

# Briefing

## Analysis of Effectiveness of Pre-Departure Testing

<b>Date due to MO:</b>	11 March 2021	<b>Action required by:</b>	<N/A>
<b>Security level:</b>	IN CONFIDENCE	<b>Health Report number:</b>	20210610
<b>To:</b>	Hon Chris Hipkins, COVID-19 Response Minister		
<b>Copy to:</b>	Hon Dr Ayesha Verrall, Associate Minister of Health		

### Contact for telephone discussion

Name	Position	Telephone
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Shona Meyrick	GM, Border and Managed Isolation, COVID-19 Health System Response	s 9(2)(a)

### Minister's office to complete:

- |   |                                    |  |
|---|------------------------------------|--|
| <input type="checkbox"/> Approved             | <input type="checkbox"/> Decline   | <input type="checkbox"/> Noted               |
| <input type="checkbox"/> Needs change         | <input type="checkbox"/> Seen      | <input type="checkbox"/> Overtaken by events |
| <input type="checkbox"/> See Minister's Notes | <input type="checkbox"/> Withdrawn |  |

Comment:

# Analysis of Effectiveness of Pre-Departure Testing

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**Security level:** IN CONFIDENCE      **Date:** 12 March 2021

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**To:** Hon Chris Hipkins, Minister for COVID-19 Response

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**Cc:** Hon Dr Ayesha Verrall, Associate Minister of Health

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## Purpose of report

1. This report summarises the scheduled review of
  - Airline and Custom's border processes for checking the documentation of pre-departure tests
  - the effectiveness of the first weeks of pre-departure testing (PDT).
2. We also respond to your request for analysis of cases detected by travel route and flight number.

## Summary

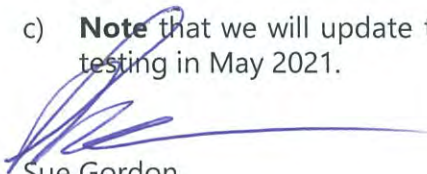
3. Three analyses are included in this briefing:
  - information and comment on the process for ensuring that compliant pre-departure testing documentation is provided by arrivals to New Zealand at check-in and at the air border;
  - an analysis of whether positive case rates have dropped as a result of pre-departure and day 0/1 tests;
  - an analysis of cases detected by day 0/1 and other tests in managed isolation, by flight number.
4. The key conclusions are:
  - Ministry of Health and other Government officials are largely satisfied that airline and Custom's processes are robust in ensuring that arrivals to New Zealand are complying with the PDT requirements in the Air Border Order;
  - While fewer people have arrived in New Zealand with active COVID-19 since pre-departure testing was implemented in January, it is too early to state that its effectiveness has been conclusively demonstrated;
  - No airline or route stands out as having a higher rate of positive cases detected on arrival; cases appear to be in proportion to the number of travellers on each route.
5. We will continue to work with Customs on the effectiveness of its operational policy for airport officers to verify documentation of Pre-Departure Tests, and to understand more about issues that have been raised about the standards of some country's pre-departure testing.

6. Officials from Customs, MFAT, and Ministry of Transport have commented on a draft of this briefing.

## Recommendations

We recommend you:

- a) **Note** that MoH and other Government Officials consider that airline and Custom's procedures for checking pre-departure test documents are robust  Yes  No
- b) **Note** that while fewer people have arrived in New Zealand with active COVID-19 since pre-departure testing was implemented, it is too early to state that its effectiveness has been conclusively demonstrated  Yes  No
- c) **Note** that we will update the analysis of the effectiveness of pre-departure testing in May 2021.  Yes  No



Sue Gordon  
Deputy Chief Executive

**COVID-19 Health System Response**

Date: 16/3/21



Hon Chris Hipkins  
Minister for COVID-19 Response

Date: 23/3/21

I'd still like a bit more information on those Emirates flights. That does seem to be a high rate of positive cases from the one airline relative to the others.

# Analysis of Effectiveness of Pre-Departure Testing

## Background

7. Two steps were taken in January to strengthen the “Keep It Out” pillar of New Zealand’s Elimination Strategy. Arrivals by air from high-risk countries are now required to provide evidence of a negative COVID-19 pre-departure test result from within the 72 hours before arrival. They are then also tested on Day 0 or 1 of their stay in a Managed Isolation and Quarantine Facility (MIQF).
8. Day 0/1 testing was required for travellers from the United Kingdom and from the USA from 1 January onwards. Since 18 January, it applies to travellers arriving from all destinations except Australia, Antarctica and most Pacific Islands.
9. The pre-departure test is required by the COVID-19 Public Health Response (Air Border) Order (No 2) 2020 (the Air Border Order). From 15 January 2021, it applied to arrivals from the United Kingdom and from the USA. Since 25 January, it applies to all arrivals except those from Australia, Antarctica, most Pacific Islands, and some other countries exempted by gazette notice because of the local challenges of obtaining a test.
10. The Director-General of Health also specified through a gazette notice the “appropriate evidence” that must be provided in relation to the COVID-19 test result, with six elements:
  - Name of person tested
  - Date of birth of person tested and/or the passport number of the person tested
  - Name of the laboratory at which the COVID-19 test was processed
  - Written confirmation from the laboratory of the result of a COVID-19 test
  - Written confirmation of:
    - a) the date on which the COVID-19 test was conducted; and
    - b) if necessary, to establish that the COVID-19 test was undertaken within the 72-hour period prior to the person’s journey beginning due to the date of the test, the time at which the COVID-19 test was conducted
  - Written confirmation of the type of test that was conducted
11. The New Zealand Customs Service Te Mana Ārai O Aotearoa (Customs) is the government agency responsible for ensuring that arrivals by air to New Zealand are complying with the PDT requirements in the Air Border Order including meeting all the six elements, where relevant.
12. Airlines are legally obliged by the Air Border Order to ensure that passengers boarding direct flights have evidence of pre-departure tests, and to take reasonable steps to influence the witnessing of Pre-Departure Test evidence at check-in for the first leg of a multi-leg journey.

## Overview of the airline and Customs pre-departure test verification processes

13. Customs developed an operational policy with detailed guidance for officers at the airport to ensure that arrivals by air to New Zealand are complying with the PDT requirements in the Air Border Order. Ministry of Health officials, along with those from other agencies, provided feedback on the policy before finalisation.
14. The policy sets out a two-stage screening process to ensure all the elements required by the Air Border Order are met. If there are doubts about any of the elements, or if the person does not provide evidence of a PDT and is not exempt, the person is subject to a second level of intervention by more senior Customs officers.
15. Customs advise that for additional assurance, one compliant passenger per flight is referred for a secondary verification of their PDT documentation to ensure that officers at passport control are undertaking the process correctly.
16. Customs does not retain copies of the PDT documentation unless there is an enforcement outcome that requires it for evidential purposes. Privacy legislation and legal requirements do not allow the collection of this data and there are practical constraints such as that much of the documentation is electronic.
17. Customs advises that between 15 January and 9 March 2021, a total of 10,188 passengers subject to PDT requirements were processed at international airports. Of these, 373 were exempt. 32 had insufficient evidence: 28 of them were warned and 4 were infringed. Many of the warning letters relate to administrative issues, such as elements missing from the PDT documentation. Most common is the lack of date of birth or passport number on the form, rather than there being no test.
18. Compliance has noticeably improved in early March compared to February.
19. The Ministry of Transport also developed operational guidance for airlines, in consultation with agencies, to support them in meeting their obligations under the PDT regime. While airlines do not keep data of who is turned away at check-in, they have informally told Transport that while most people are compliant, airlines have turned away people who have not met the PDT requirements or who were exhibiting COVID symptoms. There have been occasions where the Immigration Border Office has been contacted where issues have been identified.
20. Airlines flying to NZ report to the Ministry of Transport that they have been complying with the PDT requirements and that their systems are good. The low numbers of warning letters and infringements issued by Customs suggest that airlines are witnessing the relevant PDT documentation before people board. Customs also reports that compliance by airlines has been good.
21. Airlines have raised concerns about pre-departure testing quality issues in some countries, in particular in India. Documentation may improve with the development of a Travel Health Pass.

## Assessment of the adequacy of the current arrival process

22. Overall, officials consider the Customs policy is robust, and that airlines are meeting their obligations.
23. Our review considered the following factors:
  - a. The number of passengers who must be processed in a timely manner at the departure and arrival airports, and the need to maintain an efficient through-put;
  - b. The logistical and resourcing challenges involved in carrying out further validation of documents by check-in staff and Customs officers in terms of the expertise required and the fact that the source of the documents is outside New Zealand's border;
  - c. The low public health risk of failing to obtain a valid PDT given that the risk to New Zealand's elimination strategy is significantly mitigated by all arrivals entering a managed isolation or quarantine facility.
24. Data on the initial country of departure of travellers could be improved. Health officials will continue to work with other agencies to improve data collection.
25. Airlines report that higher numbers of positive cases arriving from some countries may be due to differing laboratory standards rather than any other cause.

## Goals of pre-departure and day 0/1 testing

### Pre-departure testing

26. The policy rationale for requiring pre-departure testing of travellers from countries where there is high risk of them being infected with the COVID-19 virus is to further reduce the risk of new cases entering New Zealand, consistent with our elimination strategy. The rationale also includes reducing the risk of infected passengers on international flights infecting other passengers with COVID-19; reducing the risk of the introduction of new variants; and potentially encouraging behaviours pre-departure to minimise exposure to COVID-19 among people wishing to travel to New Zealand.
27. It is expected that that pre-departure testing may reduce (but not eliminate) the risk that passengers on flights to New Zealand are infected with COVID-19, because people early in their infection when the test was taken (up to 72 hours before boarding), and those infected between taking the test and arriving in New Zealand will have a negative pre-departure test.

### Day 0/1 testing

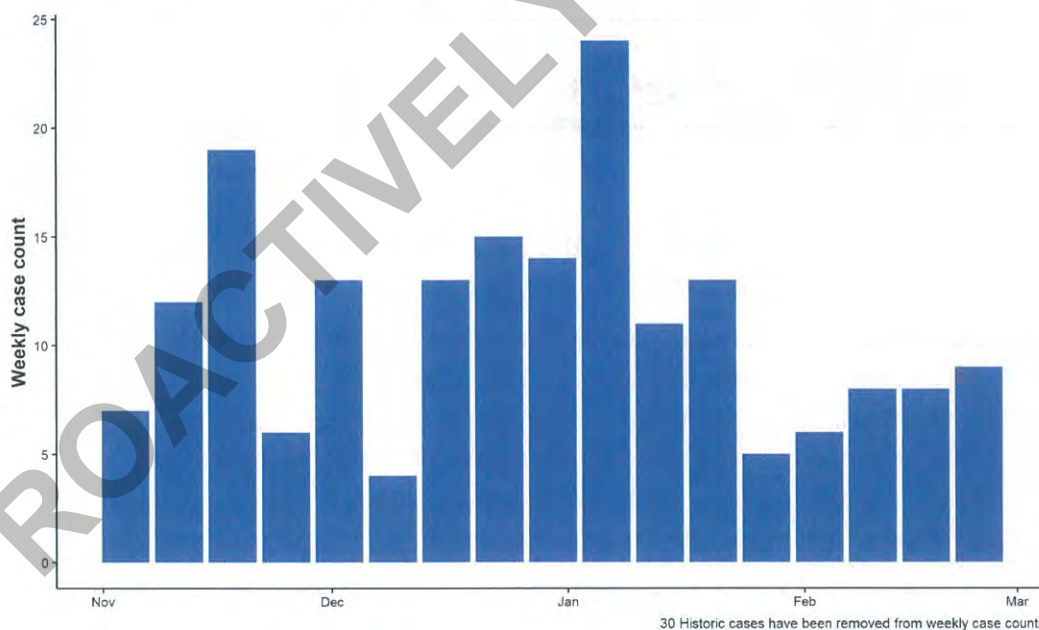
28. The policy rationale for day 0/1 testing is that it may increase the probability of infected travellers being detected and isolated early, reducing the potential for in-MIQ transmission.

## Impact of pre-departure and day 0/1 testing

### Impact of pre-departure testing

29. No data are available from MBIE on the reasons why returnees choose to cancel or defer MIQ bookings, and NZ does not have access to laboratory records from other countries. Therefore, it is not possible to identify how many people have deferred travel because of a positive pre-departure test. As noted above, between 16 January 2021 and 9 March there were 4 infringements given for people not having the approved pre-departure test, and 28 warning letters by Customs.
30. Figure 1 below shows the number of people entering New Zealand and identified as an active case within 3 days of arrival between November 2020 and February 2021. Pre-departure testing would be expected to have most impact on diagnoses soon after arrival, as they were most likely infected before boarding.
31. Comparing the time before and after the implementation of pre-departure testing in mid to late January suggests that there may have been a reduction in the number of people arriving in New Zealand with active COVID-19 since pre-departure testing began. However, case numbers do vary significantly over this time, and prevalence has fallen markedly in some source countries.
32. Overall, it would be premature to conclude that the effectiveness of pre-departure testing has been conclusively demonstrated.

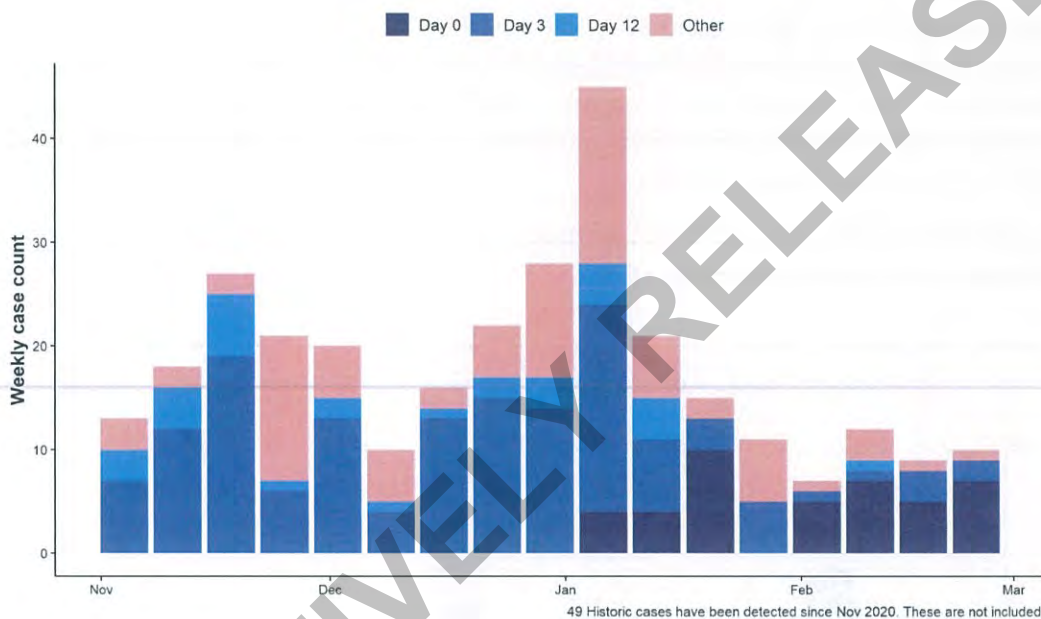
Figure 1 Number of active cases detected on Day 0/1 or Day 3



## Impact of Day 0/1 Testing

33. To assess whether infected travellers are being detected and isolated early, the number and rate of positive tests at day 0/1, day 3<sup>1</sup> and day 12 for managed isolation guests from November 2020 to February 2021 were identified. Historic cases were excluded, as they do not present an infection risk to New Zealand.
34. Figure 2 shows the number of arriving travellers diagnosed with active COVID-19 in MIQ<sup>2</sup>.
35. The pattern over time of active case detection is the same if rates rather than numbers are plotted (not shown), indicating that changes are not due to changes in the number of arrivals.

Figure 2 Number of active cases detected and test at which detected, by week of arrival.



36. The 'other' category is people detected other than through routine screening, i.e. because they became symptomatic or were a contact of a case.
37. Between implementation of Day 0/1 testing at the beginning of January and the end of February, 41 arrivals (0.18% of all arrivals) tested positive at Day 0/1 and were 'active', not historic, cases. These cases were therefore moved into quarantine two days earlier than if they had been detected at Day 3. This is a small proportion of the total time spent by arriving travellers in Managed Isolation but represents 32% of the total 129 active cases detected in MIQ over the two-month period.
38. During January and February, 64% of active cases were diagnosed through either day 0/1 or Day 3 testing. This compares with 58% of cases having been diagnosed through day 3 testing in November/December 2021. These data are suggestive that day 0/1 testing has, as expected, reduced the proportion of arrivals who test positive at day 3

<sup>1</sup> We calculated the difference between date of arrival at the border and of the test and considered that tests taken on days 2 to 4 were 'day 3 tests' and those taken on days 11 and 12 were 'day 12 tests'. We were unable to distinguish between routine day 0/1, day 3, or day 12 tests and tests on people who developed symptoms.

<sup>2</sup> The peak in late December/early January is partially comprised of the group of mariners.

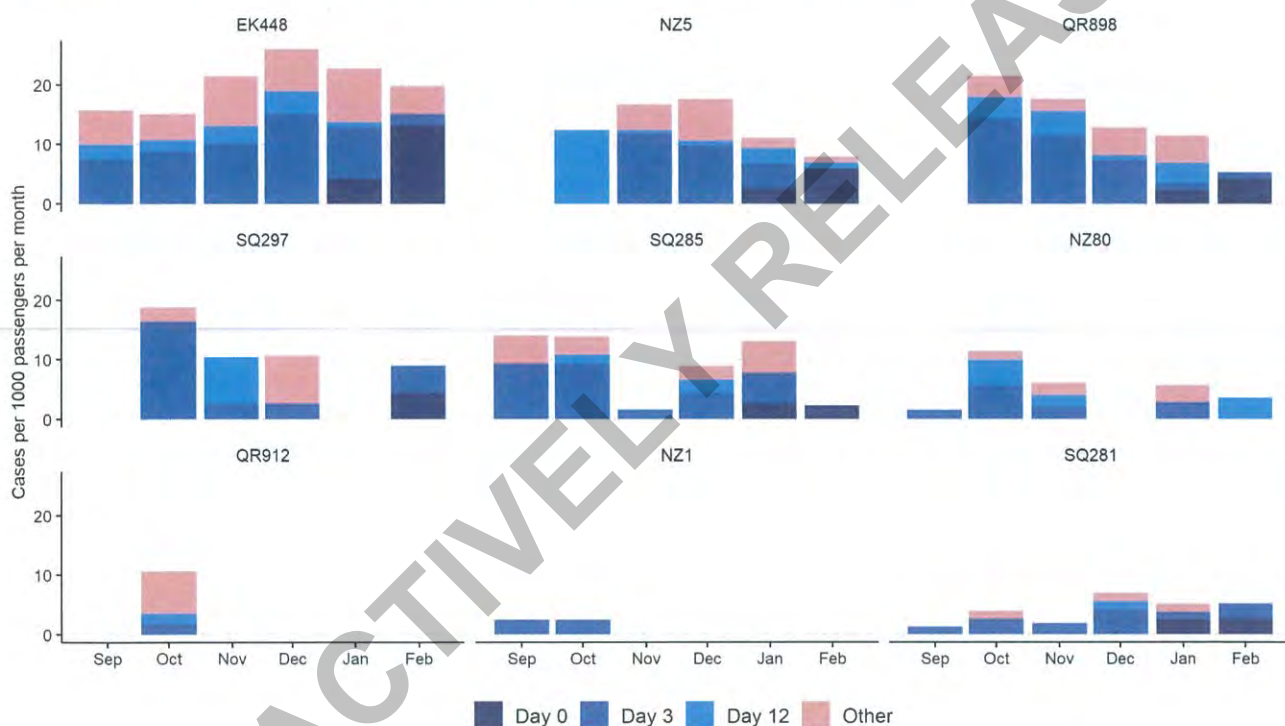


but confirms the importance of retaining the Day 3 test. The relatively small numbers and short timeframe for this analysis mean that a conclusion on whether the introduction of Day 0/1 testing has led to a decrease in a number of positive cases being detected later than Day 3 cannot be drawn.

## Analysis of risk by air travel route

39. You also requested an analysis of particular flight numbers, and trends seen against airline routes.
40. Our preliminary analysis by flight suggests that positive cases are generally in proportion to the number of travellers on each route. Figure 3 below shows the active cases detected amongst people arriving on regular flights into New Zealand.

Figure 3: Rate of positive cases detected per passenger per month, by flight number, month, and day of test



Historic cases have removed.

41. While Emirates has the highest rates of positive cases detected on arrival, they appear to not be significantly higher than other airlines. Customs also reports that they do not have an issue with Emirates complying with its obligations to witness or influence the witnessing of pre-departure test documentation.

## Equity

42. This analysis does not consider how the testing policy may affect equity, as incoming travellers to New Zealand are a small group who are not representative of the overall population.

## Next steps

43. The Ministry of Health will continue to work with the New Zealand Customs Service to support its operational policy for review of documentation of pre-departure testing.
44. Officials are seeking to gather better data on peoples' initial country of departure. We note that work on the Travel Health Pass may result in more robust provision of data on pre-departure testing, and greater comfort about the reliability of the testing laboratories.
45. The Ministry of Health will also update the analysis of pre-departure testing in May 2021.

ENDS.

PROACTIVELY RELEASED