

# Waka Kotahi COVID-19 transport impact

Fieldwork waves 1, 2, 3 & 4 weekly core report

28 April 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 are part of an ongoing research project and have not yet been through a formal peer review process.

While Waka Kotahi provided investment, the research is being 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.

# Report content

## COVID-19 transport impact

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# 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 weekly basis

- such as trip frequency and journey type changes.

To understand **why travel is changing** and evolving in response to COVID-19 on a weekly 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 weekly 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 18+ years old, with a weekly sample of n=1259 per week, 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.

There will be **three types of outputs** available on a weekly basis:

- 1) Online dashboard results delivered through Harmoni
  - with the ability to manipulate, interrogate and export the data according to your areas of interest.
- 2) This weekly 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: Harmony 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 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.

# Report notes (i)

## Key information to note for this report

- This report is based on the first three waves of fieldwork:
  - wave 1 data collected Friday 3 April to Wednesday 8 April;
  - wave 2 Thursday 9 April to Tuesday 14 April;
  - wave 3 Thursday 16 April to Monday 20 April;
  - wave 4 Thursday 23 April to Sunday 26 April.
- Total sample for this report is presented both as a combined sum of these four fieldwork waves, as well as individual waves where appropriate.
- All fieldwork was completed under a Level 4 alert in New Zealand.
- The focus of this report is the beginning of 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 4 report is based on a statistically significant shift of results between waves 1, 2 and 3.
- 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 all four waves.



# 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.

**Essential worker:** All respondents indicating that they are classified as an Essential Worker at the current alert level.

**Travelling essential worker:** All respondents indicating that they are classified as an essential worker at the current alert level and that they are required to leave their home for their job.


# Sample structure and further definitions

	Definition	Total Sample		Wave 1		Wave 2		Wave 3		Wave 4	
		Sample	MoE*	Sample	MoE*	Sample	MoE*	Sample	MoE*	Sample	MoE*
Total		n=5,060	1.38	n=1,264	2.76	n=1,263	2.76	n=1,232	2.79	n=1,301	2.72
Auckland	All in Auckland Region, including city and surrounding rural areas	n=1,324	2.69	n=331	5.39	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=100	9.8	n=100	9.8	n=100	9.8	n=100	9.8
Hamilton	All living in the city of Hamilton	n=400	4.9	n=100	9.8	n=100	9.8	n=79	11.03	n=121	8.91
Wellington	All in Wellington Region, including city and surrounding rural areas	n=684	3.75	n=173	7.45	n=145	8.14	n=145	8.14	n=221	6.59
Christchurch	All living in the city of Christchurch	n=300	5.66	n=100	9.8	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=100	9.8	n=98	9.9	n=100	9.8	n=100	9.8
Rest of NZ	All living in areas outside of those noted above	n=1,454	2.57	n=360	5.16	n=389	4.97	n=377	5.05	n=328	5.41
Any Disability	See previous page	n=550	4.18	n=130	8.6	n=147	8.08	n=133	8.5	n=140	8.28
COVID-19 Vulnerable	See previous page	n=1,230	2.79	n=315	5.52	n=341	5.31	n=284	5.82	n=290	5.75
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=158	7.8	n=156	7.85	n=144	8.17	n=160	7.75
Travelling Essential Worker	See previous page	n=542	4.21	n=138	8.34	n=128	8.66	n=147	8.08	n=129	8.63
Essential worker	See previous page	n=1,125	2.92	n=288	5.77	n=268	5.99	n=285	5.8	n=284	5.82

\*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.

# Context: New Zealand COVID-19 timeline





## Section 2 – Waka Kotahi transport key findings summary

# Key findings – waves 1 – 4

## Waka Kotahi COVID-19 transport impact tracker

- Despite Level 4 restrictions 84% of New Zealanders are still travelling in some way.
  - Based on our segmentation, more than 80% are in at least partial isolation, with 9% considered “risk taking” travellers and 10% essential workers who need to travel for work.
- Exercise journeys and active mode travel have both trended upwards in the final waves of the level 4 alert, with a greater proportion reporting taking a 10 minute walk at least once a week than reported in pre-lockdown behaviour.
- The absence of traffic on the roads is not a strong driver of this on-street activity, with a stated desire for exercise, personal space and a change of scenery driving people outdoors.
  - There are higher levels of enjoyment among those getting outdoors, but lack of traffic and quiet streets is not the main motivation for getting out of the house to walk or cycle. Although quiet streets is a noted benefit, followed by feelings of increased safety.
- Public transport modes continue to have an image weakness around safety, hygiene and social distancing at this time. However, the continued offering of free travel on buses has boosted perceptions of affordability for public transport modes as we approach level 3 conditions.
- Attitudinal tracking shows an easing of certain fears around virus transmission in the general population, but discussions around reverting to level 3 may have resulted in initial uncertainty until exposure to communications reached a point that restored widespread confidence.
- New Zealanders continue to adjust to COVID-19 restrictions, with a sustained decline in those reporting shopping experiences as harder than before.
- While some parents now have the option to return their children to school there is still hesitancy among most of these parents whose children qualify to return, and it may be some time before this change manifests in greater road traffic.

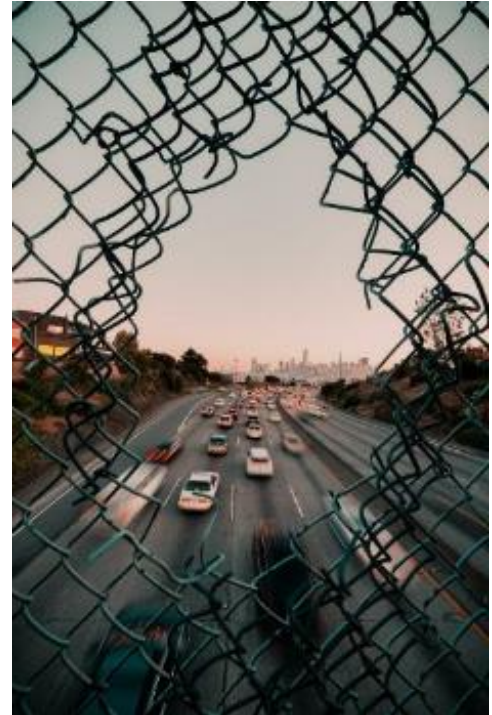


## Section 3 – COVID 19 travel behaviour

# Key findings – COVID-19 travel behaviour

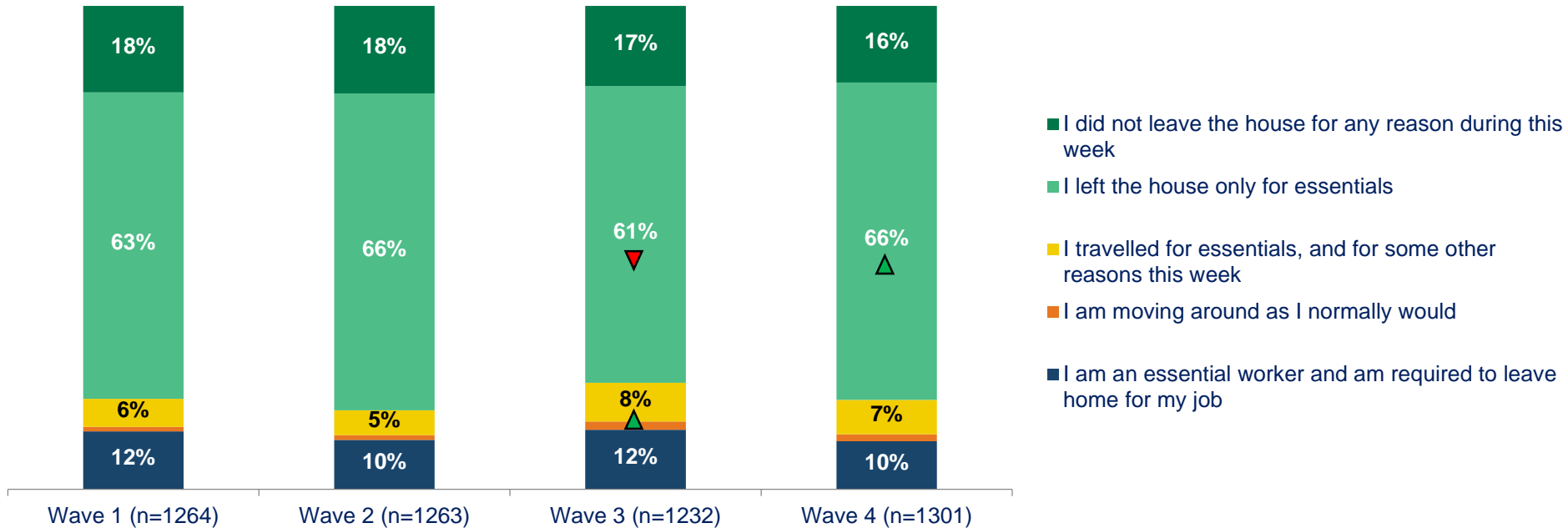
## Waka Kotahi objective – how is travel changing?

- To understand how travel is changing across the COVID-19 risk levels the survey asks New Zealanders about their behaviour in the specific context of level 4 self-isolation instigated as part of the risk level 4 lockdown.
- As with previous waves, the vast majority of New Zealanders are adhering to level 4 lockdown restrictions. In wave 3, there was some variation with more non-essential journeys. However, wave 4 saw a reversion to what has so far been the average.
- According to level 4 segmentation, the majority of the population is adhering to lockdown restrictions, with only one in 10 considered to be risk takers.
- All reported essential journey activity trended down immediately following the lockdown. While work and shopping journeys continue to be limited, waves 3 and 4 saw an upturn in those reporting exercise trips, walking running or cycling.
- It is expected that with the coming return to level 3 restrictions, we will see a similar upturn in work journeys and journeys related to education/school-runs.



# The activity profile of wave 4 has returned to similar levels seen in waves 1 and 2

## Reported activity and movement during the past seven days by survey wave



ISO\_1\_TRAVEL. Which, if any of the following best describes your approach to leaving the house over the last week, excluding for exercise?  
Base: all adults 15+ in New Zealand





# Level 4 segmentation

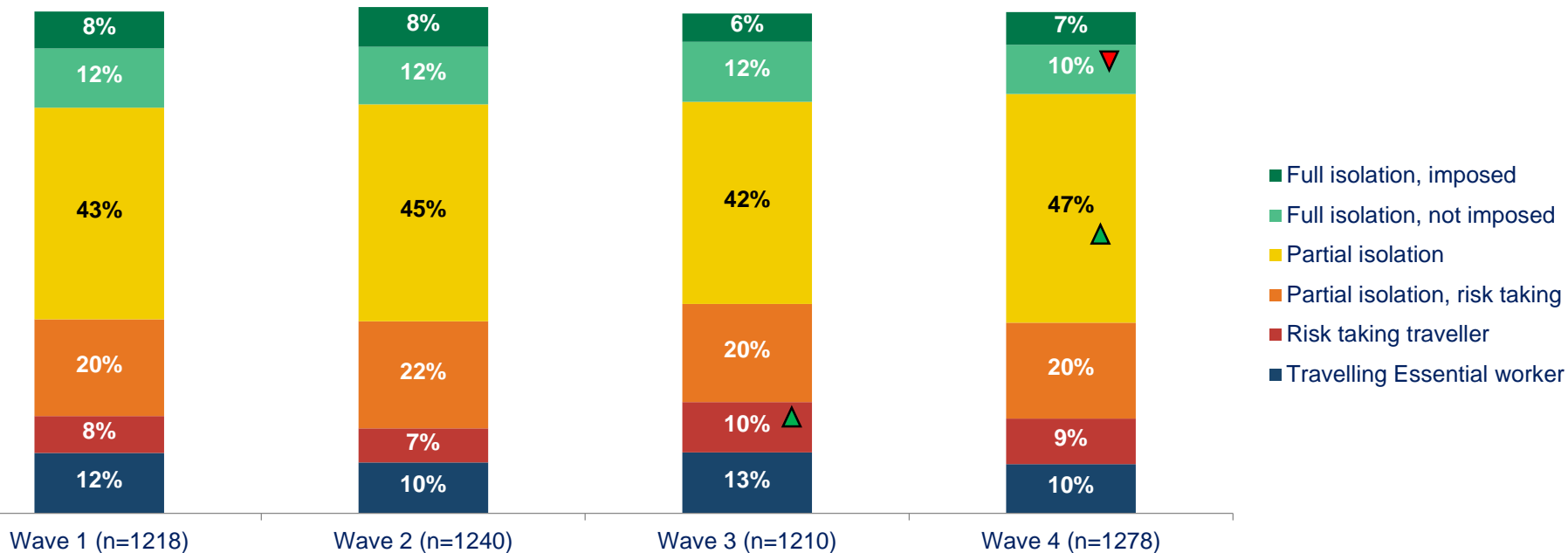
## Vulnerability and activity

- A segmentation was created to categorise the public according to their behaviour and circumstances in level 4.
- By cross-categorising their reported health with their reported movements in the preceding week, we are able to sort the population according to levels of adherence and personal risk.
- For example, any out-of-home activity reported by those with high COVID-19 vulnerability is considered risk taking to an extent, while those few moving around with COVID-19 symptoms are acting to an even higher level of risk.

Reported activity levels	I am not prepared leave the house for any reason during this week	I will only leave the house for essentials (e.g. food and medical reasons) excluding exercise	I travelled for some other reasons this week	I am moving around as I normally would	I am an essential worker and am required to leave home for my job
Reported health status					
COVID-19 Vulnerable	Full isolation, imposed	Risk taking partial isolation	Risk taking traveller		Essential worker
Aged 70+ years					
Overseas or exposed					
Sick, not COVID-19	Full isolation, not imposed	Partial isolation	Risk taking traveller		Essential worker
COVID-19 or suspected COVID-19	Full isolation, imposed	Risk taking traveller			
COVID-19 recovered					
No health conditions	Full isolation, not imposed	Partial Isolation	Risk taking traveller		Essential worker

# There hasn't been a marked variation in segments during lockdown despite a slight increase in those partially isolating in the final week of level 4

*Reported activity and movement during the past seven days by survey wave*



ISO\_1\_TRAVEL. Which, if any of the following best describes your approach to leaving the house over the last week, excluding for exercise?/ QVULN Which, if any of the following best describes the health of people in your household last week?

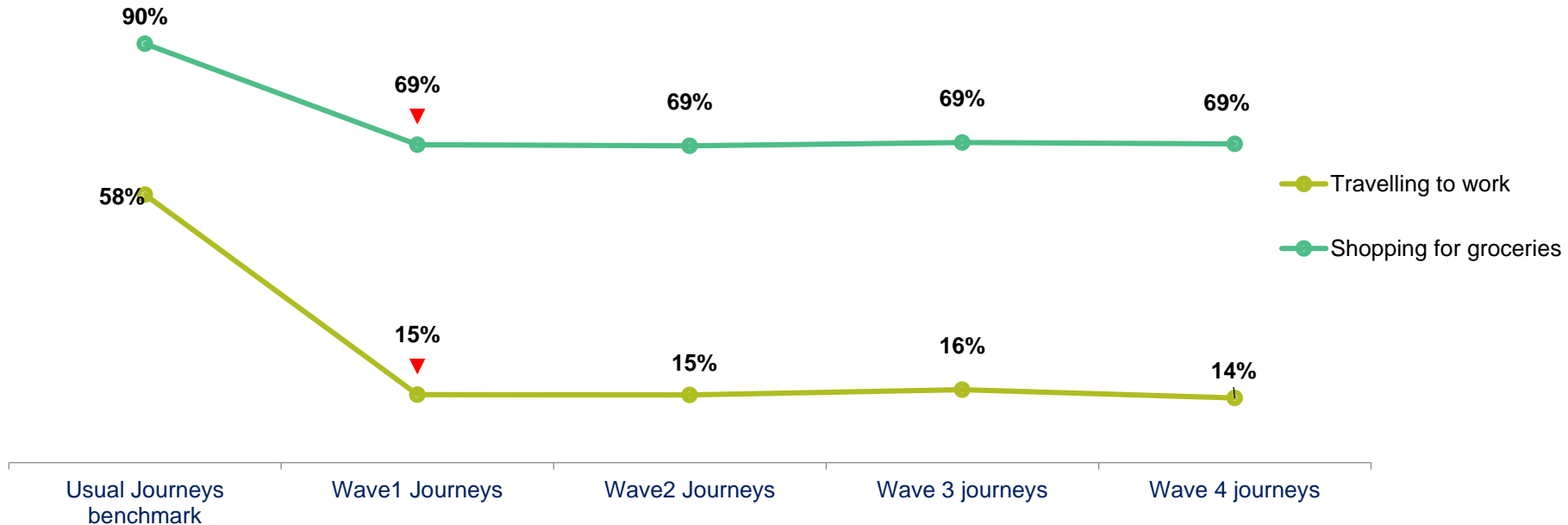
Base: all adults 15+ in New Zealand



# Shopping and work were the most common journeys before lock down. Like most reported journeys, they have been stable since the level 4 alert was announced

## Usual weekly journeys versus past week by survey wave

NB: respondents were asked to indicate their usual journeys taken in a normal week, with February 2020 given as an example and what journeys, if any, they had taken in the past seven days



QJOURNEY1-2. Which, if any of the following types of journeys would you have made in a *normal* week (e.g. in February this year)?/ And which, if any of the following types of journeys did you make *during the last seven days*?

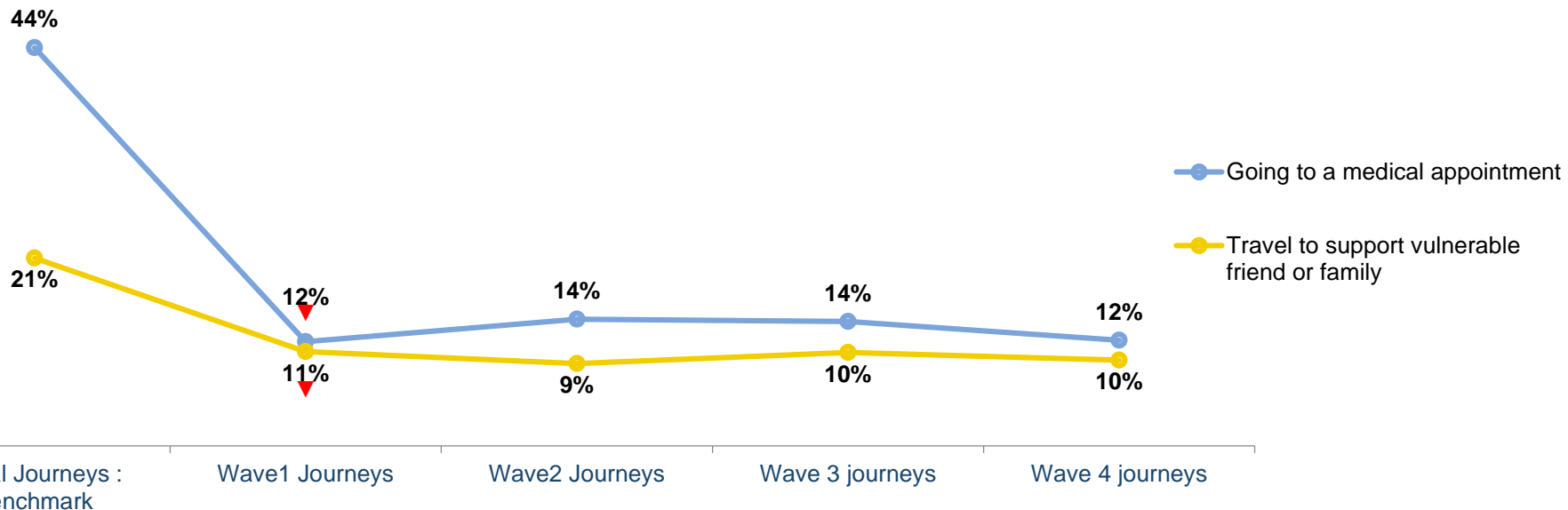
Base: all adults 15+ in New Zealand in Benchmark: (n=3,759); Wave 1 (n=1,264); Wave 2 (n=1,263); wave 3 (n=1,232), wave 4 (n=1,301)



# Medical visits and caring for vulnerable people dropped immediately following the alert level 4 announcement and have not begun to revert to normal levels

## Usual weekly journeys versus past week by survey wave

**NB:** respondents were asked to indicate their usual journeys taken in a normal week, with February 2020 given as an example and what journeys, if any, they had taken in the past seven days



QJOURNEY1-2. Which, if any of the following types of journeys would you have made in a *normal* week (e.g. in February this year)?/ And which, if any of the following types of journeys did you make *during the last seven days*?

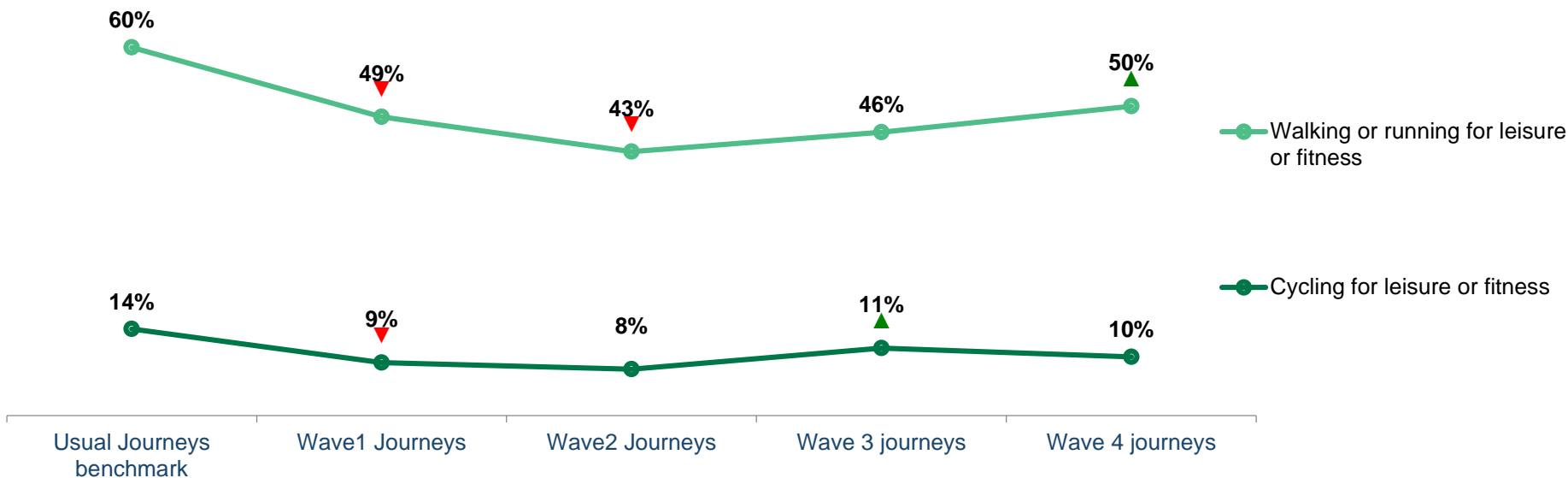
Base: all adults 15+ in New Zealand in Benchmark: (n=3,759); Wave 1 (n=1,264); Wave 2 (n=1,263); wave 3 (n=1,232), wave 4 (n=1,301)



# Exercise journeys have trended upwards since week two of tracking, despite an initial decline

## Usual weekly journeys versus past week by survey wave

**NB:** respondents were asked to indicate their usual journeys taken in a normal week, with February 2020 given as an example and what journeys, if any, they had taken in the past seven days



QJOURNEY1-2. Which, if any of the following types of journeys would you have made in a *normal* week (e.g. 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 in Benchmark: (n=3,759); Wave 1 (n=1,264); Wave 2 (n=1,263); wave 3 (n=1,232), wave 4 (n=1,301)





## Section 4 – COVID 19 mode usage

# Key findings – mode usage

## Waka Kotahi objective – how are travel patterns changing?

- In order to understand how travel patterns are changing we need to understand how COVID-19 may drive shifts in the modes of transport used at different risk levels and how this varies across the population.
- Self-reported usage of public transport has seen the steepest decline as a transport mode, while the proportion using some form of active mode at least once a week has surged during the latter stages of lockdown and is now higher than pre-lockdown levels, possibly as New Zealanders attempt to stay active in their new circumstances.
- There is evidence of a continuing reliance on public transport among New Zealanders with a disability, with the proportion using remaining stable throughout the lockdown.
- The chief cause of reduced public transport usage continues to be reduction in need and not problems with access.
- Discussions around returning to level 3 drove higher consideration of most transport modes. However, public transport modes did not sustain this higher consideration in the way that active modes, particularly walking, have.

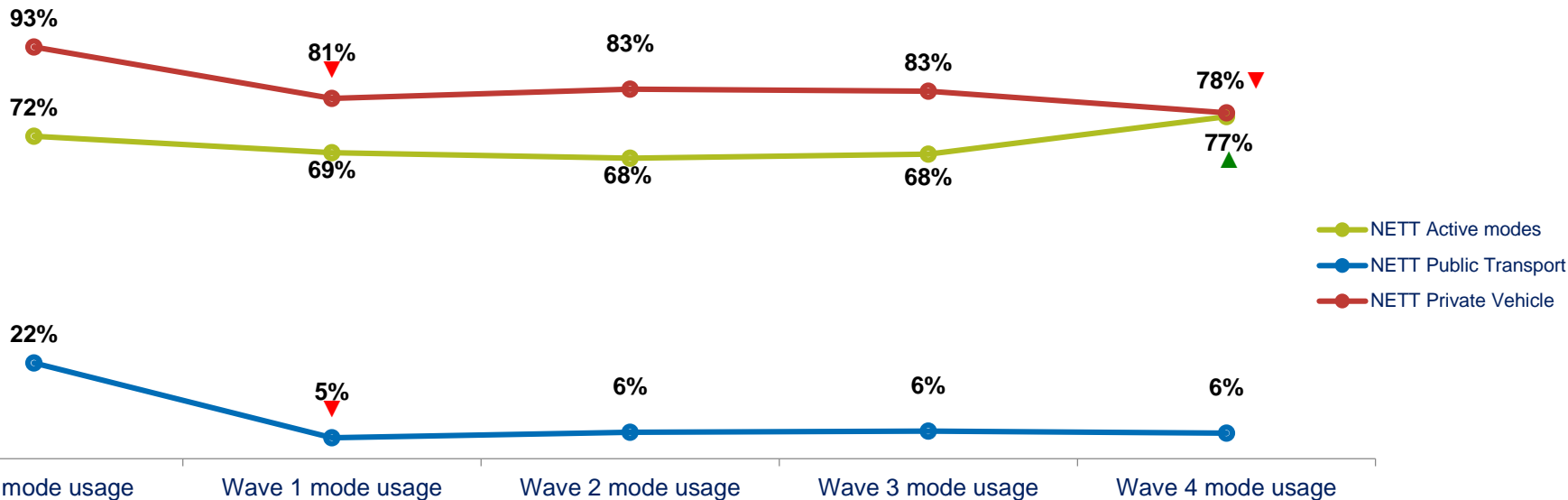


# There has been a marked nine point increase in active mode usage in the final week of the level 4 alert, coinciding with a five point drop in private vehicle use

## Modes used in a normal week vs used in past week by survey wave

**NB:** respondents were asked to indicate how many days per week they usually used each transport mode, and how many days they had used in the past seven days, the below indicates the proportion who indicated any days of travel in a normal week and in the past week.

NETT of public transport includes bus, train, ferry journeys only



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 in Benchmark: (n=3,759); Wave 1 (n=1,264); Wave 2 (n=1,263); wave 3 (n=1,232); wave 4 (n=1,301)

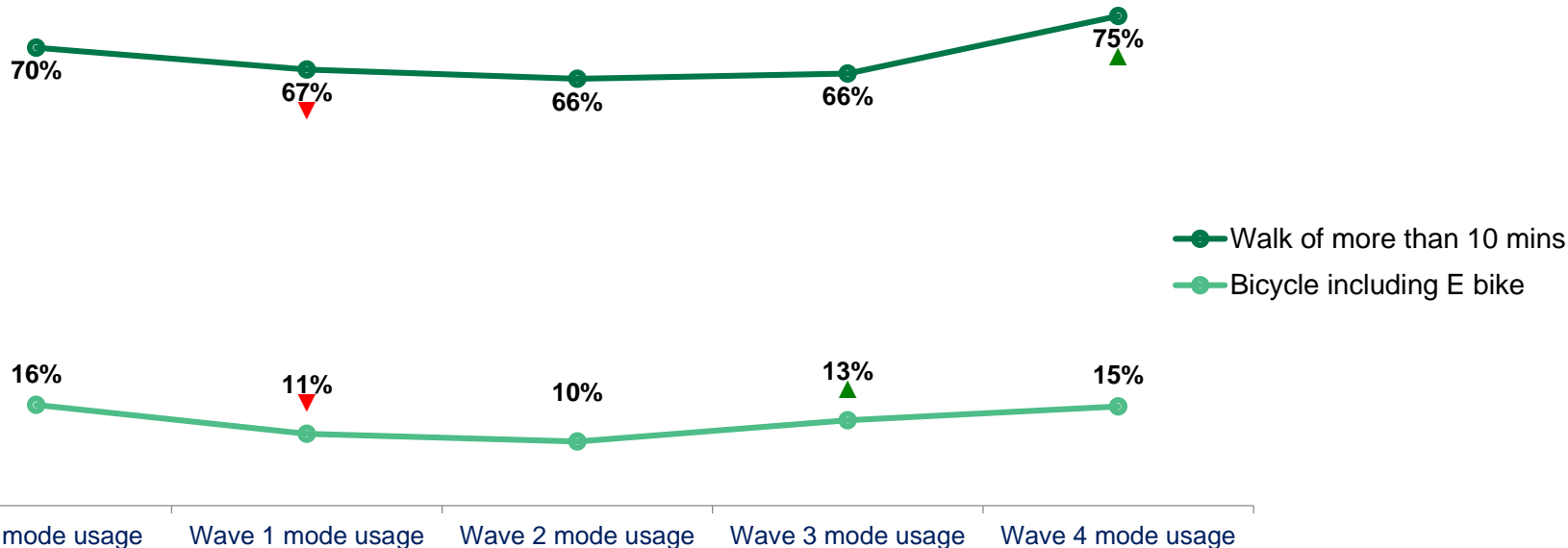




# The marked upturn in active modes is driven primarily by more reported walking during the past seven days

## Modes used in a normal week vs used in past week by survey wave

**NB:** respondents were asked to indicate how many days per week they usually used each transport mode, and how many days they had used in the past seven days, the below indicates the proportion who indicated any days of travel in a normal week and in the past week.



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?

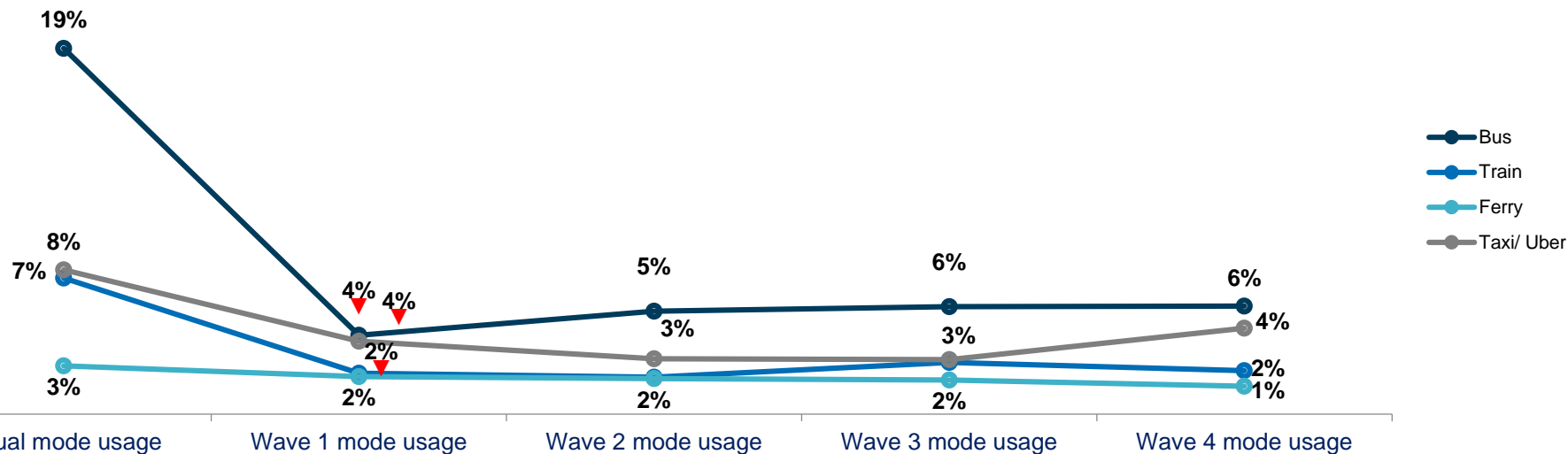
Base: all adults 15+ in New Zealand in Benchmark: (n=3,759); Wave 1 (n=1,264); Wave 2 (n=1,263); wave 3 (n=1,232); wave 4 (n=1,301)



# Declines in reported public transport usage are driven more by decreased bus usage than any other mode

## Modes used in a normal week vs used in past week by survey wave

**NB:** respondents were asked to indicate how many days per week they usually used each transport mode, and how many days they had used in the past seven days, the below indicates the proportion who indicated any days of travel in a normal week and in the past week.



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?

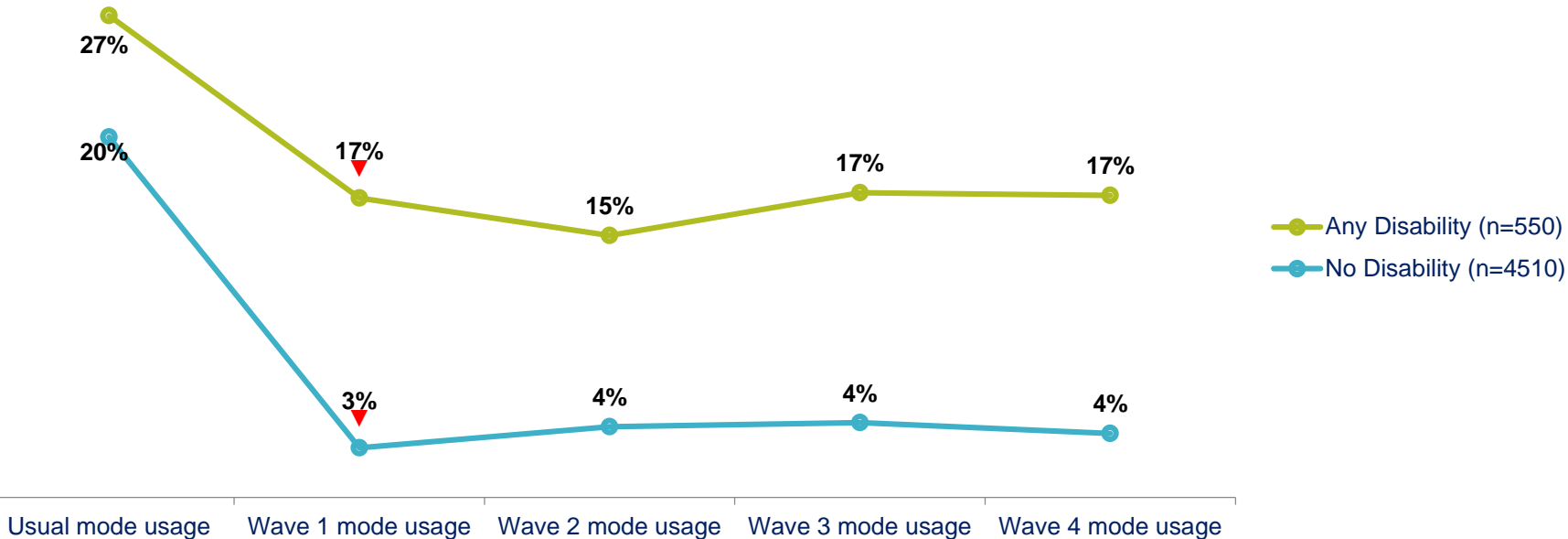
Base: all adults 15+ in New Zealand in Benchmark: (n=3,759); Wave 1 (n=1,264); Wave 2 (n=1,263); wave 3 (n=1,232); wave 4 (n=1,301)



# Those with disabilities continue to be more likely to use public transport during the level 4 alert

## Public Transport used in a normal week vs used in past week by survey wave

**NB:** respondents were asked to indicate how many days per week they usually used each transport mode, and how many days they had used in the past seven days, the below indicates the proportion who indicated any days of travel in a normal week and in the past week. NETT of public transport includes bus, train, ferry journeys only



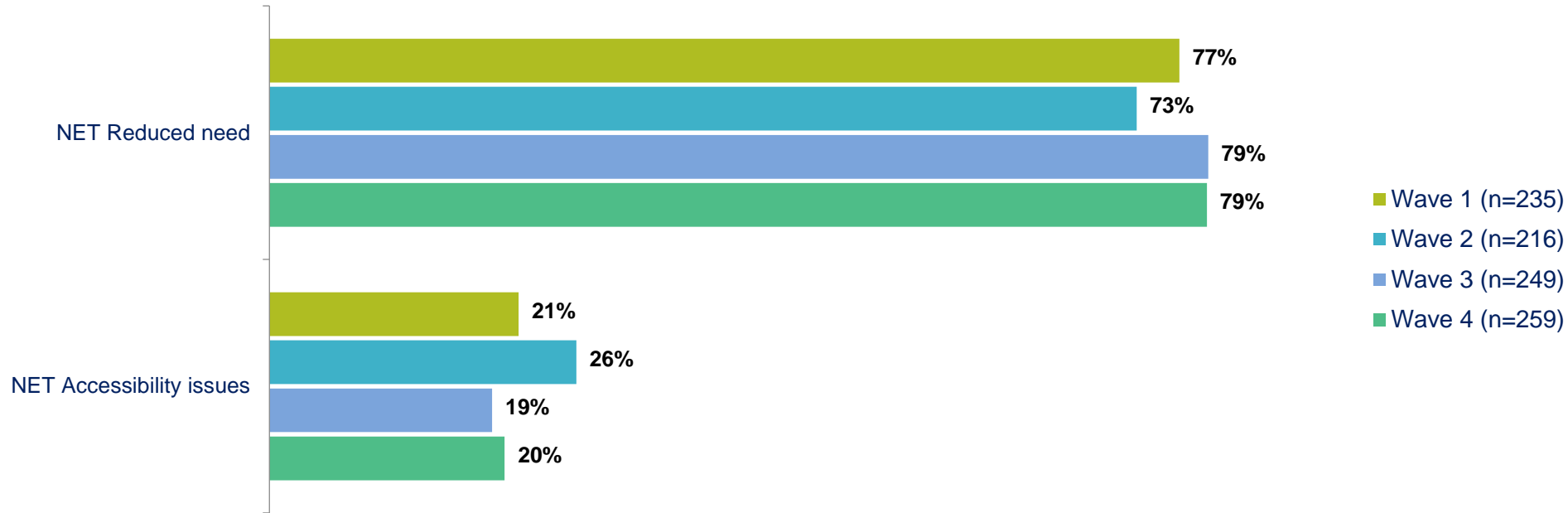
QFREQ1/QFREQ2 –And in the course of a normal week, **on how many days** would you normally travel via each of the methods listed below? And during the past seven days, **on how many days** have you travelled via each of the modes listed below?

Base: all adults 15+ in New Zealand in Benchmark: (n=3,759); Wave 1 (n=1,264); Wave 2 (n=1,263); wave 3 (n=1,232), Wave 4 (n=1,301)



# There is no statistically significant variation in the themes cited by those reducing their public transport journeys, with reduced need remaining the main barrier

## Reasons for reduced reported Public Transport usage in past seven days



QDEC. Reasons for decrease in PT activity - For which, if any of the following reasons, has your use of public transport decreased?

Base: all decreasing PT usage in past week (n = 959)



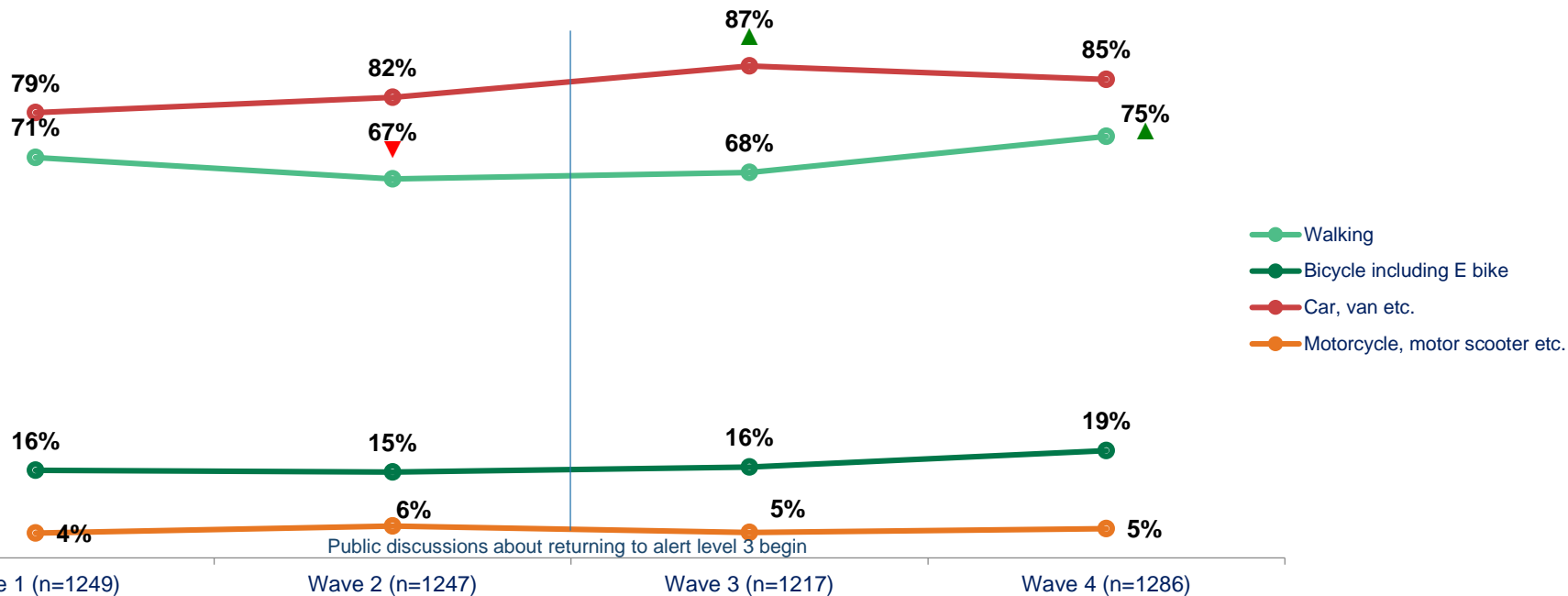
Indicates a statistically significant increase from previous time period



Indicates a statistically significant decrease from previous time period

As discussions began around returning to level 3, consideration of most private and active modes began to trend upwards, with active modes sustaining that trend

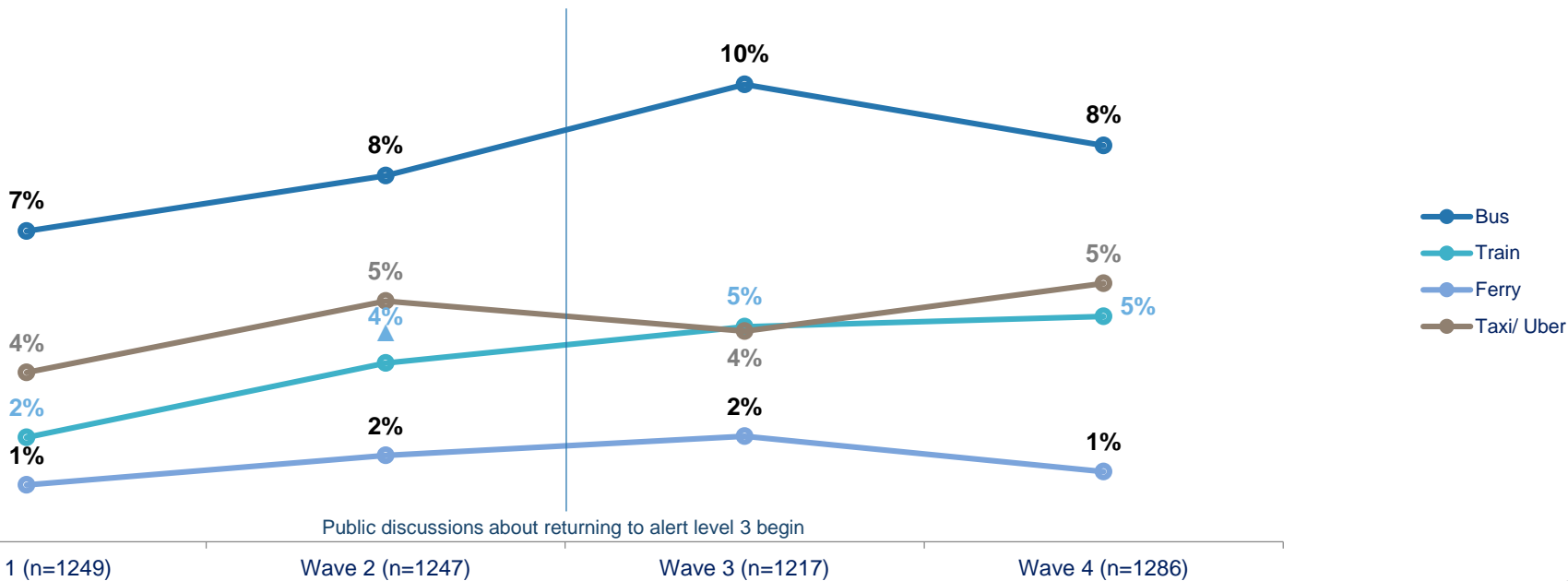
*Mode consideration: Coming week (Active modes and Private Vehicles)*



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

# While bus consideration trended upwards when alert level discussions began, they have since reverted to a level seen in wave 2

Mode consideration: Coming week (public transport modes)



QPT2. If available next week, which if any of the following would you be likely to use?

Base: all adults 15+ in New Zealand



Indicates a statistically significant increase against the previous wave



Indicates a statistically significant decrease against the previous wave

A photograph showing a person walking on the left and two cyclists on the right, all on a paved path. The scene is outdoors with trees in the background. A diagonal blue overlay covers the top-left and middle portions of the image. The text 'Section 5 – Quieter streets' is overlaid on the blue area.

## Section 5 – Quieter streets

# Key findings – quiet streets

## Waka Kotahi – why is travel behaviour changing?

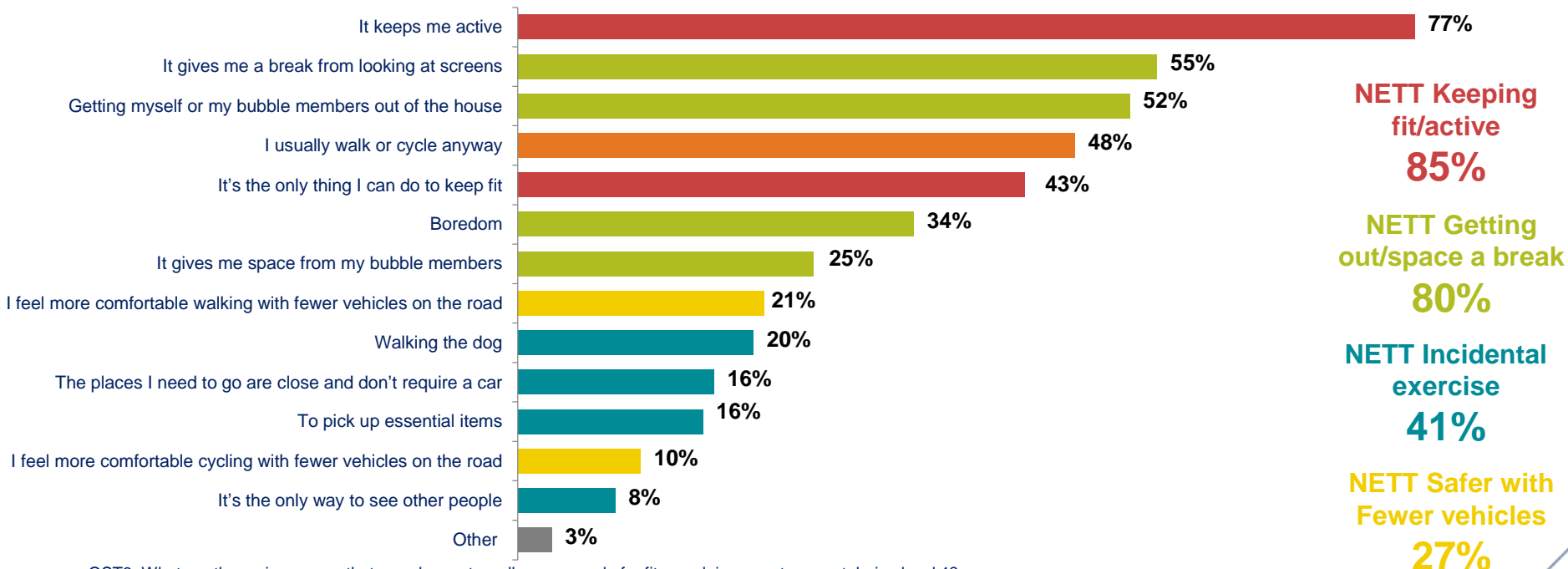
- As we come to the last wave of the level 4 alert, it is apparent there has been a significant up-turn in active mode travel: walking, running and cycling, both as a means of getting around and in specific trips taken for exercise. Meanwhile, the consideration of walking as a means to conduct essential journeys continues to trend upwards.
- With this in mind, it is important to understand the role that the environment is having on people's behaviour. Are quieter, safer streets with less traffic one of the drivers of this changing behaviour and potential long-term attitudinal shift?
- Among those walking, running or cycling on the streets, the majority are finding that they enjoy the environment more. This enjoyment doesn't cluster in a single locality and is unaffected by personal health.
- The lack of traffic and associated safety benefits emerges as the main driver of this enjoyment. Conversely, those who don't enjoy streets at this time cite crowded footpaths and challenges with distancing as the chief drivers.
- The main motivations for people getting out and about are the desires to stay active and get more space, rather than a motivation to experience the quieter streets.





# Keeping fit and active and getting some space away from the bubble are the big drivers in getting outside, not the absence of traffic on the streets

## Reasons for walking, running or cycling

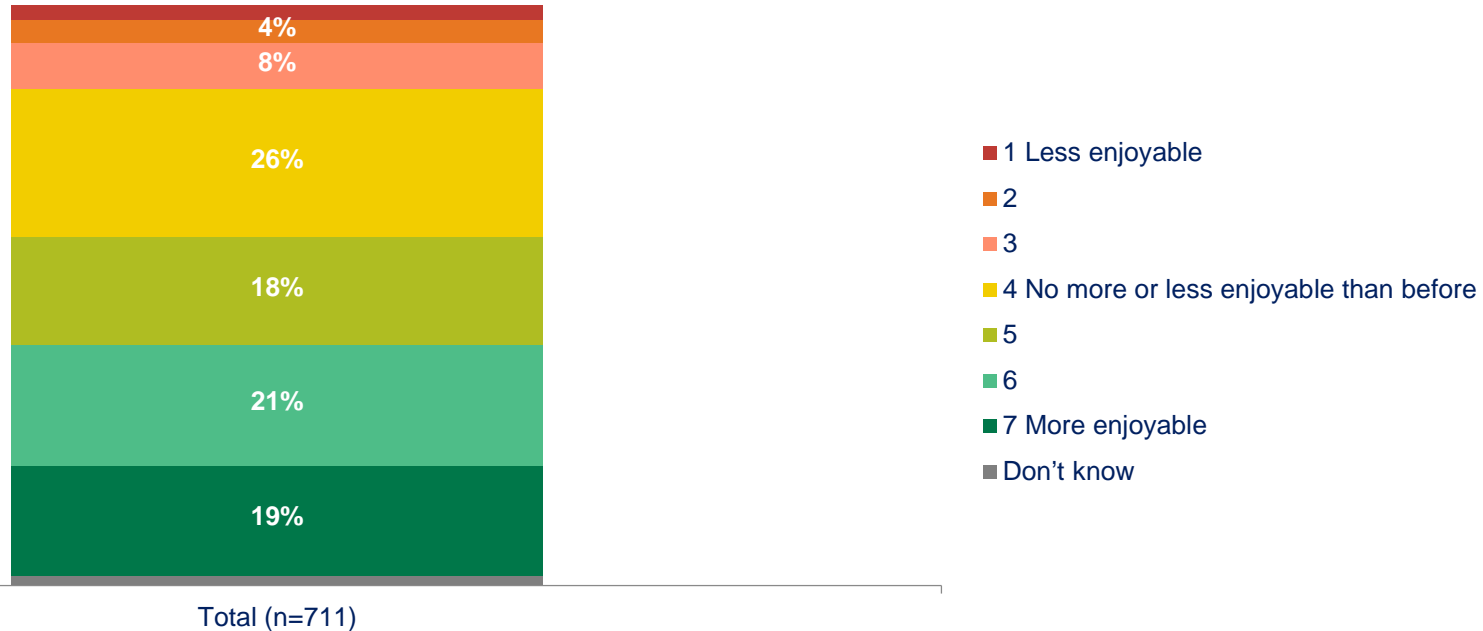


QST3. What are the main reasons that you choose to walk, run or cycle for fitness, leisure, or transport during level 4?

Base: those who have been outside walking/running or cycling during level 4 (n=711)

# More than half of the respondents are finding the street environment more enjoyable than they did prior to the issuing of the level 4 alert

## Enjoyment of streets and roads during lockdown

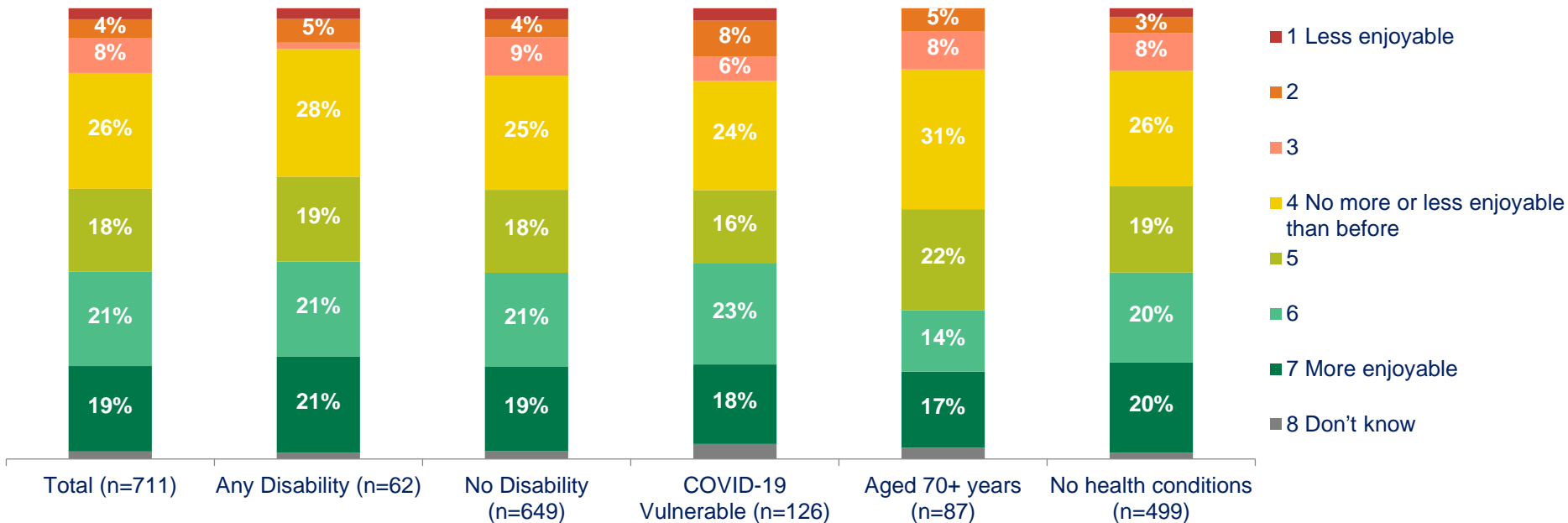


QST1. Thinking of the roads and streets where you are walking or cycling, are you finding being in these environments more or less enjoyable during Level 4?

Base: those who have been outside walking/running or cycling during level 4

# Enjoyment of outdoor spaces does not correlate with levels of vulnerability, although it should be noted that outdoor activity is lower in disabled and older communities

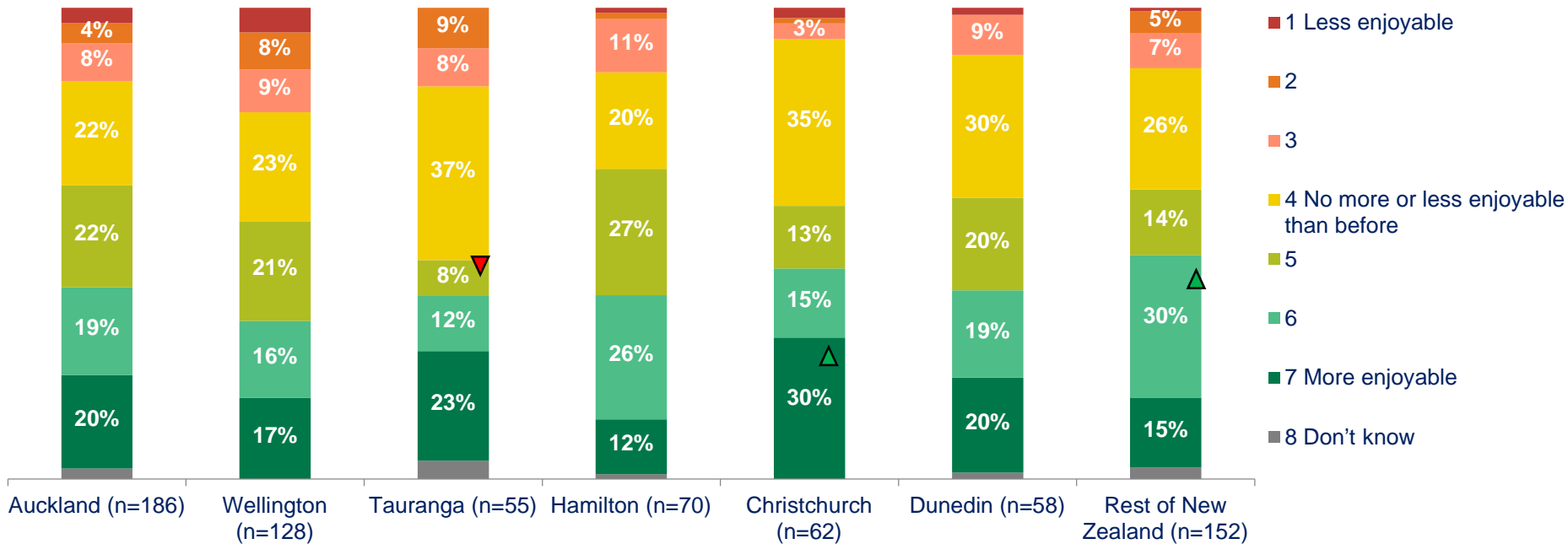
## Enjoyment of streets and roads during lockdown



QST1. Thinking of the roads and streets where you are walking or cycling, are you finding being in these environments more or less enjoyable during Level 4?  
 Base: those who have been outside walking/running or cycling during level 4

# There are some indications of more ardent enjoyment of outdoor spaces in Christchurch and rural New Zealand, but the picture is otherwise similar nationwide

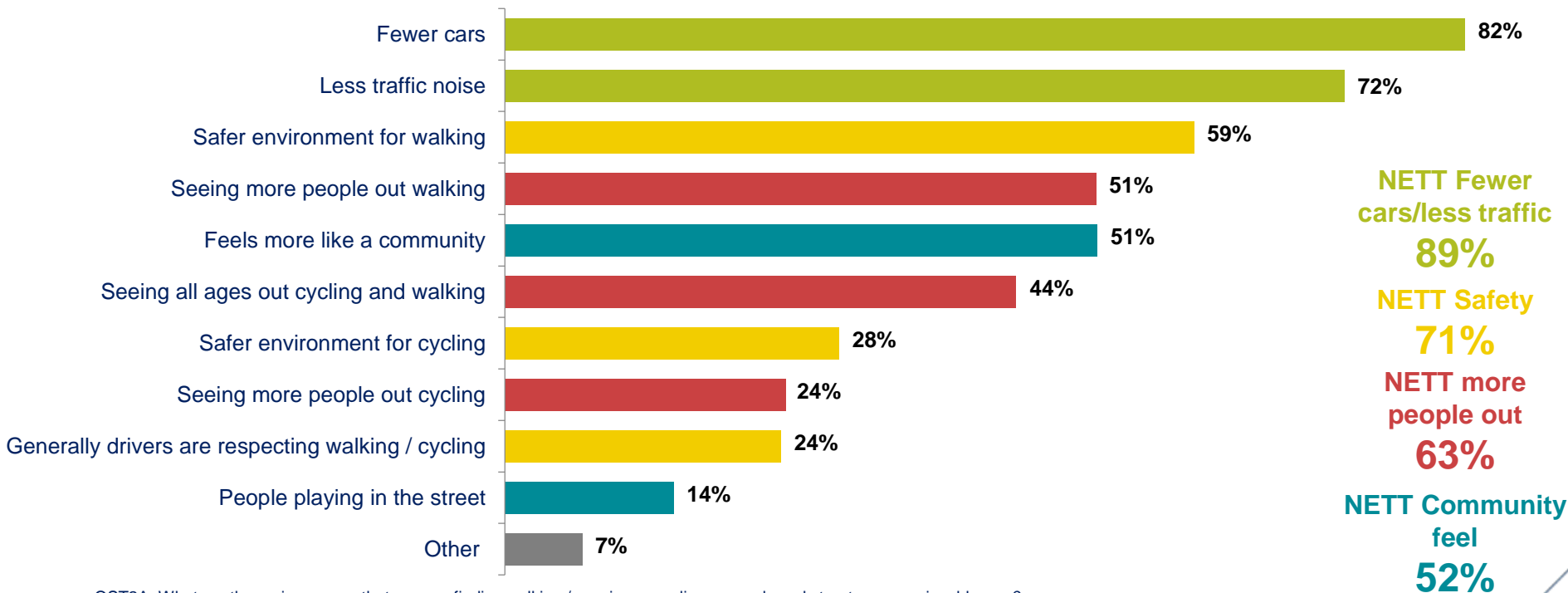
## Enjoyment of streets and roads during lockdown



QST1. Thinking of the roads and streets where you are walking or cycling, are you finding being in these environments more or less enjoyable during Level 4?  
 Base: those who have been outside walking/running or cycling during level 4

# The reduced private vehicle traffic and associated increased safety are the big drivers of people enjoying outdoor spaces

## Reasons streets more enjoyable

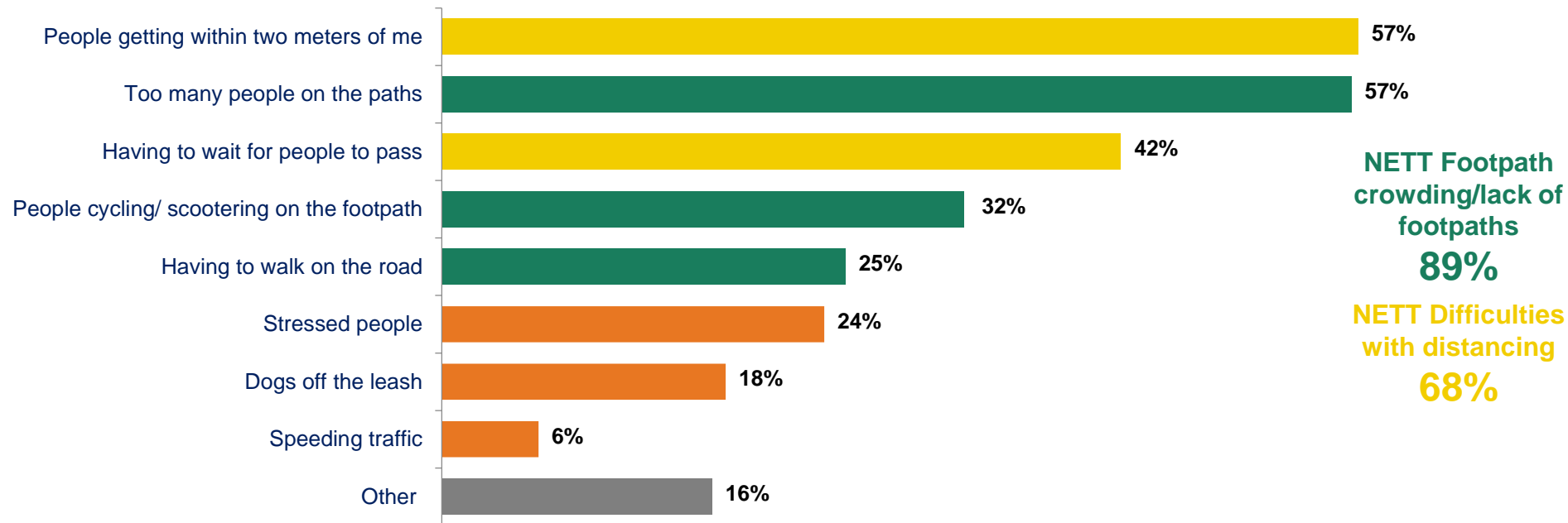


QST2A. What are the main reasons that you are finding walking / running or cycling on roads and streets more enjoyable now?

Base: those who are finding walking/running or cycling more enjoyable now (n=408)

# Reasons related to crowding and challenges with social distancing are roughly equal in tempering enjoyment of outdoor space, with traffic a negligible contributor

## Reasons streets less enjoyable



QST2B. What are the main reasons that you are finding walking / running or cycling on roads and streets less enjoyable now?

Base: those who are finding walking/running or cycling less enjoyable now (n=108)



## Section 6 – Perception of transport modes

# Key findings – perceptions

## Waka Kotahi objective – how might people's perception of transport modes impact travel choices

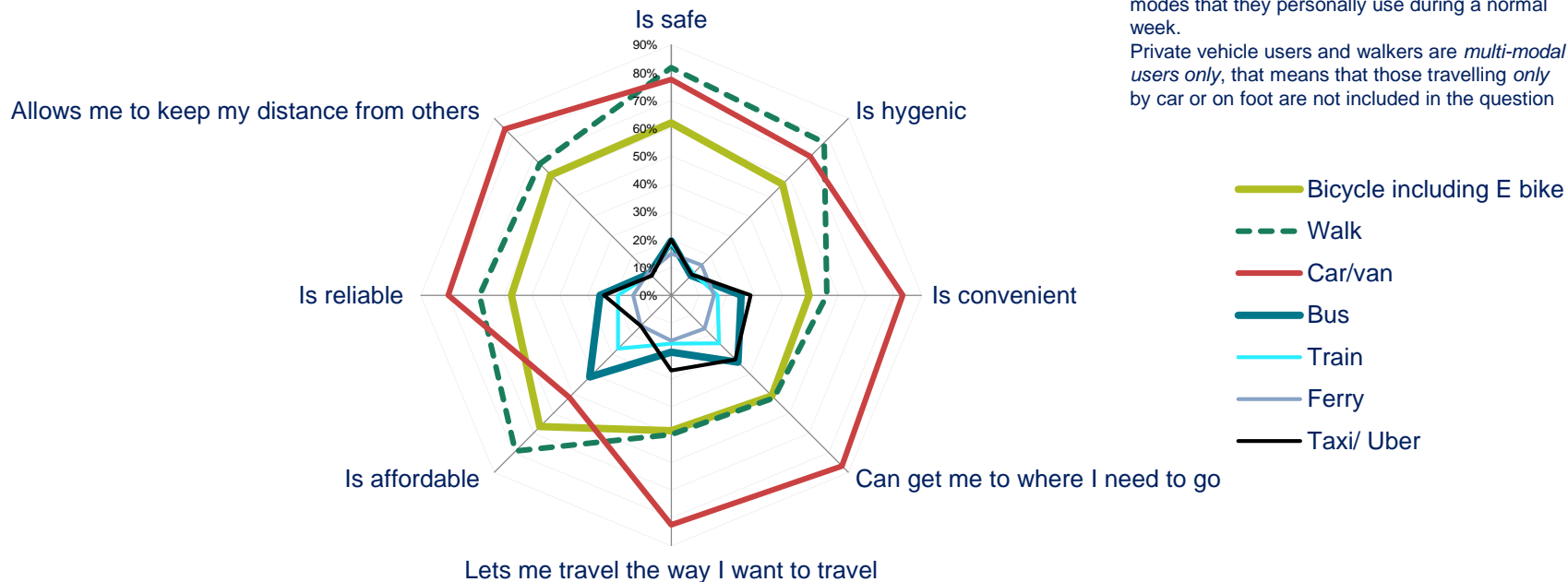
- The COVID-19 environment may over time change the way that New Zealanders perceive different modes of transport. This will be important to understand as these perceptions may impact people's travel patterns and behaviour.
- Private vehicles are seen as a convenient way to get where people need to go while keeping their distance from others. Comparatively, taxis and ubers are seen as being more affordable, but people being able to keep one's distance is a weakness.
- Walking is seen as the safest, most hygienic way to get around.
- Even among public transport users, buses are perceived to be less hygienic and safe with less capacity for social distancing between other passengers. However, buses represent the best value for money.
- This most recent wave has seen a significant increase in the proportion of bus users that perceive it as an affordable, reliable mode that can get them where they need to go, possibly because of growing awareness of free bus journeys during this time.





# Private vehicles lead on most metrics, except safety, hygiene and affordability which are slightly more strongly associated with walking

## Perceptions of transportation modes

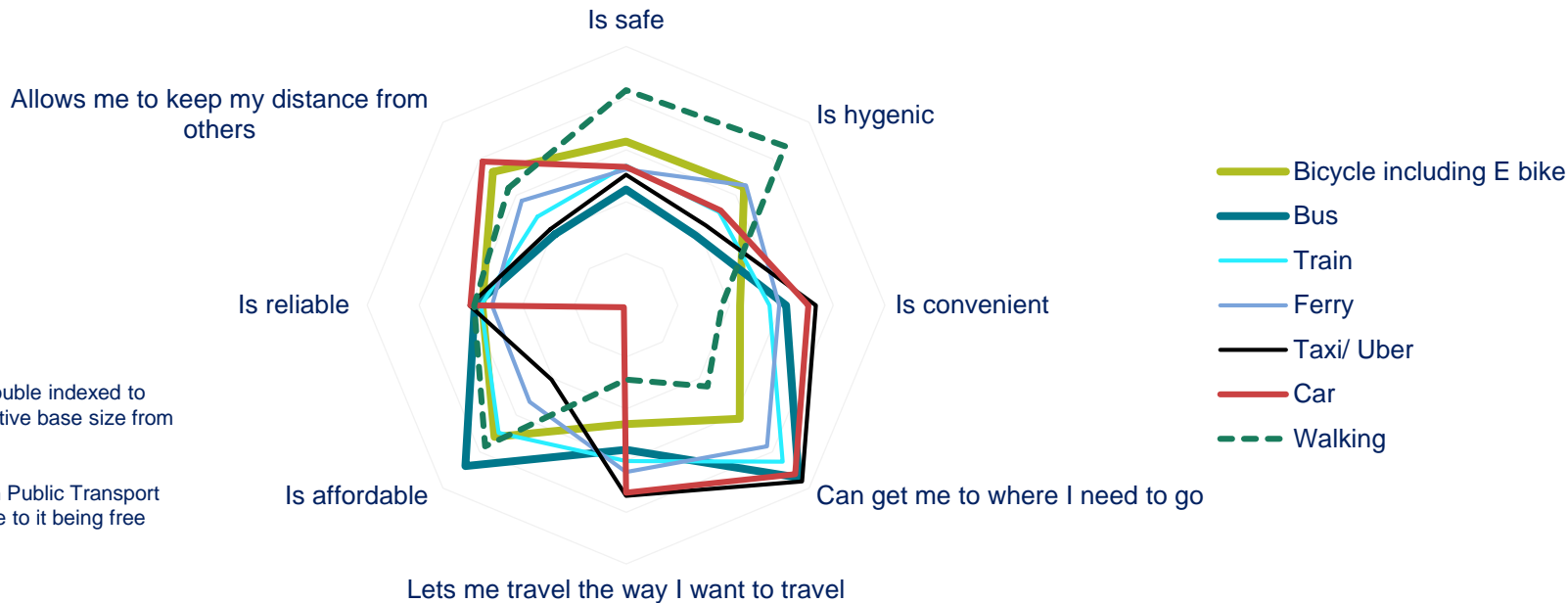


QPTIMAGE. Image Statements - And which transportation methods would you currently associate with each of the following qualities?

Base: New Zealanders who use each mode of transport regularly: Bicycle (n=782), Walking (n=1,445), car/Van (n=1,453), Bus (n=943), Train (n=323), Ferry (n=109), Taxi/Uber (n=355)

However, when data is indexed it's clear that buses over-index slightly on reliability and affordability, with the latter an area where cars massively under-index

*Perceptions of transportation modes, normalised*



**NB:** data have been double indexed to remove the bias of relative base size from the modes shown

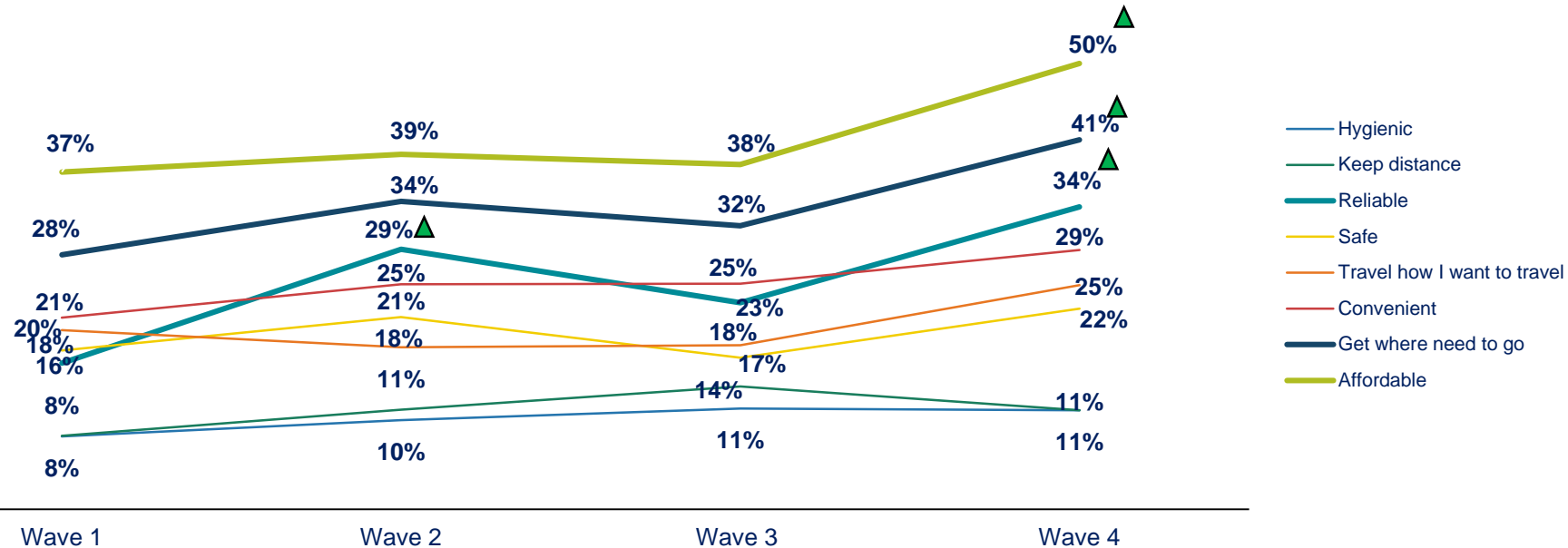
Also note that views on Public Transport affordability is likely due to it being free during Level 4.

QPTIMAGE. Image Statements - And which transportation methods would you currently associate with each of the following qualities?

Base: New Zealanders who use each mode of transport regularly: Bicycle (n=782), Walking (n=1,445), car/Van (n=1,453), Bus (n=943), Train (n=323), Ferry (n=109), Taxi/Uber (n=355)

As level 4 comes to an end, there's been a statistically significant increase in the proportion seeing buses as affordable, reliable modes that get where they need to go

*Perceptions of bus as transportation modes, by wave*



QPTIMAGE. Image Statements - And which transportation methods would you currently associate with each of the following qualities?  
 Base: New Zealanders who use buses regularly: wave 1 (n=231); wave 2 (n=220), wave 3 (n=242); wave 4 (n=250)

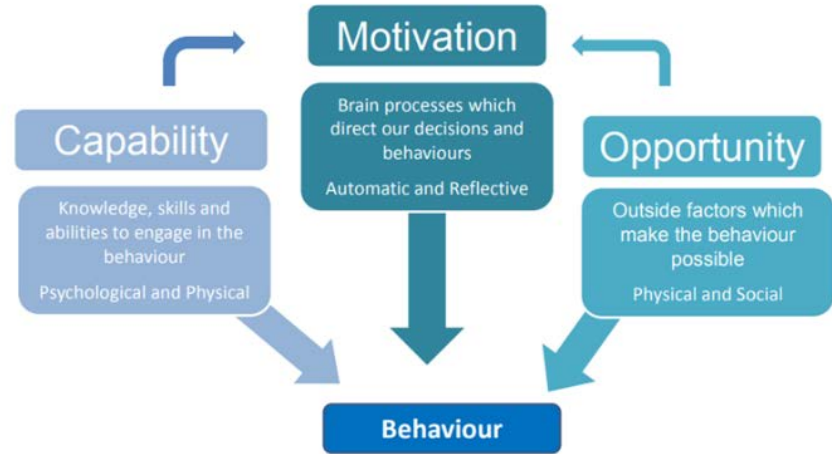


## Section 7 – Introducing Ipsos’ behavioural change framework - MAPPS

# MAPPS – Ipsos' behaviour change framework

## Framework foundations

- Our approach is based on a recognised approach to behaviour change (behaviour change wheel - BCW), but can also involve other approaches (automatic and deliberative influences, full range behaviour management, including decision architecture, persuasion etc.)
- The benefit of the BCW is that it is a simple framework that is:
  - based on academic analysis (Susan Mitchie UCL)
  - easy to understand
  - transparent (no black boxes)
  - evidence base approach to sustained behaviour change



# We use an holistic model of understanding how to influence behaviour change

## Framework foundations

- Based on COM-B, a leading, **evidence-based** academic framework\*. Augmented to include recent developments in JDM/cognitive psychology. Evolved based on academic reviews.
- Accounts for internal and external factors that spark and support behaviour change.
- Goes beyond nudging or manipulating the choice architecture to account for both surface drivers and deeper drivers of behaviour.
- Includes “starting point” diagnostics and related guidance for sparking and supporting behaviour change.

## Behaviour change framework Applied model for behaviour change

MAPPS DIMENSION	MAPPS CATEGORY	WHAT IT MEANS
Motivation	Outcome expectations	I don't think it will work
	Emotion	I'm not feeling like doing it
	Internalisation	I don't want to do it
	Identity	I'm not that kind of person
	Self-efficacy	I don't <i>feel</i> able to do it
Ability	Capability	I don't have the skills to do it
	Routines	It's not part of what I usually do
Processing	Decision forces	How things are processed
Physical	Environmental factors	How things are set up
Social	Social Norms	What's expected of us
	Cultural norms	The way we live

\*Michie, S et al. (2011) [The behavior change wheel: a new method for characterizing and designing behavior change interventions](#), Implementation Science  
Michie, S et al. (2013) [The behavior change technique taxonomy \(v1\) of 93 hierarchically clustered techniques: building an international consensus for the reporting of behavior change interventions](#), Annals of Behavioral Medicine

# Behaviour change framework explained

MAPPS DIMENSION	MAPPS CATEGORY	Contents	WHAT IT MEANS
Motivation	Outcome expectations	How estimation/predictions about outcomes affect motivations	I don't think it will work
	Emotion	How feelings/emotions and emotion regulation can support behaviors	I'm not feeling like doing it
	Internalisation	How behavioral motivation evolves from extrinsic to intrinsic	I don't want to do it
	Identity	How personal and social identities support behaviors	I'm not that kind of person
	Self-efficacy	How feelings of self-efficacy and mastery support change and persistence	I don't <i>feel</i> able to do it
Ability	Capability	How we learn new behaviors	I don't have the skills to do it
	Routines	How behaviors become habits, embedded in routines	It's not part of what I usually do
Processing	Decision forces	How heuristics, biases and behavioral regulation guides decisions and behavior	How things are processed
Physical	Environmental factors	How the physical environment, context and resources sparks, supports or impairs behavior change	How things are set up
Social	Social Norms	How group, transient or situational norms guide behavior	What's expected of us
	Cultural norms	How broad cultural norms affect behavior	The way we live

# Behaviour change framework social distancing case study

MAPPS DIMENSION	MAPPS CATEGORY	Contents	Example – Social Distancing
Motivation	Outcome expectations	How estimation/predictions about outcomes affect motivations	Beliefs about the severity of C-19 and effectiveness of social distancing
	Emotion	How feelings/emotions and emotion regulation can support behaviors	Effects that key emotions have on social distancing (approach/avoidance, anticipatory regret)
	Internalisation	How behavioral motivation evolves from extrinsic to intrinsic	How to manage transition from government regulation post lockdown
	Identity	How personal and social identities support behaviors	How social distancing aligns with and signals my self-concept and affiliations with other groups (religious, political, social network, etc.)
	Self-efficacy	How feelings of self-efficacy and mastery support change and persistence	Feelings about my mastery of social distancing practices and decisions
Ability	Capability	How we learn new behaviors	How to: cover cough/sneeze, stand in a queue, navigate around others, wear a face mask, order online
	Routines	How behaviors become habits, embedded in routines	Breaking old routines (coughing, face touching, proximity, hand shaking), establishing new routines
Processing	Decision forces	How heuristics, biases and behavioral regulation guides decisions and behavior	Ways to slow decisions and behaviors to bring other regulating factors (motivation, ability, physical and social) to bear on more adaptive responses
Physical	Environmental factors	How the physical environment, context and resources sparks, supports or impairs behavior change	“Wait Here” floor markers on check-out lines, masks as social signals for distancing
Social	Social Norms	How group, transient or situational norms guide behavior	Dealing with others who violate new norms around social distancing, signaling new norms to others
	Cultural norms	How broad cultural norms affect behavior	Friction coming from cultural norms for social greetings, proximity



# COVID-19 tracker MAPPS questions

MAPPS DIMENSION	MAPPS CATEGORY	WHAT IT MEANS	STATEMENT IN QUESTIONNAIRE
Motivation	Outcome expectations	I don't think it will work	Making changes to the way we get around will reduce the impact of COVID-19 on NZ
	Internalisation	I don't want to do it	I am personally very committed to following current travel/movement restrictions
	Self-efficacy	I don't feel able to do it	I don't feel able to get where I need to go
	Identity	I'm not that kind of person	I am not the type of person who would take a trip that is discouraged under the current alert level
	Emotion	I do not feel like doing it	Leaving the house worries me I worry about how I'm going to get the things I need
Ability	Capability	I am not able to do it	At the moment it's very hard to work out how to get to the places I need to go I feel confident I know what travel restrictions are in place when it comes to leaving the house
	Routines	It's not part of what I usually do	My daily travel routines are disrupted at the moment
Processing	Decision forces	How things are processed	I trust my own judgement when it comes to deciding when I go out and where I go
Physical	Structural factors	How things are set up	I can easily get to the places I need to go
Social	Cultural norms	The way we live	New Zealanders are looking out for each other by following current restrictions on travel/movement
	Social norms	The kind of thing expected of us	Most people are following the guidance around what journeys they can take



## Section 8 – Attitudes leading to transport behaviour change

# Key findings – attitudes

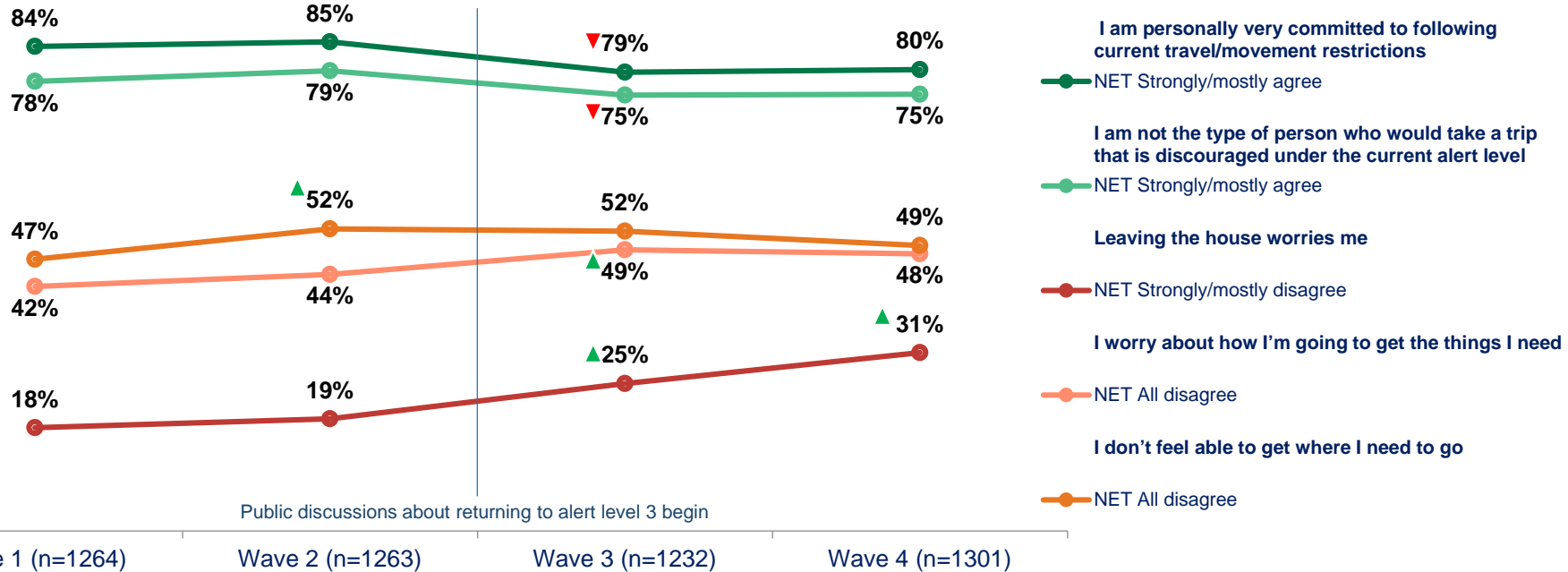
## Waka Kotahi objective – understanding behaviour change

- This research has shown that New Zealanders are reporting reduced journeys during the level 4 lockdown period, so it is important to understand the prevalence of certain attitudes in this environment and how those might drive behaviour once restrictions are lifted.
- We now have sufficient data points to observe how attitudes shift as risk levels change over time.
- As COVID-19 cases decline, there is a corresponding decline in people's fears around avoiding risk of transmission but there are still some concerns in this area.
- Uncertainty at the beginning of discussions about reverting to level 3 caused confidence to waver, but this confidence has since recovered. This suggests that information campaigns are important to maintaining buy-in and participation.
- There are no indications that people are currently experiencing a decline in social consensus, nor issues around getting where they need to go.



# People's commitment to follow travel restrictions has waned, but still remains high; more people are saying they are not worried, but it is still an area of concern

## Motivation factors



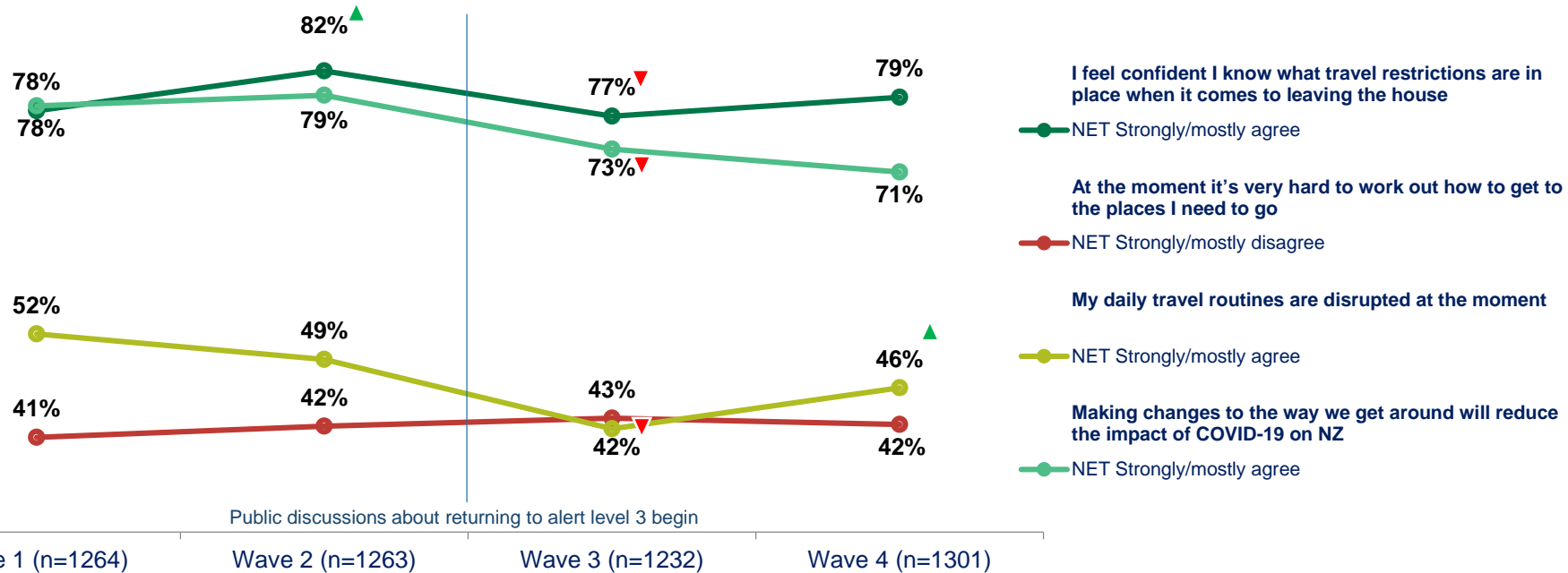
QATT: Thinking about recent events and the Covid-19 pandemic in general. To what extent do you agree or disagree with the following statements?

Base: all adults 15+ in New Zealand



# Confidence levels dropped as media coverage about returning to level three began; there has also been waning commitment to restrictions reducing COVID-19's spread

## Ability factors + Outcome Expectation (motivation)



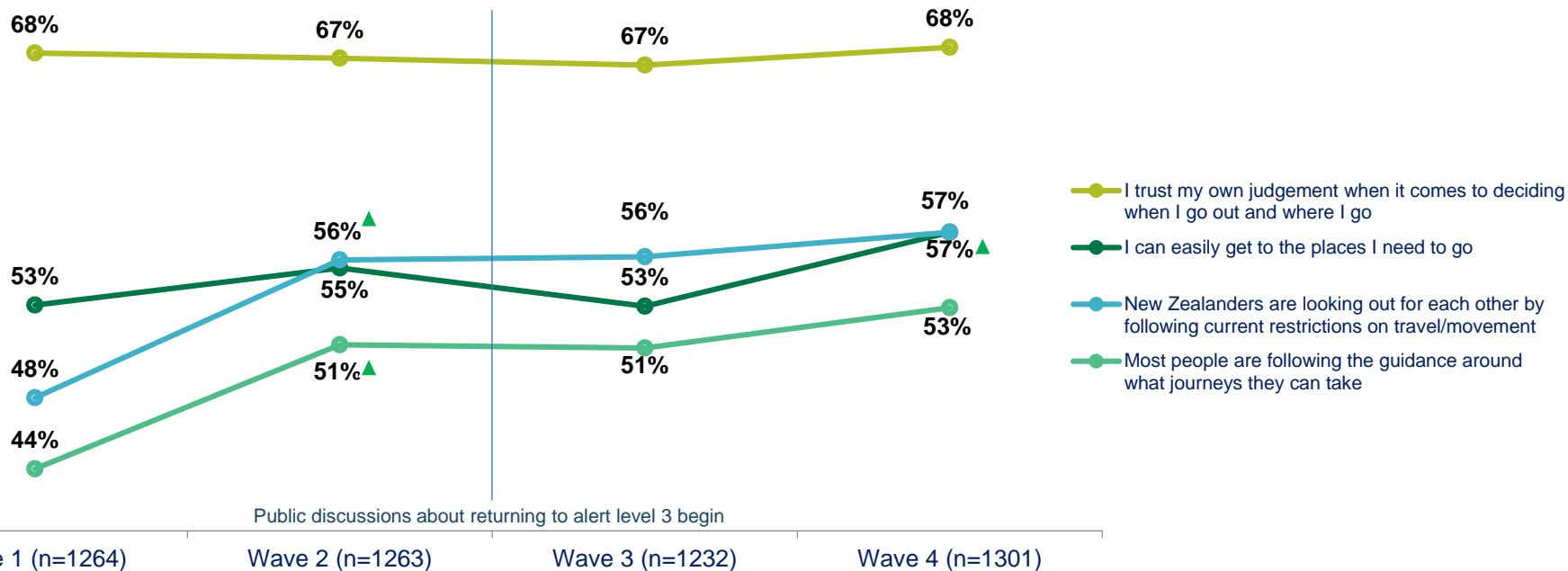
QATT: Thinking about recent events and the Covid-19 pandemic in general. To what extent do you agree or disagree with the following statements?

Base: all adults 15+ in New Zealand



# Looking at changes over time, agreement on a social consensus around behaviour took a week to bed in, but has generally settled since then

*Processing, physical and social factors (NETT strongly / mostly agree)*



QATT: Thinking about recent events and the Covid-19 pandemic in general. To what extent do you agree or disagree with the following statements?  
 Base: all adults 15+ in New Zealand





## Section 9 – Access to essential services

# Key findings – access to essential services

## Waka Kotahi objective – changes to travel

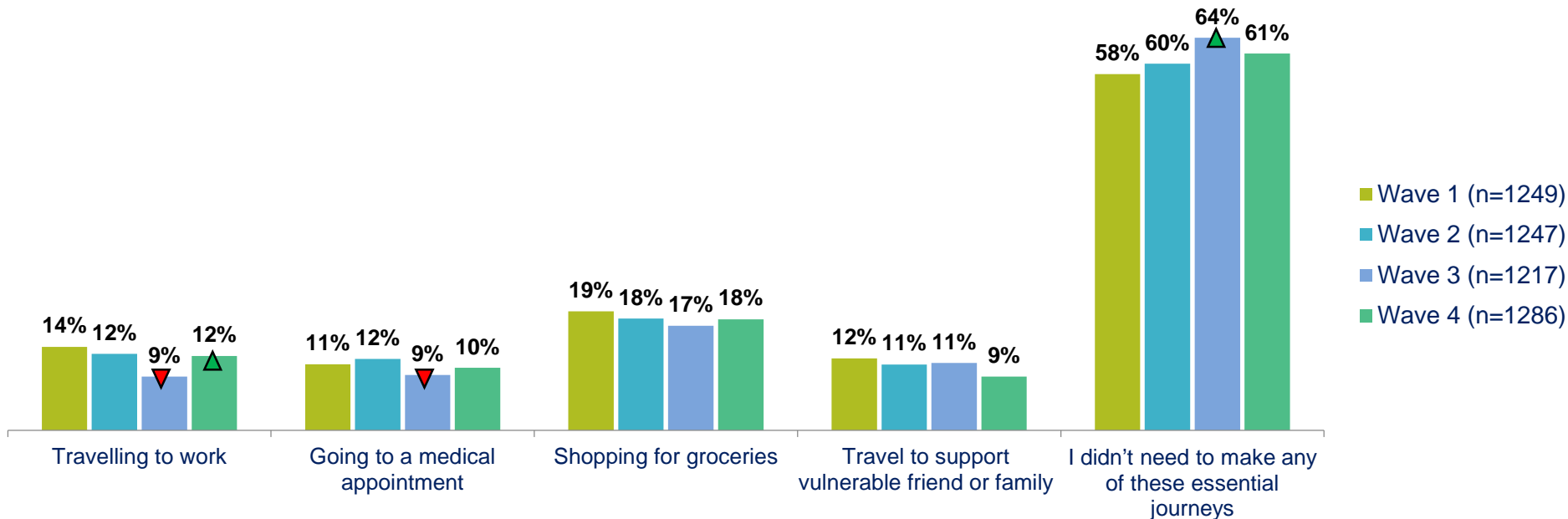
- In order to understand the potential long term effects of changing travel behaviour we want to understand the ways in which New Zealanders are adapting to their circumstances and accessing the things they need.
- Since measurement began, the proportion making no essential journeys has been largely consistent.
- But there are continuing signs that people are adjusting to their new circumstances, with a sustained decrease in the proportion who say that shopping is harder than before and indications of a switch by some to specialist websites for grocery shopping.
- Almost one in five now say that shopping is no-different in terms of difficulty when compared to the pre-lockdown experience.





# The reported volume of journeys missed has returned to levels seen in the early waves of the lockdown, following a significant fall in wave 3

*Journeys that respondents were unable to take in past seven days by survey wave*



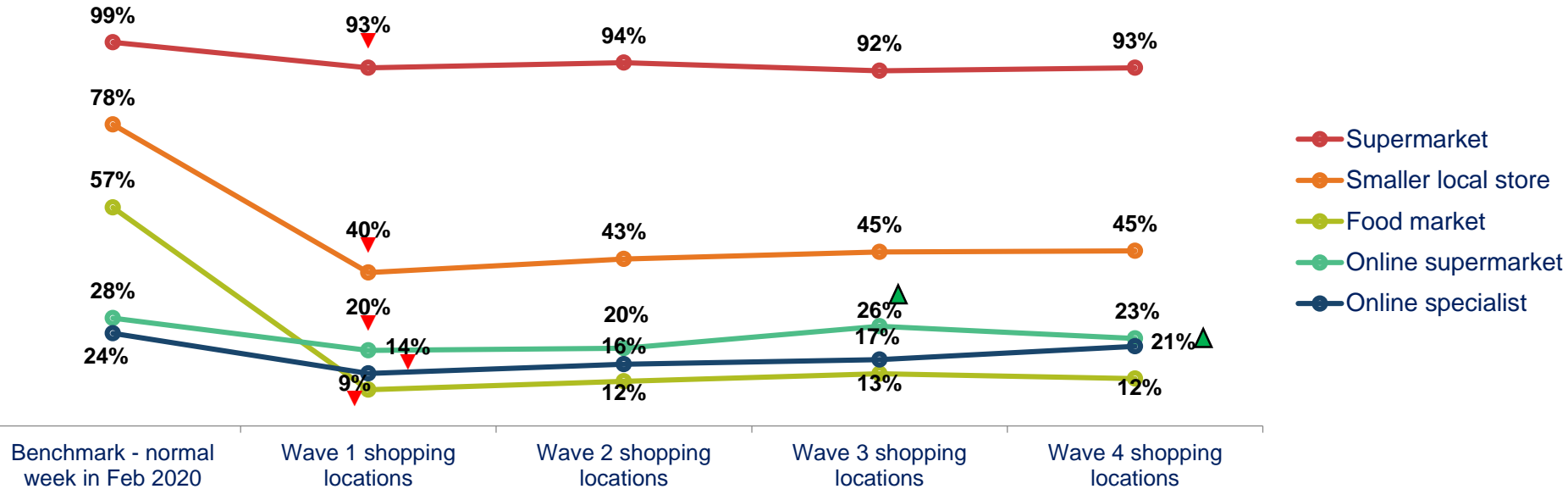
QJOURNEY3. And of the essential journeys listed below, were there any that you needed to make during the past seven days, but were unable to?

Base: all adults 15+ in New Zealand making essential journeys during a normal week



# At an aggregate level there has been an upward trend in online shopping, with specialists trending upward this wave following a wave 3 rise for online supermarkets

*Normal week and most recent week shopping trips taken by survey wave*



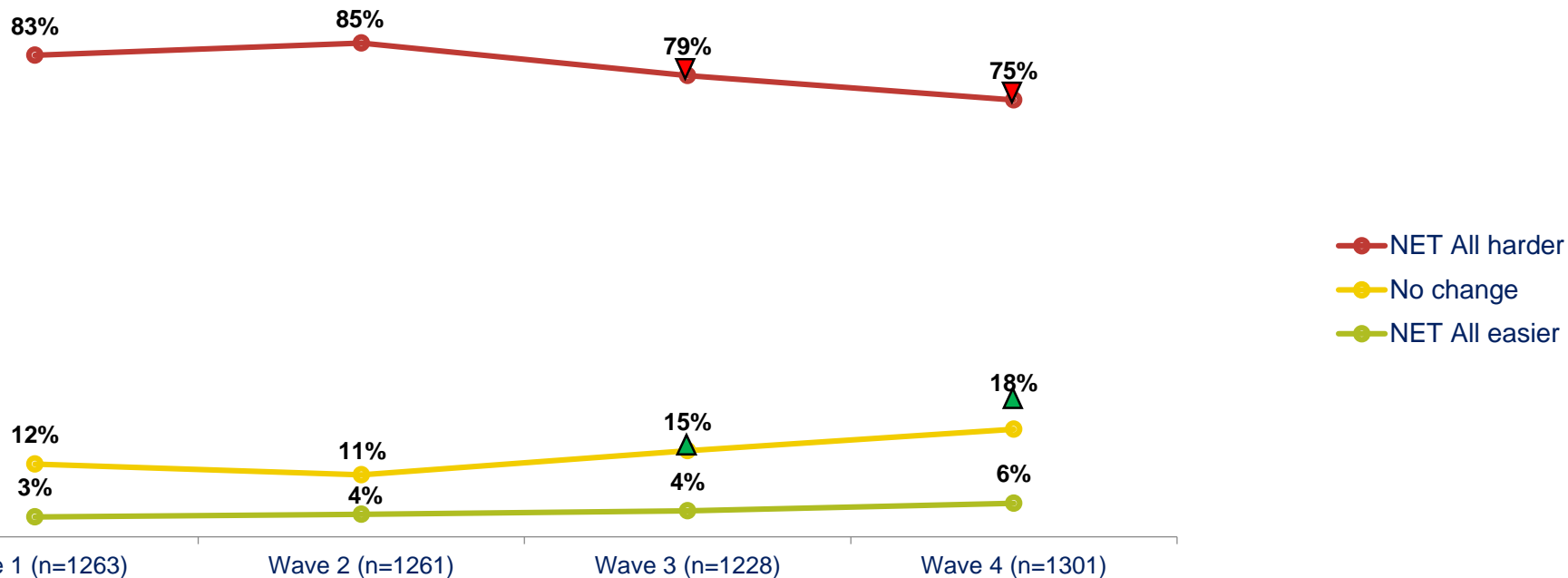
QSH1/SH2 On how many days per week, if at all, did your household normally shop in February 2020 for groceries and household essentials in each of the following ways? And how often, if at all, has your household shopped for groceries and household essentials in each of the following ways during the past seven days?

Base: all adults who ever grocery shop in New Zealand, Benchmark (n=2,519); wave 1 (n=1,189); wave 2 (n=1,192); wave 3 (n=1,166), Wave 4 (n=1,238)



There has been a continuation of people adjusting to their circumstances, the proportion saying shopping is harder has dropped 10 points from a week 2 high

*Relative difficulty of shopping in past week by survey wave*



QSH2A. Shopping ease percentages - To what extent has shopping for the groceries and household essentials that you need been easier or harder during the past week than it was prior to any public health alert or lock down?

Base: all adults 15+ in New Zealand



Indicates a statistically significant increase from previous time period



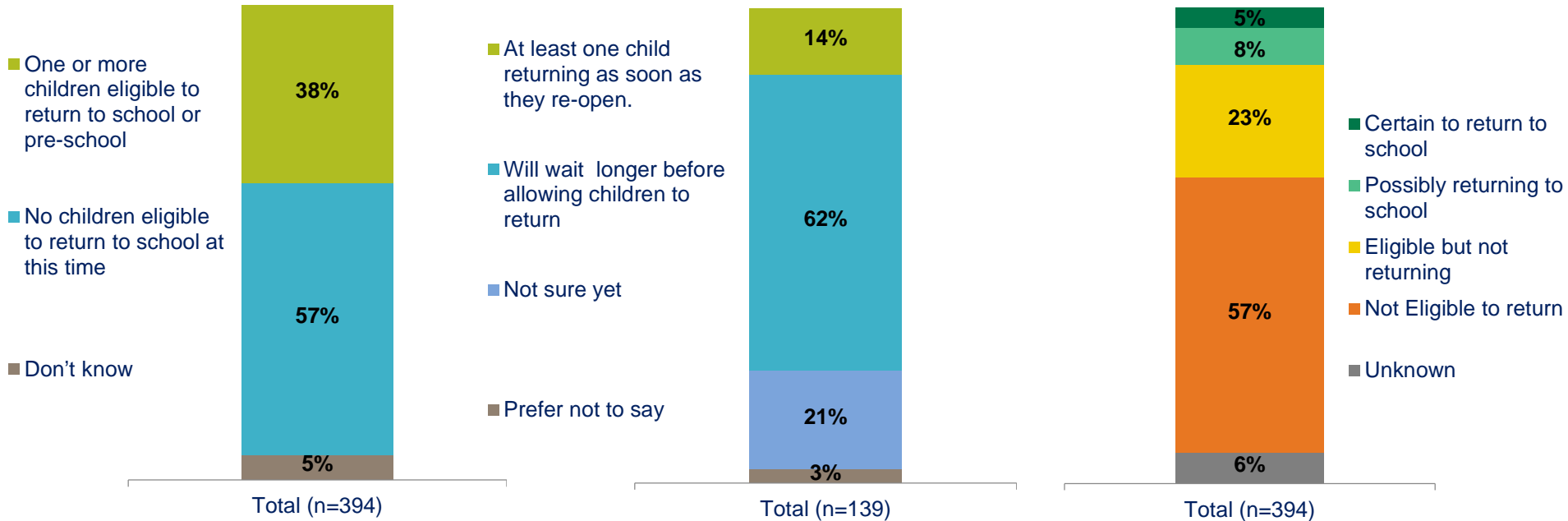
Indicates a statistically significant decrease from previous time period



# Section 10 – Appendix: returning to school

# Only a minority of custodial parents believe that their children are eligible to return immediately on the 28<sup>th</sup> and of those, just 14% will take their children back to school

*Children eligible to return to school and parents intending to return children to school*



**NB:** official eligibility during Level 3 is for children of essential workers.

QHH1A. You said that you have children living at home with you. Which, if any of the following applies to you? QHH1B. And which, if any, of the following applies to you?

Base: those with children living at home

