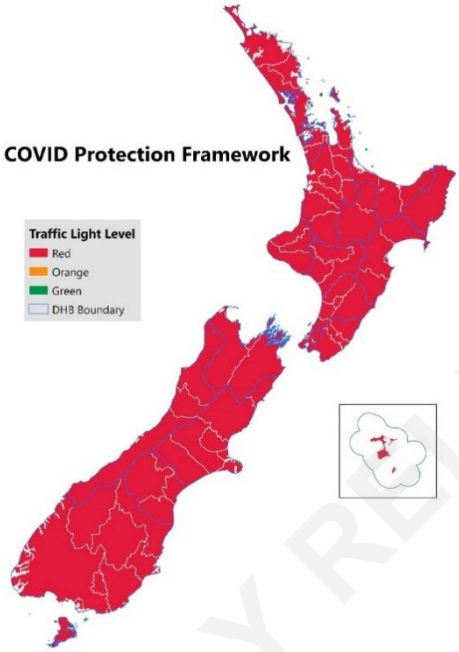
COVID-19

Trends and Insights Report

Updated 06 February 2022

Current State of Aotearoa



Snapshot of the past 7 days

- Overall, new cases reported in the week have increased to 893, an almost threefold increase compared to the week prior.
- Counties Manukau DHB continues to report the highest number of community cases, reporting 338 cases in the week, 38% of cases nationally.
- Most cases were reported in those of Asian ethnicity, making up making up 44% of all cases in this reporting week. Cases in European or other and Pacific Peoples have been steadily increasing in this period, while cases in Māori have remained relatively stable.
- Cases are rising for all age groups under age 66. The highest number of cases are in those 13 to 45, while cases remain low in those aged 66+.
- In the past fortnight, the proportion of cases that are least and mid-range deprived have begun to rise, particularly in those not fully vaccinated. Of those who are fully vaccinated, the most deprived continue to make up the majority of cases.
- Test positivity remains low nationally, below 2% in all regions. However, all regions except Central and Southern DHBs, have been trending upwards since the last week of January.

Contents

Exposure Events and Clusters of Interest

- **January 2022 Tukituki Christian Camp Hastings**
  - Retreat held at Tukituki Christian Camp from 20 January until 24 January.
  - Approximately 50-70 attendees during the duration, no masks worn during retreat.
  - Index case attended retreat. Currently no known link to existing clusters.
  - As of 1500hrs 6 January, 12 cases have been assigned to this cluster.
- **January 2022 Embrace Ministries Flaxmere**
  - Cluster is associated with a series of church services hosted over three days beginning on 23 January. An event on 24 January was a large gathering held at the church with up to 100 attendees.
  - As of 0900hrs 6 January, 11 cases have been assigned to this cluster.
  - Hawke's Bay DHB considers cluster to currently be uncontrolled. Cases continue to be detected and it is unclear if all cases have been identified to date.
- **January 2022 Ascend Church Hawke's Bay**
  - Index case attended two exercise classes held at the Ascend Global Church on 11 & 13 January.
  - As of 0900hrs 4 January, 21 cases have been assigned to this cluster.
  - Hawke's Bay DHB considers cluster to be currently under control.
- **January 2022 Garden of Life ECE Rotorua**
  - Early Childhood Education centre.
  - As of 0900hrs 4 January, cluster is made up of 7 cases.
  - Cluster origins linked to Rotorua Emergency Housing cluster.
- **January 2022 Auckland Church Events**
  - This cluster is associated with three exposure events at a Mangere East Samoan Church which include two choir practices on 28 January and a church service on 29 January. A case who attended the church events while unknowingly infectious is noted to have worn a mask and practiced social distancing.
  - This is an evolving cluster. ARPHS noted that the growth of this cluster may shift trends of case demographic in Auckland towards Pacific Peoples and those of higher age.
  - Probable index case was determined to be Omicron BA.1.
  - Work is underway to gather a full list of attendees for testing.
  - No further updates as of 6 February.
- **Rotorua Transitional Housing Facility Cluster**
  - On 2 February, Toi Te Ora reported 39 cases associated with this cluster.
  - A case possibly linked to this cluster is an individual who returned a positive test result on 1 February while at an antenatal unit of Rotorua Hospital for 10 days prior to positive result. Rotorua Hospital's Incident Management Team reviewed the situation on 2 February.
  - Collaboration between TTO and ARPHS/NRHCC was successful in utilising iwi social support services providing support at these facilities and securing extra MIQ accommodation in Hamilton, as well as extra lab capacity to address a backlog of testing.

Recent cases

Table 1- Table 4 show new cases reported in the week to 4 February 2022 by DHB, age, sex and ethnicity.

Most cases reported in this period in were in Counties Manukau, Auckland, Waikato, Bay of Plenty and Northland DHBs (Table 1).

A large proportion of cases have been reported in those of Asian ethnicity, consistent with the outbreak initially affecting Indian communities (Table 2). Cases are relatively evenly distributed between sexes (Table 3). The greatest proportion of cases are in those ages 26 – 45 and 13 – 25 (Table 4).

Table 1: Community cases by DHB reported in the week to 4 February 2022

DHB	Community cases reported since 28 January
Northland	56
Waitemata	81
Auckland	130
Counties Manukau	338
Waikato	129
Bay of Plenty	58
Taranaki	5
Lakes	44
Tairawhiti	12
Whanganui	0
MidCentral	2
Hawke's Bay	22
Capital and Coast	6
Hutt Valley	2
Wairarapa	0
Nelson Marlborough	4
West Coast	0
Canterbury	4
South Canterbury	0
Southern	0
National	893

Source: EpiSurv 2359hrs 03 February 2022

Table 2: Community cases by ethnicity reported in the week to 4 February 2022

Ethnicity	New community cases since 28 January
Asian	396
European or Other	201
Pacific Peoples	159
Māori	91
Unknown	46
Total	893

Source: EpiSurv 2359hrs 03 February 2022

Table 3: Community cases by sex reported in the week to 4 February 2022

Sex	New community cases since 28 January
Female	458
Male	430
Unknown	5
Total	893

Source: EpiSurv 2359hrs 03 February 2022

Table 4: Community cases by age reported in the week to 4 February 2022

Age	New community cases since 28 January
0 - 12	136
13 - 25	256
26 - 45	278
46 - 65	183
66+	33
Unknown	7
Total	893

Source: EpiSurv 2359hrs 03 February 2022

Epidemic Curves

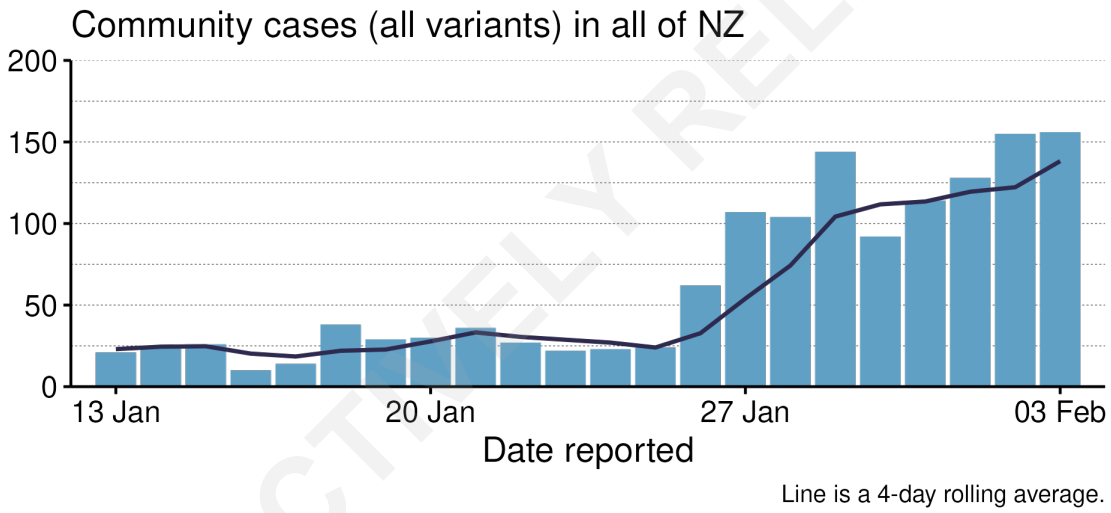
The figures in this section show the number of new cases reported in the three weeks from 13 January 2021 to 03 February 2022 nationally and by DHB.

The number of cases reported this week (893) is markedly higher than the number of cases reported in the previous week (301), an almost 3-fold increase in cases. Reported cases were relatively stable during January 2022 but have increased nationally in the past 10 days (Figure 1), particularly in the North Island regions, with the Auckland Metro region making up the majority of cases (Figure 2). Cases in Lakes and Bay of Plenty DHBs are all increasing after previously declining in early January.

Lakes DHB has had fluctuating case counts over the past fortnight, producing two distinct case peaks. Many of the Lakes cases during this time frame are linked to the Rotorua Emergency Accommodation cluster.

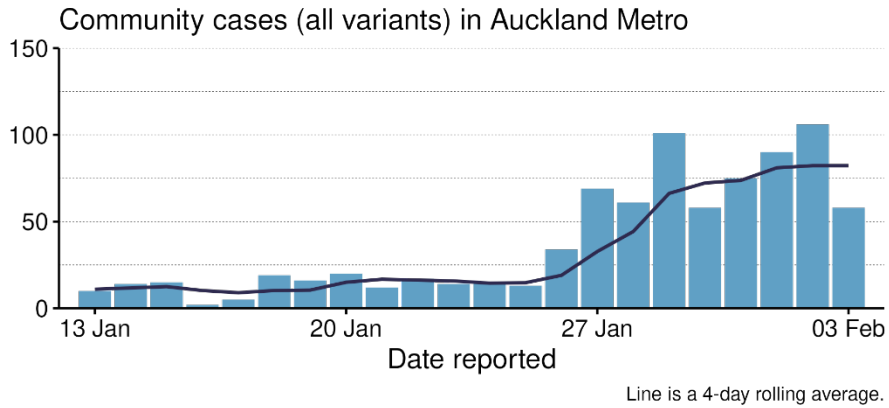
Waikato's 48 cases reported on 03 February are substantially higher than the previous 7-day average of 14 cases a day. This may be one-off or signal a trend increase in case rates, which will be re-examined in the next Trends & Insights Report.

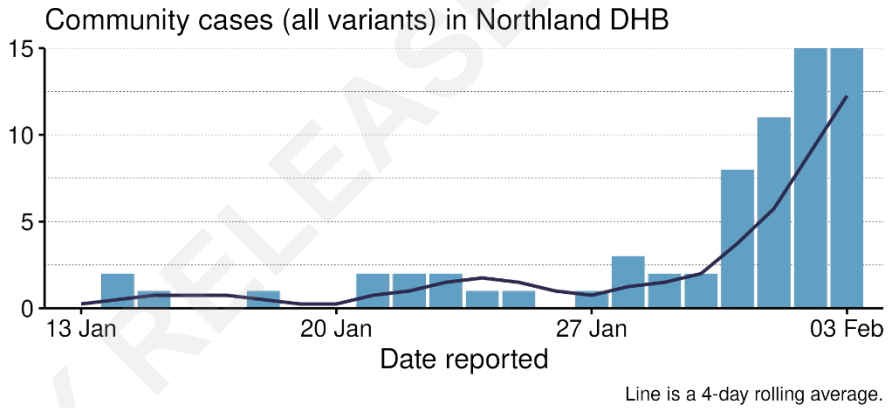
Figure 1: Daily community cases nationally from 13 January to 03 February 2022

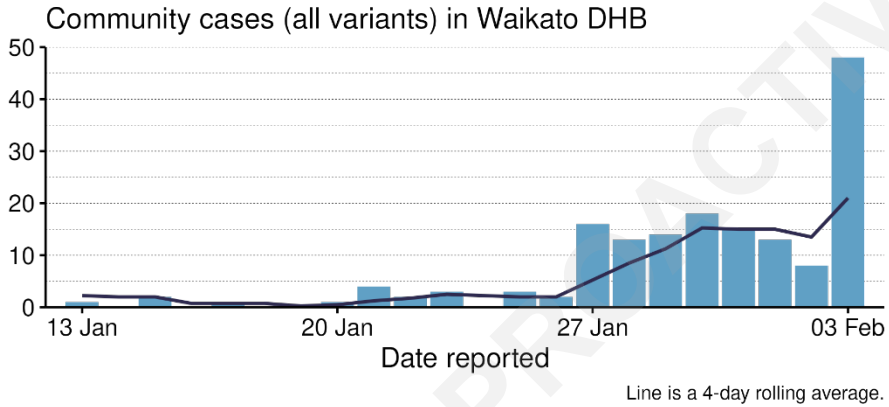


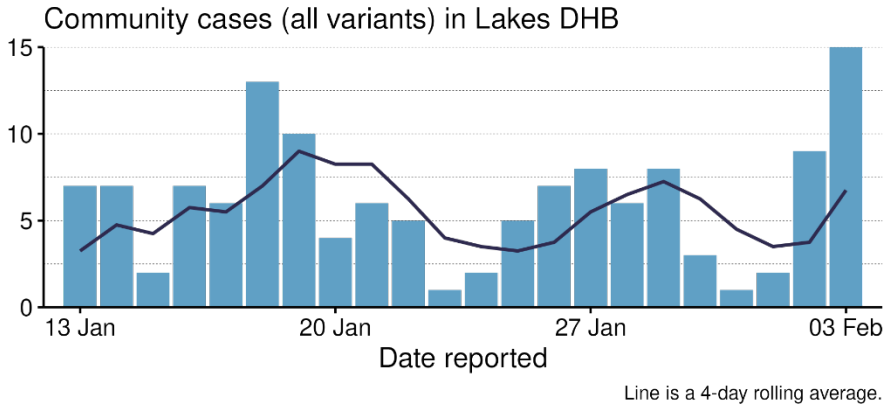
Source: EpiSurv 2359hrs 03 February 2022

Figure 2: Daily community cases by DHB from 13 January to 03 February 2022

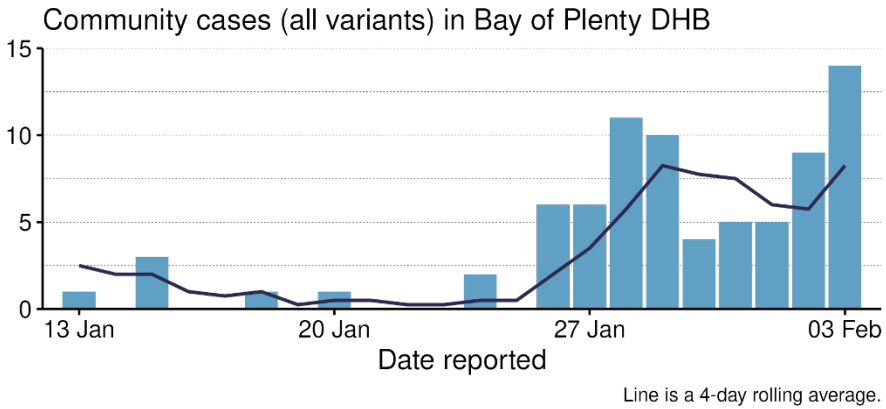


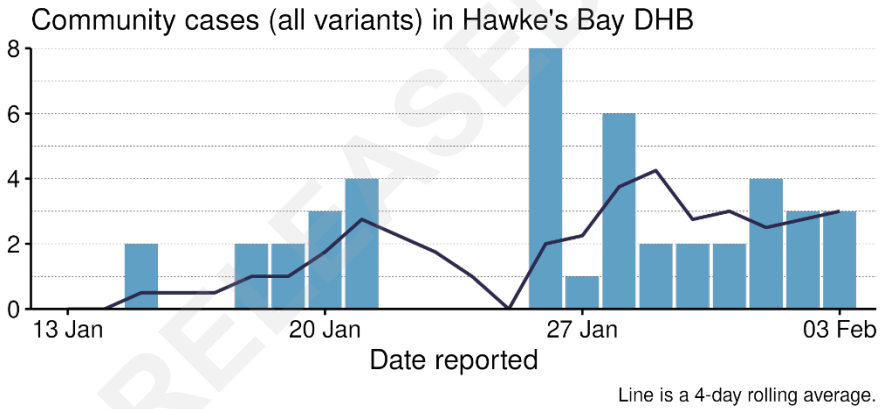


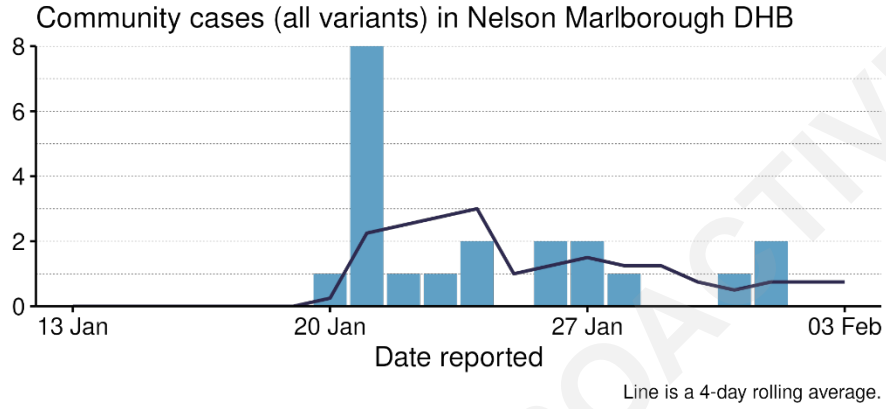


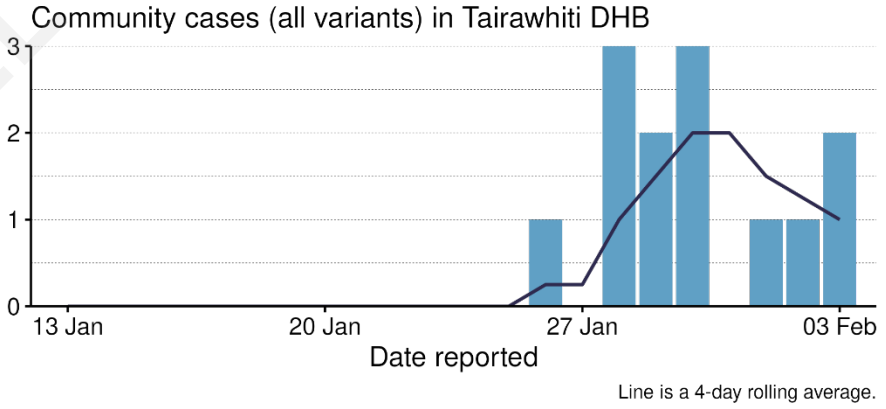


Source: EpiSurv 2359hrs 03 February 2022









Source: EpiSurv 2359hrs 03 February 2022

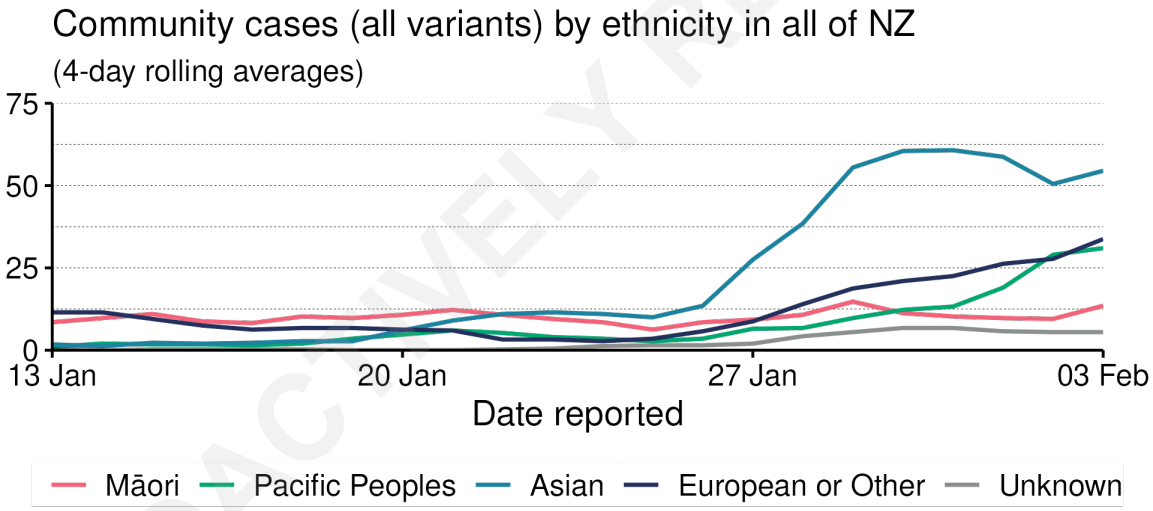
Cases by Ethnicity

The figures below show the ethnicity breakdown of new cases reported in the three weeks from 13 January 2022 to 03 February 2022, as a four-day rolling average.

Ethnicity of cases were relatively evenly distributed prior to 26 January (Figure 3). However, a substantial shift can be seen 27 January, with cases of Asian ethnicity increasing substantially, consistent with the outbreak initially affecting Indian communities. Cases in European or other and Pacific Peoples have also steadily increased in this period, while cases in Māori have remained relatively stable.

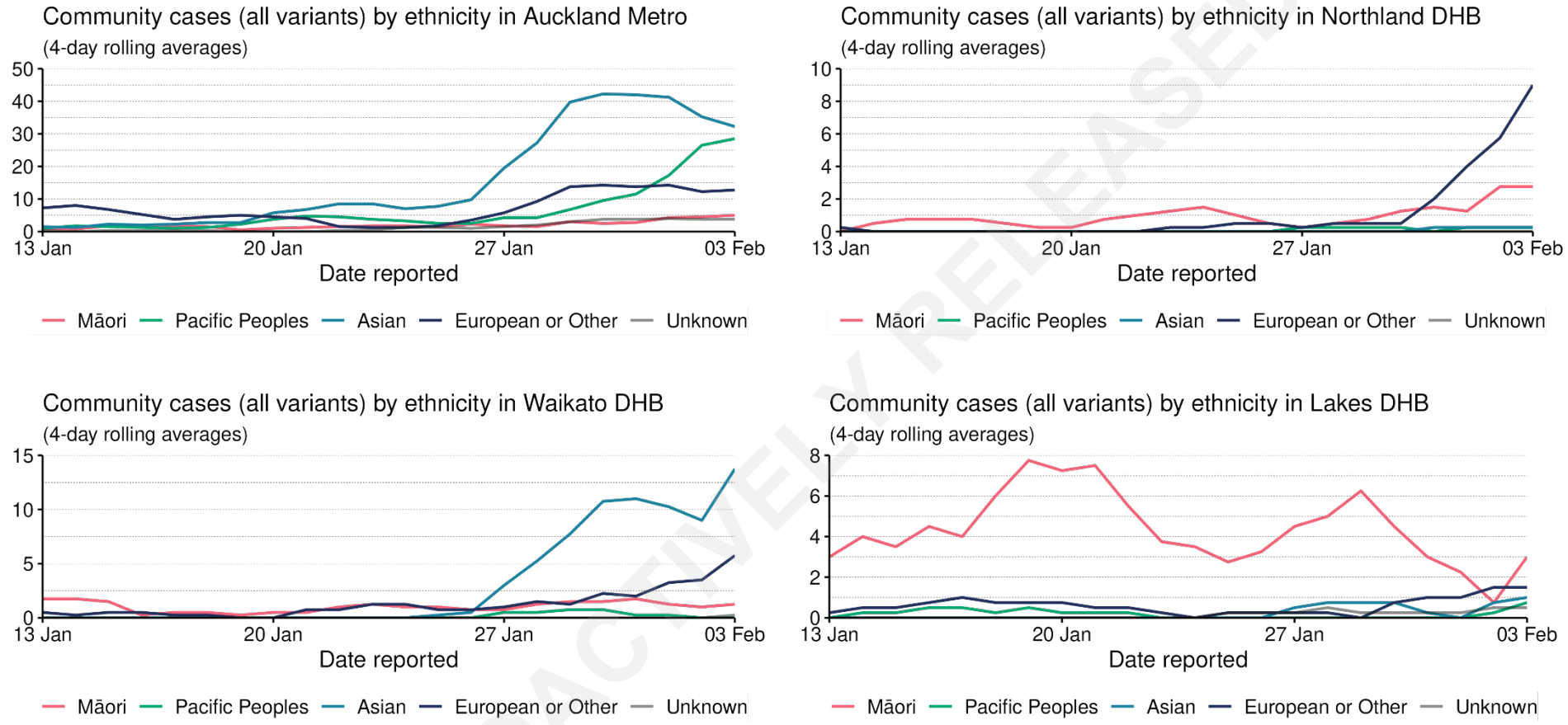
Regionally, a large proportion of cases in the Auckland Metro DHB (includes Counties Manukau, Auckland and Waitemata DHBs) are of Asian ethnicity, however this is beginning to decline, while there was an uptick in cases in Pacific Peoples during this period (Figure 4). Cases in the Northland region are primarily of European or other ethnicity. Māori made up the majority of cases in Lakes DHB in previous weeks, however this is declining alongside the overall decreasing cases in the region. Cases in the Bay of Plenty region are made up of primarily of those of Asian and European or other ethnicities however, cases in Māori are beginning to rise.

Figure 3: Daily community cases across New Zealand, by ethnicity from 13 January to 03 February 20

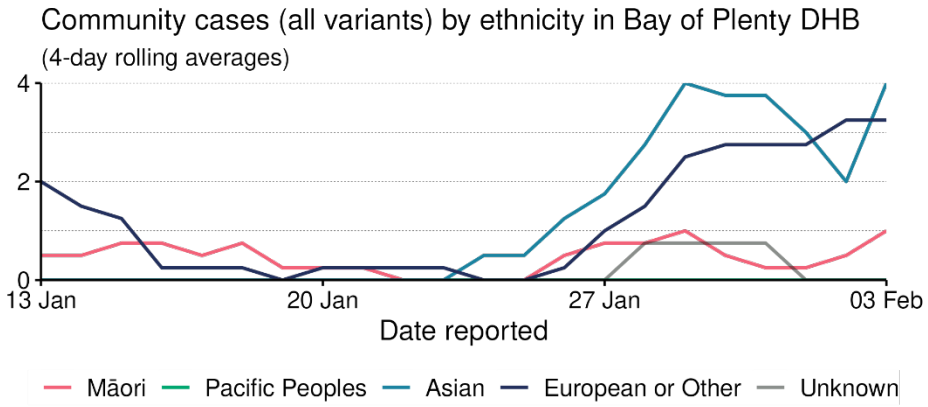


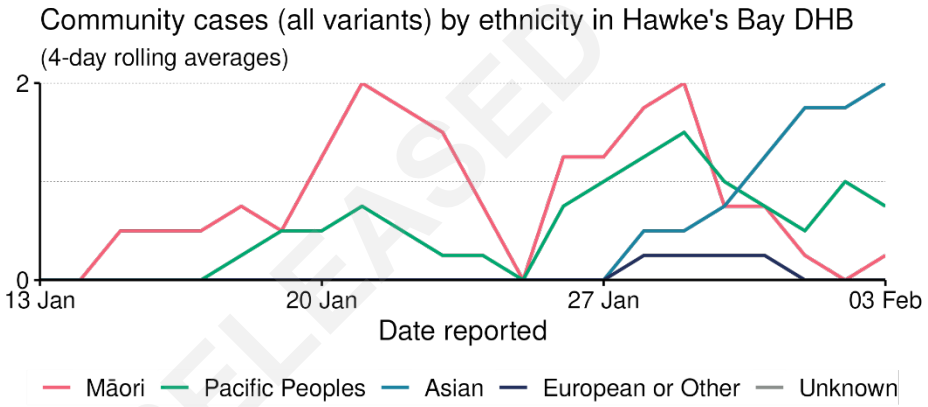
Source: EpiSurv 2359hrs 03 February 2022

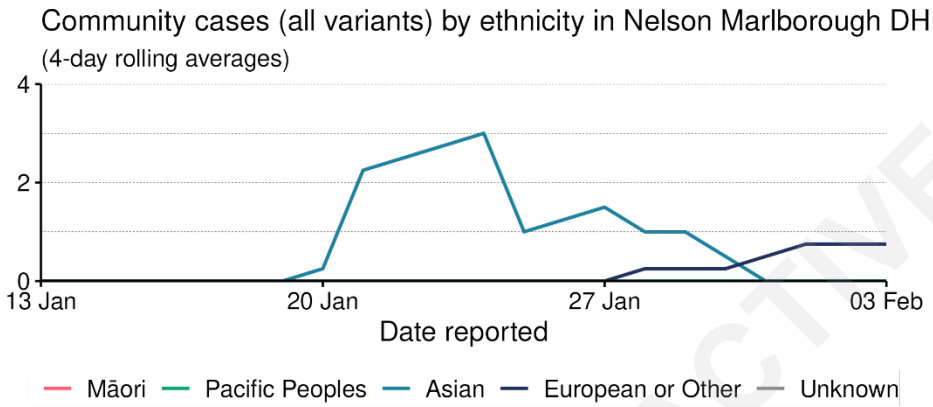
Figure 4: Four-day rolling average of daily cases by ethnicity and DHB from 13 January to 03 February 2022

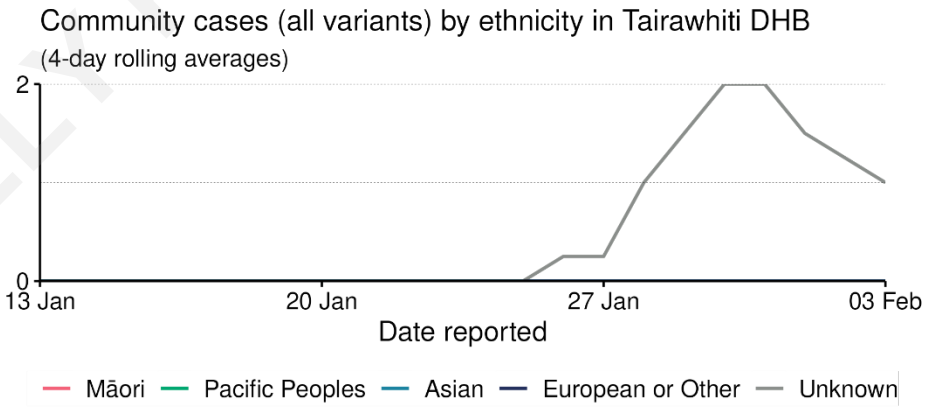


Source: EpiSurv 2359hrs 03 February 2022









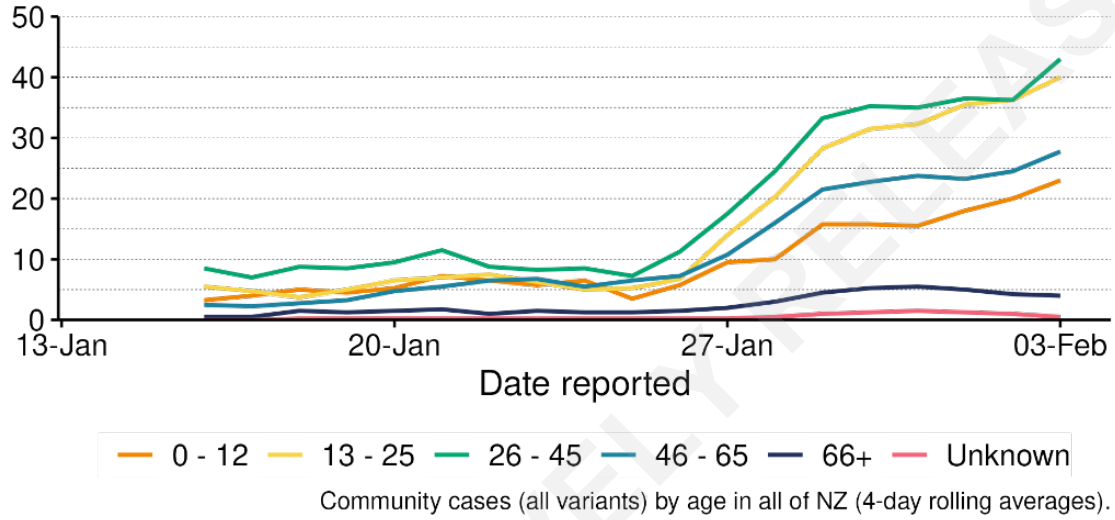
Source: EpiSurv 2359hrs 03 February 2022

Cases by Age

Figure 5 shows the age grouping of new cases reported in the three weeks from 13 January to 03 February 2022, as a four-day rolling average.

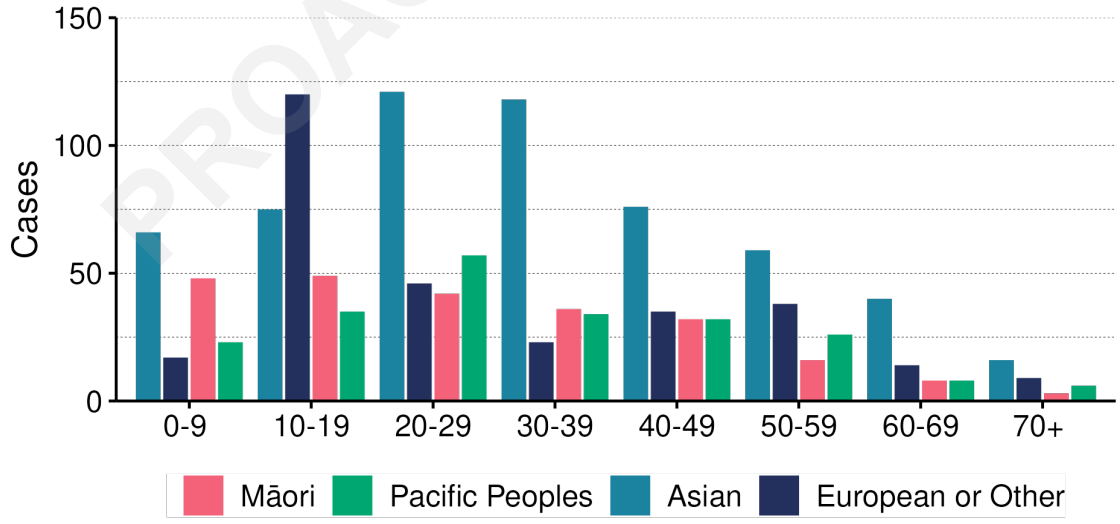
All age groups except the 66+ bracket have experienced marked increases in cases during late January. Cases continue to be primarily in the 13-25 & 26-45 age brackets, as seen previously during the August 2021 Delta outbreak.
Figure 6 shows cases by age and ethnicity. In most age cohorts, cases were predominantly of Asian ethnicity. In those aged 10-19 however, Europeans or Other ethnicity making up the largest proportion of cases.

Figure 5: Four-day rolling average of COVID-19 community case numbers by age for 13 January to 03 February 2022



Source: EpiSurv 2359hrs 03 February 2022

Figure 6: COVID-19 community case numbers by prioritised ethnic group and age group, 13 January to 04 February 2022



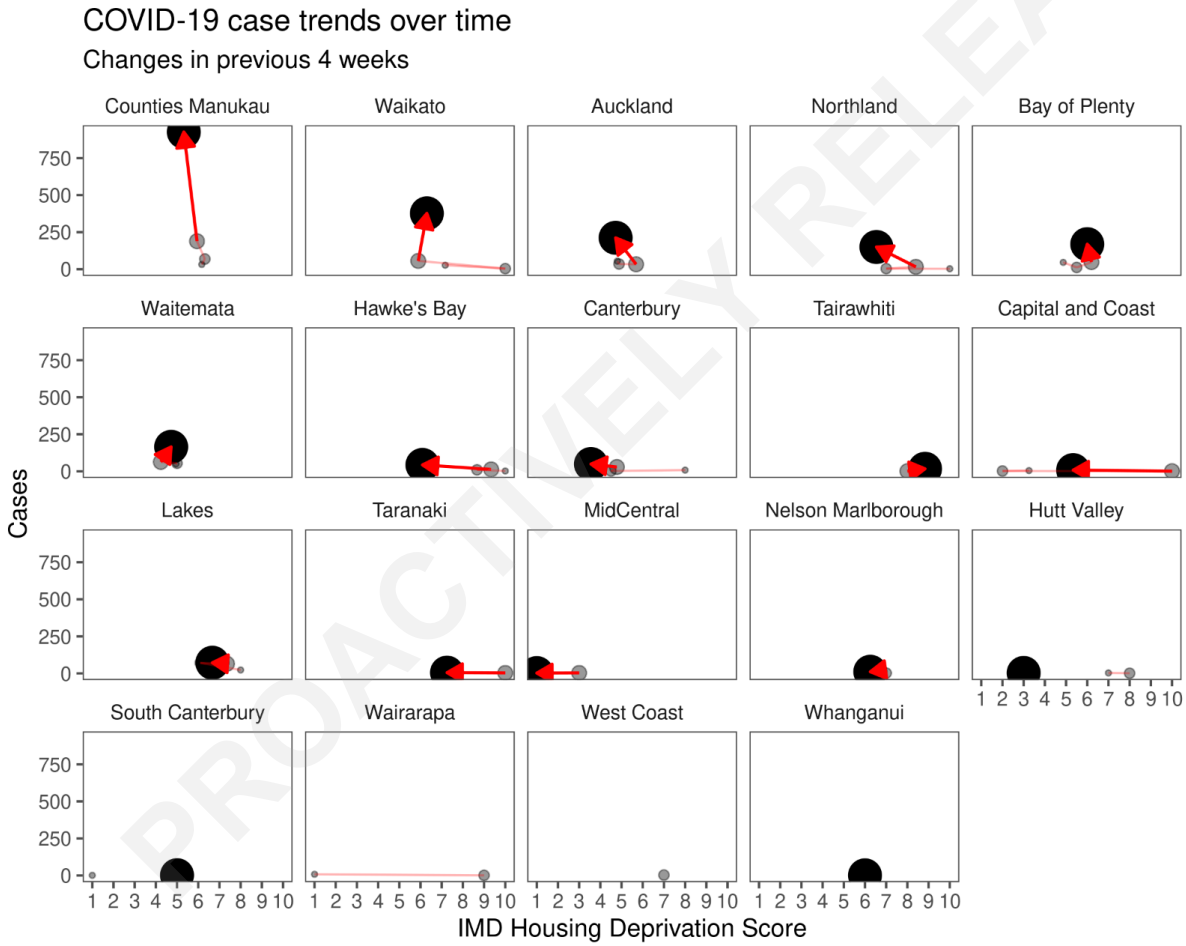
Source: EpiSurv 2359hrs 03 February 2022

Cases by socio-economic indicators

Figure 7 shows cases by housing deprivation using the Index of Multiple Deprivation (IMD) Score[1], with lower scores indicating lower deprivation. Housing is a key determinant of COVID-19 risk and transmission and housing deprivation is a proxy for structural determinants of health (such as income, employment, material deprivation, and ethnicity). The arrow shows the direction of travel from the previous week for the past four weeks, with each circle indicating cases reported per week and increasing circle size showing progressively recent weeks.

Deprivation scores of cases in Counties Manukau have remained relatively stable over the four-week period, around 6. Deprivation of cases in Waikato, Waitemata, Lakes and Bay of Plenty DHBs have remained relatively stable in the past week, while cases in Northland have been tending towards lower deprivation. However, there have been very few cases reported in many DHBs in recent weeks and interpreting the trend in case deprivation is difficult.

Figure 7: COVID-19 case trends by DHBs weighted by housing deprivation score for the four weeks to 5 February 2022



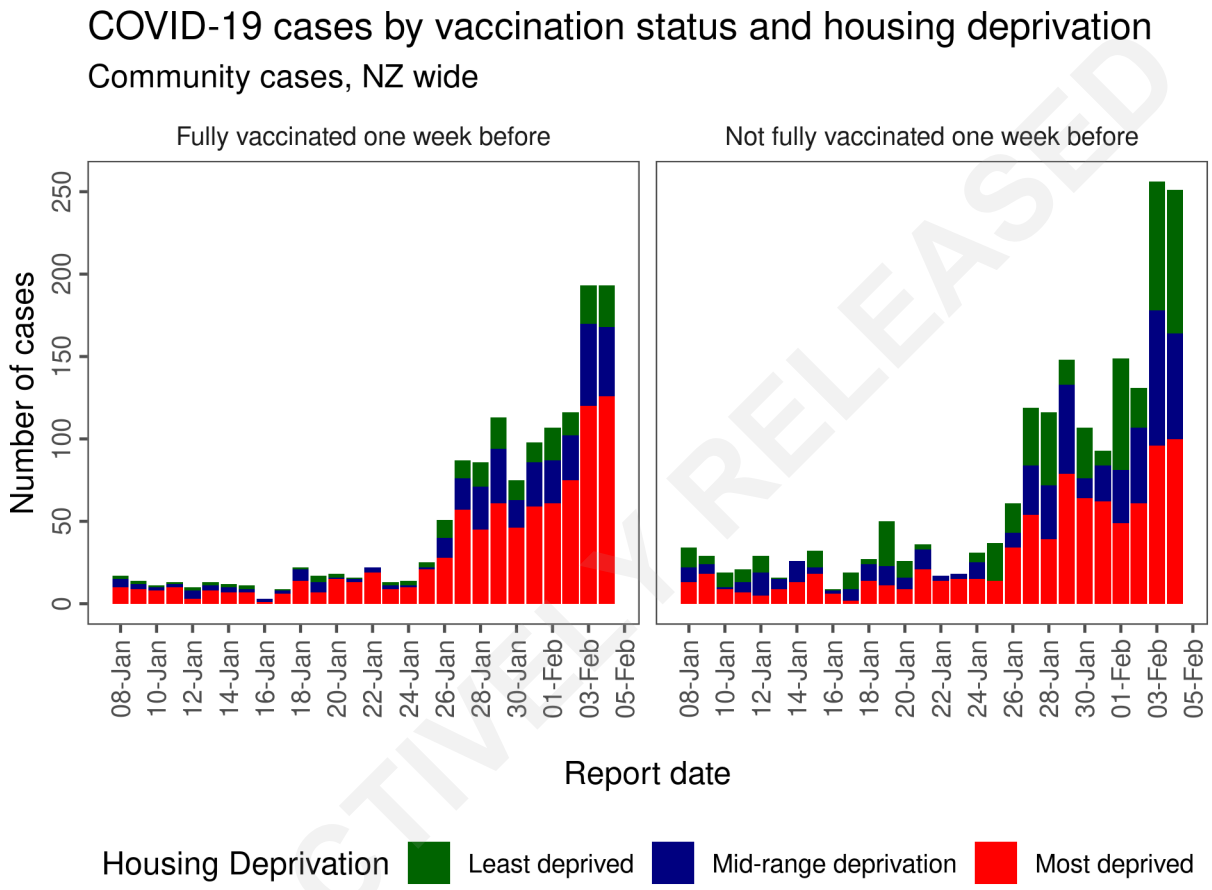
Source: EpiSurv 2359hrs 03 February 2022 and IMD18 Database

[1] The Index of Multiple Deprivation is a set of indices following a methodology developed in the United Kingdom. It measures relative disadvantage in New Zealand neighbourhoods based on employment, income, crime, housing, health, education and access to services. For more information, please refer to *The 2018 New Zealand Index of Multiple Deprivation (IMD18): Indicators for social and health research in New Zealand* (Brief-report-IMD18.pdf (auckland.ac.nz).

Figure 8 shows cases by vaccination status and housing deprivation. More than half of cases during this period were not fully vaccinated one week before report date. In general, there is also a correlation between cases and higher housing deprivation, with those most deprived tending to be overrepresented in cases.

In the past fortnight, the proportion of cases that are least and mid-range deprived have begun to rise, especially for those not fully vaccinated. Of those who are fully vaccinated, the most deprived continue to be the majority of cases.

Figure 8: COVID-19 cases from 8 January 2022 to 5 February 2022 comparing vaccination and housing deprivation



Source: EpiSurv and COVID-19 Immunisation Register 2359hrs 03 February 2022, IMD18 Database

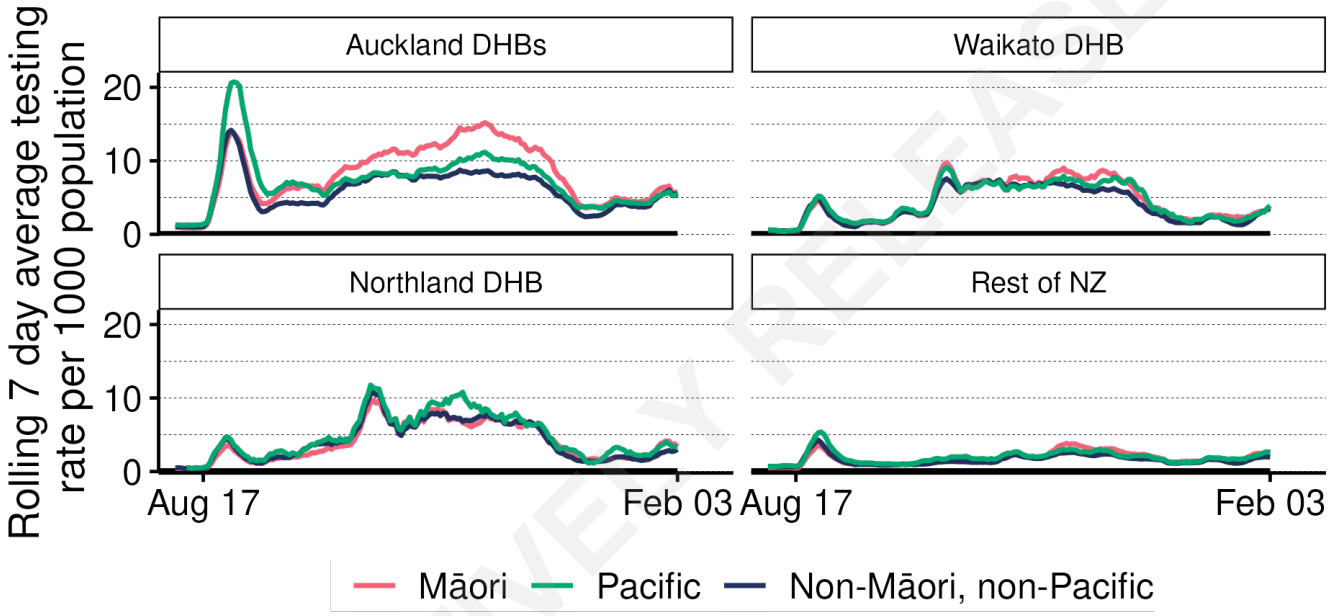
Surveillance Tests

The figures in this section show the rates of community testing from 17 August 2021 to 03 February 2022.

The Auckland, Waikato and Northland DHBs continue to have the highest number of tests per 1,000 population (Figure 9). Testing across the country has remained relatively stable since 01 January 2022.

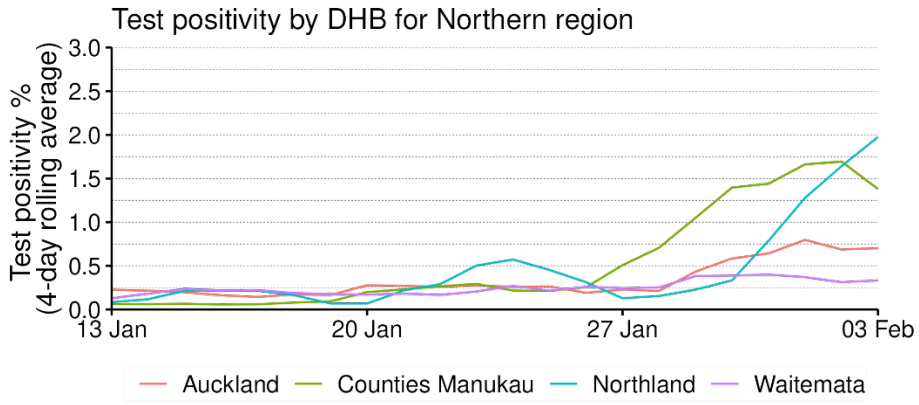
Test positivity remains low nationally, below 2% in all regions (Figure 10). However, all regions except Central and Southern DHBs, have been trending upwards since the last week of January. Northern and Midlands region currently have the highest test positivity.

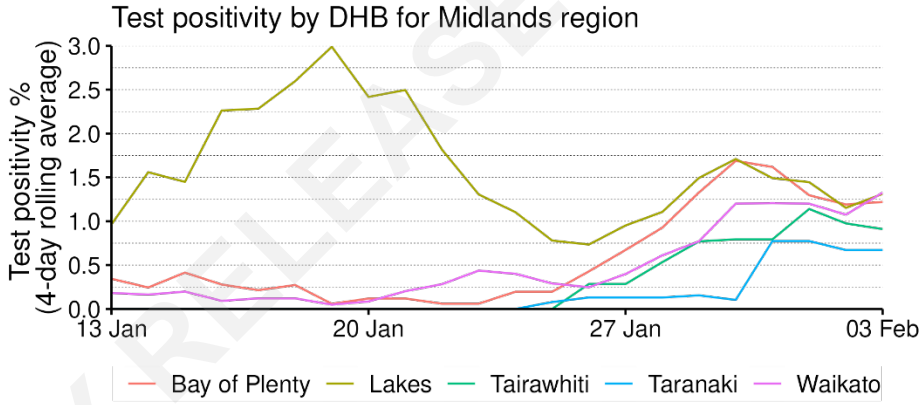
Figure 9: Seven-day rolling average COVID-19 testing rate by prioritised ethnic group and region, 17 August 2021 to 03 February 2022

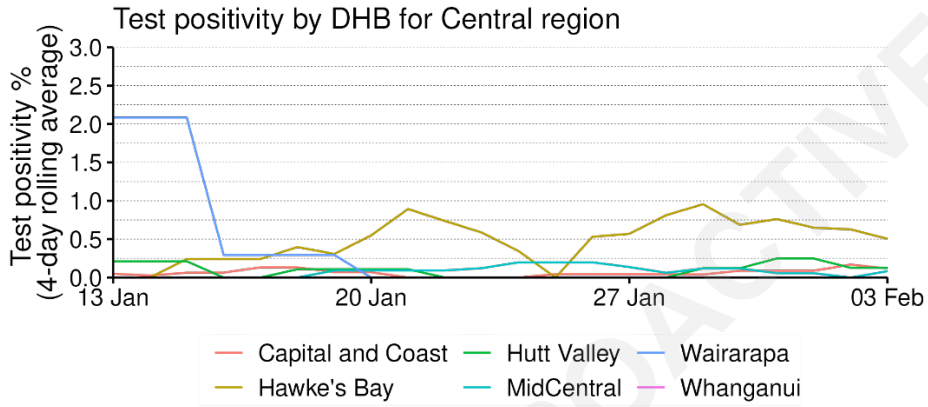


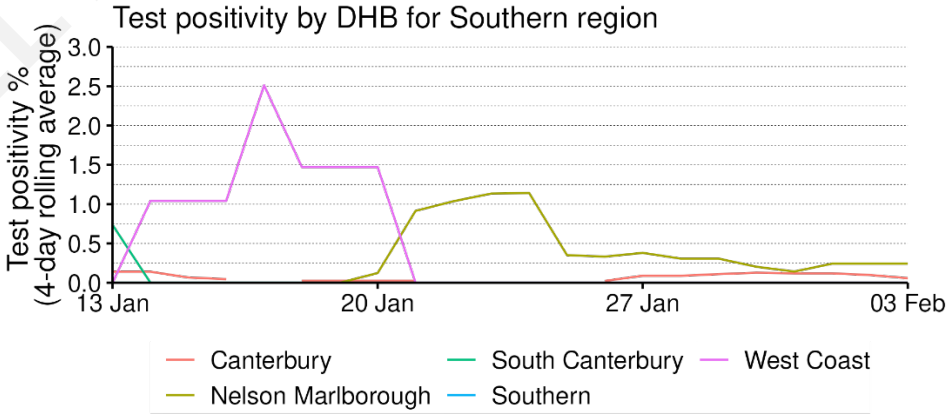
Source: Éclair testing database 04 February 2022; Excludes tests in returnees and border workers.

Figure 10: Test positivity (four day rolling average) by region and DHB, 17 January to 03 February 2022









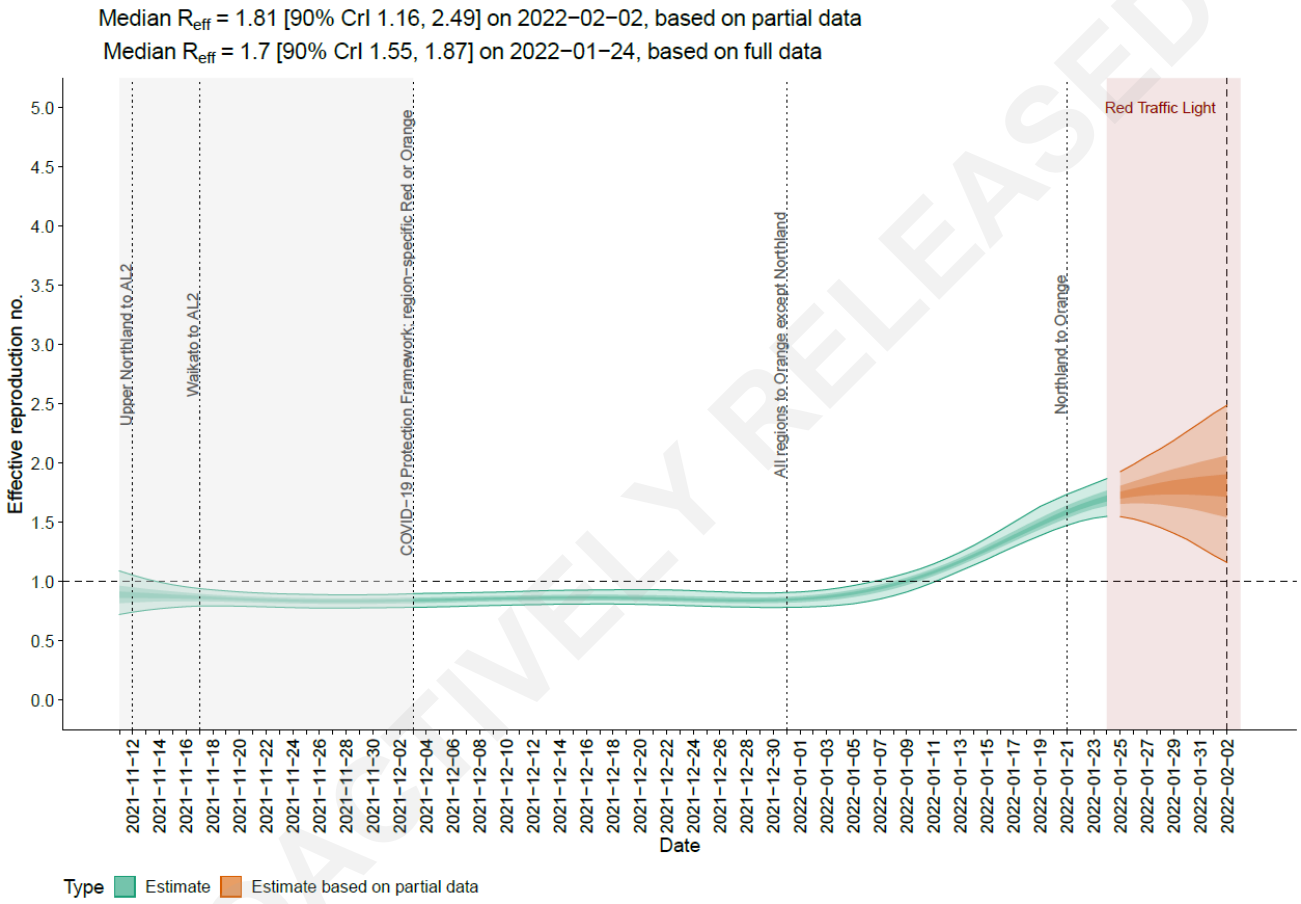
Source: Éclair testing database 04 February 2022, EpiSurv 03 February 2022

Short-term forecasts

Figure 11 and Figure 12 show 'Now-casting' using the EpiNow package[2].**Figure 10** The results are presented with credible intervals, the darkest colour is for a credible interval of 20%, then 50%, and 90%. Smoothed estimates in green are based on complete data and estimates in orange allow for reporting delays in recent cases/infections.

Figure 11 shows the estimated effective R (R_{eff}), indicating infections are likely increasing nationally, with R_{eff} estimated to be ~1.7-1.8 as at 02 February 2022.

Figure 11: Estimated Effective R, all New Zealand



Case numbers are projected by report date (Figure 12, Top) and infection date (Figure 12, Bottom).

These forecasts will be generated for individual DHBs when there are sufficient reported cases. Regional forecasts will be provided next week.

[2] The EpiNow package 'now-casts' cases to measure current and past transmission nationally by calculating and then extrapolating the effective reproduction number, R_{eff}. Note that the forecast model does not consider several factors that may impact transmission eg. public health measures, population behaviour, mobility, school holidays etc.

This model requires sustained daily cases before it can make predictions and forecasting has been excluded in this report. Currently, both at a regional level and nationally, there have too few recent cases to estimate reasonable forecasts.

Figure 12: Estimated and projected community case numbers, all New Zealand