24th November 2021

s9(2)(a) [redacted]

Dear s9(2)(a)

Official Information Act Request for – Childhood Immunisations

I write in response to your Official Information Act request received by us 1st October 2021 by way of partial transfer from the Ministry of Health (ref: H20211364), you requested the following information:

1. **Data showing immunisation rates for children at eight months of age, broken down by ethnic group, for each month in the past three years. Please provide this in a CSV or Excel spreadsheet format if possible.**
2. **Analysis or advice created in 2021 that examines possible reasons for a decline in vaccination rates among Māori and/or Pacific children.**
3. **Analysis or advice created in 2021 that examines vaccine hesitancy, including in relation to the Covid-19 vaccines.**
4. **High-level correspondence in 2021 with senior executives from other DHBs in relation to increasing childhood immunisations or addressing the decline in vaccination of Māori and/or Pacific children.**
5. **High-level correspondence in 2021 between the DHB and Ministry of Health relating to increasing childhood immunisations or addressing the decline in vaccination of Māori and/or Pacific children.**
6. **Data showing the number of staff involved in childhood vaccinations for each month in 2021.**
7. **Data showing the number of staff who were moved from childhood vaccinations to the Covid-19 response at any time in 2021.**
8. **Details of any recovery or action plan created in 2021 to improve the rates of childhood immunisation and reduce decline rates for Māori and/or Pacific children.**
9. **Advice created in 2021 on the establishment of a merged Auckland region immunisation operations group.**

Counties Manukau Health Response:
For context Counties Manukau Health (CM Health) employs over 8,500 staff and provides health and support services to people living in the Counties Manukau region (approx. 601,490 people). We see over 118,000 people in our Emergency Department each year, and over 2,000 visitors come through Middlemore Hospital daily.

Our services are delivered via hospital, outpatient, ambulatory and community-based models of care. We provide regional and supra-regional specialist services i.e. for orthopaedics, plastics, burns and spinal

services. There are also several specialist services provided including tertiary surgical services, medical services, mental health and addiction services.

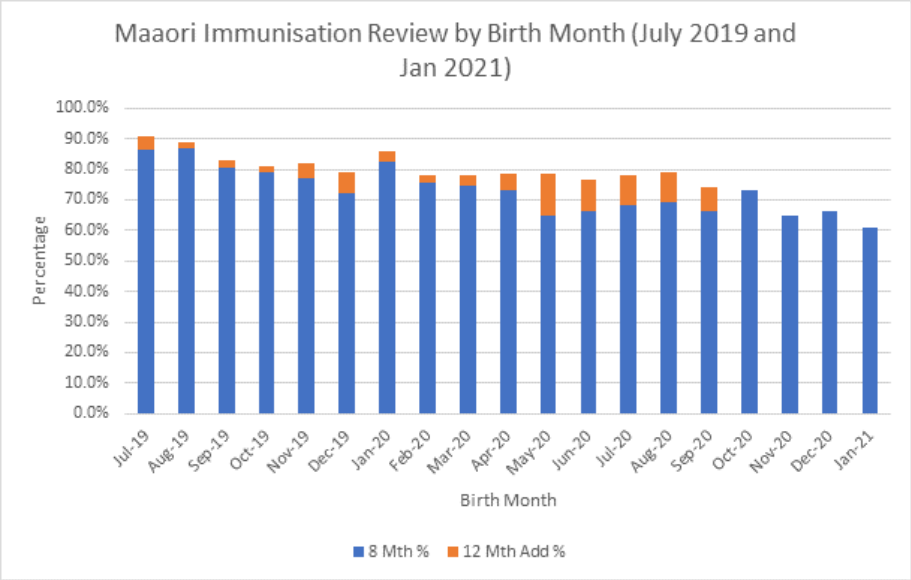
1. **Data showing immunisation rates for children at eight months of age, broken down by ethnic group, for each month in the past three years. Please provide this in a CSV or Excel spreadsheet format if possible.**
   Appendix 1 reflects immunisation rates for children at eight months of age by ethnic group in an excel spreadsheet as requested.

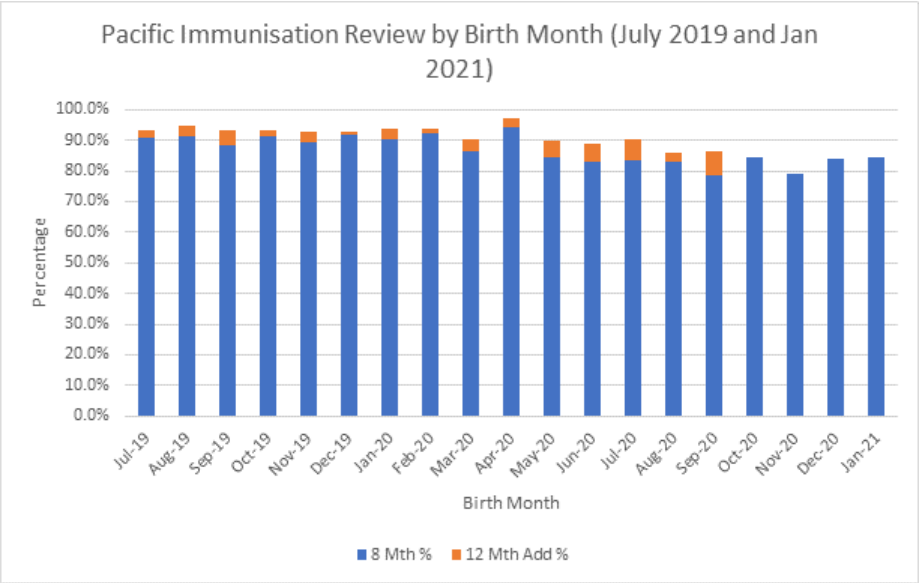
   In October 2021, the CM Health Executive Leadership Team requested an action to understand if the equity gap in immunisation rates for Maaori and Pacific children was an issue of timeliness (i.e. not meeting the KPI timeframes but being immunised after the target date) or an issue of non-immunisation.

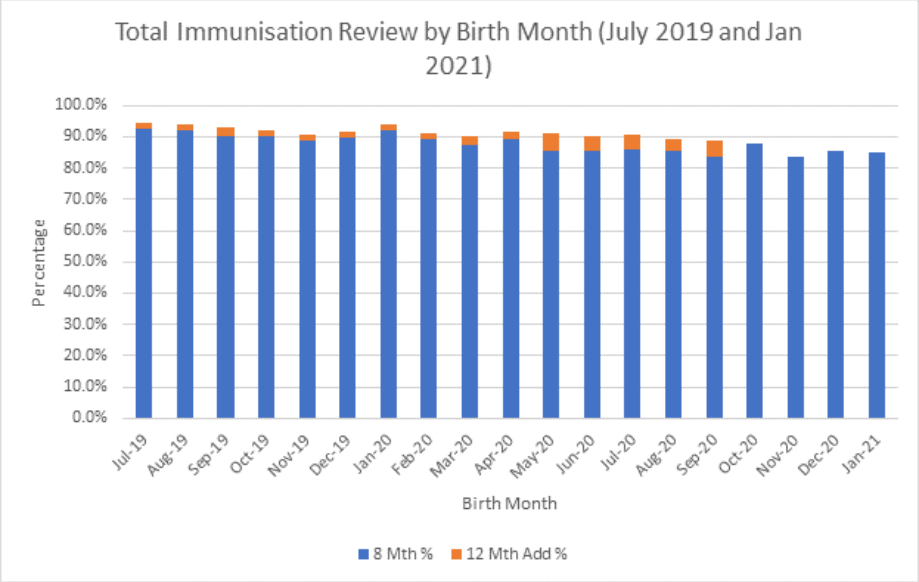
   Accordingly, an analysis of children born each month between July 2019 and January 2021 was undertaken to show their vaccination status at 12 months of age. The results show the proportion of children that received their full primary course of immunisation (i.e. all scheduled six-week, three month, and five month vaccinations) by eight months (on time) or 12 months of age (delayed). The results are broken down by total, Maaori, and Pacific ethnicity and recorded in the Appendix.

   On average, 5.8% of Maaori 1 year olds (125 children out of the sample population of 2,141) received their primary course of immunisations between 8 and 12 months of age (e.g. on a delayed timeframe). For Pacific and all (total) children the average is 3.9% (127 children out of the sample population of 3,221) and 3.0% (317 children out of the sample population of 10,654) respectively.

   Immunisation analysis
   Note: No 12-month data is available yet for those born from October 2020 onwards and children born in January 2021 are the latest group to have reached the 8-month milestone.







2. **Analysis or advice created in 2021 that examines possible reasons for a decline in vaccination rates among Māori and/or Pacific children.**
   Publicly available at the below link is an *Immunisation Coverage* paper that outlines childhood vaccination coverage targets in Counties Manukau and explores data (currently available) to help understand the opportunities for action to increase childhood vaccination coverage in CM Health.
   - https://www.countiesmanukau.health.nz/assets/About-CMH/Reports-and-planning/Child-and-youth-health/2021-07-Immunisation-coverage-primary-series-and-childrens-interactions-with-the-health-system-final.pdf

   Vaccination rates for Maaori and Pacific children are regularly reviewed and monitored through a data extract of the National Immunisation Register (NIR) received weekly from the Ministry of Health. Vaccination rates are also reported quarterly to the Ministry of Health and are published on the Ministry's website at:
   https://www.health.govt.nz/our-work/preventative-health-wellness/immunisation/immunisation-coverage/national-and-dhb-immunisation-data

3. **Analysis or advice created in 2021 that examines vaccine hesitancy, including in relation to the Covid-19 vaccines.**

Vaccine hesitancy in relation to Covid-19 vaccines has not been investigated at the DHB level.

4. **High-level correspondence in 2021 with senior executives from other DHBs in relation to increasing childhood immunisations or addressing the decline in vaccination of Māori and/or Pacific children.**
   The Northern Region Child Health Steering Group requested the establishment of a Northern Region immunisation working group to understand and report on the activity, influences, enablers and barriers to immunisation for tamariki in the Northern Region. The scope of this work included the scheduled vaccinations from birth to five years of age. The report was completed in September 2021.

   The report, *Immunisation of Tamariki 0-4 years in the Northern Region: Review July 2021* attached as appendix 2 includes the following:
   - Analysis of Northern Region immunisation data with narrative about current trends
   - Analysis of the current immunisation system as it relates to the whānau journey and themes from narrative and feedback
   - Current regional activity across a range of key touch points for service delivery. These include:
     - Primary care
     - Outreach Immunisation Service
     - Covid-19 environment
     - Other Community Outreach services for immunisation
   - Capacity of the regional immunisation workforce in the short and medium term
   - Short and long term recommendations based on Whakamaua and in the context of the health and disability reforms.

5. **High-level correspondence in 2021 between the DHB and Ministry of Health relating to increasing childhood immunisations or addressing the decline in vaccination of Māori and/or Pacific children.**
   In response to this question please see copies of high level correspondence to/from the Ministry of Health attached in appendix 3.

6. **Data showing the number of staff involved in childhood vaccinations for each month in 2021.**
7. **Data showing the number of staff who were moved from childhood vaccinations to the Covid-19 response at any time in 2021.**
   In response to questions 6 and 7, CM Health contracts Primary Health Organisations (PHOs) in our district to deliver childhood vaccinations through general practices. Data on the exact number of staff involved in childhood vaccinations is not collected. Therefore, this aspect of your request is declined under section 18(g) of the Official Information Act, as the information requested is not held by us.

   CM Health have a number of staff that are involved in different aspects of work related to childhood immunisations. However, this work is a component of other work undertaken within our teams and is something we do not hold data of, this includes the number of staff movements or secondments in response to Covid-19.

   Part-way through July 2021 CM Health took back the contract to provide outreach immunisations, the FTEs in this services are in the below table.

Role	FTE
Registered Nurses	3 FTE
Whaanau Support Workers	3 FTE

Administration	1 FTE

8. **Details of any recovery or action plan created in 2021 to improve the rates of childhood immunisation and reduce decline rates for Māori and/or Pacific children.**
   Appendix 4 reflects the *Child Immunisation Plan* that outlines the steps that CMDHB is taking to address childhood immunisation outcomes, particularly regarding equity. It outlines details of how we are working with Maaori and Pacific communities to improve the outcomes form tamariki Maaori and Pacific children, how outreach services are being deployed to improve coverage and details of what is currently working well in our DHB.

   CM Health is currently working on a specific action plan for childhood immunisations for Maaori and Pacific children. We are working on an approach that includes a plan to sustainably increase immunisations for children, particularly Maaori tamariki as well as a catch up campaign for tamariki that are significantly overdue. This plan is not yet finalised however the goal of this plan is:
   - to equitably improve immunisation rates for pregnant women & children (age 0-4) in Counties Manukau with a pro-equity approach for Maaori & Pacific. We aim to remove barriers and encourage whaanau to get this group vaccinated in order to reduce the risk of outbreaks of vaccine preventable diseases
   - to equitably close the maternal and childhood immunisation (age 0-4) gap in Counties Manukau by 30 March 2022 in order to reduce the risk of outbreaks of vaccine preventable diseases

9. **Advice created in 2021 on the establishment of a merged Auckland region immunisation operations group.**
   Please see the attached emails in appendix 5 in regards to the establishment of a merged Auckland region immunisation operations group. The email discusses the proposed merge/combining of the CMDHB, ADHB, WDHB immunisation working group meetings, 28 June 2021. (Email addresses of external stakeholders have been redacted under section 9(2)(a) of the Official Information Act 1982.)

   CM Health has incorporated the regional report recommendations into our local action plan which is currently under prioritisation and resource allocation. We are also looking at opportunities to integrate this work with Covid-19, MMR and other immunisation campaigns.

I trust this information answers your request. You are entitled to seek a review of the response by the Ombudsman under section 28(3) of the Official Information Act. Information about how to make a complaint is available at www.ombudsman.parliament.nz or Freephone 0800 802 602.

Please note that this response or an edited version of this may be published on the Counties Manukau Health website. If you consider there are good reasons why this response should not be made publicly available, we will be happy to consider this.

Yours sincerely

Fepulea'i Margie Apa
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Counties Manukau Health

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2021-09-21

Dear Northern Region Maori Health and Child Health General Managers

Shayne Wijohn (WDHB)
Sharon McCook (CMDHB)
Aroha Haggie (CMDHB)
Nigel Chee (ADHB)
Moana Tane (NDHB)
Paula Seymour (WDHB)
Nettie Knetsch (CMDHB)
Rochelle Bastion (CMDHB)
Emma Maddren (ADHB)
Jeanette Wedding (NDHB)

Please accept this report regarding the current Northern Regional Child health immunisation status. As a national issue, this report has also been shared with the Ministry of Health.

This report was commissioned by the Northern Region Child Health Steering Group in response to concerns about plummeting childhood immunisation rates. As you are aware on a backdrop of chronic inequities, there has been further significant decline in immunisation rates as an unintended consequence of the COVID pandemic and response.

We are writing to you to request formulation of an urgent coordinated regional response. The report provides recommendations for consideration.

The working group who collated this report are grounded in service delivery. Whilst it has been written within a short time frame the intention is to create stimulus to discussion and action.

Yours sincerely

Dr Ailsa Tuck / Dr. Tim Jelleyman
Clinical leads, for Northern Regional Child Health Network

cc.
Dr Nick Chamberlain CEO Sponsor Child Health Network
Dr Pete Watson: CMO Sponsor Child Health Network
Sarah Herbert NRA Equity Lead
Dr Grahame Jelley: Northland Primary Care
Northern Primary Care Clinical Governance Forum:

- Andrew Old
- Ajay Makal
- Joy Christison

Dr Nikki Turner: IMAC
Bryan Betty: RNZCGP

IMMUNISATION OF TAMARIKI 0-4 YEARS IN THE NORTHERN REGION: REVIEW JULY 2021

Immunisation Working Group

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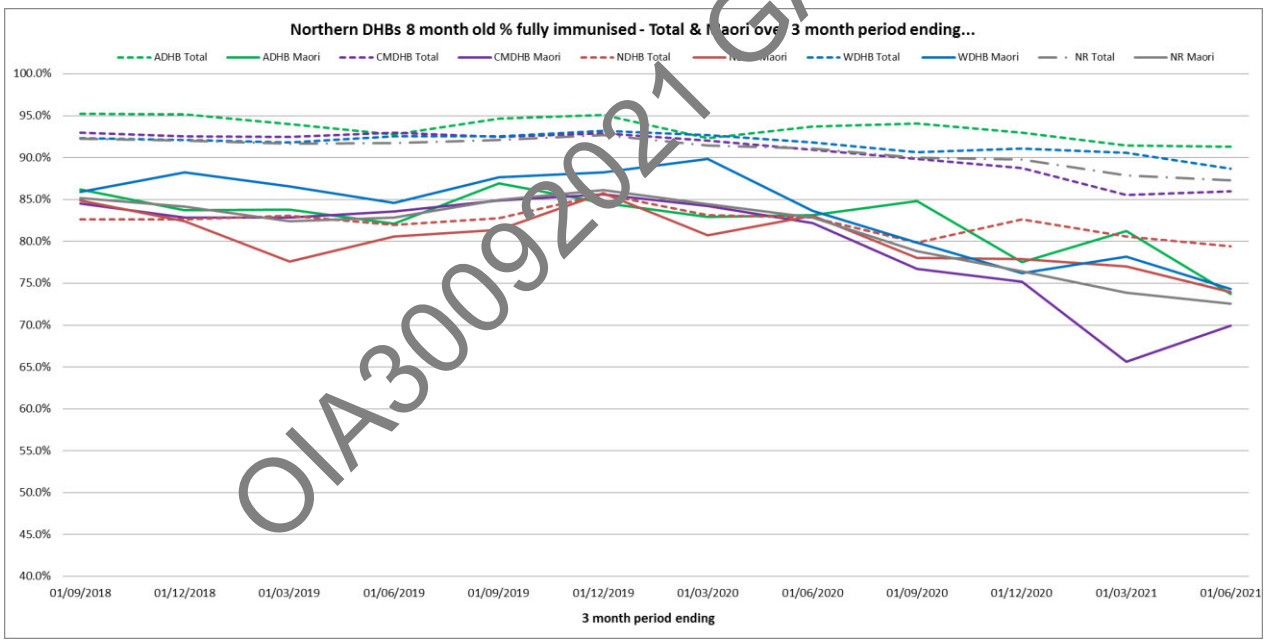
Immunisation of Tamariki 0-4 years in the Northern Region: Review July 2021

Executive Summary

In April 2021 the Northern Region Child Health Steering Group (CHSG) requested the development of a working group to formulate an urgent report for delivery in early August 2021. This was in response to regional data highlighting plummeting immunisation rates and growing inequities of immunisation coverage for tamariki across the Northern Region.

The review undertook to understand the state of regional childhood immunisation programmes including within the innovation space and to provide a series of recommendations. A sense of urgency and a requirement for a 'call to action' prompted the shortened time frame.

The table below provides 3-month trend data utilising the Ministry of Health 8-month milestone report since 2018. This highlights the continued decline in immunisation rates for tamariki Māori in the Northern Region. This significant downward trend shows that coverage has fallen below 80 % in most districts. This is below the rate required to prevent outbreaks of VPD (vaccine preventable diseases) and is well below the national target of 95%.



This equity gap for tamariki Māori in the Northern Region was increasing prior to the onset of the COVID-19 pandemic. COVID-19 has had a significant impact on childhood immunisations both within New Zealand and internationally. Additionally, providers point to factors around the introduction of the 12-month MMR vaccine as also attributing to the reported reduction in immunisation rates.

Significant current risk exists from the very low immunisation rates within our population. The current border closures are keeping most VPD out of the population. However, experience tells us that without a population health strategy we will be faced with future VPD lethal outbreaks within clusters. This will invariably inequitably impact Māori and Pacific children and their communities.

Structural barriers and ongoing program failures within the health system continue to perpetuate inequity for tamariki Māori in relation to immunisation. This requires an urgent and targeted response across all of the health system to fulfil Te Tiriti o Waitangi obligations.

The Northern Region must also deliberately target equity of outcomes for Pacific children.

Establishment of a Northern Regional Working Group

Membership of the working group was inclusive of the four districts within the Northern Region. The kaupapa (foundational principles) of the mahi required representation from Māori to achieve tino rangatiratanga and partnership in alignment with Whakamaua – Māori Health Action Plan 2020-2025 (Appendix 1).

There was leadership from a range of settings including DHBs, Primary Care and Funding & Planning. Working group members used DHB networks to include a much wider group of informants, limited only by the short time frames. Group participant's names are listed in Appendix 2.

Project Scope

The working group scope included a regional stocktake to describe current state for childhood immunisations. The focus was intentional toward tamariki Māori and their whānau. The working group committed to deliver a report identifying key immediate actions. The working group have confidence that strategies that improve immunisation rates for tamariki Māori will also lift other priority group immunisation rates for other populations.

Strategy

The working group followed the whānau journey to immunisation from pregnancy to the completion of the childhood series until the four year 4 immunisations.

Service delivery and reporting in the first instance requires focus on the successful completion of the 6-week immunisation. The ongoing strategy is to achieve immunisation scheduled events on-time at 6-weeks, 3-months and 5-months of age.

The table on Page 6 provides a summary of key issues and recommendations. Short term actions are focussed on VPD outbreak prevention and redress of growing inequities. Medium term and long-term recommendations are discussed in more detail and provide consideration to inform any future changes in the model of care for the northern region.

Stocktake of current service delivery

A stocktake of current regional immunisation activity was collated. This is represented in a matrix in Appendix 5. This wasn't broad enough to identify all Primary Health Care General Practices that are currently vaccinating.

Key themes from this review

Chronic inequities in immunisation coverage: Long term systemic failures have caused barriers for whānau Māori immunisation services in New Zealand. Covid-19 has stretched health services to capacity creating unpredictable challenges and widened health inequities. Pae Ora Healthy Futures for Māori (Whakamaua), and the health system re-structure provide us with an opportunity for reform.

Systemic racism and bias: Conscious and unconscious bias creates barriers for whānau trusting and accessing primary care and health services. Te Tiriti o Waitangi based leadership is key to ensure any service development is meaningful, culturally safe and sustainable (Jopnoe, 2021).

Referral pathway timeliness: The referral and enrolment to practice processes create gaps in a critical time period for relationship building between whānau and primary care and subsequently successful immunisation. Maternal vaccination provides a protective mechanism and an opportunity to further the conversation, trust and confidence around childhood immunisation and the early relationship with primary care (Wing Cheuk Chan, 2021) (Appendix 3). Immunisation is best considered holistically within the context of whānau needs.

Reporting and IT systems: Current reporting does not meet the needs of teams or enable early support to the immunisation journey. Reporting needs to reflect a proactive approach to immunisation and to allow for reporting of individual vaccination events. This includes the positive reinforcement of maternal immunisations and the protective factors influencing immunisation (Wing Cheuk Chan, 2021). Proactive and real time reporting would increase the timeliness of recalls for vaccination only if it occurs earlier than the current 8-month focus. An IT system with flexibility and improved access could eliminate cost and time consuming practices used to manage the current system. For example, having availability of on-line booking systems for whānau.

Workforce Capacity: Workforce is a limited resource and has been stretched to cover other priorities. Childhood vaccinators need to have protected time and resources to meet the demands of the current situation. Growing workforce capacity and using the semi-skilled workforce emerging from Covid-19 offers an opportunity to support whānau to navigate the health system. A training platform that is Te Tiriti o Waitangi compliant will enhance learning and resources available for staff and whānau.

Language, communication and relationship: Health outcomes are dependent upon a trusting relationship between whānau and health services, and between all health providers. A holistic approach to care that crosses the life span sits well in primary health; for childhood immunisation a well-child context is appropriate. Messaging needs to be consistent, friendly, available at all times and non-biased.

Covid-19: Covid-19 has added an extra layer of complexity impacting on whānau who are protecting their tamariki from potential risk of exposure. The changes in daily practices required for Primary Care to manage population wellbeing reduces the availability for staff to work face to face with whānau impacting on relationship building, trust and opportunities to provide immunisations.

Funding: System funding has siloed immunisation and services. A full review of commissioned services is indicated.

Getting it right from the beginning: Evidence shows that completion of the 6 week vaccination is a reliable indicator that the childhood series will continue to be completed on time (Rumball-Smith, Declining Care: A child's vaccination pathway, 2015). [i]However, it is recognised that a poor experience at this 6-week event can have a lasting impact on engagement with immunisation and the health system in general.

Key short time recommendations requiring immediate action

- Engage all key sector partners and stakeholders in developing a Regional Action Plan to achieve a planned recovery of immunisation rates and re-address inequities.
- Specifically prioritise prevention of VPD outbreaks i.e. Measles and Pertussis. Direct focus toward communities with the lowest vaccination coverage; under 5 year olds and antenatal coverage.
- 'Business as usual' will not have the capacity to address this alone.
- A collective impact approach will be required to increase resourcing to immunise children across the entire health system.
- Endorse the need for strong Māori health leadership.
- Consider a regional Incident Management Team (IMT) approach with associated funding under 'missed planned care'.
- Leverage off increased immunisation workforce before dissolution post COVID response.
- Resource culturally and community responsive communication programmes alongside 'catch up'.
- Continue progress to ensure immunisation systems have flexibility to deliver integrated whānau care with a whole of life course approach.

Primary Care – inclusive of GPs, Pharmacies, WCTO, Māori Providers, Midwives

- Ongoing stocktake and consultation regionally is required within Primary Care General Practice to identify current capacity, the impacts of Covid and enablers they can identify.
- The working group endorses the current MEDINZ messaging:
  - Mandatory acceptance of all new-born referrals by Primary care practices.
  - Primary care to continue to concentrate on the 6-week vaccination event.
  - Primary care to prioritise childhood immunisations and continue to vaccinate throughout all COVID levels.
  - Prioritisation of Māori and Pacific whānau.

Outreach Immunisation

- Ongoing prioritisation of Outreach Immunisation Services (OIS) that includes home visiting options.
- Endorse current and further innovation for well child outreach including immunisation clinics.

Escalation to the MoH with the following additional recommendations:

Immediate requests:

- Integration with a National approach.
- Prioritisation and visibility of antenatal immunisation coverage.
- Temporary suspension of any mandated requirements for enrolment and immunisation e.g. ensure birth certificate is not required for immunisation.
- B enrolments are automatically extended to 6-months to limit potential disenrollment.
- Clarification of which immunisations can be co-administered with COVID (relevance to School Based Health Services).
- Data level reporting at 2-years is misleading. Reporting for childhood immunisations needs to occur at real time and at all milestones; especially at 6-weeks to influence proactive, successful immunisation.

Longer term:

- Current systems for data and reporting are no longer fit for use. Any planning for a new NIR must include additional functionality to improve communication and accessibility of immunisation events and system responsiveness.

Table of Recommendations for Immunisation System Change:

Responsibility for actions outlined are yet to be determined.

Areas of where responsibility may currently sit are depicted by the following code:

Green = Ministry of Health
Red = Regional
Orange = Primary Care
Blue = DHB's
Yellow = IMAC

Table 1:	Real Time Data and digital Enablement	Language	Communications Media	Structural Enablement	Integrated Whānau Care (Imms +)	Workforce	Funding	Intersectoral Working
Immediate – 0-3 months	Increase Qlik responsiveness and timeliness of reporting	Develop strengths based Primary Care consistent whānau contact messaging e.g. Text precalls, recalls, letters etc.	Communication (MEDINZ) to Primary Care to accept all new-born Baby Nominations	Removal of all barriers to enrolment through relaxation of eligibility e.g. - no birth certificate required to be immunised	Community engagement to identify groups requiring proactive community supported immunisation	- Prioritise skilled child health workforce for vaccination with alternatives for Covid response	A resourced catch-up programme for 0-4 years	Involve all key sector partners and stakeholders in developing a regional action plan
	Identify susceptible population. NHI level epi data on current immunisation coverage 0-4 year identify geographical areas for urgent attention. Identify N 0\1\2\ MMR.	Develop Regional Best Practice documents ensuring they are strengths based and Te Tiriti responsive.	Te Tiriti responsive and Te Reo accessible media campaign 0-4 year immunisation.	Extend B enrolments to 6 months	Proactive Integrated whānau care programme (OIS)	Strengthen opportunistic hospital and outpatient immunisations.	Payment of birth certificates N priority populations	Identify sectors that work with priority populations. Opportunities for MoU (or similar) and supportive immunisation (e g. Housing initiatives including access to integrated whānau care)
	Review of data system across the region to establish a clear plan of work	Identify key champions with Primary Care and Midwifery teams for relationship building	DHB sharing of communications and media practices across the region to ensure consistent messaging.	Prioritisation of integrated whānau care for Māori and Pasifika populations	Establish the who, how and when for the work programme	Gain clarity of the distribution of the current vaccination workforce. Potential opportunities to integrate immunisation activity differently	Review of capitation and funding of vaccinations to be in line with Covid-19	
	Tidy up connected health information services including NES and NIR	Recommendations to IMAC to review responsiveness of website and resources to Te Tiriti o Waitangi	Update personal details at every opportunity across services. Flexible delivery aims to provide vaccinations at every available opportunity.	Relationship building with key stakeholders Midwifery college midwives, Pharmacy, MSD		Identify training pathways for future workforce. Consider options for Integrated Whānau Care (e.g. unregulated Kaimahi trained for Covid vaccination)	Avoid short term narrow focus contracts and move towards commissioning of holistic models of care (Imms +)	
			Work with midwives/midwifery college to ensure the correct GP for baby is identified at birth to ensure nomination goes to the correct practice.	For the 3 critical system issues, develop a regionally consistent solution for short term and recommendations re long term re-design				
Medium term 3 months-1 year	NCH P reporting informs proactive anticipatory approach	Work with midwifery workforce to ensure positive strengths based messaging for immunisation	MOH and Māori Health Board to establish leadership for Imms programme based on Te Tiriti	Develop a plan for systematic process to maintain up to date contact details across all health points (NH P).	Develop relationship with Māori Health Board and MOH to establish work on foundational documents	Policy/funding preparedness for future workforce - covid kaimahi	Policy/funding preparedness for future workforce - covid kaimahi	Development guidance for positive conversations with whānau about immunisation - see Comms/media
	NCHIP uptake in Counties Manukau	Training the workforce in strengths based enabling language and actions. Awareness therefore to overcome individual and practice level bias.		Standardise a regional pathway of care	Leverage from current work in the region that is performing well	Enablement of care by micro credentialed workforce (policy/funding)	Enablement of care by micro credentialed workforce (policy/funding)	Plan for digital enablement of contact sharing
	Development of a real-time Child Health Indicator monitoring dashboard	Connect with MOH and Māori Health Board for guidance with leadership			Develop regional strategy around delivery and capacity building	Development of workforce cultural competency with framework and resources	Review of across sector funding of immunisations in line with the vaccinating workforce identified e.g. Pharmacy	
	Review recommendations from Covid-19 experience							
Long term > 1 year		Have a structure in place that is working in Te Tiriti for workforce development, training, resourcing						

Immunisation Programme Delivery Nationally

The national immunisation system was last reviewed in 2016. Since that time health teams have continued to work hard to lift immunisation rates and connection with services for Māori (MOH, 2016). Despite intent, and occasional instances of achieving equity for Māori, rates of immunisation for Māori are continuing to drop. There is a long-standing history of a system that underperforms and continues to fail Māori. Consistent regional services operating under national oversight would provide transparency of care and service delivery.

A well-functioning immunisation program is a cornerstone of population health. The rate of pneumococcal infection associated with RSV is rising and adults may be at risk from under vaccinated children. There is a high risk of child mortality secondary to cluster outbreaks of VPD. The situation has been compounded by the Covid-19 outbreak for both New Zealand and our Pasifika neighbours.

Business as usual is not enough to remedy or impact the current situation. Immediate and intentional disruption of the current childhood immunisation programme is required to have any impact on tamariki wellbeing. Strategic change across the Northern region that is intentional and culturally responsive will need to specifically prioritise immunisation for the 0-4-year-old population.

Consistent throughout the themes was the notion that the additional MMR vaccination resulted in a significant increase in workload in an already under resourced workforce. A subsequent 20% reduction in vaccination rates noted by CMDHB (Wing Cheuk Chan, 2021) is thought to reflect capacity issues relating to programme delivery.

The implementation process for change and communication regarding the new MMR event was also described as inadequate. As a result, there has been confusion for the health workforce and whānau.

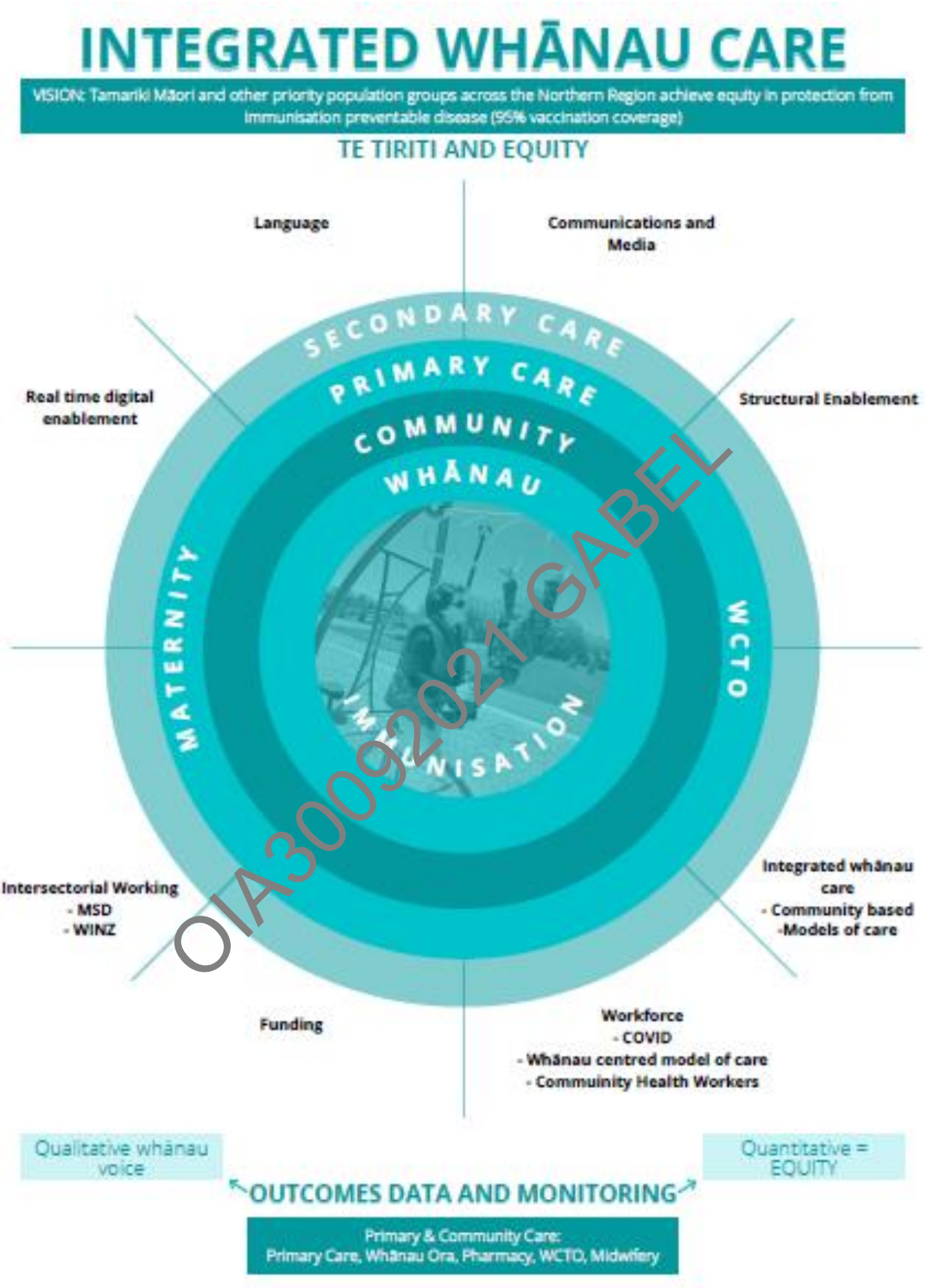
This highlights the need for carefully planned consistent national messaging for Child health immunisations working in partnership with key stakeholders to create a consistent confident approach.

Integrated Whānau Care - Immunisation - A Call to Change

The diagram below provides a model to visualise the factors that influence the whānau journey to reach immunisation. These are discussed further describing the areas of influence where change to the immunisation system is required.

The vision for immunisation provides the aspirational goal to achieve equity in immunisation for tamariki:

> Tamariki Māori and other priority population groups across the Northern region achieve equity in protection from immunisation preventable disease (95% vaccination coverage). All whānau will have equal opportunity to successfully immunise tamariki on time.



Overarching principles: Te Tiriti and Equity

Successful immunisation starts with the underpinning principles and the framework of service delivery. The working group propose that all future work for immunisation is underpinned by Whakamaua as the framework to deliver vaccination regionally.

Whakamaua emphasises the significance of Te Tiriti o Waitangi as a foundational document. The text of Te Tiriti, including the preamble and three articles, along with the Ritenga Māori declaration, are the enduring pillars of Whakamaua. (Hon Peeni Henare, Whakamaua-Māori Health Action Plan 2020-2025) (Appendix 2).

The health and disability system is committed to fulfilling the special relationship between Māori and the Crown under Te Tiriti o Waitangi (Te Tiriti). With regard to the text of Te Tiriti and declarations made during its signing – the Ministry of Health (the Ministry), as the kaitiaki and steward of the health and disability system (under article 1 of Te Tiriti), has the responsibility to enable Māori to exercise authority over their health and wellbeing (under article 2) and achieve equitable health outcomes for Māori (under article 3) in ways that enable Māori to live, thrive and flourish as Māori (Ritenga Māori declaration[1]).

The social determinants of health and living in hardship continue to impact community's access to health care. Deprivation is reported to have the most significance on timely immunisations when experienced during the first year of a child's life (Rumball-Smith, Declining Care: A child's vaccination pathway, 2015). Māori are over represented in those living in areas of high social deprivation (50%). Whānau are more likely to immunise their child when services are holistic, close to home with established relationships with the provider (Rumball-Smith, Childhood immunisation in Northland, background paper, 2016). This fits well within a model that has a lifespan approach.

Other population groups may require further exploration to consider specific individual impacting factors, such as rural populations and children with disability or high health needs.

A number of system 'fixes' have been made to the delivery system for immunisation. This has created a cumbersome system that continues to create further structural barriers and increases inequity for Māori.

For the purposes of this report the working group developed themes to describe the structural barriers and identify enablers to successful childhood immunisation.

[1] Ritenga Māori declaration (often commonly referred to as the 'fourth article') was drafted in te reo Māori and read out during discussions with rangatira about Te Tiriti. The Ritenga Māori declaration provides for the protection of both religious freedom and traditional spirituality and knowledge (Te Puni Kokiri 2001).

System Enablers

Real time data and digital enablement

For the last five years Primary Health organisations reporting has focused at 8 months for childhood immunisations. Immunisations are overdue by 4 weeks prior to activating alternative systems and focuses only on the completion of the three immunisation events, rather than each individual event being delivered on time. With the knowledge that the 6-week immunisation event is a strong indicator of successful completion of the early childhood series, reporting the vaccination coverage at 8 months is too late. There is a missed opportunity to aim for timely vaccination to provide maximum protection to infants.

All teams report that the National Immunisation Register (NIR) does not interface with the National Enrolment System (NES). This has the effect of the wrong practice being contacted about overdue immunisation events, which can lead to delays in follow-up processes such as referral to OIS. The NIR requires significant manual re-alignment and clean-up to keep the system up to date as well as significant follow-up of immunisation events that are not messaging to the NIR from practice data. Various approaches are in use to overcome the system issues; however the system remains reactive rather than proactive. Specific capacity is urgently needed to redesign to a proactive data driven systematic equity based approach.

Some system issues have impacted on the enrolment to PHO eg GP clinics access NIR through the Health link platform, messaging issues between NIR/PMS systems and Med Tech Evolution has resulted in inability to process new-born nominations in some clinics.

Joined up data across the system is important for identifying opportunities for system improvement. Currently there is no transparency of service delivery in the region. In addition, the current systems are not able to capture how many children are being referred to OIS by individual practices versus other providers. When an immunisation event is missed early activation of supports from a proactive system is required for successful immunisation to be achieved. There is potential to decrease the burden of managing system issues to free up valuable clinician time. A positively geared system would also be reflected in reporting and messaging to whānau, shifting the narratives to a positive framework.

The Qlik platform is a useful tool to increase the transparency of immunisation coverage through reporting. However, there are system limitations for how the current reporting is used. For example, for this report we were unable to gain specific graphed reporting for the 6-month coverage from MOH. Current reporting is for 8-months coverage and data is loaded up until March 2021 only, a current 5-month gap in reported immunisation data. Whilst reports can be run for 6-month coverage this creates additional data analysis burden. Having a central methodology that is embedded in Qlik would increase data consistency. Having data available that is up to date and has the flexibility to report on all ages and individual immunisation events will increase response time to immunisation success e.g. being able to report on timeliness to 6 week immunisations in real time at a population level, compared to NHI level data being analysed.

A new register for Covid-19 is currently in use and may be a precursor for the new NIR system which has been in the pipeline for a few years now. This is an opportunity to design a positively geared proactive system. This replacement cannot be delayed, too much administrator time is spent undertaking workarounds for a legacy system that has outgrown its capabilities.

Recommendations:

- A full review of the data and information systems to understand the detail of the current systems and work out the priorities of work.
- Resource is identified and funded to redesign the data system that reflects a proactive equity based approach and that is fit for purpose.
- MOH investment includes an immunisation recording system with flexible digital capacity that supports timely analysis of all immunisation events.
- The current systems established in response to Covid-19 are considered and are used where the legacy elements are appropriate.
- The National Enrolment Service and NIR data have a 'tidy up'. Explore what opportunities there are for future management. Identify who is not enrolled and shape a planned approach for the future.
- Future management opportunities of the system are explored.
- Work out what needs to happen for Counties Manukau to be successfully enrolled on NCHIP.
- Explore reporting for use in Primary Care services so that enrolment numbers and care is visible.

Language Korero

The way language is used in communication with whānau, between services and for reporting immunisation impacts all aspects of the immunisation journey (Rumball-Smith, Childhood immunisation in Northland, background paper, 2016). Personal values and beliefs of the health provider toward immunisation are reflected in the way messages are delivered. This can be both positive and negative, depending on the relationship built with the mother, health literacy, resources and support given ((Sinclair, 2021), (Gauld, 2020)). Language and messaging are also likely to impact the maternal response to vaccination and may increase the burden of care experienced by a woman.

Whānau come in to contact with many services that will have influence on the immunisation conversation. Even when a child is not enrolled in a PHO they are likely to have had at least one recorded contact with another health service over the first 6 weeks of life (Wing Cheuk Chan, 2021). This presents many opportunities to reinforce the vaccination message at all service encounters across health in the first instance.

The language and behaviours used during the early journey to enrolment have been described by Māori whānau as racist, discriminating and unfriendly (Gauld, 2020) (Sinclair, 2021). Development of best practice messaging and education is required to support health professionals to overcome personal and practice induced bias/racism so that whānau are welcomed and empowered to confidently immunise. This needs to align with the positive outcomes associated with immunisations to lift community's expectations of service delivery.

The Immunisation Advisory Centre (IMAC) is the lead agency under the MOH contracted to provide the training for vaccinators and immunisation information. There has been inconsistent use of Māori and Pasifika staff employed to work with a cultural lens within IMAC since 2017. Roles which had subsequently been discontinued may be now recreated for the Covid-19 vaccination space. Staff within the Northern Region report a lack of easy to find, culturally appropriate resources. Translated material is available on Health ED via the Health Promotion Agency; although translated material may not necessarily be culturally appropriate. To maintain our commitment to Te Tiriti o Waitangi culturally appropriate training and resources is a high priority to address.

Successful transition for whānau through the health journey and the messaging from all health services is crucial for determining the relationship with Primary Health and the future success of immunisation. Trust and relationship building are a key part of health and wellbeing for Māori. Inconsistent messaging, lack of service co-ordination and communication supports the cycle of mistrust and overburden .

Recommendations:

- Strong relationships across all community and health partnerships to build consistency in messaging language and trust is prioritised. The role of the midwife is pivotal and the links with Primary Care General Practice could be strengthened through collaborative working on the enrolment to practice process.
- A relationship is established with the Māori Health Board to provide leadership to build the framework for immunisation. Consider the Northland DHB work to see what learnings could springboard in to a regional system reframe.
- Training and resources are Te Tiriti o Waitangi compliant.

Communication & Media

Media and communications about childhood immunisations are being targeted throughout the region creatively. There is a need for consistent messaging that is Te Tiriti o Waitangi compliant, with potential strengthening in the Region by sharing resources and feedback from the Hui currently working with community partners.

How immunisation messaging is delivered impacts on Whānau choice and confidence to vaccination (Gauld, 2020). Proactive approaches to immunisations that include holistic and 'fun' aspects e.g. weaving days are also positively influencing Whānau confidence.

The positive outcomes associated with immunisation should be reflected in the messaging used in promotion across the region. Campaigning using high profile sports to ambassador the immunisation message as proactive role models is being warmly received by the public. (Rumball-Smith, Childhood immunisation in Northland, background paper, 2016).

Counties Manukau have commissioned a Kaupapa Māori provider pilot to deliver 'Connect-up' as part of the MMR vaccine catch up for 15-30-year olds. This initiative has a wider whānau focus on immunisation information and support kiosk based in the local mall. Whānau are encouraged by trained whānau support workers to come in and check their vaccination status. Education and vaccination opportunities are supported by the mall Pharmacy's and whānau primary care providers.
Whānau report that incomplete messaging acts as a barrier to immunisation. The information about immunisation needs to be full including pros and cons for whānau to make decisions for their tamariki, whānau need to feel that they have been given enough time with their health provider to make an informed decision.

Sharing of information across services and the region would begin to address the need to standardise the messaging and resources around immunisation to bring some consistency and surety for whānau.

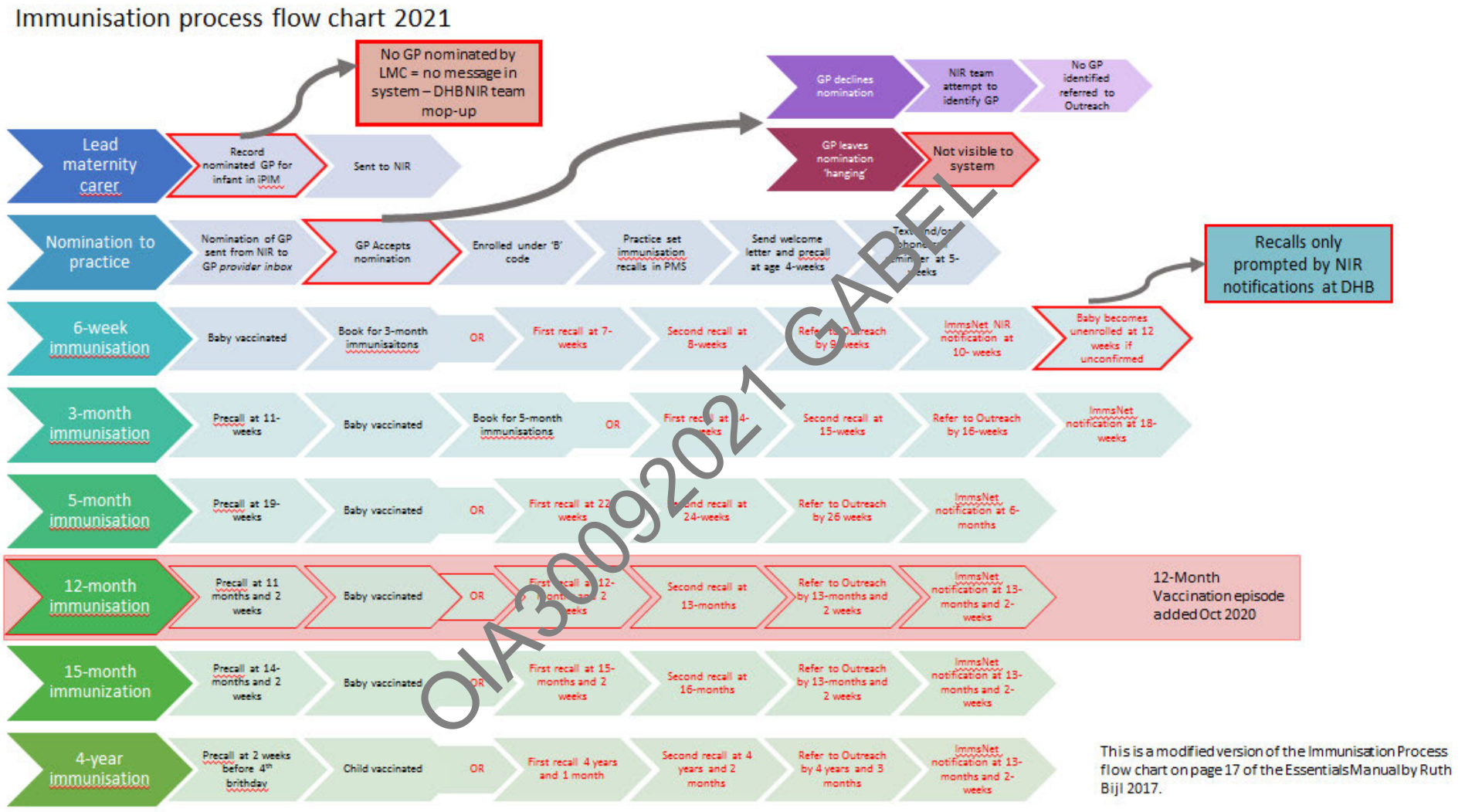
Recommendations:

- Immunisation messaging will benefit from a regional approach where resources, campaigning and media are standardised and consistent. All immunisation providers will require access to shared resources.
- Use of a communication team will ensure message transparency.
- Consideration that MOH and the Māori Health board lead central messaging that is Te Tiriti o Waitangi compliant.

Structural Enablement

There are three critical system issues common across the four northern DHB's that create barriers to access to immunisation that disproportionally affect Māori and are outlined in heavy red in the diagram below:

1. GP nomination and referral
2. Referral acceptance at Primary care
3. Primary care B Enrolment successfully converting to full enrolment



The successful completion of the 6-week immunisation is seen as a reliable indicator of the likelihood whānau will continue the vaccination series on time and to completion.

Primary Care General Practice provide the majority of childhood immunisations in the Northern Region. Outreach immunisation services attempt to vaccinate those who are not immunised in a timely way. Primary Care Data shows that this immunisation system has historically under performed for Māori; (Table 31 (Wing Cheuk Chan, 2021)).

The two significant events impacting 0-4-year-old immunisation since March 2020 are described below:

- The effects of the COVID-19 pandemic lockdowns and changes in care because of infection prevention control measures have led to a significant impact on overall capacity in primary care. Cheuk Chan et al. 2021 report a 20% reduction in total 0-4-year immunisation episodes across the system in Counties Manukau Health domiciled children over the 12-month period ending March 2021.
- An additional childhood vaccination event at 12-months of age added to the national vaccination schedule in October 2020. This has increased total vaccination episodes from five to six in the 0-4-year-old cohort increasing the burden of activity in the system by 20%. As a result, a concerted effort is now required to avoid falling further behind in immunisation in the current scheduled period.

This has increased the number of events Primary Care provides and reduced the time available for staff to undertake recall and follow-up of the original immunisation events. This also includes reduced time to respond to information requests from the NIR teams required to keep the data on the NIR accurate.

Early and continuous enrolment in Primary Care is a strong predictor of improved immunisation outcomes (Grant et al 2010 BMJ). Enrolment to Primary Care prior to 6 weeks of age, with no subsequent enrolment gap, is a protective factor in support of childhood immunisation. Being a part of a Primary Care Practice population enables recalls and reminders for immunisation events. (Wing Cheuk Chan, 2021). The systems in use to support enrolment from the time of birth are creating barriers to successful enrolment and increasing the potential for gaps in the referral and reporting systems. Provisional enrolment created at the time of birth (via NIR nominated provider messaging) provides initial funding for the child. However, this expires after 12 weeks if the enrolment is not converted to full enrolment. Anecdotal evidence reports that practices do not undertake recalls for 'casual' patients. New-born babies become 'casual' if their pre-enrolment is not converted to full active capitation enrolment.

There are several barriers to primary care enrolment. Primary Care Practices are sometimes reluctant to accept new-born nominations if they do not know the mother. If a woman does not have a high need for primary care prior to having their baby, there is an increased likelihood of non-acceptance of the new-born enrolment. Some Primary Care Practices have closed books to accepting any new patients due to capacity issues.

There have been some regional responses to try and improve enrolment rates. For example, NDHB has focused on improving enrolment to GP Practice through mandatory acceptance of all new-born notifications to Primary Care referrals, even when the mother is not a current patient. This has shifted enrolment from 49% in May of this year to 72% at the beginning of July. Likely fluctuations are expected. However, the positive and quick increase in enrolment numbers is an early indication of success. All services are engaged in regular reporting and multi-service review meetings to signal data discrepancies and areas of issues for early action.

It is important to remove all barriers and foster the early relationship Māori whānau experience with Primary Health to prevent enrolment gaps and dis-enrolment. (Wing Cheuk Chan, 2021). One barrier to converting pre-enrolment to full primary care enrolment is the requirement for birth certificates as proof of eligibility for funded healthcare. At a cost of $33, this is prohibitive for many of high needs families.

There is variability in primary care and practice level response to the new-born notification referral and subsequent engagement with whānau. Some practices have taken a proactive approach and use dedicated staff to maintain reporting and acceptance of new-born referrals. Within Auckland and Waitematā DHBs, funded Immunisation Co-ordinators within larger practices support smaller practices and other non-primary care providers. They have been pivotal in supporting Primary Care Practices with their immunisation practices, follow-up of new born enrolment and overdue immunisations. Our current IT systems make this process labour intensive.

Standardising pathways of whānau centred care delivered from the first new-baby notification offers the best opportunity to improve immunisation in Primary Care. Best Practice Manuals have been in circulation since 2010 across Auckland and Waitematā DHBs. These resources have also been shared within the wider Northern Region. There is good evidence that standardising best practice at the early transition points results in sustained improved outcomes. This includes; correct identification of GP, acceptance of GP nomination from new-born referral, and intentional, proactive early engagement. Achieving both primary care full enrolment and on-time 6-week immunisation are the best measures of improvement.

Intentional and proactive engagement with whānau Māori at the community level provides a flexible approach to care (Sinclair, 2021). Immunisation Coordinators and Community Health Assistants that mobilise around whānau and offer home visiting options have reported success along with use of mobile units in some cases (Papakura Marae). Health West has used a pop up unit at Hoani Waititi Marae in response to a community request for an increased presence of the health team on site. This is staffed by two nurses, a GP and administration support to provide a holistic service for the whole whānau including vaccination, education and opportunistic events. Co-ordinated activity is considered to be easier if care is PHO led or where the practice is larger and robust management systems are in place. (Sinclair, 2021).

Recommendations:

- Immediate action is required to remove all barriers to immunisation so that whānau can be immunised more flexibly across the health care continuum. Temporary relaxation of the enrolment criteria requiring a birth certificate for capitation to be received by Primary Care before being able to provide new-born vaccination.
- Review of eligibility criteria and recommend that there is no charge for birth certificates.
- That ‘B’ funded enrolments are extended to six months to prevent unnecessary disenrollment from Primary Care and ensure continued recall for immunisation.
- Relationship building and communication is prioritised with Midwifery services to positively influence the nomination and referral flow to Primary Care.
- Standardise regional pathways of care.
- MOH reporting via Qlik increases its ability to provide more sensitive reporting of individual vaccination events and to have a central control of the methodology applied to the data.

Workforce

The pivotal New Zealand Immunisation Determinants study found that immunisation coverage is associated with practice staffing and shortages, independently of socio-economic factors (P=0.004). (Cameron C Grant 2. H.-H.-S., 2018) (Cameron C Grant N. M., 2010).

The workforce delivering childhood immunisations has not been possible to clearly identify or quantify. There are multiple contracts and providers with no current reporting available. Though there are published guidelines that support service delivery, practice varies between individual providers.

It is widely reported that the workforce has been re-directed to Covid-19 swabbing and the new 12-month immunisation event as a priority. This has impacted on the availability of the vaccination workforce. Covid-19 vaccination urgency has driven the development of a new unregulated, micro-credentialed vaccination support workforce, many of whom are Māori or Pasifika. There is an unprecedented opportunity to create new pathways of career development for this newly introduced workforce to support roles in healthcare.

Conversely all services agree that it takes special skill to vaccinate a child well. The current workforce of specialist nurses is a relatively small number. They are a limited resource which needs to be strengthened both in numbers and quality of service delivered. Practitioner skill includes working with bicultural understanding and a commitment to education and holistic care, specifically targeted to care of whānau. This is different to service provided for adult population vaccination.

Most immunisation events occur in Primary Care who are reporting loss of the nursing workforce in many practices. The usual pipeline of international recruits has been suspended and anecdotally nurses have taken up roles in the Managed Isolation and Quarantine facilities or in the Covid-19 vaccination programme.

OIS have had inconsistent success in providing immunisation. They are reported to have had positive influence on whānau confidence in subsequently achieving immunisation success (Wing Cheuk Chan, 2021). In 2020 there was a 20% reduction in vaccination episodes across the system in Counties Manukau Health area triggering an overwhelming increase in the number of referrals to OIS. Most vaccinations for children who were referred to OIS eventually occurred in Primary Care. Stress on the OIS system reduced its effectiveness and thereby disproportionately disadvantaged Māori and Pasifika populations who are more likely to engage with the OIS for vaccinations.

There is an opportunity to utilise a non-vaccinating support workforce and rethink OIS to a proactive integrated whānau service that supports vaccination in primary care. Anticipating extra demand on an OIS type service in future lockdowns should be planned for with availability of dedicated resource.

All DHB's have increased options within the DHB workforce to provide more opportunity for whānau to immunise. This includes using or trialling a mixture of services to offer extended hours or weekend clinic options. Some hospitals deliver opportunistic vaccination. For example, WDHB uses an opportunistic vaccinator at Waitakere Hospital who works across the children's ward, ED and antenatal clinic. ADHB have an antenatal vaccinator. The role focuses on providing antenatal immunisation. However is also able to support children to be immunised alongside general anaesthetic for dental surgery or other operations when requested.

The role of immunisation as part of discharge planning needs to be strengthened. If a child is well enough to be discharged, it is well enough to be immunised. Vaccinations can be provided in hospital at the time of discharge to provide immunisation rather than advising whānau that they are overdue and to see their GP.

All DHB's have nurses working with children in the community but not all offer a vaccination service. There is a difficult balance between providing immunisation services that are easy and convenient for whānau to access, while continuing to encourage relationship building with PHO services. (Wing Cheuk Chan, 2021)

Cultural responsiveness and addressing bias, beliefs and values underpins excellence in delivering meaningful health care. A standardised training programme and resources that are shared across the region would be beneficial. Counties Manukau are currently reviewing the Māori vaccination workforce and are supporting development of education sessions for Māori providers. There is a need to be able to share resources across the region to encourage consistency of practice and to reduce duplication of work.

Covid-19 has had a significant impact on the workforce as staff are seconded to other priorities. Skilled paediatric vaccinators are lost to Covid-19 programmes reducing workforce capacity. For the remaining staff this is increasing the day to day work demands. Staff retention and replacement of the retirement or loss to other regions or areas remains problematic. Pay with changes to MECA agreements have been one factor.

Recommendations:

- Stop seconding workforce to other areas to be able to prioritise childhood immunisations.
- Increase the opportunity for immunisations in other services. Identify the requirements of Urgent Care, Pharmacy, and Midwifery Services to complete childhood vaccinations supported by robust reporting systems for recall with associated communication back to Primary Care.
- Strengthen the opportunistic vaccination process for when a child is about to discharge from hospital.
- Develop career pathways for a new workforce. Consider opportunities for Health Care Assistants.
- Develop consistent training in korero, understanding of cultural bias and strengthen cultural awareness for the vaccination workforce.
- Development of shared cultural resources for regional use.
- Review of payment structures for vaccinating staff and nursing staff in role in Primary Care.

Funding

Funding drives service delivery and determines where resources are provided. Payment for Covid-19 vaccinations includes an increased payment for weekend and after-hours immunisations, this is not the case for childhood immunisation. To ensure equitable service delivery a review of the costings for immunisation across the whole sector would support the resources required to complete all immunisations.

There are co-existing demands on the immunisation workforce with Covid-19 vaccination as well as catch up campaigns for MMR, HPV and other adult vaccinations. As reported, the additional childhood immunisation event (12 month) in the last year has added pressure on an already stretched system and means work demand have outstripped workforce capacity. With no increase in staffing or funding to achieve the required vaccinations some report that everyday business is not achievable. Services are in a seemingly impossible 'catch up' phase to complete the overdue immunisations.

The OIS primary initiative provides a service to 'mop up' overdue unvaccinated infants, made up of quite small teams and is an expensive model of delivery of care. Agreements with OIS providers such as Health West Te Puna Manawa in Auckland and Waitematā DHBs includes a whānau-centred model to include antenatal and other catch-up immunisations. However the capacity to do this at scale is limited when the emphasis is on the under 6-year-old population and limited appointment times. OIS does not have the capacity to provide extended services to whānau who report a preference to be seen by OIS rather than attending a Primary Care Practice.

An Integrated Whānau Care Immunisation approach to address all whānau immunisation needs is proposed for consideration in place of the current OIS. While this may seemingly distract from childhood immunisation, over the whole system it is more whānau centric and promotes efficient use of the existing vaccination workforce. To achieve this merging of historically distinct funding pools will be required.

Funding short term contracts to employ staff to work in the childhood immunisation space has created an opportunity to employ and work with whānau in the community. For example, WDHB/ADHB have worked with Te Whānau o Waipareira in 2018 on an enhanced Well Child Tamariki Ora service to provide immunisation alongside well child checks. Lack of vaccinator workforce prevented this service from continuing as envisaged.

Small, short term contracts create an opportunity to pilot approaches. However, they also create uncertainty and risk. Lack of continuity may also have an overall detrimental effect when the approach predominantly is established to address unmet need for tamariki Māori.

The future state requires commissioning bold new ways of working with adequate capacity and resources to positively impact Māori childhood immunisation.

Recommendations:

- Capitation should include a package of care.
- A dashboard used across Primary Care Services will provide transparency so that enrolment numbers and care is visible.
- Pharmacy to claim for funding for maternal pertussis vaccinations.
- Mandate catch-up immunisations as part of discharge planning for hospital admissions.
- Short term contracts are least favourable and to review all funding as part of the new model of care from a regional perspective.

Intersectoral Working

The working group discussions have identified that easy to find, holistic, timely and consistent messaging across service providers is essential. Consistent information concerning immunisations across the whole journey, including maternal immunisations, is key to increasing whānau knowledge, confidence and decision making around immunisation.

All service partners e.g. MSD, and Housing have a role to play supporting whānau to engage with Primary Care, and support the delivery of consistent immunisation messaging. Cross sectoral, appropriate information sharing with consent is needed to ensure babies are not lost to immunisation opportunities.

Trust and relationship building are a key part of health and wellbeing for Māori. Inconsistent messaging between services, lack of service co-ordination and communication, supports the cycle of mistrust and overburden (Funding Maternal vaccines in pharmacy: effects on uptake, 2020).

Recommendations:

- All services recommended to update a child's details and check immunisation status at every health encounter, including access to systems such as NCHIP that provide a holistic snapshot of children's access to universal health services.
- Agency collaboration to develop a MoU for information sharing regarding the priority population.
- Shared resources and communication strategies for immunisation.
- Digital system enablement for contact sharing.

Covid-19

Covid-19 has presented different challenges in relation to access to health services, beliefs and values related to vaccination, vaccine hesitancy and confidence. It has contributed to the acceleration of the statistical downward trends indicating the difficulties around accessing health care and immunisation. The Ministry of Health guidance is to continue to prioritise national schedule vaccinations in Alert Level 4, although practical implementation is variable.

Common themes reported by whānau and staff are related below:

Whānau report they are waiting longer to be seen due to changes in clinic protocols. Antenatal visits are commonly occurring virtually with less opportunity for maternal and childhood opportunistic conversation and immunisations. Some whānau reported that PPE wearing was off-putting reducing confidence attending clinics due to the increased or perceived risk of exposure to illness.

Primary care clinics have had to change processes and environments to maintain patient safety. An increased focus on Covid-19 management has reduced staff input to and follow-up with regular immunisation programmes. In some cases, changes in clinic protocols have seen whānau turned away and sent to ED services for the unwell child. As a result there is a loss for opportunistic care. Immediate health needs are met by another health provider. However the holistic review of the child and other siblings could have been completed at the clinic including an immunisation discussion. Work pressure due to vaccinators seconded to Covid-19 programmes has reduced workforce capacity.

Recommendations:

- Review the new systems developed in response to Covid-19 and see what legacy processes can be used.
- Review outbreak preparedness plans and consider alternate pathways to on-time immunisation.

  during lock down periods.

Outcomes: Data and Monitoring

The desired outcome for immunisation services is to achieve the vision of equity across the region for Māori whānau to immunise tamariki on time by six weeks of age. Achievement of this goal is directly impacted by the processes, service messages, interactions, reporting and systems available.

The Qlik platform is a useful tool to increase the transparency of immunisation coverage through reporting. Current limitations and opportunities are outlined above under 'System enablers'.

The legacy National Immunisation System is dysfunctional and also discussed above under 'System enablers' however requires specific emphasis.

Presently it is requiring significant administrator time to ensure it is recording accurate data. The system not being integrated with the National Enrolment System can mean an outdated provider is being followed up regarding overdue immunisations, Auckland and Waitematā DHB have estimated that the NIR clinic for a child is correct for 85% of the population under 5 years of age, with over 8,000 children having an outdated provider as their nominated clinic on the NIR – a significant amount of data-clean up required to update this. Likewise, this is seen at a practice level where they receive NIR notifications for patients no longer in their care, including for adults who have transferred to other practices. The administrative burden is lengthened by ongoing messaging issues between Patient Management Systems and the NIR. Where practice records of an immunisation event do not transmit successfully to the NIR, this requires time at both the NIR and practice end to rectify the record. The design of the NIR also reflects a primary care model that is no longer reflective of the current state; for example, having a specified GP rather than a clinic, and that authorised vaccinators do not need a GP to oversee the immunisation event of a child.

Joining up data across the system will be essential to have a view of what is working and what is not and priority areas for action. It is important that data is both qualitative information from the whānau voice, and quantitative to achieve the understanding of effective service delivery.

Recommendations:

- MOH review and recommission the reporting system to be able to provide consistent reports across the childhood immunisation series, including a focus on graphs and coverage at the timeliness milestone rather than the health target age (e.g. 8 months, 18 months and 4.5 years).
- Emphasis is given to commissioning the replacement of the National Immunisation Register that is fit for purpose.

Integrated Whānau Care (Immunisation +)

Described below are some of the current pieces of work across the region that demonstrate an integrated holistic approach to immunisation.

Ngā Tātai Ihorangi

Early this year Northland DHB started a rebrand of their services. Ngā Tātai Ihorangi adopts a common operating language and philosophy of care, taking a holistic service approach (Northland Distric Health Board, 2021). This is being used to shift the narrative around immunisations to empower whānau positively through use of language (affirming), consistency and getting back to basics. The focus of this programme is to start early and co-ordinate services with Hapū Waingangā (early pregnancy service). There has been intentional system change to use a whānau journey approach. Service delivery across all agencies focuses on welcoming whānau into the practice in a warm, welcoming and affirming approach, recognising that immunisation is just one way whānau will be able to successfully look after tamariki. Languaging is whānau focused and acknowledges diversity, strengths and range of needs. Development of a common language and vision is shared across all agencies to create consistency and strength of care.

In Counties Manukau, Papakura Marae has approximately 3000 enrolments, 92% attending are Māori. In a recent report the following strategies are attributed to the on-going strive for success of the practice (Anderson P., 2021)**:**

- **Real time data** – being able to see who is due for immunisation and what has been missed for easy reporting and making the most out of every opportunity – able to offer vaccinations every time whānau present to clinic.
- **Flexibility** – seen as a very important factor in meeting people where they can – offering extended practice hours, weekend clinics, pamper days, providing transport for appointments.
- **Equity lens** – taking an in-depth approach to understanding what people need to succeed, often requiring going above and beyond what some might feel is needed.
- **Champions** – whānau are given the 'why' people would be following up about immunisations and the target that was important for all (i.e. 8-month immunisation for Māori).
- **Culturally appropriate** – showing an open willingness to understand individual cultural needs.
- **Welcoming, transparent sharing of information** – early referrals with an open-door policy using a Community Health worker for personal follow up when needed.

There is a planned Hui for WDHB/ADHB to explore what the local challenges are for Māori and what strategies have been helpful in the trial of a flexible, community-based approach to care.

By bringing together the current programmes and strengths of each area in the region there is opportunity to share a common vision, resources and training to lift the immunisation programme. Any future work could address equity through a shared vision so services could work consistently in partnership. Working within the current health reforms a Regional governance structure could support the work required to see a transformation across the Northern Region while continuing to support the individual local population needs.

Conclusion

Long term systemic failure continues to cause barriers for whānau Māori accessing immunisation services in New Zealand. There are small teams of DHB NIR staff currently trying to hold the system together to manage critical system issues which urgently need to be addressed. In the current Covid environment, and with health system reform planning, there is opportunity to make effective change at pace. Immunisation services can be restructured with a goal of achieving Tino rangatiratanga with partnership to shape the health service to deliver improved immunisation outcomes for whānau.

Holistic services, working flexibly with whānau and integrated with Primary Care are currently practiced in pockets throughout the region. A positively geared service model that understands the needs of Māori and resourced to provide immunisations for the whole whānau for instance, could mobilise the workforce proactively while meeting the needs of whānau.

A regional approach to care through a shared framework offers opportunity to remodel the current programme that is not fit for purpose. Digital alignment will go some way to addressing processes, however, it is the how services are delivered that most importantly requires a different approach.
Pae ora healthy futures for Māori (Whakamua) requires a rethink of the immunisation programme Integrated Whānau Care is the proposed conceptual framework that looks to change how we currently work with whānau across the immunisation journey. Te Tiriti o Waitangi underpins the work to give the lens through which services can positively respond to, and provide an immunisation service that is culturally aware and responsive and ultimately successful in lifting Māori and other priority group immunisation.

Appendix

Appendix 1:

Whakamaua https://www.health.govt.nz/system/files/documents/publications/whakamaua-maori-health-action-plan-2020-2025-2.pdf

Appendix 2:

The Working Group

The working group has met 6 times since the beginning of May 2021 and includes regional Māori representation and all DHB's. Representation from primary care has been sought along with data analysts reporting on data consistency. The scope of this work is focused on the scheduled vaccinations from birth to five years of age (Early Childhood Series). Members of the working group are as below:

Working group membership and key contributions from:

NDHB:

- Koha Aperahama – Hapū Waingangā Programme Manager
- Ailsa Tuck – Community Paediatrician
- Catherine Jackson – Public Health Physician
- Delwynne Sheppard – Divisional Manager, Community Clinical Services
- Clarissa Thompsen – Mama, Pepe, Tamariki locality, Mahitahi Hauora

WDHB and ADHB:

- Georgina Tucker – Immunisation Programme Manager
- Ruth Bijl – Funding and Planning
- Natalie Desmond – Funding and Planning
- Owen Sinclair – Te Rarawa, Paediatrician
- Scott Abbot – Māori Health Gains Team

CMDHB:

- Christine McIntosh – GP Liaison, Clinical Lead
- Carmel Ellis – Provider Arm
- Sharon McCook – General Manager Māori health Development
- Claudelle Pillay- NIR

PRIMARY CARE PHO:

- Kristin Shepherd - Immunisation Co-ordinator Pro-Care
- Catherine Roscoe

NRA:

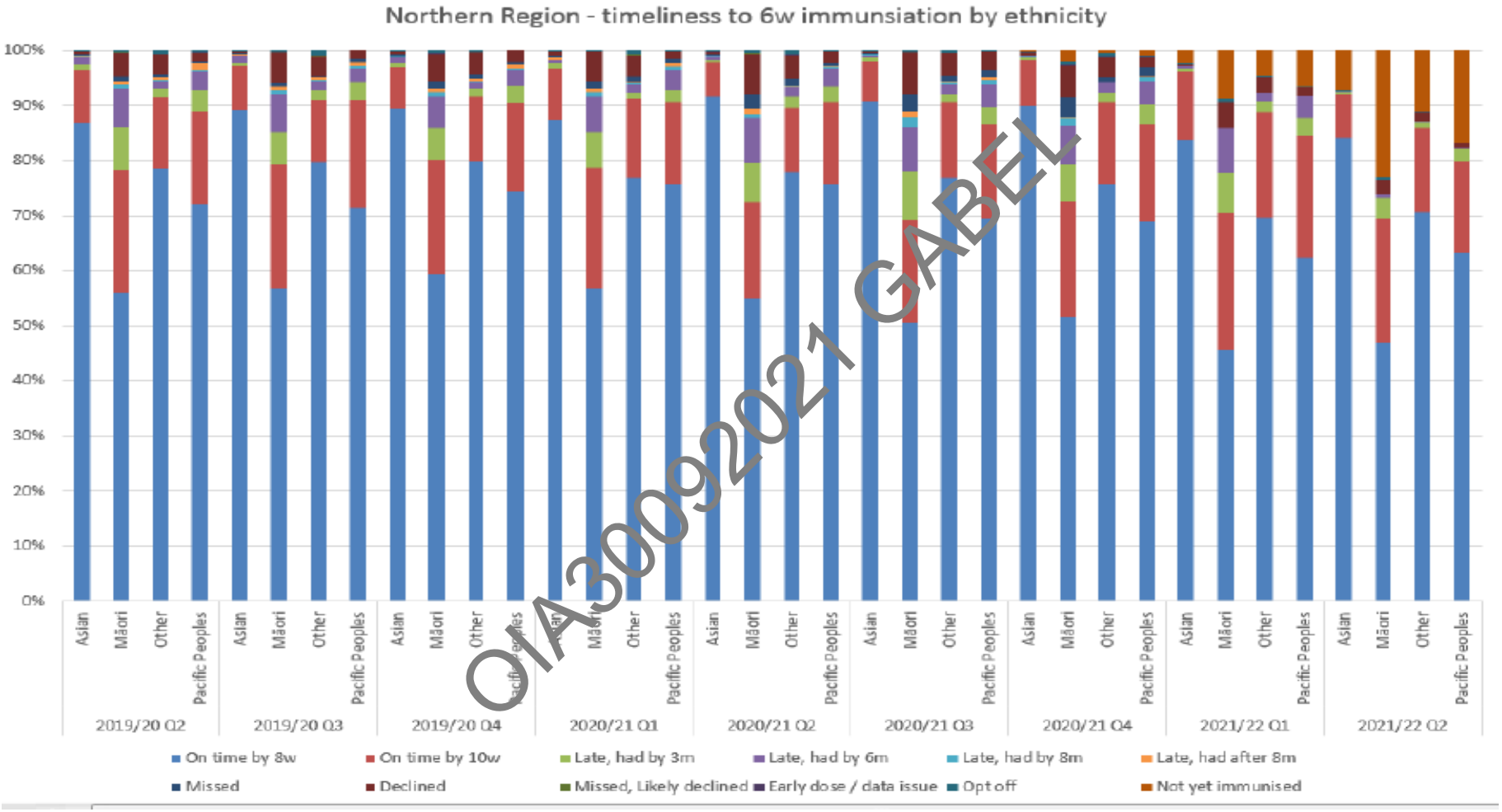
- Richelle Timmins – Project Manager
- Pam Henry – Child Health Project Manager

Appendix 3:

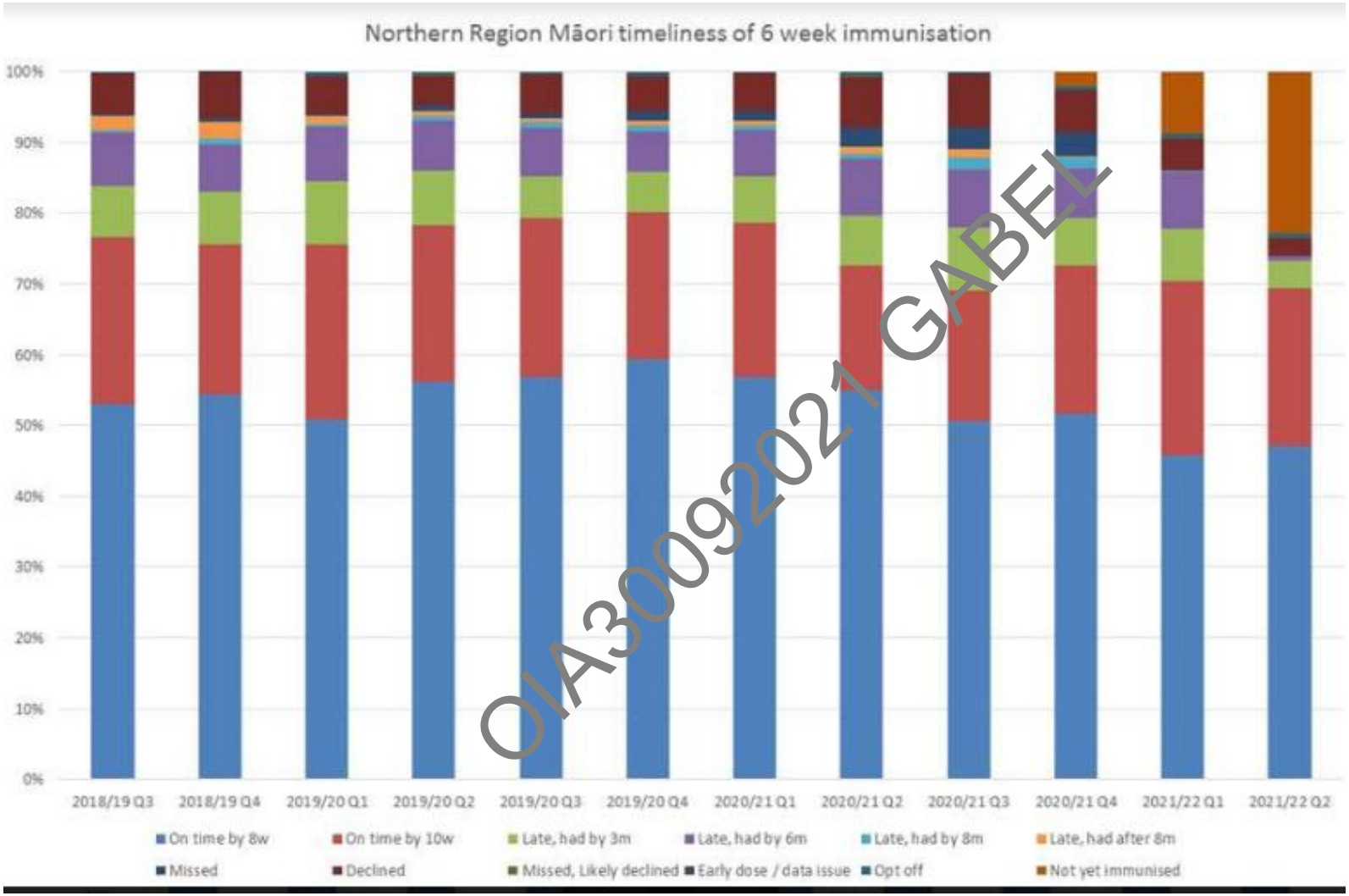
Report Wing et al 2021 Immunisation coverage (primary series) and children's interactions with t....docx

Appendix 4: Northern Region Timeliness to 6 week immunisation by ethnicity (Tucker, 2021)

Combined data measuring timeliness of 6-week immunisation over 3 years shows that Māori are less likely to receive immunisation or receive immunisations on time compared to all other ethnic groups.



In the 2021/2022 Q2 a reportable change in children not being immunised emerged as a large proportion of Māori children compared to other ethnic groups who are not yet immunised (25%). Vaccinations being completed between 6 and 8 months indicate a growing number of children are receiving 'catch up' immunisations suggesting whānau are experiencing significant barriers to vaccinating tamariki on time. (Tucker, 2021)



Appendix 5: Regional Matrix of Current Childhood Immunisation Activity

	Pressure Points	Flexible approaches	Current Projects	Cultural responsiveness
NDHB	• Referral from Maternity to PHO remains paper not electronic. • Follow up processes are not consistent e.g. whānau opting off - may get offered a vaccination if they come to the practice but there are no regular call backs. • How to increase whānau choice re: Māori health providers? Capitation and funding a current barrier if there are no GP in the practice. • PHN team covers the OIS contract, staff are being assigned to Covid team reducing workforce. • Rural areas take double the time due to travel, low staffing, and are poorly resourced. • Whānau are opting off as not wanting their details held by another authority. Beliefs around personal information, how this is stored and used. • High 5 forms- not working remains a paper exercise not electronic. 20 % not being filled out correctly. • Social determinants of health are high impacting on access to health care. • Current structure is not collaborative making it difficult to create change or make improvements in the system.	• EN training scheme being trained as vaccinators and will cover BAU vaccinations not just Covid response. • Holistic, wrap around, welcoming, giving choice. • Working the Hapū Wainganga services for early start.	• Ngā Tātai Ihorangi since beginning of 2021 Rebranding philosophy of care. • Health care navigator works alongside whanau. • Mandating acceptance of a new referral for enrolment of new-born in to practice. • 6/12 project mapping the journey conception – 5 years. • Using a health Coach: Tangi Devan – kaupapa Māori walks alongside whānau to navigate health – positive feedback from whanau.	• Ngā Tātai Ihorangi. • Kaupapa Māori health coach.
ADHB / WDHB	• NIR system. • Seasonal flu vac increasing pressure on capacity. • Workforce capacity & Staff attrition impacted by Covid and vaccination roll-out. • Decreased opportunity for Antenatal Imms - WDHB opportunistic vaccinator seconded to Covid & many antenatal visits virtual. • WCTO change in service model due to Covid - not seeing all babies - but prioritising M,P&Q5 babies.	• Pop up clinics, wrap around services • Opportunistic vaccinator WDHB 0.5 FTE (request to increase this FTE). ADHB antenatal vaccinator also supports childhood imms under GA. • Health WEST OIS trialling drop-in Saturday clinic once per month. • From 2020 service spec has whānau centred model including weeknight, weekend and opportunistic imms. • Mobile clinic in low decile street for flu vaccine during lockdown.	• Review of 6w imms Timeliness for Northern Region. • Next step to identify provider and timeliness at 3m. • NCHIP, MSD work for children with no address. • Creation of Uri Ririki CHCC - NCHIP, NIR, missed event service - more information reviewed to locate families. • ADHB & WDHB monthly case review (Māori 6m not fully immunised). • NIR team track and trace of children through milestone age for automated referral.	• Work based at local marae and kura. • Māori provider hui to understand challenges and identify next strategies. • Encourage Māori WCTO. • providers to immunise. • Education includes tamariki telling their own stories of immunisation being shared across media platforms.

	Pressure Points	Flexible approaches	Current Projects	Cultural responsiveness
CMDHB	• Increasingly families are requesting OIS before being overdue for imms but not currently contracted to provide this. • There was a 20% fall in number of vaccinations administered in 2020 compared to 2019 for all children under 5-years in CM Health. The most significant drop was in the August 20 lockdown. • There has been an increase in discrete vaccination events in the 0-5-year group with the addition of the 12 month MMR and PCV. • The majority of children who did not meet the 8-month imms milestone had some contact with the health system which presents an opportunity to promote/support vaccination and update contact details.	• Whānau focused/centred recognising the spectrum of needs and diversity of experience. • Māori infants are kept on OIS for future events unlike other infants who are returned to PC. • Whānau journey approach for Māori providers.	• Contracted provider OIS (Plunket) discontinuing and will be brought into KF provider and staffed by 3 FTE OIS vaccinating nurses. • Focus on the role of provider or (COVID-19) site in community and targeted communications to reflect this. • Stocktake of Māori providers re vaccination workforce (as part of regional COVID work) with associated workforce modelling. • Other screening programmes could be a provider for the types of information/supports that whānau need for informed decision-making and to counter historical mistrust in health system (particularly those screening programmes where equity is 'designed in' from beginning and that target key decision-makers in whanau. • Learnings from local COVID-19 communications planning at Māori-led vaccination sites.	• Integrated communications approach currently being developed based on review of evidence and feedback from whanau. • Supporting development of IMAC education sessions for Māori providers.
Pro Care feedback	• Culturally appropriate education for staff; resources are required. • Current gap in training on how to effectively communicate with Māori when vaccine hesitant. • Consistency of practice in early pregnancy and use of a consistent Assessment tool. • Increased need for interpreter services and language appropriate resources. • COVID related work dominates time resources and the prioritisation of work loads. • Education for staff re catch up schedules and schedule changes. • Primary care Workforce depleted with secondment of Practice nurses to COVID vac centres.	• Use of the whānau tree to contact whānau who were more mobile during COVID lockdowns. • Early engagement, use of B codes and accepting New-born nominations. • PHOs have managed own promotional work e.g. in malls. • Pro Care pilot of PJs and nappies. • NHI level imms data Reported to practices – identifies imms due and overdue, with filter for ethnicity for specific follow up. • Support to practices to complete NHI overdue lists by due date, and F/U on New-born enrolments.	• Pro care IC's working with Data teams to develop multiple lists for pregnancy NHI, MMR, Flu, childhood imms to establish if opportunities are being missed in the practice. • Procare ICs Involved in the 0-4 yr. best start group for connection between GPs, MWs, NGOs and other support services in nearby communities.	

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[i] (Wing Cheuk Chan, 2021)

Appendix 3

From: Margie Apa (CMDHB)
Sent: Wednesday, 31 March 2021 7:39 a.m.
To: Dinah Nicholas (CMDHB) s9(2)(a)
Subject: Fwd: Letter to DHB CEs re Immunisation Programmes

Sent from my iPhone

Begin forwarded message:

From: Ashley Bloomfield s9(2)(a)
Date: 30 March 2021 at 3:58:05 PM NZDT
To: "Ailsa Claire (ADHB)" s9(2)(a)
"Margie Apa (CMDHB)"
s9(2)(a)
"Nick Chamberlain (NDHB)"
s9(2)(a)
"Nigel Trainor (SCDHB)"
s9(2)(a)
s9(2)(a)
Subject: Letter to DHB CEs re Immunisation Programmes

Kia ora
Please find attached letter regarding immunisation

Ngā mihi

Dr Ashley Bloomfield
Te Tumu Whakarae mō te Hauora
Director-General of Health
Pronouns: He/Him

email s9(2)(a)
www.health.govt.nz

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133 Molesworth Street
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30 March 2021

District Health Board Chief Executives

Tēnā koutou katoa

Over the last few weeks, we have considered how we can support the sector to deliver on our multiple immunisation programmes. I want to update you on some important decisions.

Confirmation of the sequencing framework and vaccine delivery schedule for the COVID-19 vaccine means that we now have the certainty to make decisions on our other immunisation programmes. We want to ensure that New Zealanders get the best possible protection from vaccine preventable diseases. At the same time, it's vital the sector has the capacity to support the delivery of the COVID-19 vaccine programmes and all our other health services.

I would therefore like to confirm the following.

The priorities for all DHBs will be COVID-19 and childhood immunisations, including outreach immunisation services, school based immunisation programmes and BCG vaccination services. The childhood immunisation programme must be a priority as it protects against diseases that remain a persistent risk regardless of international travel settings.

We have decided to continue with the 2021 influenza immunisation programme with a focus on people eligible for a funded vaccination but to reduce the focus on the National Measles Immunisation Campaign until October 2021.

National Measles Immunisation campaign

The reduced overseas population movements and closed borders mean the risk of exposure to measles in New Zealand is currently very low. However, if borders were reopened, the on-going public health risk of measles to New Zealand would be very high. Australia has good measles immunisation coverage with no endemic measles and we are confident there is no additional risk once the travel bubble is up and running, provided their external borders also remain closed.

Young children will continue to be protected from measles at 12 months and 15 months as part of the childhood immunisation programme schedule.

I am aware that you are all in different stages of planning and implementing your MMR catch-up campaigns and over the last few weeks we have seen some good momentum in some areas and an increasing number of MMR vaccines delivered.

If you now need to reprioritise the workforce to support the planning and delivery of the COVID-19 programme, then we support you deprioritising MMR in your DHB. However, where you have the ability and the infrastructure in place to continue to deliver your MMR campaign over the next few months, I encourage you to proceed as planned. From the middle of the year though we do appreciate that all efforts will need to be focused on COVID 19 and ongoing childhood immunisation delivery.

During this time, I ask that providers continue to offer opportunistic MMR to people aged 15-30 years when they interact with the health system.

We expect MMR campaigns to be fully operational again from October and capitalising on the large infrastructure, momentum and workforce that will have been put in place for the COVID-19 roll-out.

The Ministry's Immunisation Team will be in touch with your MMR campaign leads to talk through next steps for your region and any associated operational implications.

The 2021 Influenza Campaign

There remains a public health risk of influenza even with the current border settings and it is important we continue the programme to ensure background immunity is maintained and our most vulnerable are protected. Therefore, the programme will continue but the focus will be on those eligible for funded vaccinations.

This will mean that you can encourage general practice, pharmacy vaccinators and local occupational health providers to focus on COVID-19 over the provision of influenza vaccine to those not eligible for a funded influenza vaccination.

We will also be providing advice on a 'three dose schedule' for those receiving both an influenza and COVID-19 vaccination, to ensure that there is a two week gap between administering each of the COVID-19 vaccinations and the influenza vaccine.

The start date of 14 April for those aged 65 and over remains the same, although we note that a different operational approach will be required for Counties Manukau DHB. Due to a manufacturing issue I also need to advise that the influenza vaccines for people aged under 65 will now not be available until early May. We will be communicating confirmation of the availability date as soon as possible.

I acknowledge that these changes in the influenza 2021 programme dates may cause operational issues for some providers, and we appreciate your discretion in not sharing this further until we have communications materials in place.

This is a pragmatic approach which I believe will deliver the public health gains we all want to see.

Thank you for all your work to support these important immunisation programmes.

Ngā mihi

Dr Ashley Bloomfield
Te Tumu Whakarae mō te Hauora
Director-General of Health

From: Margie Apa (CMDHB)
Sent: Thursday, 15 July 2021 7:24 a.m.
To: Deborah Woodley <s9(2)(a)
Cc: Aroha Haggie (CMDHB) <s9(2)(a)>; Immunisation s9(2)(a)>
Subject: RE: FOR ACTION : Childhood Immunisation Coverage - Counties Manukau DHB

Tena koe Deborah,
I'm afraid we won't get a plan to you by the 20th July. Aroha Haggie is our contact person and can confirm when we can document the actions we are undertaking sufficiently for your purposes.
Warm regards

Margie Apa
Chief Executive Officer

s9(2)(a)
Room 13, Poutasi Corridor, Middlemore Hospital, Otahuhu
Private Bag 94052 Auckland 2241
www: cmdhb@org.nz

From: Debbie King [s9(2)(a)] **On Behalf Of** Deborah Woodley
Sent: Monday, 28 June 2021 5:33 PM
To: Margie Apa (CMDHB) s9(2)(a)>
Cc: Aroha Haggie (CMDHB) s9(2)(a)>; Immunisation s9(2)(a)
Subject: FOR ACTION : Childhood Immunisation Coverage - Counties Manukau DHB

Tēnā koe Margie

Please find attached a letter regarding declining childhood immunisation coverage.

A plan is required by 20 July 2021 to Kath Blair, Manager, Immunisation Team s9(2)(a)

Please contact the immunisation team at the email address above if you have any questions.

Nāku noa,
nā Deborah

Deborah Woodley
Deputy Director-General
Population Health and Prevention
Ministry of Health
s9(2)(a)

http://www.health.govt.nz
mailto s9(2)(a)

133 Molesworth Street
PO Box 5013
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28 June 2021

Margie Apa
Counties Manukau District Health Board
s9(2)(a)

Tēnā koe Margie

I'm getting in touch to share my concern about the decline in the childhood immunisation coverage in Counties Manukau and ask you to take immediate action.

As you know, childhood immunisation is vital for protecting our tamariki from a range of preventable diseases. These are only a plane ride away and present increased risk once our borders reopen to more countries.

We have recently received quarter three 2020/21 milestone immunisation data. This shows national and regional childhood immunisation coverage at eight months, 24 months and five years for the quarter ending 31 March 2021.

Table 1 (below) shows an overall decrease in national coverage across all three milestones and a worrying equity gap for our tamariki Māori and Pacific children.

Table 1. Quarter three national child immunisation coverage by milestone and ethnicity

Milestone	Total		NZ European		Māori		Pacific	
	Q3	Change from Q2	Q3	Change from Q2	Q3	Change from Q2	Q3	Change from Q2
8 months	87.6%	-1.6%	90.4%	-1.7%	75.7%	-1.9%	86.0%	-4.9%
24 months	88.0%	-1.8%	90.2%	-0.6%	78.7%	-3.4%	86.0%	-5.3%
5 years	86.1%	-1.1%	88.2%	-0.9%	79.2%	-1.7%	85.2%	-2.5%

Table 2 (below) shows your DHB's coverage across the three milestones.

Table 2. Counties Manukau's quarter three national child immunisation coverage by milestone and ethnicity

Counties Manukau	Total			Māori			Pacific		
	%current quarter	%previous quarter	Change	%current quarter	%previous quarter	Change	%current quarter	%previous quarter	Change
8 months	85.6%	88.7%	-3.1%	65.9%	74.0%	-8 2%	83.4%	90.6%	-7.2%
24 months	85.1%	89.0%	-3.9%	71.6%	76.8%	-5 2%	81.2%	89.2%	-8.0%
5 years	87.0%	88.3%	-1.3%	77.8%	78.6%	-0.8%	85.2%	87.2%	-2.0%

DHB Coverage

The Ministry's target for DHBs is for 95 percent of all children to be fully vaccinated at each milestone.

Like most DHBs, Counties Manukau has not achieved coverage of 85 percent (noted in pink) across a number of immunisation milestones. This raises serious concerns about equity as well as an absence of herd immunity to several vaccine-preventable diseases.

COVID-19 and impacts on the immunisation sector

We acknowledge the complexity of the current health environment you're working in and the particular pressures on the immunisation workforce over the past year or so.

The immunisation sector has told us that:

- primary care services are under pressure with closed books in some areas and significant delays to the availability of GP appointments,
- outreach services have experienced significant growth in numbers affecting capacity, and
- the COVID-19 response has resulted in resources being diverted from childhood vaccination.

We are listening. We're aware of the changes we need to make at a Ministry level. We are strengthening our immunisation governance and implementing an action plan to support you to address factors impacting immunisation rates.

However, I need assurance from you that your DHB will immediately address this, particularly the immunisation coverage for Māori and Pacific children. Child wellbeing is a major priority for the Government and delivering essential health services to all children is fundamental to achieving this. Experience shows that a relentless focus and high expectation from senior executives is essential for high immunisation rates to be achieved.

The Minister of Health and Director-General of Health have raised this directly with DHB Chairs.

Next steps

I am therefore asking that your DHB provides us with a draft plan by Tuesday 20 July 2021. This should include:

- the steps your DHB is taking to address childhood immunisation outcomes, particularly regarding equity. This should be detailed and specific with key actions, timelines and expected outcomes
- how you are working with your Māori and Pacific communities to improve outcomes for tamariki Māori and Pacific children
- how outreach services are being deployed to improve coverage
- details of what's working well in your DHB.

It is my expectation that your Māori and Pacific general managers will be very involved in the planning and delivery of your regional response and will sign off your plan.

We are providing you with a designated contact person to work with your DHB and provide support to your team. If you let us know who your lead for Immunisation is, we will contact them. Please let us know who your lead is by close of business Friday 2 July 2021.

Please email this plan to immunisation@health.govt.nz. Kath Blair, Manager Immunisation, and the team are also happy to answer any questions through this email address. Once we have your draft plan, we will engage directly with your team to finalise it, similar to the process we've used for COVID-19 vaccination plans.

It's important to share this data across your PHOs, immunisation workforce and provider network. Their own data and input will be a key part of your planning. Of course, the Māori and Pacific providers in your region will be important partners in reaching into the communities in your region and supporting you to close the equity gap.

We must act now to lift coverage and close the equity gap to reduce the risk of outbreaks and long-term health implications for our tamariki. Thank you for your ongoing commitment to this important mahi.

Ngā mihi nui

Deborah Woodley
Deputy Director-General
Population Health and Prevention

cc: Aroha Haggie - GM Planning and Funding

This plan provides an overview of the following information:

- The steps that Counties Manukau DHB is taking to address childhood immunisation outcomes, particularly regarding equity
- Details of how we are working with our Maaori and Pacific communities to improve outcomes for tamariki Maaori and Pacific children
- How outreach services are being deployed to improve coverage
- Details of what's working well in our DHB.

Current context

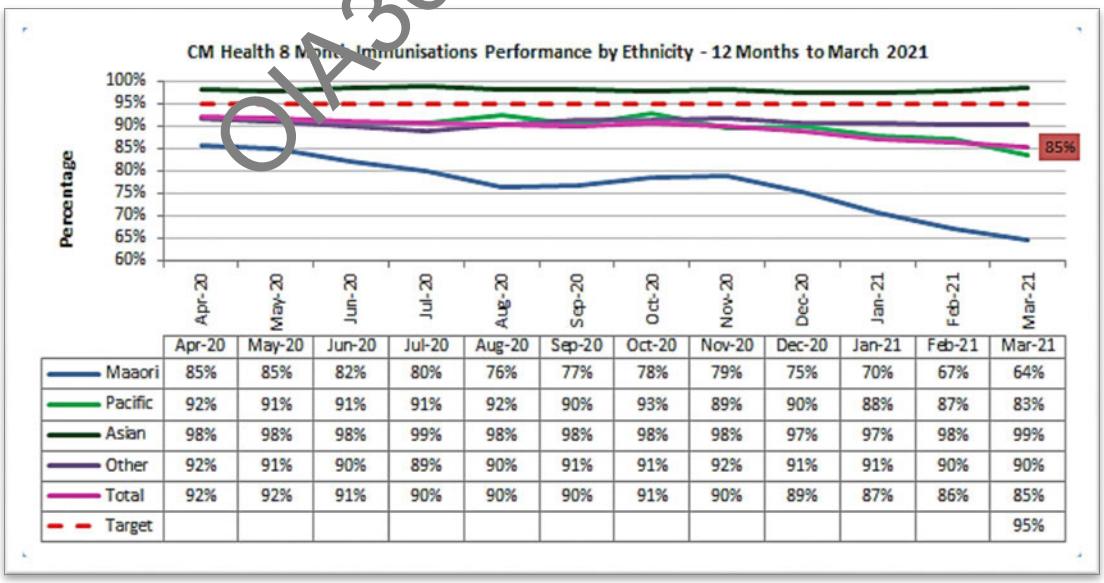
Childhood immunisation coverage in Counties Manukau Health (CM Health) – and the rest of the country - is currently below the target for all ethnicities. Immunisation coverage for Maaori is also below other ethnicities across milestone ages. This is a nationwide challenge with immunisation coverage decreasing nationally.

The most recent 3-month coverage data for the CMDHB catchment is shown in Table 1 with the longer time trend shown in Figure 1, derived from a recent paper on immunisation coverage[1].

Table 1. CM Health three-month coverage 14/03/2021 – 13/06/2021

Milestone age	***ALL***	***NZM***
8 months	85.5%	68.5%
24 months	83.1%	67.2%
5 years	87.8%	73.1%

Figure 1. CM Health immunisation coverage at 8-month milestone by ethnicity – 12 months to March 2021



	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
Maaori	85%	85%	82%	80%	76%	77%	78%	79%	75%	70%	67%	64%
Pacific	92%	91%	91%	91%	92%	90%	93%	89%	90%	88%	87%	83%
Asian	98%	98%	98%	99%	98%	98%	98%	98%	97%	97%	98%	99%
Other	92%	91%	90%	89%	90%	91%	91%	92%	91%	91%	90%	90%
Total	92%	92%	91%	90%	90%	90%	91%	90%	89%	87%	86%	85%
Target												95%

[1] Chan, W, Papa D, Olaghan B, Lee M. Immunisation coverage and children's journey view of vaccination

It is noted that there are a number of recent reviews predating COVID-19 that summarise the evidence for efforts to improve childhood immunisation rates. These do not however tackle the workforce issues created by COVID-19 or the demands on primary care due to COVID-19 response and restrictions.

The approach that we are taking to address childhood immunisation outcomes, particularly regarding equity, includes an on-going focus on business as usual activities in primary care, a recent transition of the Outreach Immunisation Service (OIS) previously undertaken by Plunket back to the DHB for the short term (with clear prioritisation of peepi Maaori), and development of a childhood immunisation sprint leveraging the local COVID-19 infrastructure.

These approaches are part of our work programme designed to integrate various work streams around immunisations (COVID vaccination, Influenza vaccination, MMR Catch Up, and Childhood Immunisations).

Our integrated approach also builds on the work currently being undertaken/developed by/through:

- The regional group[2] (formed by the Northern Region Child Health Network) which focuses on childhood immunisations for 0-5 year olds. There is a charter for this work which describes 4 work streams including primary care, OIS, COVID-19 environment, other community outreach services. Project support is provided by NRA. A report is currently being finalised which describes the current coverage data, analysis of the immunisation system, capacity of the immunisation workforce, short and long term recommendations based on Whakamaua within the context of the health and disability reforms.
- Immunisation meeting- local bimonthly meeting led by a CMH staff member with PHO representatives to review immunisation coverage and understand initiatives underway to improve coverage

It should be noted that achieving adequate immunisation for herd immunity against all vaccine preventable diseases, as well as addressing key inequities in childhood immunisation remain key areas of focus for CM Health.

1. Childhood Immunisation Activities in Primary Care

Business as usual (BAU) activities in primary care to meet childhood vaccination targets include:

- Proactively identify and recall for infants and children due scheduled immunisations
- Review and escalate current immunisation data issues (NIR/Qlik)
- Support practices by providing recall lists, prioritising Maaori and Pacific babies; including multiple recall attempts
- PHOs provide support visits to practices to review indicator performance and assist with problem solving
- Outreach Immunisation Service (OIS) referrals
- Nurse, Health Navigator, and other vaccinator support to practices
- Participation in immunisation working groups (Northern Region, Metro Auckland, CM Health)

Other activity (outside BAU) in primary care to Increase childhood immunisation rates include:

[2] Membership of this group includes the following staff from CMH: Christine McIntosh (GP Liaison) Sharon McCook (GM Maaori Health, interim GM Child, Youth and Maternity) and Carmel Ellis (Deputy GM, Kidz First Children's Hospital)

- PJ and Nappy incentive—400 sets of nappies and pyjamas across 28 practices for them to give away when immunising Maaori, Pacific or Quintile 5 babies. Results are currently being assessed to determine if the incentive programme will continue.
- Peepi packs to be given to pregnant women, prioritising Maaori and Pacific women. The pack has gifts for mum and baby, healthcare information on some key topics, and a healthcare roadmap that details what care they are entitled to at different stages. The hope is that this will increase awareness of what the healthcare system is able to offer; promoting early engagement with primary care and well child providers.
- Primary Health Organisations (PHOs) offering more intensive support to practices that are <60% of the 95% target rate.

Challenges in primary care

Primary care is experiencing challenges that have contributed to the decline in childhood immunisations. Some of these challenges include:

- Immunisation data issues—it appears that MMR vaccinations are not being accurately reported in NIR/Qlik. This has been escalated
- Significant workforce constraints in practices, caused by a shortage of nurses and deployment of staff for COVID testing and vaccination work
- On-going demands on the sector resulting from requirements for COVID-19 testing and vaccinating

Other activities to improve childhood immunisation coverage

In addition to the focus on increasing childhood immunisation coverage in primary care, there is also improvement activity being undertaken in Outreach Immunisation Services (OIS). Childhood immunisation work is part of the coordinated focus on an integrated approach to vaccinations, which includes MMR catch up (13-29 year old age group), COVID-19 vaccination, and the influenza campaign.

Activity	Key Actions	Timeline	Expected Outcome
Primary Care	• Recalls • Referrals to OIS • Support to practices • Incentive programs • Health promotion activities	On-going BAU On-going BAU On-going BAU Currently being evaluated Currently being evaluated	Improvement in coverage Continuation and expansion of effective incentives leading to improved coverage Early and increased engagement and increased health literacy
Outreach Immunisation Services	Please see Section 2		Increase in uptake of childhood imms
Vaccine Integration Project	• COVID-19 Vaccination • MMR Catch Up • Flu Campaign • 8-week Sprint • Childhood Imms	On-going Combined flu and MMR vaccinations 8-week sprint due to commence	Increase in uptake of childhood imms during term of sprint

	(section 3)		
All of these activities have a specific focus on engagement and/or co-design with Maaori and Pacific communities			

What is working well

- Strong working relationships across the Metro Auckland region among DHBs and PHOs
- Coordination among service providers

2. Non-primary care providers of vaccinations: Outreach Immunisation Service (OIS)

Up until the end of July 2021, Plunket was the largest provider of Outreach Immunisation Service (OIS) for CM Health. A mutual agreement was reached for Plunket and CM Health to exit the current OIS agreement so the DHB could transfer the OIS programme back into the DHB for the short-term (12 months) to allow for modifications to the model of delivery and development of a new plans[3]. Papakura Marae, Southseas Healthcare and Raukura Hauora all have small OIS contracts but deliver very few vaccinations as the focus of their work is to support whaanau to access immunisations either in primary care or via OIS.

Due to the recent transition of OIS into the DHB the plan is to now start to adapt the OIS model and follow the key recommendations from the *National Review of Outreach Immunisation Services: Summary and Recommendations, MoH, 2016.* These actions include;

- co-location of the OIS provider team with the NIR team, immunisation co-ordinator, and other child health services
- prompt referral of children overdue for their immunisations, with a new electronic referral form
- intensive processing of referrals by the NIR team and/or other dedicated administration staff, including finding families and checking contact information and immunisation status, before passing referrals on. There is currently work underway to develop an MoU with MSD in order to be able to access up to date contact information for whaanau referred to OIS

There is also an opportunity to increase the number of drop-in immunisation clinic with extended hours, as an alternative before home visit immunisation. At present the Saturday Manukau Superclinic drop in clinics are very popular with whaanau. These are targeted at four year olds due to the B4SC however the nurses will also offer immunisation all tamariki overdue for their immunisations and support access to the dental clinic also on site.

Baseline data from Plunket and NIR provides an indication of the percentage of vaccinations which has varied between 3.1% and 4.7% over the last three years. The focus for the DHB OIS and NIR teams will continue to include the prioritisation of Maaori and Pacific babies and test new models in order to improve the effectiveness and efficiency of the OIS service in Counties Manukau.

[3] A CM Health evaluation of the incentives pilot with Whanau Awhina Plunket, including interviews with both whaanau and OIS staff, had also identified concerns regarding the experience of/implicit bias towards whaanau in both primary care and OIS

3. Development of an 8-week integrated immunisation 'sprint' for peepi

Plans have been developed for an 8 week immunisation 'sprint' to a cohort of 936 peepi[4] who have not met their 8 month immunisation milestones. 718 are Maaori and Pacific (76%). The confirmed site chosen to commence the sprint is Manurewa Marae (a current local Covid-19 vaccination centre[5]). Work is also underway to develop a similar approach for the Otara Covid-19 vaccination site run by a collective of Pacific providers. Should other sites become available (e.g., Papakura marae) we anticipated that the same format will be used.

The sprint takes advantage of the current opportunity to leverage existing resourcing for the Covid-19 vaccination strategy by providing a whaanau-focused approach to immunisation. It is anticipated that this approach will support uptake of childhood immunisation for peepi Maaori as well as providing coordination information to whaanau to support decision-making about immunisations. Existing service supports such as a targeted booking team will ensure that whaanau who have a peepi due for their 8 month immunisation milestone are aware of the opportunity for integrated immunisation and are booked at a time that is convenient for them. A coordinated Maaori-led local communication strategy for the marae will also guide the development of any requisite messages for whaanau.

Manurewa Marae has been chosen and agreed to be the initial project site. It is anticipated that the sprint will start within the next 14 days and will require limited additional resource.

A con-current review process[6] is also planned to gain insights into how this kaupapa Maaori integrated model affects whaanau immunisation experiences. In particular, the review undertaken with whaanau will support:

- Understanding of previous immunisation experiences of whaanau Maaori
- Definition of what an equitable / good immunisation experience looks like for whaanau Maaori
- Recommendations to inform future immunisation services/ models

As noted above, work is also underway to replicate this approach at the Otara Covid-19 vaccination site[7] run by a collective of Pacific providers. It is noted that this next phase of integrated immunisation delivery will be able to support a focus on our Pacific babies/children. In light of this, plans are currently being reviewed with our Pacific team.

[4] Peepi for CM Health rohe have been identified from PHO enrolment data

[5] Manurewa marae is the first marae-based Covid-19 vaccine centre. The marae is based in South Auckland and also serves as a primary health care clinic. Currently the marae vaccinates between 300-500 people each day
https://www.manurewamarae.co.nz/covid-19.html

[6] Led by staff – including a Maaori lead - within the Research and Evaluation Team, Library and Knowledge Services Team and the Co-design Team at Ko Awatea, CM Health this evaluation is a rapid, internal developmental evaluation, allowing the whole team to be involved in evaluative thinking and to be able to respond to emerging issues and challenges as the evaluation happens

[7] A Pacific vaccination centre operates at the Otara MIT Building. This centre has Pacific staff who speak different Pacific languages and can support family through the vaccination process.

Appendix 5

Debbie Holdsworth (WDHB)

From: Claudelle Pillay (CMDHB)
Sent: Monday, 28 June 2021 11:16
To: Kay Lawrie (CMDHB); Diane Evans (CMDHB); Carmel Ellis (CMDHB); Philippa Anderson (CMDHB); Amanda Hinks (CMDHB); 'David Harrison'; Jacqui McMahon - East Health; kate Moodabe; Reshmi Lata Chand; Joe Glassie Rasmussen; 'Miri Hohepa'; 'Reece Danby'; 'Sara Aprea'; 'IMAC RIA Northern'; Sita Moala (CMDHB); Georgina Tucker (WDHB); Robson Lumukana (WDHB)
Subject: Proposed merge/ combining of the CMDHB,ADHB and WDHB Immunisation working group meetings

Kia ora Koutou,

As you all are aware , the Counties MH Immunisation working group meeting is held every 2nd month and the ADHB/WDHB Immunisation Operational Group holds its meeting on a monthly basis via zoom and in-person once every three months coinciding with the IMAC NRIA meetings. Membership in both groups are more or less the same people discussing more or less similar issues and strategies. There is also the STRIVE group which is scheduled for every month.

We (CMH and ADHB/WDHB) are proposing that we combine the meetings into a Metro Auckland Region Immunisation Operational Working Group to analyse immunisation coverage, advise on strategies to improve coverage, develop communications and sharing of program ideas/successful initiatives currently undertaken by providers and discuss issues faced by providers and so forth.
We are proposing that this joint meeting happens once a month, initially we would schedule it as a two hour meeting, using the final half an hour of the meeting to be like STRIVE, with a plan to deep-dive specific areas, or where urgent issues require longer discussions. We would review the length of the meeting over time.
The initial suggestion is that we meet as the ADHB/WDHB meeting has been after RIN since we are all normally there, with the other two meetings each quarter in a central location Greenlane Clinical Centre has been suggested.

We also propose that moving forward we would need to have a clear Terms of Reference with clearer guidance of what is expected of members at the meeting. Here are some suggestions:

- Sharing of immunisation coverage data – DHB & PHO level data using QLIK
- Each PHO having a case study (no use of practice name) at each meeting of their best performing practice and what is working well, along with their least performing practice, what the challenges are and what strategies are being tried
- Discussion of issues affecting immunisation coverage
- Addressing arising issues
- NIR service updates for both DHBs
- OIS update for both DHBs
- Plunket and Midwife update
- School Based Imms Programme update from all three DHBs once per quarter
- Invitation of external/adhoc groups to the meetings to share?

We are proposing to have this combined meeting commencing towards the end of July 2021 and would really love to hear your thoughts and suggestions on this.

Could you please provide your thoughts regarding this proposal by the end of this week ,Friday 2nd of July 2021.

Kind Regards
Claudelle Pillay
Immunisation Nurse Leader/Team Leader NIR
Child Youth and Maternity Services

Debbie Holdsworth (WDHB)

From: Georgina Tucker (WDHB)
Sent: Monday, 28 June 2021 13:16
To: Anne-marie Woodward (Westkids); Catherine Roscoe [redacted] Claudelle Pillay (CMDHB); Deborah Kipa; Faimafili Tupu (ADHB); Joe Glassie Rasmussen; Karen Upton (ADHB); kate Moodabe; Kathy Greenstreet [redacted] Kristin Shepherd-Bell; Linda Williams; Lisbeth Alley - IMAC [redacted] Louise Robertson AHPlus; Natalie Desmond (WDHB); Reshmi Lata Chand; Robson Lumukana (WDHB); Scott Abbot (WDHB); Shanaz Khan ; Sian Gilhooley WPHO; Tiffany Soloai
Subject: Proposed merge/ combining of the CMDHB,ADHB and WDHB Immunisation working group meetings

Kia ora Koutou,

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Ngā mihi