Briefing

Contact tracing indicator reporting update

Date due to MO:	19 November 2020	**Action required by:**	N/A
Security level:	IN CONFIDENCE	**Health Report number:**	HR 20201990
To:	Hon Chris Hipkins, Minister for COVID-19 Response		

Contact for telephone discussion

Name	Position	Telephone
Sue Gordon	Deputy Chief Executive, COVID-19 Health System Response Directorate	s 9(2)(a) [redacted]
Astrid Koornneef	Group Manager, Contact Tracing, COVID-19 Health System Response Directorate	

Minister's office to complete:

☐ Approved ☐ Decline ☐ Noted

☐ Needs change ☐ Seen ☐ Overtaken by events

☐ See Minister's Notes ☐ Withdrawn

Comment:

Contact tracing indicator reporting update

Purpose of report

1. This report provides you with the latest Contact Tracing Disease Indicator summary reports (Indicator reports) which are published fortnightly by the National Investigation and Tracing Centre (NITC). This report also responds to your request for an update on contact tracing performance since mid-August 2020.

Background

2. Effective contact tracing is a critical component of the strategy to eliminate COVID-19 in New Zealand, by identifying close contacts, isolating them quickly, and stopping the spread of the virus.

3. The NITC produces data reporting on the COVID-19 Disease Indicator metrics (Indicators) recommended by Hon Dr Ayesha Verrall as part of her April review. These indicators provide an end-to-end view of the public health response to COVID-19, including metrics on timeliness and outcomes of public health interventions.

4. Since 1 September 2020, the NITC has produced and published four Indicator reports on the Ministry's website.

5. The NITC have updated the Indicator reports following the resolution of the date timestamp issue (HR 20201753 refers) and propose to republish them on the Ministry's website with corrected data.

6. The NITC propose to publish the second tranche of Indicator reports for the period 11 September – 5 November 2020 on the Ministry's website.

7. As requested, a summary table has been provided as **Appendix Two** which compares community data from 11 August 2020 up to and including the current reporting period.

8. This report provides an overview of key actions being taken by the NITC to strengthen contact tracing and includes improvement to PHU capacity, national consistency of approach and additional technology enablers to support contact tracing.

Disease Indicator metrics

Key drivers of indicator metrics

9. The Indicators provide an end-to-end view of the wider COVID-19 response including community and individual engagement, as well as performance of testing facilities and programmes, border managed isolation and quarantine facilities, case and close contact management of public health units (PHUs) and the NITC (see **Appendix One** for a summary of the Indicators).

10. The performance against contact tracing indicators are impacted by a number of factors including asymptomatic cases, the time between symptom onset and test result, the number of close contacts and timeliness of their identification, and total case numbers within each reporting period.

11. Community behaviours and the impact of communication, education and societal attitudes is a key driver to these performance indictors as this can result in delayed case notification and identification.

12. Where cases and close contact volumes are low, one situation, such as a delay in accessing testing, can have a significant impact on a number of the contact tracing metrics.

13. Where relevant, we have provided information to give further context to the performance.

Context to recent indicator reports

14. Indicator reports for the period 11 September – 5 November separate out the MIQ and community data as the inclusion of the MIQ cases were significantly skewing some of the indicators. Indicator reports for this period are attached as **Appendix Three** for your information.

Detail for reporting period 11 September – 24 September 2020:

- **S001**, **S002, P002 and P004** indicators are low due to the delayed identification of two exposure events (one linked to the Jet Park employee and the other linked to the Christchurch returnees cluster) and subsequent delayed identification of close contacts. For example, for the Christchurch returnees cluster, there was a complex web of contacts progressively revealed over time from the inbound flights to New Zealand, the MIF, and the flight to Auckland as the investigation continued – some transmission events were not identified until subsequent cases emerged. For the Jet Park employee case, there was a delay in receiving a list of attendees from Les Mills. As a result, a number of close contacts were not able to be contacted within the target timeframes.

Detail for reporting period 25 September – 8 October 2020:

- This period involves one community case and one associated contact. The case was the last case in the Auckland August cluster, who was already in quarantine at home with one close contact, who was also in isolation. Consequently, some metrics have no available data, and others have 100% performance.

Detail for reporting period 9 October – 22 October 2020:

- **S001** is low due to the time between the exposure events and notification of cases (part of the Maritime cluster) taking four days. On average, there were two days between date of exposure events and onset of symptoms, and one to two days between onset of symptoms and notification of the cases. As a result, once the close contacts had been identified, the time to reach the target had already elapsed.
- Public health indicators show that once identified, contacts were quickly isolated.
- **C001** and **L001** indicators are impacted by a low number of cases during this period. In this reporting period 100 percent of test samples were taken by hour 53, and 100 percent of positive results were notified by hour 32.

Detail for reporting period 23 October – 5 November 2020:

- This period involves three community cases and 14 associated contacts. For this reporting period most metrics reach 100% within the target timeframe as one case, related to the Maritime cluster had been a close contact and was already in isolation, and contacts of the two MIQ health workers related to the Russian mariners cluster were quickly identified and isolated.

Equity

15. All Indicators are reported by prioritised ethnicity within the Business Intelligence tool, Qlik. Since 1 October 2020, the target of 80% of contacts isolated within 48 hours of case notification (P002) has been met across all ethnicities (Māori, Pacific, Asian, Other).

16. It is important to note that the most recent clusters have not involved the Māori and Pacific populations to the same degree as for the August cluster.

Overview of key actions taken to strengthen contact tracing

Deep Dive into contact tracing indicators

17. The deep dive aims to bring visibility to each time component that sits within the **P002** (time from case notification to contact isolation/quarantine) metric. A visualisation tool has been developed and the next step is to review exposure events with the relevant PHUs to identify areas where changes could be made to reduce delays and lead to quality improvement opportunities.

18. Similar deep dives can be facilitated for other metrics by the NITC. These will also help identify specific areas along the pathway where adjustments can be made to improve timeliness. However, responsibility for these improvements will involve conversations and insights of other stakeholders (e.g. with Ministry of Health, DHBs, primary care, and laboratories with respect to **L001**; stakeholders involved in behavioural insights, communications and public information for **C** metrics).

National programme of work to enhance contact tracing

19. As part of a wider work programme the NITC is progressing key workstreams with PHUs that support improvements in capacity and capability of contract tracing and includes:

    a. The set-up of a national COVID-19 PHU response team to ensure that during a community outbreak and where surge capacity is required, a "flying squad" can be quickly mobilised from other PHUs within 48 hours to enable additional support and expertise to the affected area.

    b. In addition, a national delegation framework has been developed. This framework enables the transfer of contact tracing work using the national contact tracing system. This formalises the processes that were implemented to support Auckland Regional Public Health Service (ARPHS) during the August outbreak and provides a virtual way of sharing work and capacity across the country.

    c. PHU capacity uplift plans have been developed to increase case investigation and contact tracing activities in each region. The Ministry has provided DHBs $30m (total) in 2019/20 and 2020/21 to directly increase this capacity within each PHU. The NITC works closely with each PHU to support these plans and understand how each PHU would further surge to manage future outbreaks.

Technology improvements

20. Digital technologies can complement manual contact tracing by speeding up the process, filling in memory gaps, and recording contacts with strangers.

21. The Ministry has been partnering with third-party vendors to integrate their solutions with the National Contact Tracing Solution (NCTS). Third-party integration will improve contact tracing by increasing the range and volume of information available to contact tracers, by allowing more New Zealanders to receive contact alerts and share their location histories, and by making it easier to contact people who may have been exposed to COVID-19.

22. Additional advice on digital technologies to improve contact tracing is being provided to you by the Ministry of Health's Data and Digital team.

Next steps

23. An overview of the next fortnightly Indicator report for the period 6 – 19 November 2020 will be provided to you in a weekly report item.

24. Officials can provide further information about this topic at your request.

Recommendations

We recommend you:

a) **note** the contents of this report

b) **agree** to the publication of Indicator reports for the period 11 September – 5 November 2020 on the Ministry's website **Yes/No**

c) **note** that going forward the NITC will publish Indicator reports fortnightly on the Ministry's website

d) **agree** to receiving updates on Indicator reporting as a weekly report item, prior to publication of the reports on the Ministry's website **Yes/No**

Sue Gordan
Deputy Chief Executive
COVID-19 Health System Response

Hon Chris Hipkins
Minister for COVID-19 Response
Date: 22/11/2020

ENDS.

Appendix One – Summary of COVID-19 Disease Indicator metrics

The indicators have been grouped by focus area.

- System level indicators, these provide end to end impacts of the public health response and often bring together the collective efforts of a range of parties (indicators prefixed with a S#).
- Community level indicators, these focus on community behaviours and provide measures of the impacts of communication, education and societal attitudes (indicator prefixed with a C#).
- Laboratory sector indicators, these provide insights into the effectiveness of the testing facilities and programmes (indicators prefixed with a L#).
- Public health sector indicators, these focus on contact tracing and case and contact management (indicators prefixed with a P#).

Indicator	Target
S001: Time from exposure to contact isolation / quarantine	≥80% within 96 hours
S002: Time from case first symptom to contact isolation / quarantine	≥80% within 96 hours
S003: Time from test sample taken to close contact isolation / quarantine	≥80% within 72 hours
S005: Proportion of close contacts with confirmed or suspected COVID-19 at the of tracing	<20% of close contact are confirmed, probable or suspected when traced
C001: Time from first symptom to test sample taken for positive cases	≥80% within 48 hours
L001: Time from test sample taken to notification of positive result	≥80% within 24 hours
P001: Time from notification to case interview	≥80% within 24 hours
P002: Time from case notification to isolation / quarantine of contact	≥80% within 48 hours
P003: Time from close contact identification to isolated / quarantined	≥80% within 24 hours
P004: Proportion of contacts traced in 48 hours	≥80% within 48 hours

Appendix Two – Comparison table of community data for the period 11 August – 5 November 2020

		Reporting period							
Indicator	**Target**	**11 – 21 August**	**21 – 27 August**	**28 August – 3 September**	**4 – 10 September**	**11 – 24 September**	**25 September – 8 October**	**9 – 22 October**	**23 October – 5 November**
S001: Time from exposure to contact isolation / quarantine	≥80% within 96 hours	39%	60%	76%	14%	20%	No data for this period	20%	100%
S002: Time from case first symptom to contact isolation / quarantine	≥80% within 96 hours	24%	14%	81%	17%	51%	No data for this period	75%	100%
S003: Time from test sample taken to close contact isolation / quarantine	≥80% within 72 hours	71%	66%	88%	37%	66%	100%	99%	100%
S005: Proportion of close contacts with confirmed or suspected COVID-19 at the time of tracing	<20% of close contact are confirmed, probable or suspected when traced	1.5%	8%	3.6%	4.1%	3.4%	No data for this period	1.4%	No data for this period
C001: Time from first symptom to test sample taken for positive cases	≥80% within 48 hours	52%	21%	64%	50%	62%	No data for this period	67%	100%
L001: Time from test sample taken to notification of positive result	≥80% within 24 hours	77%	80%	83%	48%	58%	0%	67%	100%
P001: Time from notification to case interview	≥80% within 24 hours	92%	95%	100%	100%	100%	100%	100%	100%
P002: Time from case notification to isolation / quarantine of contact	≥80% within 48 hours	63%	69%	81%	37%	58%	100%	99%	100%
P003: Time from close contact identification to isolated / quarantined	≥80% within 24 hours	85%	94%	95%	97%	98%	100%	99%	100%
P004: Proportion of contacts traced in 48 hours	≥80% within 48 hours	76%	68%	92%	38%	58%	No data for this period	99%	100%

Summary of COVID-19 Disease Indicators

For the reporting period 11 to 24 September 2020

Report date: 27/10/2020

Key:

Performance below target	Performance improved compared to the previous reporting period
Performance above target	Performance lower compared to the previous reporting period

Summary of community cases

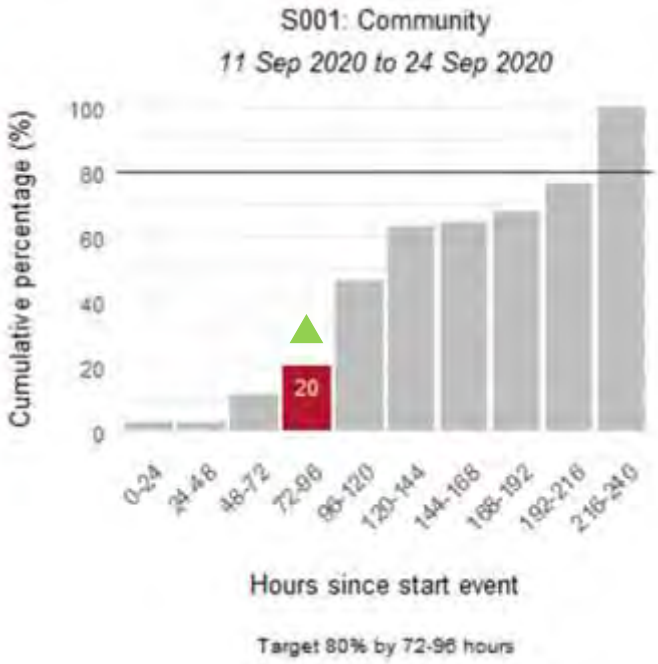
Number of cases for this reporting period and cumulative number of cases since 11 August 2020.

Reporting period	Cumulative
12	186

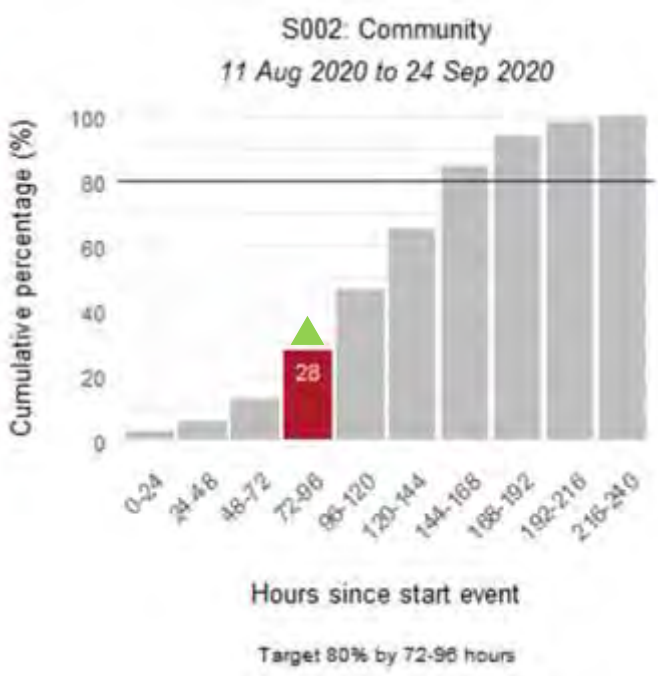
System level indicators

These indicators provide a view of the end-to-end collective actions of the wider health system response (indicators are prefixed with an S#). The metrics for the system-level COVID-19 Disease Indicators (**S001**, **S002**) are low due to the delayed identification of two exposure events (one linked to the Jet Park employee and the other linked to the Christchurch returnees cluster) and subsequent delayed identification of close contacts. For example, for the Christchurch returnees cluster, contacts were progressively revealed throughout the investigation from the inbound flights to New Zealand, the MIF, and the flight to Auckland. For the Jet Park employee case, there was a delay in receiving a list of attendees from an event. As a result, a number of close contacts were not able to be contacted within the target timeframes.

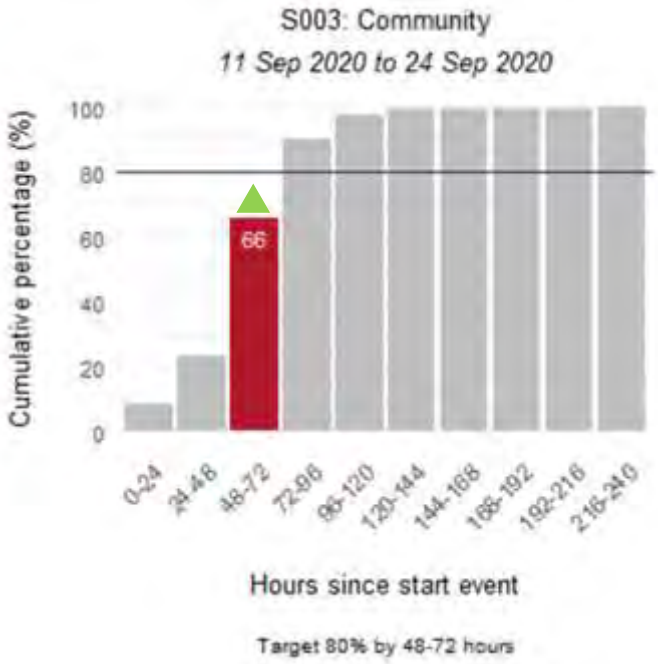
S001 - Time from exposure to contact isolation / quarantine

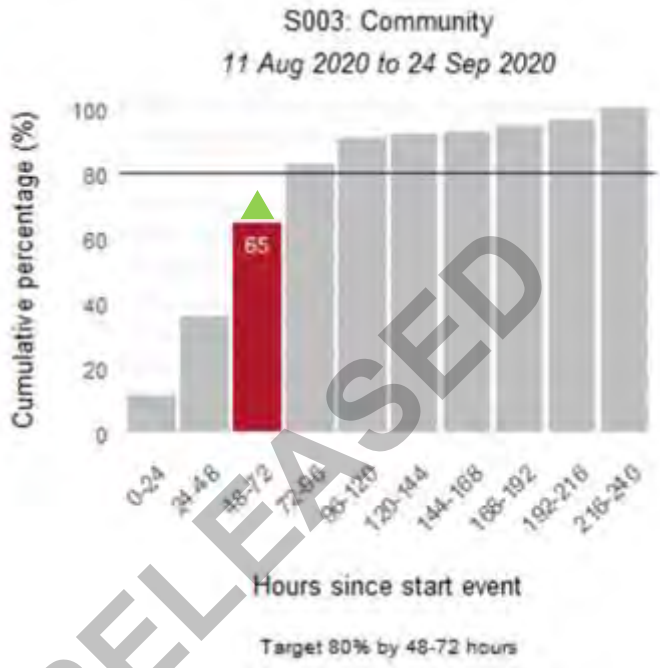


S002 - Time from case first symptom to contact isolation / quarantine

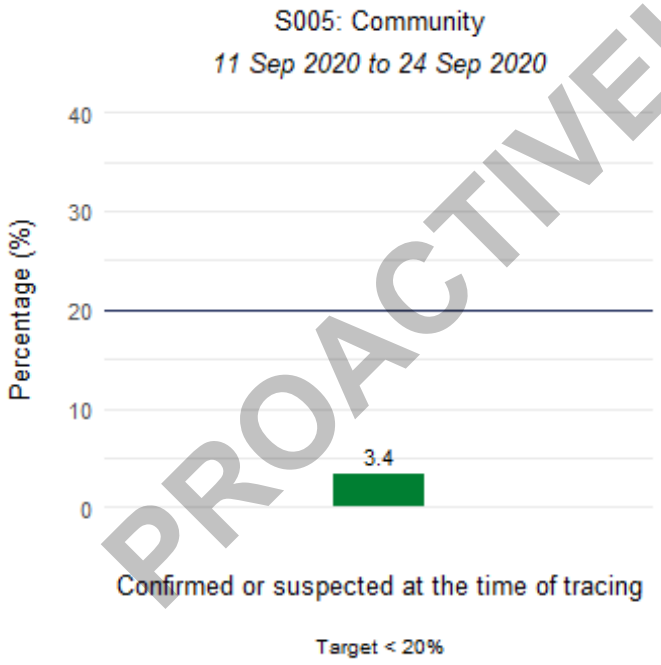


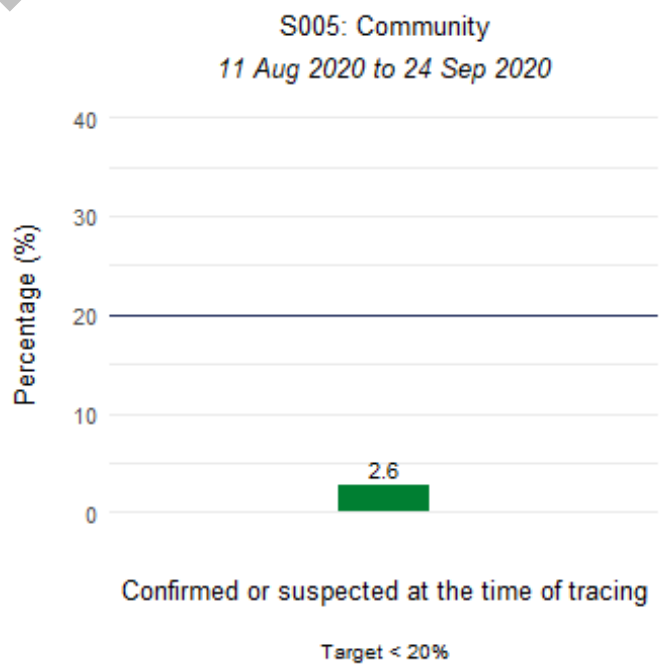
S003 - Time from test sample taken to close contact isolation / quarantine





S005 - Proportion of close contacts with confirmed or suspected COVID-19 at the time of tracing

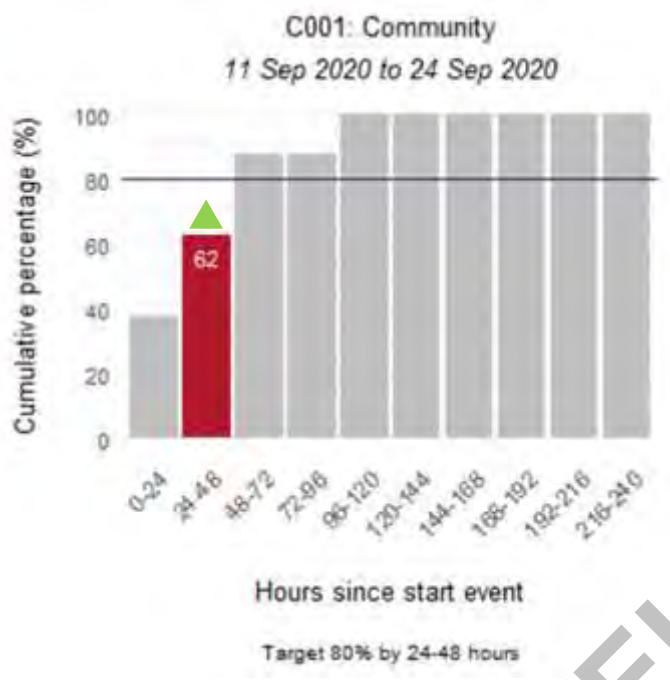


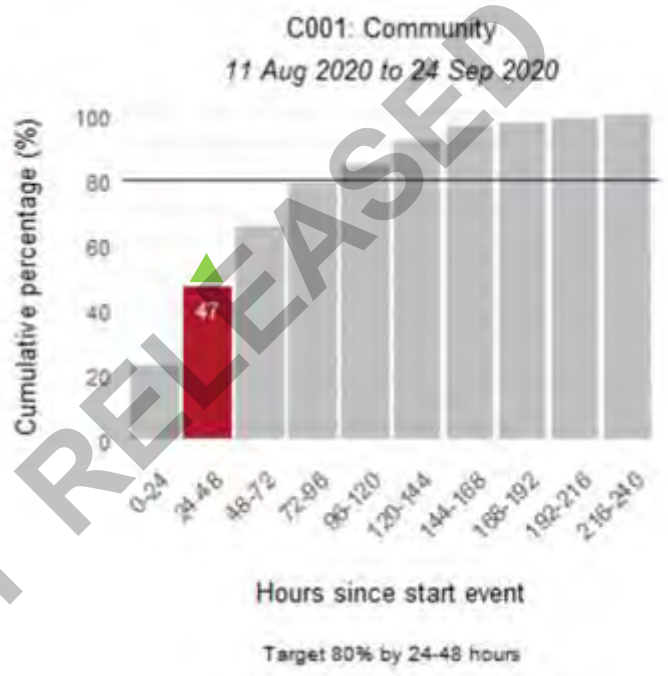


Community-level indicator

This indicator focuses on community behaviours and the impact of communication, education and societal attitudes (indicator is prefixed with a C#). The time period measured is from the symptom onset date as recorded in EpiSurv to the date/time the laboratory received the sample. The time between a sample taken and the receipt date/time of the sample at the laboratory, including transport time, will affect this indicator.

C001 - Time from first symptom to test sample taken for positive cases

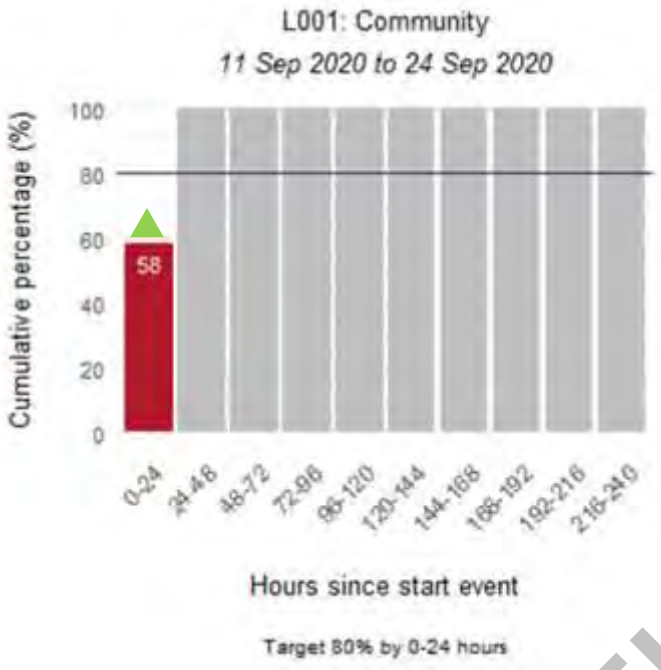




Laboratory sector indicator

This indicator provides insight into the effectiveness of testing facilities and programmes (indicator is prefixed with an L#). The time period measured is from the time the laboratory received the sample to notification of a positive result in EpiSurv. In this reporting period over 80 percent of positive results were notified at hour 39.

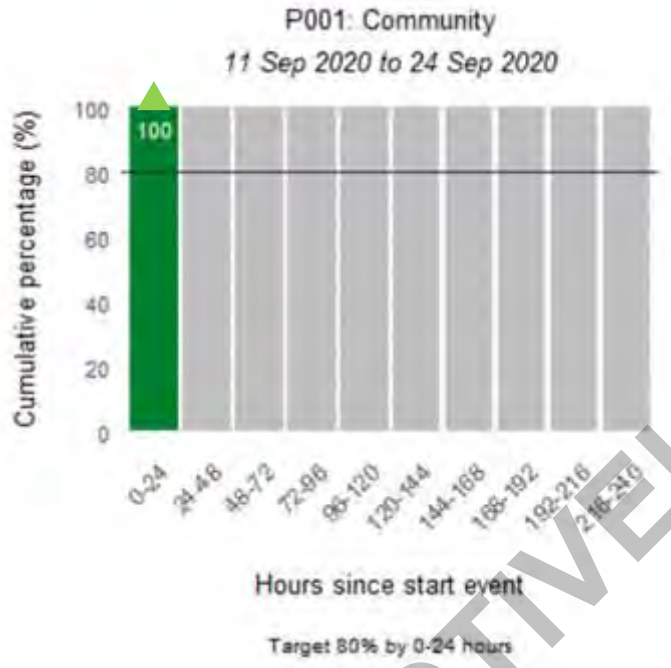
L001 - Time from test sample taken to notification of positive result

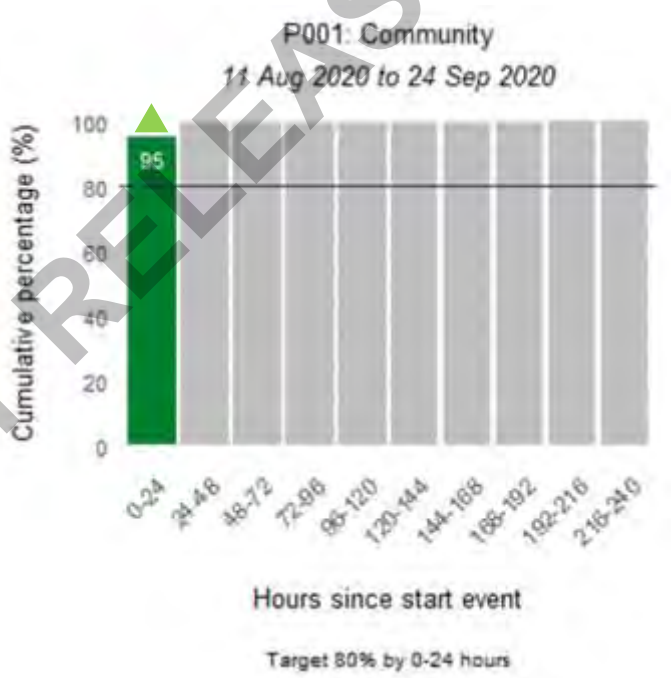


Public health sector indicators

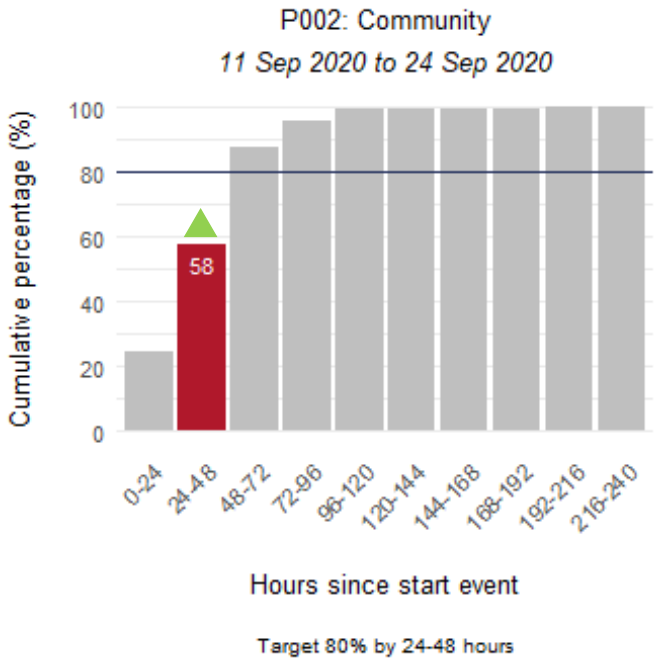
These indicators provide a national overview of contact tracing as well as case and close contact management by public health units (PHUs) and the National Investigation and Tracing Centre (indicators are prefixed with a P#). The metrics for the public health level COVID-19 Disease Indicators (**P002**, **P004**) are low due to the delayed identification of two exposure events (one linked to the Jet Park employee and the other linked to the Christchurch returnees cluster) and subsequent delayed identification of close contacts. For example, for the Christchurch returnees cluster, contacts were progressively revealed throughout the investigation from the inbound flights to New Zealand, the MIF, and the flight to Auckland. For the Jet Park employee case, there was a delay in receiving a list of attendees from an event. As a result, a number of close contacts were not able to be contacted within the target timeframes.

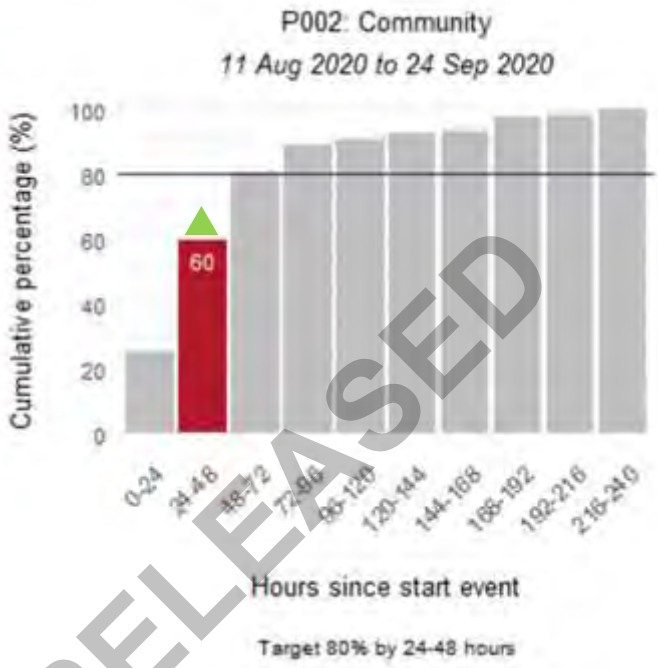
P001 - Time from notification to case interview



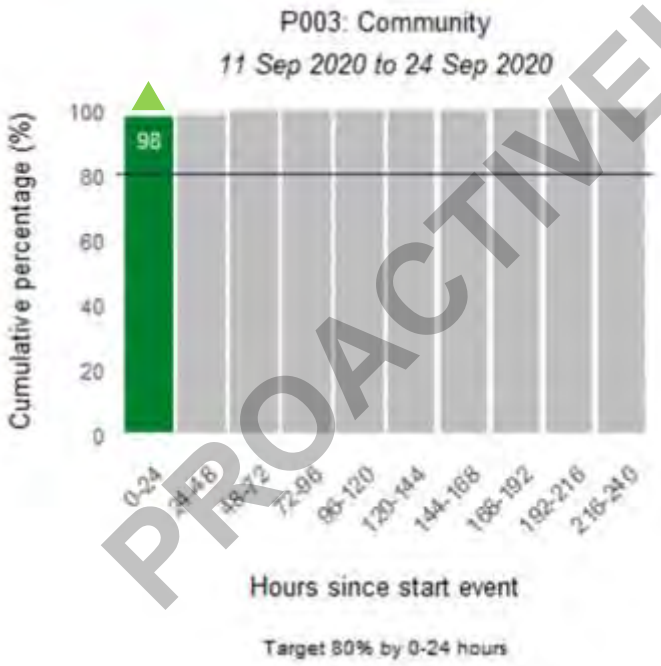


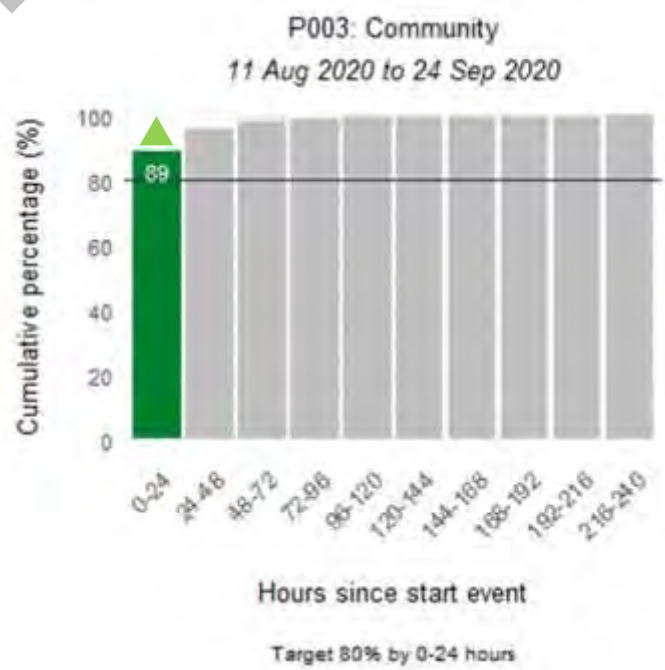
P002 - Time from case notification to isolation / quarantine of contact



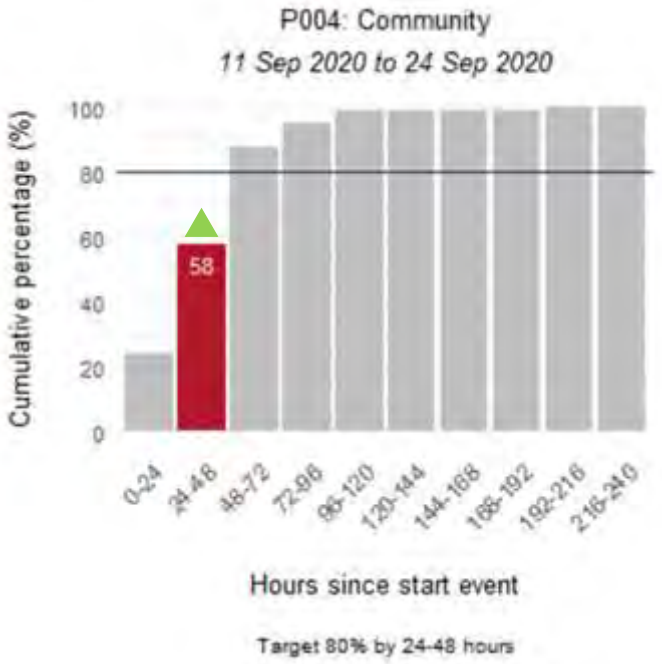


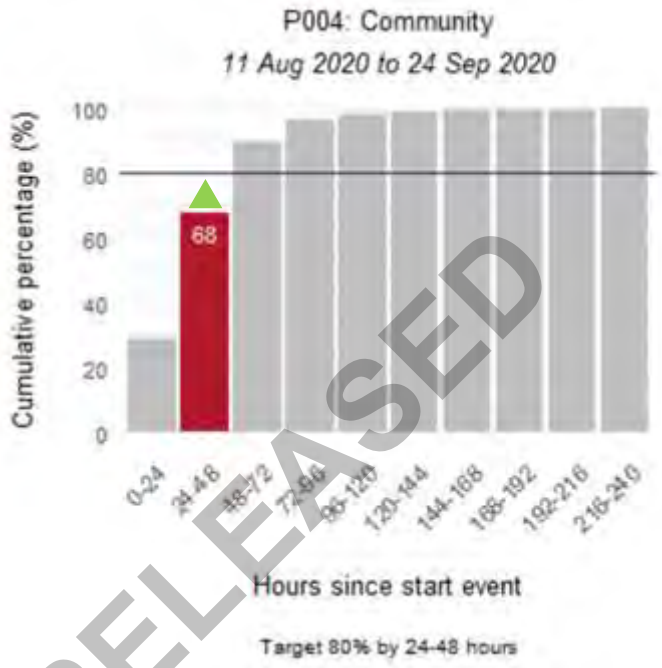
P003 - Time from close contact identification to isolated / quarantined





P004 - Proportion of contacts traced in 48 hours





Appendix: Summary of MIQ border and international indicators

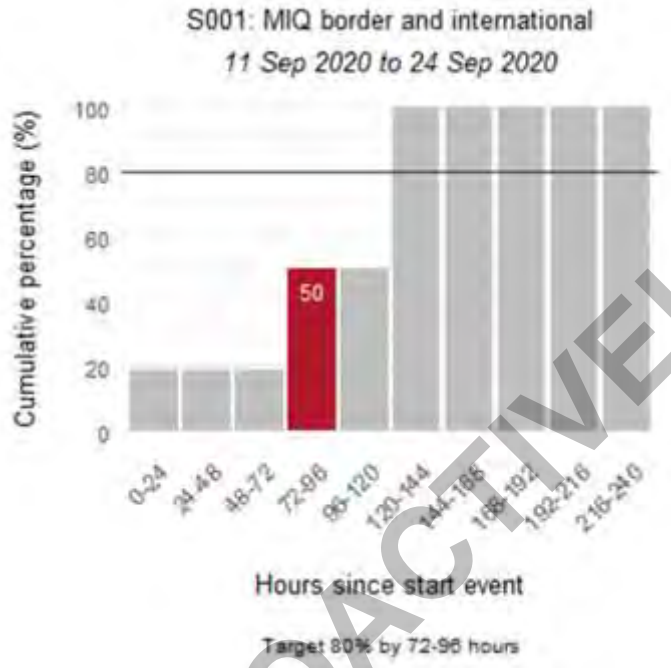
This section presents the indicators for Border Managed Isolation and Quarantine (MIQ) and International cases. Indicators **S001**, **S002**, and **C001** are affected by the inclusion of border cases in MIQ, as returnees' exposure is arbitrarily set to the day of arrival in New Zealand. They are placed into MIQ upon arrival and are tested if symptomatic or on approximately day 3 and day 12. Therefore, cases in MIQ will make the performance of these indicators appear low.

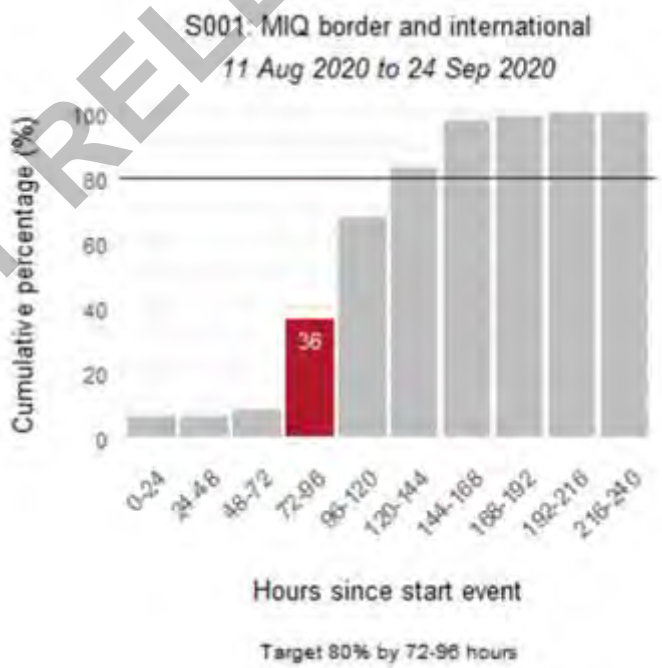
Summary of MIQ border and international cases

Number of cases for this reporting period and cumulative number of cases since 11 August 2020.

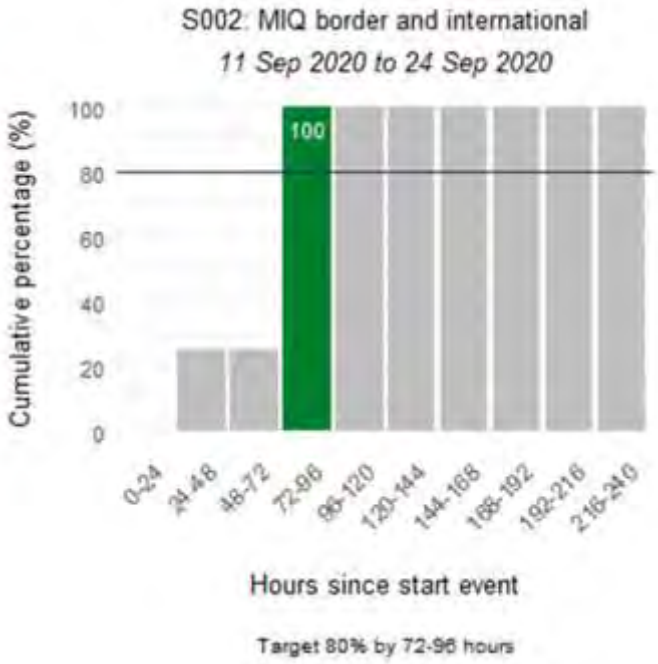
Reporting period	Cumulative
20	70

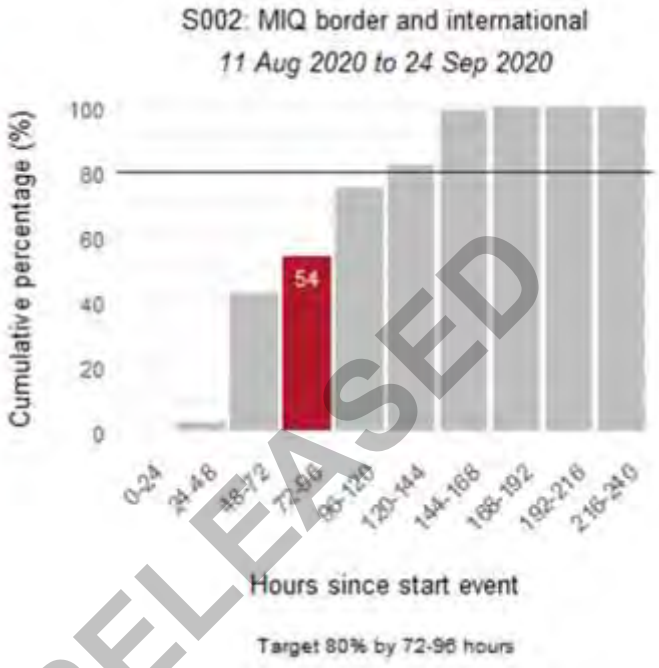
S001 - Time from exposure to contact isolation / quarantine



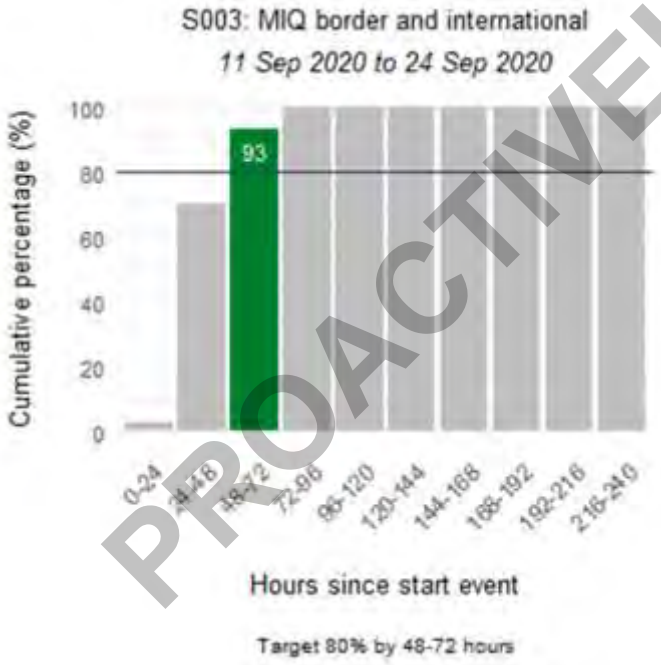


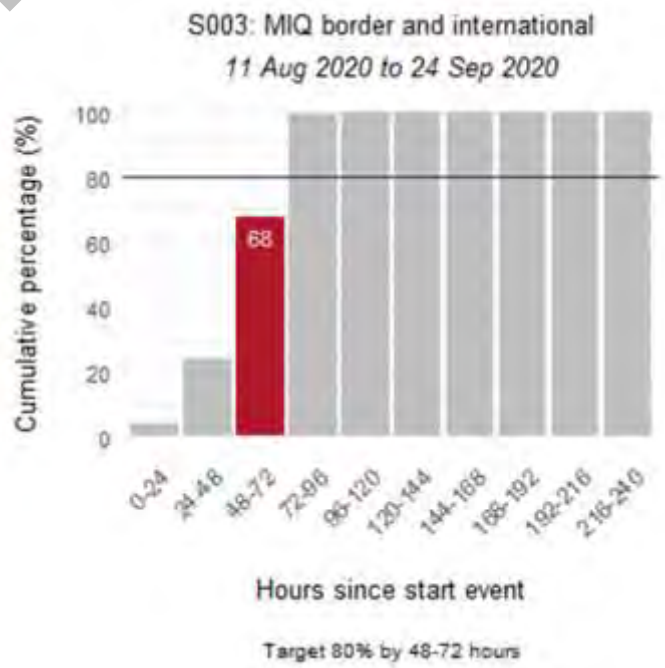
S002 - Time from case first symptom to contact isolation / quarantine



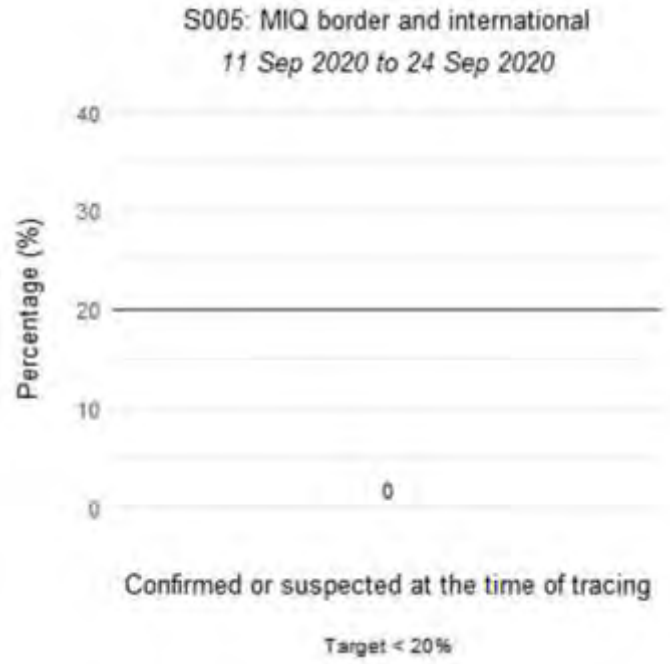


S003 - Time from test sample taken to close contact isolation / quarantine

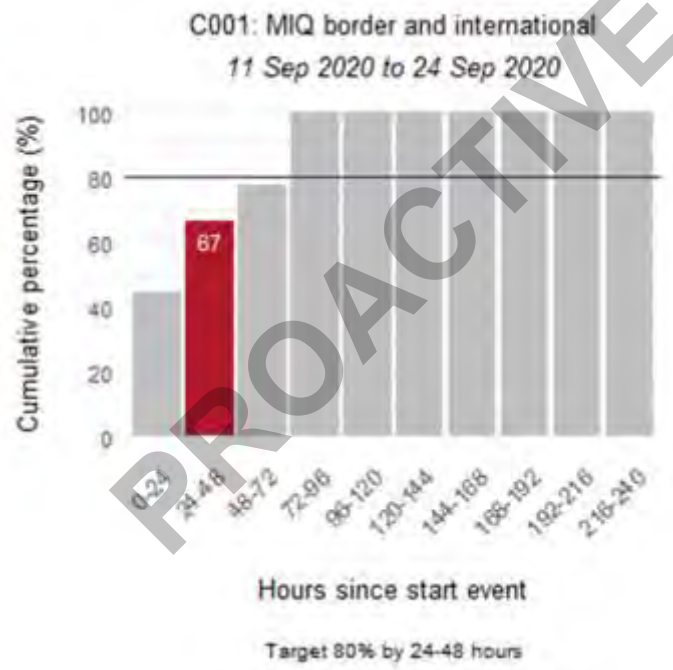


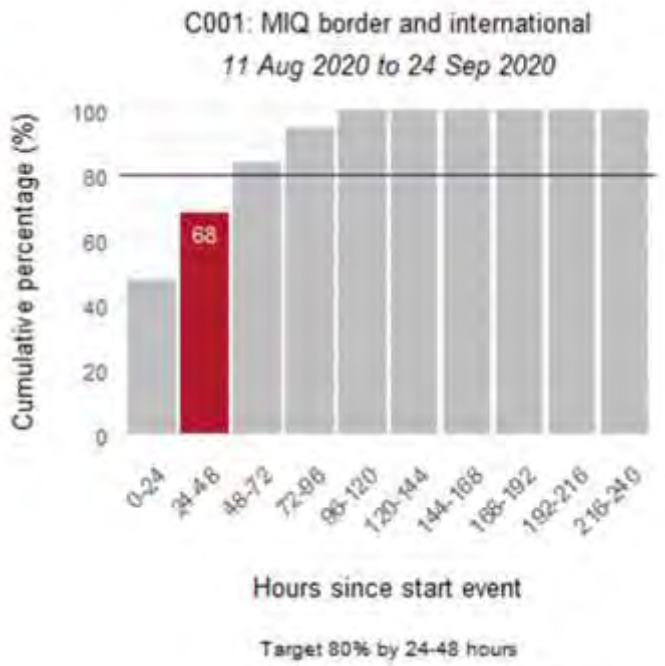


S005 - Proportion of close contacts with confirmed or suspected COVID-19 at the time of tracing

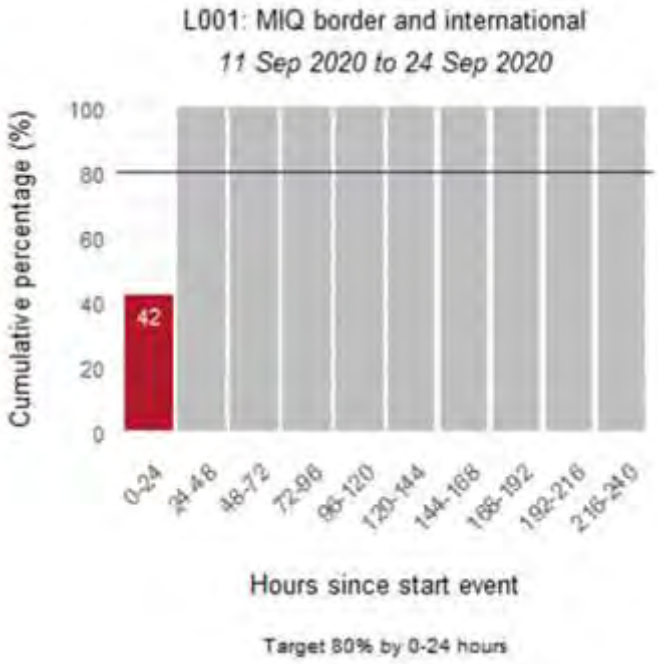


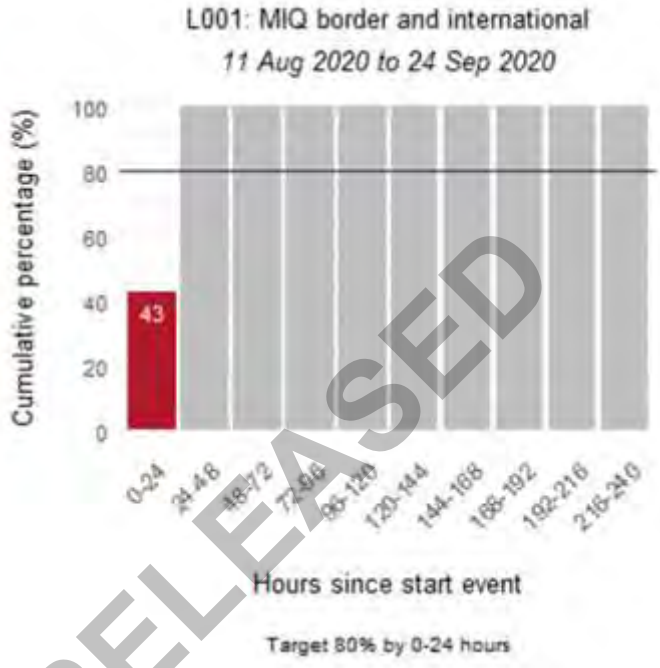
C001 - Time from first symptom to test sample taken for positive cases



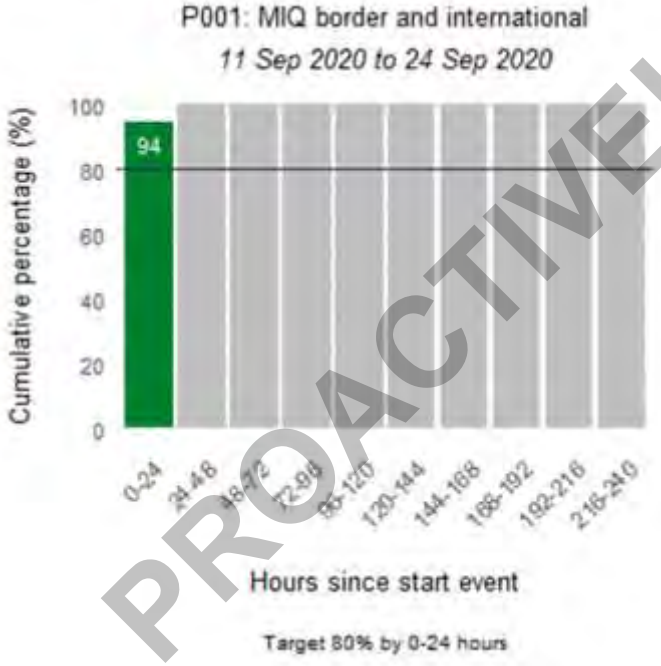


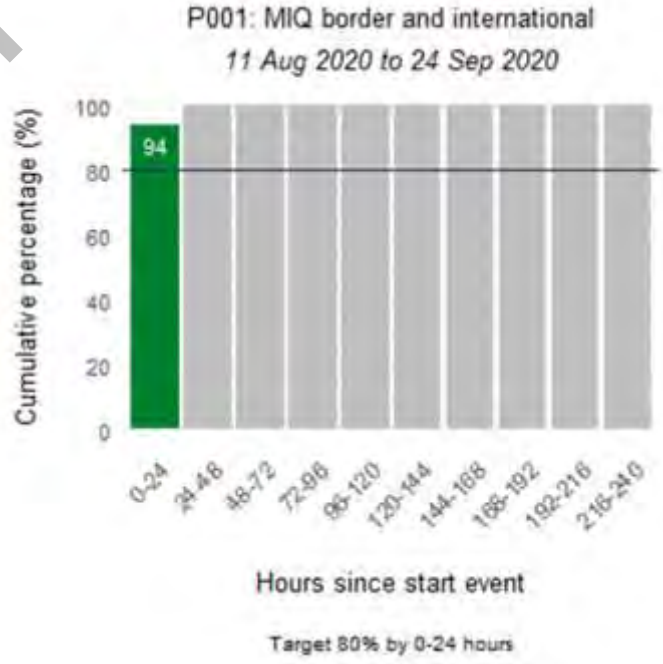
L001 - Time from test sample taken to notification of positive result



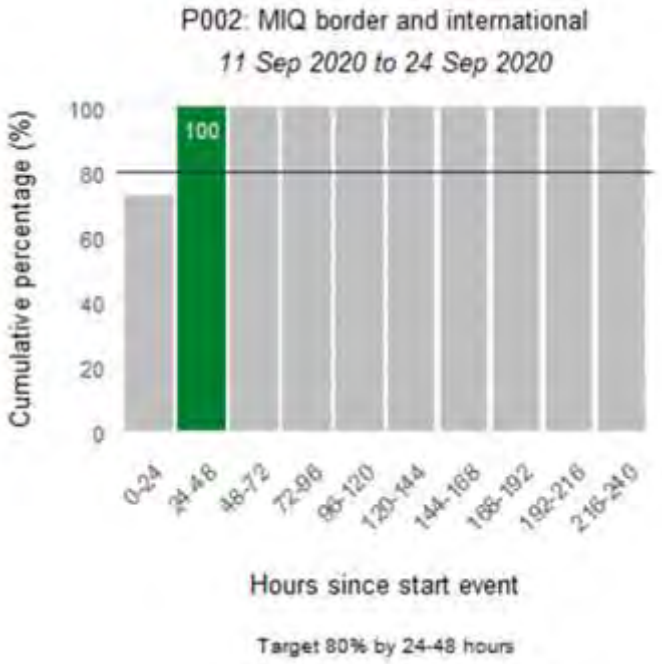


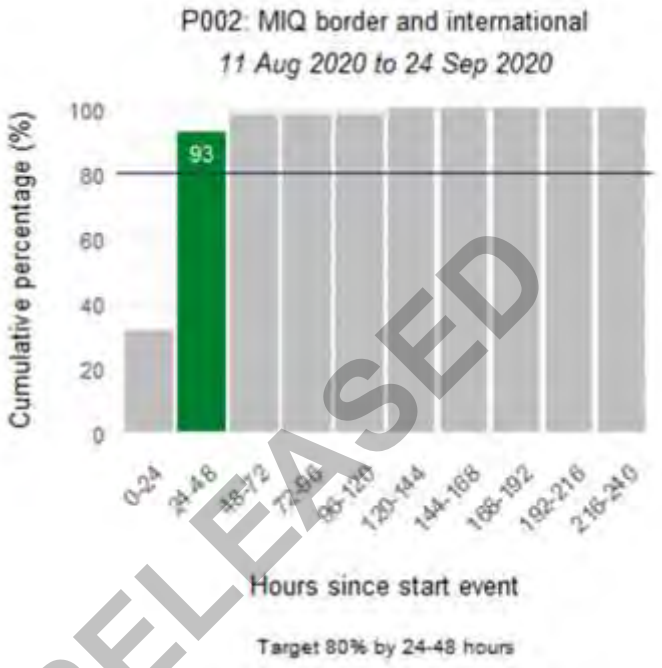
P001 - Time from notification to case interview



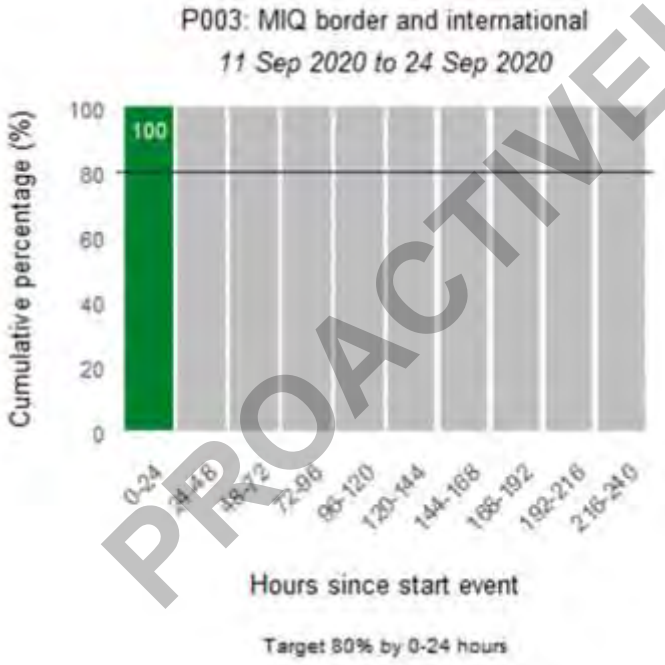


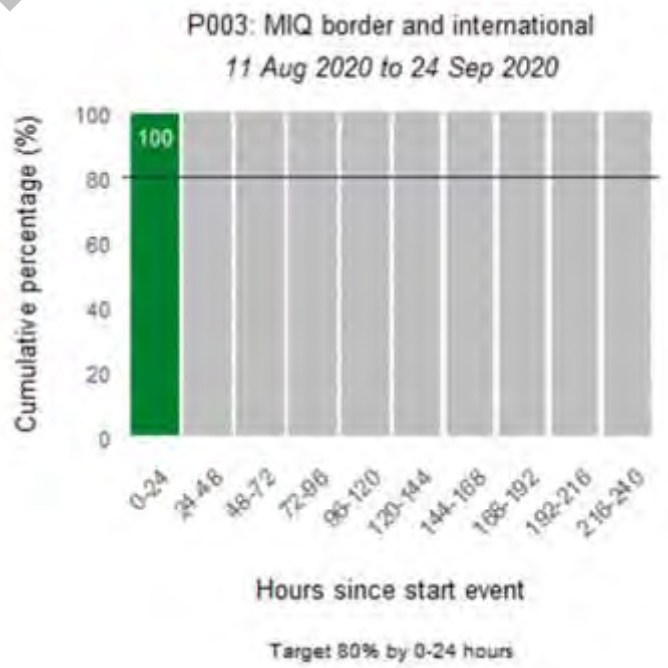
P002 - Time from case notification to isolation / quarantine of contact



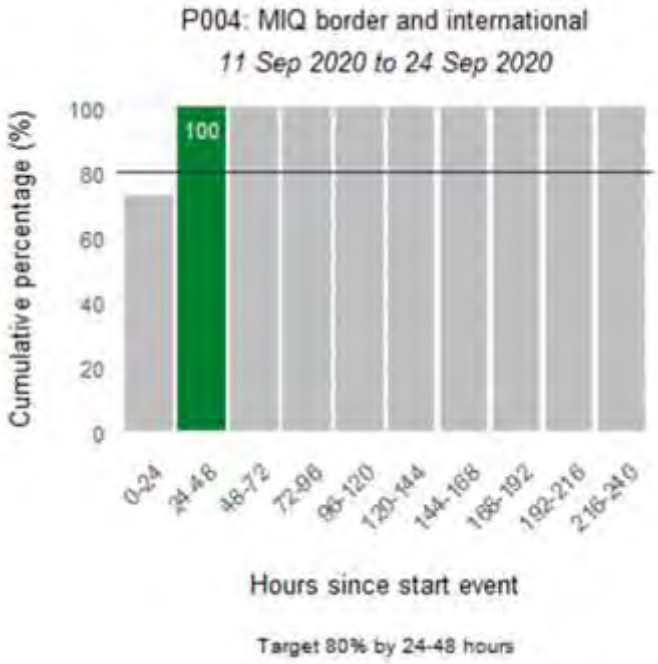


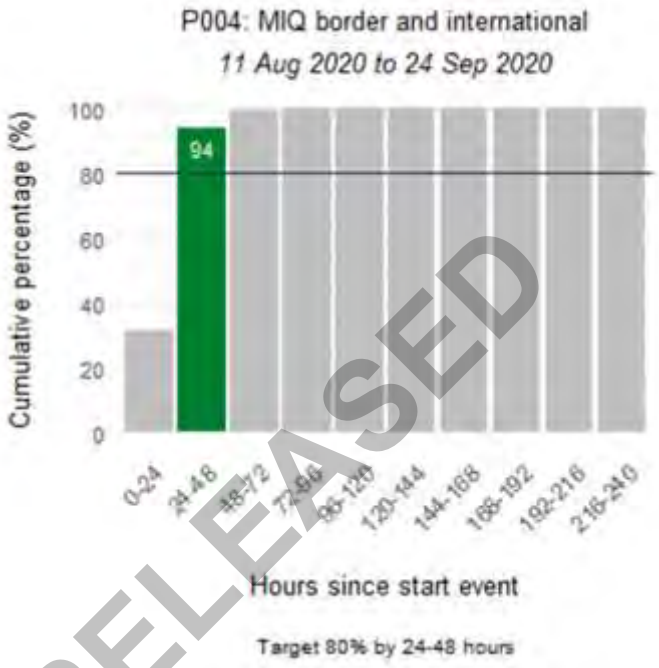
P003 - Time from close contact identification to isolated / quarantined





P004 - Proportion of contacts traced in 48 hours





Summary of COVID-19 Disease Indicators

For the reporting period 25 September to 8 October 2020

Report date: 27/10/2020

Key:

Performance below target	Performance improved compared to the previous reporting period
Performance above target	Performance lower compared to the previous reporting period

Summary of community cases

Number of cases for this reporting period and cumulative number of cases since 11 August 2020.

Reporting period	Cumulative
1	187

System level indicators

These indicators provide a view of the end-to-end collective actions of the wider health system response (indicators are prefixed with an S#). This reporting period involves only a small number of community cases and contacts which means some metrics have no data.

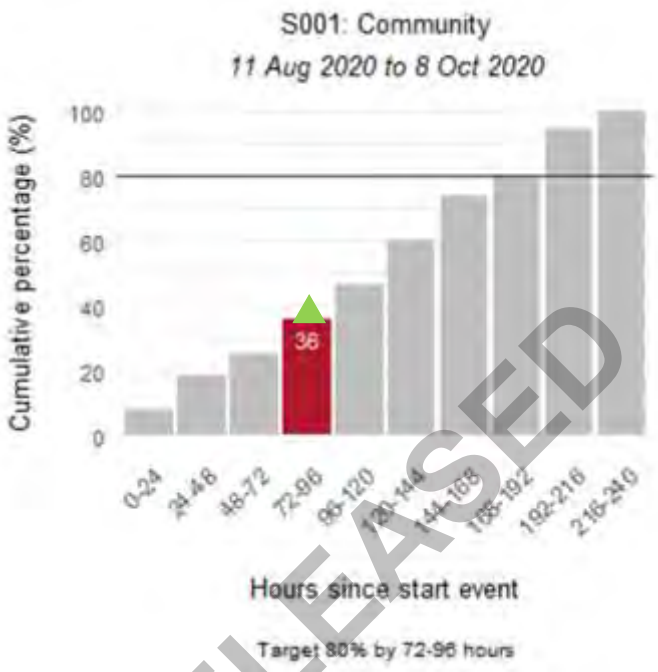
S001 - Time from exposure to contact isolation / quarantine

S001: Community
25 Sep 2020 to 8 Oct 2020

Cumulative percentage (%)

Hours since start event

No data for this period



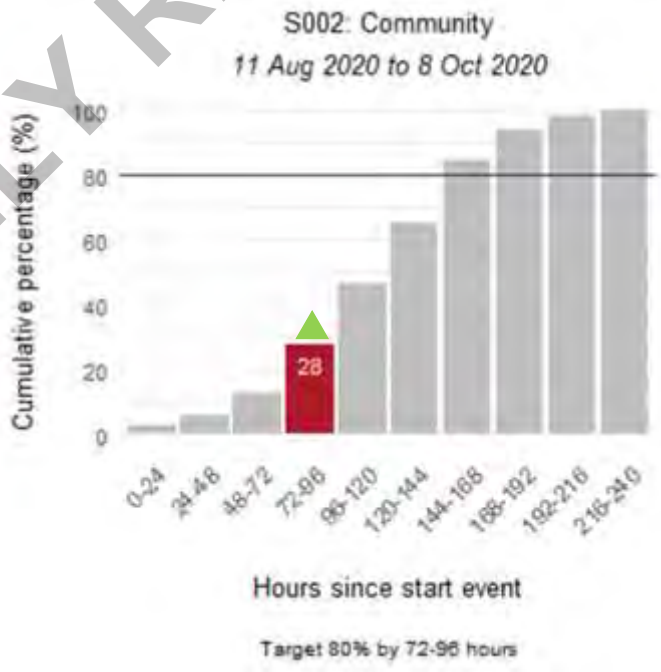
S002 - Time from case first symptom to contact isolation / quarantine

S002: Community
25 Sep 2020 to 8 Oct 2020

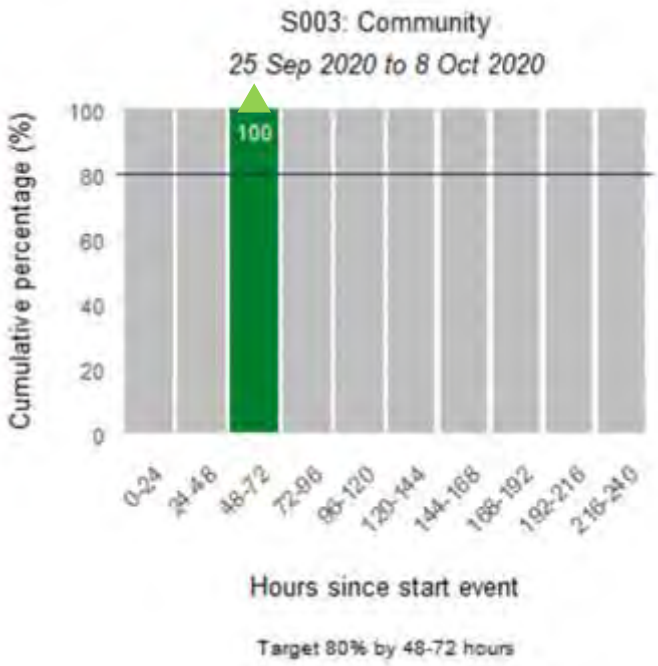
Cumulative percentage (%)

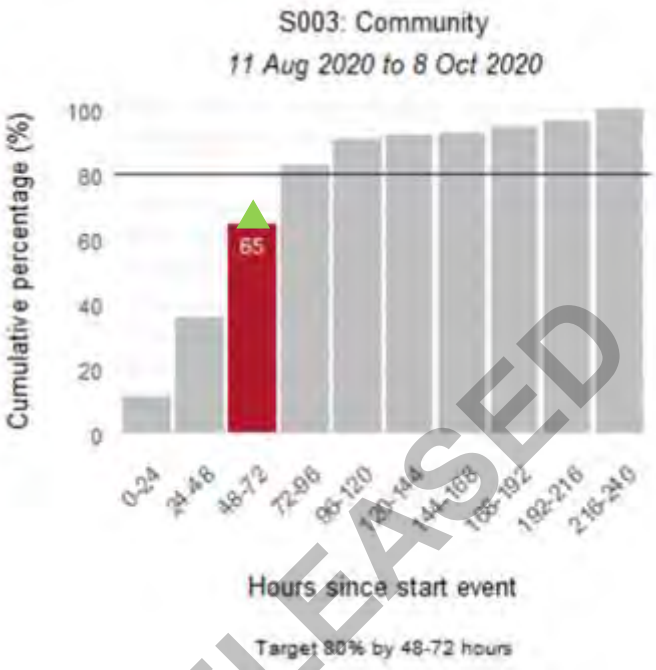
Hours since start event

No data for this period

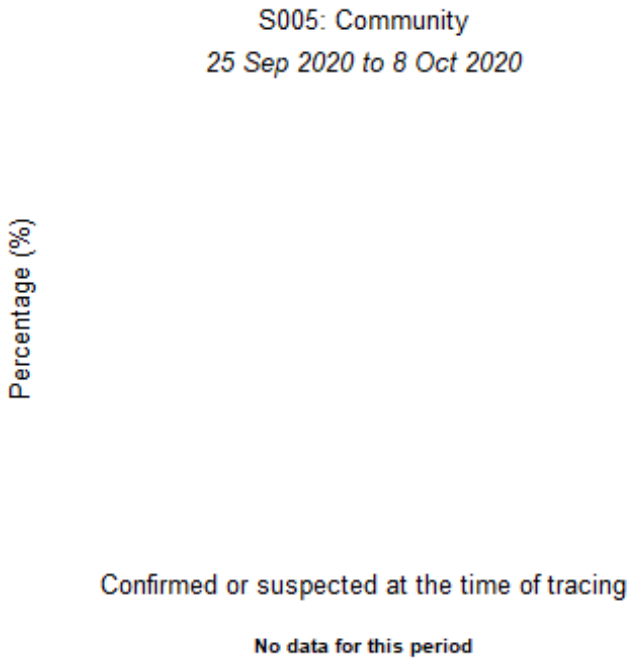


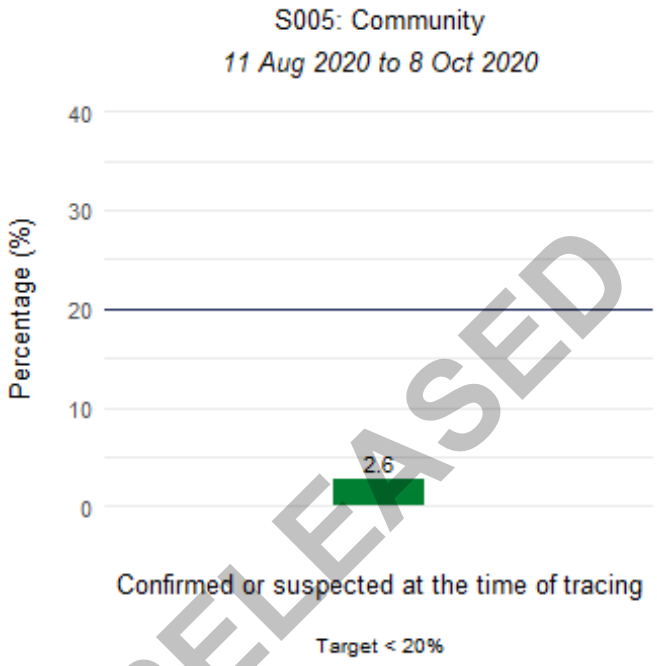
S003 - Time from test sample taken to close contact isolation / quarantine





S005 - Proportion of close contacts with confirmed or suspected COVID-19 at the time of tracing

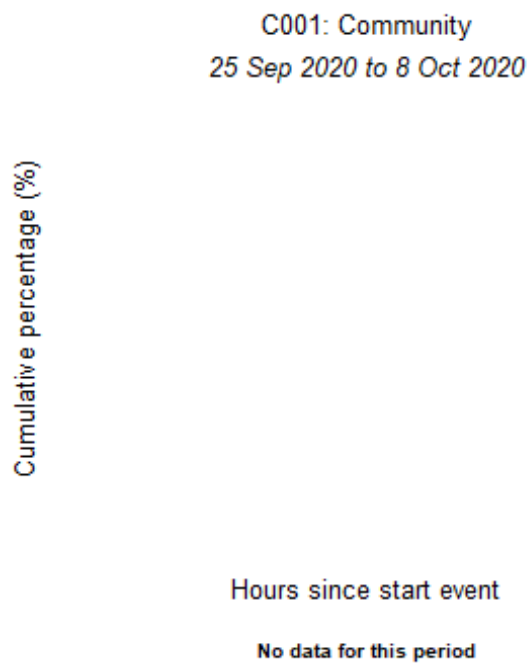


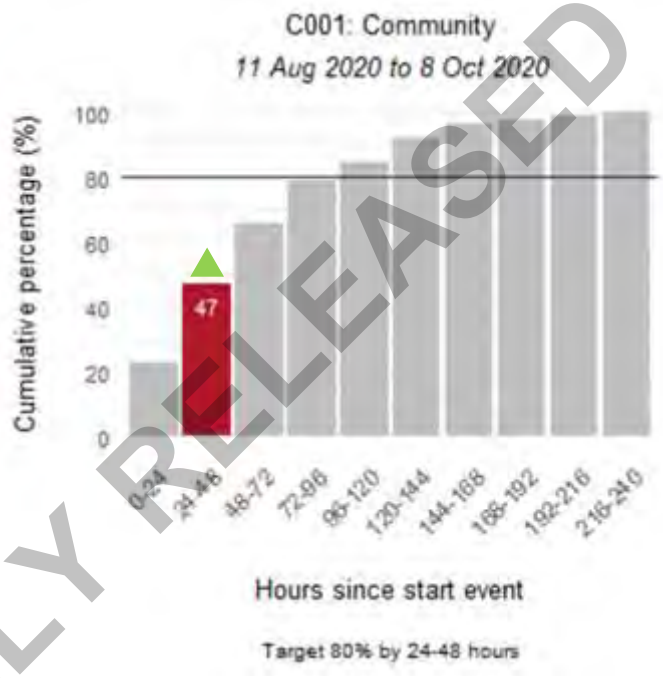


Community-level indicator

This indicator focuses on community behaviours and the impact of communication, education and societal attitudes (indicator is prefixed with a C#). The time period measured is from the symptom onset date as recorded in EpiSurv to the date/time the laboratory received the sample. The time between a sample taken and the receipt date/time of the sample at the laboratory, including transport time, will affect this indicator.

C001 - Time from first symptom to test sample taken for positive cases

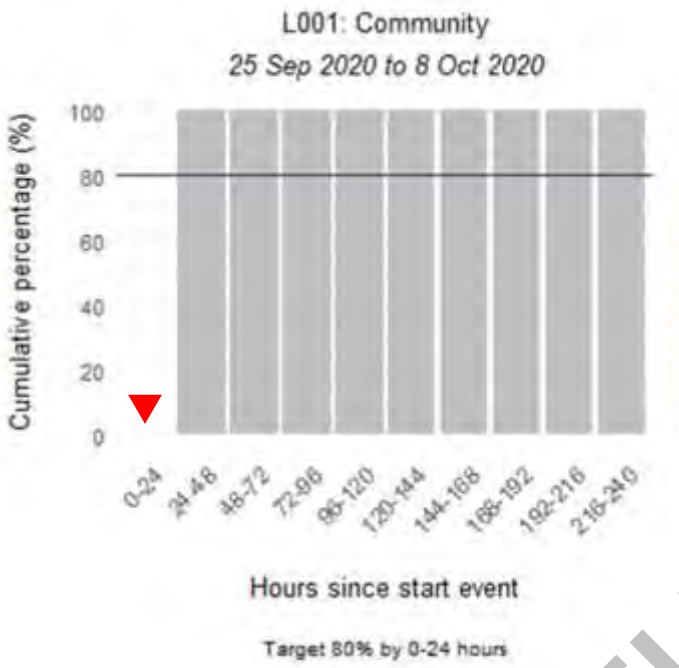




Laboratory sector indicator

This indicator provides insight into the effectiveness of testing facilities and programmes (indicator is prefixed with an L#). The time period measured is from the time the laboratory received the sample to notification of a positive result in EpiSurv. In this reporting period 100 percent of positive results were notified at hour 41.

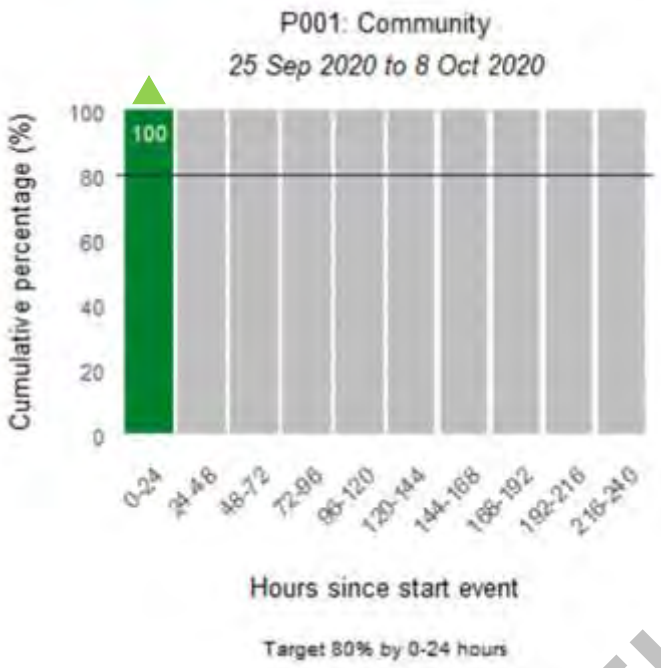
L001 - Time from test sample taken to notification of positive result



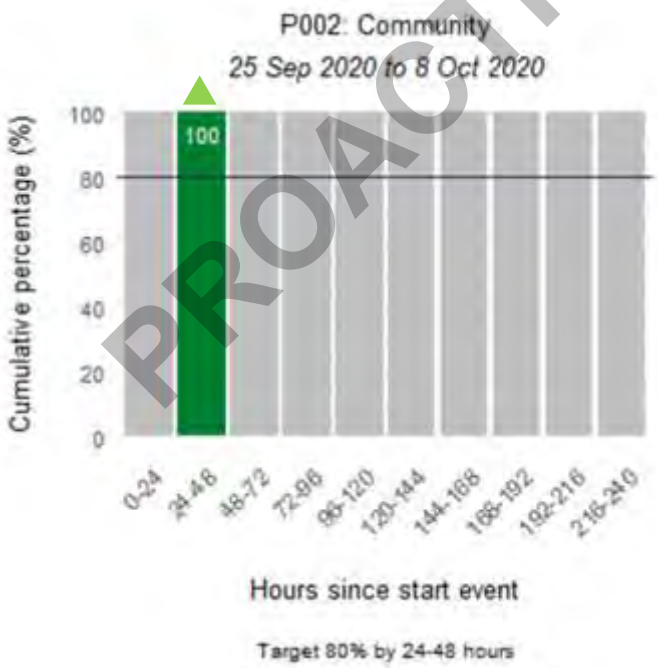
Public health sector indicators

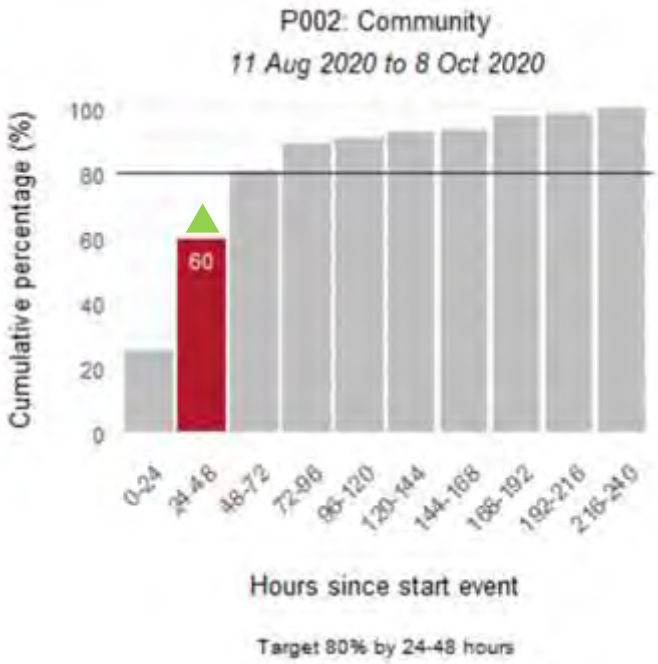
These indicators provide a national overview of contact tracing as well as case and close contact management by public health units (PHUs) and the National Investigation and Tracing Centre (indicators are prefixed with a P#). This reporting period involves only a small number of community cases and contacts.

P001 - Time from notification to case interview

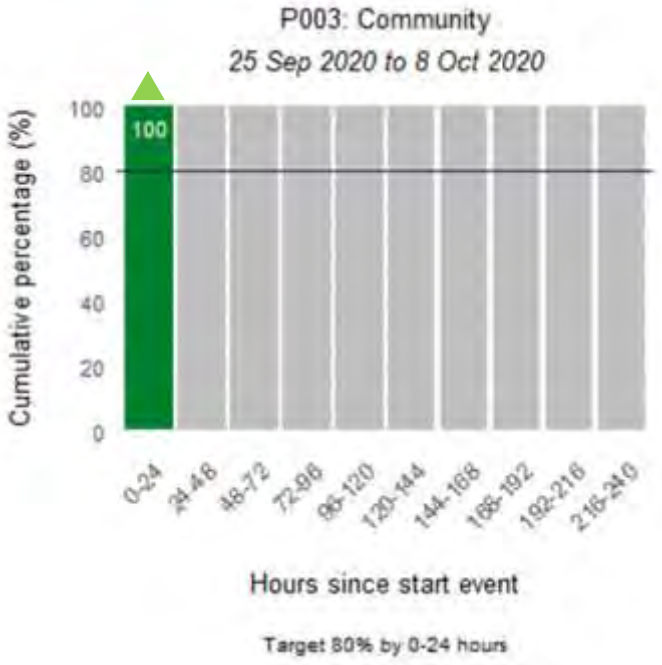


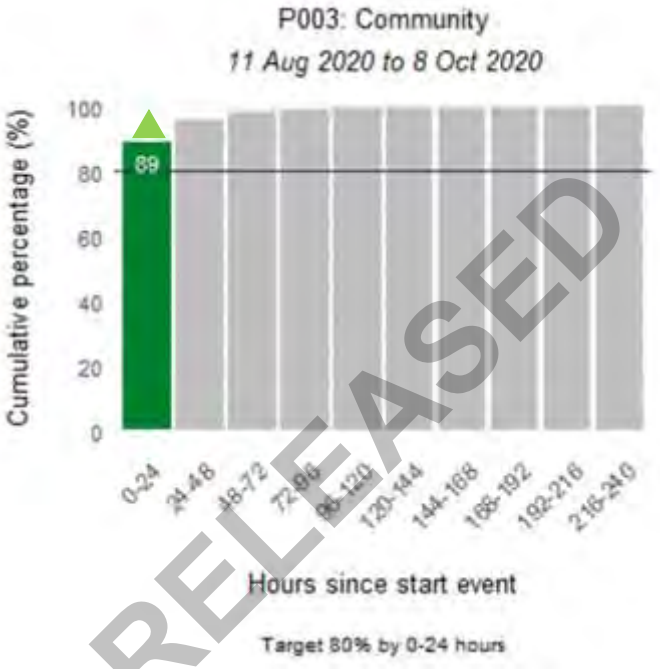
P002 - Time from case notification to isolation / quarantine of contact



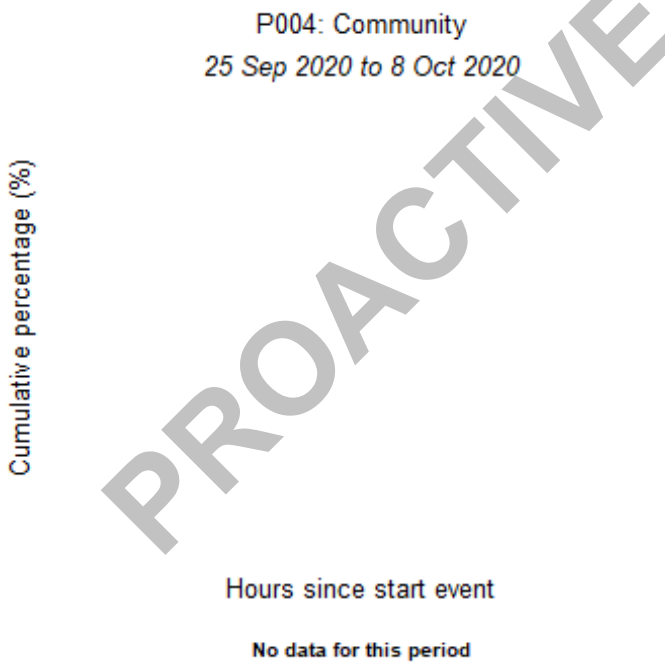


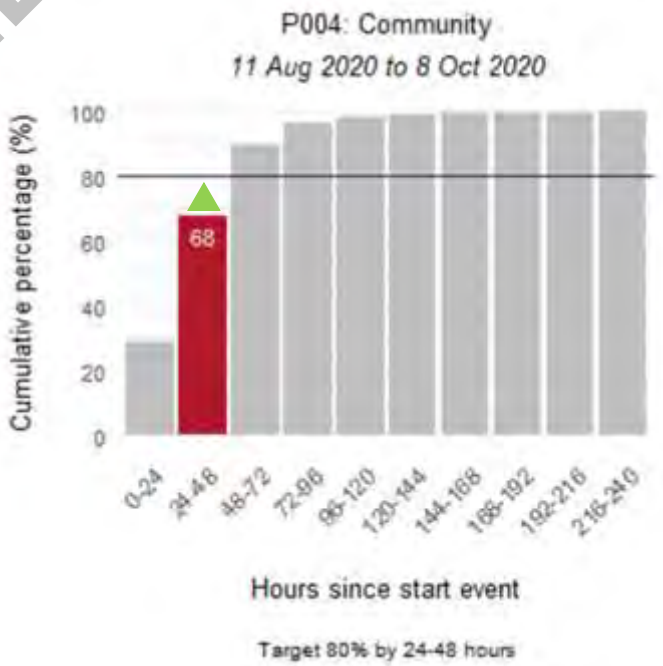
P003 - Time from close contact identification to isolated / quarantined





P004 - Proportion of contacts traced in 48 hours





Appendix: Summary of MIQ border and international indicators

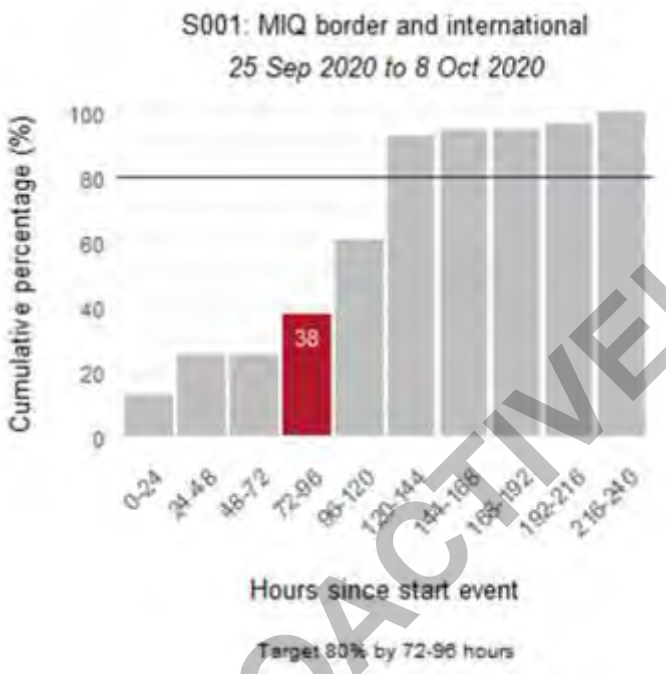
This section presents the indicators for Border Managed Isolation and Quarantine (MIQ) and International cases. Indicators **S001**, **S002**, and **C001** are affected by the inclusion of border cases in MIQ, as returnees' exposure is arbitrarily set to the day of arrival in New Zealand. They are placed into MIQ upon arrival and are tested if symptomatic or on approximately day 3 and day 12. Therefore, cases in MIQ will make the performance of these indicators appear low.

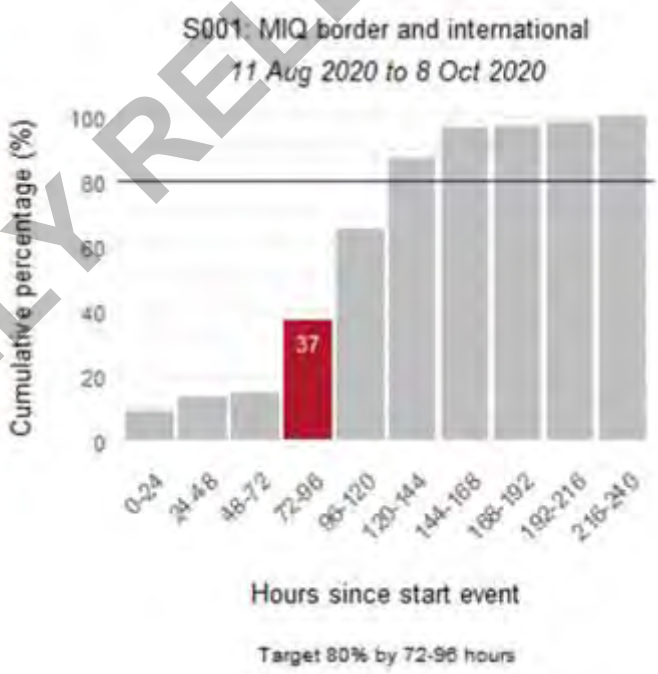
Summary of MIQ border and international cases

Number of cases for this reporting period and cumulative number of cases since 11 August 2020.

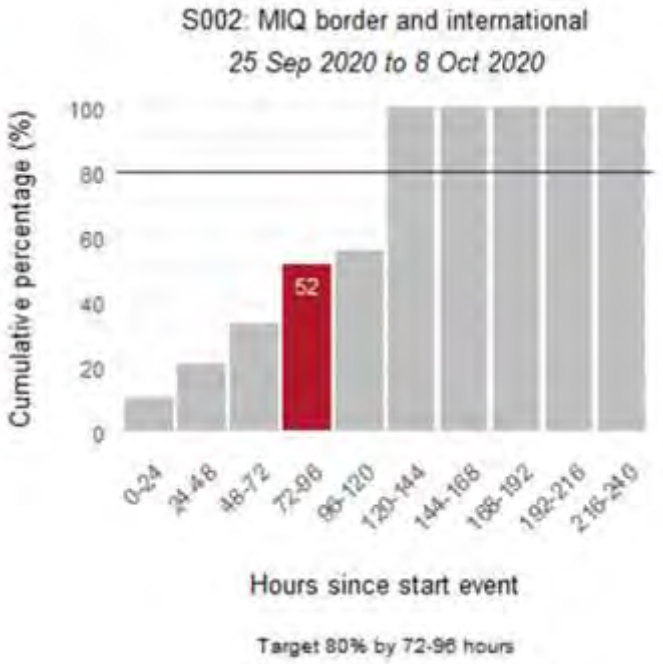
Reporting period	Cumulative
36	106

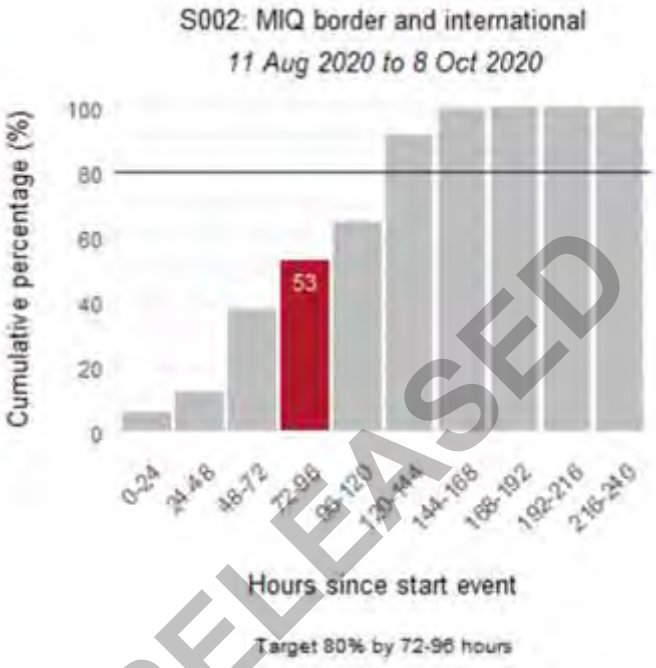
S001 - Time from exposure to contact isolation / quarantine



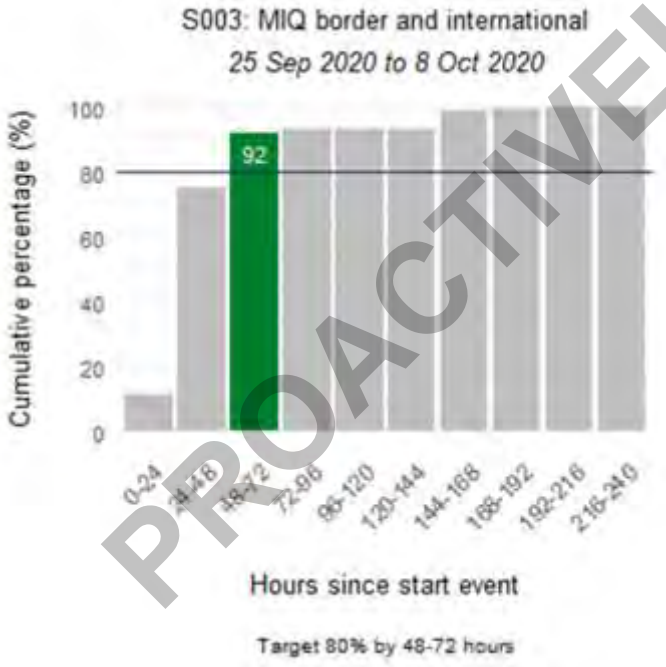


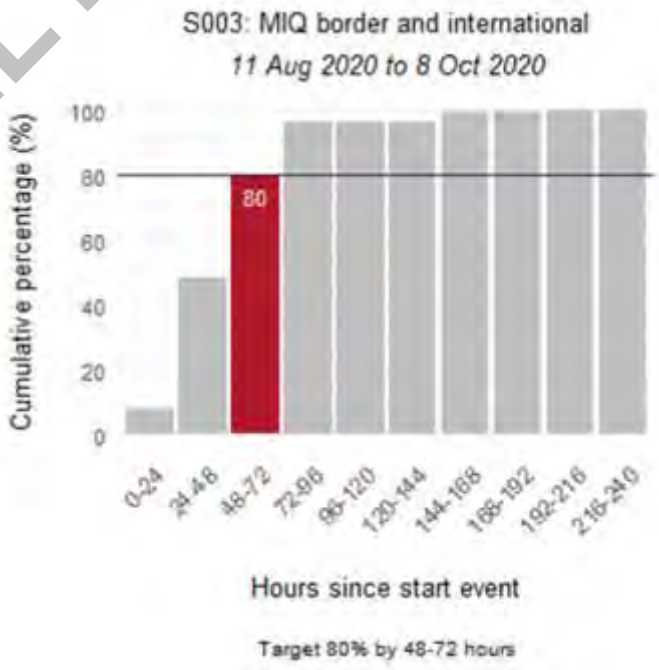
S002 - Time from case first symptom to contact isolation / quarantine



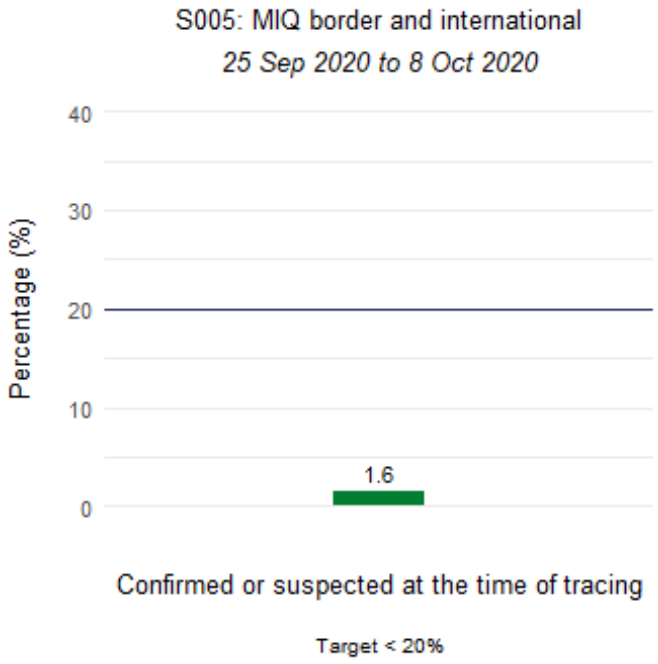


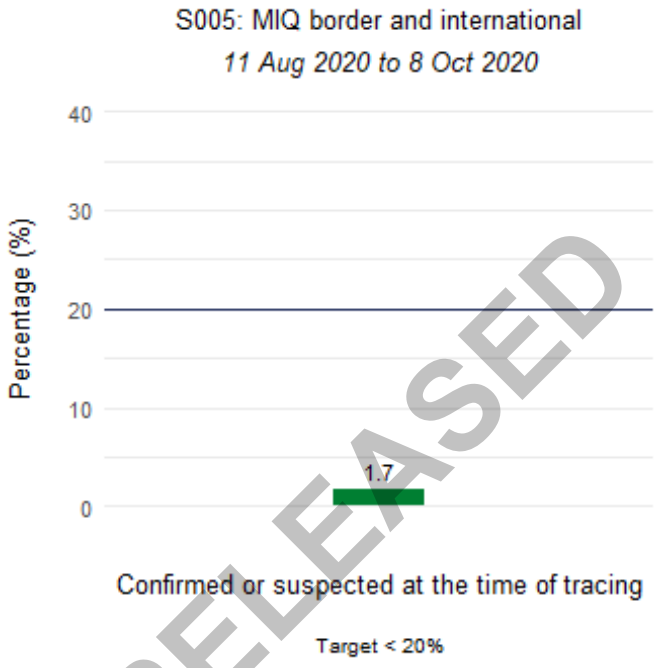
S003 - Time from test sample taken to close contact isolation / quarantine



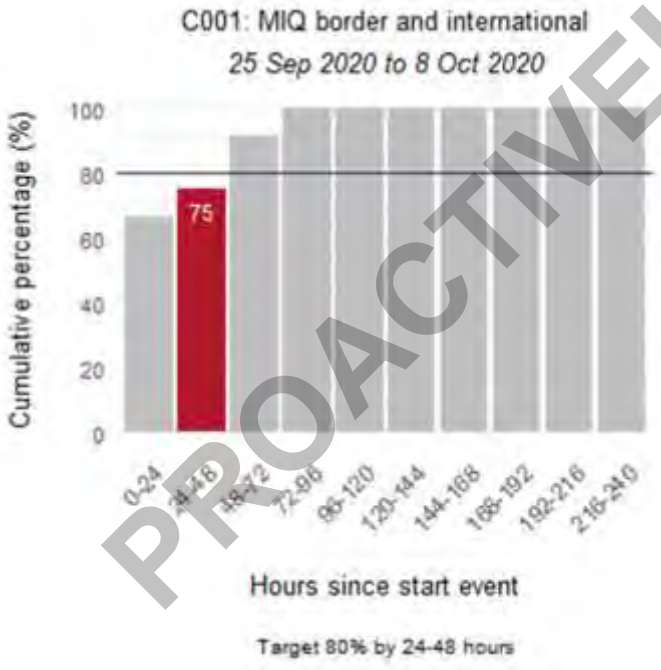


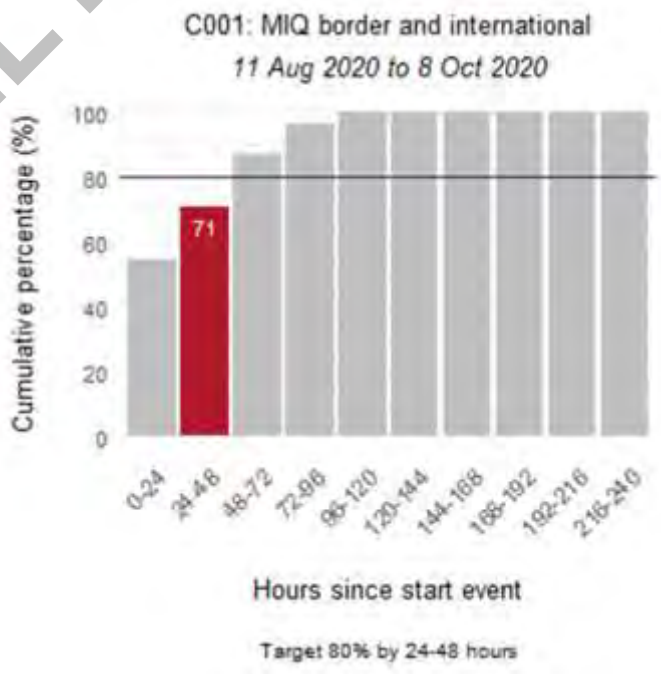
S005 - Proportion of close contacts with confirmed or suspected COVID-19 at the time of tracing



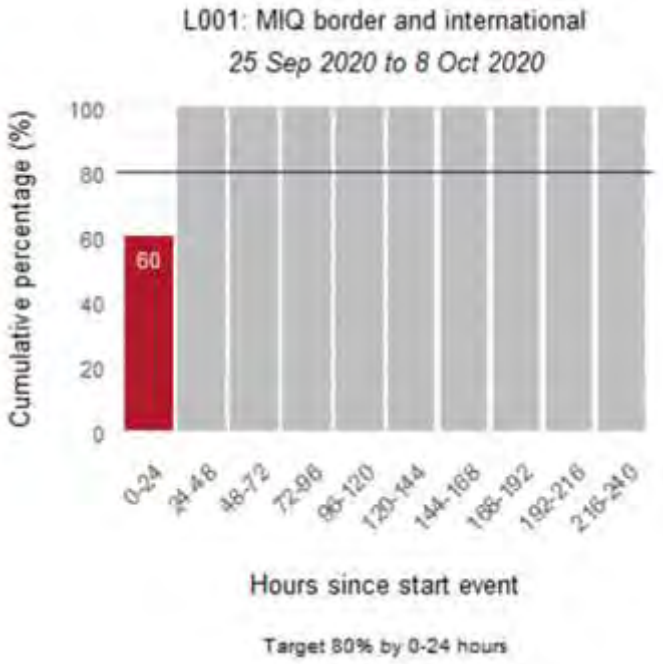


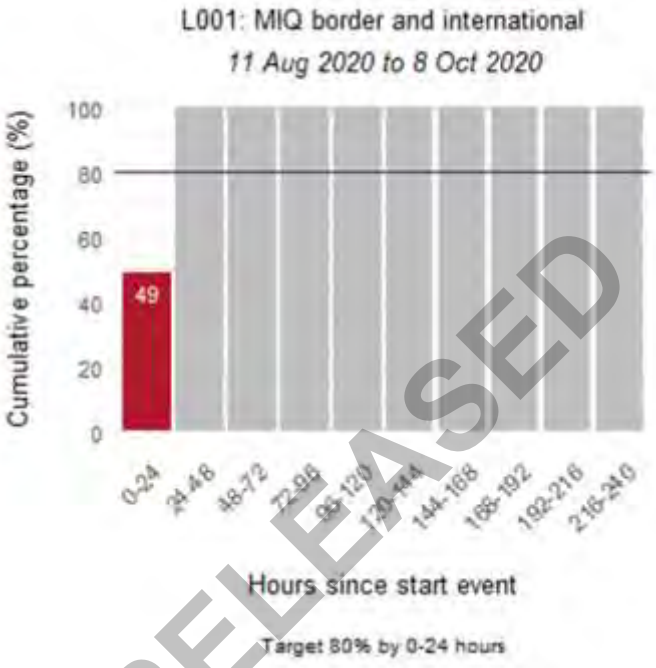
C001 - Time from first symptom to test sample taken for positive cases



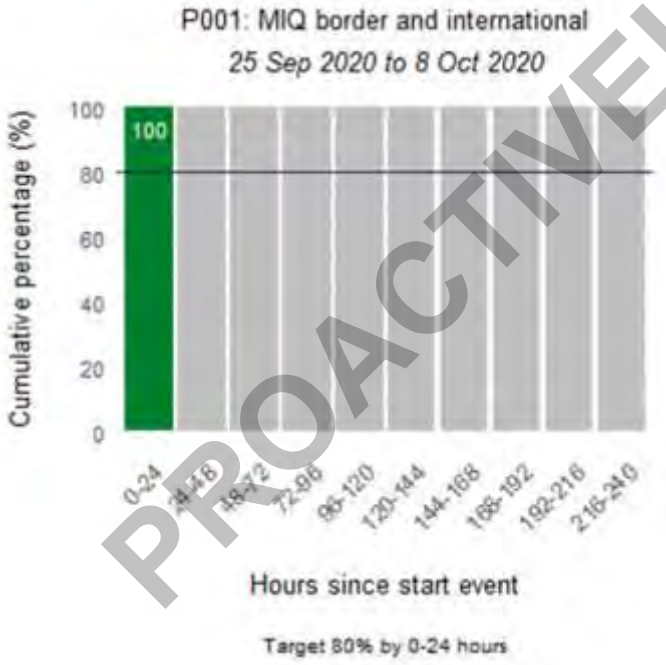


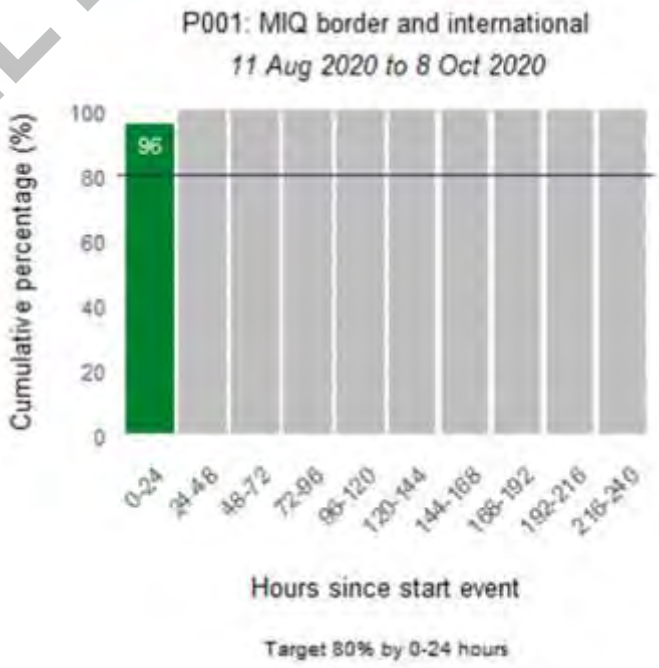
L001 - Time from test sample taken to notification of positive result



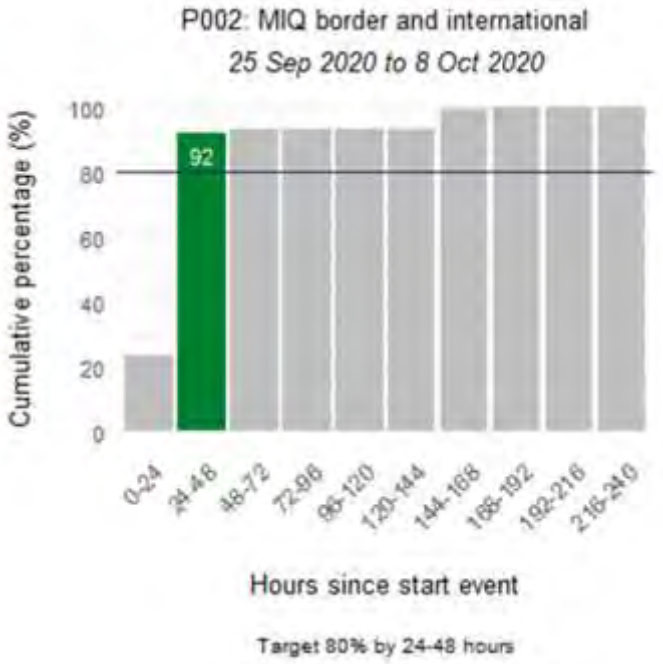


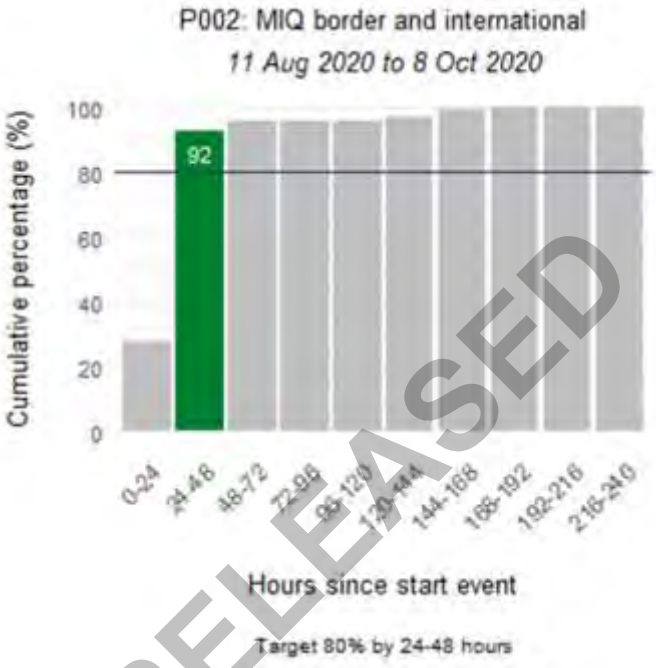
P001 - Time from notification to case interview



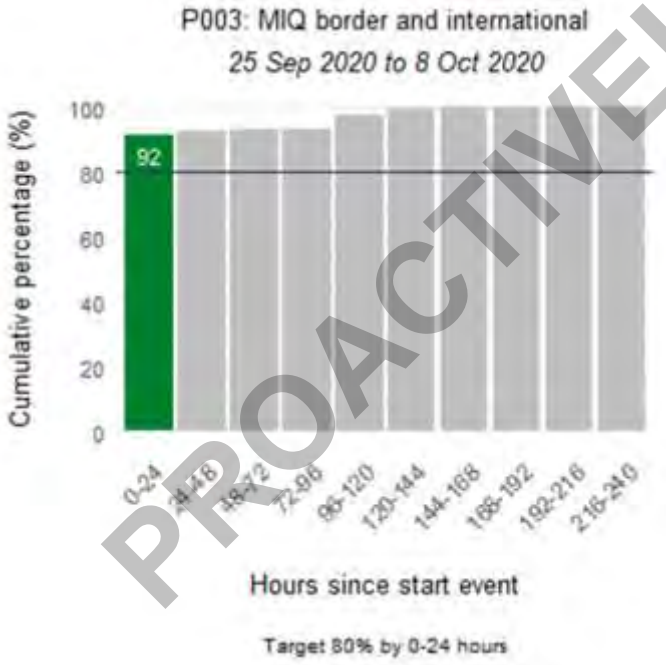


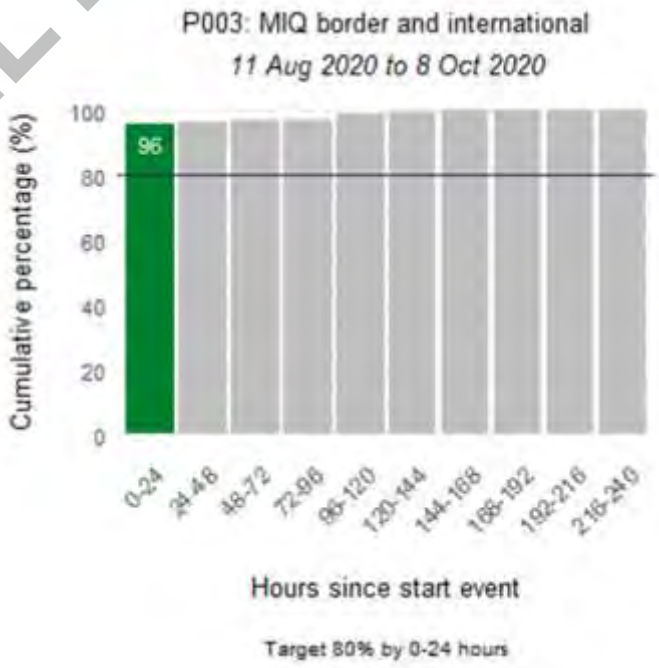
P002 - Time from case notification to isolation / quarantine of contact



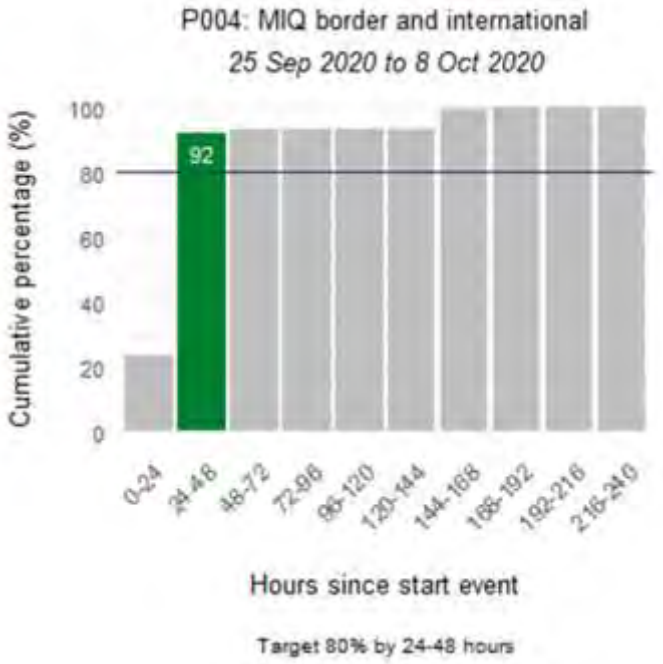


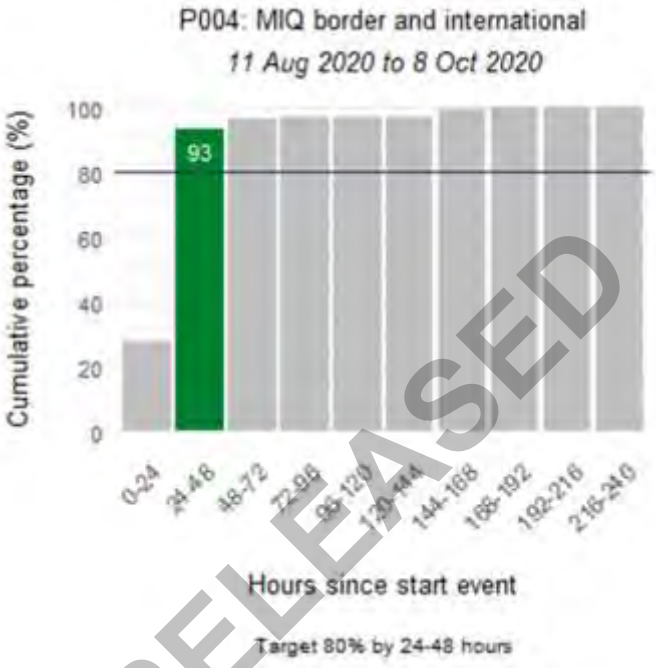
P003 - Time from close contact identification to isolated / quarantined





P004 - Proportion of contacts traced in 48 hours





Summary of COVID-19 Disease Indicators

For the reporting period 9 October to 22 October 2020

Report date: 27/10/2020

Key:

Performance below target	▲	Performance improved compared to the previous reporting period
Performance above target	▼	Performance lower compared to the previous reporting period

Summary of community cases

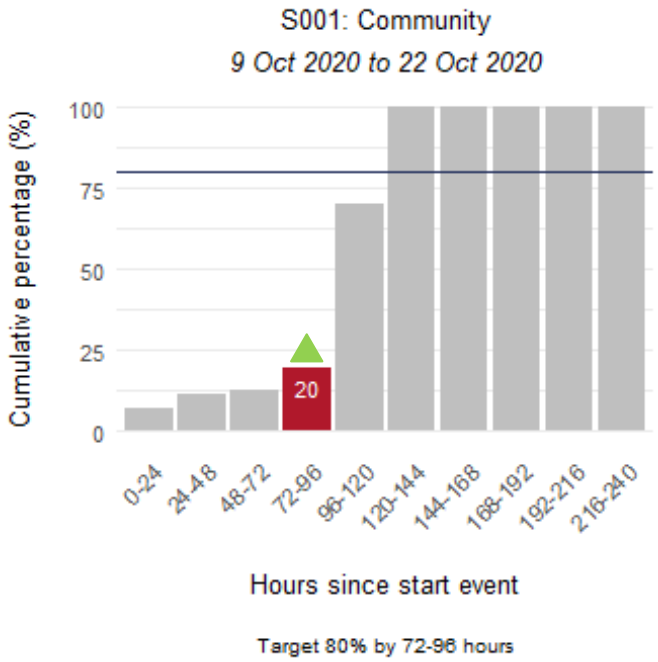
Number of cases for this reporting period and cumulative number of cases since 11 August 2020.

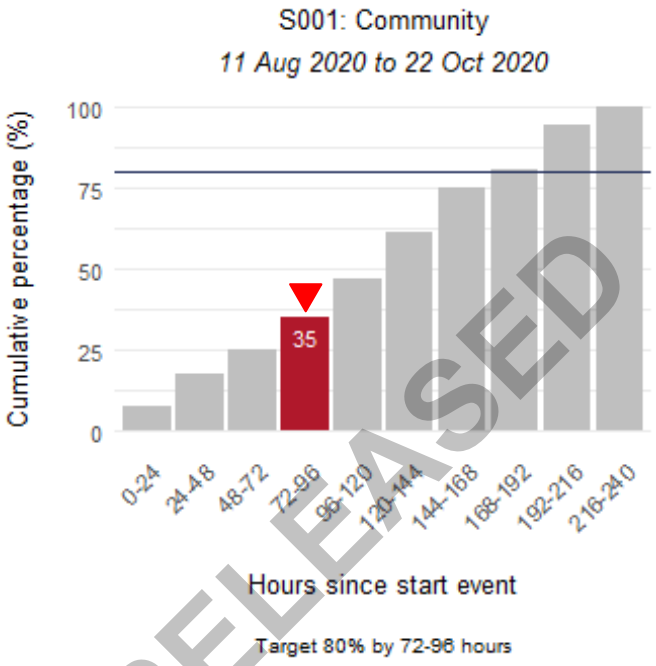
Reporting period	Cumulative
3	190

System level indicators

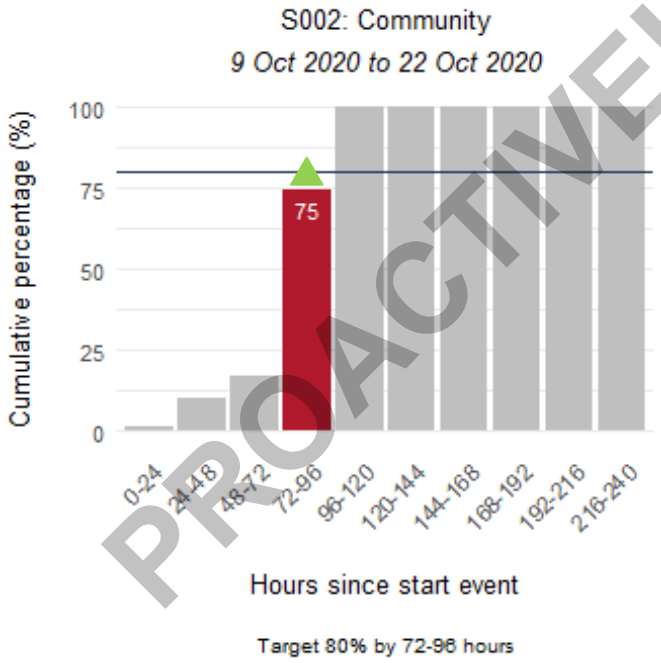
These indicators provide a view of the end-to-end collective actions of the wider health system response (indicators are prefixed with an S#). For this reporting period the metrics for the system-level COVID-19 Disease Indicators (**S001**) is low because the time between the exposure events and notification of the cases took four days for the cases a part of the Maritime Incident cluster. On average, there were two days between date of exposure events and onset of symptoms, and one to two days between onset of symptoms and notification of the cases. As a result, once the close contacts had been identified, the time to reach the target had elapsed. However, **P** indicators show that once identified, contacts were quickly isolated.

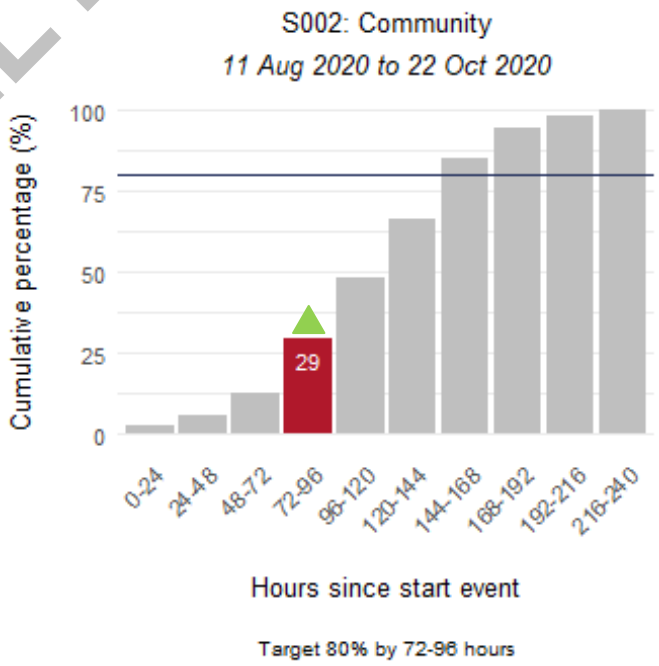
S001 - Time from exposure to contact isolation / quarantine



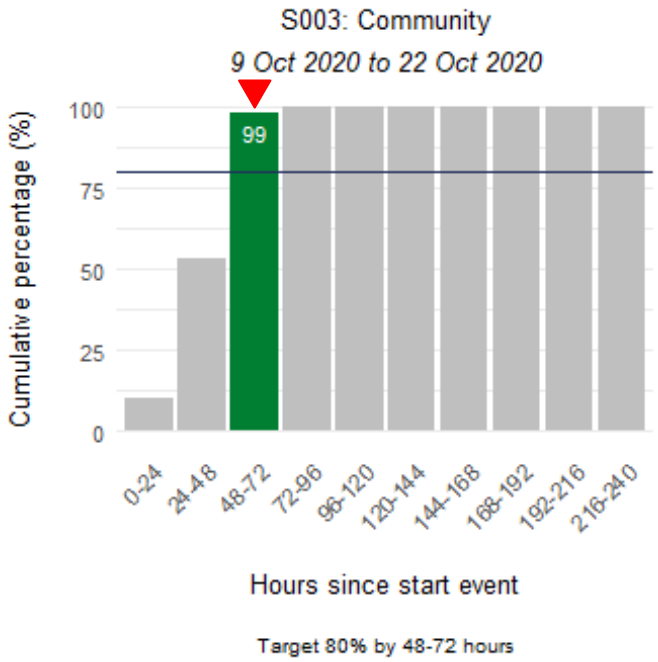


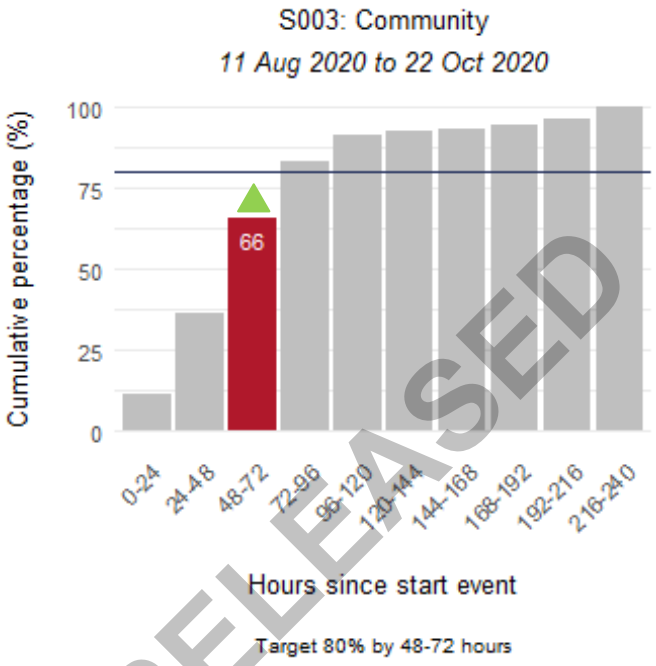
S002 - Time from case first symptom to contact isolation / quarantine



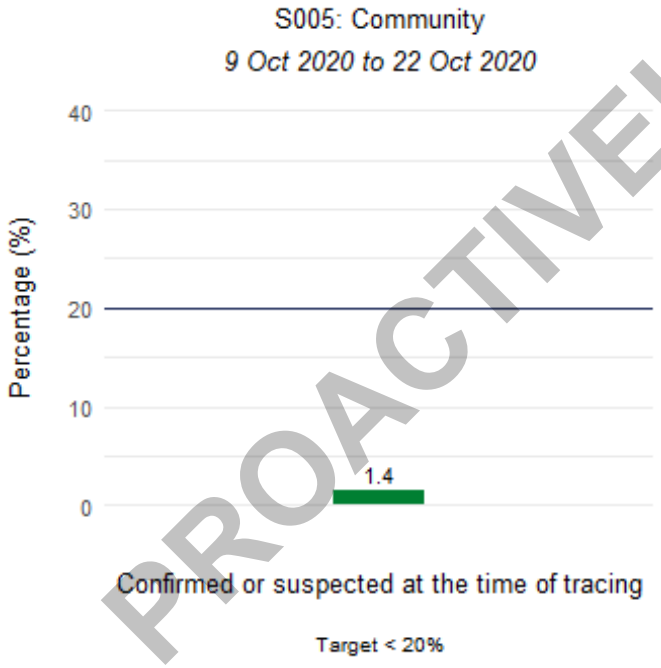


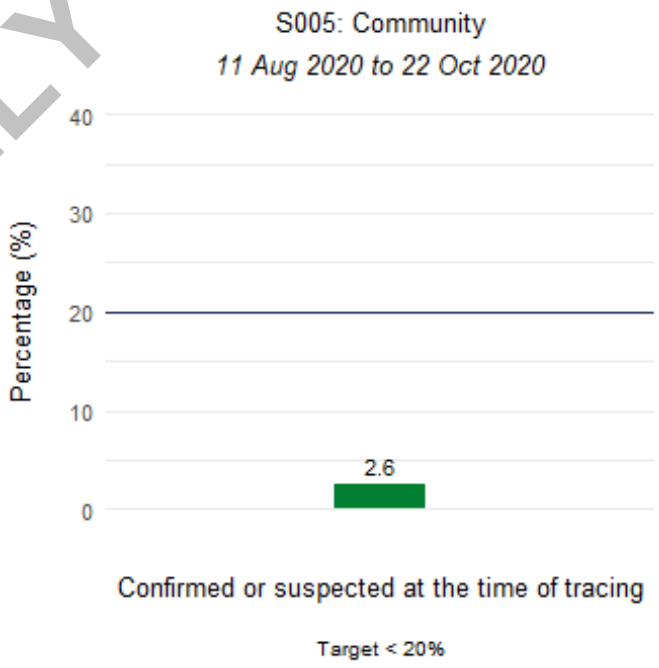
S003 - Time from test sample taken to close contact isolation / quarantine





S005 - Proportion of close contacts with confirmed or suspected COVID-19 at the time of tracing

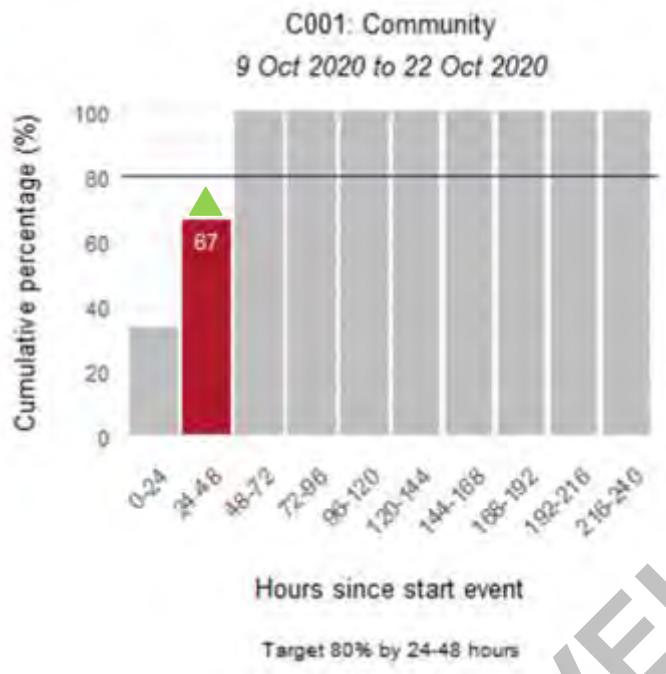


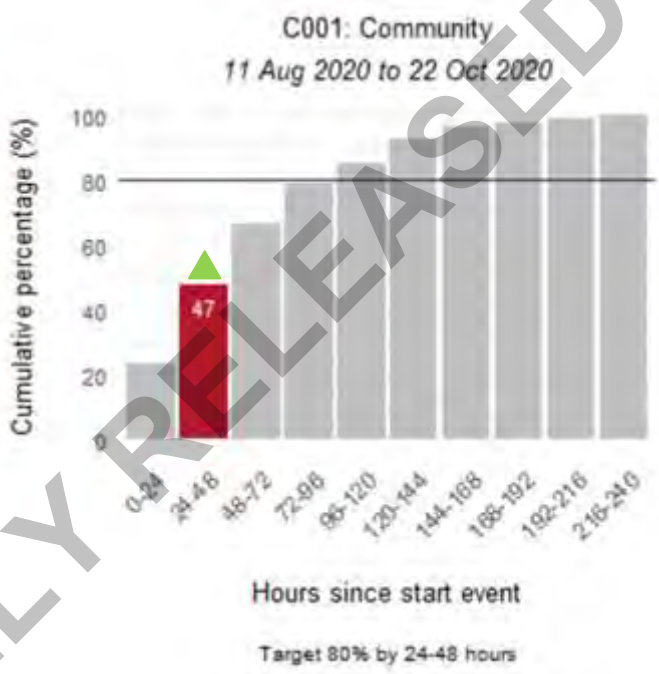


Community-level indicator

This indicator focuses on community behaviours and the impact of communication, education and societal attitudes (indicator is prefixed with a C#). The time period measured is from the symptom onset date as recorded in EpiSurv to the date/time the laboratory received the sample. The time between a sample taken and the receipt date/time of the sample at the laboratory, including transport time, will affect this indicator. In this reporting period 100 percent of test samples were taken at hour 53.

C001 - Time from first symptom to test sample taken for positive cases

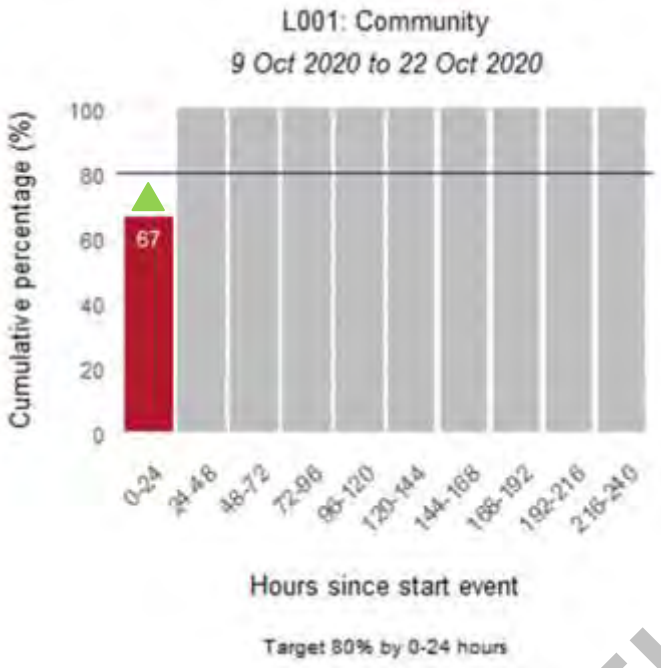




Laboratory sector indicator

This indicator provides insight into the effectiveness of testing facilities and programmes (indicator is prefixed with an L#). The time period measured is from the time the laboratory received the sample to notification of a positive result in EpiSurv. In this reporting period 100 percent of positive results were notified at hour 32.

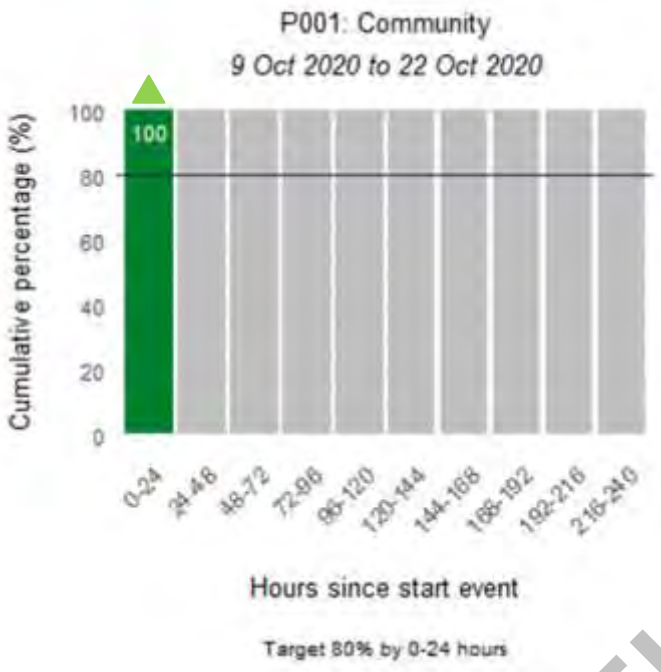
L001 - Time from test sample taken to notification of positive result



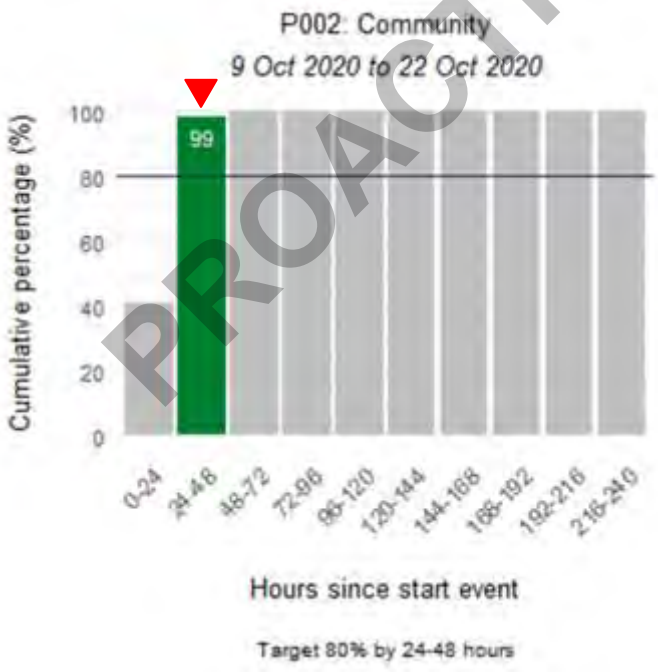
Public health sector indicators

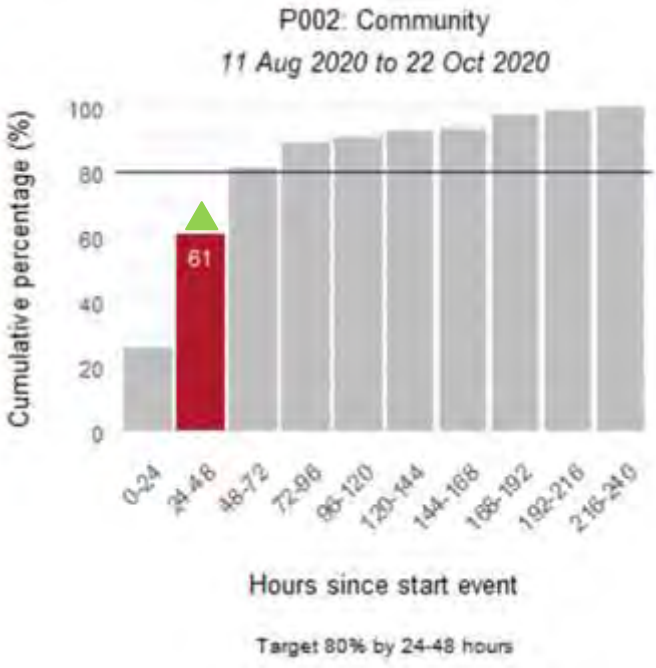
These indicators provide a national overview of contact tracing as well as case and close contact management by public health units (PHUs) and the National Investigation and Tracing Centre (indicators are prefixed with a P#).

P001 - Time from notification to case interview

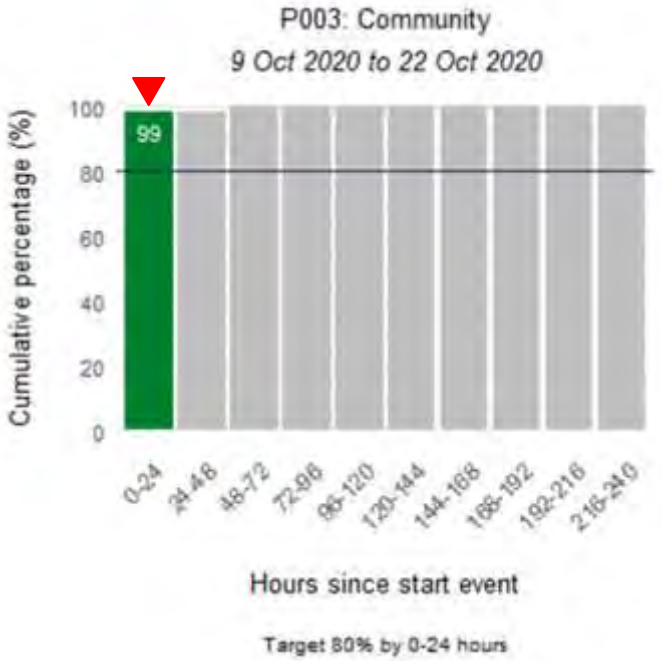


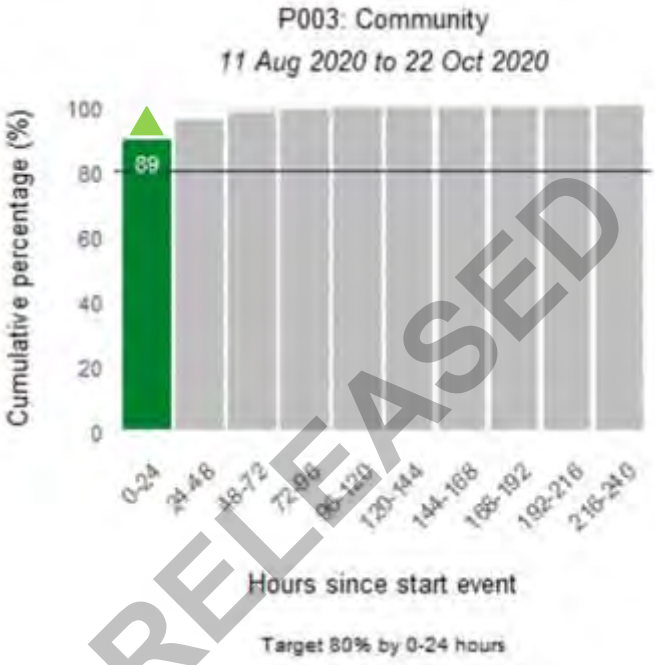
P002 - Time from case notification to isolation / quarantine of contact





P003 - Time from close contact identification to isolated / quarantined





P004 - Proportion of contacts traced in 48 hours

Appendix: Summary of MIQ border and international indicators

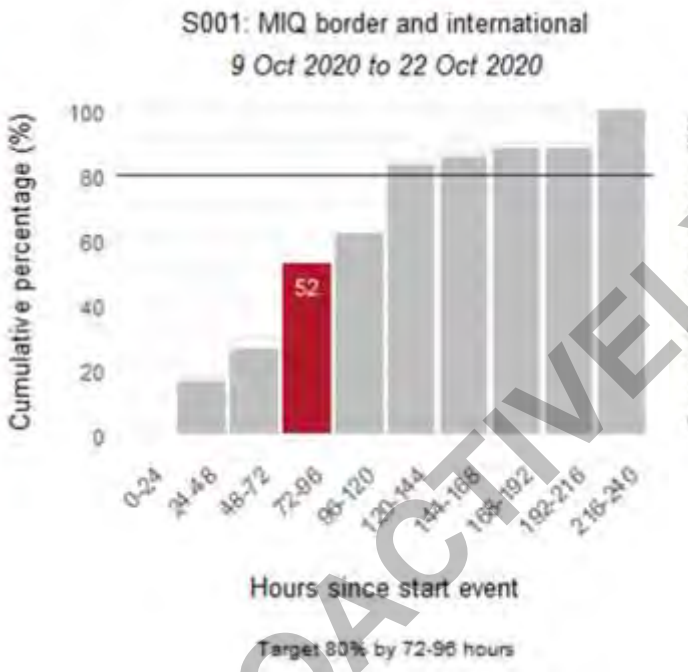
This section presents the indicators for Border Managed Isolation and Quarantine (MIQ) and International cases. Indicators **S001**, **S002**, and **C001** are affected by the inclusion of border cases in MIQ, as returnees' exposure is arbitrarily set to the day of arrival in New Zealand. They are placed into MIQ upon arrival and are tested if symptomatic or on approximately day 3 and day 12. Therefore, cases in MIQ will make the performance of these indicators appear low.

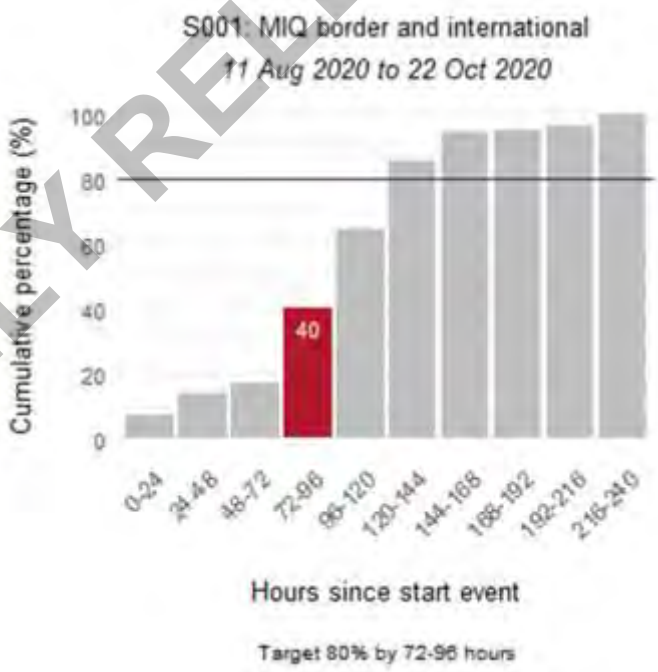
Summary of MIQ border and international cases

Number of cases for this reporting period and cumulative number of cases since 11 August 2020.

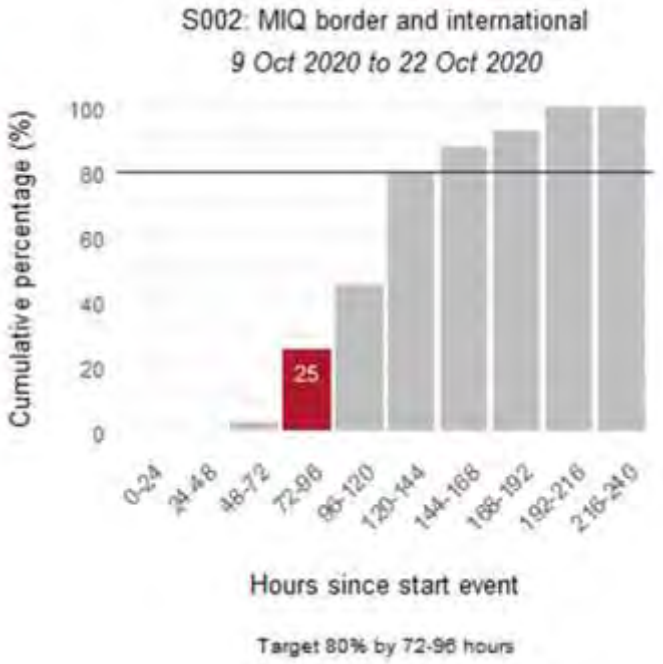
Reporting period	Cumulative
46	151

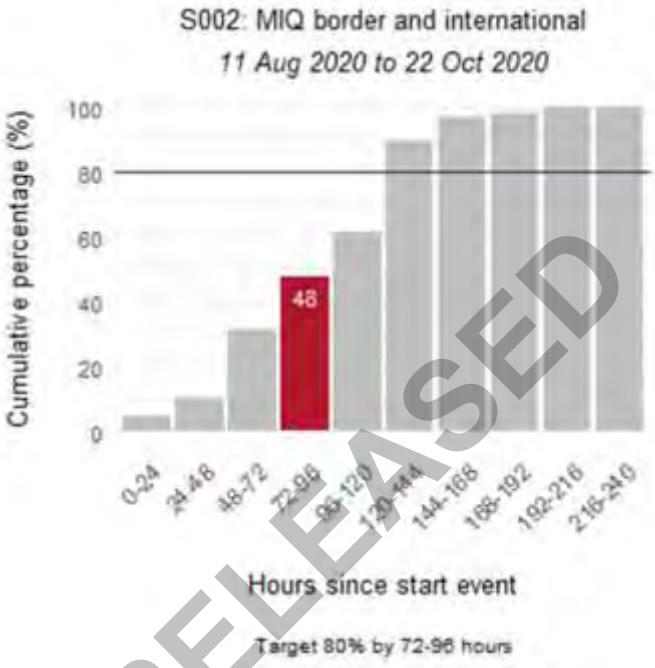
S001 - Time from exposure to contact isolation / quarantine



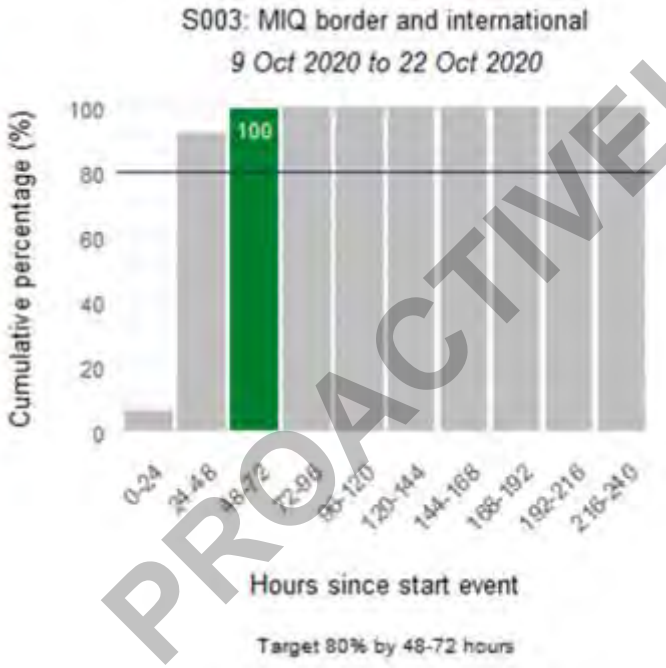


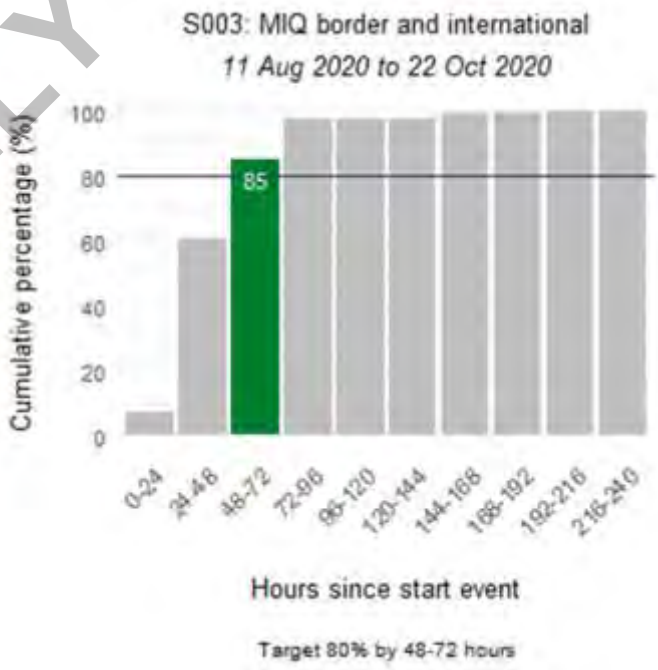
S002 - Time from case first symptom to contact isolation / quarantine



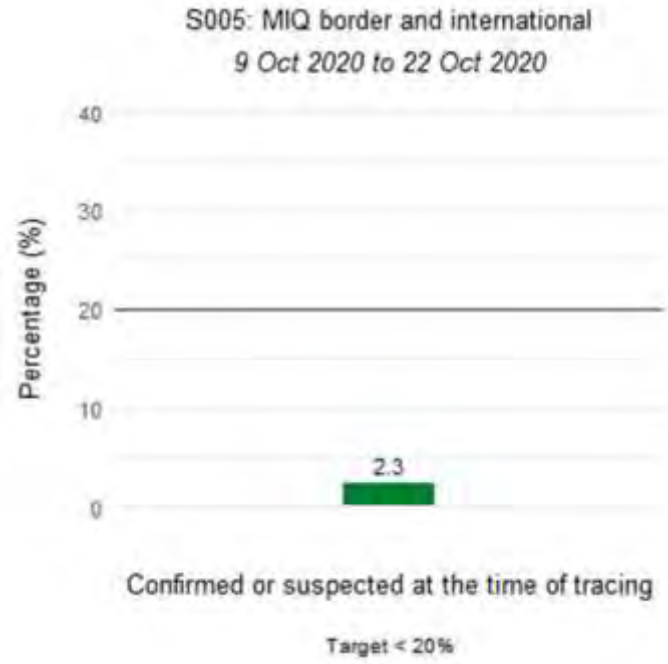


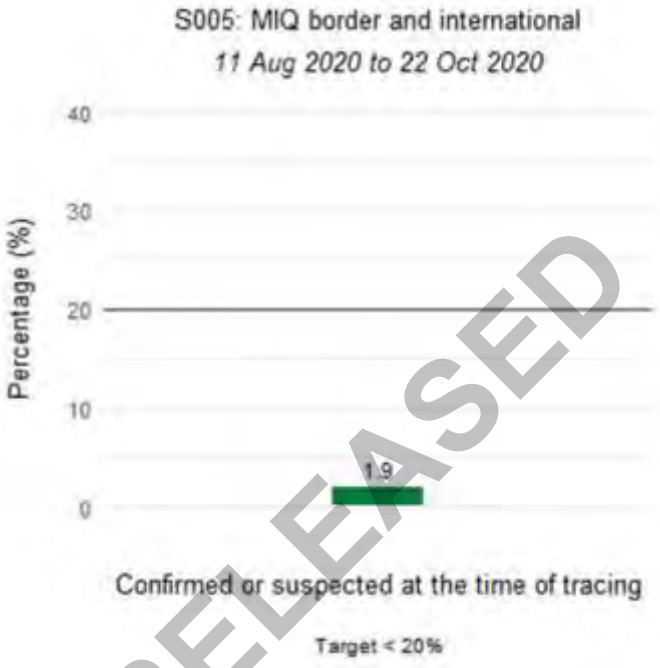
S003 - Time from test sample taken to close contact isolation / quarantine



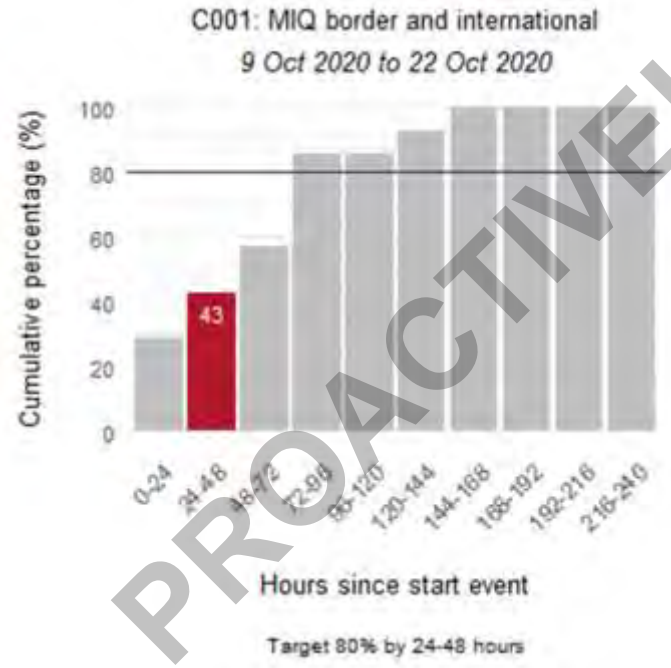


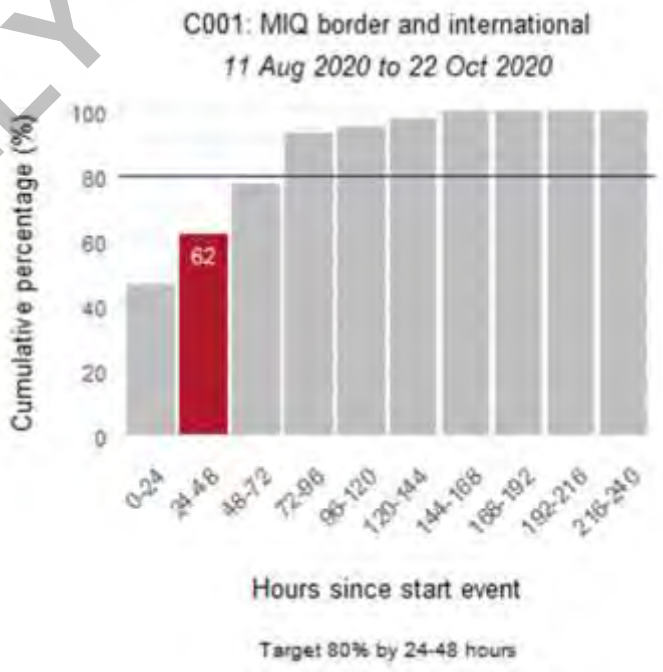
S005 - Proportion of close contacts with confirmed or suspected COVID-19 at the time of tracing



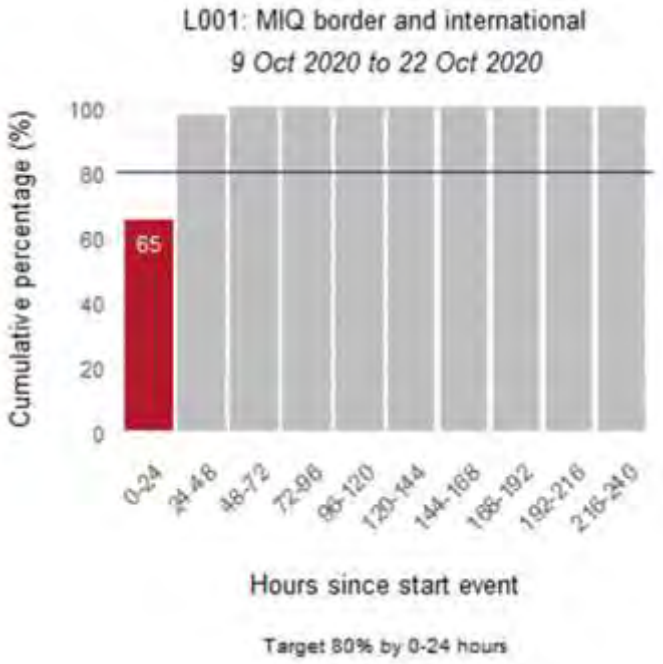


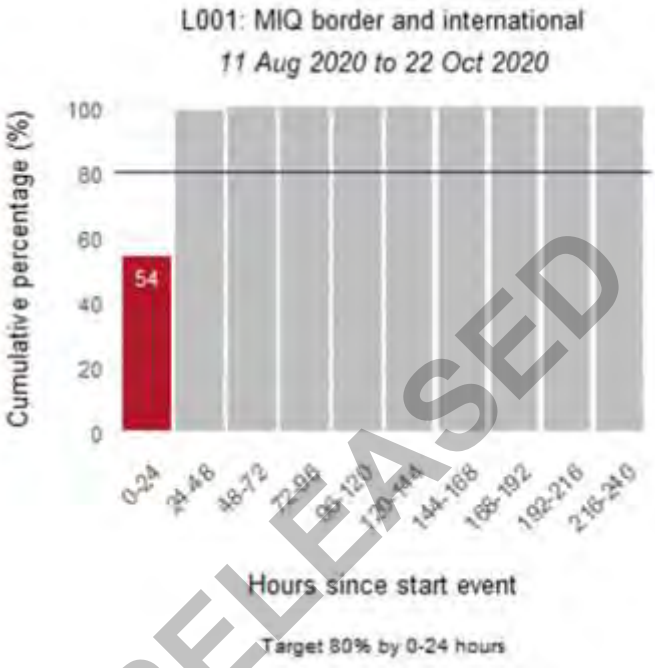
C001 - Time from first symptom to test sample taken for positive cases



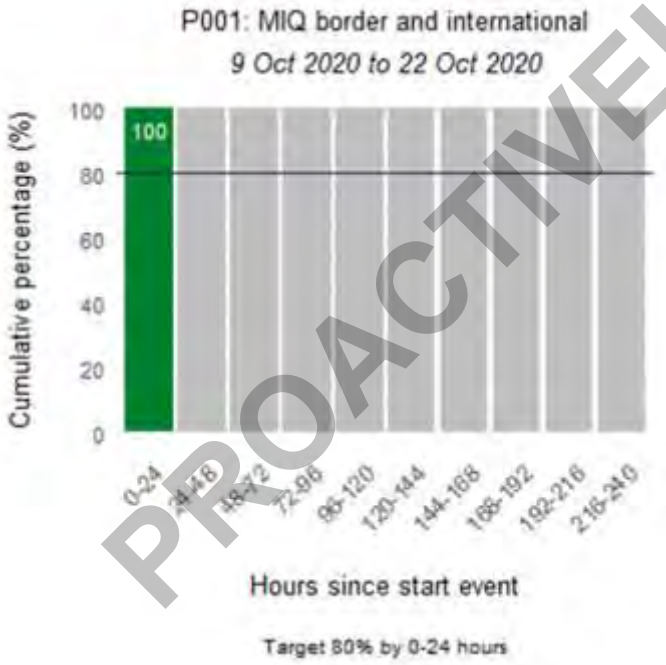


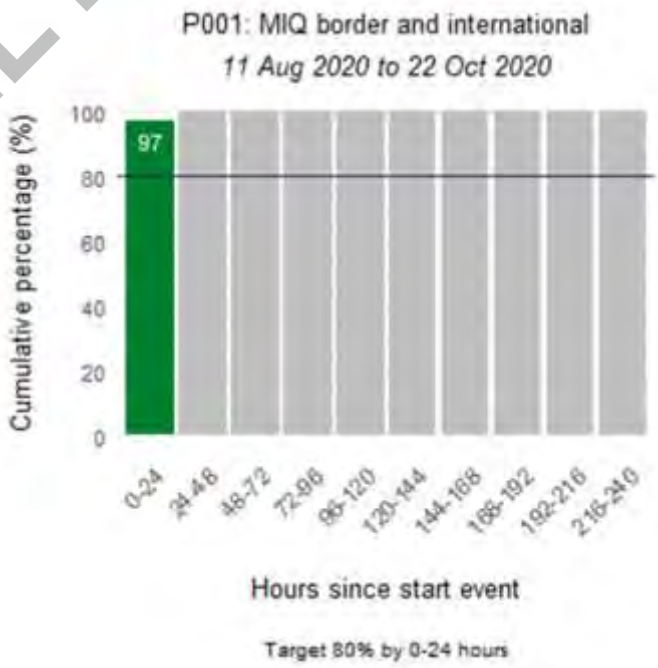
L001 - Time from test sample taken to notification of positive result



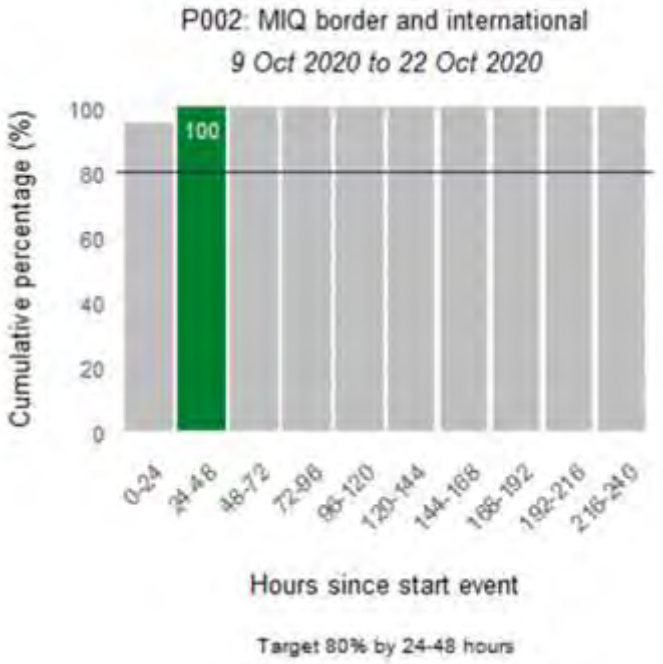


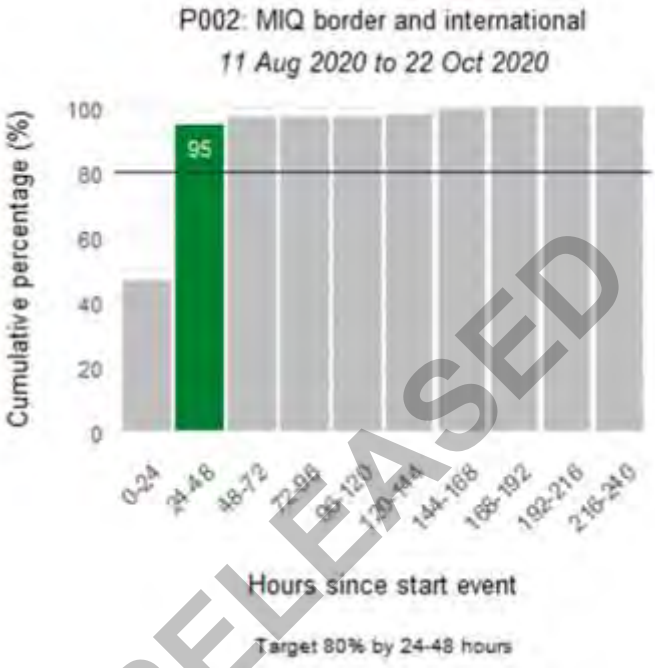
P001 - Time from notification to case interview



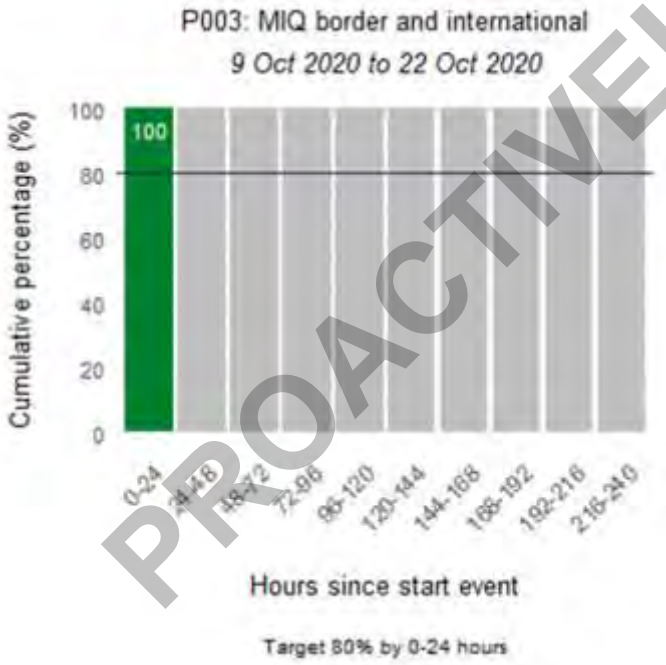


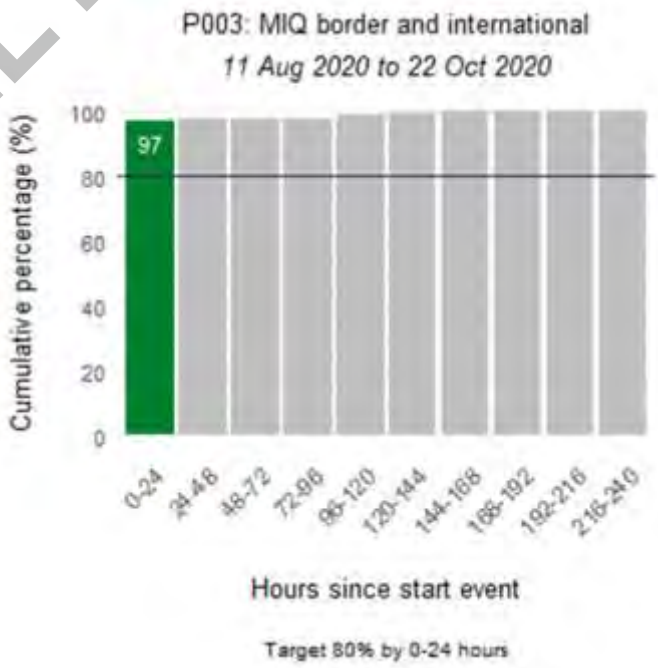
P002 - Time from case notification to isolation / quarantine of contact



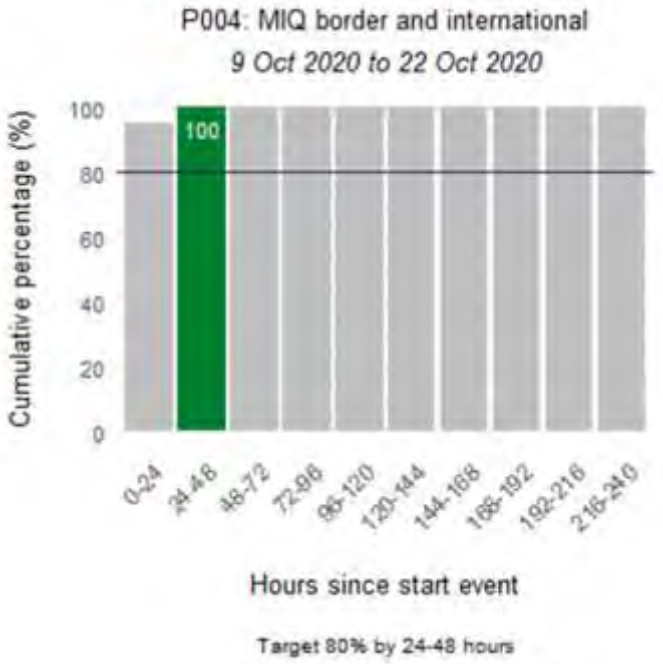


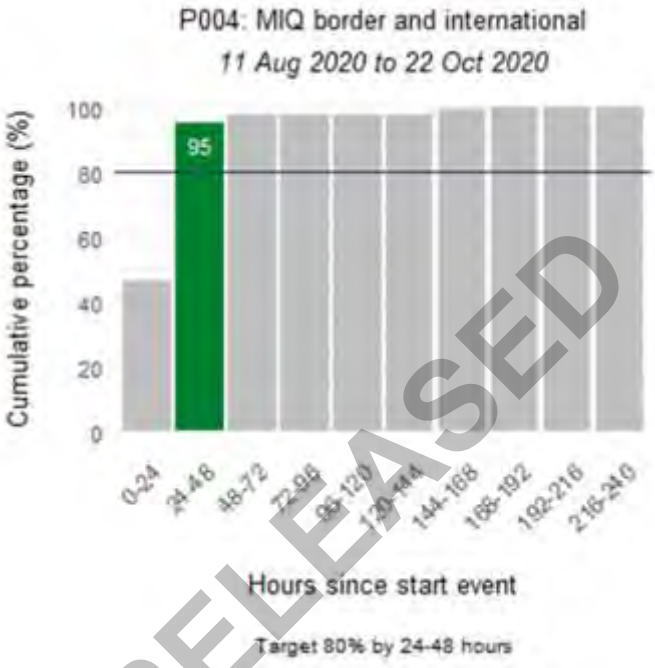
P003 - Time from close contact identification to isolated / quarantined





P004 - Proportion of contacts traced in 48 hours





Summary of COVID-19 Disease Indicators

For the reporting period 23 October to 5 November 2020

Report date: 09/11/2020

Key:

Performance below target

Performance above target

Performance improved compared to the previous reporting period

Performance lower compared to the previous reporting period

Summary of community cases

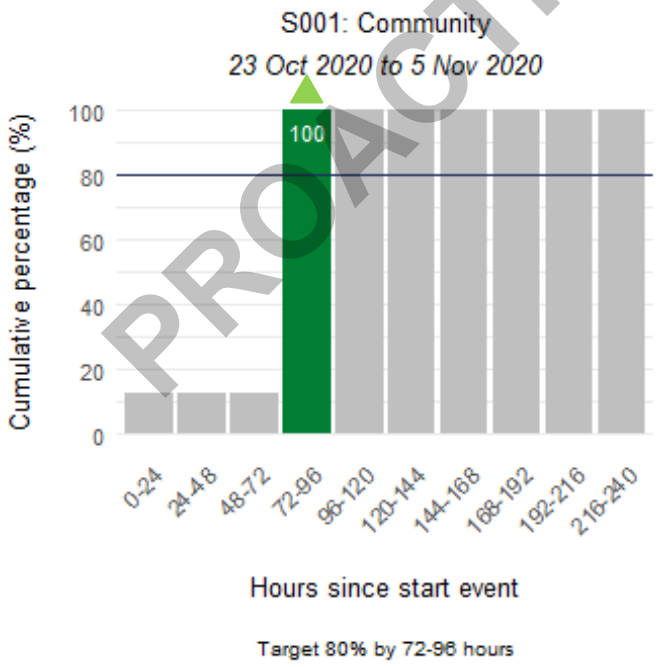
Number of cases for this reporting period and cumulative number of cases since 11 August 2020.

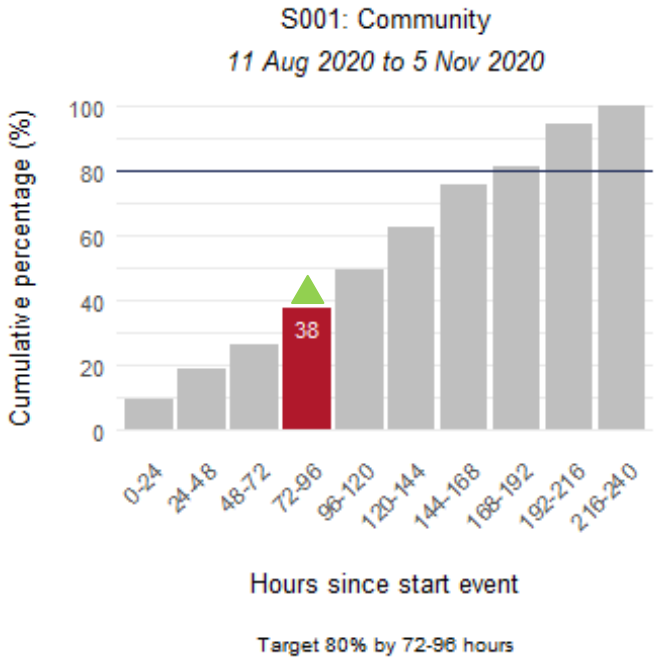
Reporting period	Cumulative
3	193

System level indicators

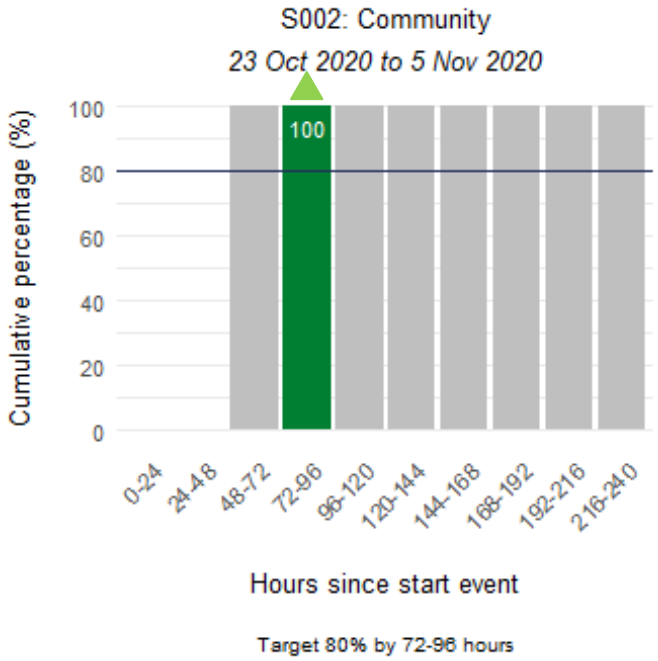
These indicators provide a view of the end-to-end collective actions of the wider health system response (indicators are prefixed with an S#).

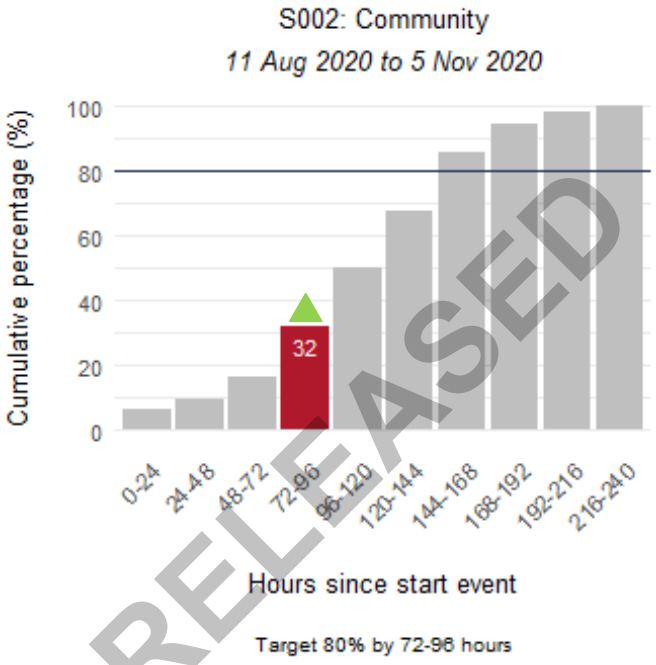
S001 - Time from exposure to contact isolation / quarantine



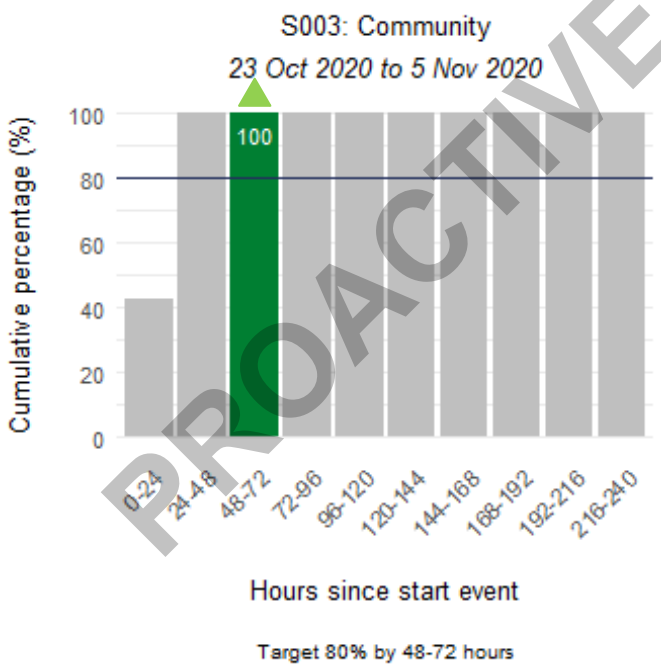


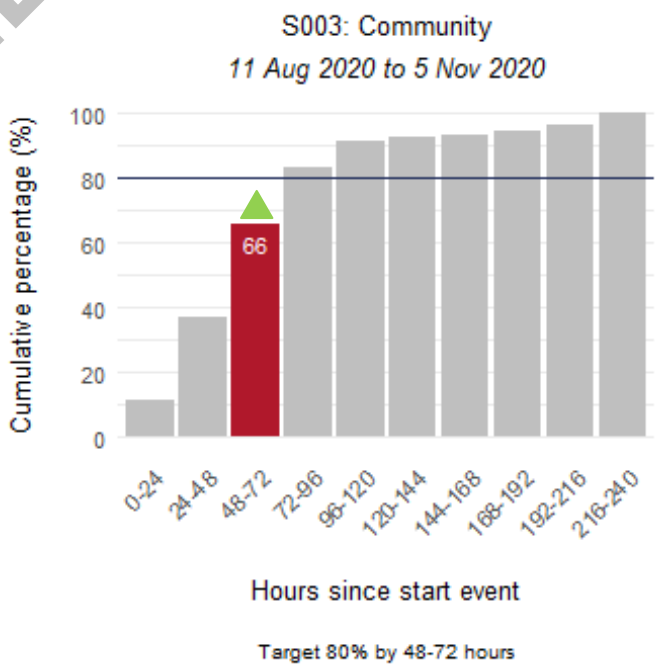
S002 - Time from case first symptom to contact isolation / quarantine



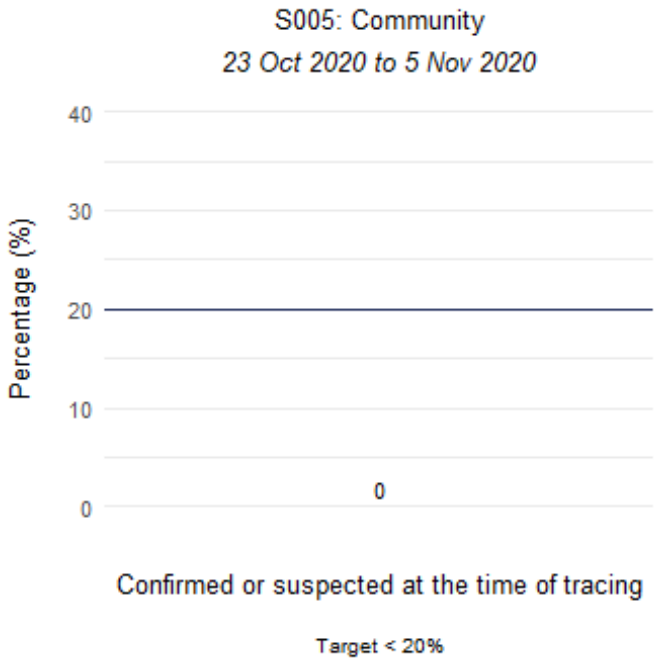


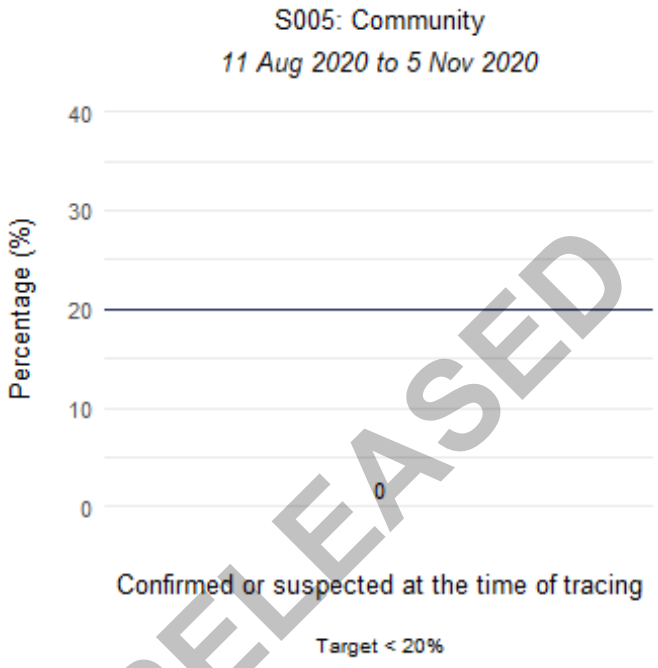
S003 - Time from test sample taken to close contact isolation / quarantine





S005 - Proportion of close contacts with confirmed or suspected COVID-19 at the time of tracing

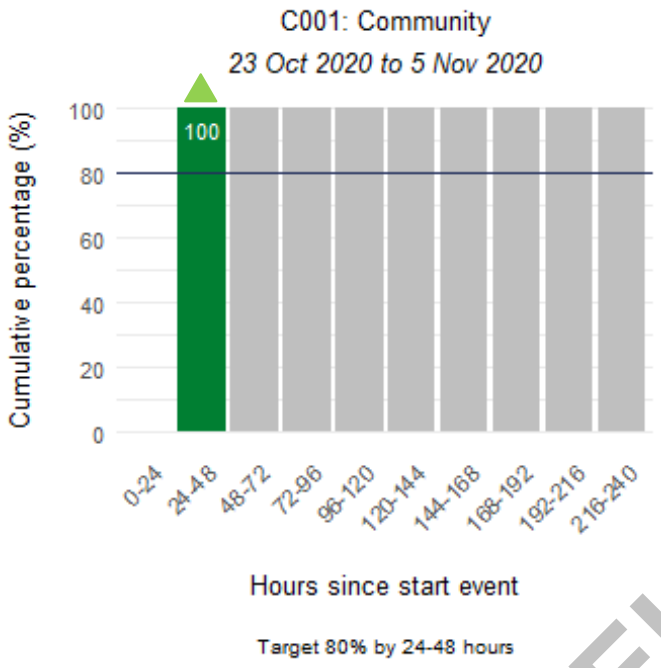


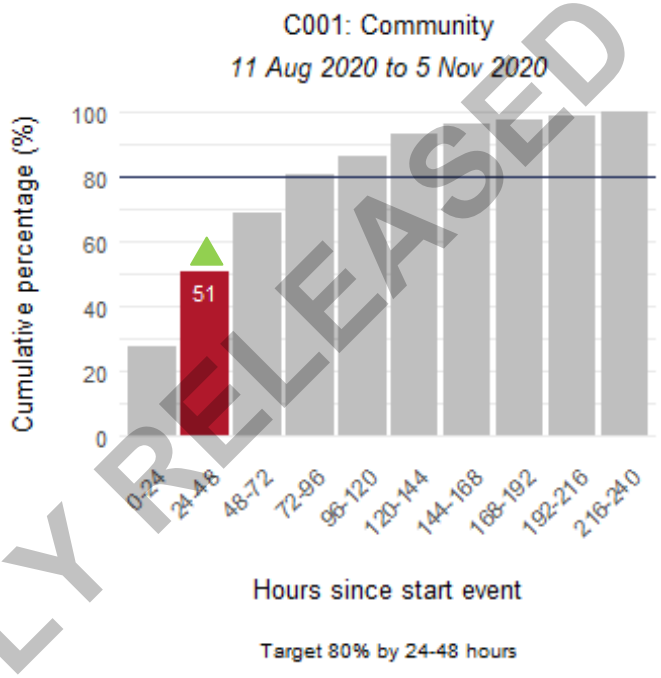


Community-level indicator

This indicator focuses on community behaviours and the impact of communication, education and societal attitudes (indicator is prefixed with a C#). The time period measured is from the symptom onset date as recorded in EpiSurv to the date/time the laboratory received the sample. The time between a sample taken and the receipt date/time of the sample at the laboratory, including transport time, will affect this indicator.

C001 - Time from first symptom to test sample taken for positive cases

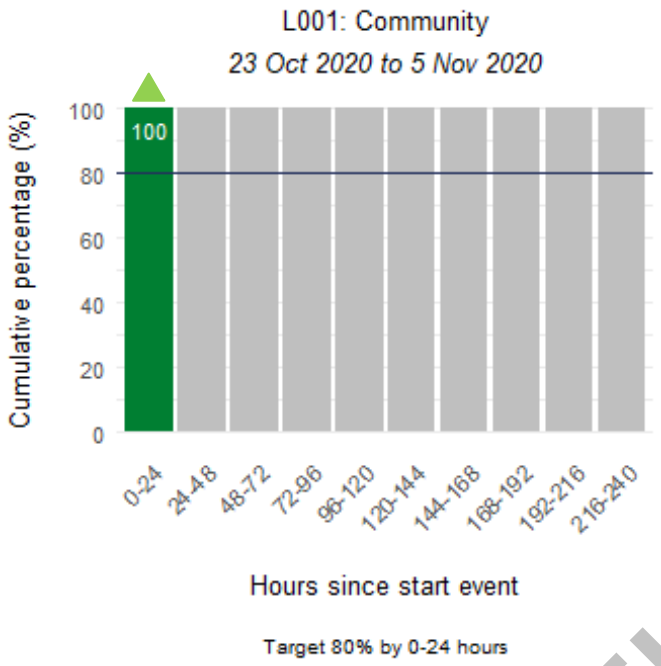


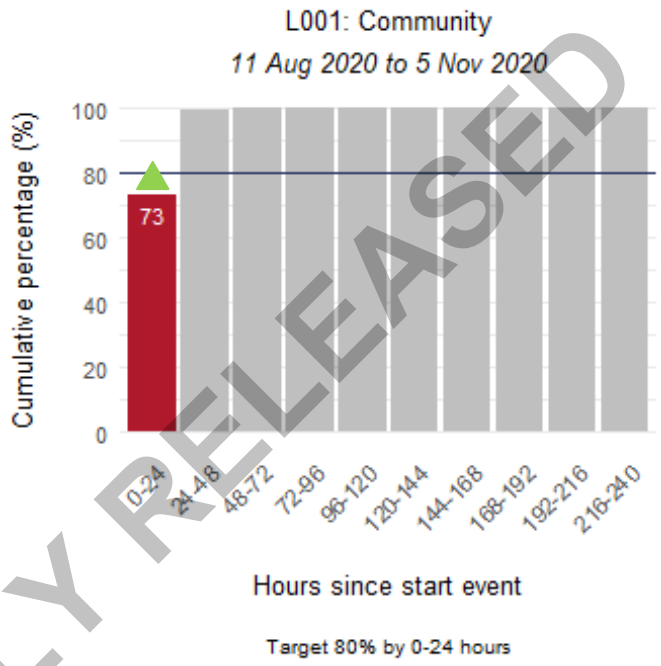


Laboratory sector indicator

This indicator provides insight into the effectiveness of testing facilities and programmes (indicator is prefixed with an L#). The time period measured is from the time the laboratory received the sample to notification of a positive result in EpiSurv.

L001 - Time from test sample taken to notification of positive result

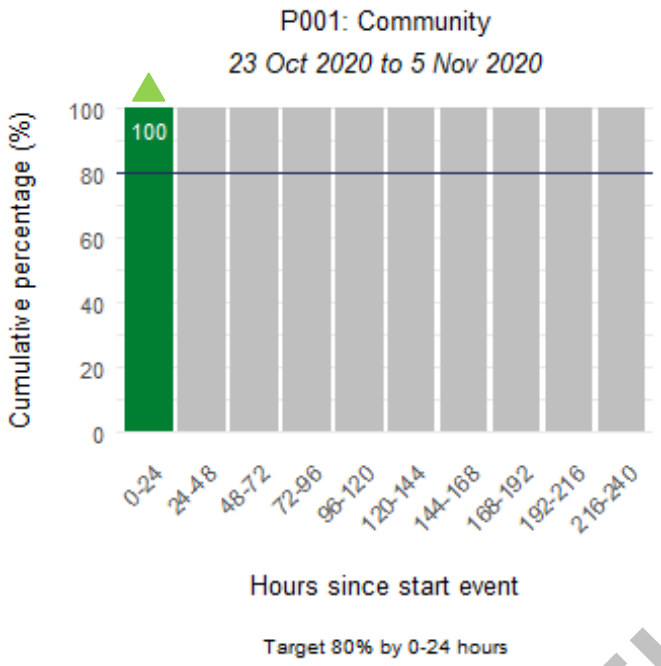


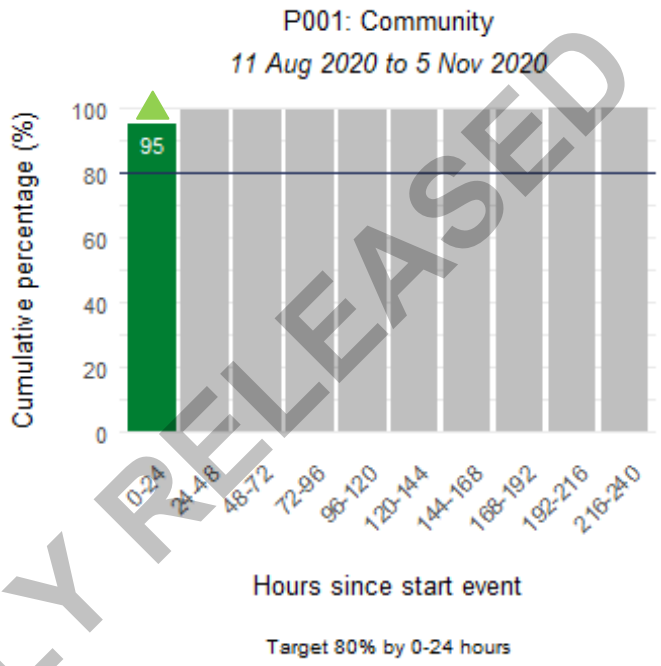


Public health sector indicators

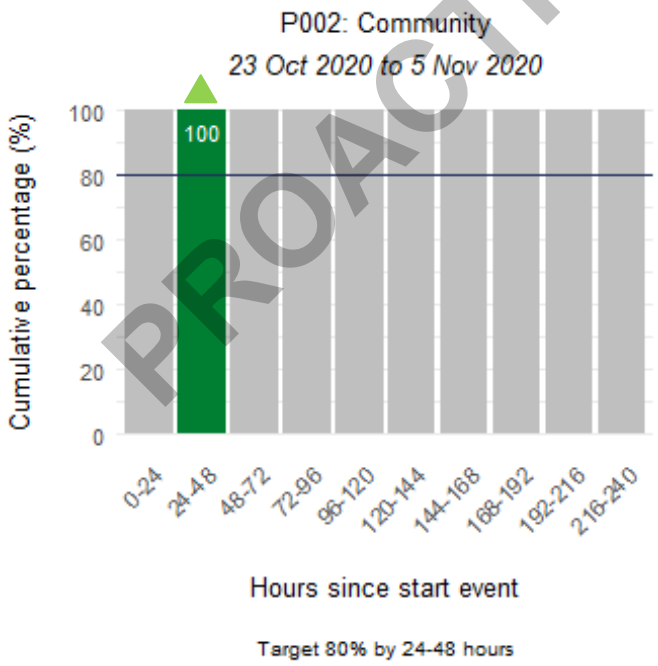
These indicators provide a national overview of contact tracing as well as case and close contact management by public health units (PHUs) and the National Investigation and Tracing Centre (indicators are prefixed with a P#).

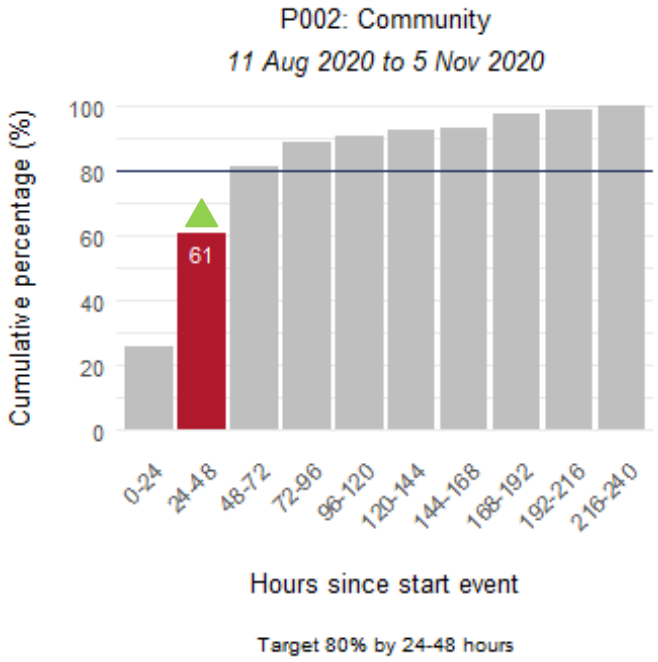
P001 - Time from notification to case interview



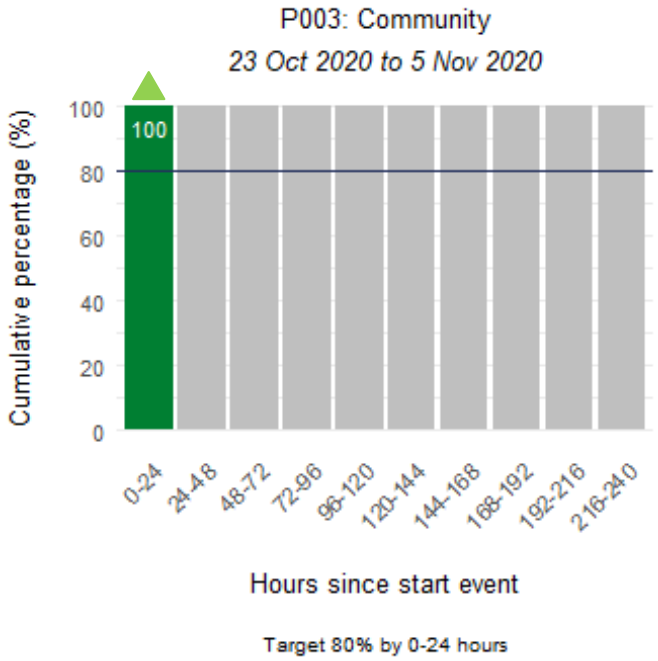


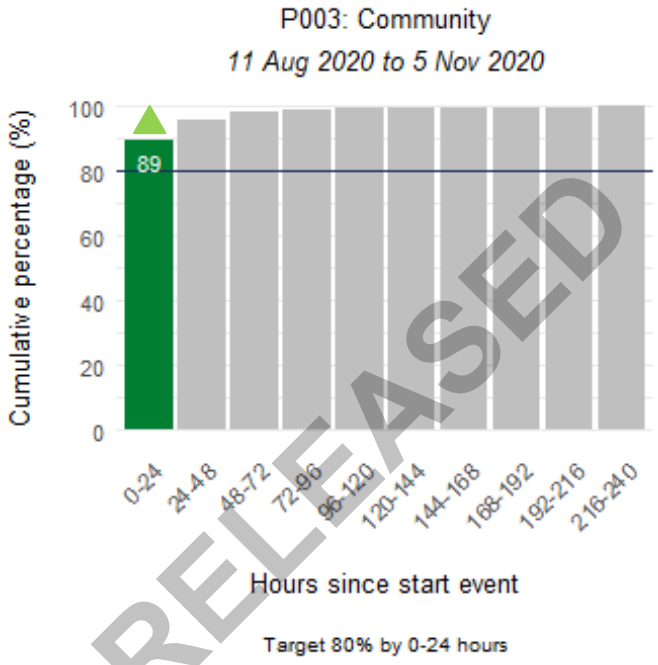
P002 - Time from case notification to isolation / quarantine of contact



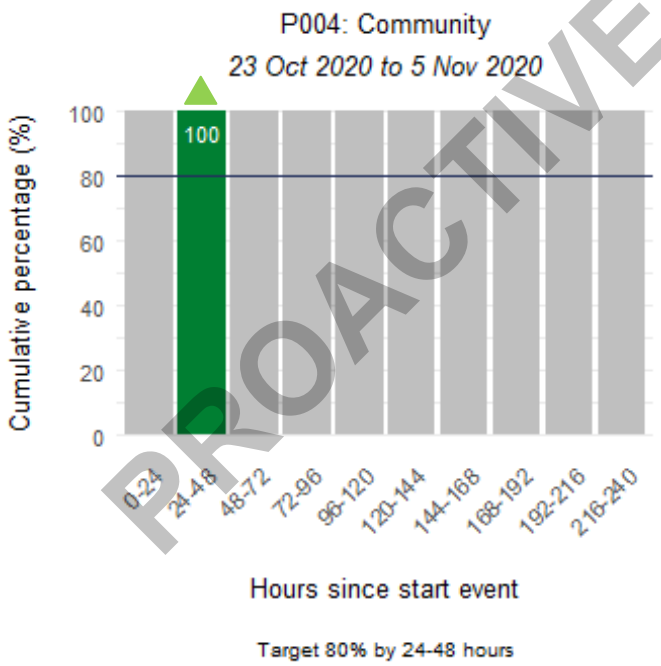


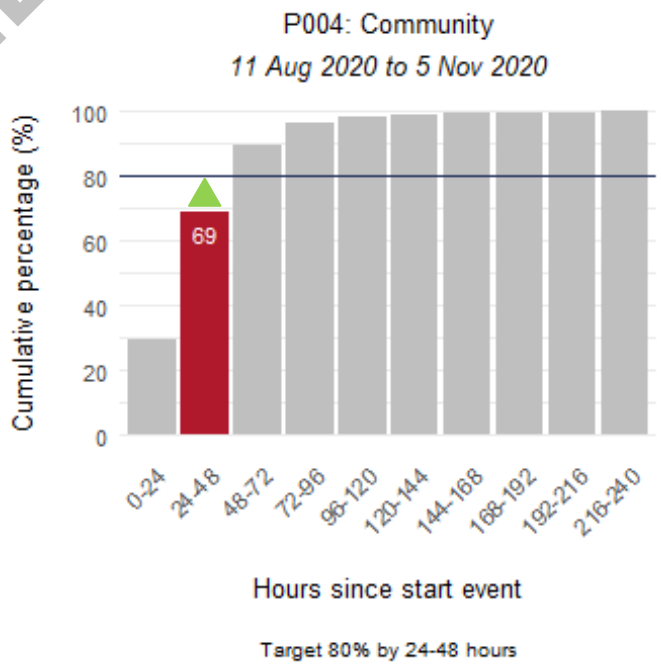
P003 - Time from close contact identification to isolated / quarantined





P004 - Proportion of contacts traced in 48 hours





Appendix: Summary of MIQ border and international indicators

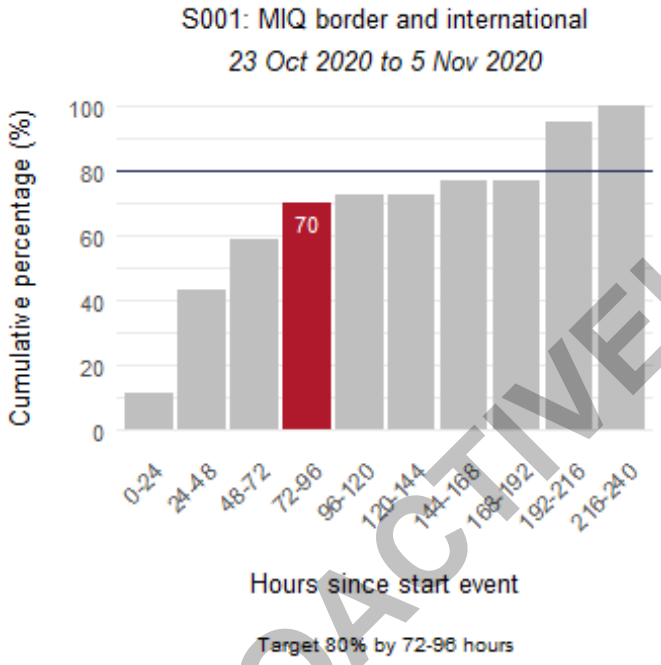
This section presents the indicators for Border Managed Isolation and Quarantine (MIQ) and International cases. Indicators **S001**, **S002**, and **C001** are affected by the inclusion of border cases in MIQ, as returnees' exposure is arbitrarily set to the day of arrival in New Zealand. They are placed into MIQ upon arrival and are tested if symptomatic or on approximately day 3 and day 12. Therefore, cases in MIQ will make the performance of these indicators appear low.

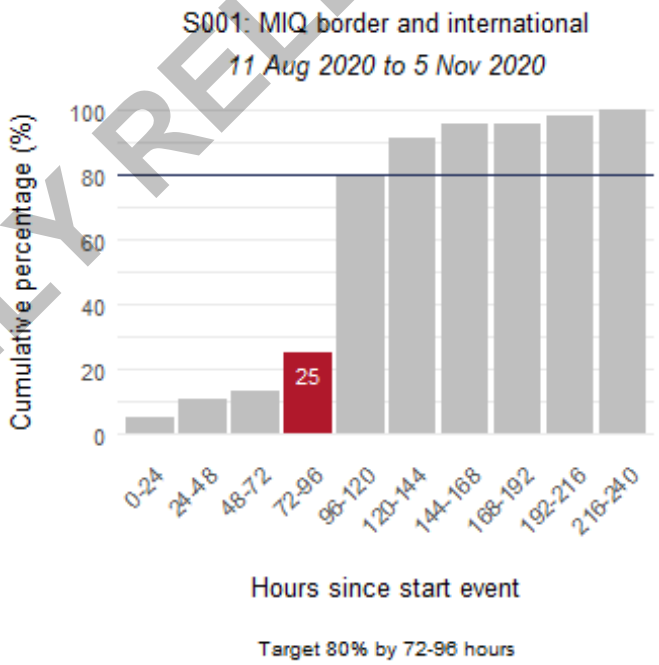
Summary of MIQ border and international cases

Number of cases for this reporting period and cumulative number of cases since 11 August 2020.

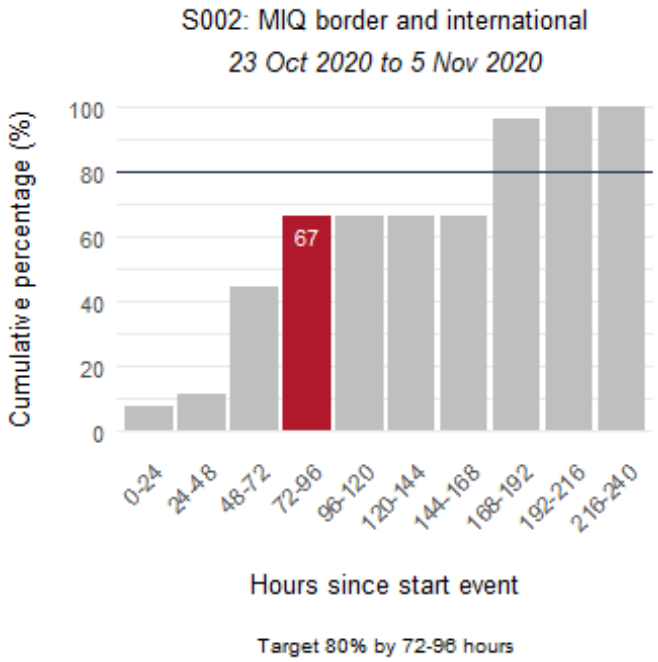
Reporting period	Cumulative
57	208

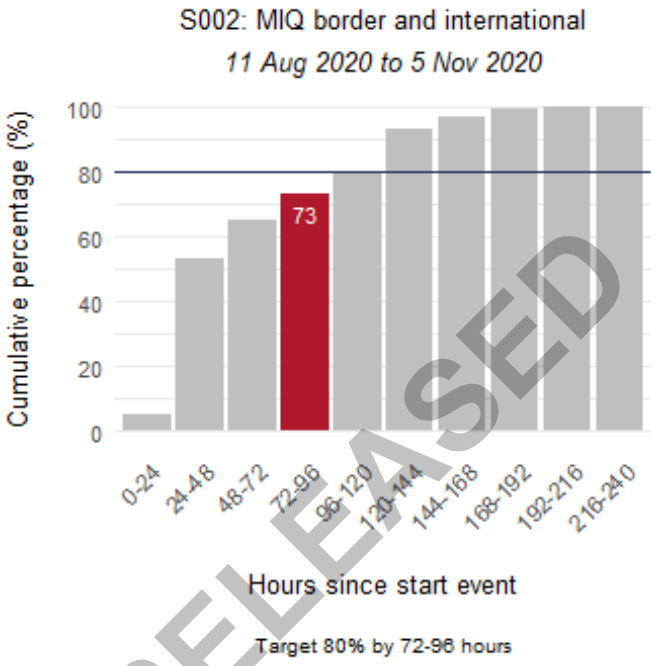
S001 - Time from exposure to contact isolation / quarantine



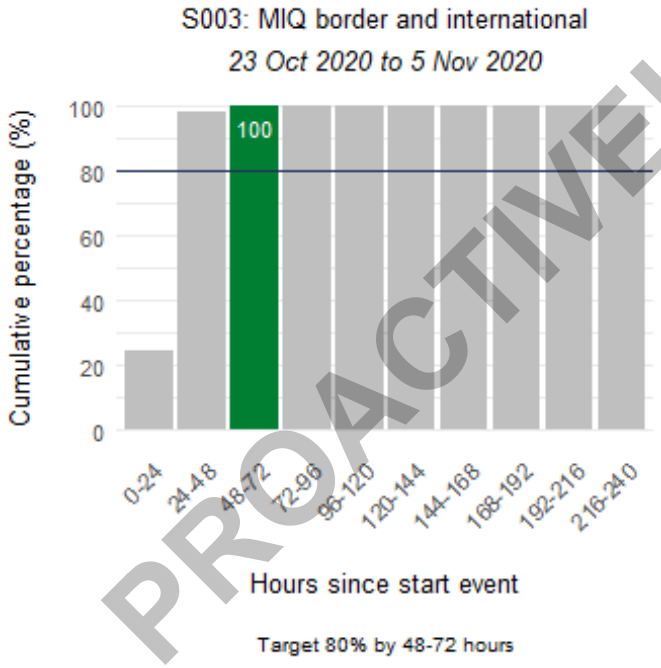


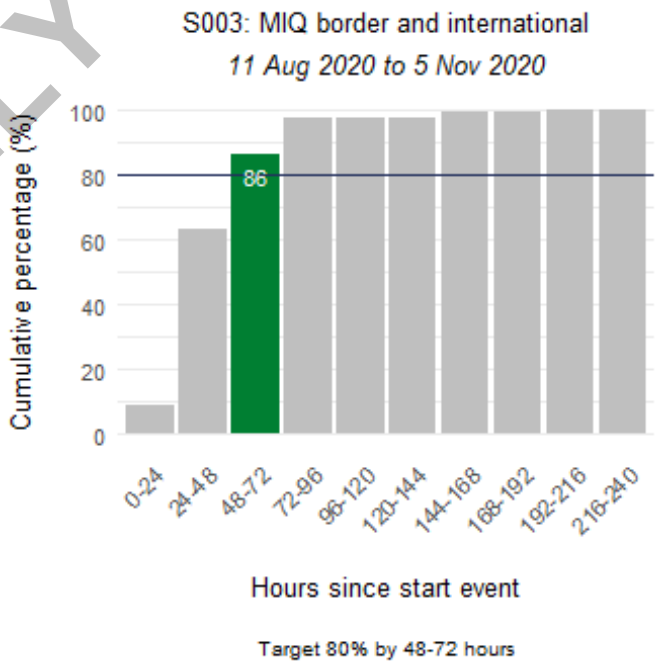
S002 - Time from case first symptom to contact isolation / quarantine



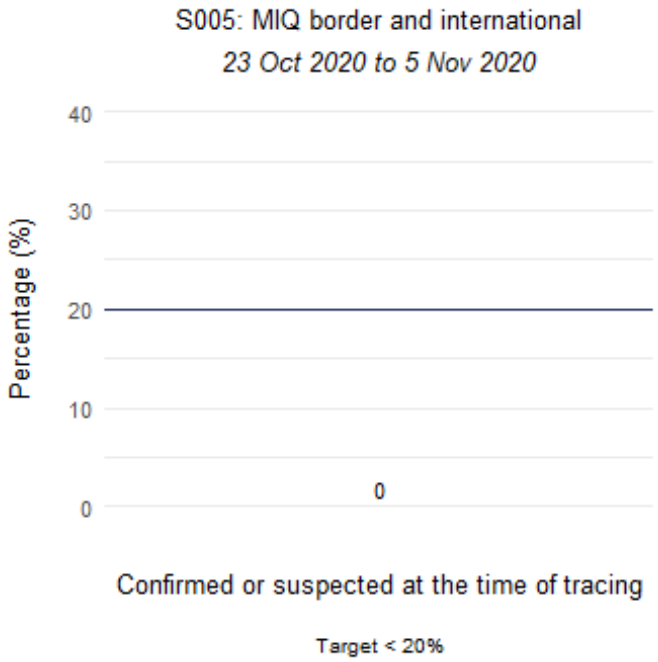


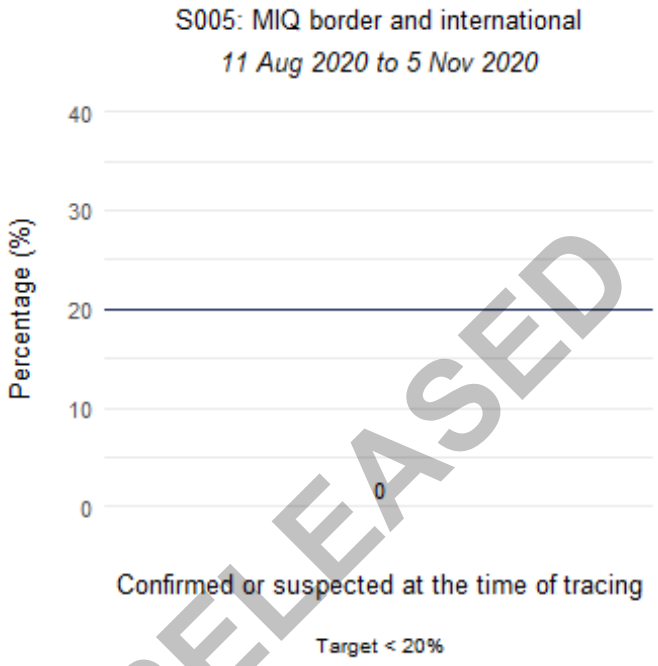
S003 - Time from test sample taken to close contact isolation / quarantine



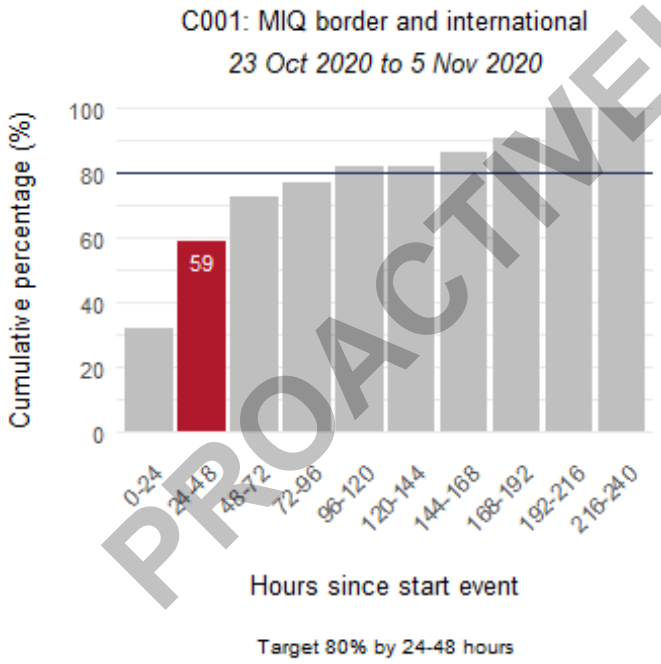


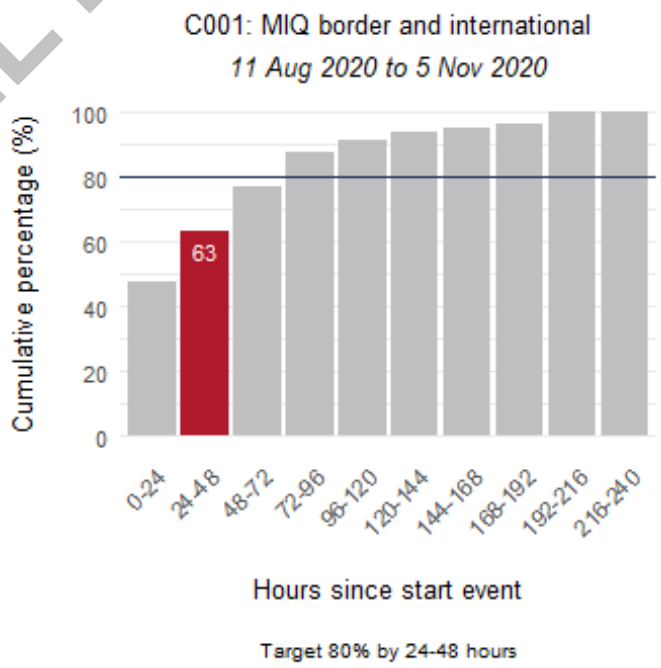
S005 - Proportion of close contacts with confirmed or suspected COVID-19 at the time of tracing



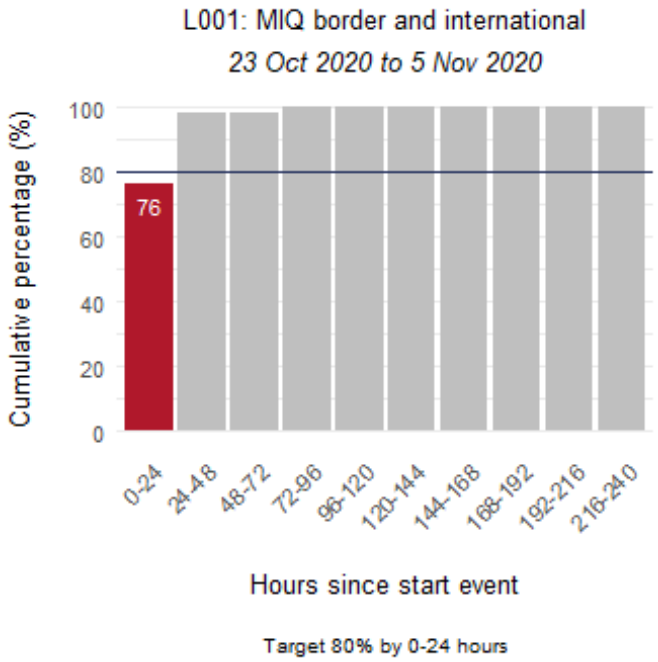


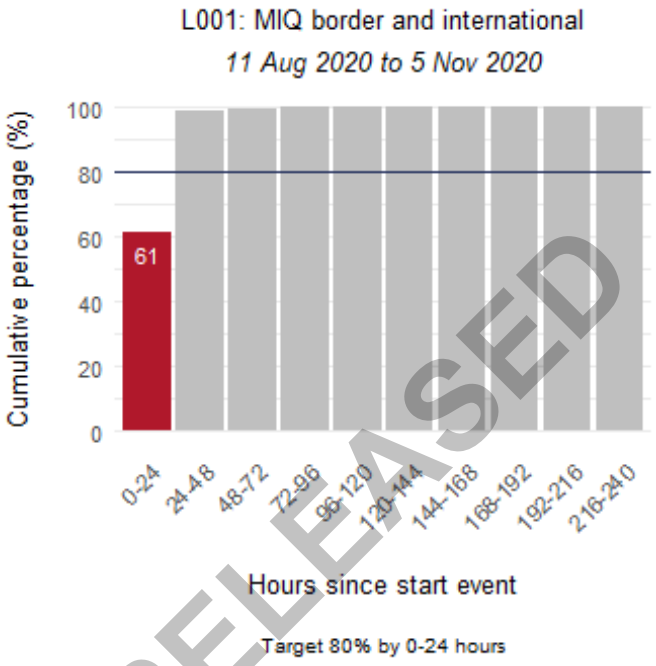
C001 - Time from first symptom to test sample taken for positive cases



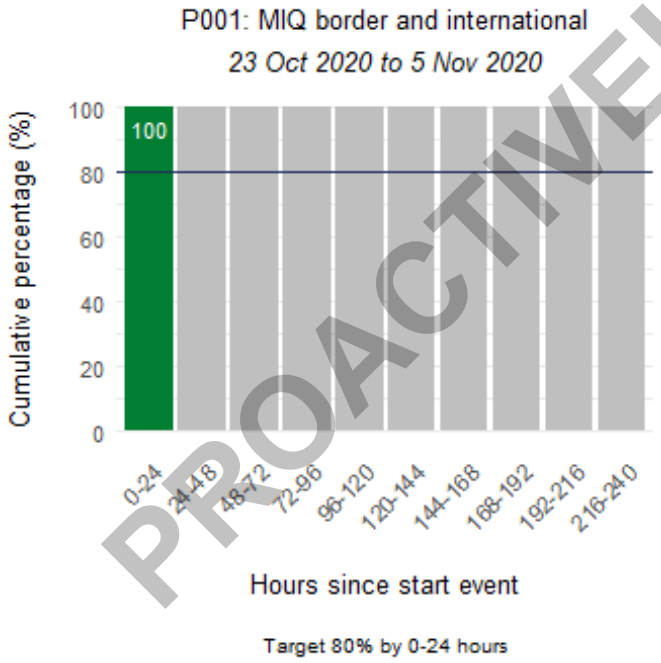


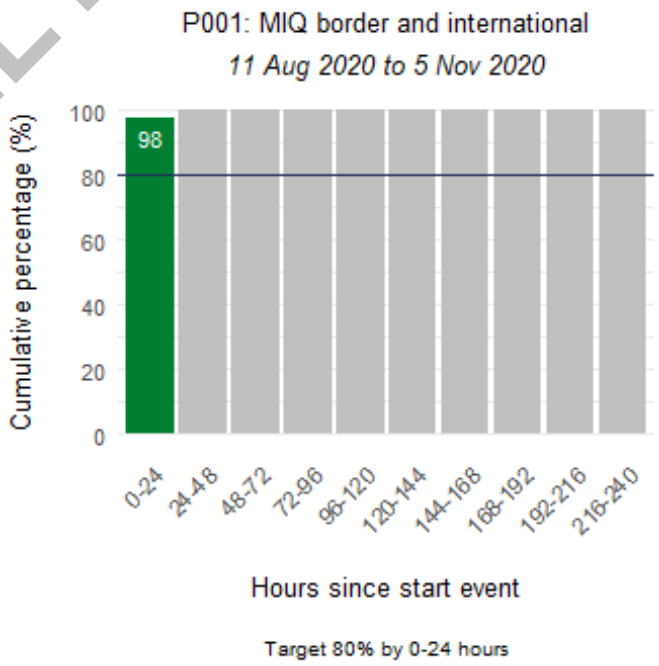
L001 - Time from test sample taken to notification of positive result



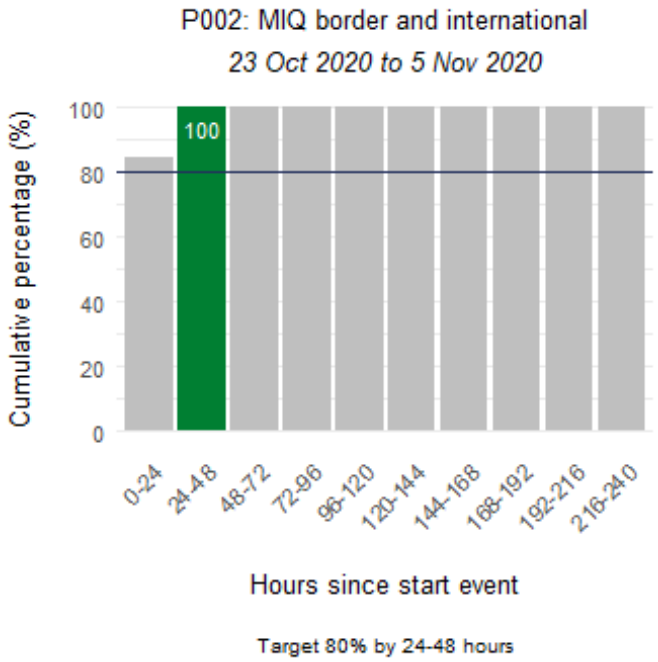


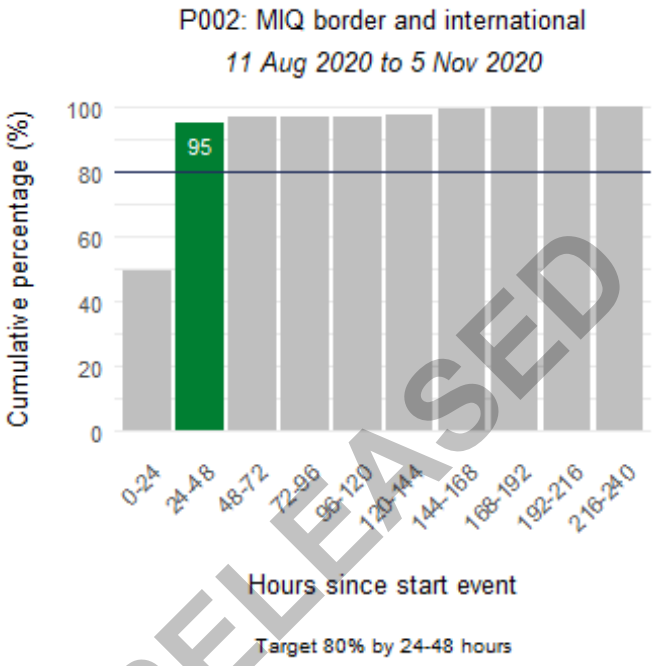
P001 - Time from notification to case interview



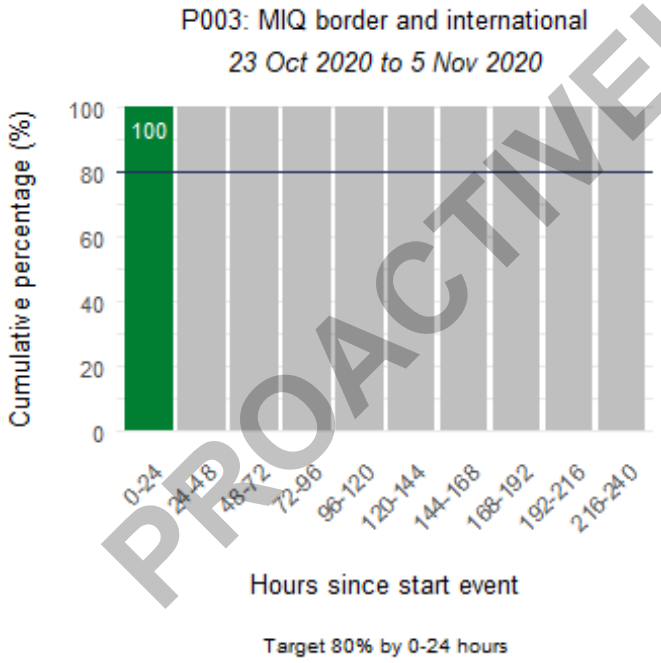


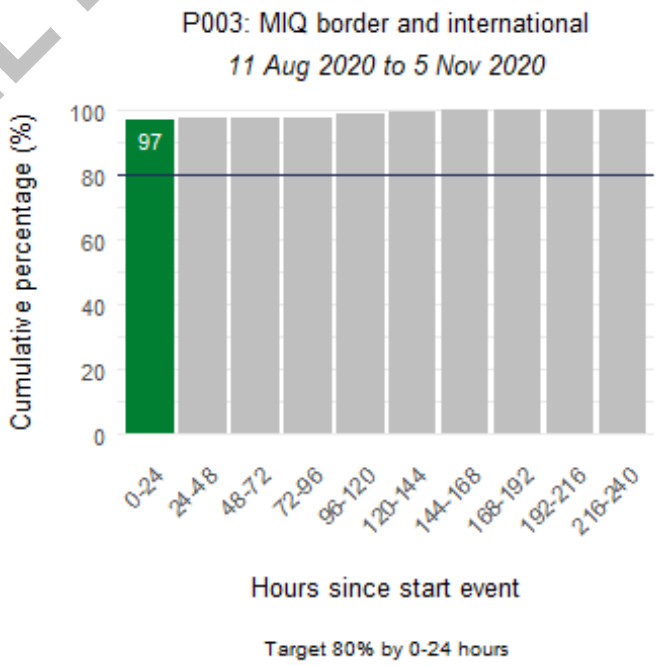
P002 - Time from case notification to isolation / quarantine of contact





P003 - Time from close contact identification to isolated / quarantined





P004 - Proportion of contacts traced in 48 hours