Waka Kotahi COVID-19 transport impact

Wave 23 deep dive, public transport usage in the Greater Christchurch area

19 November 2020

WAKA KOTAHI NZ TRANSPORT AGENCY

New Zealand Government

Disclaimer

This presentation is based on research currently being undertaken by Ipsos on behalf of Waka Kotahi NZ Transport Agency. In order to support an agile response to the unfolding COVID-19 pandemic, we are releasing regular key insights from the preliminary findings prior to this work being finalised. Please note that these deliverables have not yet been through a formal peer review process and the findings should be considered as draft

While Waka Kotahi provided investment, the research was undertaken independently, and the resulting findings should not be regarded as being the opinion, responsibility or policy of Waka Kotahi or indeed of any NZ Government agency.

For more information on the COVID-19 weekly tracker contact: NZTAresearch@nzta.govt.nz.

Report content

COVID-19 transport impact

- Section 1 – About this research
  - Overview & technical notes
- Section 2 – Modal changes
- Section 3 – Factors influencing public transport usage

Section 1 – About this research

Study purpose and importance

Introducing the Waka Kotahi NZ Transport Agency COVID-19 transport impact tracker

The **purpose of the COVID-19 Tracker** research is:

To understand **how travel is changing** and evolving in response to COVID-19 on a regular basis

- such as trip frequency and journey type changes.

To understand **why travel is changing** and evolving in response to COVID-19 on a regular basis

- such as perceptions / attitudes towards COVID-19 and travel options.

To include sufficient respondent numbers to understand how this varies across region and cohorts of interest

- such as different employment types (work from home, essential workers, etc), vulnerable groups (elderly, immune compromised, etc), DHB, etc.

To provide updates in a timely fashion so actions and planning can respond to the evolving situation.

The **importance of this research** cannot be understated:

There has been a major disruption to travel habits that will have long-lasting impacts on society:

- Where and how people choose to work, and how they choose to travel will change.
- Where people choose to travel domestically will change.
- How these changes will play out in the medium to long-term is unknown.

Without regularly updated knowledge on **what people are thinking and feeling,** and **why they are choosing** to travel the way they do, we won't be able to quantify how people are responding to COVID-19, and without this we won't know how best to respond and how we are able to influence travel habits.

- With regularly updated knowledge on COVID-19's impact, we can quantify how road usage and modal choice is changing, and we will know how to respond and influence future travel habits.

Overview of research (i)

Research design and outputs

The **design of the tracker** ensures we can undertake analysis at various levels for different purposes, and for different stakeholders.

The study is an online quantitative survey that is a nationally representative sample of New Zealanders 15+ years old, with a sample of ~n=1259 per wave, using quotas and data weighting.

- With sample boosts to ensure sufficient numbers to analyse key cities of interest, such as Tauranga, Dunedin and Hamilton.
- Sample numbers allow longitudinal view on cohorts and regions of interest.
- Sample is sourced from a blend of online panels, including Pure Profile, Ipsos iSay, Dynata and Consumer Link.

Average survey duration of between 12-15 mins

- Outside core measures, flexibility to change questions every week

Fast turnaround of results to allow a weekly* view on how behaviours and attitudes are changing.

- Design will pivot according to alert level changes that may occur at nationwide and regional levels.

*For waves 1–14 fieldwork and reporting was undertaken weekly, for waves 15 and 16 fieldwork and reporting was undertaken bi-weekly, while wave 17 fieldwork and reporting was undertaken 3 weeks after wave 16 as fieldwork was brought forward from an intended monthly cycle due to an outbreak of COVID-19 community cases. Waves 17, 18 & 19, 20 and 21 are weekly. Wave 22 took place 3 weeks after wave 21.

There will be **three types of outputs** available:

1) Online dashboard results delivered through Harmoni
   - with the ability to manipulate, interrogate and export the data according to your areas of interest.
2) Regular* overview power point report
   - benchmark and longitudinal summary of key data points
   - including extra analysis based on topical questions.
3) An infographic of key data points
   - visual representative of results for ease of access.

Example: Harmoni dashboard page

Overview of research (ii)

Question topics in the survey

Question areas covered in the research:

Level of personal concern of the impact of COVID-19

- to themselves, their families, their work, the country, etc.

Current essential journeys and domestic travel undertaken and changes

- change is measured since February 2020.

Modal shift patterns and perceptual shifts

- including perceptions of public transport among users
- perceptions of various transports modes with regards to safety, hygiene, convenience, etc
- perceptions of potential shifts in work flexibility.

Measuring attitudinal shifts towards COVID-19

- using a Behavioural Science framework to understand current people's current state to facilitate potential interventions.

Questions to classify into a variety of segments of interest

- including journey profile, vulnerability, COVID-19 attitudes, economic, etc.

Ad hoc questions of interest

- including perceptions of future workplace flexibility, domestic tourism intentions, intention to return children to school, mask ownership, etc.

Report notes (i)

Key information to note for this report

- This report is based on twenty-three waves of fieldwork, see table ►
- The sample for this report is presented in a number of ways, including as a combined sum of fieldwork for specific alert levels, as well as individual waves where appropriate.
- The focus of this report is tracking trends and changes over time and how New Zealanders have adjusted their use of transport and travel behaviour. As this study was not conducted prior to level 4 restrictions, respondents were asked to recall their transport and travel behaviour prior to level 4 restrictions based on a *'normal week'* ie in February this year.
- At a total population level, significance testing indicated in this wave 23 report is based on a statistically significant shift of results between waves 1 to 23, as well as statistically significant shifts between combined alert levels.
- At a sub-population level, significance testing indicates a statistically significant difference between the sub-population and the base or total population. The total population benchmark is based on the total sample base collected across the first four waves of data.

Wave	Dates of fieldwork	Alert level
1	Friday 3 April to Wednesday 8 April	Alert level 4
2	Thursday 9 April to Tuesday 14 April	
3	Thursday 16 April to Monday 20 April	
4	Thursday 23 April to Sunday 26 April	
5	Thursday 30 April to Sunday 3 May	Alert level 3
6	Thursday 7 May to Sunday 10 May	
7	Thursday 14 May to Sunday 17 May	Alert level 2
8	Thursday 21 May to Sunday 24 May	
9	Thursday 28 May to Monday 1 June	
10	Thursday 4 June to Sunday 7 June	
11	Thursday 11 June to Sunday 14 June	Alert level 1
12	Thursday 18 June to Sunday 21 June	
13	Thursday 25 June to Sunday 28 June	
14	Thursday 2 July to Sunday 5 July	
15	Thursday 16 July to Sunday 19 July	
16	Thursday 30 July to Sunday 2 August	
17	Thursday 20 August to Sunday 23 August	Alert Level 3 (AKL) Alert level 2 (Rest of NZ)
18	Thursday 27 August to Sunday 30 August	
19	Thursday 3 September to Sunday 6 September	Alert Level 2.5 (AKL) Alert level 2 (Rest of NZ)
20	Thursday 17 September to Sunday 20 September	
21	Thursday 24th September to Sunday 27 September	Alert level 2 (AKL) Alert level 1 (Rest of NZ)
22	Thursday 15th October to Sunday 18th October	Alert level 1
23	Thursday 12th November to Sunday 15th November	

Report notes (ii)

Key transport terms and demographic groupings

There are a number of transport terms used in this report. Below are key terms with definitions:

Public transport (PT): refers to bus, train and ferry and does not include taxi/uber services and private hirer vehicles (these will be treated separately in the analysis).

Private vehicle (PVT): refers to car, van, motorcycle or scooter, and does not include e-bikes.

Active modes: refers to walking (of at least 10 mins) and cycling, including e-bikes.

There are a number of demographic subgroup terms used in this report. Below are key groups with definitions:

Any disability: All respondents indicating that they have a great deal of difficulty or cannot do the following: seeing, even when wearing glasses; hearing, even with a hearing aid; walking or climbing steps; remembering or concentrating; washing or dressing; communicating in their usual language.

COVID-19 vulnerable: All respondents indicating that they personally have a medical condition that makes them acutely vulnerable to COVID-19, such as heart disease, hypertension, chronic respiratory disease or cancer.

Sample structure and further definitions

	Definition	Waves 1 - 4		Waves 5 - 6		Waves 7 - 10		Waves 11 – 16		Waves 17 - 18		Wave 19 - 20		Wave 21		Wave 22		Wave 23	
		Sample	MoE*	Sample	MoE*	Sample	MoE*	Sample	MoE*	Sample	MOE*	Sample	MOE*	Sample	MOE*	Sample	MOE*	Sample	MOE*
Total		n=5,060	1.38	n=2,532	1.95	n=5,043	1.38	n=7,561	1.13	n= 2,455	1.98	n= 2,626	1.91	n= 1,253	2.77	n= 1,220	2.81	n= 1,247	2.77
Auckland	All in Auckland Region, including city and surrounding rural areas	n=1,324	2.69	n=662	3.81	n=1,324	2.69	n=1,964	2.21	n=661	3.81	n=676	3.77	n=331	5.39	n=331	5.39	n=331	5.39
Tauranga	All living in the city of Tauranga	n=400	4.9	n=200	6.93	n=400	4.9	n=599	4.0	n=200	6.93	n=197	6.98	n=100	9.8	n=97	9.95	n=86	10.57
Hamilton	All living in the city of Hamilton	n=400	4.9	n=200	6.93	n=400	4.9	n=600	4.0	n=200	6.93	n=217	6.65	n=100	9.8	n=101	9.75	n=100	9.8
Wellington	All in Wellington Region, including city and surrounding rural areas	n=684	3.75	n=418	4.79	n=799	3.47	n=1,129	2.92	n=311	5.56	n=357	5.19	n=175	7.41	n=156	7.85	n=165	7.63
Greater Christchurch area	**All living in the city of Christchurch or Selwyn/Waimakariri**	**n=488**	**4.44**	**n=256**	**6.12**	**n=518**	**4.31**	**n=767**	**3.54**	**n=265**	**6.02**	**n=253**	**6.16**	**n=124**	**8.8**	**n=127**	**8.7**	**n=130**	**8.6**
Dunedin	All living in the city of Dunedin	n=398	4.91	n=200	6.93	n=392	4.95	n=607	3.98	n=200	6.93	n=208	6.79	n=87	10.51	n=93	10.16	n=100	9.8
Rest of NZ	All living in areas outside of those noted above	n=1,454	2.57	n=652	3.84	n=1,328	2.69	n=2,061	2.16	n=683	3.75	n=771	3.53	n=360	5.16	n=342	5.3	n=365	5.13
	Disability, Vulnerability and COVID-19**																		
Any Disability	See previous page	n=550	4.18	n=297	5.69	n=611	3.96	n=866	3.33	n=284	5.82	n=323	5.45	n=132	8.53	n=130	8.6	n=142	8.22
COVID-19 Vulnerable	See previous page	n=1,230	2.79	n=597	4.01	n=1,139	2.9	n=1,640	2.42	n=584	4.06	n=617	3.95	n=317	5.5	n=299	5.67	n=305	5.61
Aged 70 + years	All indicating that they are considered higher risk for COVID-19 as they are aged 70 or over	n=618	3.94	n=315	5.52	n=627	3.91	n=830	3.4	n=266	6.01	n=293	5.73	n=162	7.7	n=131	8.56	n=141	8.25

*Margin of error is calculated at 95% confidence level based upon an estimated population of 4,978,388 as at Thursday 16 April 12:44pm.

**Sub-groups are *not mutually exclusive* as individuals may fit into more than one category (for example, some may be aged over 70 and also have a chronic respiratory condition that makes them more vulnerable to COVID-19) any such respondents within the sample would be counted in *both* applicable groups.

Context: New Zealand COVID-19 timeline

3 February
Travellers leaving from China denied entry to NZ unless they are NZ citizens or permanent residents

28 February
New Zealand confirms its first COVID-19 case
Travel restrictions introduced for those coming from Iran

14 March
Announcement that all travellers arriving in NZ must self-isolate for 14 days upon arrival

16 March
Public gatherings of more than 500 people banned

19 March
New Zealand bans all non-residents from entering the country
Indoor events of more than 100 people now banned

21 March
PM Jacinda Ardern announces a four level, country-wide alert system
New Zealand at alert level 2

23 March
NZ upgraded to level 3, public notified this would be raised to level 4 at 11:59pm, 25 March.
Non-essential services required to close in 48 hours

24 March All public transport to be free during lockdown period

25 March
New Zealand upgraded to level 4, resulting in a nationwide lockdown

3 April Waka Kotahi COVID-19 impact tracker fieldwork begins

20 April
PM Jacinda Ardern announces NZ will move to level 3 at 11:59pm, 27 April, remaining there for at least two weeks

27 April
New Zealand moved to alert level 3 at 11:59pm

4 May
First day where no new COVID-19 cases are recorded in NZ

11 May
PM Jacinda Arden announces that New Zealand will move to level 2 at 11:59pm, 13 May, with schools to open Monday 18 May and bars Thursday 21 May.

13 May
New Zealand moved to alert level 2 at 11:59pm

18 May & 21 May
All schools open to students on Monday and bars allowed to open Thursday

8 June - **New Zealand moved to alert level 1 at 11:59pm**

16 June
Two new COVID-19 cases are confirmed after 24 days with no new cases, followed by more new cases.

25 June
12 active COVID-19 cases are confirmed in NZ, with a number of changes implemented to ensure improved border management

6 July – present
Victoria experiences a resurgence of COVID-19 cases and re-enters lockdown conditions. New cases also begin to appear again in NSW and restrictions begin to be re-imposed.
Like New Zealand, Victoria and NSW had previously reached a case load of zero and had seen lockdown restrictions lifted

15 July
PM Jacinda Ardern announces response framework going forward, which will involve localised lockdowns in the event of another community-wide outbreak of COVID-19

27 July
Tertiary institutions re-open for face-to-face lectures, with corresponding increase in traffic and mode used

11 August
New Zealand confirms four new community transmitted cases of COVID-19 in Auckland. PM Jacinda Ardern announces that Auckland will move to level 3 and the rest of New Zealand will move to level 2 at noon, 12 August

12 August **Auckland moved to alert level 3 at noon, rest of New Zealand moved to alert level 2**

12 August
New Zealand Police set up nine checkpoints at the borders of the Auckland region to monitor who is entering and exiting the city. Aucklanders asked to leave or enter for essential purposes only.

24 August
PM Jacinda Ardern announces that Auckland will remain at level 3 until 11.59pm on 30 August, with the rest of the nation remaining at level 2. Masks will become compulsory on public transport.

30 August **Auckland moved to alert level 2.5 at midnight, rest of New Zealand remains at alert level 2**

4 September
PM Jacinda Arden announces alert levels to remain in place for at least 10 more days.

14 September
PM Jacinda Arden announces alert levels to extend one more week and social distancing rules on transport to be relaxed, with mask wearing remaining compulsory

21 September
PM Jacinda Arden announces Auckland will move to level 2 on 23rd & **the rest of New Zealand will move to level 1 at 11:59pm**, with mask wearing no longer compulsory on public transport outside of Auckland

23 September **Auckland moved to alert level 2 at 11.59pm**

25 September Significant disruption to the Auckland transport network due to damage to the Auckland Harbour Bridge, coupled with disruption issues to the train network.

7 October **Auckland moved to alert level 1 at midday to match rest of New Zealand**

12 November
Single community transmission case reported in Auckland, with Auckland CBD workers urged to work from home. These conditions are lifted the following day. Reported community outbreak in Wellington as well.

Deep dive analysis

Emergent stories and trends

- It is expected that with the constantly evolving nature of the COVID-19 pandemic, the changing alert levels governing public behaviour and emergent narratives impacting civil society discourse, the environment in which this research takes place will also be ever evolving.
- Deep dive analysis delivered as part of this research will enable questions to be answered outside of the core remit, and to periodically check in on societal variables and trends that may not be of interest every single week, but will speak to contextual changes and important landmarks in New Zealand's response to the COVID-19 overtime.
- Content included in the deep dive is generated from steering group requests.
- The emerging narratives in this deck are in places more complex than would warrant inclusion in the core report, included also are other narratives that may take on greater prominence later on when more responses are accumulated or when alert levels are changed.

Summary

Wave 23 deep dives

The twenty-third wave of fieldwork took place between Thursday 12 and Sunday 15 November.

This deep dive is designed to investigate recent patterns of public transport usage in the greater Christchurch area. This is defined as respondents answering that they live in the city of Christchurch, or in Selwyn / Waimakariri. Due to small bases, some of the analysis groups up recent time periods into the current level 1 period, plus the entirety of the split lockdown period (ie five waves going back to the end of August). This enables a larger base for the greater Christchurch region.

Modal Change

There is also no evidence in the data to indicate that bus usage is below pre-lockdown levels, with both the proportion of weekly users and the volume of trips largely back to what the reported pre-alert levels were and does not support the idea that passenger numbers among residents are slow to recover.

It is possible that the true public transport usage among *residents* in the region is reflective of this survey, but that the lower recorded passenger volumes year on year are a result of missing seasonal visitors.

It is also possible that, while passenger rates now match those stated as ‘normal’ for February, the ‘normal’ passenger rates in November may be greater than those usually recorded in February.

Factors influencing public transport usage

Notably, there has been more mask aversion in the region during the second lockdown period than there was in a lot of other regions. This emerged as a more common stated barrier than in Auckland, Wellington, or the rest of the country.

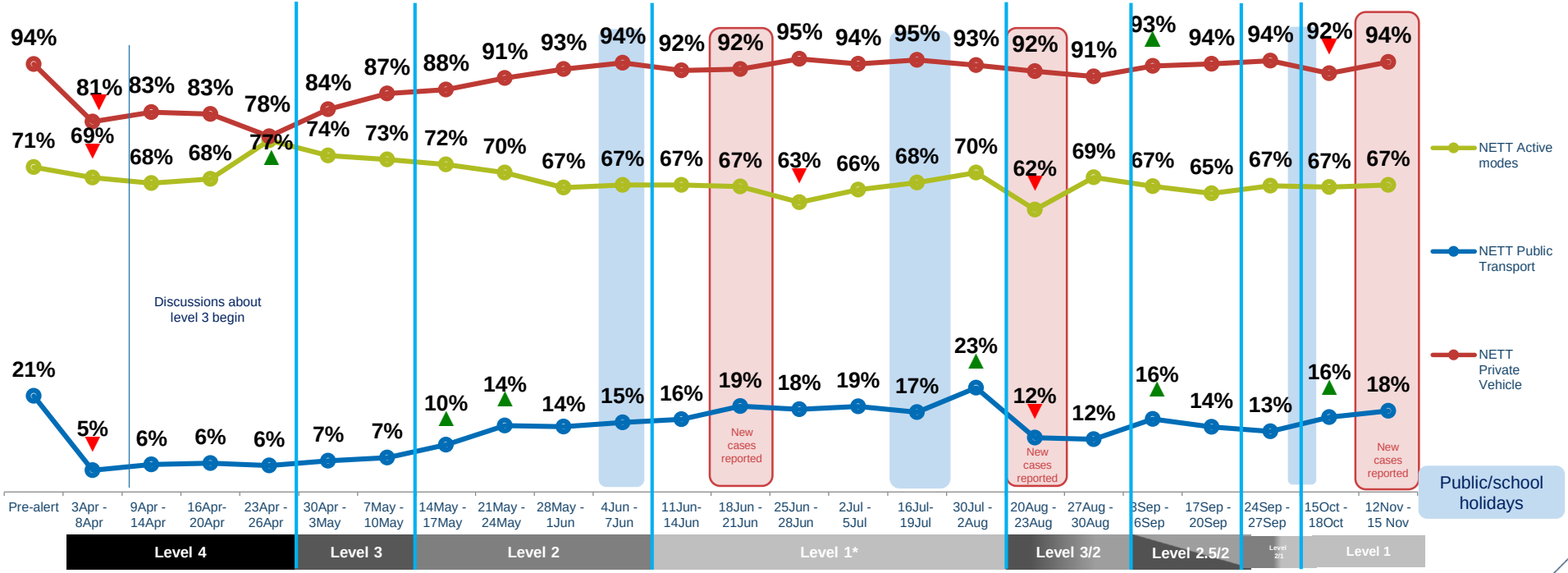
In addition there has been an above average citation of crowding as a barrier and no improvement in the perception of social distancing on buses, so this could be a contributing factor to any anaemic growth in passenger numbers.

Nothing in the data from the August to November period indicates that pricing is keeping people off the buses in the region, perceptions of affordability haven’t taken a negative turn and it doesn’t really come up as a barrier.

Section 2 – Modal changes

Nationally, reported weekly mode usage has been relatively stable from October to November, with directional increases in private vehicle and public transport usage

Changes in mode usage by wave – national

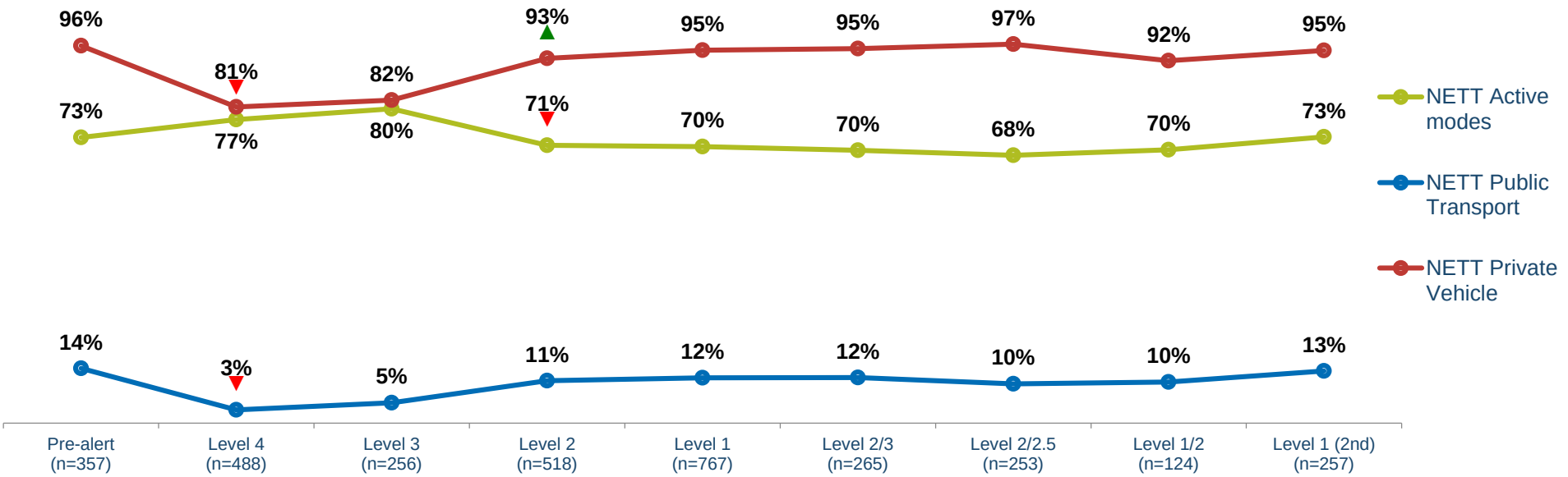


QFREQ1/QFREQ2 – And in the course of a normal week, **on how many days** would you normally travel via each of the methods listed below? And during the past seven days, **on how many days** have you travelled via each of the modes listed below?

Base: all adults 15+ in New Zealand

Reported public transport usage in the Greater Christchurch region has increased directionally and is only just short of the pre-alert level of reported usage

Changes in mode usage by level – Greater Christchurch



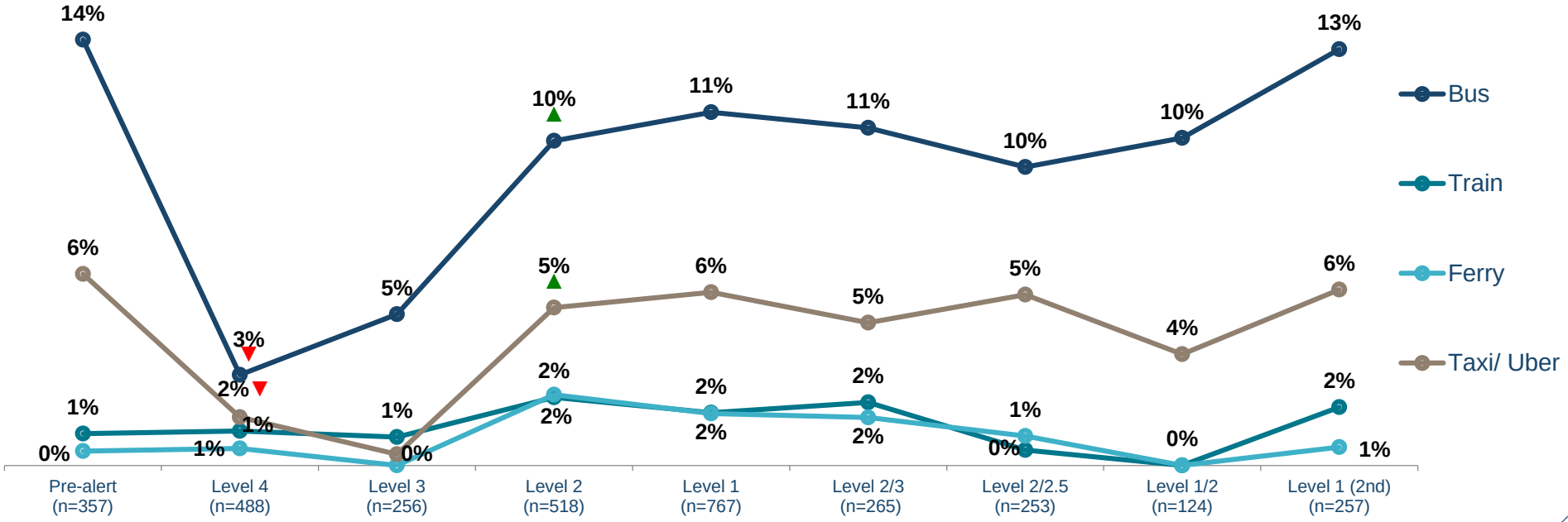
QFREQ1/QFREQ2 – And in the course of a normal week, **on how many days** would you normally travel via each of the methods listed below? And during the past seven days, **on how many days** have you travelled via each of the modes listed below?

Base: all adults 15+ in the Greater Christchurch area

As with other regions, it is a directional increase in reported weekly bus usage which is the biggest driver of increasing public transport levels

Changes in mode usage by level – Greater Christchurch

NB: respondents may mention transport modes that are not available to them within the region, this may be due to them including travel undertaken outside of the region, or individual mis-classification / mis-remembering of a travel mode

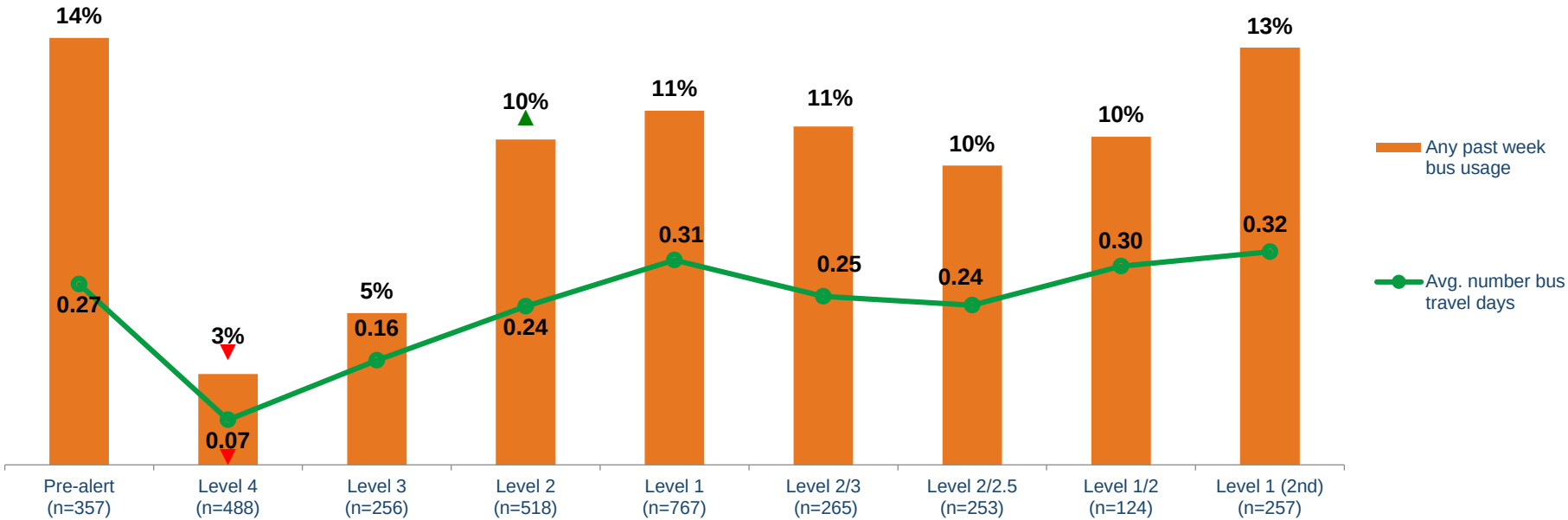


QFREQ1/QFREQ2 – And in the course of a normal week, **on how many days** would you normally travel via each of the methods listed below? And during the past seven days, **on how many days** have you travelled via each of the modes listed below?

Base: all adults 15+ in the Greater Christchurch area

The stated bus usage frequency in the Christchurch area during the current alert levels appears to have recovered to pre-lockdown rates

Changes in bus usage by level – Greater Christchurch

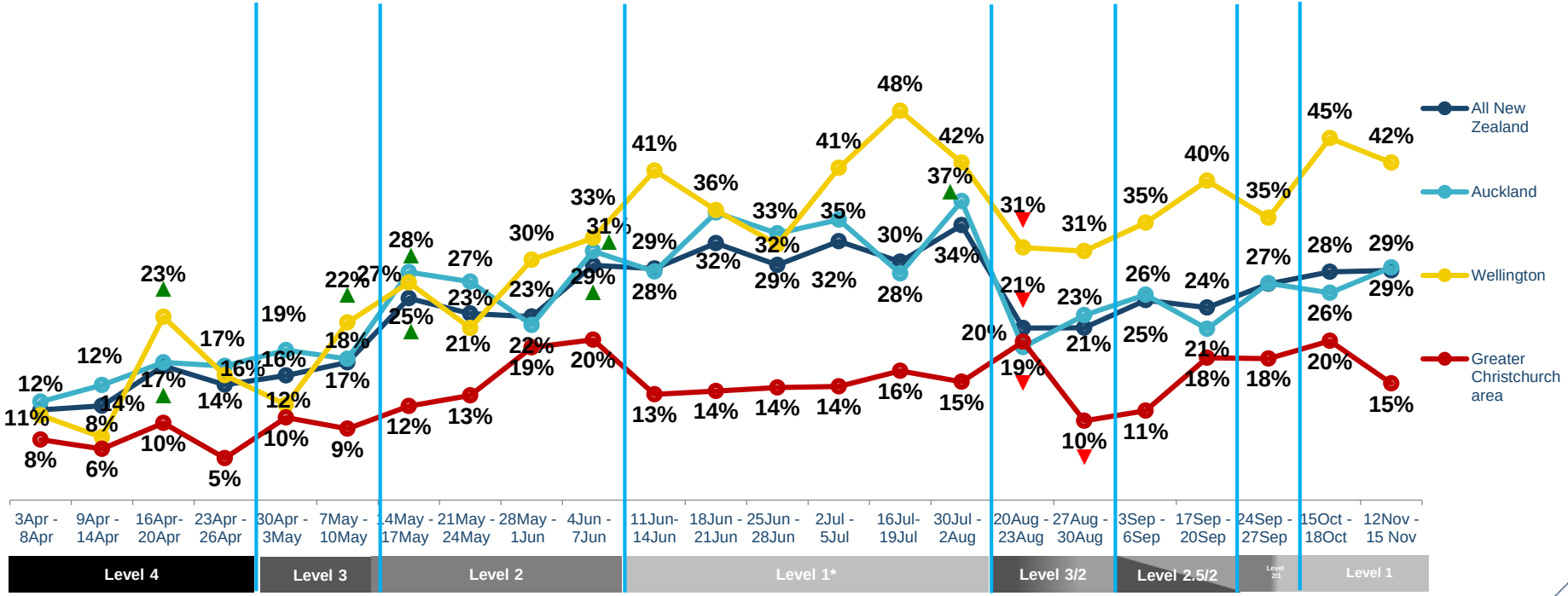


QFREQ1/QFREQ2 – And in the course of a normal week, **on how many days** would you normally travel via each of the methods listed below? And during the past seven days, **on how many days** have you travelled via each of the modes listed below?

Base: all adults 15+ in the Greater Christchurch area

Consideration of public transport has generally been higher in Wellington and lower around Christchurch, with Auckland much closer to the national average

Consideration of public transport



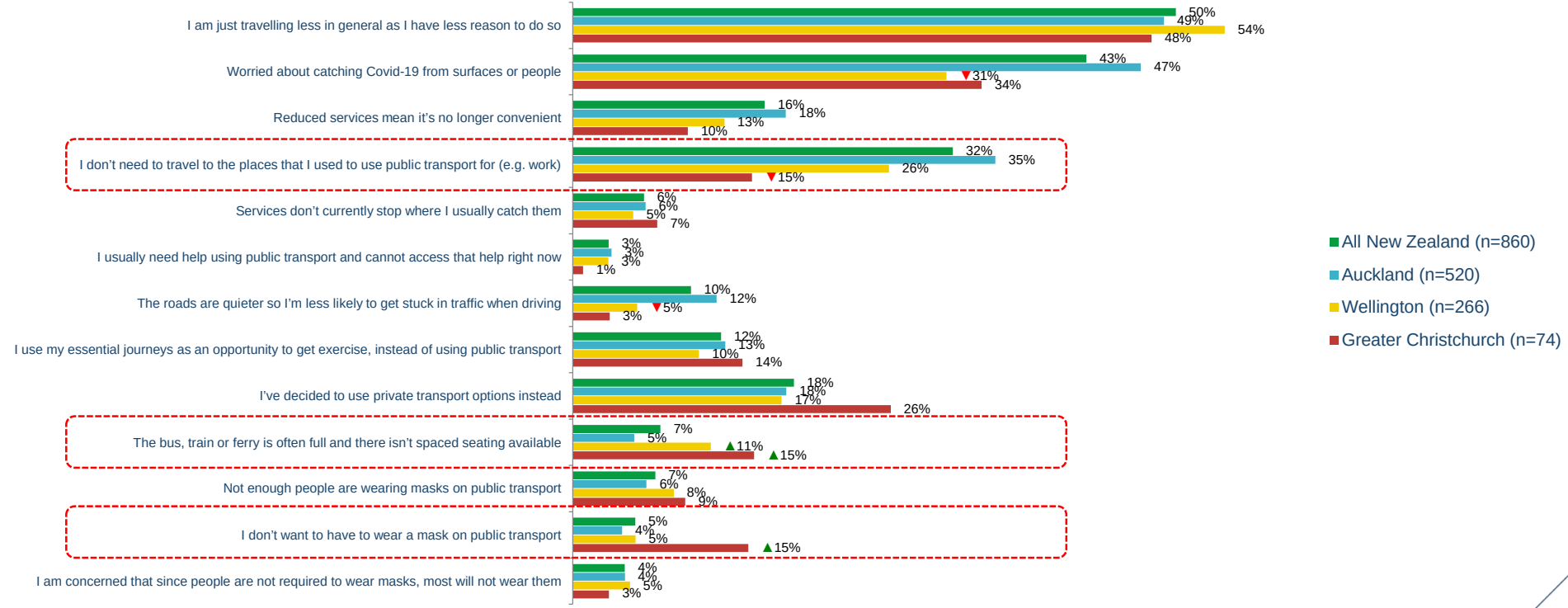
QPT2 If available next week, which if any of the following would you be likely to use?
Base: all adults 15+ in New Zealand, all 15+ in each region

▲ Indicates a statistically significant increase from previous time period
▼ Indicates a statistically significant decrease from previous time period

Section 3 – Factors influencing public transport usage

Of those staying off PT in the past few months, overcrowding and (when compulsory) rejection of masks was more common in the Christchurch area

Reasons for decrease in public transport activity – August to November



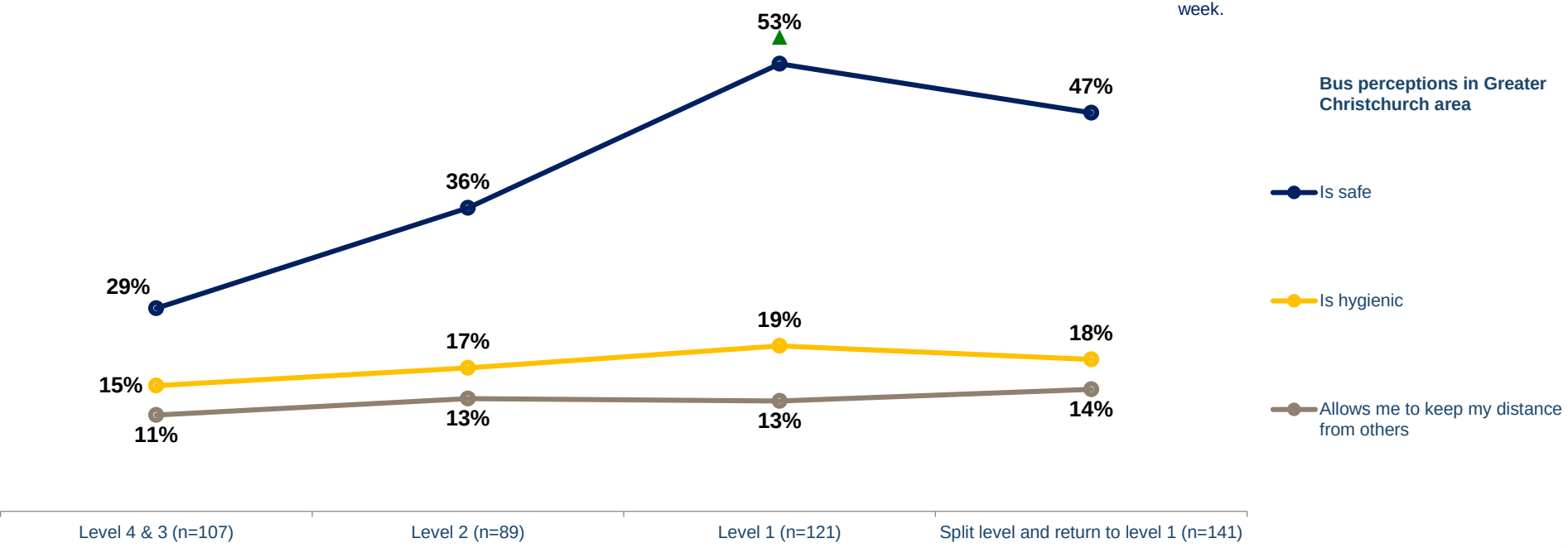
For which, if any of the following reasons, has your use of public transport decreased?

Base: decreasing PT usage in past week; current alert level: split alert level lockdown and level 1 (2nd)

Perceptions of distancing on buses have not improved here, reflecting the above average proportion that selected overcrowding as a reason for not using PT

Perceptions of the bus in Christchurch area – COVID related

NB: users were only asked about transport modes that they personally use during a normal week.

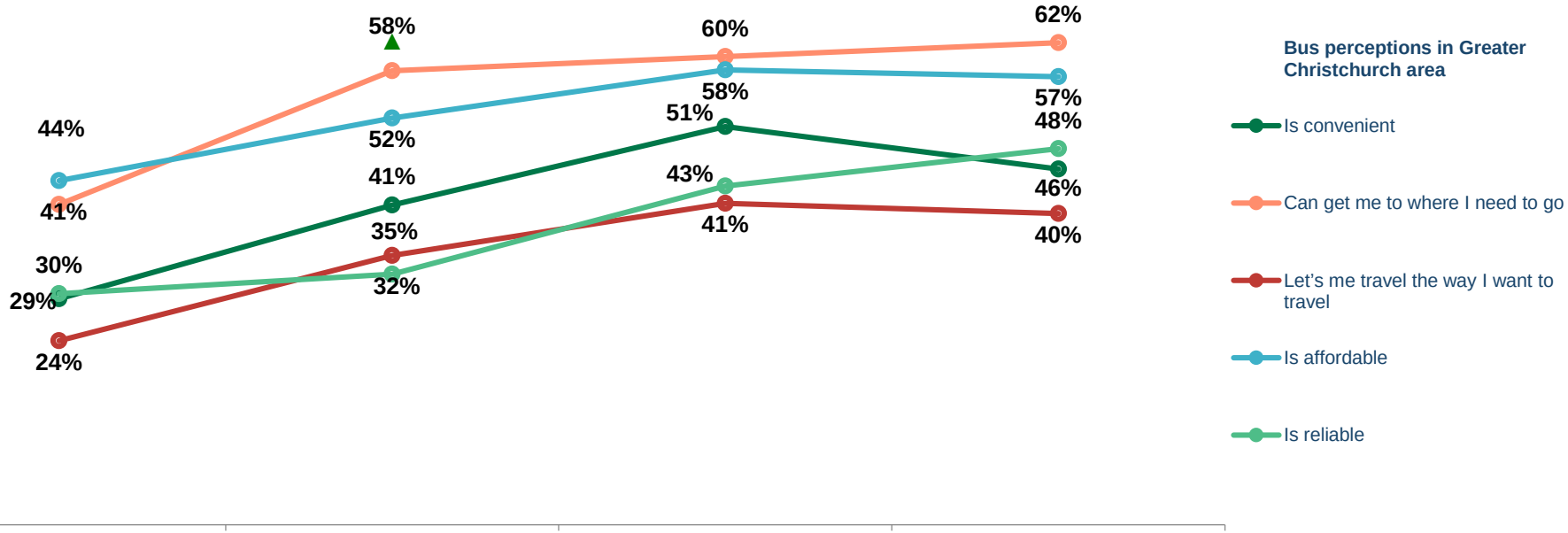


QPTIMAGE. Image Statements – And which transportation methods would you currently associate with each of the following qualities?
Base: All adults 15+ in the Greater Christchurch area who normally travel by bus

Practical perceptions of buses in the region have been directionally strengthening over time, including affordability and reliability

Perceptions of the bus in Christchurch area – practical considerations

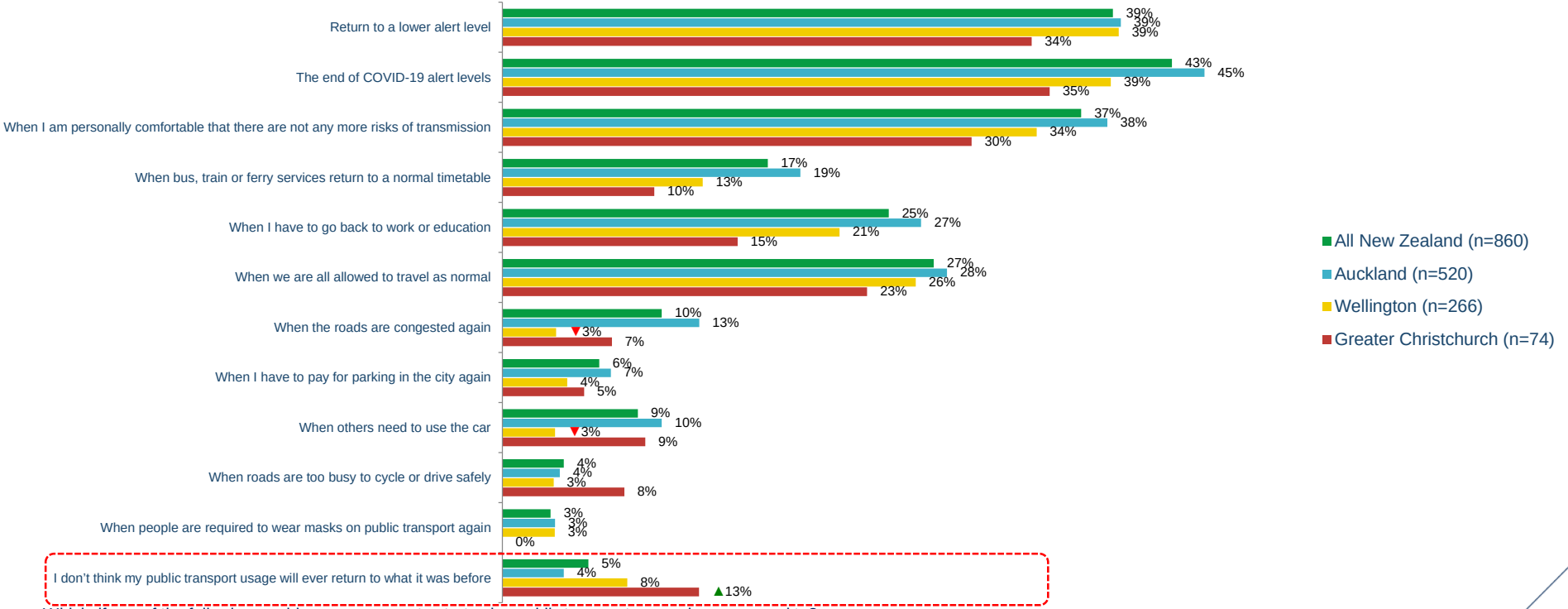
NB: users were only asked about transport modes that they personally use during a normal week.



QPTIMAGE. Image Statements – And which transportation methods would you currently associate with each of the following qualities?
Base: All adults 15+ in the Greater Christchurch area who normally travel by bus

Recently, people around Christchurch have been more likely than average to indicate they have made a permanent switch from PT and less responsive to other triggers

Encourage to return to public transport use – August to November



Which, if any of the following would encourage you to start using public transport as much as you used to?

Base: decreasing PT usage in past week; current alert level: split alert level lockdown and level 1 (2nd)

RICOCHE