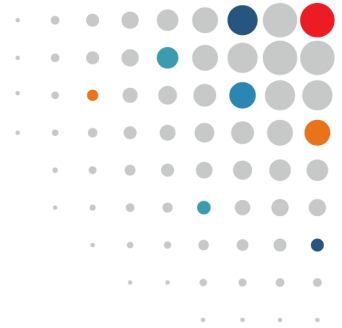




20 November 2024

File Ref:2024011

9(2)(a)

On 17 October 2024, Ministry of Health transferred part of your Official Information Act 1982 request to the Social Investment Agency. You requested:

The meeting held of the Covid Steering Group 2nd of November. They state "The Social Welfare Agency is analysing data to inform us about the unvaccinated population"

1. *Can you amplify on this, what data did the social welfare agency provide the Covid Steering group on the 'Unvaccinated Population' Please give what data was provided to the steering committee or results of this analysis. How and who had their vaccination status provided the social welfare and analysed? (screen shot below)*

12.	IDI analysis (Renee Graham, Alistair Mason, Tahia Eaquad (Social Welfare Agency))
	• The Social Welfare Agency is analysing data to inform us about the unvaccinated population. • There is a group working on outputs and what characteristics we see in the unvaccinated group which might provide insights into what is happening in this space, and whether the insights and actions across the health and social sector are in the right direction and where we need to do more. • New insights are GP connections to health system locations and connections within the social sector such as housing, ethnicity, and age. • The next step for the Social Welfare Agency is caring for communities and sharing with the Steering Group for further discussion. • We have teams working on cluster analysis, workplace regression analysis and what we might be able to do over time to show improvements. • We are working with the covid vaccination programme to ensure we are offering worthwhile data and helping to liaise with other parts of the government who have an interest also. • The Minister for disability is keen to interrogate the data available.

We have identified an error in the screenshot above that incorrectly references "the Social Welfare Agency" the correct name at that time was "Social Wellbeing Agency" at that time. As of 1 July 2024, the Social Investment Agency was established. We will refer to 'the Agency' in the remainder of this letter.

The Agency analysed COVID-19 vaccination data in 2021. The analysis focused on two questions:

- a) What are the characteristics of people who are not currently vaccinated?
- b) What is the vaccination status of key groups of people who the public sector regularly interacts with?

The Agency had access to anonymised Ministry of Health COVID Immunisation Register vaccination data through the Integrated Data Infrastructure (IDI). The IDI is a large research database run by Statistics New Zealand. It includes a range of information about people's interactions with government agencies – all of which is anonymised.

The Agency linked the vaccination data with other data relating to people's interaction with social and health services, as well as to demographic data. All identifying information about people, including names, is removed and only research that is identified as in the public interest is allowed. The project was approved by Statistics New Zealand and received ethics approval. However, the analysis of sex, age, ethnicity, and geographic location, is provided in Appendix A: Initial COVID 19 Immunisation Register IDI analysis.

Information released

Please find enclosed the following document that is a snapshot of specific point in time in 2021.

Item	Document Date	Document Title	Decision
1.	September 2021	Appendix A: Initial COVID 19 Immunisation Register IDI analysis	Release in full

2. Was the data Social Agency analysed on the 'Unvaccinated Population' only Social Welfare clients or those not clients of social welfare?

The Agency looked at data of unvaccinated people who were clients of a range of health and welfare agencies, including the Ministries of Social Development, Education, and Health, Oranga Tamariki, Kāinga Ora (Housing), Police and the Department of Corrections. It also looked at the general characteristics of the unvaccinated population – including those who had contact with health and welfare services, as well as those who did not.

If you are not satisfied with this response, you have a right to seek an investigation or review by the Ombudsman. Information about how to make a complaint is available at www.ombudsman.parliament.nz or by calling 0800 802 602.

Yours sincerely



Kirsty Anderson
Manager, Office of the Chief Executive

Disclaimers

Disclaimer for output from Stats NZ Surveys

Access to the data used in this study was provided by Stats NZ under conditions designed to give effect to the security and confidentiality provisions of the Statistics Act 1975. The results presented in this study are the work of the author, not Stats NZ or individual data suppliers.

Disclaimer for output produced from the IDI

These results are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) which is carefully managed by Stats NZ. For more information about the IDI please visit <https://www.stats.govt.nz/integrated-data/>.

Disclaimer for Inland Revenue tax data

The results are based in part on tax data supplied by Inland Revenue to Stats NZ under the Tax Administration Act 1994 for statistical purposes. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes, and is not related to the data's ability to support Inland Revenue's core operational requirements.

Work in Progress
RELEASED UNDER THE OFFICIAL INFORMATION ACT 1982
Not for Dissemination

Initial COVID-19 Immunisation Register IDI analysis

This report provides details of the initial descriptive analysis of COVID-19 Immunisation Register (CIR) data, **as at 28 September**, that has been linked in the Integrated Data Infrastructure (IDI). By linking the data we are able to provide additional insights including:

Identifying people who may be missed from the existing population measure: The analysis has drawn on additional data on the population in the IDI to include individuals who are not currently included in the population that Ministry of Health has access too. Current reporting has been based on the data of people using health services – Health Services Users (HSU).

Additional descriptive characteristics: As well as updating some of the key characteristics (e.g. ethnicity, geography) against more recent sources, we are also able to look at other descriptive characteristics. These findings are shown in this report.

Planned analysis:

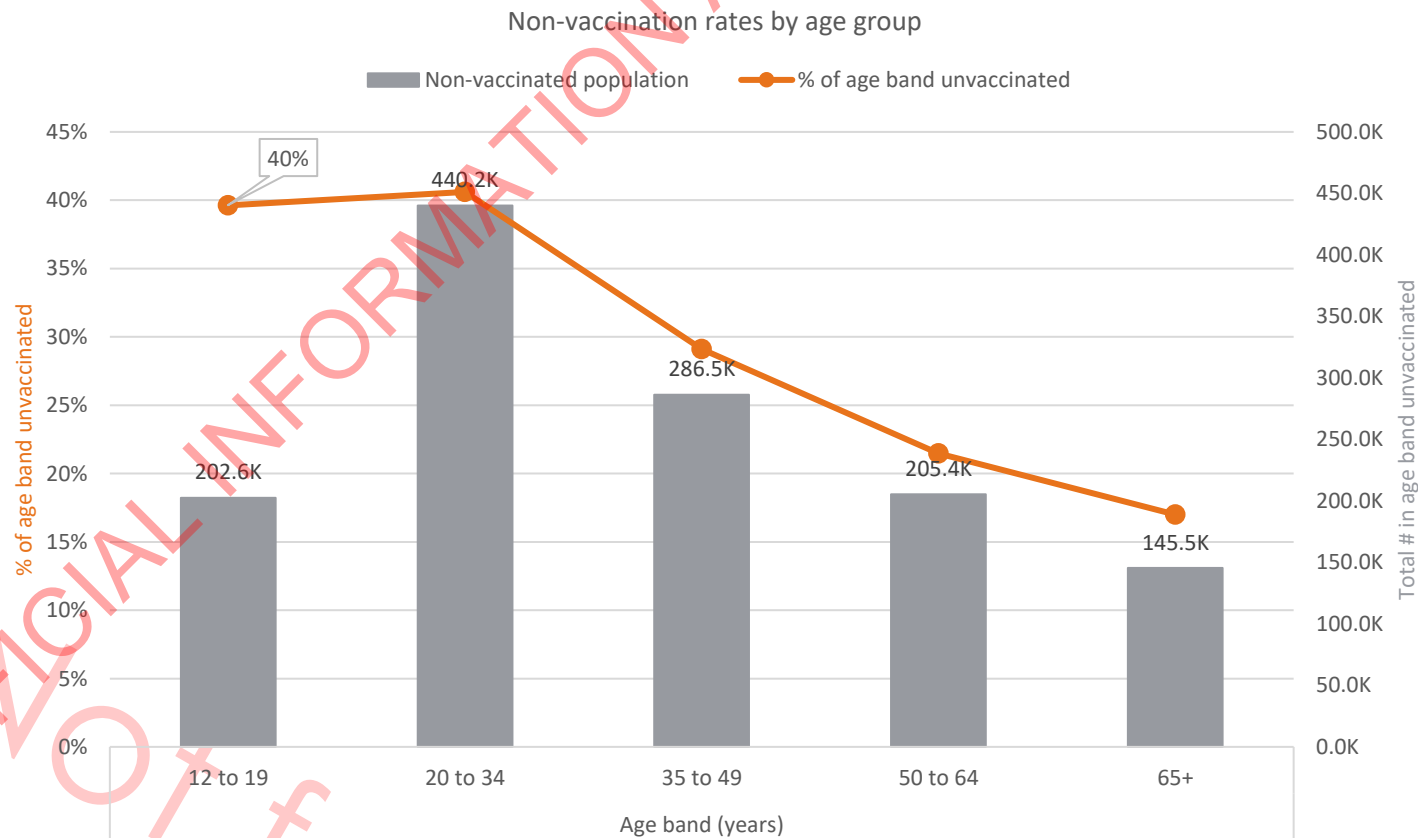
- We will be undertaking further regression and clustering analysis to provide insights on which characteristics are the most important and ‘personas’ of those not currently vaccinated.
- The method can be used to analyse vaccination rates of the populations that key public sector workforces interact with.

Important note:

This data is a snapshot of the New Zealand's vaccination uptake as of 28 September 2021, and therefore is not showing current vaccination rates.

Age Group

The highest rates of non-vaccinated were in the younger age groups (12-19 years and 20-34 years). This is as expected as the younger age groups were invited to vaccinate later in the year. It is still of note that there is a large group (15-20%) of the older populations that are yet to receive at least one dose.



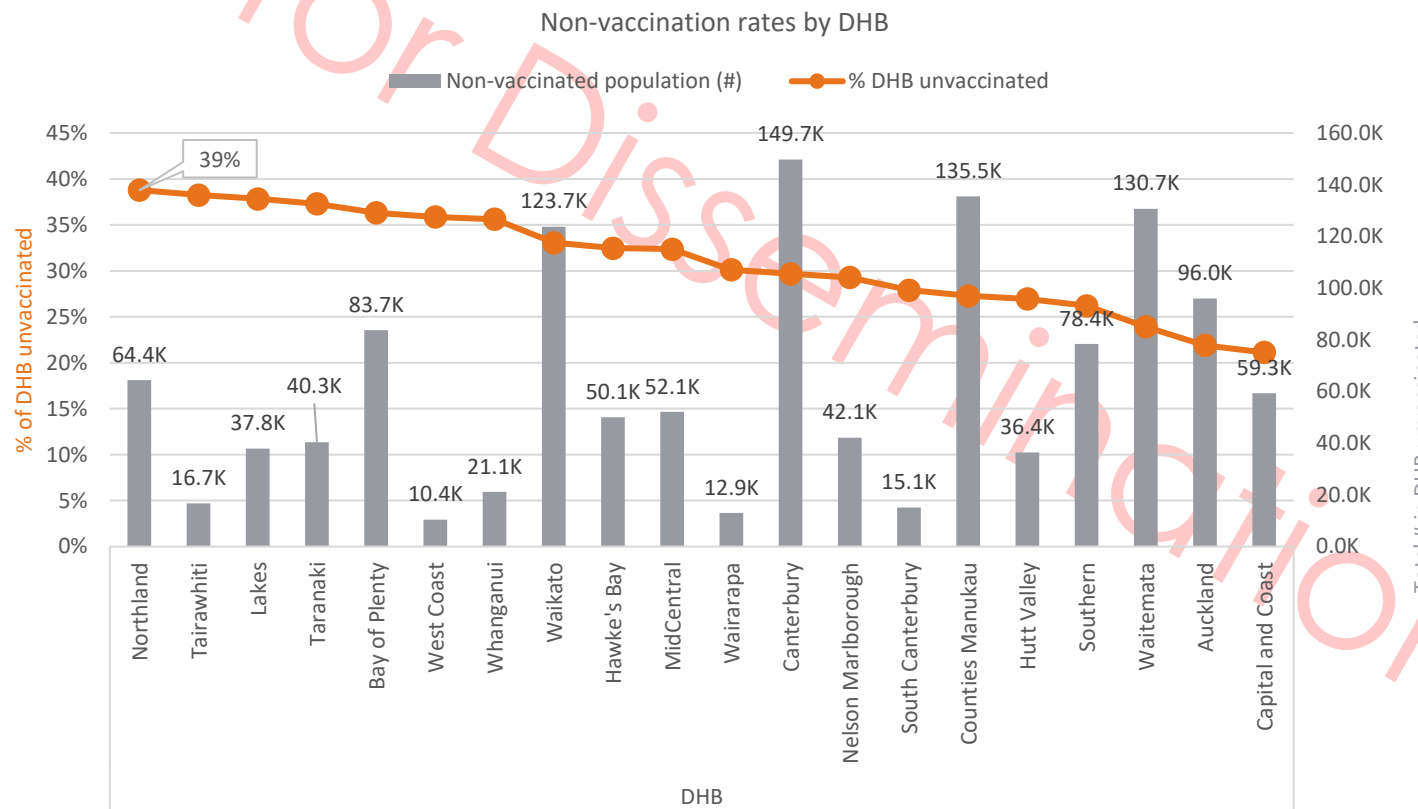
Initial descriptive analysis: Key findings

The analysis of sex, age, ethnicity, and geographic location is in line with what the Ministry of Health has been reporting. The non-vaccinated population of New Zealand appears to be:

- Highest among people between in the age cohorts of 12-19 and 20-34
- Those aged 20-34 are the largest age group non-vaccinated population, with ~440,000 individuals yet to receive a vaccine dose
- Among ethnicities, rates of non-vaccination are highest in Māori and Pacific Peoples

We revealed some findings that have not been highlighted previously.

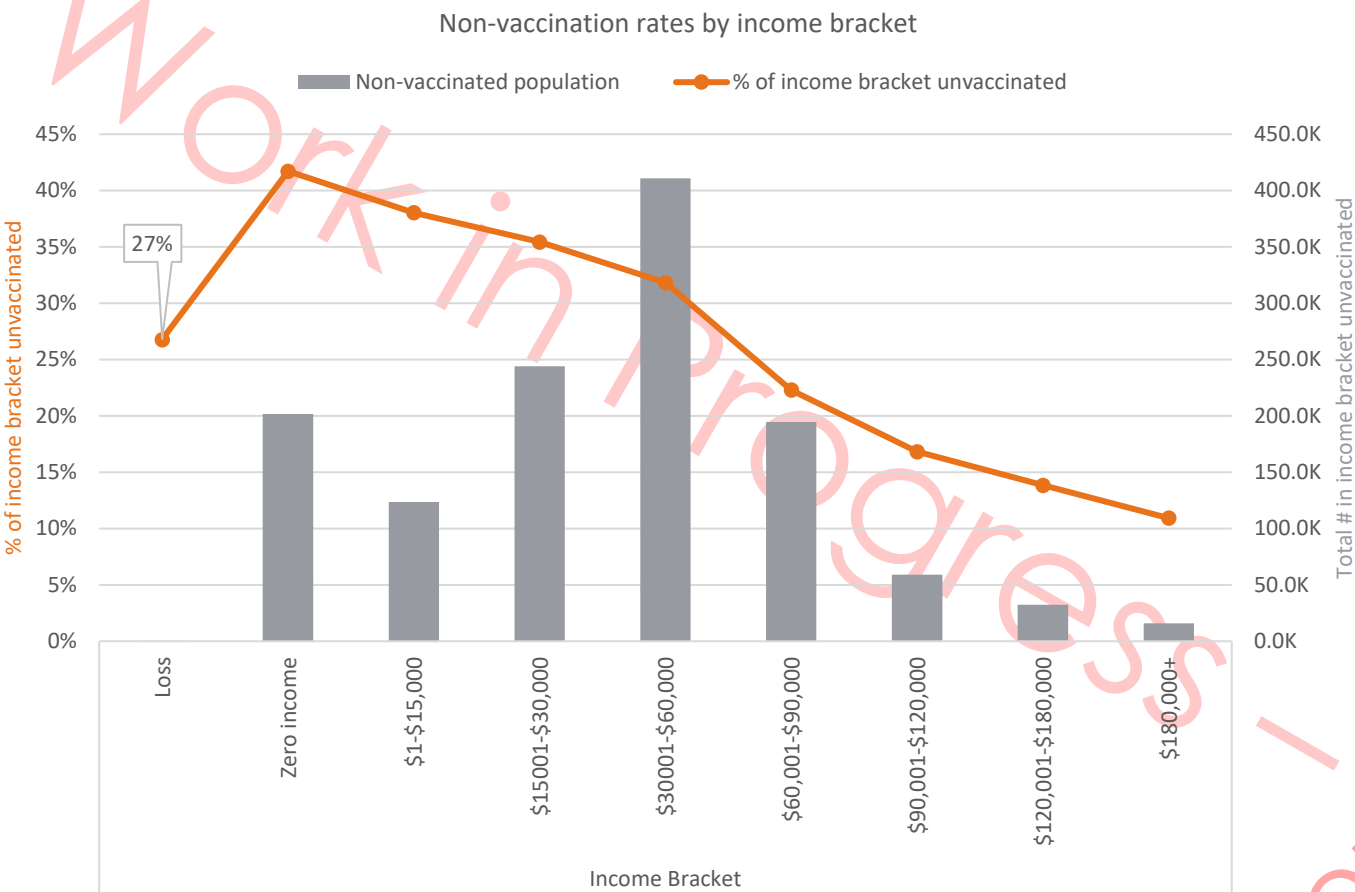
- Rates of non-vaccination are higher in individuals that do not indicate engagement with a GP since the beginning of 2020 (48% non-vaccinated)
- Those with incomes less than \$30,000, and those in areas of greater deprivation are more likely to be non-vaccinated
- Initial findings suggest that there are large proportions of non-vaccinated in social and emergency housing and in some occupation groups and religious denominations



Initial COVID-19 Immunisation Register IDI analysis

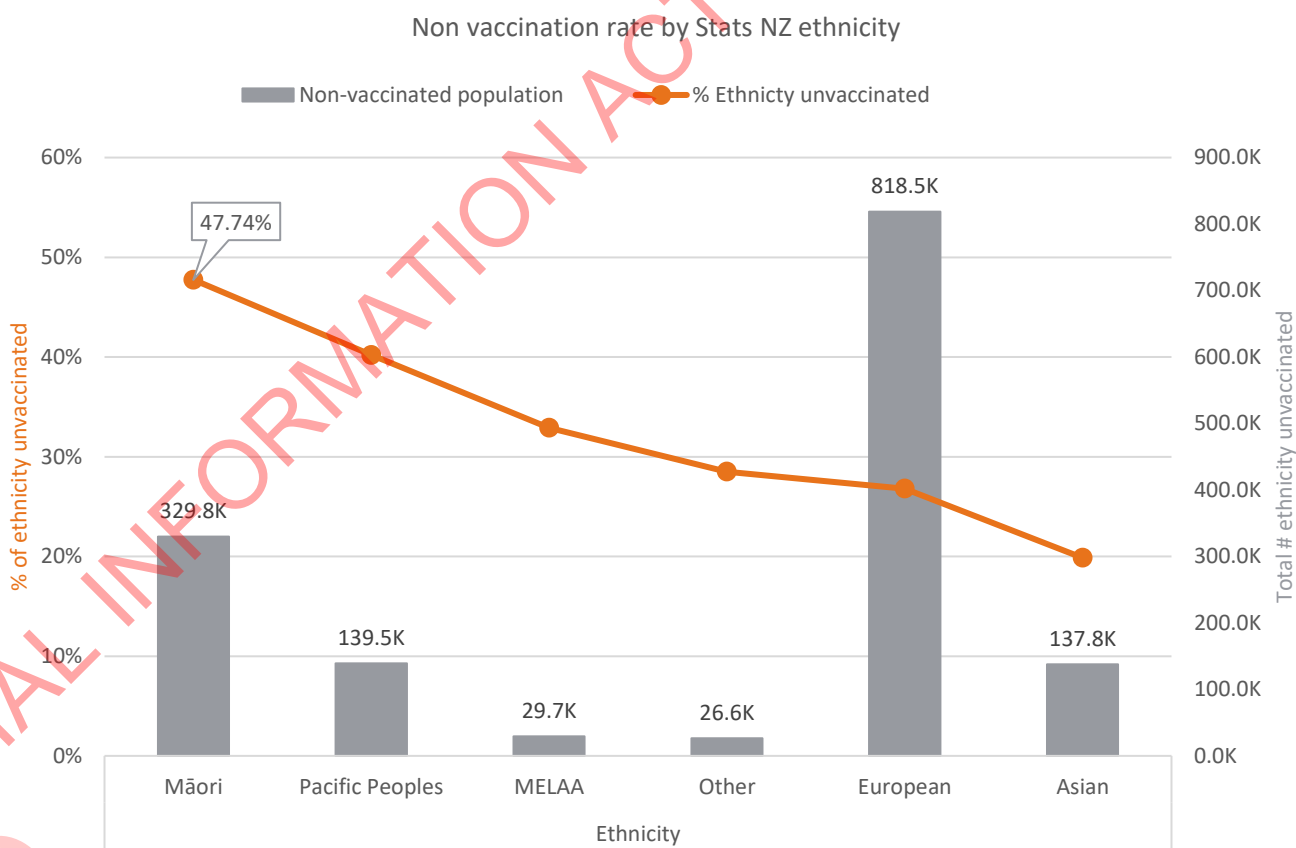
Income (2020 reported income)

The rates of non-vaccinated decrease with increasing income.



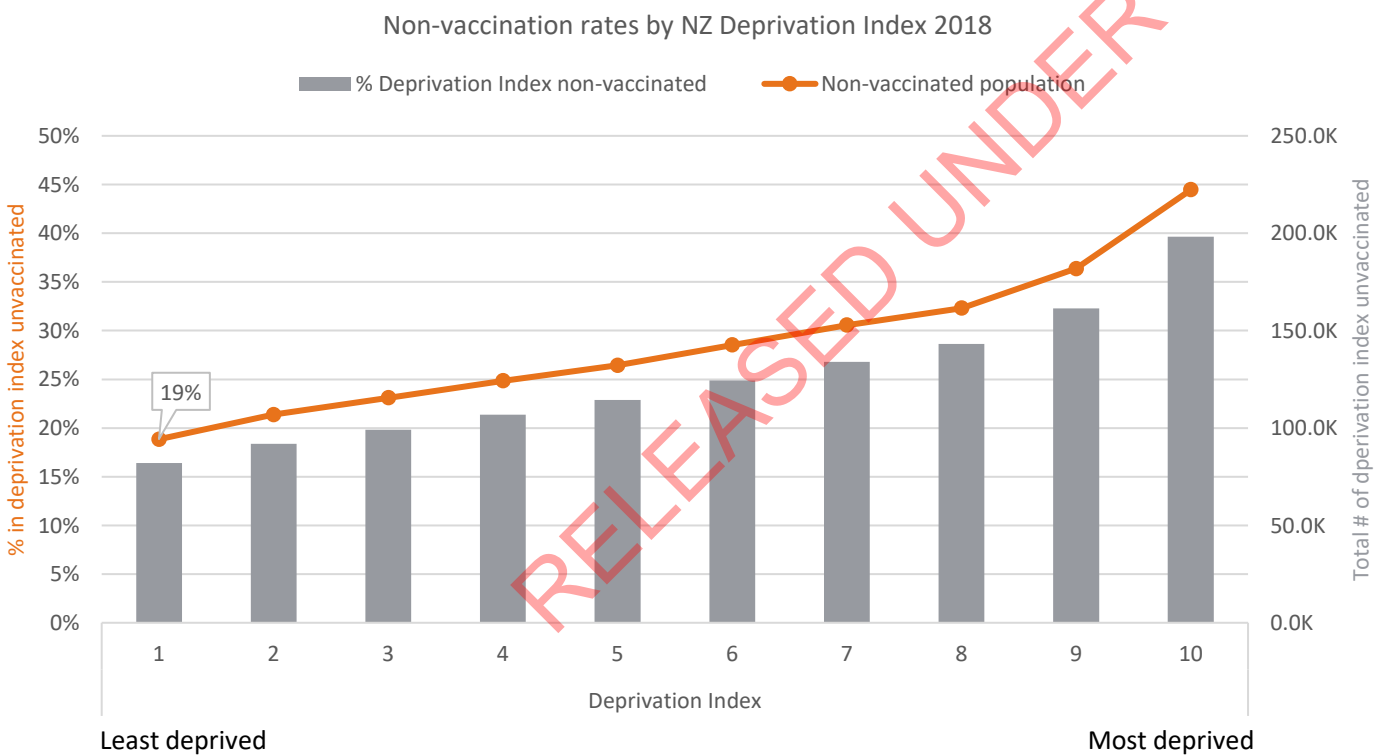
Ethnicity (total)

Consistent with MoH reporting, rates of non-vaccination is highest for Māori and Pacific peoples. Within Pacific peoples there is variation within different sub-populations.



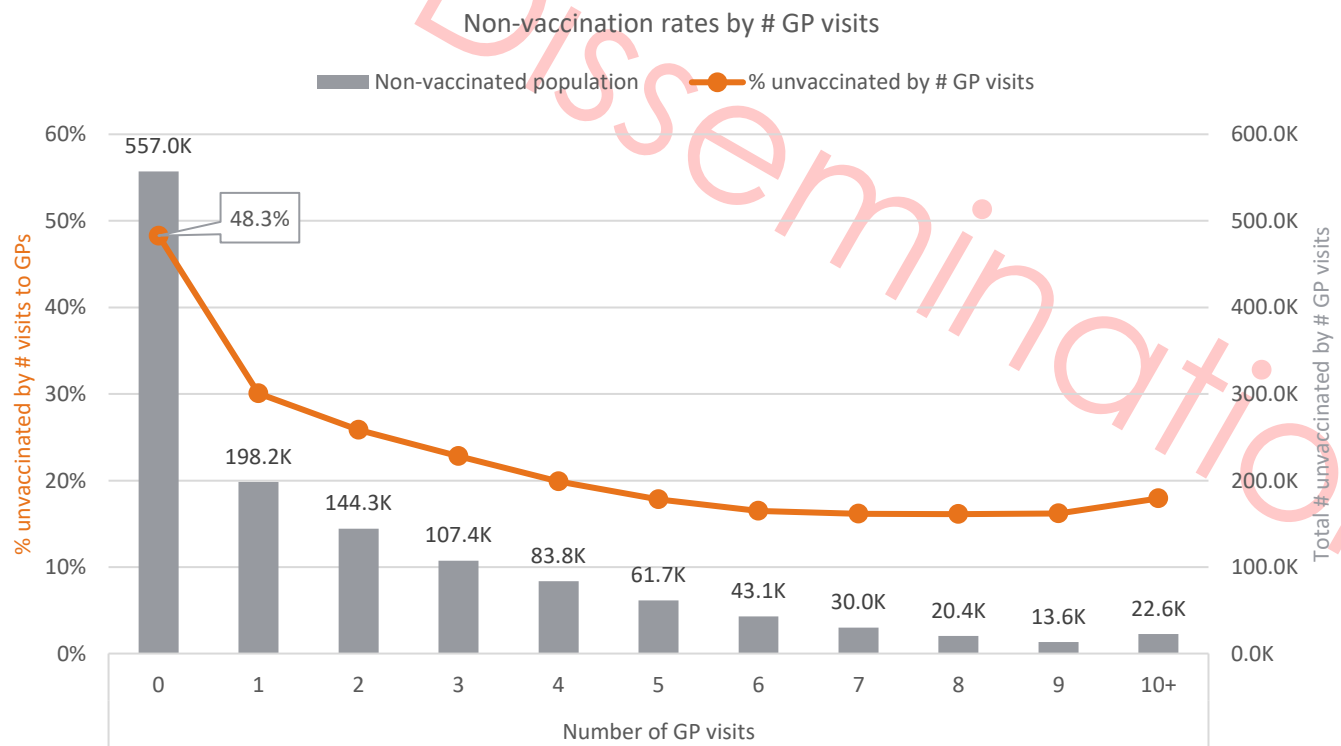
NZ Deprivation Index 2018

Rates of non-vaccinated increase with increasing NZ Deprivation index 2018.



Number of visits to a GP (indicated contact)

The rates of non-vaccinated are much lower in those that have indicated contact with a GP since the start of 2020 and appears to decrease with increasing number of visits.



Purpose

The purpose of this analysis is to give public sector leaders additional information on non-vaccination rates of people that selected public sector workforces may be interacting with. This analysis will assist in informing decisions around risk management and potential vaccination mandates for staff. This report provides details of descriptive analysis of COVID-19 Immunisation Register (CIR) data as at 28 September, that has been linked in the Integrated Data Infrastructure (IDI).

This analysis is part of a series of reports SWA are looking at producing exploring vaccine uptake. We plan to look at more in-depth analysis of populations of interest and other public sector workforces.

Important note: This data is a snapshot of the New Zealand's vaccination uptake as of **28 September 2021**, and therefore is not showing current vaccination rates. Our population only includes those eligible for a vaccination (i.e. those 12 years and older).

Identifying people who may be missed from the existing population measure: The analysis has drawn on additional data on the population in the IDI to include individuals who are not currently included in the population that Ministry of Health has access too. Current reporting has been based on the data of people using health services – Health Services Users (HSU).

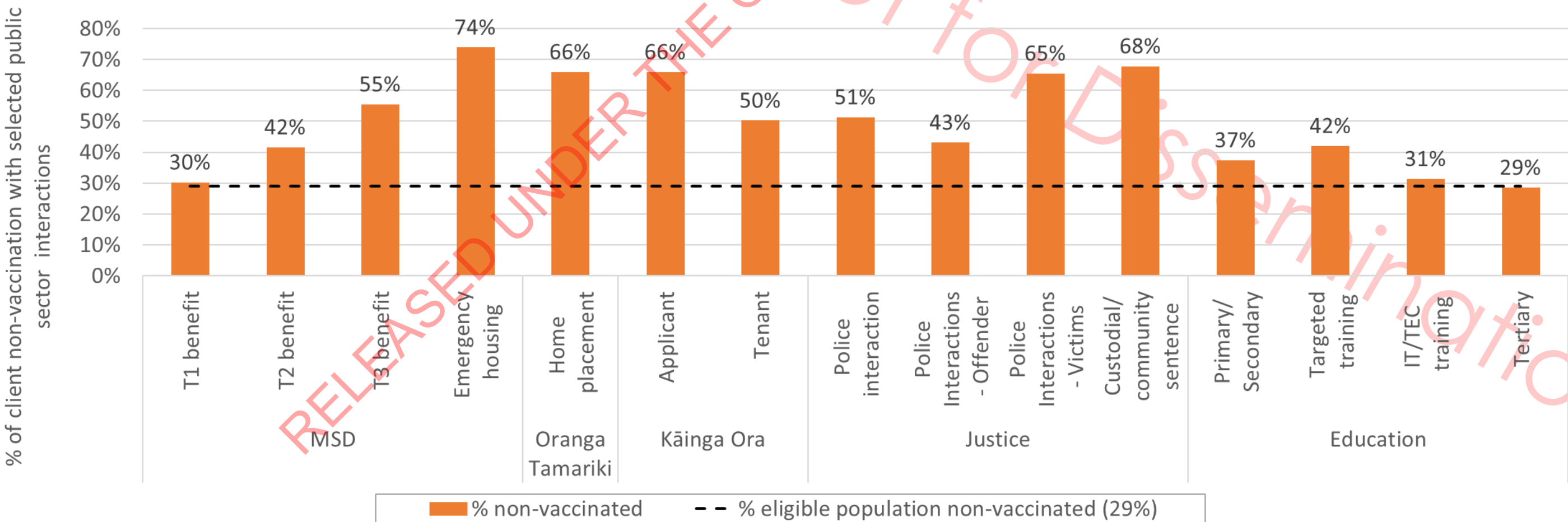
Key Insights

The analysis of rates of non-vaccinated persons and their interactions with a selection of social sector entities are described in the figure below and on following pages. From our initial analysis we note that:

- Overall the rate of non-vaccination was lower in the general population than in those that were interacting with a public sector workforce.
- The non-vaccinated rate of individuals receiving a T1 benefit from MSD is similar to that of the general population. However the number of non-vaccinated individuals receiving a T1 benefit is a large cohort (418,000).
- The largest non-vaccination rates were among those who interact with Kainga Ora in emergency housing (74%) and those who have had a placement through Oranga Tamariki (66%). However these groups are small (4,000 and 1,000 respectively).

We note that the public sector organisations shown represent a selection and is not intended to be definitive.

Client non-vaccination rate by selected public sector workforce interaction



Key Insights:

- Those in MSD Emergency housing have the highest rates of non-vaccination among those in the analysed data. Note that the figure displays approximately 4,000 individuals, but this figure does not take into account family members that may be dwelling in the same household and interacting with the public sector workforce.
- Rates of non-vaccination increase with increasing MSD benefit tier. While those accessing Tier 1 benefit assistance (national superannuation and main working age benefits e.g. jobseeker support, sole parent support) have similar non-vaccination rates to the rest of the population, rates of non-vaccination increase to 42% in those accessing Tier 2 benefits (additional ongoing costs assistance) and to 55% in those accessing Tier 3 benefits (financial hardship assistance).

Kāinga Ora

- Kāinga Ora tenants have high rates of non-vaccination (50%), however applicants for Kāinga Ora housing have higher rates of non-vaccination at 66%.

Oranga Tamariki

- Individuals who have had a placement through Oranga Tamariki have the second highest rate of non-vaccination, with 66% of the cohort not receiving a vaccination.

Notes

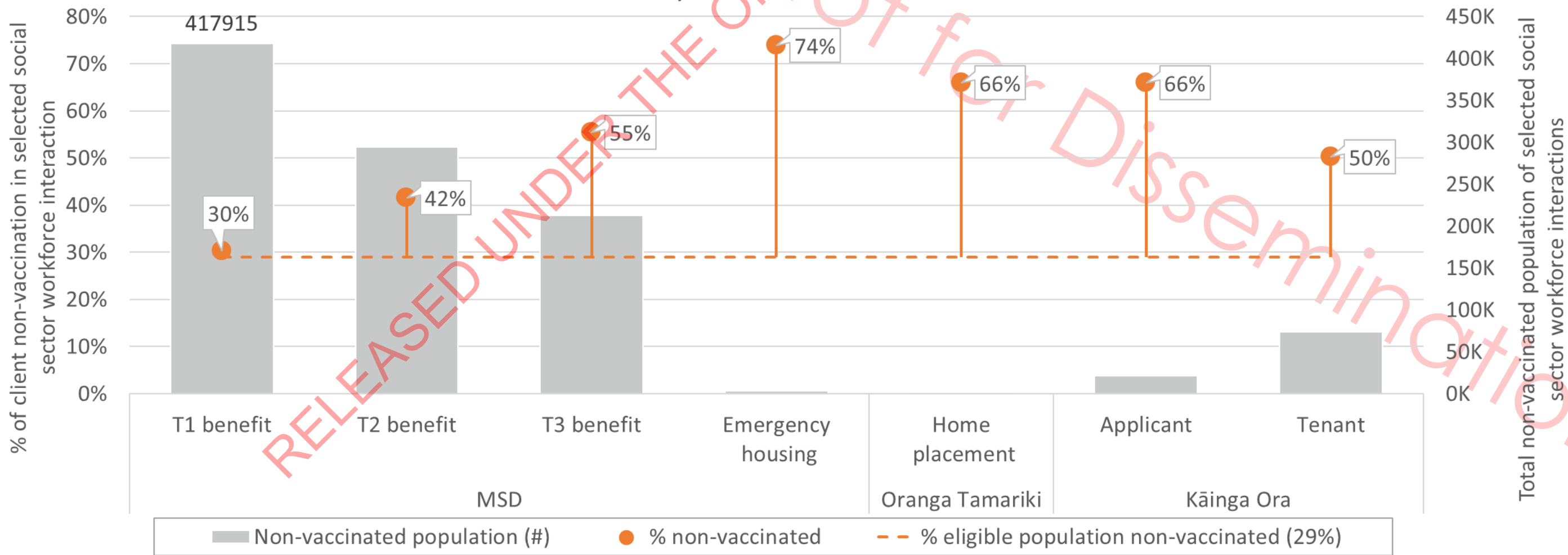
Analysis is based on administrative data. If an individual interacted since 2020 with a social sector agency workforce (highlighted below) they are included in the analysis. Note that individuals may appear in more than one category.

MSD – Benefits in each tier are as follows:

- T1 benefits include national superannuation and jobseeker and sole parent supports, as well as supported living, youth and young parent payments
- T2 benefits include accommodation supplement, working for families, disability allowance, childcare assistance and winter energy payment
- T3 benefits are comprised of hardship assistance grants which are income and cash-asset tested. These include temporary additional supports and special needs grants

Our total population’s rate of non-vaccination was 29%. This is higher than the MoH reported rate at 28 September 2021 (23%). Reasons for this include differing population sizes and our dataset missing vaccination data for certain sub-populations.

Client non-vaccination rate by selected social sector workforce interaction



Key Insights:

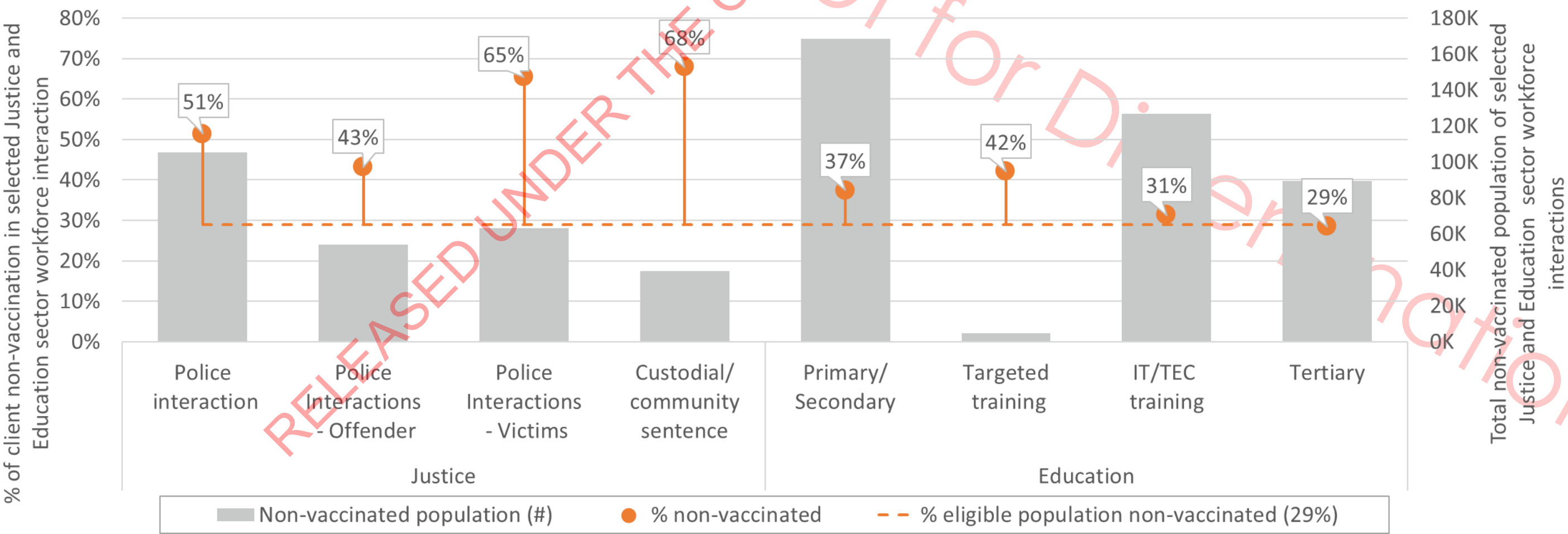
- Police**
- The non-vaccinated rate was much higher in victims (65%) compared to offenders (43%) in the Police system. However the total number of non-vaccinated persons was similar in both groups.
- Corrections**
- The rate of non-vaccination was significantly higher (68%) in the those having interacted with Corrections compared to the general population.
- Education**
- Those who are enrolled in primary or secondary school (aged 12+) represent a large cohort of non-vaccinated, with over 168,000 individuals without at least the first vaccine dose. We note that at the time this data is sourced that this cohort had only been eligible to be vaccinated for a few weeks.
 - Those enrolled in targeted training have a higher non-vaccination rate of 42%, but represent a small population of 4,500.
 - Non-vaccination rates of those enrolled in tertiary and technical trainings are in line with those of the wider population.

Notes

Analysis is based on administrative data. If an individual interacted since 2020 with a Justice or Education sector agency workforce (highlighted below) they are included in the analysis. Note that individuals may appear in more than one category.

Our total population’s rate of non-vaccination was 29%. This is higher than the MoH reported rate at 28 September 2021 (23%). Reasons for this include differing population sizes and our dataset missing vaccination data for certain sub-populations.

Client non-vaccination rate by selected Justice and Education sector workforce interaction



Key Insights

Number of visits to a GP (indicative contacts)

- Interaction with a GP shows the opposite trend to other social sector interactions. The likelihood of vaccination increases with the degree of contact with a GP.
- Non-vaccination rates decrease with an increasing number of visits – ie, the more often you see a GP the more likely you are to be vaccinated (up to six visits).
- Those who have not seen a GP since the start of 2020 had a rate of non-vaccination over 1.5 times that of those who have seen a GP at least once (48% v 30%).

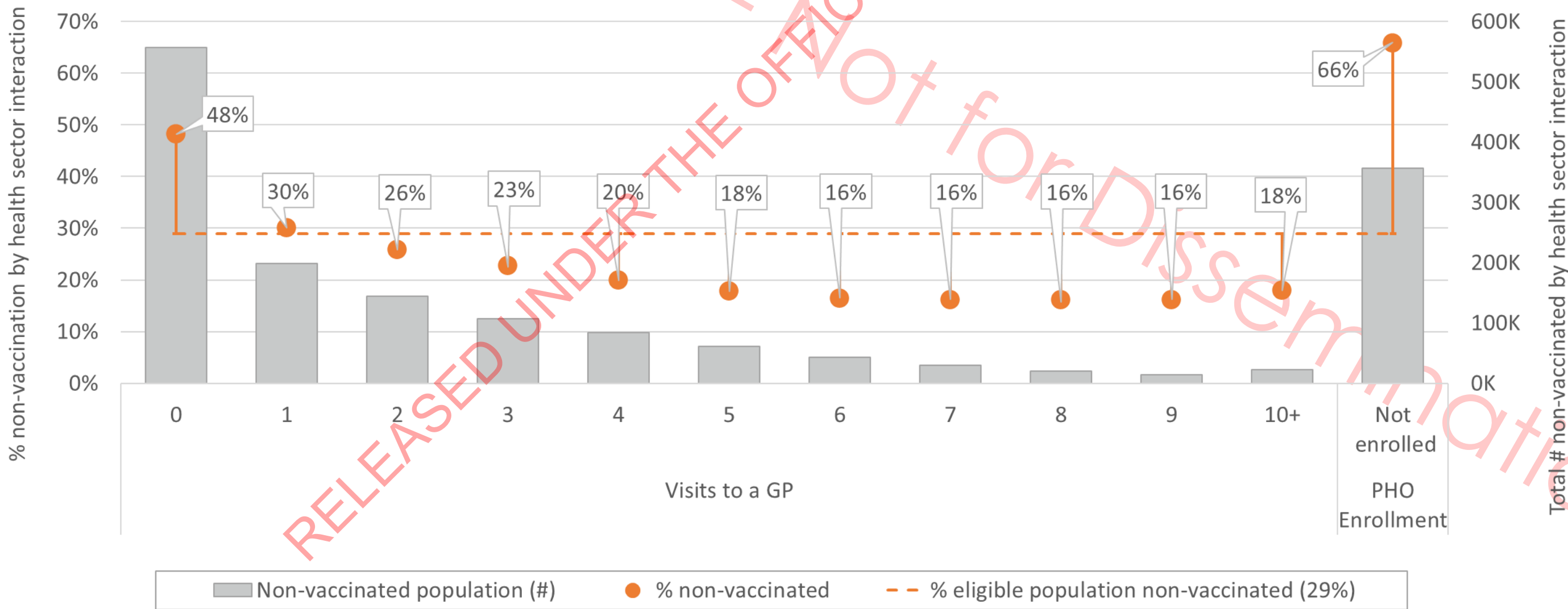
Enrolled with a PHO

- Rates of non-vaccination were much higher in those that are not currently enrolled with a PHO than the rate for the total population.

Notes

Analysis is based on administrative data. The two dataset analysed below show the number of interactions with a GP since 2020 (this is a proxy value) and the population not enrolled in a PHO in 2021.

Client non-vaccination rate by health sector interaction



Disclaimer for output from Stats NZ Surveys

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Disclaimer for output produced from the IDI and/or LBD

These results are not official statistics. They have been created for research purposes from the [Integrated Data Infrastructure (IDI) and/or Longitudinal Business Database (LBD)] which [is/are] carefully managed by Stats NZ. For more information about the [IDI and/or LBD] please visit <https://www.stats.govt.nz/integrated-data/>.

IDI metadata

Description of variables drawn out of IDI for the purposes of this analysis

Variable Name	Description/Notes
MSD_T1 Benefit	Indicator of T1 benefit receipt as at 30/08/2020.
MSD_T2 Benefit	Indicator of T2 benefit receipt as at 30/08/2020.
MSD_T3 Benefit	Indicator of T3 benefit receipt anytime since 2020
HNZ_Tenant	Indicator of being a tenant of social housing anytime since 2020
Emergency_housing	Indicator of emergency housing benefit receipt during latest month of available data (March 2021)
Enrolled_primary/secondary	Indicator of primary or secondary enrolment as at latest data (August 2020)
Enrolled_targtraining	Indicator of targeted training enrolment as at latest data (August 2020)
Enrolled_tec/IT training	Indicator of TEC/IT enrolment as at latest data (August 2020)
Enrolled_tertiary	Indicator of tertiary enrolment as at latest data (August 2020)
Corrections experience	Indicator for being under management (custodial or community sentence) by Corrections since 2020
OT_Placement	Indicator of OT placement until 1 July 2021 (as at April 2021)
Offender	Indicator of interactions with Police as an offender since 2020
Victim	Indicator of interactions with Police as a victim since 2020
Police Interaction	Indicator of any interaction with Police since 2020 (offender or victim)
GP_contacts	Proxy for the number of GP visits between 1 Feb 2020 and 1 Feb 2021
HNZ_applicant	Indicator of applications for social housing anytime since 2020
CIR_Ind_1	Indicator of vaccination status (e.g., No doses observed, One dose observed, Two doses observed) based on the Ministry of Health’s Covid-19 Immunisation Register which details the dose number and the date it was administered.