Final report summary

COVID-19 and National Immunisation Programme research

Submitted by
Auckland University of Technology

Project title
PROP-017 Impact of COVID-19 on childhood vaccine uptake and ways forward for equitable immunisation services

Section 1: Contact information

1.1 Point of Contact for this report

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Section 2: Reporting

2.1 Overview

This research project encompassed complementary quantitative and qualitative methods to investigate the impact of the COVID-19 pandemic on inequities in routine childhood immunisation uptake. A key aim was to understand which pēpi and tamariki are missing out and why and propose ways forward for routine immunisation services.

For the quantitative analysis we used the Integrated Data Infrastructure (IDI) and examined the effect of the pandemic on each immunisation event from 6 weeks to 4 years by comparing vaccine uptake of children who became eligible for immunisation during the pandemic (affected cohorts) to earlier born cohorts whose immunisations were not affected by the pandemic. We find for our affected cohorts that the initial phase of the pandemic had, on average, small effects on timely immunisation at the four infancy events (6 weeks, 3 months, 5 months, 15 months) with declines in coverage of between zero and 3 percentage points compared to pre-pandemic levels, but a large effect at the 4-year event of -15 percentage points. Uptake of the 4-year immunisations initially dropped most among children of European ethnicity and of high-earning parents but catch-up quickly surpassed their Māori, Pacific, and lower-earning counterparts for whom sizeable gaps in coverage below pre-pandemic levels remained at the end of our observation period. The pandemic thus widened pre-existing inequalities in immunisation coverage.

For the qualitative phase, we conducted culturally-informed interviews and discussions with 24 Māori and Pacific whānau and 13 healthcare professionals. Data were analysed using reflexive thematic analysis and privileged respective Māori and Pacific cultural worldviews and knowledge systems. Four themes were constructed: 1) "*We go with the norm*" (2) *"Everything became difficult"* (3) *"It needed to have an ethnic-specific approach" and* (4) *"People are now finding their voice".* The pandemic created an opportune time for immunisation providers to support informed parental vaccine decision-making in a respectful manner that enhances the mana (authority, control) of whānau. Māori and Pacific-led vaccination strategies should be embedded in immunisation service delivery to improve uptake and immunisation experiences for whānau. This research was approved by the Auckland University of Technology Ethics Committee (22/266).

2.2 What is the problem or issue that your research investigated?

In Aotearoa New Zealand, there has been a marked decrease in the uptake of routine childhood vaccinations since the onset of the COVID-19 pandemic, particularly among Māori and Pacific children. Currently, the proportion of children fully immunised at 24-months is at 83% (Jan-Mar 2023), well below the 92% national target. Importantly, for the same period, coverage among Māori and Pacific was at 69% and 81%, respectively.

Suboptimal and inequitable immunisation coverage pose serious risks to child health, especially among population sub-groups that already had low vaccination uptake before the pandemic. While previous research has shed light on barriers to vaccination among Māori and Pacific communities, this research focussed on understanding the impact of the COVID-19 pandemic, and its role with respect to childhood immunisation coverage among these priority populations.

2.3 What are the practical solutions and implementation options that you recommend?

As indicated above, the quantitative findings point to differential impacts at later immunisation events, such as the 4-year event. Therefore, it is worth working with practitioners to understand what differences may be occurring at the 4-year event relative to the infancy events – for example, are there less reminders and follow-ups? Is it because this immunisation event is deemed lower priority[1]? Whatever the underpinning causes (particularly if institutional in nature), the key issue with the larger impact found for the 4-year event is that it is widening ethnic immunisation inequities as European and Asian children that are affected do catchup; but the same cannot be said for Māori and Pacific children.

Our qualitative findings call for future pandemic responses and the National Immunisation Programme to better embed and support Māori and Pacific-led vaccination strategies from the start. Collectively, participants perceived the government's pandemic response to be reactive and culturally incongruent with the values of Māori and Pacific communities. While the government's delay may have been associated with the complexity of organising services in Māori and Pacific communities, it had negative implications with a loss of trust among the communities which subsequently affected routine immunisations. Thus, participants advocated for whānau-centric vaccination efforts. Vaccination strategies that support tino rangatiratanga (self-determination) and mana motuhake (Māori right to self-management) among Māori and Pacific communities are needed. This requires early engagement of Māori and Pacific leaders and healthcare professionals and creating space for more autonomy as they know what strategies will be well-received in their communities.

Our qualitative findings also support the need for improved communications from the government and health sector about vaccinations during future pandemic responses and related to the National Immunisation Programme. This includes the need for clear messaging in future pandemics/crises that immunisation services remain available and are an essential service (the 'stay-at-home' messaging caused confusion about what services were available in a lockdown). In addition, mechanisms are needed to support healthcare professionals to engage in mana-enhancing vaccine discussions, such as longer consultation times to answer questions and information about alternative vaccination schedules. More information about routine immunisations (at a similar scale to the COVID-19 vaccines) would also be supportive. Lastly, the health sector needs to regain its status as a credible source of unbiased/uncoercive health information and actively work to debunk vaccine mis/dis-information on national and transnational media and social media platforms.

2.4 What considerations need to be taken into account when implementing the solutions?

As detailed above, the initial COVID-19 pandemic response was Western-centric in nature, and this was deemed inappropriate to meet the needs of Māori and Pacific communities. Importantly, the values underpinning Western-centric strategies were at odds with the cultural values and practices among Māori and Pacific communities. Of particular note was that the mitigation measures implemented during the pandemic substantially limited people's sense of autonomy and agency.

We also found that throughout the COVID-19 pandemic response, whānau became more aware of what protection vaccines can offer and that it was their decision to get vaccinated (i.e., voluntary). As whānau exert their agency in vaccine decision-making, they are actively seeking additional information from robust kōrero (discussions), media reports, independent website searches and social media posts, but not necessarily from healthcare professionals. Given their experience with the COVID-19 vaccine rollout, trust was lost as whānau perceived that vaccine information from healthcare professionals was biased or coercive because it aligned with messaging from government.

[1] At the start of the pandemic, a media release from the Ministry of Health and the Immunisation Advisory Centre stressed the importance of health care providers continuing to vaccinate, with influenza vaccination and infant immunisations as the highest priorities (https://www.nzdoctor.co.nz/article/undoctored/keep-calm-and-keep-vaccinating).