COVID-19 Weekly Monitoring Report

Tuesday 22 September 2020

Current strategy: Elimination

Current Alert Level: 2

The intent of this report is to monitor the effects of Alert Level (AL) measures on New Zealand, in order to evaluate their effectiveness, highlight vulnerabilities and inform the requirement for changes in AL or overall strategy.

The report places information about COVID-19 in New Zealand alongside evidence of the effects of restrictions on the economy and society more broadly, and public attitudes towards, and compliance with, restrictions.

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The contents of this report reflect the principal matters that need to be taken into consideration when determining whether to change AL's.

There are some gaps in measures and data, and these are noted where applicable.

Key changes and developments from last week

Developments to note:

- Today there were no new cases of COVID-19 reported by MoH.
- There are currently 61 active cases in New Zealand.
- Test stock has increased to approximately 45 days' supply.
- Spending in Auckland and Wellington remains approximately 10% below AL1 trends, while regional areas have declined approximate 5% compared to the initial transition to AL1.
- There was a decline in GDP recorded in the June 2020 quarter, though not as significant as was initially assessed in the Budget Update.

Changes to the report:

- MoH have provided a visual breakdown of case by sub-cluster, including comprehensive insight into the Auckland outbreak
- No summary of compliance statistics in MIQ facilities was received this reporting period.
- The COVID-19 Health and Wellbeing survey data is no longer available, therefore this section has been removed from the report.
- There was no available data to update the daily cases by source of transmission, this section has been removed.
- There was no available data to update the timeliness of testing and tracing section, this section has been removed.

COVID-19 in New Zealand

As at 9am 22 September 2020, there are currently 61 active cases in New Zealand (Figure 1).

Figure 1: Summary of COVID-19 in New Zealand as at 9am 15 September 2020

61 **Active cases**

0 **Days since last imported case reported**

138 **Days since last import-related case reported (not in managed isolation)**

1 **Days since last locally-acquired epidemiologically-linked case reported**

144 **Days since last locally-acquired, unknown source case reported**

1 **Open clusters**[1]

1 **Clusters with a new case reported in the last 28 days**

Source: Ministry of Health (MoH) Covid-19 Daily Update

[1] A cluster is considered closed when there have been no new cases for two incubation periods (i.e. 28 days) from the date when all cases complete isolation.

Detailed transmission information

Since 11 August 2020, community transmission has become the predominant means of COVID-19 transmission. The total number of cases over the last fortnight has decreased from 54 to 39 (Figure 2). Community transmission rates have declined significantly, cases of staff working in health care settings have decreased in comparison to last week.

Figure 2: As at 21 September 2020, detailed transmission source for cases reported in the past 14 days

Case transmission category	Number in last 14 days	Symptom onset date for most recent case[2]
Imported		
Travelers to New Zealand	19	15 September 2020
Import-related		
Household contact of a traveller or air or ship staff	0	
People infected in other settings, where the case is linked to an imported case	0	
Locally acquired (cannot be traced back to an imported case)		
People infected in health care setting (staff)	2	11 September 2020
People infected in health care setting (resident)	0	
People who were infected as a household contact of a known case	10	17 September 2020
People who were infected from a known case in the community (non-household non-health care)	8	16 September 2020
Unknown source		
People whose source of infection is unknown and no longer under investigation	0	
People whose source of infection is unknown but investigations are still proceeding	0	
Total	39	

Source: MoH Covid-19 Daily Update

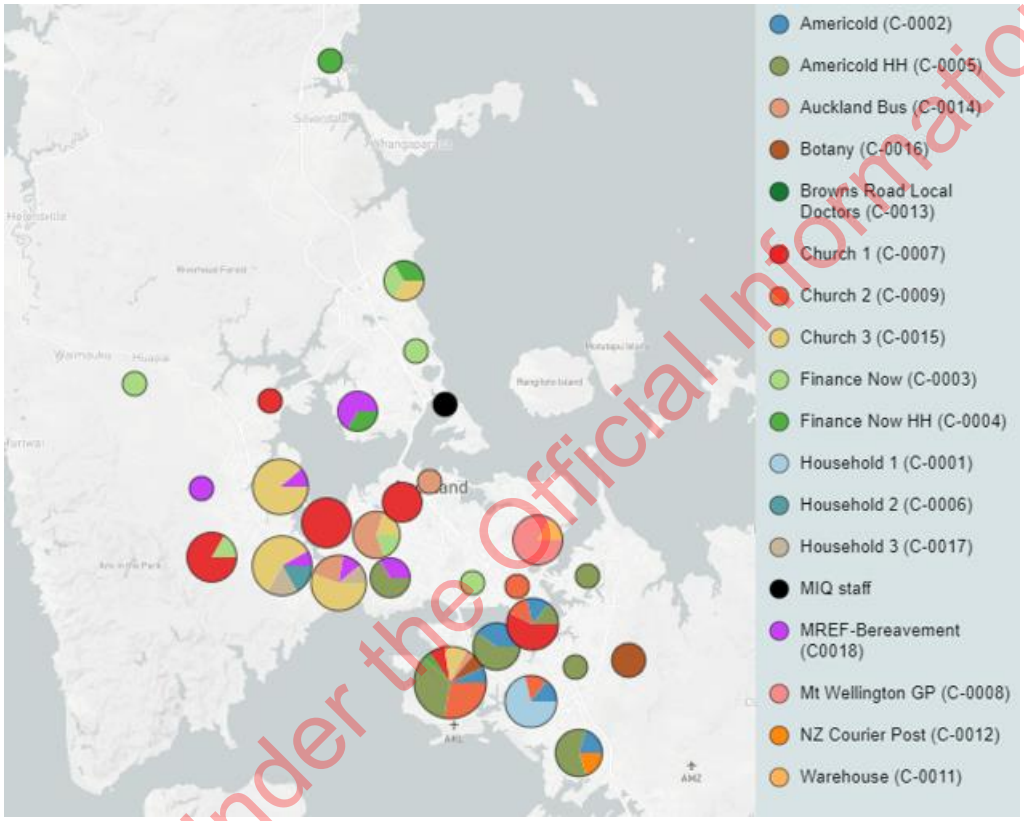
[2] Cases identified through asymptomatic testing often do not have an onset date and are not reflected in this column.

Auckland resurgence

Background

The recent Auckland cluster of COVID-19 began with a case notified on 11 August 2020. Genomic analysis indicates that one individual at Americold likely infected several others in different sub-clusters (Figure 3). It is a realistic possibility that the source of this outbreak will not be known.

Figure 3: Geographical location of cases in the Auckland August cluster



Source: MoH

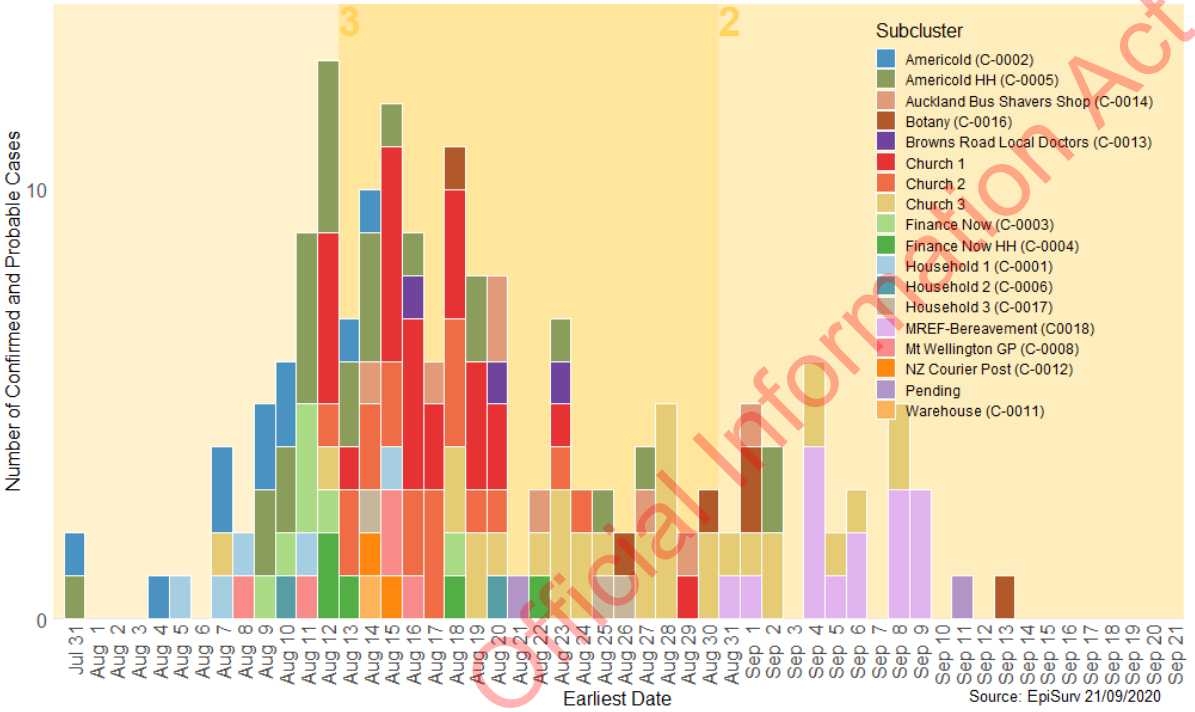
There has been widespread testing throughout Auckland, particularly in vulnerable areas of the community. Testing has indicated that the cluster is generally contained in specific communities, such as Pacific (61%) and Maori (22%) families. Most of the cases in the cluster are aged between 20–59 years (59%), which is similar to the age distribution of cases reported in the first half of the year in New Zealand. Cases in this outbreak are approximately evenly distributed between males and females.

The proportion of cases hospitalised in this outbreak (22 cases, 12%) is approximately twice that seen in New Zealand's first wave. Seven cases (3.9%) have been admitted to ICU. Three cases have died (1.7%). Of the 22 hospitalised cases, 12 (54.5%) are Pacific Peoples and 9 (40.9%) are of Māori ethnicity. Of the hospitalised cases, 59% (13/22) reported at

least one underlying condition, whereas among non-hospitalised cases 9.6% (15/157) reported at least one underlying condition.

Due to contacts not quarantining, there was an emergence of 17 new sub clusters (Figure 4). It remains possible that cases may spread outside the community. Sub clusters will require ongoing and proactive case and cluster management to mitigate further community transmission.

Figure 4: Confirmed and probable cases by sub-cluster



Source: MoH

Genomic linkages

Whole genome sequencing (WGS) has been used to characterise the SARS-CoV-2 virus and provide information to support outbreak investigation and epidemiological analysis. Mutations arise through replication of the virus and provide markers which can be used to determine the relationship between isolates. As the virus spreads it accumulates mutations that can be used to trace transmission. All cases sequenced as part of the current cluster carry the T15867G mutation.

A total of 155 cases (86%) from the community cluster have been sequenced. All cases identified are part of the same lineage and genomic cluster. The subsequent mutations observed are consistent with the epidemiological sub-groupings. Genomic analysis indicates that one person in a specific cluster likely infected a number of others in different sub-clusters. The single source of the infection has yet to be identified.

Analysis indicates that epidemiologically linked sub-clusters are consistent with the genomic patterns. Even though there may be multiple mutations this does not exclude there being one transmission chain, though identified mutations can be used to indicate a likely order of

events. No links have been found with the 71 genomes (52 high quality) currently available from cases in border arrivals in managed isolation and quarantine facilities (MIQs).

Figure 5: Genomic branches of COVID-19 mutation and transmission

Source: MoH

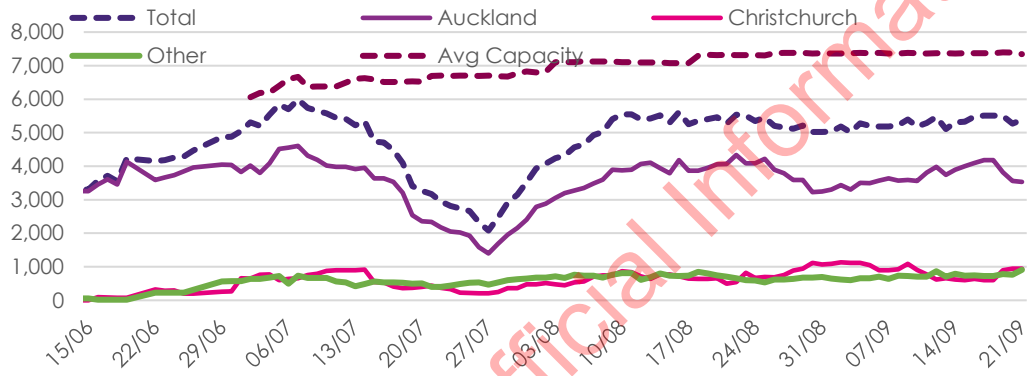
Managed Isolation and Quarantine

Isolation

As at 21 September 2020, there is total effective capacity to accommodate 7,341 individuals in MIQs/MIFs in Auckland, Christchurch, Wellington, Hamilton and Rotorua. Total effective capacity allows for a 24 hour room turn-around for sanitisation. There are currently 1,951 rooms vacant.[3]

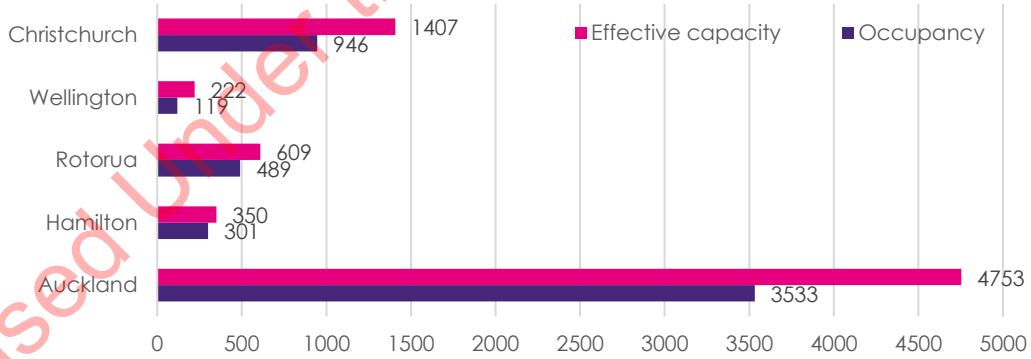
During the reporting period, the number of individuals in MIQ facilities has increased marginally from 5,330 to 5,388 (Figure 6). Over the next seven days the number of returnees is forecast to a total of 2,501 with a total effective capacity of 7,341.[4] This is a marginal decrease of returnees by approximately 700, compared to the previous week's forecast.[5]

Figure 6: Number of individuals in MIQ facilities[6][7]



Source: Isolation, Quarantine and Repatriation SITREP, AoG calculation

Figure 7: Effective capacity by region as at 21 September 2020.



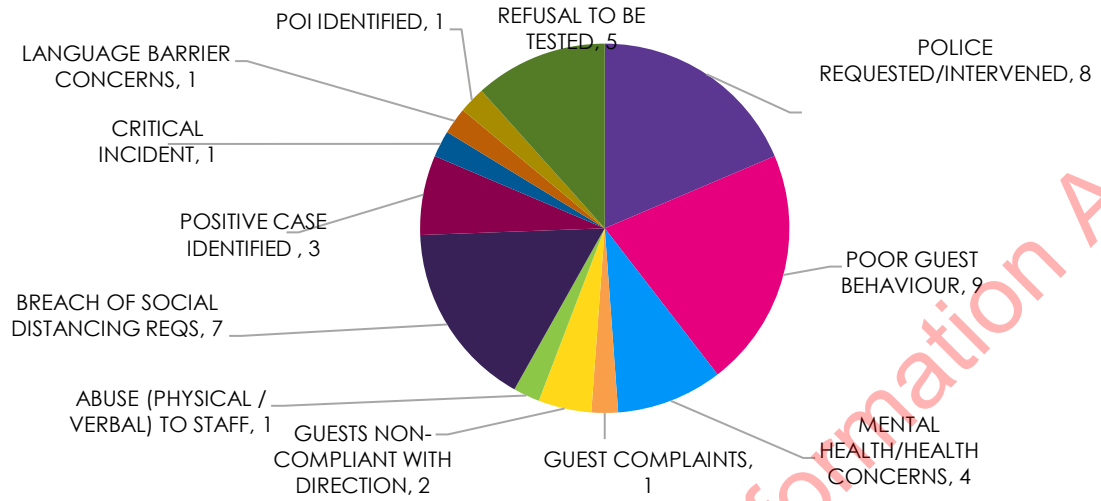
Source: Isolation, Quarantine and Repatriation SITREP, AoG calculation

[3] NZDF 20200921_DAILY FACT SHEET.pdf
[4] The forecast capacity fluctuates and is based on actual capacity available at the time of the report. The numbers are determined by the number of available rooms provided by the hotels.
[5] NZDF 20200921_DAILY FACT SHEET.pdf
[6] "Other" includes Rotorua, Wellington and Hamilton. These will be displayed individually when numbers increase.
[7] MIQ Facility data was not made available for 30 August 2020.

Compliance

Compliance in MIQ facilities is measured based on reported incidents (Figure 8). The majority of the reported 'non-guest related incidents' involved private security personnel.

Figure 8: Guest incidents (09 September – 15 September 2020)[8]



Source: Deployable Joint Inter-Agency Task force (DJIATF)

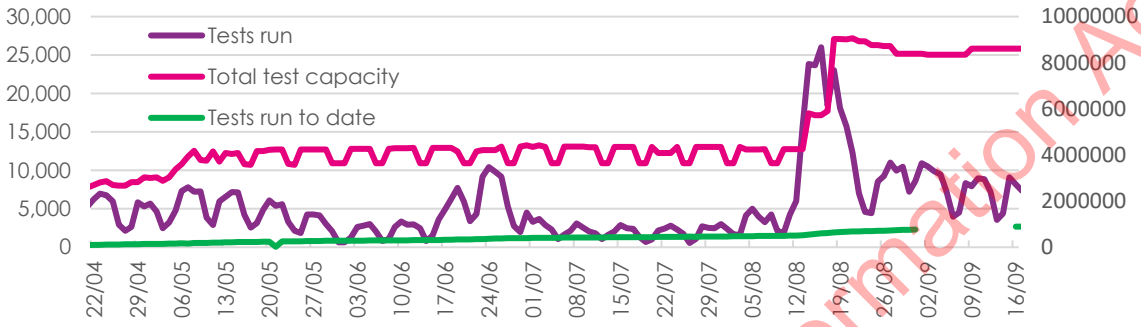
[8] Note: This data is only a snapshot from DJAITF and may not capture all MIQ facility compliance data.

Health system capacity

Testing capacity

As at 21 September 2020, test stock is 45 days of supply at current testing levels, with testing capacity remaining consistent at approximately 25,856 tests per day with pooling (Figure 9).

Figure 9: National testing capacity

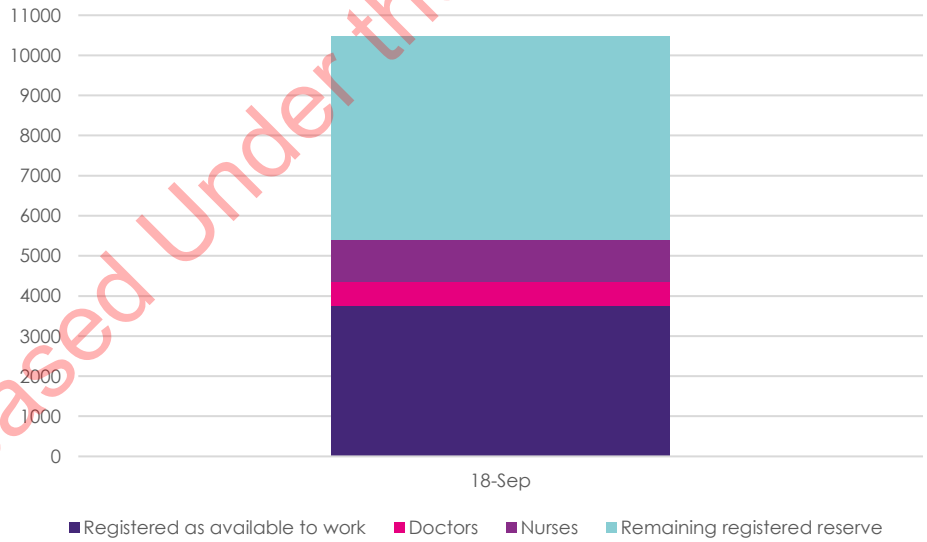


Source: MoH

Workforce surge capacity

As at 21 September 2020, there are currently 10,487 individuals registered on the surge capacity database. 3,764 have indicated they are available to work; 588 of which are doctors and 1,058 are nurses (Figure 10).[9] This is an increase of three individuals since last week.

Figure 10: Workforce surge capacity



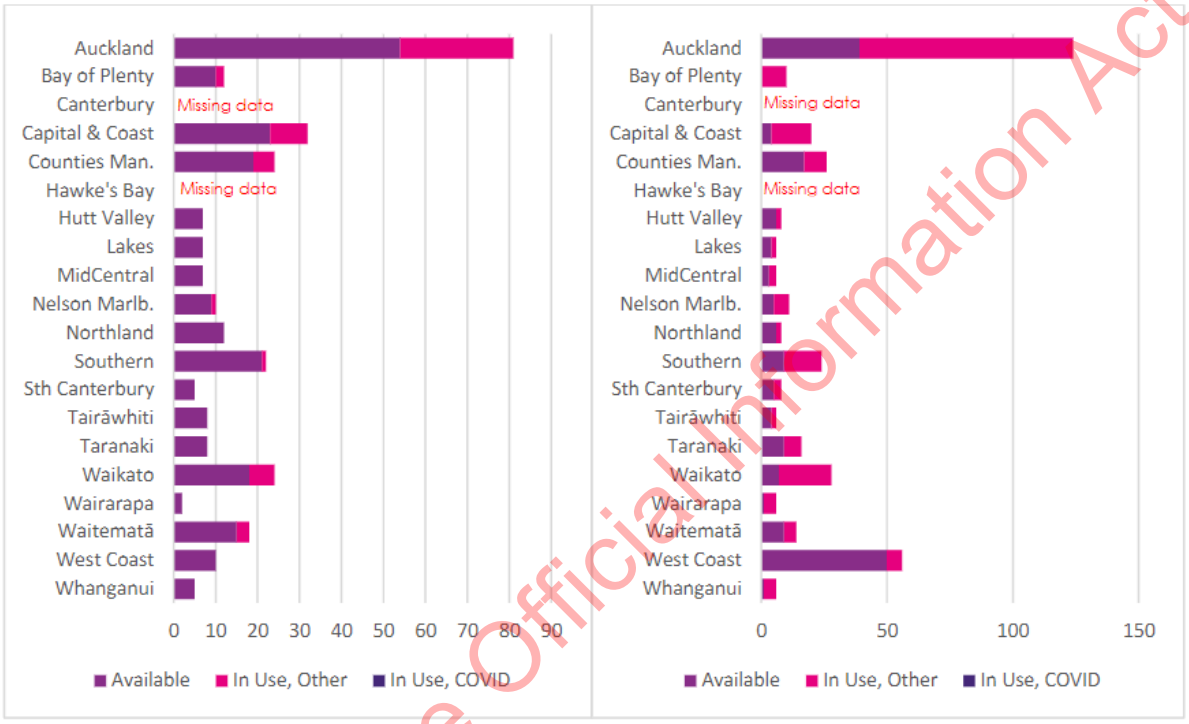
Source: MoH

[9] MoH 18.08.2020 A3 COVID-19 Dashboard and Health System Capacity (002)

Availability of ICU beds and ventilators

As at 21 September 2020, there are currently two ICU beds in use for COVID-19 treatment, with 153 in use nationally (non-COVID-19 purposes) and 150 available. There are two ventilators in use for COVID-19 treatment, with 38 in use nationally (non-COVID-19 purposes) and 218 available (Figure 11).[10] There has been no change in ICU or ventilator use over the previous reporting period.

Figure 11: Availability of ventilators (left) and availability of ICU beds (right), by DHB



Source: MoH

[10] MoH Health_system-capacity_Sep21

Personal protective equipment

As at 21 September 2020, personal protective equipment (PPE) usage decreased over the previous reporting period. MoH is working to ensure demand is met in the event of a surge in cases. There are cases of PPE being used outside the Infection Pervention & Control (IPC) guidelines and there is evidence of overuse. MoH is issueing guidance to to ensure PPE is being used appropraitely. MoH has made a limited number of masks available to the public, to ensure there was sufficient distribution, however are unable to release further mask stocks without jeopardising the supply for the health and disability sectors (Figure 12).

Figure 12: PPE inventory as at 21 September

Item	Stock on Hand (14 Sep 20)	Current usage (weekly)	Weeks on hand (current)	Pandemic usage	Weeks on hand (pandemic)
Nitrile gloves	85,630,649	3,631,520	24	13,200,000	6
Isolation gowns	3,485,995	193,090	18	550,000	6
N95s	11,924,948	108,783	110	350,000	34
Procedure masks	95,619,792	2,146,348	45	5,500,000	17
Face shields	1,168,082	15,934	73	150,000	8
Googles/Glasses	1,205,904	1,997	604	150,000	8
Aprons	3,444,776	104,721	33	550,000	6
Hand sanitiser (500ml equiv)	1,084,716	18,664	58	75,000	14

Source: MoH

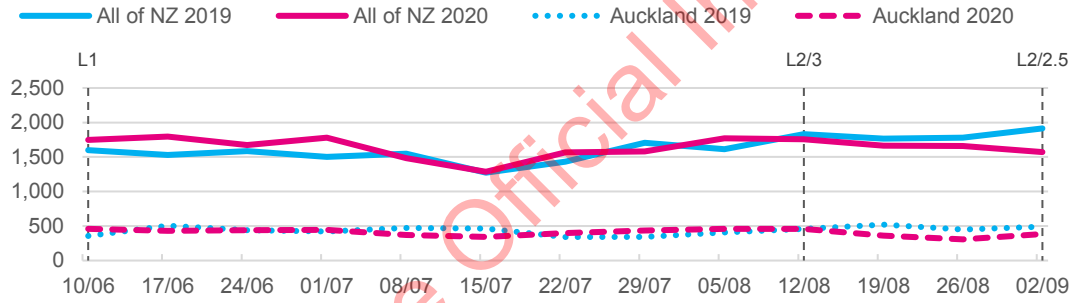
Effects of the measures on society

Reports of Concern for the week ending 2 September 2020, indicate a decrease from the previous week with 1,570 reports. The impact of the return to AL2 (with restrictions) for Auckland indicated an increase in Education notifications compared to the last reporting period, however school attendance still remains low (Figure 14).[11]

Family harm data from Police indicates no discernible change in the number of family harm events reported in Auckland since the move to AL2 (with restrictions). The number of events reported throughout the remainder of New Zealand remains consistent across the same time period (Figure 15).[12]

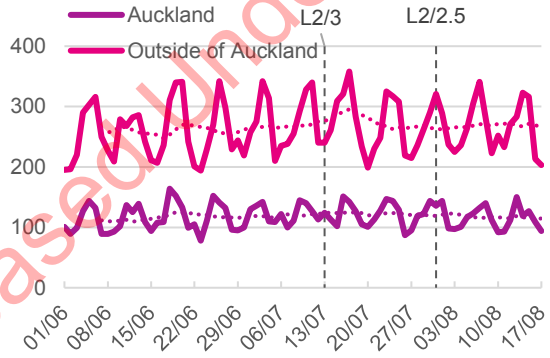
Special Needs Grants for food marginally increased from the previous week with 18,872 grants reported for the week ending 11 September 2020; applications have largely been from the Auckland region (Figure 16). This indicates a lower level than observed for the period of June – August 2020, which likely reflects operational changes made by MSD to the maximum amount of hardship assistance available online through myMSD; these amounts have been reset to settings in place prior to AL4.[13]

Figure 14: Reports of Concern (to 02/09)



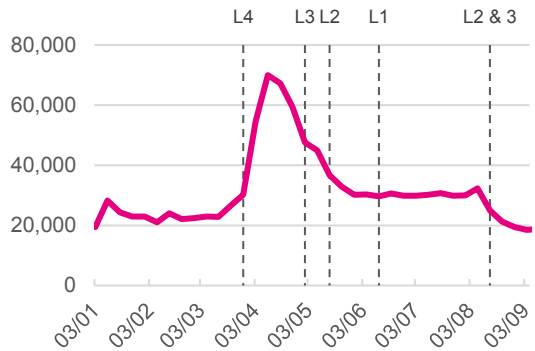
Source: Oranga Tamariki, unofficial statistics

Figure 15: Family harm events reported daily



Source: NZ Police

Figure 16: Special Needs Grants for food



Source: MSD

[11] MSD 20200921 Weekly Monitoring Report – Social section
[12] MSD 20200921 Weekly Monitoring Report – Social section
[13] MSD 20200921 Weekly Monitoring Report – Social section

Effects of the measures on business

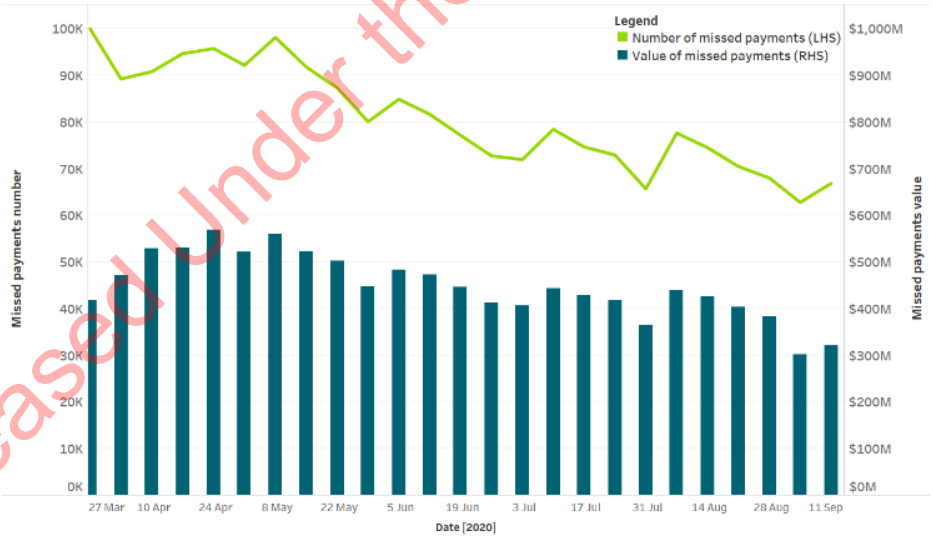
The wage subsidy, wage subsidy extension, and wage subsidy resurgence, have supported or are supporting 58% (1.65 million), 21% (587,000), and 11% (291,000) of all jobs in New Zealand, respectively. Application trends have indicated that employed males of all ages are more likely than females to be supported by the wage subsidies, likely reflecting the gender split in the sectors that are most reliant — 100% of construction jobs, 93% of hospitality jobs, 74% of wholesale trade jobs, 73% of transport and warehousing jobs, and 72% of manufacturing jobs have received support. Application trends have also indicated that Asians are the most highly reliant ethnic group, and Māori and Pacific Peoples are the least. The Auckland region has relied on the wage subsidies the most (likely reflecting the higher Alert Level for Auckland in the latest resurgence). Gisborne's strong agricultural sector and Wellington's public sector have likely shielded these regions.

The week ending 11 September 2020 observed a net decrease (-525) in the number of individuals receiving the job seeker/COVID-19 income relief payments, possibly due to expiring eligibility.

Following an increase in May 2020, the number and value of consumer missed loan payments has steadily decreased. The value of consumer missed payments, comprised of personal loans, credit cards, and overdrafts, declined (-21.2%) at the start of September 2020, before increasing last week (+6.2%) to $320 million (Figure 17).

Following a decline through August and early September 2020, both the number and value of business missed loan payments increased by 31% (+3,800) and 21.6% (+$220 million) in the last week, respectively. There is an overall declining trend in missed business loan payments.[14]

Figure 17: Missed business loan payments (NZD thousands) [*Note* - title of graph should be "Consumer Missed Payments"]



Source: RBNZ

[14] MBIE COVID-19 Weekly Monitoring Report 22_9_2020

Macroeconomic effects of the measures

Current economic situation

On 16 September 2020, Treasury released the Pre-election Economic and Fiscal Update (PREFU), which has a less negative outlook over the near-term than that contained in the *Budget Update,* as the New Zealand economy benefitted from earlier than expected downward movements through the ALs. The medium-term outlook is weaker, reflecting a weaker global outlook and more persistent impacts of the pandemic that are expected to reduce New Zealand's potential output, slowing the pace of recovery.[15]

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[15] Treasury Weekly Monitoring Report Commentary 21Sept2020

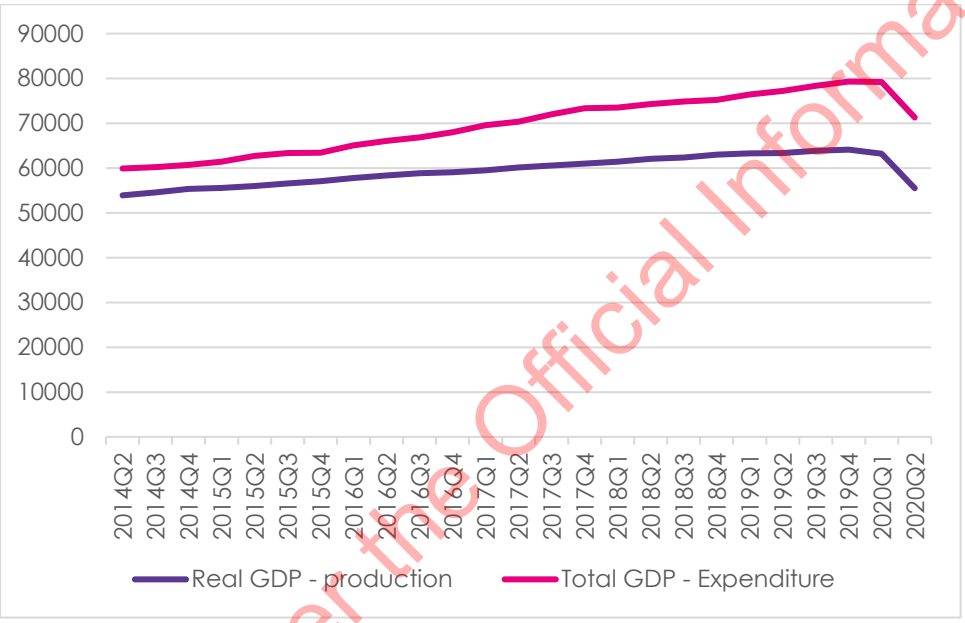
Economic activity in the June 2020 quarter

Economic activity, as measured by Gross Domestic Product (GDP), for the June 2020 quarter, indicates a significant decline in GDP, though not as significant as assessed in the Budget Update.

Real production GDP fell 12.2% in the June 2020 quarter (Figure 19). This surpassed the previous record decrease, a 2.4% decline in the March 1991 quarter, in current quarterly GDP data. Over the year to June 2020, real GDP was 2.0% below the year to June 2019.

Real expenditure GDP declined 9.8% in the quarter (Figure 19), a smaller decline than in the headline production measure. Investment fell sharply in the quarter with residential investment down nearly 23% and business investment down around 20%. Services exports declined approximately 40%, however this was a less significant decline than forecasted.

Figure 19: Real GDP production vs total GDP expenditure (NZD millions)



Source: Treasury

A collapse in imports created a surplus in the June 2020 quarter, the largest surplus since 1972, resulting in the annual current account deficit narrowing from 2.9% to 1.9% of GDP for the year to June 2020. A decrease in international and domestic travel resulted in a significant decrease in imports of crude oil which offset a marginal fall in total goods exports, resulting in the goods balance surplus for the first time since June 2014.

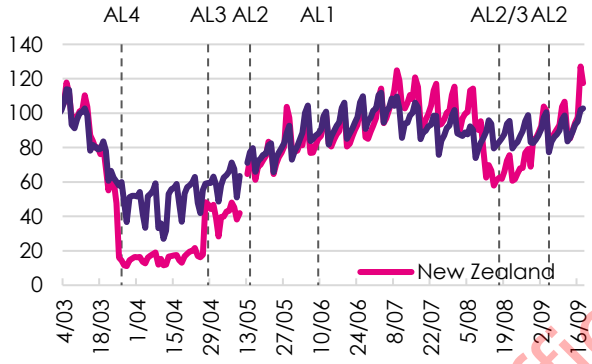
The quarterly seasonally adjusted services balance was in deficit in the June 2020 quarter for the first time since 1998. Services exports declined by $2.5 billion (bn) to $3.9bn, while services imports declined by $1.8bn to $4.0bn, leaving a deficit of $68 million. Travel services exports (spending by overseas visitors in New Zealand including tourists, students, and business people) declined by $1.9 billion, reflecting border restrictions. This significant decline in spending was partly offset by a $1.2 billion decline in spending overseas by New Zealanders.

Public movement

Over the period 11 September – 18 September 2020, data from Apple Maps indicates direction requests increased significantly to levels seen during AL1. This indicates compliance with the change in AL procedure (Figure 20). Auckland specific data indicates that public movement has returned to levels higher than observed in May 2020 (Figure 21).

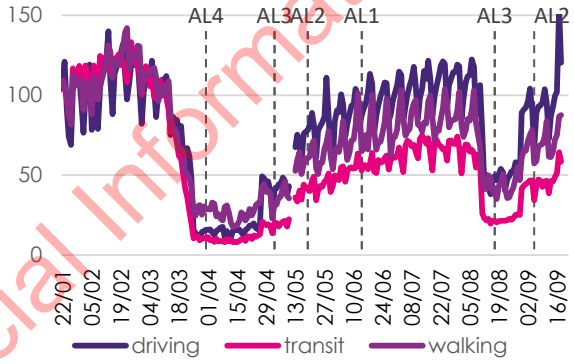
Over the previous reporting period, public transport movements have increased. Auckland public transport (including busses, trains, and ferries) weekly patronage was 48% of the same time in 2019. Wellington bus weekly patronage was 75% of 2019 (an increase of 4% on the previous week) and Christchurch bus weekly patronage was 71% of last year (up 2% from the previous week).[18]

Figure 20: Volume of driving direction requests on Apple Maps (13/01=100)



Source: Apple Mobility Trends

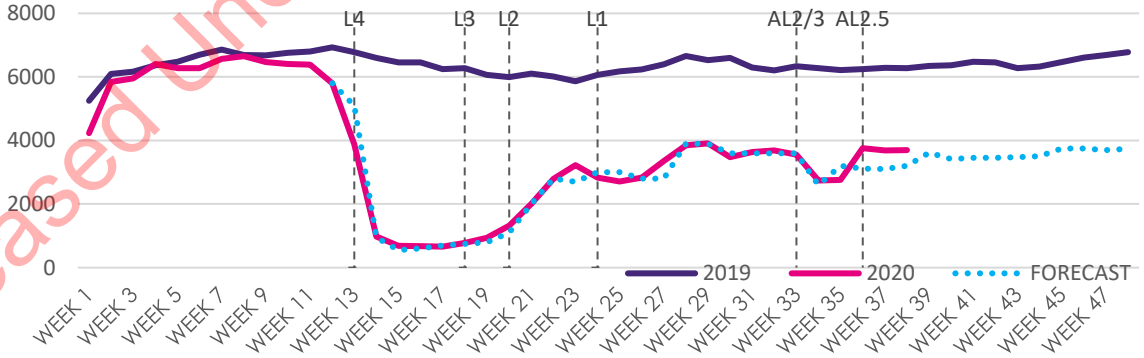
Figure 21: Volume of Auckland apple maps direction requests (100=0%)



Source: Apple Mobility Trends

As at 21 September 2020, flight numbers have marginally decreased over the previous reporting period, likely in line with the requirement for social distancing being removed as of 15 September 2020 (Figure 22). It is likely that with lowered ALs across New Zealand, and the re-introduction of Jetstar domestic services, the number of domestic flights may increase over the next two to four weeks.

Figure 22: Domestic flight volumes[19]



Source: Airways

[18] MoT AoG update week ending 18 August
[19] 80% passenger transport operations, with the rest being hospital, military and private commercial flights