

# Briefing

## Managing arrivals from 'very high risk' countries: Review of public health risk assessment model

**Date due to MO:** 7 May 2021 **Action required by:** 10 May 2021

**Security level:** IN CONFIDENCE **Health Report number:** 20211033

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

### Contact for telephone discussion

Name	Position	Telephone
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### 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 Withdrawn |  |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:

# Managing arrivals from 'very high risk' countries: Review of public health risk assessment model

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**Security level:** IN CONFIDENCE      **Date:** 7 May 2021

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

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## Purpose of report

1. This report provides you with a revised public health risk assessment model for 'very high risk' (VHR) countries. This follows the introduction of travel restrictions for passengers arriving in New Zealand from VHR countries from 11:59pm on 28 April 2021.

## Summary

2. On 11 April 2021, the Government temporarily suspended travel from India to mitigate the risk associated with a recent sharp rise in arrivals in New Zealand from India who have COVID-19.
3. On 26 April 2021, you signed the COVID-19 Public Health Response (Air Border) Order (No 2) Amendment Order (No 3) 2021 (the Amendment Order). The Amendment Order continued to limit arrivals from India and created a new category of VHR countries, including India, to help manage the risk of positive COVID-19 cases presenting at the New Zealand border.
4. You also agreed that a country would meet the threshold of VHR if the following criteria are met:
  - a. there have been more than 50 cases of COVID-19 per 1000 arrivals to New Zealand from the country in 2021;
  - b. where there have been more than 15 travellers on average per month arriving in New Zealand from the country.
5. Using this criteria, Brazil, Pakistan and Papua New Guinea were also classified as VHR and are subject to temporary travel restrictions under our current border settings. It was determined that preventing arrivals from these countries may produce some reduction in public health risk to New Zealand.
6. The Amendment Order does not include an expiry date. Countries assessed as being VHR and subject to travel restrictions will be regularly reviewed as we gain new information about the public health situation internationally and respond to changes in global risk.

7. You have requested further public health advice on the criteria that may be used to assess COVID-19 international risk, including how countries may be removed from, or added to, the VHR category in response to changes in international circumstances.
8. The key differences in our revised model from the existing settings are that:
  - a. there is an assessment of the COVID-19 situation within the country, rather than arrivals data only;
  - b. a broader range of criteria are assessed, including testing rates in the country, and how quickly case numbers are increasing.
9. We have reviewed the range of available data since the Amendment Order came into effect and have developed a revised risk assessment tool that involves a three-step process:
  - a. **step one:** assessment of the COVID-19 situation within a country;
  - b. **step two:** consider the number of people arriving in New Zealand from that country;
  - c. **step three:** consider how many of those arrivals are testing positive for COVID-19 at the New Zealand border (all imported cases detected).
10. If the situation within a country is of serious concern (step one), and a significant number of people from that country are arriving in New Zealand (step two), that country would then be considered *potentially very high risk* and subject to active monitoring. A country would be considered VHR if they maintain *potentially very high risk* status for three consecutive weeks, and there are significant numbers of arrivals from that country testing positive for COVID-19 (step three).
11. A country would become eligible to be removed from the VHR category if they did not meet the *potentially very high risk* criteria for three consecutive weeks (unless there are exceptional circumstances, such as a high rate of cases per 1000 arrivals from that country).
12. This means that for India, Brazil, Pakistan and Papua New Guinea, who have already been classified as VHR – they would become eligible to be removed from the VHR category in the week beginning 31 May 2021 if they did not meet the *potentially very high risk* criteria for three consecutive weeks.
13. To mitigate the risk of an unforeseen sharp increase in people arriving in New Zealand who have COVID-19, the risk assessment model also provides the ability to classify a country as VHR based solely on what is observed at the New Zealand border. This will ensure we can respond quickly to evolving high risk circumstances that require an immediate response (similar to the initial India travel suspension when high numbers of cases presented at the New Zealand border).
14. We consider that this revised framework is more robust based on the information and evidence currently available. The revised risk assessment model currently identifies India and Papua New Guinea as VHR countries.

The issue I have with this approach is it still doesn't sufficiently take in front the cases at the NZ border will be significantly reduced while a country is VHR. This could lead to poor decision-making.

## Recommendations

We recommend you:

- a) **Note** that, on 11 April 2021, the Government temporarily suspended travel from India until 11:59pm on 28 April 2021 in response to a spike in COVID-19 positive arrivals to New Zealand from India. **Noted**
- b) **Note** that, on 26 April 2021, you signed the COVID-19 Public Health Response (Air Border) Order (No 2) Amendment Order (No 3) 2021 which introduced a new category of 'very high risk' countries to manage the risk of high numbers of positive COVID-19 cases arriving in New Zealand. **Noted**
- c) **Note** that you have agreed that a country would meet the threshold of 'very high risk' if the following criteria are met: **Noted**
- a. there have been more than 50 cases of COVID-19 per 1000 arrivals to New Zealand from the country in 2021;
  - b. where there have been more than 15 travellers on average per month arriving in New Zealand from the country.
- d) **Note** that you have agreed to add Brazil, Pakistan and Papua New Guinea to the category of 'very high risk' countries. **Noted**
- e) **Note** that you have requested further public health advice on the criteria that may be used to assess countries as 'very high risk' in response to changes in international circumstances. **Noted**
- f) **Note** that our revised public health risk assessment model, attached as Appendix One, currently identifies India and Papua New Guinea as presenting a 'very high risk' to New Zealand. **Noted**
- g) **Note** that a country would become eligible to be removed from the 'very high risk' category if they did not meet the *potentially very high risk* criteria for three consecutive weeks. **Noted**
- h) **Agree** to adopt the revised public health risk assessment model to assess countries presenting a 'very high risk' to New Zealand. **Agree**
- i) **Note** that, subject to your agreement, the model will be adopted for the Government's assessment of 'very high risk' countries from the week beginning Monday 10 May 2021. **Note**

- j) **Agree** moving forward, to increase the threshold of average monthly arrivals to approximately 50-65 arrivals per month to improve the accuracy of the risk assessment model. ~~Agree~~
- k) **Note** that we will provide you with fortnightly reports as part of our ongoing review process, including options to change the countries categorised as 'very high risk'. **Noted**
- l) **Note** an Order must be used under Section 11 of the COVID-19 Public Health Response Act 2020 to change the countries categorised as 'very high risk' under the current border settings. **Noted**



Dr Ashley Bloomfield  
**Acting Director-General of Health**  
Date: 7 May 2021



Hon Chris Hipkins  
**Minister for COVID-19 Response**

PROACTIVELY RELEASED

# Managing arrivals from 'very high risk' countries: Review of public health risk assessment model

## Background

15. On 11 April 2021, the Government suspended travel from India temporarily, until 11:59pm on 28 April 2021. This suspension was intended to mitigate the risk associated with a recent sharp rise in numbers from people arriving in New Zealand from India who have COVID-19. This temporary suspension was intended to enable officials to further monitor the situation and provide advice on options to strengthen and enhance border controls.
16. On 22 April 2021, you agreed to create a new category of 'very high risk' (VHR) countries to manage the risk of high numbers of positive COVID-19 cases arriving in New Zealand. This was in the context of the review of the initial suspension of travel from India until 11:59pm on 28 April 2021 [DPMC 2020/21-883 refers].
17. On 26 April 2021, you signed the COVID-19 Public Health Response (Air Border) Order (No 2) Amendment Order (No 3) 2021 (the Amendment Order). The Amendment Order continues to limit arrivals from India and created a new category of VHR countries, including India, to help manage the risk of positive COVID-19 cases presenting at the New Zealand border. The Amendment Order came into force at 11:59pm on 28 April 2021.
18. You have agreed that a country would meet the threshold of VHR if the following criteria are met:
  - a. there have been more than 50 cases of COVID-19 per 1000 arrivals to New Zealand from the country in 2021;
  - b. where there have been more than 15 travellers on average per month arriving in New Zealand from the country.
19. Currently, Brazil, India Papua New Guinea and Pakistan meet these criteria and are classified as VHR. The current air border settings mean that travel to New Zealand from VHR countries is temporarily limited to:
  - a. New Zealand citizens, their partners and/or dependent children, and parent(s) of a dependent child (where the child is a New Zealand citizen);
  - b. those granted a humanitarian exception, foreign diplomats and their dependents.
20. The permitted travellers above are also required to provide evidence of a negative PCR test from a government-approved laboratory 72 hours prior to travel. The previous pre-departure test requirements remain in place for all other high risk countries.
21. The Amendment Order does not include an expiry date, meaning the current temporary travel restrictions will remain in place for travellers arriving from VHR countries until a subsequent Amendment Order is made.

22. Countries assessed as being VHR and subject to travel restrictions will be regularly reviewed as we gain new information about the public health situation internationally and respond to changes in global risk. The Ministry's revised risk assessment model is outlined below.

## Key features of the revised risk assessment model

23. Our revised approach for assessing whether a country is VHR involves a three-step process:
- step one:** assess the COVID-19 situation within a country;
  - step two:** consider the number of people arriving in New Zealand from that country;
  - step three:** consider how many of those arrivals are testing positive for COVID-19 at the New Zealand border (all imported cases detected).

24. If the situation within a country is of serious concern (step one), and a significant number of people from that country are arriving in New Zealand (step two), that country would then be considered *potentially very high risk* and subject to active monitoring by the Ministry.

25. A country would be considered VHR if they maintain *potentially very high risk* status for three consecutive weeks, and there are significant numbers of arrivals from that country testing positive for COVID-19 at the New Zealand border (step three). At this stage we would consider what additional risk mitigation measures may be appropriate, such as temporary travel restrictions.

### Immediate response measure

26. To mitigate the risk of an unforeseen sharp increase in people arriving in New Zealand who have COVID-19, the risk assessment model also provides the ability to classify a country as VHR based solely on what is observed at the New Zealand border. This will ensure we can respond quickly to high risk circumstances that require an immediate response (similar to the initial India travel suspension when high numbers of cases presented at the New Zealand border).

### Risk assessment process

27. The revised model assesses the COVID-19 situation in a country using a broader range of criteria, including testing rates and how quickly case numbers are increasing.
28. The average number of monthly arrivals (15 per month), and cases per 1000 arrivals (50 cases) thresholds have been maintained at the levels you have already agreed for the purpose of this risk assessment for consistency, as countries have already been classified as VHR under these thresholds.
29. The three-step process, and criteria and thresholds considered under each step, is outlined in Table 1 below. A more detailed description of the model, including the immediate response measure, is attached as **Appendix One**.

*But if a country is already classified as VHR then it's possible they will no longer be presenting significant numbers of arrivals at the NZ border.*

**Table 1: Revised country risk assessment process**

Criteria	Threshold
<b>STEP ONE: SITUATION WITHIN THE COUNTRY</b>	
Number of tests per positive COVID-19 case (indicating insufficient testing/under reporting)	<10 tests = low testing ≥10 tests = high testing
Weekly new cases per million population	≥150 (if low testing) ≥300 (if high testing)
Estimated dissemination ratio (EDR) – ‘how quickly cases are increasing’	≥1.1 (if ≥1.4, then 150 weekly new cases per million would apply)
<b>STEP TWO: NUMBER OF ARRIVALS</b>	
Average monthly arrivals in New Zealand (passenger volume from that country)	≥15 per month (current agreed criteria)
<b>Potentially very high risk (three consecutive weeks)</b>	
<b>STEP THREE: CASES PER ARRIVALS</b>	
Positive cases per 1000 arrivals - last 90 days	≥50 cases (current agreed criteria)
<b>Action to be taken (e.g. travel restrictions) / immediate response measure</b>	

30. Using the three-step process and criteria in Table 1 above, travellers arriving from India and Papua New Guinea would meet the criteria as presenting a VHR to New Zealand. This is detailed in **Appendix One**.
31. The exact thresholds in the revised model may be subject to change over time. We anticipate that we will continue to gain access to improved data and will incorporate this into the assessment model as it becomes available.

*If testing information is not available*

32. If information on testing in a country is not available (for example, China) or is not considered reliable, the country would be assessed as presenting a VHR if there was an average of more than 15 arrivals per month and more than 50 cases per 1000 arrivals over the last 90 days (same as existing criteria agreed by the Government).

*Public health recommended arrivals threshold*

33. You have agreed that a country would meet the VRH threshold there have been more than 15 travellers on average per month arriving in New Zealand from the country. Moving forward, we recommend that this threshold is increased to approximately 50-65 arrivals per month to improve the accuracy of the risk assessment model.
34. The existing threshold of 15 arrivals per month results in a small sample size of arrivals, which in turn makes the quality of the ‘cases per 1000 arrivals’ data less accurate and unreliable. For example, if one positive case presented at the border per month from 18 arrivals per month, this would result in a figure of 55 cases per 1000 arrivals, which misrepresents the actual public health risk. We consider increasing the threshold of average monthly arrivals to approximately 50-65 arrivals per month would improve the accuracy of the risk assessment model.

*This assumes every country has an even spread of arrivals across months. This is not the case and examples like Russian manurees highlight the weakness of this assumption*

## Removal from the 'very high risk' category

35. If a country has been classified as VRH, but has not met the criteria/threshold under steps one and two for three consecutive weeks, consideration should be given to remove that country from the VRH category (unless there are exceptional circumstances, such as a high rate of cases per 1000 arrivals from that country).
36. For the countries that have already been classified as VHR under the existing criteria, they would be removed from the VHR category if they do not meet criteria under the revised assessment model for three consecutive weeks.
37. This means that for India, Brazil, Pakistan and Papua New Guinea, who have already been classified as VHR – they would become eligible to be removed from the VRH category in the week beginning 31 May 2021 if they did not meet the *potentially very high risk* criteria for three consecutive weeks.

## Public health analysis rationale

38. The border settings introduced at 11:59pm on 28 April continue to temporarily limit arrivals from Brazil, India, Pakistan and Papua New Guinea as they have been classified as VHR countries. Preventing arrivals from these countries may produce some additional reduction in public health risk to New Zealand.
39. The Amendment Order does not include an expiry date, meaning the current travel restrictions from these countries will remain in place until a subsequent Amendment Order is made.
40. As per our previous advice, we will regularly review the risk profile of countries in light of changes in international circumstances and as we gain new information. If you agree to adopt the revised risk assessment model, it will be used for the Government's assessment of VHR countries from the week beginning Monday 10 May 2021, and we will provide you with fortnightly reports as part of our ongoing review process.
41. We consider that the revised risk assessment model is more robust based on the information and evidence currently available. As noted above, we also recommend that the threshold of average monthly arrivals from a country is increased to approximately 50-65 arrivals per month to improve the accuracy of the risk assessment model.

## Legal analysis (provided by Crown Law Office)

- s 9(2)(h) [Redacted]
- [Redacted]

- [REDACTED]
- [REDACTED]

### Equity

- 46. There is potential for the impact of the current restrictions to be more significantly experienced by New Zealanders who originate from India, Brazil, Pakistan and Papua New Guinea at this time since all these countries are currently classed as VHR under the risk classification model.
- 47. Given that the limitation on travel to New Zealand is only intended to be a temporary measure, we do not consider the equity concerns in paragraph 46 above to be sufficient to prohibit maintaining the current travel restrictions from VHR countries.

### Next steps

- 48. As the Amendment Order does not include an expiry date, the current temporary travel restrictions will remain in place for travellers arriving from VHR countries until a subsequent Amendment Order is made.
- 49. If you agree to use the revised risk assessment model moving forward, the Ministry will adopt the model as the Government's assessment of VHR countries from the week beginning Monday 10 May 2021.
- 50. An Order must be used under Section 11 of the COVID-19 Public Health Response Act 2020 to change the countries categorised as being VHR under the current border settings.
- 51. The Ministry will continue to actively monitor the risk profile of countries as we gain new information about the public health situation internationally and respond to changes in global risk.

ENDS.

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## COVID-19 International Assessment: 04 May

### 1. Weekly Summary

It is intended that this report would be run weekly and will include the previous 4 weeks data. This section will contain a short summary of which countries could be considered VHR, which countries should be removed from the list, and which countries remain.

A key limitation of this model remains the arrivals data which lags behind the case data (this current model **only** uses arrival card data to 18 April 2021). We will be getting more up to date arrivals data and we are exploring other ways of getting better data. We also want to incorporate MIQ booking data into the model and we are currently working with MBIE to receive this.

### 2. Very High Risk (VHR) Country Classification

#### 2.1. Overview

Our approach for classifying a country as *Very High Risk* considers: first the COVID-19 situation in the country, then the number of people arriving from that country in New Zealand, and finally the number of people testing positive among those arrivals.

What is the COVID-19 situation WITHIN a country?

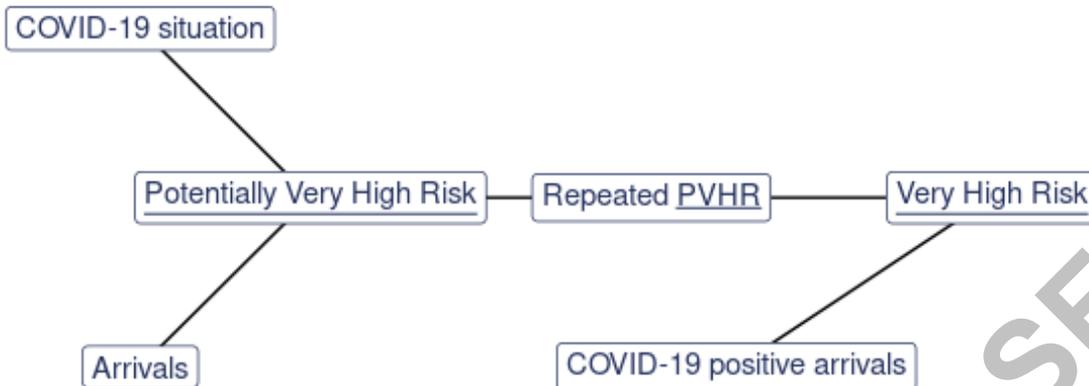


How many people are ARRIVING from that country?



How many arrivals are testing POSITIVE for COVID-19?

If the situation within a country is of serious concern and a significant number of people are arriving in New Zealand from that country, then that country is classified as Potentially Very High Risk (PVHR). If a country is PVHR for more than three consecutive weeks, then based on the number of cases detected arriving from that country, the country may be classified as Very High Risk (VHR).



## 2.2. Potentially very high risk countries

We propose the following classification of a country as *potentially very high risk* (PVHR):

- If the number of tests per case is less than 10 (i.e. >10% positivity rate), then it is likely case numbers are being under-reported and we apply a lower 'new cases per million' threshold of 150.
- If the number of tests per case is greater than 10 (i.e. <10% positivity rate), we would treat the reported case numbers as robust and use a 'new cases per million' threshold of 300. We would also look at whether or not reported cases have been increasing (an EDR greater than 1.1 for the last two weeks)
  - If cases are increasing very quickly (EDR greater than 1.4) in a country, we use a case incidence threshold of 150.
- If either of the above conditions are met, and the average monthly arrivals in New Zealand from that country exceed a certain threshold, the country would be classified as PVHR. We recommend that an average monthly arrivals threshold of approximately 50-65 arrivals per month would provide an accurate risk assessment model.
  - This threshold is also based on the proportionate risk presented at the New Zealand border and the capacity of our Managed Isolation and Quarantine (MIQ) facilities to manage arrivals.

These criteria are an extension of what is currently used in the Ministry's *Country Risk Assessment Tool* and also take into account the *tests per case* thresholds used by the Centers for Disease Control and Prevention (CDC).

*In the future these criteria should also take into account the number of people who are currently in a given country and have booked a place in MIQ, as this is a better indicator of the likelihood of arrivals from that country than the past arrivals data.*

## 2.3. No testing data available

Assessing a country as very high risk requires knowledge of testing in that country. When we do have information on testing in a country those countries need to be assessed by a different method.

We suggest including countries that we do not have a testing data for in our weekly table of PVHR countries if the provisional *VHR* thresholds of an average of more than 15 arrivals per month and more than 50 cases per arrival over the last 90 days (same as current criteria agreed by the Government).

## 2.4. Thresholds

Table 1 outlines an example of thresholds used in assessing countries as potentially very high risk

Description	Threshold
Tests per case (indicating insufficient testing)	<10.0
Low testing: PVHR case incidence (weekly cases per million pop.)	150.0
PVHR EDR (More cases than last week two weeks in a row)	1.1
High EDR threshold - switch to low testing incidence	1.4
Provisional mean monthly arrivals threshold	15.0
Cases per 1000 arrivals - last 90 days	50.0

You have agreed that a country would meet the VRH threshold there have been more than 15 travellers on average per month arriving in New Zealand from the country. Moving forward, we recommend that this threshold is increased to approximately 50-65 arrivals per month to improve the accuracy of the risk assessment model.

The existing threshold of 15 arrivals per month results in a small sample size of arrivals, which in turn makes the quality of the 'cases per 1000 arrivals' data less accurate and unreliable. For example, if one positive case presented at the border per month from 18 arrivals per month, this would result in a figure of 55 cases per 1000 arrivals, which misrepresents the actual public health risk. We consider increasing the threshold of average monthly arrivals to approximately 50-65 arrivals per month would improve the accuracy of the risk assessment model.

## 3. Reclassification of Very High Risk (VHR) Countries

### 3.1. Inclusion in the VHR country list

If a country has been classified as PVHR for three consecutive weeks, then the country would be classified as *Very High Risk* unless the border case incidence among arrivals from that country has remained very low.

### 3.2. Removal from the VHR country list

If a country is currently classified as VHR but has **not** been included in the PVHR list for the consecutive weeks, that country should no longer be classified as VHR, unless the border case incidence among New Zealand citizens arriving from that country remains high.

#### 3.2.1. Removal of countries placed on the VHR under the provisional VHR criteria

The provisional VHR criteria were:

- a case incidence among arrivals from a country in 2021 greater than 50 cases per 1000 arrivals
- an average of more than 15 travellers per month.

If a country no longer meets these criteria, but they would be classified as VHR under the new criteria, then they should remain on the VHR list.

If a country does not meet either set of VHR criteria, then they should no longer be classified as VHR - unless the border case incidence among New Zealand citizens arriving from that country remains high.

Further refinements to this approach will include data from future MIQ bookings. A country would be added to the PHVR table if the situation within that country is considered very high risk and there is a significant increase in the number of people intending to travel from that country - even if no cases have been detected in travellers from that country.

## 4. Supporting Material

Table 2 is a list of countries that meet the *Potentially Very High Risk* criteria in the most recent week.

Countries are included in the PVHR table if they meet the PVHR criteria, have more than the provisional monthly arrivals threshold of 15 and a least one case has travelled from that country in the last 3 months.

Countries are shaded a darker grey if the number of arrivals is below the proposed mean monthly arrivals threshold of 66. The lowest number of cases in three months needed to reach the provisional arrivals threshold is 3 cases from a given country. The proposed threshold raises this to 10 cases.

If a country meets either the arrivals threshold or the cases per arrivals threshold that value is bold and the country name is italicised.

The *Reason* column displays why a country has been included, either due to low tests per case (**TPC**), increasing case numbers (**EDR**), or a lack of testing data (**No Test**).

Countries that will be classified as VHR risk are those meet both thresholds for three consecutive weeks - these are both highlighted and use bold text.

### Week ending 04 May 21

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<i><b>India</b></i>	<b>4.6</b>	<b>1,934</b>	<b>1.1</b>	<b>656</b>	<b>66</b>	<b>141</b>	<b>TPC</b>
<i>Philippines</i>	5.8	495	0.9	<b>182</b>	12	7	TPC
<i><b>Papua New Guinea</b></i>		<b>49</b>	<b>0.5</b>	<b>38</b>	<b>50</b>	<b>6</b>	<b>No Test</b>
Brazil	6.8	1,954	1.0	30	47	4	TPC
Sweden	8.5	3,495	1.0	26	14	1	TPC
Iran	6.0	1,638	0.9	19	38	2	TPC

The tables below list *PVHR* countries from previous weeks.

### Week ending 27 Apr 21

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<i><b>India</b></i>	<b>4.9</b>	<b>1,725</b>	<b>1.4</b>	<b>656</b>	<b>67</b>	<b>144</b>	<b>TPC</b>
<i>Philippines</i>	5.7	552	0.9	<b>182</b>	10	6	TPC

# COVID-19

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<b>Pakistan</b>	<b>9.5</b>	<b>171</b>	<b>1.0</b>	<b>68</b>	<b>76</b>	<b>18</b>	<b>TPC</b>
Papua New Guinea		99	0.8	38	<b>50</b>	6	No Test
Brazil	1.0	1,875	0.9	30	47	4	TPC
Sweden	8.5	3,607	0.9	26	14	1	TPC
Iran	6.0	1,801	0.9	19	38	2	TPC

## Week ending 20 Apr 21

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<i>United Kingdom</i>	425.1	263	1.6	<b>1,389</b>	4	14	EDR
<b>India</b>	<b>5.9</b>	<b>1,263</b>	<b>1.6</b>	<b>656</b>	<b>69</b>	<b>147</b>	<b>TPC</b>
<i>Philippines</i>	5.4	623	0.9	<b>182</b>	10	6	TPC
<i>France</i>	9.8	3,434	0.9	<b>83</b>	5	1	TPC
Papua New Guinea		126	0.8	38	<b>50</b>	6	No Test
Brazil	0.9	2,102	0.9	30	<b>58</b>	5	TPC
Sweden	8.3	3,993	0.9	26	14	1	TPC
Iran	6.2	2,009	1.1	19	19	1	TPC

## Week ending 13 Apr 21

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<b>India</b>	<b>8.4</b>	<b>777</b>	<b>1.6</b>	<b>656</b>	<b>68</b>	<b>150</b>	<b>TPC</b>
<i>Canada</i>	15.5	1,538	1.3	<b>226</b>	2	1	EDR
<i>Philippines</i>	5.2	657	1.0	<b>182</b>	11	6	TPC

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<b>Pakistan</b>	<b>9.8</b>	<b>155</b>	<b>1.1</b>	<b>68</b>	<b>61</b>	<b>14</b>	<b>TPC</b>
Brazil	1.1	2,350	1.1	30	<b>65</b>	5	TPC
Sweden	7.7	4,316	1.2	26	13	1	TPC
Iran	6.2	1,843	1.8	19	17	1	TPC

### Week ending 06 Apr 21

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<b>India</b>	<b>11.6</b>	<b>473</b>	<b>1.6</b>	<b>656</b>	<b>68</b>	<b>143</b>	<b>EDR</b>
Canada	18.4	1,266	1.3	<b>226</b>	1	1	EDR
Philippines	4.2	653	1.1	<b>182</b>	11	6	TPC
Brazil	1.0	2,095	0.8	30	<b>57</b>	5	TPC
Sweden	8.3	3,817	0.9	26	13	1	TPC
Denmark	256.2	762	1.5	21	16	1	EDR
Iran	6.2	1,050	1.5	19	16	1	TPC

### Week ending 30 Mar 21

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<b>India</b>	<b>17.4</b>	<b>301</b>	<b>1.4</b>	<b>573</b>	<b>52</b>	<b>102</b>	<b>EDR</b>
Philippines	5.4	580	1.4	<b>156</b>	7	4	TPC
France	12.9	3,997	1.3	<b>112</b>	4	1	EDR
Switzerland	19.9	1,494	1.2	<b>69</b>	5	1	EDR
Sweden	8.8	3,861	1.2	33	12	1	TPC
Brazil	6.4	2,484	1.0	32	<b>56</b>	5	TPC
Iraq	6.9	1,025	1.2	16	25	1	TPC

## Week ending 23 Mar 21

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<i>India</i>	25.7	214	1.7	<b>573</b>	46	91	EDR
<i>Philippines</i>	7.5	423	1.5	<b>156</b>	8	4	TPC
<i>France</i>	14.4	3,011	1.2	<b>112</b>	4	1	EDR
<i>Switzerland</i>	21.3	1,294	1.2	<b>69</b>	10	2	EDR
<i>Sweden</i>	9.7	3,355	1.1	33	12	1	TPC
<i>Brazil</i>	1.1	2,477	1.1	32	<b>54</b>	5	TPC
<i>Austria</i>	90.6	2,457	1.2	22	16	1	EDR
<i>Iraq</i>	7.3	862	1.1	16	26	1	TPC

**Note: for reference, this is what the PVHR lists would have looked like in December 2020.**

## Week ending 05 Jan 21

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<i>United Kingdom</i>	8.1	5,785	1.4	<b>1,991</b>	14	84	TPC
<i>United States</i>	7.0	4,687	1.2	<b>1,231</b>	14	50	TPC
<i>South Africa</i>	3.1	1,792	1.3	<b>163</b>	15	7	TPC
<i>United Arab Emirates</i>	80.3	1,247	1.5	<b>155</b>	4	2	EDR
<i>Italy</i>	7.8	1,888	1.3	<b>91</b>	29	7	TPC
<i>Ireland</i>	6.5	5,039	3.5	<b>79</b>	4	1	TPC
<i>Switzerland</i>	6.4	2,715	1.0	<b>73</b>	10	2	TPC
<i>Indonesia</i>	5.2	192	1.1	62	11	2	TPC
<i>Sweden</i>	5.0	4,081	1.0	34	30	3	TPC
<i>Ukraine</i>	3.7	1,115	0.8	34	20	2	TPC

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
Poland	4.1	1,636	1.1	21	16	1	TPC
Austria	8.6	1,677	1.1	20	34	2	TPC
Mexico	2.8	504	1.0	19	<b>113</b>	6	TPC
Iran	5.9	514	1.0	16	22	1	TPC

### Week ending 29 Dec 20

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<i>United Kingdom</i>	10.0	4,027	1.2	<b>1,830</b>	14	83	EDR
<i>United States</i>	8.0	3,862	0.8	<b>1,292</b>	13	48	TPC
<i>South Africa</i>	3.5	1,370	1.2	<b>225</b>	15	7	TPC
<i>Italy</i>	9.6	1,490	0.8	<b>127</b>	26	7	TPC
<i>Ireland</i>	14.4	1,460	1.6	<b>76</b>	5	1	EDR
Switzerland	7.7	2,798	0.8	64	10	2	TPC
Indonesia	4.6	179	1.0	53	10	2	TPC
Ukraine	3.0	1,391	0.8	40	19	2	TPC
Sweden	5.9	4,094	0.9	28	31	3	TPC
Mexico	2.6	489	0.9	23	<b>109</b>	6	TPC
Iran	4.0	497	0.9	19	<b>65</b>	3	TPC

### Week ending 22 Dec 20

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<i>United Kingdom</i>	13.2	3,287	1.6	<b>1,830</b>	11	63	EDR
<i>United States</i>	8.3	4,578	1.0	<b>1,292</b>	13	45	TPC

# COVID-19

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<i>South Africa</i>	4.4	1,122	1.3	<b>225</b>	15	7	TPC
<i>Italy</i>	8.3	1,766	0.9	<b>127</b>	23	7	TPC
<i>Ireland</i>	21.1	902	2.1	<b>76</b>	5	1	EDR
Switzerland	8.9	3,401	0.9	64	15	3	TPC
Indonesia	5.4	178	1.1	53	11	2	TPC
Ukraine	2.8	1,680	0.9	40	37	4	TPC
Sweden	5.9	4,793	1.1	28	33	3	TPC
Turkey	8.1	1,951	0.1	24	<b>52</b>	4	TPC
Mexico	2.8	552	1.0	23	<b>125</b>	6	TPC
Iran	4.0	563	0.8	19	<b>65</b>	3	TPC
Jordan	8.8	1,457	0.8	16	41	2	TPC

## Week ending 15 Dec 20

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<i>United States</i>	8.4	4,541	1.0	<b>1,292</b>	10	39	TPC
<i>South Africa</i>	5.4	873	1.8	<b>225</b>	15	7	TPC
<i>Italy</i>	9.7	1,872	0.8	<b>127</b>	19	7	TPC
<i>Malaysia</i>	14.0	350	1.4	<b>68</b>	10	2	EDR
Switzerland	7.2	3,558	1.1	64	15	3	TPC
Indonesia	6.8	156	1.0	53	6	1	TPC
Ukraine	3.0	1,809	0.9	40	34	4	TPC
Sweden	6.6	4,287	1.1	28	36	3	TPC
Turkey	1.0	15,961	29.7	24	49	4	TPC
Mexico	2.5	574	1.0	23	<b>130</b>	6	TPC

# COVID-19

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
Iran	3.5	727	0.7	19	<b>61</b>	3	TPC
Austria	8.6	2,177	0.9	17	17	1	TPC
Jordan	7.4	1,754	0.8	16	41	2	TPC

## Week ending 08 Dec 20

Country	Tests per case	Weekly cases per million	EDR	Mean monthly arrivals	Cases per 1000 arrivals	Cases in New Zealand	Reason
<i>United States</i>	8.6	4,456	1.3	<b>1,292</b>	7	29	TPC
<i>South Africa</i>	7.2	499	1.5	<b>225</b>	11	5	TPC
<i>Italy</i>	9.2	2,258	0.8	<b>127</b>	16	6	TPC
Switzerland	6.1	3,277	1.1	64	15	3	TPC
Ukraine	3.0	2,056	0.9	40	33	4	TPC
Sweden	7.3	3,838	1.1	28	33	3	TPC
Mexico	2.4	550	1.1	23	<b>91</b>	6	TPC
Iran	3.4	1,029	0.9	19	<b>56</b>	3	TPC
Austria	7.7	2,507	0.7	17	19	1	TPC
Jordan	6.6	2,305	0.8	16	41	2	TPC

PROACTIVELY RELEASED