

Waka Kotahi COVID-19 transport impact

Wave 23 deep dive analysis, COVID-19 impacts on active mode travel

17 November 2020



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

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 - Overview & technical notes
- Section 2 – National rates and volumes of active mode travel
- Section 3 – Volumes of active mode travel
- Section 4 – Urbanity
- Section 5 – The role of journeys in active mode travel



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, 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 24 th September to Sunday 27 September	Alert level 2 (AKL) Alert level 1 (Rest of NZ)
22	Thursday 15 th October to Sunday 18 th October	
23	Thursday 12 th November to Sunday 15 th November	Alert level 1

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.

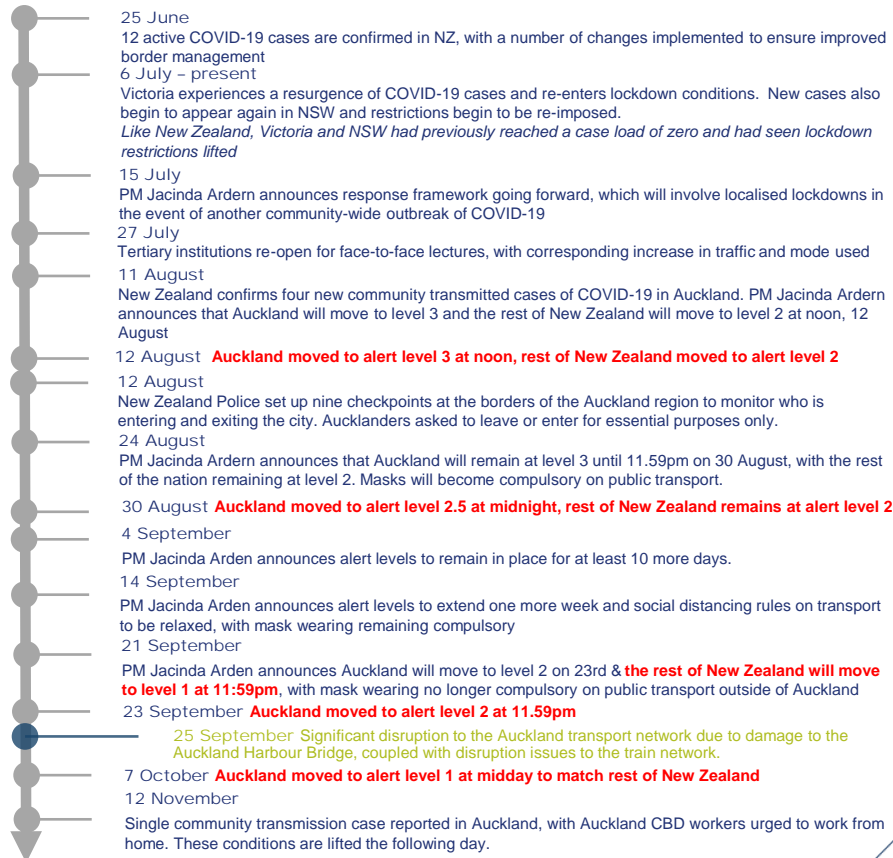
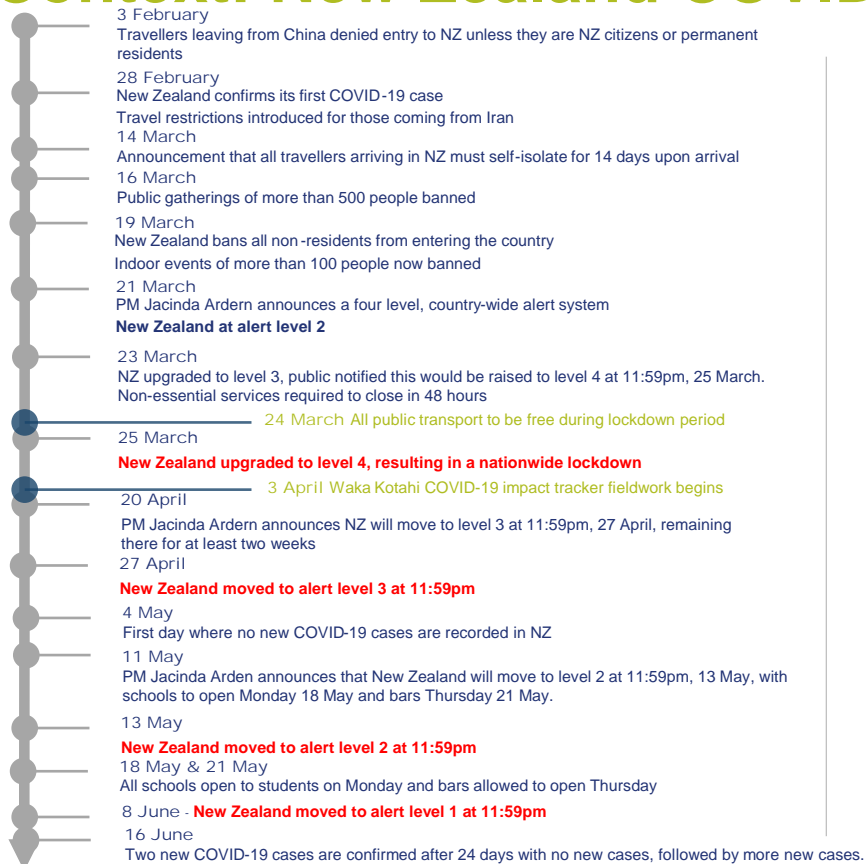
Sample structure and further definitions

	Definition	Waves 1 - 4		Waves 5 - 6		Waves 7 - 10		Waves 11 - 16		Waves 17 - 18		Waves 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
Christchurch	All living in the city of Christchurch	n=400	4.9	n=200	6.93	n=400	4.9	n=601	4.0	n=200	6.93	n=200	6.93	n=100	9.8	n=100	9.8	n=100	9.8
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



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 active mode travel and how engagement with this mode has been impacted or even benefited from changing conditions during the COVID-19 alert lockdowns.

Rates and volume of travel

For a period in the higher alert levels of lockdown, active mode travel experienced levels of engagement that were generally greater than the stated participation for the pre-alert period. However, aside from some sensitivity to new outbreaks and increases in alert level, it has subsequently been stable, with around two thirds travelling in this way at least one day a week.

Since the initial transition into alert level 1, neither the volume of participants nor the number of travel days by these modes has reached either pre-alert levels, or the peak engagement seen at the end of level 4 / beginning of level 3.

Looking regionally, patterns of participation are variable, with active mode travel increasing in Wellington and Dunedin when other cities were seeing decreases, but the higher lockdown levels in the second lockdown did not materially impact active mode engagement in Auckland.

COVID-19 factors influencing active mode travel

The proportion of people walking and cycling each week does not appear to be tangibly influenced by varying degrees of concern about transmission and infection. In the latter weeks of level 4, as concerns about transmission decreased somewhat, walking and cycling increased nationwide. However, there does not appear to have been any real subsequent relationship between these, and while the evidence suggests that those who are less concerned about infection walk and cycle more, there is no consistent evidence that lesser transmission and infection concerns drive greater engagement with active mode travel.

Greater associations of walking with hygiene and safety occurred when engagement was highest during levels 4 and 3, with a similar thing happening for cycling at this time with safety and distancing while there were fewer vehicles on the road.

It should also be noted that during this same period at the end of level 4 and beginning of level 3, there was a brief peak in the proportion of New Zealanders stating that they had walked, run or cycled for leisure. This may have been influenced by additional free time during this period and contributed to higher levels of active mode travel overall.

Non-COVID factors influencing active mode travel

Associations of active modes with other, less COVID-related positive image statements also occurred at peak engagement in levels 4 and 3, but all of these saw significant decreases during a level 2 period in which other forms of transport became more viable.

Of the essential journeys tracked, travel for education has consistently had the highest proportion of active mode users, but this was not a journey that was being undertaken during the active mode peak. Other daily essential journeys, like commuting, have held a consistent low level of active mode participation.

With less frequent non-essential journeys, like grocery shopping and medical appointments, the use of active modes for these was strongest in levels 4 and 3, during a time when quieter roads may have increased safety perceptions and a greater amount of free time may have removed some barriers to active modes for these journey types.

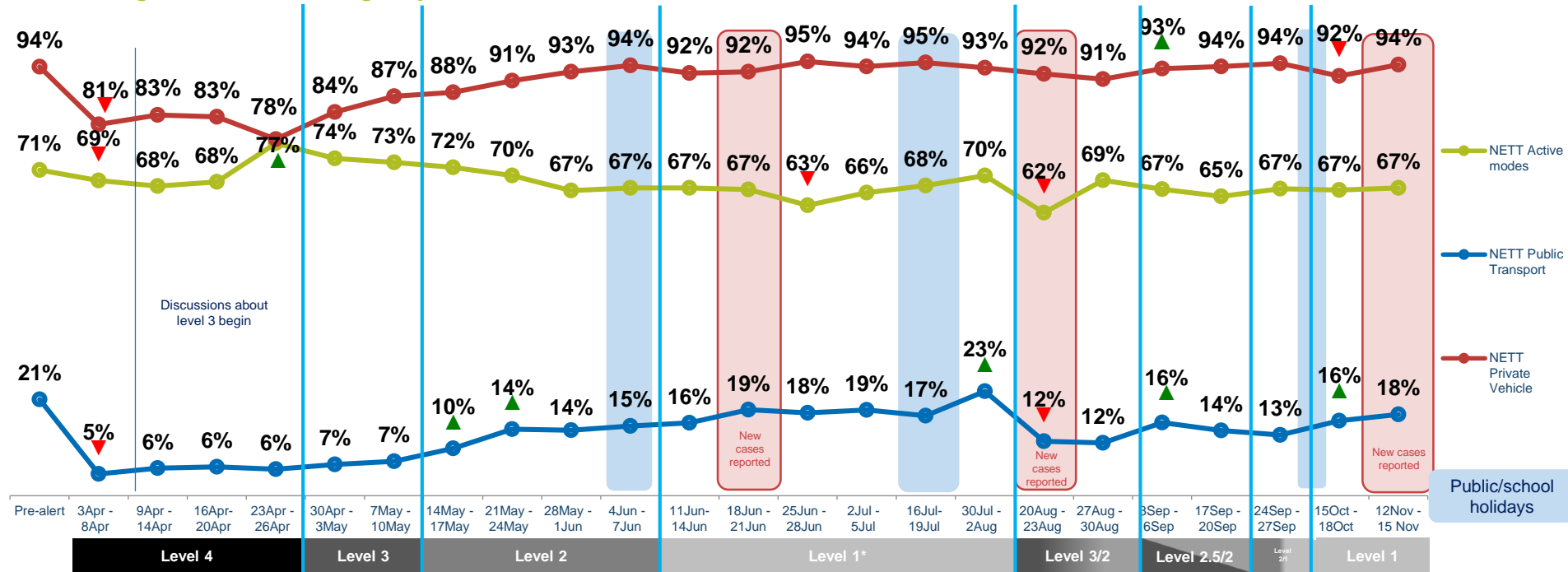
Based on the evidence available, COVID-19 may have contributed to a brief period of increased active mode travel during the highest levels of lockdown, when a shortage of other available travel options would have often made walking and / or cycling a much more viable and in some cases safer option than it normally presents. While changes in weather patterns may have had some role in the initial decrease as New Zealand entered autumn and winter, we have not observed a recovery in activity as we have entered into spring which would mark pleasant outdoor conditions as a sole driver of active mode choice for practical journeys.



Section 2 – Rate and volumes of active mode travel

Active mode travel peaked at the end of level 4 and aside from a significant drop at the start of the new lockdown, has generally remained stable through winter to spring

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? QJOURNEY1-2. Which, if any of the following types of journeys would you have made in a normal week (eg in February this year)? And which, if any of the following types of journeys did you make during the last seven days? Base: all adults 15+ in New Zealand



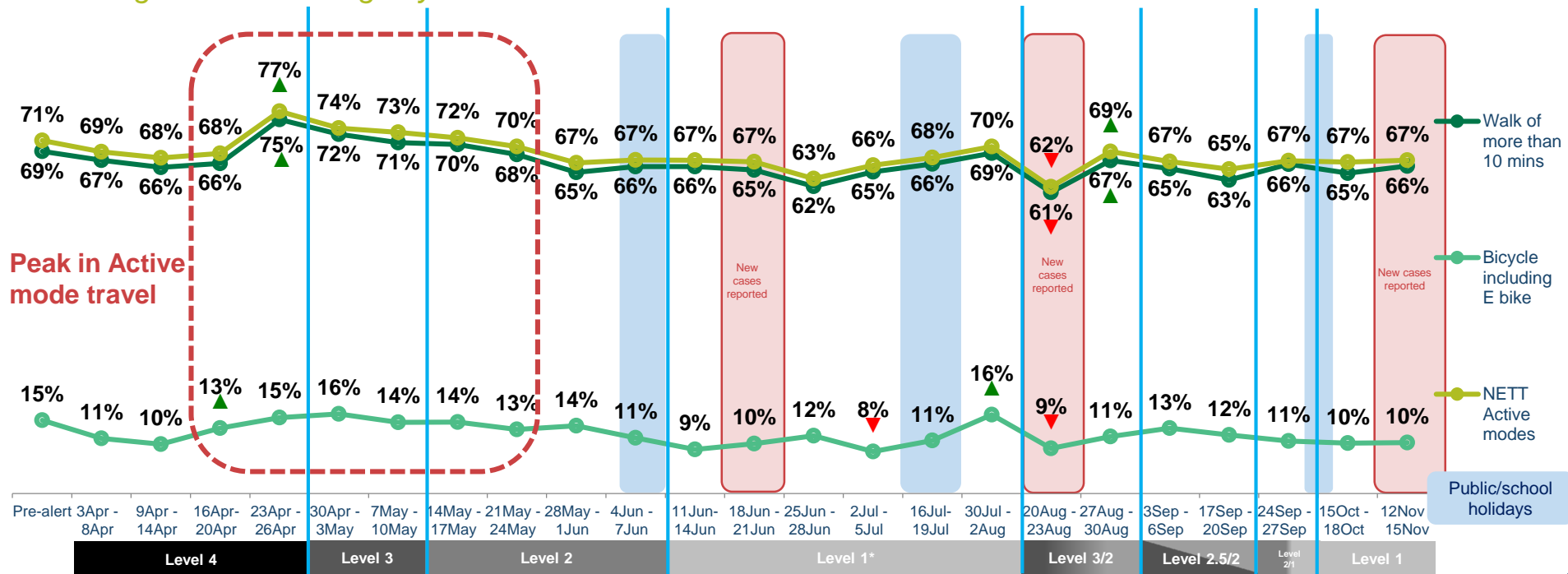
Indicates a statistically significant increase from previous time period



Indicates a statistically significant decrease from previous time period

While walking and cycling dropped like all modes of travel at the start of the second lockdown, they recovered quickly to comparable levels and have remained stable

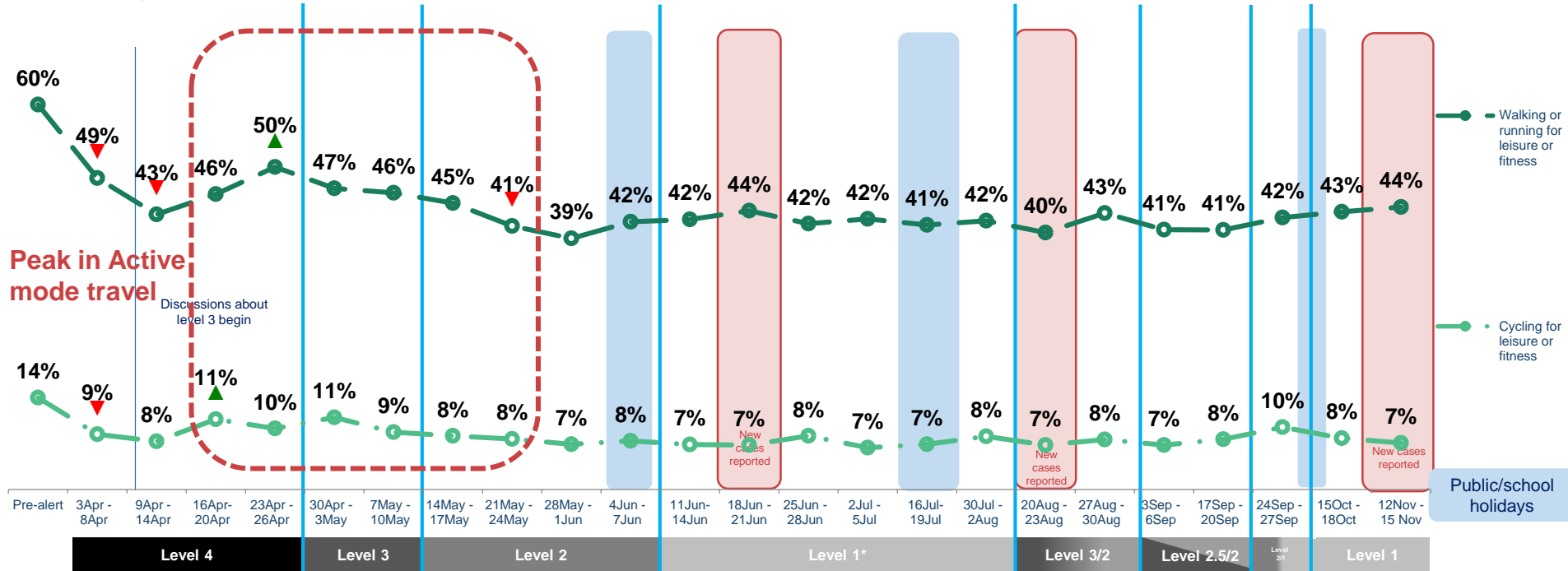
Changes in mode usage by wave



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 (n=c. 1,259 per wave)

Walking, running and cycling for leisure also peaked at a similar time to active mode travel and have not subsequently returned to the same rates

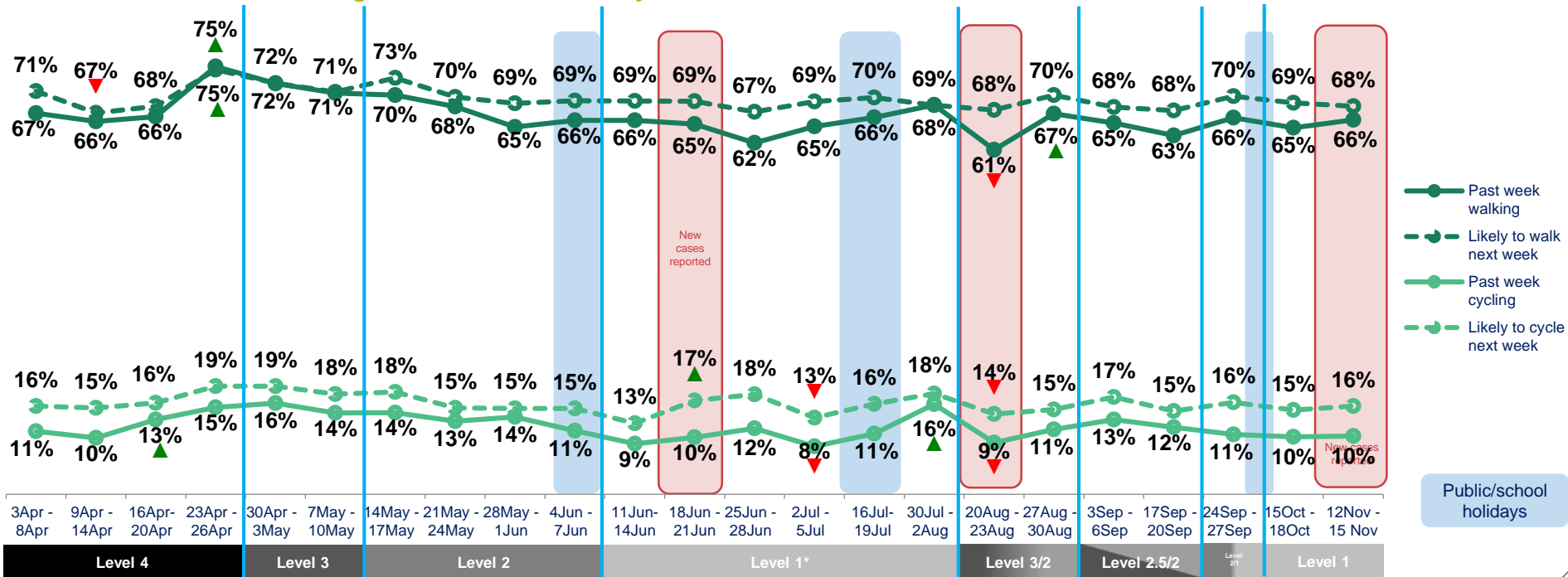
Changes in journey type by wave



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? QJOURNEY1-2. Which, if any of the following types of journeys would you have made in a normal week (eg in February this year)? And which, if any of the following types of journeys did you make during the last seven days? Base: all adults 15+ in New Zealand

Future consideration of both walking and cycling have tracked closely throughout and consideration has not always declined in response to new cases being reported

Consideration and usage of active modes by wave

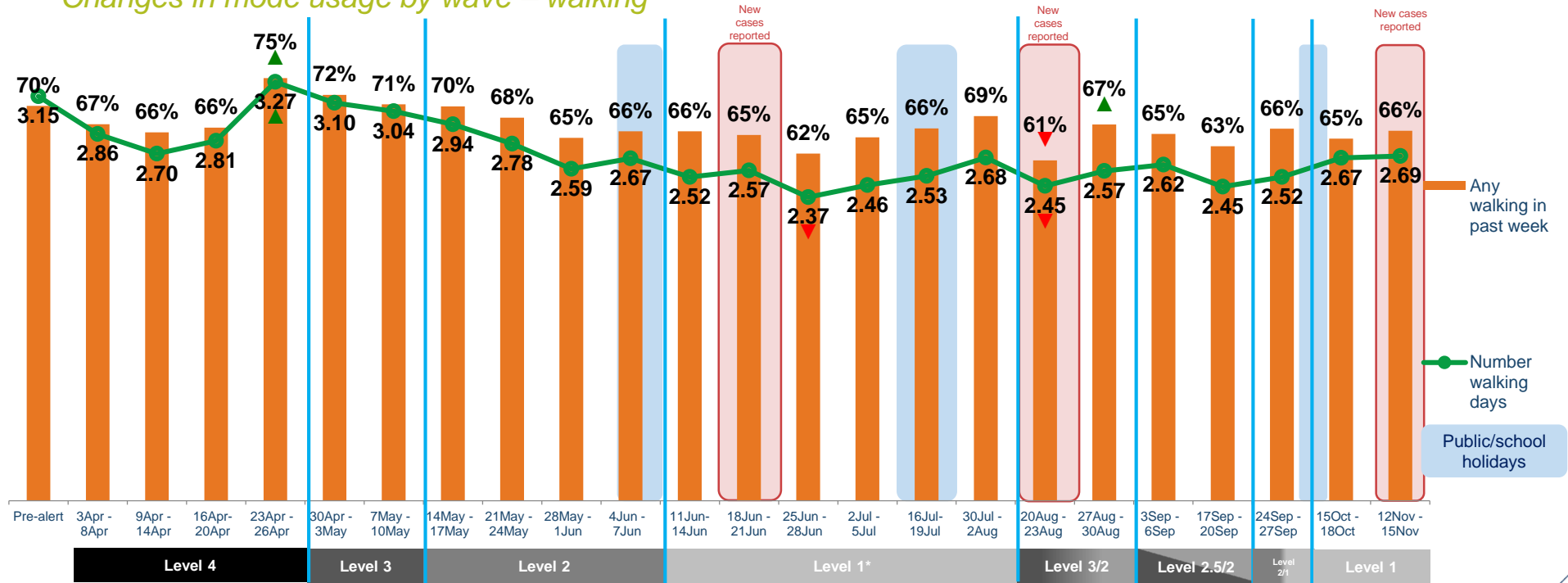


QFREQ2 – And in the course of a normal week, on how many days would you normally travel via each of the methods listed below? And during the past seven days, on how many days have you travelled via each of the modes listed below? QPT2 If available next week, which if any of the following would you be likely to use?

Base: all adults 15+ in New Zealand

At the peak in active mode travel, New Zealanders were walking for journeys on around 3.3 days each week, and have not recovered to this level subsequently

Changes in mode usage by wave – walking



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 (n=c.1,259 per wave)



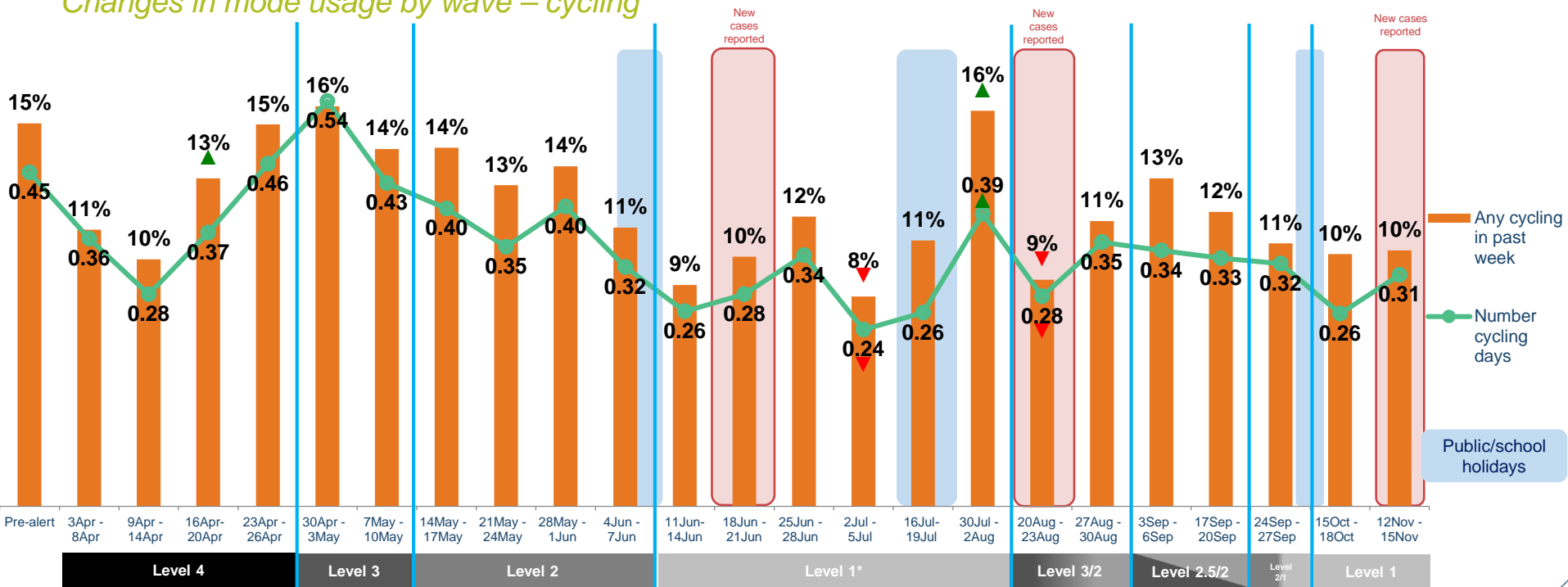
Indicates a statistically significant increase from previous time period



Indicates a statistically significant decrease from previous time period

With fewer cyclists, the average volume of days of bike travel is a little more erratic, but currently equivalent to once every three weeks on average across the population

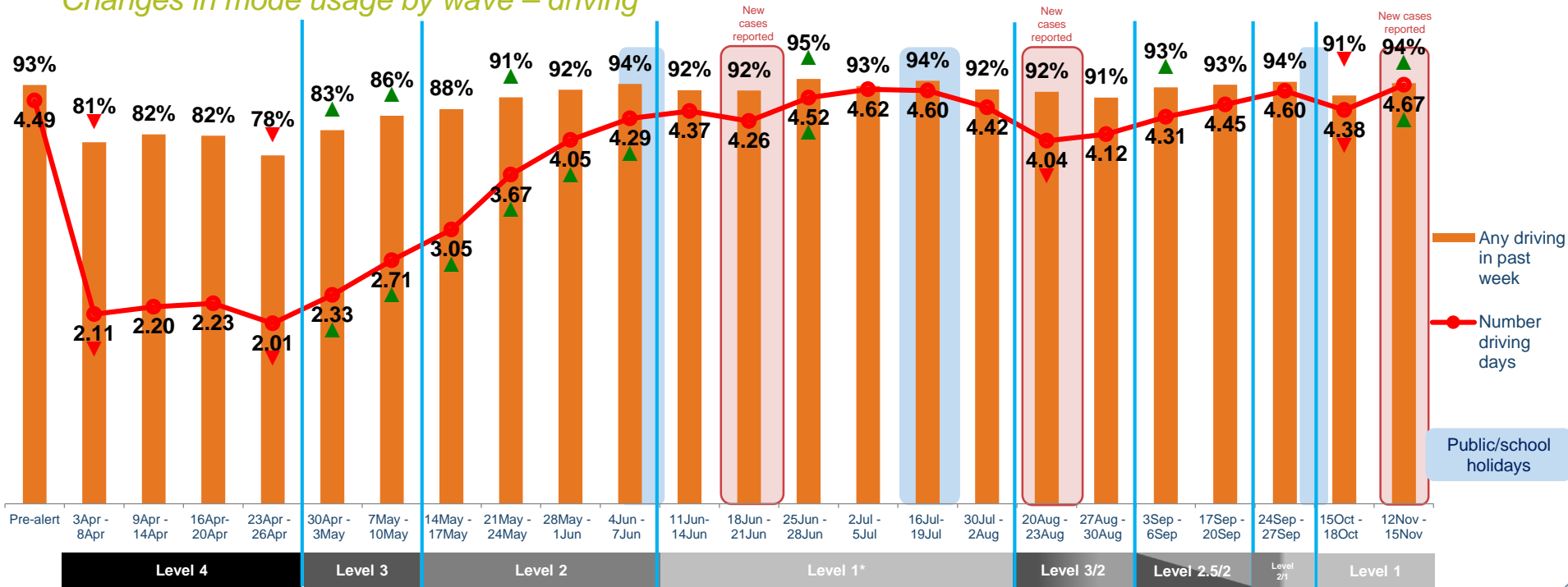
Changes in mode usage by wave – cycling



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 (n=c.1,259 per wave)

Comparatively car travel, the most used form of transport, has generally recovered to pre-lockdown levels

Changes in mode usage by wave – driving

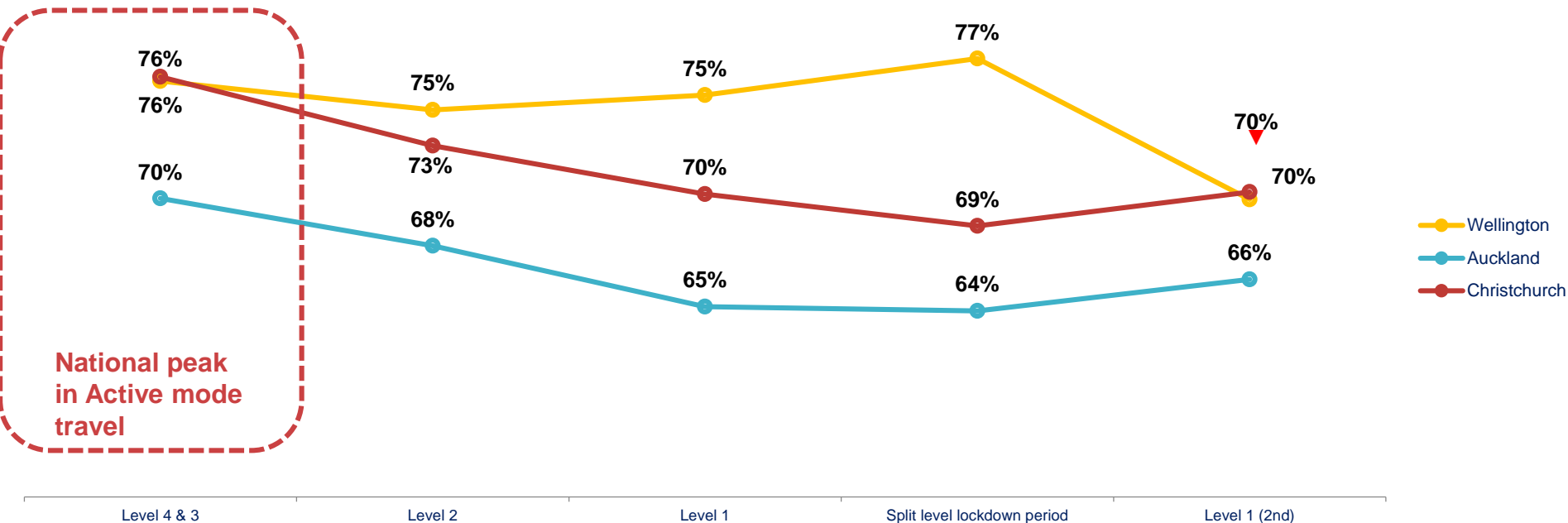


QFREQ1/QFREQ2 – And in the course of a normal week, on how many days would you normally travel via each of the methods listed below? And during the past seven days, on how many days have you travelled via each of the modes listed below? Base: all adults 15+ in New Zealand (n=c.1,259 per wave)



Notably Auckland, which experienced higher lockdown restrictions in the split-level lockdown, saw little change in active mode participation during this period

Changes in active mode usage by level – cities with population over 300K

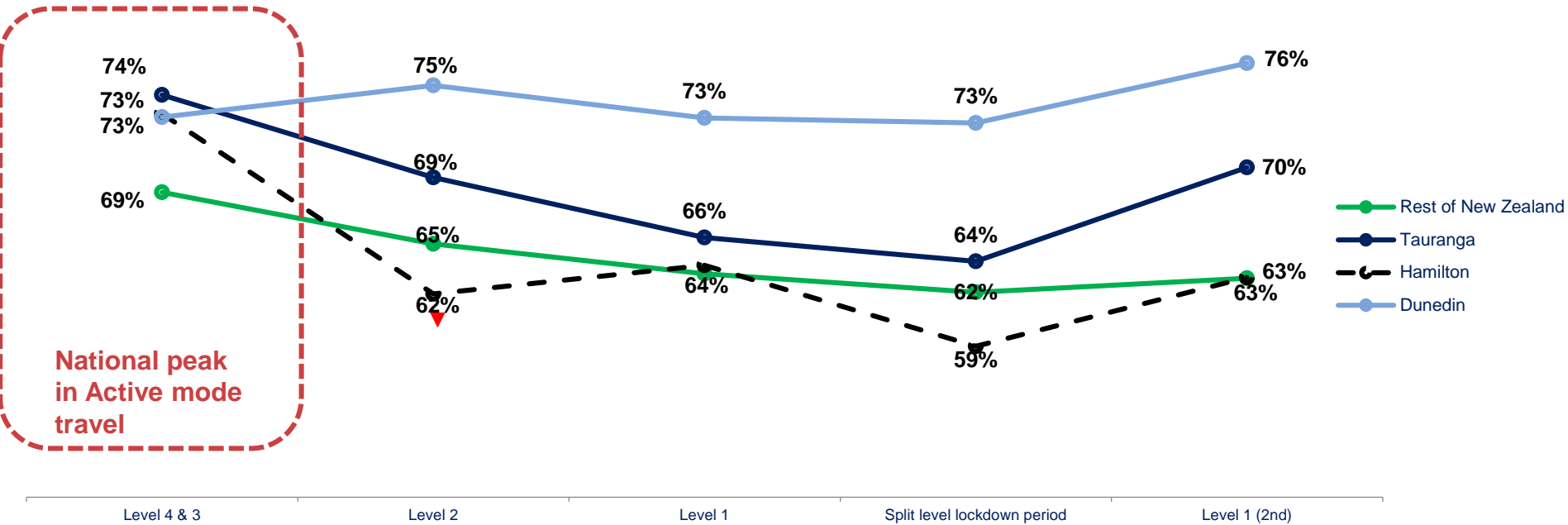


QFREQ1/QFREQ2 – And in the course of a normal week, **on how many days** would you normally travel via each of the methods listed below? And during the past seven days, **on how many days** have you travelled via each of the modes listed below? QJOURNEY1-2. Which, if any of the following types of journeys would you have made in a normal week (eg in February this year)? And which, if any of the following types of journeys did you make *during the last seven days*? Base: all adults 15+ in New Zealand



Dunedin, Tauranga and Hamilton have seen directional increases in active mode travel following the return to level 1

Changes in active mode usage by level – regions with cities under 300K residents



National peak in Active mode travel

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? QJOURNEY1-2. Which, if any of the following types of journeys would you have made in a normal week (eg in February this year)? And which, if any of the following types of journeys did you make during the last seven days? Base: all adults 15+ in New Zealand

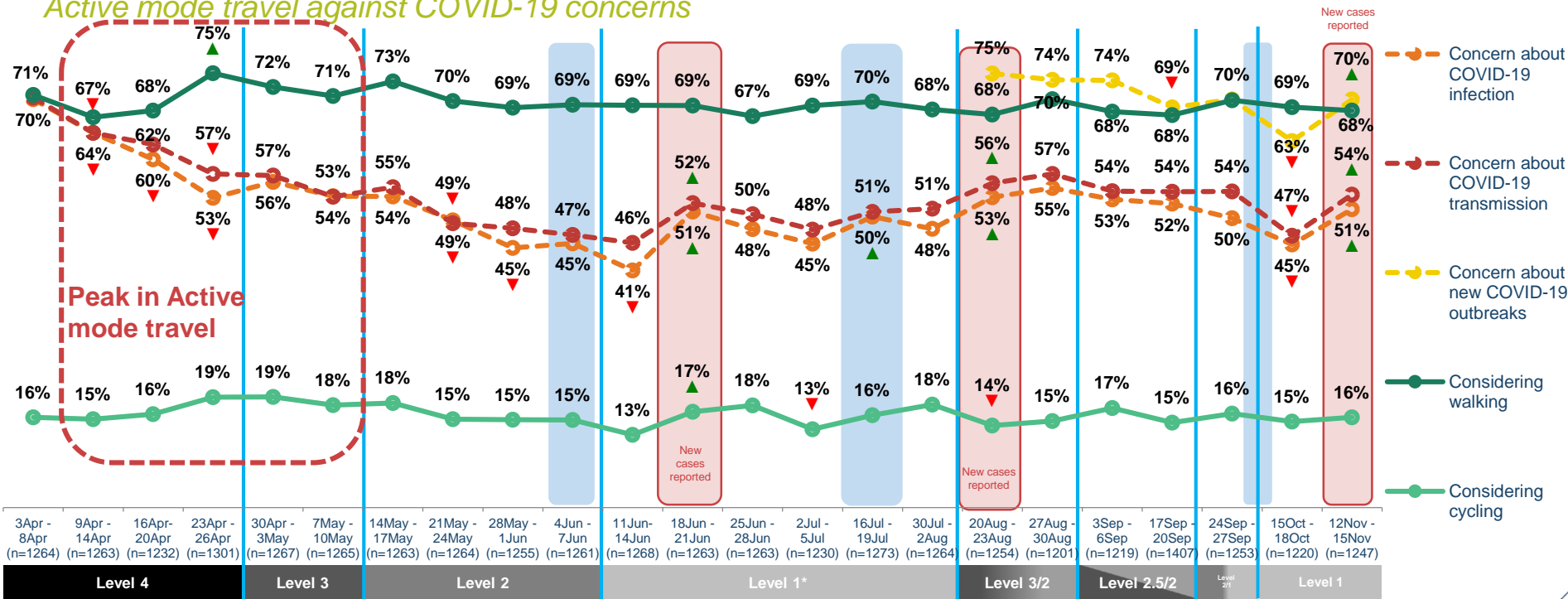




Section 3 – COVID-19 factors influencing active mode travel

Notably, national variations in levels of concern about COVID-19 don't appear to track with variations in active mode travel consideration

Active mode travel against COVID-19 concerns

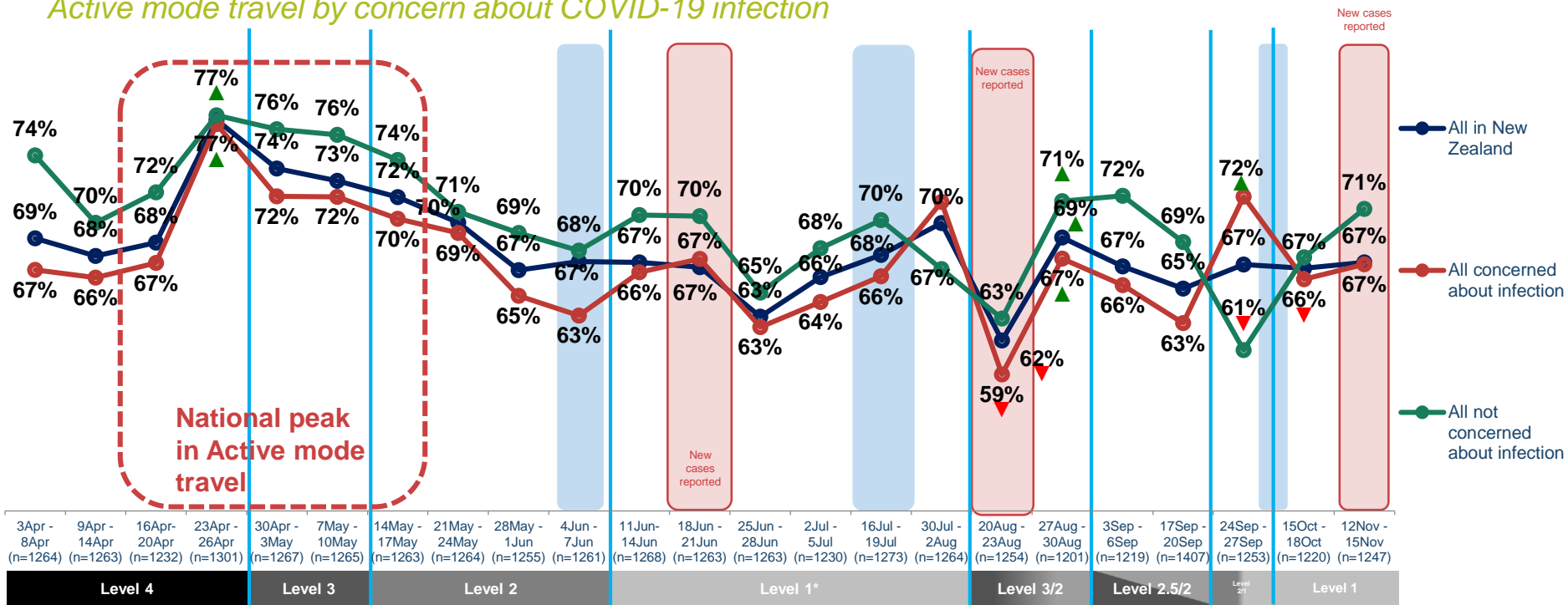


QFREQ2 – And in the course of a normal week, on how many days would you normally travel via each of the methods listed below? And during the past seven days, on how many days have you travelled via each of the modes listed below? QPTUSE3. How personally concerned are you about each of the following?

Base: all adults 15+ in New Zealand

Those with less concern about COVID-19 infection generally travel by active mode more, there is little indication that lessening concern drives active mode travel

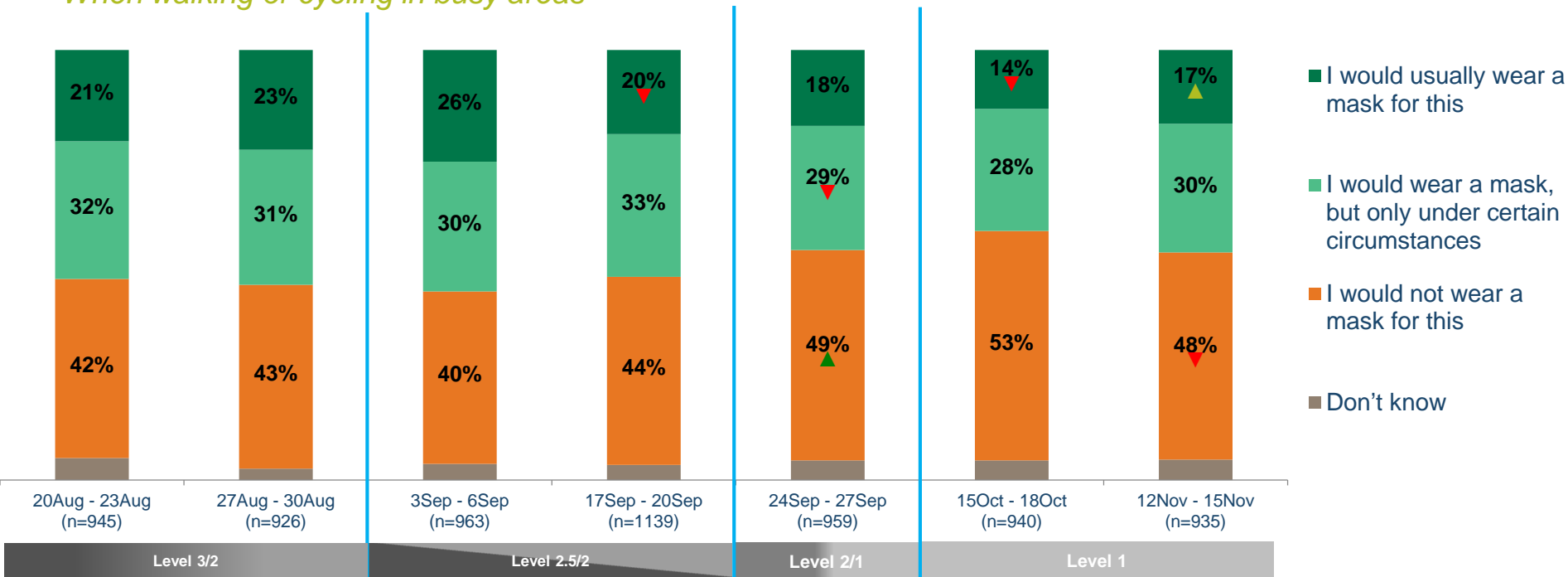
Active mode travel by concern about COVID-19 infection



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? QPTUSE3. How personally concerned are you about each of the following?
 Base: all adults 15+ in New Zealand; all concerned about COVID-19 infection; all not concerned

Stated intention to wear masks for active mode travel has not been particularly high, nor has it been particularly responsive to changes in alert levels

When walking or cycling in busy areas

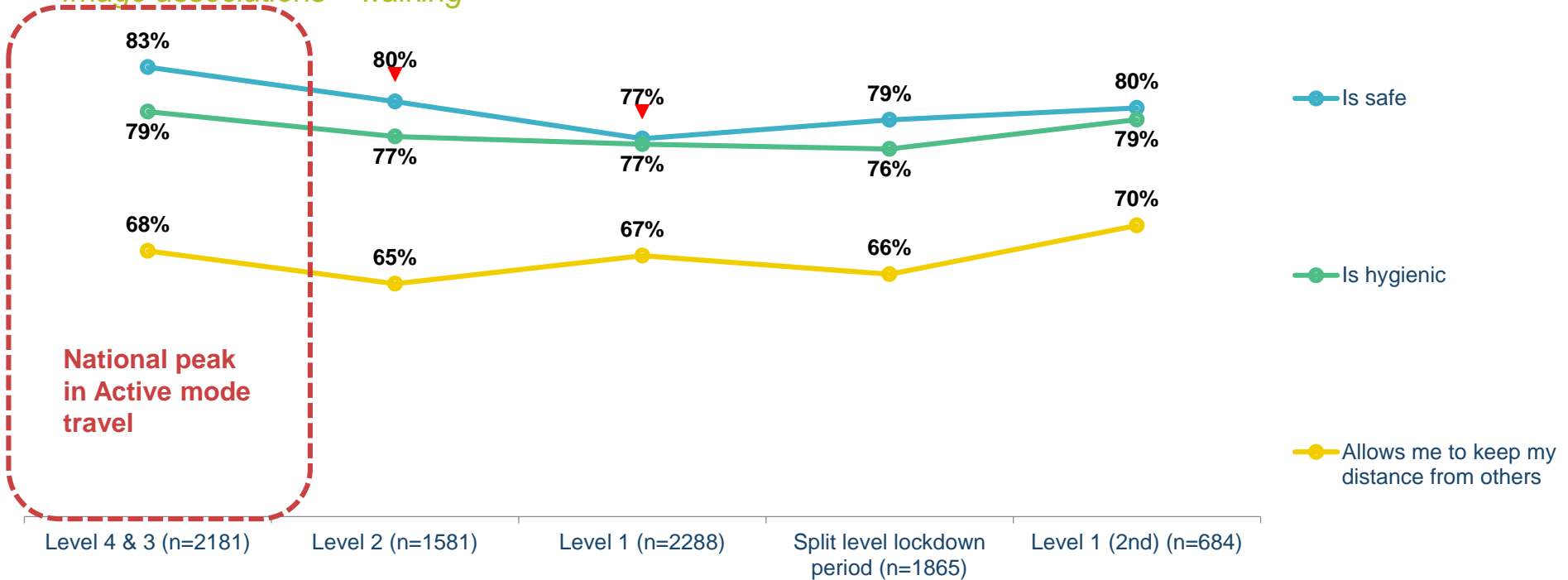


- I would usually wear a mask for this
- I would wear a mask, but only under certain circumstances
- I would not wear a mask for this
- Don't know

QMASK2A. Under the current alert level in your area, when doing the following activities which statement applies to you... When walking or cycling in busy areas
 Base: all adults 15+ in New Zealand who would normally do this activity

In the earlier stages of lockdown, walking benefited from stronger associations with safety and hygiene, whilst distancing associations have been more variable

Image associations – walking



QPTIMAGE – And, which transportation methods would you currently associate with each of the following qualities?
 Base: all adults 15+ in New Zealand who normally walk



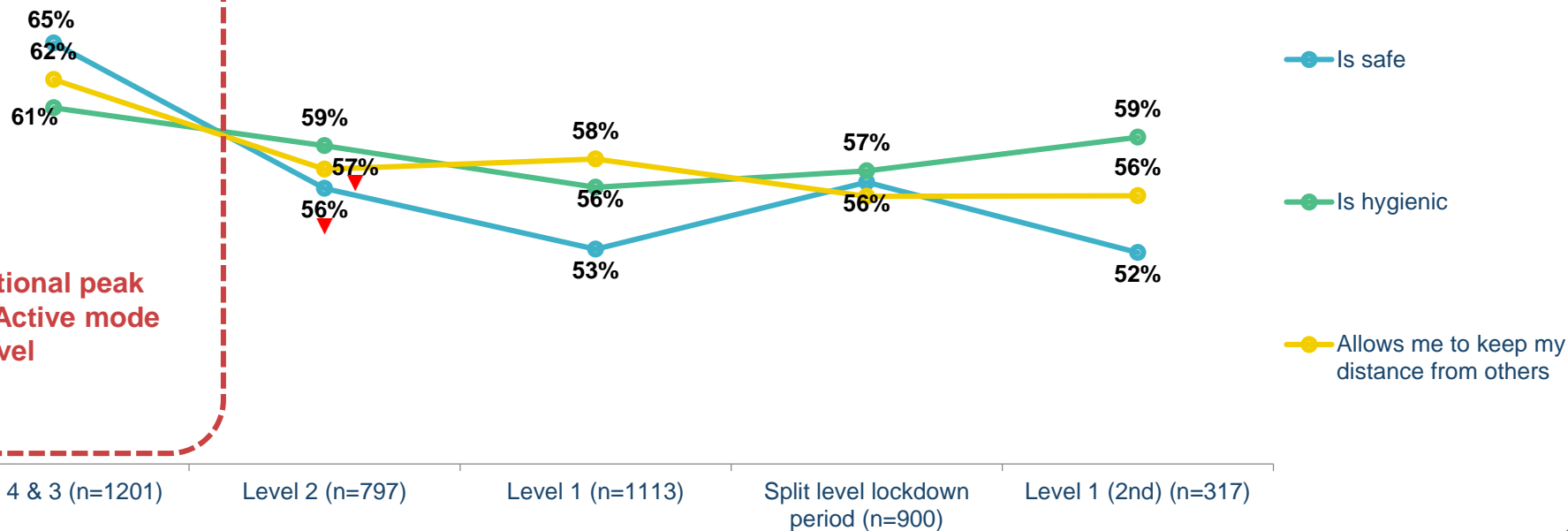
Indicates a statistically significant increase from previous time period



Indicates a statistically significant decrease from previous time period

For cycling, safety and distancing were more strongly associated early on, when perhaps fewer vehicles were on the road, and hygiene has not changed over time

Image associations – cycling



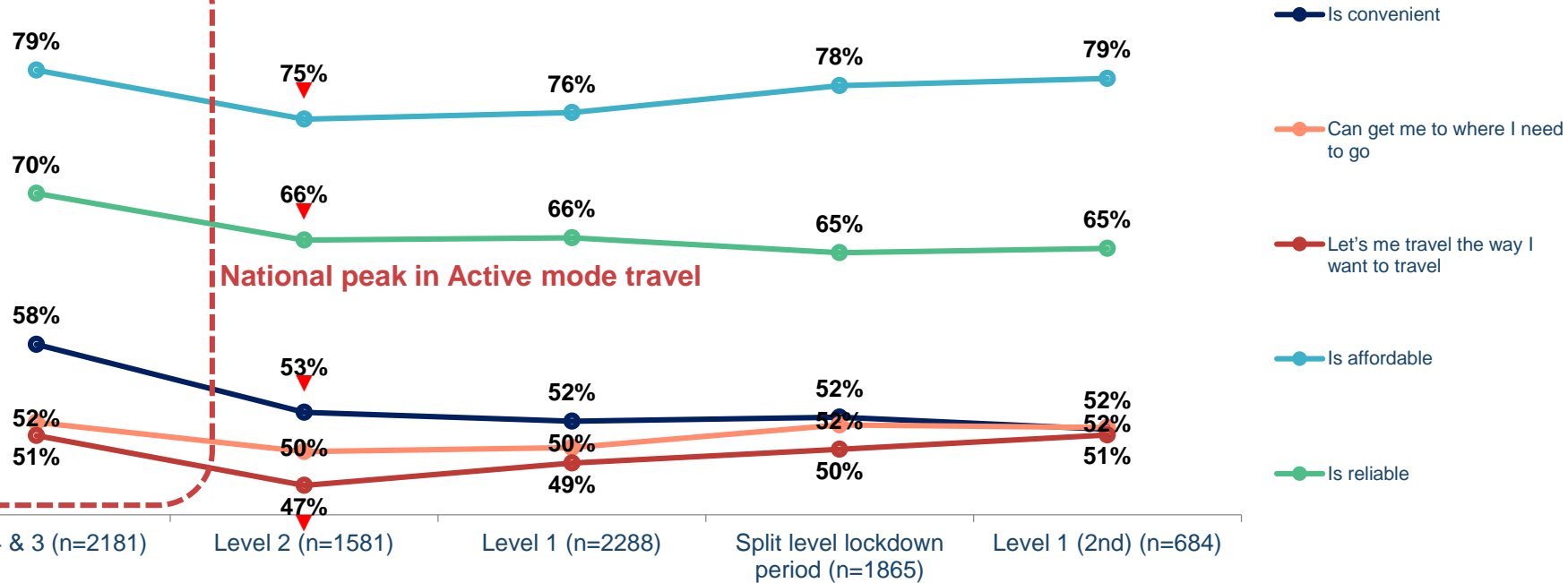
QPTIMAGE – And, which transportation methods would you currently associate with each of the following qualities?
 Base: all adults 15+ in New Zealand who normally cycle



Section 4 – Other factors influencing active mode travel

Looking at more practical associations, even affordability followed a similar pattern for walking, dropping significantly in level 2

Image associations – walking



National peak in Active mode travel

QPTIMAGE – And, which transportation methods would you currently associate with each of the following qualities?
 Base: all adults 15+ in New Zealand who normally walk



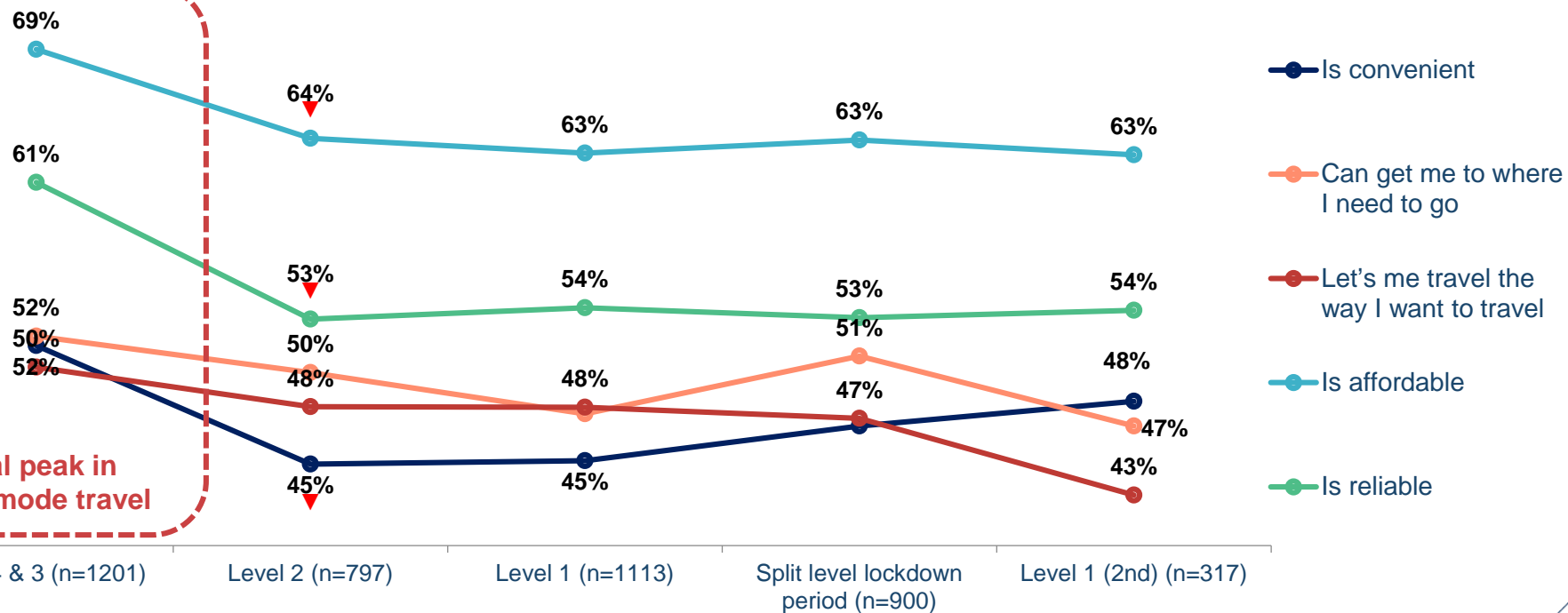
Indicates a statistically significant increase from previous time period



Indicates a statistically significant decrease from previous time period

This is also true for cycling, which appears to have benefited more from high active mode engagement during higher lockdown levels

Image associations – cycling



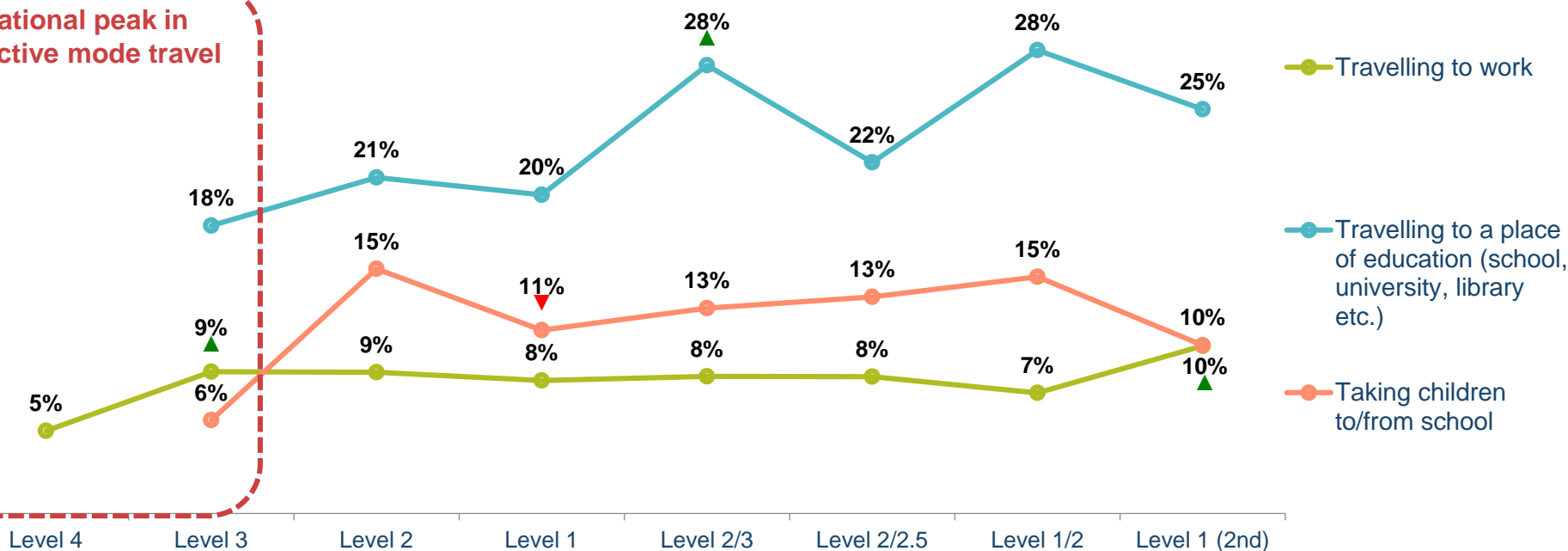
National peak in Active mode travel

QPTIMAGE – And, which transportation methods would you currently associate with each of the following qualities?
 Base: all adults 15+ in New Zealand who normally cycle

One of the biggest essential journeys for active mode travel has been students travelling to university, comparatively, it is not commonly used for work and varied little

Active mode travel for daily journeys

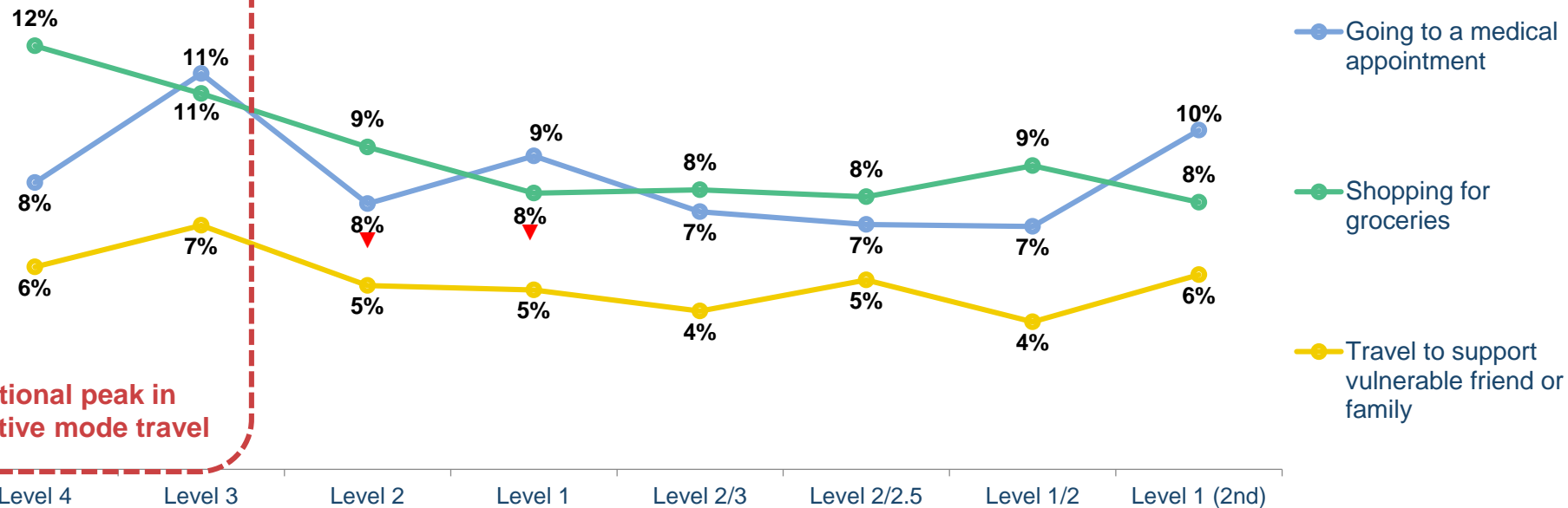
National peak in Active mode travel



QMODE2 – Thinking again about the journeys you have taken outside of the home during the past seven days. How did you make each of the journeys listed below?
 Base: all adults 15+ in New Zealand

In the earlier stages of lockdown active modes were more commonly used for grocery shopping trips, but this has decreased in lower alert levels

Active mode travel for less-frequent journeys



QMODE2 – Thinking again about the journeys you have taken outside of the home during the past seven days. How did you make each of the journeys listed below?
 Base: all adults 15+ in New Zealand



