COVID-19 Vaccine and Immunisation Programme

March – April Operations Plan

Southern District Health Board

15 March 2021

1.0 Purpose

This document outlines how Southern DHB plans to roll out the Covid vaccination in March and April to complete Tier 1a and 1b and Tier 2a and 2b cohorts.

This plan builds on the Tier 1a and 1b work which created the foundation for the model of delivery. More detailed planning will occur at the same time the broader rollout will occur for Tier 3 and general population.

We have also excluded planning for the following groups as we are aware that nationally discussions are currently underway with the Ministry of Health.

- NZDF
- Police and Fire & Emergency (FENZ)
- St John Ambulance, WFA and air ambulance providers
- Corrections
- NZ Private Surgical Hospital Association

1.1 Equity of Health Care for Māori

Southern DHB is committed to meeting Te Tiriti o Waitangi legislative obligations as specified in the New Zealand Public Health and Disability Act 2000, clause 22(1). This includes reducing health disparities by improving health outcomes for Māori and other population groups. In New Zealand, disparities between Māori and non-Māori are the most consistent and compelling inequities in health. The Treaty was signed to protect the interests of Māori and it is not in the interests of Māori to be disadvantaged in any measure of health, social or economic wellbeing. Effective, responsive, patient-centred services, supported by targeted interventions, will be required to achieve health equity.

The principles of Te Tiriti o Waitangi; tino rangatiratanga; equity; active protection; options and partnership is incorporated into the Southern DHB Covid Vaccination Programme. Iwi stakeholders and kaupapa Māori health and disability services will be involved in co-design to achieve Māori self-determination and mana motuhake. Achieving equity is a priority to improve health outcomes for Māori and other populations. Working in partnership to provide accessible, appropriate options. Activities will be aimed at reducing health equity gaps as much of our population resides in rural areas and widely dispersed across our district. Working in partnership to provide accessible, appropriate options of receiving services to the fullest extent practicable

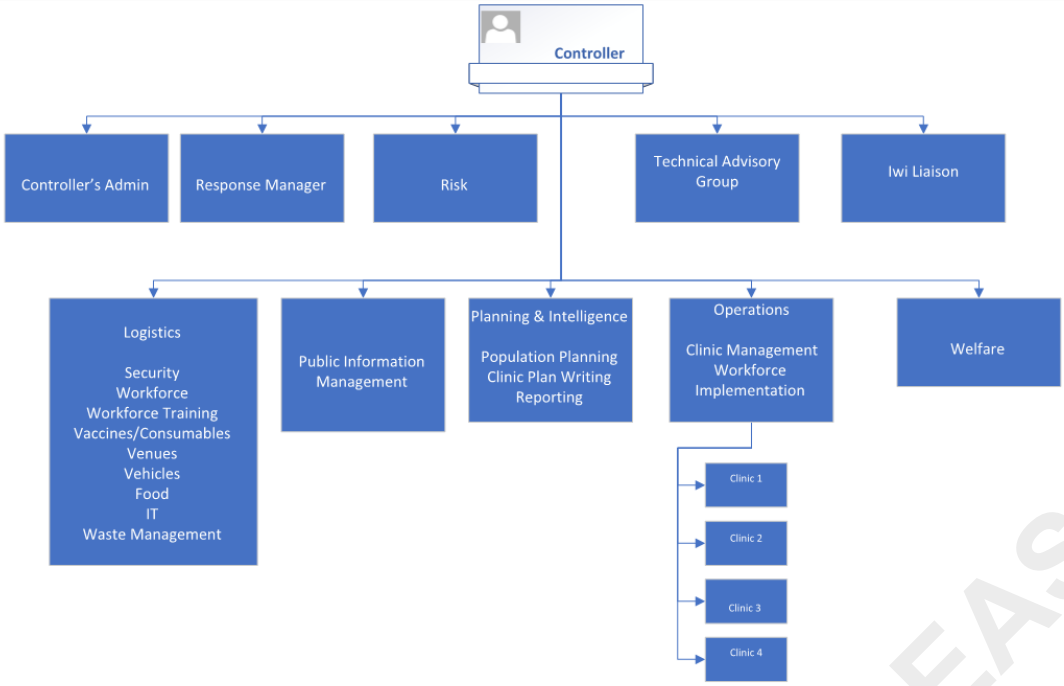
1.2 Southern DHB structure

Senior responsible officer (SRO): Lisa Gestro.

The COVID Programme Manager is supported by the Technical Advisory Group (TAG), IWI liaison, Risk, Response Manager and Administrator.

The current planning is using a CIMS structure. In the interim named people have been placed into roles, however, there is a need to confirm people to leadership roles on an ongoing basis, including Operations, Logistics, and Communications.

A significant amount of work is required to ensure that the work is undertaken under each function, ensuring planning is completed for the immediate, medium and long term role out of vaccinations in 2021.



Action Required:

- Confirm people to leadership roles on an ongoing basis. Including: Operations, Logistics and Communications (ongoing).
- Ensure each area is resourced to undertake the plan and implementation of the programme over the next 3 months (ongoing).

1.3 Māori and Pacifika Populations

Key aspects of the programme will include

- Co-design of the programme with Iwi stakeholders, kaupapa Māori health and disability services and Pacific Island providers and groups.
- Engagement with the seven papatipu rūnuka, and other community groups to ensure accurate communication and appropriate health literacy is made available to Māori and Pasifika populations to promote the uptake of covid vaccination services.
- Culturally appropriate workforce to meet the needs of the Māori and Pasifika populations for the Covid Vaccination Programme.
- Vaccination sites to be chosen for accessibility and appropriateness.
- Use of tikanga protocol for planning and operational aspects of vaccination programme including karakia/mihi.
- Communications available in Te Reo and identified Pacific languages, relevant for whānau.

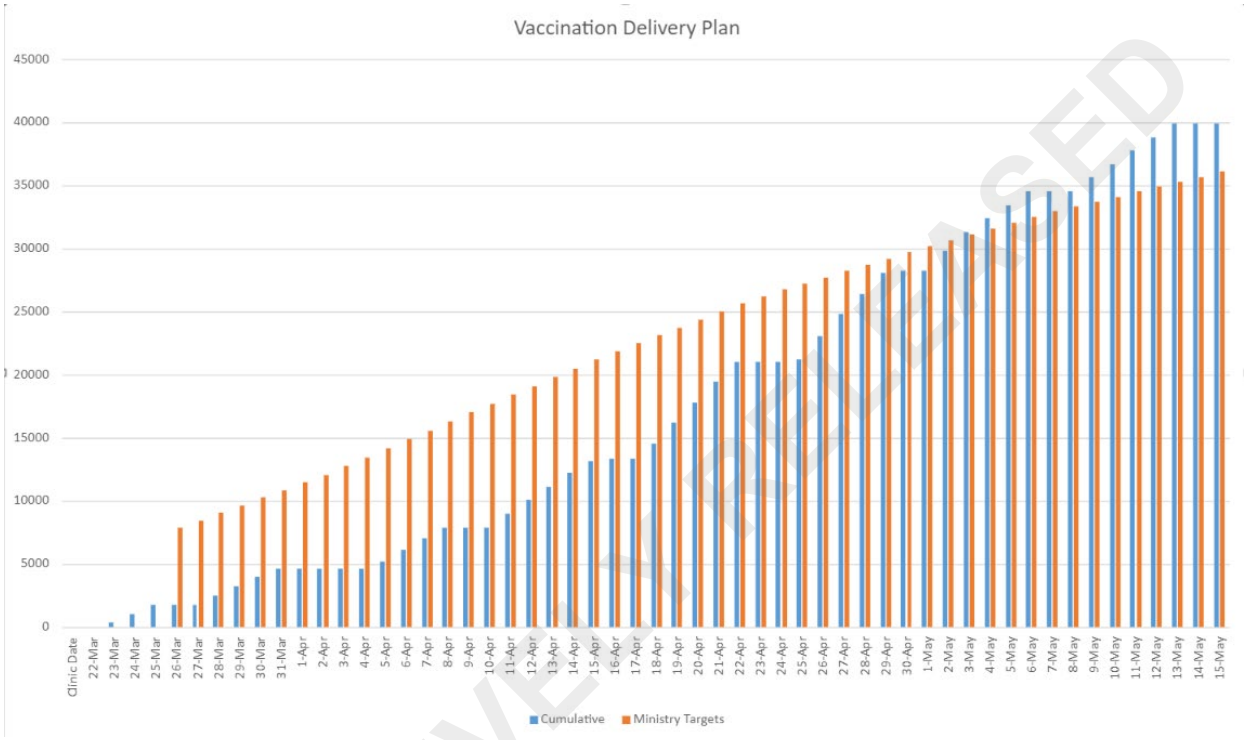
2.0 Overview and Engagement

On 1 March 2021, Southern commenced the delivery of Covid19 vaccinations. This commenced at the three international ports (Port Otago, South Port and Tiwai) and 447 people were vaccinated over the first week.

The second round of vaccinations are scheduled to commence on 24 March and will be completed by 1 April 2021.

In Tier 2, Southern has an estimated 5,520 frontline Healthcare workers (2a) and 14,155 remaining Healthcare workers, ARC residents and staff, and critical workforce employees (2b). To vaccinate this group before the end of April will require large scale vaccination clinics. *See Appendix 1 - Updated Sequencing 10 March 2021.*

We propose to begin with smaller clinics on 22 March with using existing vaccinator workforce and will build up clinic size and location throughout April, (see delivery plan below). Whilst Ministry expectations for delivery are not initially met, this will be achieved by early May 2021.



The Pfizer vaccine is the predominant vaccine to be used throughout NZ. This requires two vaccinations, a minimum of 21 days apart. The Pfizer vaccine currently poses some logistical challenges with distribution and shelf life. This is currently dispatched from Auckland and has up to 5 days shelf life at 2 – 8°C, once the vaccine has been thawed. Vaccine delivery to date has had 3 – 4 days shelf life. Vaccines are distributed in lots of 5, 15 and 195 vial lots. Between 5 – 6 vaccines can be drawn from each vial.

Southern DHB has NZ's largest remote and rural population, with approximately 75% of the population greater than 2 hours from a base hospital. Given the logistical constraints to achieve the number of vaccinations that are required, this lends itself to a hub and 'spoke' model of delivery.

Southern will establish fixed clinics at five sites with a combination of large and small vaccination clinics.
Note: Large (300 clinical minutes, 6 vaccinators), Small (300 clinical minutes, 3 vaccinators).

Large clinics will initially rollout in Dunedin and Invercargill. Once set up and associated workforce has been built up, clinics will quickly expand to throughout the district. Small - Central/Queenstown Lakes, Waitaki and Gore although the final configuration will be dependent on the local conditions (wider system workforce, facility suitability etc).

All clinic sites will be supported by outreach 'spokes' for localised delivery. Māori health providers will deliver provide supporting priority population vaccinations. A bespoke local delivery will be required for remote rural populations.

Southern is using a collaborative approach with partners within the from health system primary care/community/NGO in developing delivery models in these areas. A pragmatic interpretation of the existing sequencing framework is essential for successful delivery.

Actions required:

- Venues need to be identified for the sites (underway).
- Determine cold chain storage capacity either on site or in each area (underway).
- Functional booking system to booking system to be in place (jointly underway with other DHB's).
- Plan for distributed model of service delivery to rural areas (underway).

2.1 Vaccination Clinic Workforce

Initially the vaccination teams will comprise of Southern DHB staff (vaccinators and administration) and will utilise an existing workforce of immunisation co-ordinators to oversee clinical lead roles. Work is underway to build on the existing independent workforce and this is of high priority.

While the initial planning is for large scale vaccination clinics for Tier 1 – 3, to ensure we have coverage of the district, we are proposing DHB led local solutions involving primary and community/NGO workforce to vaccinate more remote areas outside the main towns.

The involvement from WellSouth PHO staff and primary care staff will need to be explored further and an overarching principle is to ensure that in putting in place a standalone workforce, we will be working to ensure that staffing is not compromised in the primary, ARC and community settings, and any other potential response work that may need to be undertaken such as Covid testing CBACs and Covid management and contact tracing.

The initial set up of the vaccination teams is will specifically impact the Public Health nursing workforce and the administration teams that support this work. This will impact on the delivery of the following Ministry of Health programmes: HPV school-based vaccination, MMR catch up campaign, Outreach, School based programmes, and Before School checks. This workforce is also part of the surge response for Covid contact tracing and case management and will reduce the DHB's overall response capacity in this area.

Each Vaccination Clinic team consists of the following:

- Site Manager
- Clinical Lead
- Greeter/Screening
- Security
- Cold Chain Supervisor
- Drawing up Nurse
- Vaccinator
- Runner (CIR)
- Pre-vaccination Admin (CIR)
- Post-vaccination Observation Nurse
- Post-vaccination Admin (CIR)

Large (6 vaccinator) clinic:

DHB Assumptions 12/3/21	**Vaccines per Day**	**360**
	Greeter	1
	Reception Administrators	2
	Site Manager	1
	Clinical Lead	1
	Cold Chain Supervisor	1
	Nurse drawing up	2
	Vaccinators Vaccinating	6
	Runners	6
	After Care - Nursing	2
	After Care Administrators	2
	Runners (ratio to Vaccinators)	*1.00*
	Doses per Vaccinator	*60*
	Administrators to Vacinator Ratio	*1.0*
	Nurse to Support Ratio	*1.0*
DHB Input Assumptions	Minutes per Vaccine	5
	Clinical Minutes Per Clinic	300
	Exit Review/Care - Time to wait	20

Small (3 vaccinator) clinic:

DHB Assumptions 12/3/21	**Vaccines per Day**	**180**
	Greeter	1
	Reception Administrators	2
	Site Manager	1
	Clinical Lead	1
	Cold Chain Supervisor	1
	Nurse drawing up	1
	Vaccinators Vaccinating	3
	Runners	3
	After Care - Nursing	2
	After Care Administrators	2
	Runners (ratio to Vaccinators)	*1.00*
	Doses per Vaccinator	*60*
	Administrators to Vacinator Ratio	*1.0*
	Nurse to Support Ratio	*1.0*
DHB Input Assumptions	Minutes per Vaccine	5
	Clinical Minutes Per Clinic	300
	Exit Review/Care - Time to wait	20

2.3 The Vaccination Clinic Structure

Vaccination clinic structure has been identified to be able to reach current targets whilst managing the complexities of the Pfizer vaccination. The baseline clinical model was developed to maximise flow and reduce bottlenecks, see *Figure 1 - Mass Vaccination Clinic* below.

Pre-vaccination area:

- Security and Greeter/Screener
- CIR check in process
- Vaccination/consent forms provided
- Exit point for vaccination

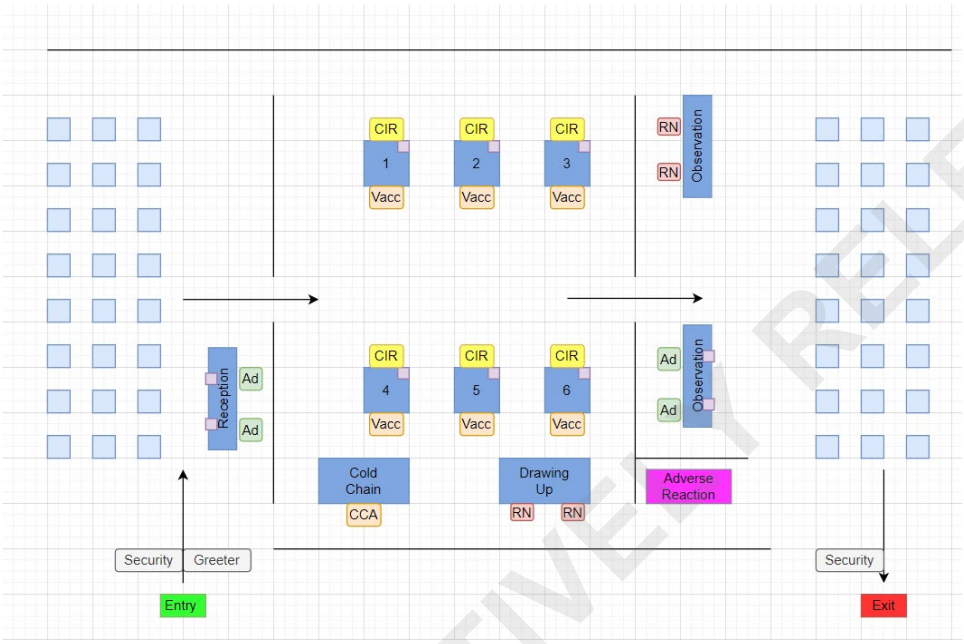
Vaccination area:

- Runner role to complete CIR
- Vaccinator to confirm consent and vaccinate
- Cold chain and drawing-up station accessible to vaccination area

Post Vaccination space:

- Second vaccination booked (1st vaccination only)
- AEFI space

Figure 1 – Mass Vaccination Clinic



Actions required:

- Independent workforce developed (including vaccinators, cold chain and administration) to be built up to meet the clinic staffing requirements (recruitment underway).
- Endorse the temporary ceasing of Public Health Nursing work – HPV, Catch up MMR, outreach, school based programmes and Before School Checks until an independent workforce is employed.
- Collaborative working with Primary care, community and NGOs around local solutions to workforce and vaccination clinics (underway).

2.4 Vaccination Facility Locations

Vaccination facilities/locations are the sites where vaccines are stored. Currently, vaccine will be ordered and delivered to the Southern DHB Public Health Nursing service for Dunedin, and Invercargill Pharmacy department for the next phase of vaccination delivery. Further vaccination facility locations will be established in Gore, Central Otago and Oamaru.

Further work needs to be undertaken to determine the logistics of vaccine delivery into the district to determine what other options are available to support vaccine delivery directly to other parts of the district. Once this has occurred a

stock take of cold chain storage options will be required. Note: storage needs to meet operational guidance including being in a secure site and alarmed.

Action required

- Confirm vaccine delivery logistics.
- Stock take of cold chain storage is required and if required additional storage is purchased.

2.5 Vaccination Site Locations

A vaccination site is the location of where vaccinations are delivered, details are still being confirmed. As previously discussed, we intend to set up fixed clinic locations as hubs which will be supported by clinics (as 'spokes').

Until these are established a combination of sites are being utilised including DHB facilities and Marae.

Action required:

- Offsite venues to be identified in Dunedin and Invercargill (initially)
- Venues to be assessed for suitability in accordance with the Operational Guidance, Infection Prevention and Control, and Safety and Risk.

2.6 Contingency planning

Vaccine efficacy is paramount, and final calls on use of drawn-up vaccines need to be made by the Clinical Lead on the day.

A standby list will be drawn to ensure any drawn-up vaccine is used. Only intact vials can be returned. Contingencies align with the sequencing framework and will have an equity focus.

2.7 Booking system

As previously discussed, a national booking system will not be available until sometime in May at the earliest and a system needs to be established in the interim.

Southern DHB is working with other DHBs to source and rapidly implement an interim solution is needed. Two providers have been identified and this is currently being investigated.

A booking system needs to deliver the following:

- Upload lists of persons who are eligible at a certain point in time to access vaccines
- Provide a login/link/code to those persons individually so they can access an online booking tool
- Provide an online booking tool where we can upload different clinic sites and locations, with associated clinic slots (or set that up in iPM and integrate the data)
- Send confirmation to person of appointment booking (email/SMS)
- Provide functionality to close clinic bookings x hours or days before start of clinic
- Provide functionality for person to change booking time and date
- Send SMS/email reminder x hours out from appointment
- Ability to record who attended, who did not, etc (or again, leverage iPM for this part)
- Potentially also to send information and consent forms ahead of time.

As a short-term solution people requiring vaccination have been booked into an outlook calendar via an email address.

Once the booking system is established communications to people within the second Tier will commence.

Action required:

- A comprehensive booking system needs to be identified and put in place and staffed .

3.0 Logistics

A critical factor for the Covid19 vaccination programme is Logistics. As the logistics piece is significant, we have broken this down within the activity workplan attached.

3.1 Digital requirements

Digital access is in place and all internal and external applications or website functions are set-up. For a large vaccination clinic, the site list will include:

Site IT equipment list
Laptops - 6 plus 1 per vaccinator
Cables
Internet Router & 4G

3.2 Workforce

To implement the vaccination delivery schedule in place and beyond, our existing workforce is not enough. Modelling has shown that the workforce required for large and small clinics across the district will require 120 workers per day.

As previously discussed, initially Southern DHB staff will be used but as numbers increase a standalone workforce will be required. Work is underway as a priority to build a stand-alone workforce that can operate clinics across the district.

A wide range of staff, skills and qualifications are needed for clinical and non-clinical roles. All runners and reception and observation admin will need to be Covid Immunisation Register (CIR) trained and be able to access the system. All vaccinators will need to be trained in administering the Pfizer Covid19 vaccine and set up in CIR. Cold chain accredited Registered Nursess will be needed to draw-up the vaccine and be Covid trained.

Workforce modelling has been completed for large clinis to be open from 0700 – 1900.

- Morning Session = 0730-1530
- Afternoon Session = 1130-1815

A model such as the above will need to be replicated for afternoon sessions and will not use the people who have been rostered for the morning session. The Super Clinic workforce will be implemented on a Monday to Friday model and is scalable. The workforce modelling for the Super Clinic above shows the clinic's minimum requirements and is possible to be implemented as is in Dunedin, however, it will preferably be supplemented by a further workforce.

Initially the large clinic model in Invercargill cannot be implemented at the same scale. The proposed structure for the Super Clinic at the Invercargill site is to run a Morning / Afternoon alternate session to allow the Tier 2 members to utilise a multitude of appointments.

Actions required:

- The reception administrators will require basic IT knowledge and access to the CIR

- The runners will require access to the CIR and clinical knowledge in administering the vaccine
- Post-Vaccination nurses do not require vaccination experience; minimum experience is CPR
- Post-Vaccination Administrator will require basic IT knowledge and access to the CIR to book their 2nd dosage appointment (1st dosage only) and note any adverse events.

3.3 Reporting and Tracking

A reporting and tracking system are fundamental. All sites and facilities will keep individual records relating to vials on hand, vial movements, consumables on hand, and vaccinations administered per day.

Planning and Intelligence will work with Logistics assistance to complete Ministry of Health reporting.

Appendix 1 – Updated Sequencing 10 March 2021

SUB-TIER	POPULATION COHORT	DEFINITION
TIER ONE: THE BORDER AND MIQ		
Tier 1(a)	Border workforce, all workers recorded on the official Border Register as per the Required Testing Order. (~7,700 people)	"Affected persons" at a New Zealand border (airport or marine port) as defined by the COVID-19 Public Health Response (Required Testing) Order 2020. Includes only the workforce that qualify for routine COVID testing as recorded on the official Border Register within the following categories: - Aircrew members who qualify based on the border order - Flight or ship workers who spend more than 15 minutes in an enclosed space (plane or ship) and qualify based on the border order - Airside government officials - Airside DHB workers - Airside retail, food, beverage workers - Airside cleaners - Airline/airport workers interacting with international passengers and baggage - Other landside workers interacting with international passengers - Pilots, stevedores working on/around, and people who board affected ship - Workers who transport to/from affected ship - Other port workers who interact with people required to be in isolation - Health workers providing COVID-19 testing services to these sites.
	MIQ workforce (~35,000 people)	"Affected persons" at a New Zealand border (airport or marine port) as defined by the COVID-19 Public Health Response (Required Testing) Order 2020. Includes only the workforce that qualify for routine COVID testing as recorded on the official Border Register within the following categories: This includes: - All MIQ workers (including all New Zealand Defence Force (NZDF) and New Zealand Police eligible for rotation to MIQF) - MIQ healthcare workers including medical, nursing and support staff who provide services to these facilities - Workers who transport to/from MIQ.
Tier 1(b)	Household contacts of the eligible border and MIQ workforce (~40,000 people)	Any person who usually resides in a household or household-like setting with (a border or MIQ worker as set out above), regardless of whether they are related or unrelated people; this will include people who may reside part-time in the household including children and partners not permanently resident in the household.

TIER TWO: FRONTLINE WORKFORCES AND AT-RISK PEOPLE LIVING IN HIGH-RISK SETTINGS		
Tier 2 (a)	Frontline (non-border) healthcare workers potentially exposed to COVID-19 whilst providing care. (~57,000 people)	The frontline healthcare workforce in service delivery settings where possible cases will seek healthcare and there is no ability to screen for COVID-19 before the interaction occurs. It includes only staff who are at the front line interacting directly with patients in: - COVID-19 testing (taking samples and laboratory analysis) - Administering COVID-19 testing - Administering COVID-19 vaccinations - Ambulance services - Accident and emergency department frontline staff - Urgent care clinic front line workforces - Emergency response diagnostics (e.g. radiology) and support staff (e.g. orderlies, security, receptionists) who are interacting with patients - Community midwives and WCTO workers in people's homes - General practice front line workforce including GPs, nurses and receptionists - Pharmacy front line workforce - NGOs (including Whānau Ora) providing first response personal health services directly to patients (excludes mental health and addictions, social support services) - Healthcare providers providing treatment services to people in managed isolation. This only includes the four centres with MIQ facilities and only extends to services which receive MIQ patient referrals. AND: - Contact tracing personnel required to respond to prevent community transmission
Tier 2 (b)	Frontline healthcare workers who may expose more vulnerable people to COVID-19 (~183,000 people)	The frontline healthcare workforce working in healthcare service delivery settings interacting with patients/clients. Frontline healthcare workers interacting with patients: - Inpatient, ambulatory and outpatient publicly funded hospital services including community staff and diagnostics - All long-term residential care frontline workers, including aged residential care, Corrections (staff at custodial and community-based residences), disability, Oranga Tamariki (including Youth Justice), mental health and addictions, group-based transitional residences for homeless people, and hospice care workers. - Home care support workers including aged care and disability support - Community diagnostics – radiology, laboratories - All other primary care not included in Tier 2 (a) - Community and home-based services - All NGO and community-based services including iwi-based services, mental health - Community public health teams, including outreach immunisation staff - COVID Incident Management Teams at each DHB AND: - NZDF staff who may be involved in overseas deployments for the purpose of vaccination programmes

	At-risk people living in settings with a high risk of transmission or exposure to COVID-19 (~235,000 people)	Any person who usually resides in a long-term residential care setting, including (approximately ~57,000 people): - Aged Residential Care (~35,000 people) - Disability Residential Support Services (~7,700 people) - Oranga Tamariki, including Youth Justice (up to 100 people) - Mental health and addictions (~9,800 people) - Group-based transitional residences for homeless people (~4,000 people based on the number of transitional housing places, though actual number is likely to be lower) Approximately 40,000 courses allocated to Māori and Pacific providers to reach older people (and their households and carers) living within a whānau environment in hard to reach places (this is approximately equivalent to the number of Māori and Pacific people over 70 years of age, and the allocation for aged residential care). Any person in the Counties Manukau DHB district who: - is over the age of 65 years (~70,000 people), or - is under 65 years old but has a relevant underlying health condition that puts them at risk of severe disease from COVID-19 infection* (indicative estimate is ~67,000 people).[1] - is in custodial settings (~1,300 people) -
TIER THREE: NEW ZEALAND PUBLIC WHO ARE AT AN ELEVATED RISK OF SEVERE ILLNESS FROM COVID-19		
Tier 3 (a)	Older people nationwide (not already covered in Tier 2(b))	People who are 75 years or older (~317,000 people)[2]
Tier 3 (b)		People who are 65 years – 74 years (~432,000 people)
Tier 3 (c)	People with comorbidities nationwide aged under 65 years and people in custodial settings	People with relevant underlying health conditions* and disabled people under 65 years of age (very approximate estimate due to potential double counting is 730,000 – 1.3 million people). Individuals in custodial settings (~7,500) *This includes coronary heart disease, hypertension, stroke, diabetes, chronic obstructive pulmonary disease/chronic respiratory conditions, kidney disease and cancer. While it is not a health condition, pregnant people will also be included in this Tier.
REST OF THE POPULATION AGED 16 AND OVER		

[1] 9 Chan WC, Winnard D, Papa D (2017) People identified with selected Long-Term Conditions in CM Health in 2015. Counties Manukau Health. Unpublished.
[2] Based on 2021 DHB Population Projections (estimated 2020).

Appendix 2 -Vaccine Facilities

Invercargill site	Dunedin Sites
Invercargill Hospital **Delivery address:** Invercargill Hospital Pharmacy Kew Road Invercargill s 9(2)(a) [redacted] Capacity: Consumable capacity: Yes	Te Punaka Oraka -Public Health Nursing **Delivery address:** Public Health Nurses Level 2, Main block Wakari Hospital 333 Taieri Road Dunedin s 9(2)(a) [redacted] Capacity: Consumable capacity:
	Southern District Health Board Dunedin Hospital **Delivery address:** Dunedin Hospital Pharmacy Level 1 Oncology building 201 Great King Street Dunedin s 9(2)(a) [redacted]