description

MCP Foundation

Alert description SSL certificate

MCP Foundation

Messaging gateway
Demographic update

MCP Foundation

Document process file mover

MCP Foundation

Upgrade BitVise SSH Server/Client upgrade

MCP Foundation

Enhancements to problem list
Enhancements to demographics tab

MCP Foundation

Day light saving fix

MCP Foundation

Security enhancement applied to BitVise virtual accounts

MCP Integration to NZePS

Visibility of all patient dispensing information by community and non-hospital pharmacies throughout New Zealand

MCP Upgrade

Technical upgrade, Orion Stack to Unison

Medicines Management

Develop and agree the regional requirements
Analysis of current state
Evaluation of medicines management
solutions against requirements

MCP Integration to St. John

On hold

Visibility of clinical information contained in the St John electronic Patient Report Form (ePRF) system

Implementation Underway

Hauora Tairāwhiti Document Upload to MCP

Extraction and upload of MKM documents to enable Haurora Tairāwhiti the same level of MCP functionality as the other Midland DHBs

Technical Enablers

Provides core enabling capability for future functionality to be deployed

Replatforming MCP

IAMS and ID Access

Messaging Gateway

CDRex

Terminology Services

EDI & Provider Index

Coding & Terminology

Hauora Tairāwhiti Transition

Provides the technical and clinical capability to allow Hauora Tairāwhiti a full cutover from HealthViews to the MCP

Bay of Plenty DHB Transition

Provides the technical and clinical capability to allow Bay of Plenty DHB a partial transition from CHIP to the MCP

Graphing Capability

Building the capability to create and display a graph from data maintained in MCP.





Planning and Initiation

Lakes DHB Transition

Lakes DHB specific general functionality

Mental Health and Addiction Services Phase 1

Standardisation of forms and clinical documentation and pathways across the Midland region for Mental Health and Addiction Services

Mental Health and Addiction Services Phase 2

Waikato DHB forensics

Regional Results & eOrders

Visibility of all Radiology and Laboratory results in the Midland region

Ability to acknowledge a result

Authorised end users will have the ability to order a Radiology, Laboratory and Allied Health procedure in patient context

Waikato DHB Transition

Provide the technical and clinical capability for Waikato DHB to transition from Health Views to the MCP

Community Access to MCP

Visibility of patient clinical information for authorised community end users caring for a patient

Not Yet Initiated

eReferrals

Implementation of a regional eReferrals System to support the Midland region

eWhiteboards

Visibility of patient clinical information displayed on an electronic whiteboard in the Emergency Department

MCP Integration to Starship

Visibility of patient clinical information for Starship Hospital clinicians and vice versa

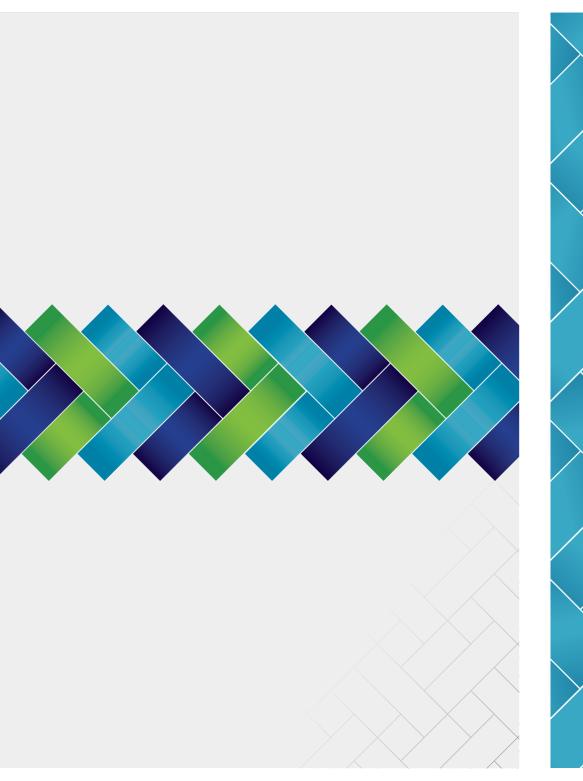
Taranaki DHB Transition

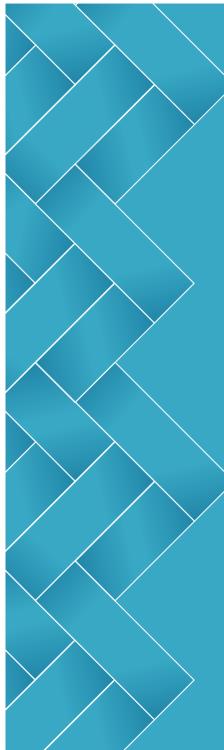
Provide the technical and clinical capability for Taranaki DHB to transition from Concerto Clinical Workstation to the MCP











"A Lakes DHB patient was referred to two Waikato DHB services with high likelihood of aggressive cancer. I was able to access information and identify carers, no apparent nurse care coordination obvious via Midland Clinical Portal scan. However, reasonable enquiry could be put to Lakes cancer team enabling pre-emptive support to be undertaken for young Māori woman who requires multiple trips to Waikato Hospital thus enabling local contacts and ensuring NTA, critical health literacy assessment, cultural and local NGO support services are engaged and point of contact to support complex inter DHB care pathway"

*Response from the 2019 Benefits Survey when asked about the value recognised from the Midland Clinical Portal.



Midland Clinical Portal in context / Tā tātou Pou Herenga

The Midland region is home to some 920,000 people who will encounter the health system at differing times and for various reasons during their lifetime.

Once fully operational across our region, the MCP will be the system of clinical record providing clinicians with a complete picture of a Midland patient's health and medical history, supporting a borderless and patient-centred health system and ultimately, improving the health outcomes of our diverse population.

920,000	14,537	11,351	3,186 Non-Clinical Staff
People	Midland DHB staff	Clinical Staff	
14 Hospitals	68 Public Hospital Services	203 Private Hospitals & Specialists	199 General Practices / Accident & Medical Centre
43	22	494 Mental Health & Addiction Services	15
Iwi groups	Māori Health Providers*		Maternity Services
190	42	149	170
Pharmacies	Cancer Support Services	Community Health Services	Social Services

^{*}Information from Ministry of Health website, health.govt.nz

What our clinicians have to say...

"When a client tells me they have been to Waikato Hospital I am able to get quick accurate information of when they were seen, what the outcome was, including when ongoing treatment will take place.

This particularly makes a difference when we are putting community supports in place for someone receiving or about to receive chemotherapy and radiotherapy. It also makes a difference in accurate interRAI assessments (for forgetful clients) and for planning supportive care in the community"

*From a physician at Bay of Plenty DHB.

"MCP has proven extremely useful. I had a case recently when a 19 year old from Rotorua attended here with chest pain and was found to have myocardial infarction (heart attack).

He received thrombolysis (clot busting) medication in ED and was sent urgently over to Waikato where he was investigated with angiography. His symptoms settled and after a day or so he was sent home to Rotorua. That same day he became very tight in the chest again and his family brought him back to ED in Rotorua.

We were immediately able to log into the MCP and read the result of his coronary angiogram (which was normal) and his treatment in Waikato. This allowed us to treat him accordingly and avoid further transfers. It also helped avoid lengthy phone calls or requests to fax over notes"

*From a physician at Lakes DHB.

"As clinicians, we are so used to using HealthViews and it is easy to just stick with what you know. But I started making myself go into the MCP to familiarise myself with it and see what was in there. Now the MCP is the first place I look for some things. It is going to be an awesome tool"

*From a physician at Hauora Tairāwhiti.

"Information is right at your fingertips. Prior to the portal I had to phone patients' GPs, or another hospital to get copies of their medical records. I can access discharge summaries and immediately have up-to-date information in real time – this really helps my decision making"

*From a physician at Taranaki DHB.

"It is not an exaggeration to say that MCP will help save lives by reducing risk and increasing the accuracy of available information. It will also free up clinician time. It is well known that at least 50% of clinicians' time is spent on documentation.

I need to free up clinician's time so they can focus on keeping people alive – not perform repetitive documentation. MCP will solve this problem"

*From a physician at Waikato DHB.



Bay of Plenty District Health Board / Hauora a Toi

Bay of Plenty District Health Board serves a population of approximately 225,500, with population numbers increasing during the summer months due to a high influx of visitors to the area.

225,500	3,290	2,555	735
People	Staff	Clinical Staff	Non-Clinical Staff
Tauranga Hospital	Whakatāne Hospital	12	20
21 Wards	8 Wards	Public Hospital	Private Hospitals
425 Beds	93 Beds	Services	& Specialists
45 General Practices / Accident & Medical Centres	7 Māori Health Providers*	117 Mental Health & Addiction Services	2 Maternity Services
58	10	40	40
Pharmacies	Cancer Support Services	Community Health Services	Social Services

^{*}Information from Ministry of Health website, health.govt.nz



Hauora Tairāwhiti

Hauora Tairāwhiti serves approximately 50,000 people, 45% of which identify as Māori – the highest proportion in the region.

50,000 People	942 Staff	707 Clinical Staff	235 Non-Clinical Staff
Gisborne Hospital 7 Wards 96 Beds	14 Public Hospital Services	15 Private Hospitals & Specialists	11 General Practices / Accident & Medical Centres
2 Māori Health Providers*	78 Mental Health & Addiction Services	3 Maternity Services	10 Pharmacies
8 Cancer Support Services	26 Community Health Services	22 Social Services	

^{*}Information from Ministry of Health website, health.govt.nz



Lakes District Health Board

Lakes District Health Board serves a population of just over 100,000 with its DHB area reaching as far south as Tūrangi.

100,000	1,539	1,188	351
People	Staff	Clinical Staff	Non-Clinical Staff
Rotorua Hospital 14 Wards 232 Beds	Taupō Hospital 5 Wards 43 Beds	13 Public Hospital Services	31 Private Hospitals & Specialists
24 General Practices / Accident & Medical Centres	6 Māori Health Providers*	95 Mental Health & Addiction Services	2 Maternity Services
21	8	27	24
Pharmacies	Cancer Support Services	Community Health Services	Social Services

^{*}Information from Ministry of Health website, health.govt.nz



Taranaki District Health Board / Te Poari Hauora-ā-Rohe o Taranaki

Taranaki District Health Board serves a population of approximately 120,000 people, 18% of which are aged over 65 – higher than the national average.

120,000	1,866	1,636	230
People	Staff	Clinical Staff	Non-Clinical Staff
Taranaki Base Hospital 13 Wards 240 Beds	Hāwera Hospital 3 Wards 22 Beds	11 Public Hospital Services	45 Private Hospitals & Specialists
33 General Practices / Accident & Medical Centres	3 Māori Health Providers*	85 Mental Health & Addiction Services	2 Maternity Services
26	8	25	33
Pharmacies	Cancer Support Services	Community Health Services	Social Services

^{*}Information from Ministry of Health website, health.govt.nz

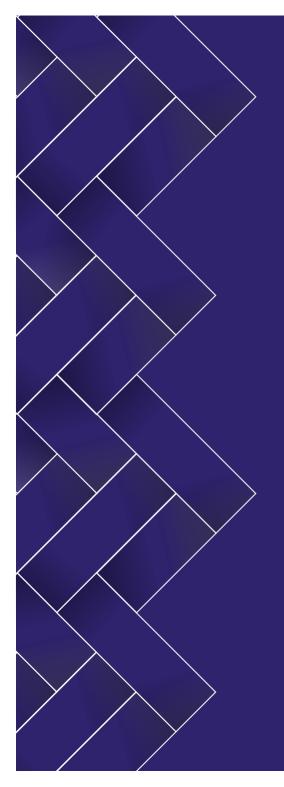


Waikato District Health Board

Waikato District Health Board serves a population of more than 425,000 people, making it the fifth largest DHB in New Zealand.

425,000	6,900	5,265	1,635
People	Staff	Clinical Staff	Non-Clinical Staff
Waikato Hospital	Thames Hospital	Te Kuiti Hospital	Matariki Hospital
49 Wards	4 Wards	1 Ward	1 Ward
864 Beds	48 Beds	12 Beds	32 Beds
Rhode Read Hospital	Taumarunui Hospital	18 Public Hospital Services	92
1 Ward	1 Ward		Private Hospitals
32 Beds	10 Beds		& Specialists
86 General Practices / Accident & Medical Centres	4 Māori Health Providers*	119 Mental Health & Addiction Services	6 Maternity Services
75	8 Cancer Support Services	31	51
Pharmacies		Community Health Services	Social Services

^{*}Information from Ministry of Health website, health.govt.nz



"The information we collect or use is to see if children are accessing GP's for follow-up appointments, antenatal information relating to concerns for vulnerable unborn babies ... the Midland Clinical Portal saves time on us emailing agencies to see if they are supporting family"

*Response from the 2019 Benefits Survey when asked about the value recognised from the Midland Clinical Portal.

Embedding the Midland Clinical Portal / Kia whakararau i te Pou Herenga

Understanding how to facilitate and enable effective change is vital for the successful implementation of the Midland Clinical Portal within each of our district health boards.

To realise the MCP, the ADKAR[©] model¹ for change management will be applied. This model identifies five elements or objectives to successfully manage and embed change within organisations and their various stakeholder groups.

Change Management Model / Kia tutuki

Awareness | Aroā

This step addresses the *why* element regarding the case for Midland DHBs investing in the MCP. It involves building awareness of the MCP, its objectives and its potential value to the region, each DHB and most importantly, our clinicians.

Desire | Awhero

This step fosters the *motivation* among stakeholder groups to support and participate in the implementation of the MCP. Understanding the objective of the MCP and how it will improve the experiences of clinicians make up this step.

Knowledge | Möhiotanga

Understanding *how* the MCP will be implemented is the focus of this step. Stakeholders at all levels from across the five DHBs will require tailored communications and tools that are specific to their needs. This will involve working collaboratively with DHBs to disseminate communications and deliver training and education opportunities, tools and resources.

Ability | Āheinga

This step is achieved when our stakeholders can *show* that they have the capability to successfully use or support the use of the MCP as intended within their DHB. Key stakeholder groups will include clinical and non-clinical staff as well as regional and DHB information service teams and the chosen service support provider.

Reinforcement | Taunaki

Activities that *sustain* the intended use of the MCP are carried out during this step. It will involve both communicating and demonstrating to stakeholders the progress made by the region to realise its vision of *one patient, one record*.

¹Hiatt, J. M. ADKAR: a model for change in business, government and our community, Prosci, 2006.

Strategy for implementation / Te ara tutuki

To connect the delivery of Midland Clinical Portal projects and functionality with our change management model, transformation plans specific to each DHB will be developed.

These plans will detail our approach to implementing the MCP by coordinating, supporting and overseeing activities in order to realise the outcomes and benefits related to the region's vision of *one patient, one record.*

Below is an outline of the sequence and suggested activities that will contribute to the achievement of this vision and the strategic imperatives of the MCP.



Awareness | 5 months from Go-Live

Change impact assessment

Communication and stakeholder engagement



Desire | 15 weeks from Go-Live

Develop learning materials

Provision for a sandpit training environment (if applicable)

Targeted communication to stakeholder groups



Knowledge | 10-6 weeks from Go-Live

Training stakeholders impacted by the change Develop on the floor support plan Continued communications



Ability | 4-0 weeks from Go-Live

Training of on the floor support team Continued communications Training of all stakeholders Service continuity plan



Reinforcement | Post Go-Live

Communications on MCP developments
Benefits realisation and lessons learned surveys

Successful implementation of the MCP and its range of functionality will be measured by the growing number of users engaging with the system and ultimately, enabling it to become the system of clinical record for the region.

