Te Manawa Taki DHB Resilience Plan - Overview

TE MANAWA TAKI

Regional Resilience Plan 9 November 2021

The purpose of this plan is to provide advice to DHBs, Ministry of Health and Minister of Health and Associates on what will be required to build the resilience of the DHB healthcare system in anticipation of changes in pandemic management strategy and Government policy settings.

A function is considered resilient if it has the capacity and capability to support sustainable responses to recurring community resurgences of COVID-19, without limiting the ability to provide effective non-COVID related health care services.

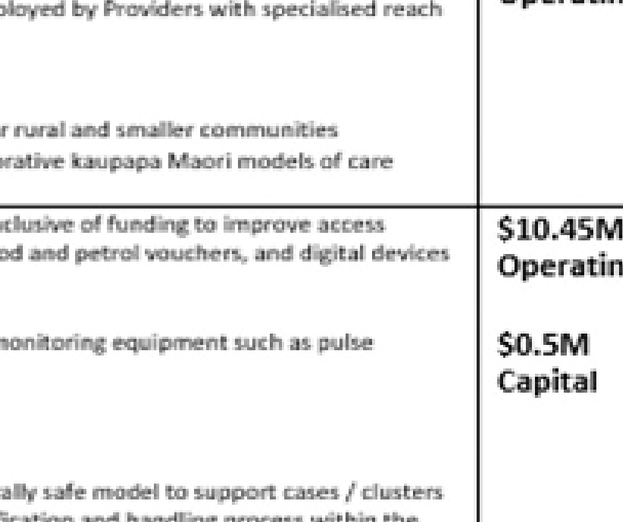
Key assumptions
(from modelling by TAS)

The "worst case scenario" modelling has been used to inform resilience planning.

- 90% adult (16+) vaccination rate.
- No vaccination of <12 year olds.
- Loose public health controls.
- Loose border restrictions.

Midland DHBs have requested further modelling against ethnicity as 40% of new cases across the region are expected to be Māori or Pacific People - compared to the assumed 31%
Total regional population is 1,007,405

Predicted regional numbers per week (in 2022)



Priorities to build resilience

Priority Area	Requirements	Estimated
Increasing Māori and Pacific NGO Providers' capacity and capability to offer end-to-end COVID support services to their communities	• Offer flexible and sustained funding models for Providers, to fund end-to-end COVID service "packages" instead of individual activities including testing, vaccination and welfare support for isolating households. • Provide skills development and recognition that allows increased devolution of activities to non-regulated workforce employed by Providers with specialised reach into priority communities. • Fund culturally competent Training Providers to recruit, upskill and grow the available workforce pool. • Provide funding security to allow workforce growth within Providers. • Investigate and secure culturally acceptable small-medium sized out-of-home isolation options outside of main towns for rural and smaller communities • Increasing Te Manawa Taki equity commitment and capacity to reach priority communities through outreach and collaborative kaupapa Maori models of care	**$75.8M Operating**
Increased investment in health and welfare support to enable whānau to safely self-isolate due to COVID	• Invest in Whānau Ora capacity of Kaupapa Māori and Pacific providers to deliver hauora mobile wrap around services - inclusive of funding to improve access mechanisms for priority communities and healthcare costs for Whānau with long-term conditions such as provision of food and petrol vouchers, and digital devices / data cards to incentivise access and uptake • Develop an equity approach to support health services for Home Isolation • Invest in digital technology and connectivity to support self-management of COVID-19 at home – e.g telehealth, health monitoring equipment such as pulse oximeters and thermometers • Increase the funding for the health and psychosocial response for COVID-affected whānau, individuals and communities • Invest in early intervention strategies within communities • Establish distribution hubs outside of main towns to increase rural access and reduce travel out of affected areas • Extension of the Waikato early intervention strategy 'Marangai Areare Model' (Multidisciplinary team working in a culturally safe model to support cases / clusters in a region to other DHBs in the Te Manawa Taki region to develop a culturally responsive framework for the case identification and handling process within the PHU) • Invest in specific workforce to support home isolation (CSIO)	**$10.45M Operating** **$0.5M Capital**
Build an effective COVID Response 2022 across Te Manawa Taki	• Invest in Contact Tracing and case investigation • Invest in Community Testing & Surveillance Testing – inclusive of whānau-based tools and training • Allocate required workforce to operate a COVID response alongside BAU • Establish a COVID Response Equity Team for liaison and outreach to vulnerable communities • Ensure continuation of funding to enable vaccination programme in hard-to reach and marginalised communities and opportunistic other immunisations / screening. • Secure funding for Booster shot programme in 2022 • Support the establishment of cross-region governance and leadership for COVID-responses in each DHB • Implementation of the Health Order for staff and management of service gaps arising • Communications expertise and coordination required to ensure consistent messaging	**$67.52M Operating**
Significantly enhance Patient Pathways across the System - from Community Care through Primary Care to Secondary Care	• Strengthen workforce across the health system e.g increase primary care workforce - GPs / Practice Nurses / Community Outreach / Nurse Practitioners • Enhance capacity and operating model in Emergency Services across all DHBs – specifically the Yellow Zone for presenting COVID patients • Invest in specific acute care equipment and environment to manage COVID patients such as dedicated treatment areas / enhance negative pressure capability • Increase capability to manage paediatric patients through the acute care system ; as well as consideration of social supports for Carers • Develop skills and flexibility of workforce in acute care settings • Palliative Care support – increase FTE to manage patient cohorts with end-stage COVID • Aged care – provision of 24/7 services to reduce burden on ED and acute care • Overall workforce requirements, service by service, are in excess of 450 - 500FTE across the region • Develop COVID-response areas in Thames Hospital	**$85.97M Operating**
Infrastructure and Facilities / Technology	• Upgrading the facilities and infrastructure within DHBs across the region is required to expand the available space to treat patients with COVID. • As cases grow new areas are required to manage cohorts of COVID patients • At least 40 negative pressure rooms are required (Lakes 32; Waikato • Supply Chain capacity increased to match projected cases to • Invest in clinical speciality equipment in acute care – HDU/ICU preparedness- ICU beds / CPAP machine / Yellow Zone development in ED • Increase the number of negative pressure rooms at Waikato Hospital by 7 (Maternity / NICU) including redesign of birthing suites and paediatrics acute care (NICU/NNU) to manage COVID presentations with high acuity • Improve airflow in COVID-related spaces • Invest in Laboratory testing capacity and robotic equipment to increase efficiency and reduce occupational health risks; rapid testing at community level • Purchase up to 500 Pulse Oximeters and 37,500 Thermometers for self-management in the community – including health monitoring technology • Invest in remote working and digital capability for DHB staff to work from home / rurally – including enhanced connectivity solutions in 'dead' areas • Purchase additional staff accommodation / office space for surge workforce - could be on or off site • ~~Address morgue capacity and storage capacity~~ • Data modelling technology (including geospatial mapping technology to support rural and equity focus) plus related expertise required going forwards	**$42.76M Capital** **$2.75M Operating**
Set up systems and infrastructure to enable Catch up campaigns for non-COVID diseases	• Enable the COVID vaccination infrastructure to provide other vaccinations (winter flu and childhood immunisations / screening services – e.g. ophthalmology and cardiovascular screening) • Set up an equity access team to enable prioritised case review and access for people 'displaced' from planned care or usual care due to COVID response • Dedicated design team (10 FTE) to plan for increased complexity of health care needs in the community due to increased burden on the acute care system and limited access as a direct result of COVID • Invest in workforce resilience	**$ 50.2M Operating**

Te Manawa Taki Regional Resilience Plan: update for Health Systems Readiness Steering Group

9 November 2021

Scenario modelling overview

The below assumptions have been used to model the predicted impact of COVID in the Te Manawa Taki DHB region in 2022.

Key assumptions (Full assumptions available on request)

- 90% adult vaccination rate by Dec 2021.
- Children ages 12-15 are vaccinated.
- 0-11 year olds not vaccinated.
- Borders are opened 1 Jan 2022.
- Restrictions remain on travel to some countries, but otherwise quarantine-free travel is occurring.
- Assume Delta variant is main issue, medium R0 = 4.5 per REF.
- Assume variation in coverage by community around the average vaccination coverages.
- Vaccine efficacy (Pfizer) against Delta = 88%, against severe disease 94%.
- Assume severity proportions as per REF.
- Vaccine reduction in transmission - 85%.
- No further community lockdowns, but case isolation and contact tracing e.g. as measles is managed now, drops R0 44% [REF p11].
- Health care workers at 93% coverage - assume other groups slightly lower.
- M + P have 2.5 and 3x the rate of hospitalization as European/Other.
- Planned Care will be managed based on current occupancy and a decision matrix
- Some communities in the Te Manawa Taki region are particularly vulnerable and will need additional resources and support.

	Over 2022 year							Average per week in 2022		
DHB	**Cases**	**Hospitali-sations**	**Deaths**	**% cases M**	**% cases P**	**% deaths M**	**% deaths P**	**Cases**	**Hospitali-sations**	**Deaths**
BOP DHB	36,800	2,100	220	31%	2%	50%	0%	710	41	4
Lakes DHB	16,900	1,000	100	42%	3%	50%	0%	330	20	2
Tairawhiti DHB	7,800	560	60	58%	3%	87%	0%	150	11	1
Taranaki DHB	17,600	880	90	24%	1%	50%	0%	340	17	2
Waikato DHB	62,000	3,200	320	27%	4%	33%	0%	1,200	60	6
Total Regional	**141,200**	**7,800**	**790**	**31%**	**3%**	**40%**	**0%**	**2,700**	**150**	**14**

Assumptions and notes

Priority Area	Assumptions	Estimated
Increasing Māori and Pacific NGO Providers' capacity and capability to offer end-to-end COVID support services to their communities	• Although TAS case modelling still needs further refinement of the ethnicity data provided above, and assumes no difference in attack rates between ethnicities, it is assumed the R0 values for Māori and Pacific will rise relative to others. 40% of 2,700 new cases per week of Māori or Pacific total cases regionally is 1,080. COVID services will not just focus on the positive case – but all in the household and community. • To accommodate the growth in cases within these communities, additional FTE regionally will need to be trained and contracted by Providers. • Te Manawa Taki DHBs accept NRHCC estimated training cost of $10k per person based on current courses available. An average salary of $100k per year has been used, with a 20% overhead	**$75.8M Operating**
	• The biggest gaps are Māori & Pacific Leadership, Māori & Pacific clinical, Māori & Pacific admin, PH specialist roles and Māori & Pacific specialist capability. • This priority area includes free access to GP and specialists via telehealth that is supported locally by Kai Maanaki (non-regulated) workforce see 10 below. And c. WHIRL • This priority area includes funded delivery of targeted immunisations, MMR, Influenza by Kaupapa Māori Providers and training of workforce to extend scope. Tamariki ora nurses are also authorised vaccinators. • Assume COVID-19 treatment is not at the expense of non-COVID-19 treatment – if Planned Care was stopped then FTE projected requirements could be reduced by up to 40%. Funding is provided to enable free access and prescriptions to support compliance • Current manaaki support work is high taking FTE away from DHB daily follow-up work in the case and contact management process, The Manaaki / Welfare role within the PHU is a coordination one and having this capability in the NGO providers will enhance manaaki offering the coordination team can refer to and leave the PHU to focus on their key role.	
Increased Investment in health and welfare support to enable whānau to safely self-isolate due to COVID	• Based on Central Tas data modelling 2,550 case per week will not require hospitalisation and will need community management • Health will be still be accountable for welfare support in the community where MSD is unable to cover after hours, weekend and rural locations • Northern region has estimated the cost at $750 per whānau per week. • Digital devices is critical for vulnerable communities in remote parts of the region and also for those unable to afford the hardware to support access. • Welfare component to be led by iwi, Whānau Ora Collective, Pacific providers, food hubs • Some hapori, marae, whānau and hapu will have their own solutions	**$10.45M Operating** **$0.5M Capital**
Build a COVID Response 2022 **Added From Waikato**	• Assume that DHBs have the right to mandate redeployment of staff in future agreements • Ability to ramp up is linked to redeployment potential in other service areas. • Assumes progress towards devolving activities such as contact tracing and investigation to Māori and Pacific Service Providers • Enabling core COVID response functions in an equity approach will reduce the impact of non-BAU Covid work on specialist areas – especially in smaller DHBs where staff wear 'many hats' • Whānau become IT sawvy through TWOA type providers • The LDHB share is 20 people per week at the peak of an outbreak. Assumes a mix of health professional and support workers • Assumes all usual BAU work continues. Currently PHN's and Dental service supply staff to support contact tracing (and community testing) • Systems approach to screening, referral and social sector linkages will provide the most comprehensive case management in a COVID response; will need to consider health's role in the social sector aspects. • Laboratory – It is assumed that testing will remain a key strategy for management of COVID-19 and anticipated volumes are 2000-4000 per day for the Waikato region. Costs are based on capacity for the Waikato region. Additional investment would be required for regional capacity. It is assumed that patients presenting at the hospital will require surveillance testing and 24/7 testing will be required for patient management. • (Waikato) Testing Infrastructure: 4 established surveillance testing facilities; 3.5 rapid response testing teams to be mobilised to outbreak locations; 5 in home testing teams; Programme team to facilitate and co-ordinate these services • (Waikato) Vaccination infrastructure: Maintaining 150 FTE of vaccinators to undertake a wide range of services; Continuing to upkeep vaccinations sites district wide to operate as vaccination and community health outreach centres • Develop and maintain Communications infrastructure to support Testing and Vaccination programmes 4FTE	**$67.52M Operating**
Significantly enhance Patient Pathways across the System - from Community Care through	• Assumes increased split between medical and nursing response • Assumes increased opportunity to harness non-regulated workforce support for care through targeted skills development and training • Assumes Planned Care continues alongside the COVID response • Requires increased focus on telehealth and digital device available within the affected communities • Important to invest in resources that will strategically look across the whole system and ensure connections, dependencies are identified and managed.	**$45.3M Capital**
Primary Care to Secondary Care	• Workforce – identified 500 FTE is aspirational. Recognise that all DHBs are already significantly under-resourced and have long-term staff vacancies due to recruitment difficulties in rural areas. For example Lakes DHB would need 110 FTE (roughly 45 RN /45 HCA//10 AHP/10 supporting staff). • An equity focus on training and development is highlighted. Opportunities to engage with training providers to enhance cope and diversity practice is supported • Assumes community and whānau based care models / support kits will need to be developed as PHU and primary care capacity will be insufficient to manage the case numbers expected • Assumes the majority of mild-moderate cases of COVID will be able to be managed or overseen by primary care; with identification of unenrolled population and CSIQ will present issues for people needing intensive primary care support (Rotorua is 20 GP's short of achieving similar enrolled numbers as the national average; rural areas are under resourced with GPs across the region) • Admission avoidance and early discharge options for non-COVID related health issues to enable COVID admissions will need additional Allied Health and nursing FTE to support in-home options along with closer links to primary care	**$85.97M Operating**
Infrastructure and Facilities / Technology	• Upgrading the facilities and infrastructure within DHBs across the region is required to expand the available space to treat patients with COVID. • As cases grow new areas are required to manage cohorts of COVID patients • At least 40 negative pressure rooms are required; Development of Maternity / Paediatric negative pressure capacity to support Maternity Resilience Planning (Waikato 7 Beds) • Geospatial mapping will support five very rural DHBs in the Te Manawa Taki region in their data modelling and planning - Every aspect of a DHB COVID-19 response in the community has a geographical aspect, therefore it makes sense to a have geospatial platform to provide a view of situational awareness. The standard for spatial software for emergency response in Aotearoa is ArcGIS Enterprise. ArcGIS Enterprise is an enterprise-grade mapping platform which can offer multiple views of data and enable the integration of all COVID-19 data to show a real-time or near real-time view of the response. This solution would need to be linked in and be part of reporting including for community, primary and secondary care. Utilising a geospatial platform will make sense in presentation of Intel for our region, localities, iwi and communities. • Laboratory - Estimated facility costs are high level as options need to be considered in line with laboratory strategy and accommodation planning already initiated. Occupational Health requires a move away from manual repetitive processes	**$42.76M Capital** **$2.75M Operating**
Set up systems and infrastructure to enable Catch up campaigns for non-COVID diseases	• Development based on $40 per head of population – total regional population is 1,007,405 • Workforce resilience ensures workforce agility • Increase provision of kaitiaki, kaitakawaenga, kai manaaki supports across Waikato Hospital and rural hospitals. • Enhance the DHBs information system to provide data that captures multiple aspects of wellbeing for Māori and Pacific people • Admission avoidance and early discharge will increase the complexity of patients being managed in the community. Appropriate services need to be in place to appropriately manage these patients and minimise risk or readmission	**$ 50.2M Operating**

TOTAL $88.56M Capital $292.66M Operating