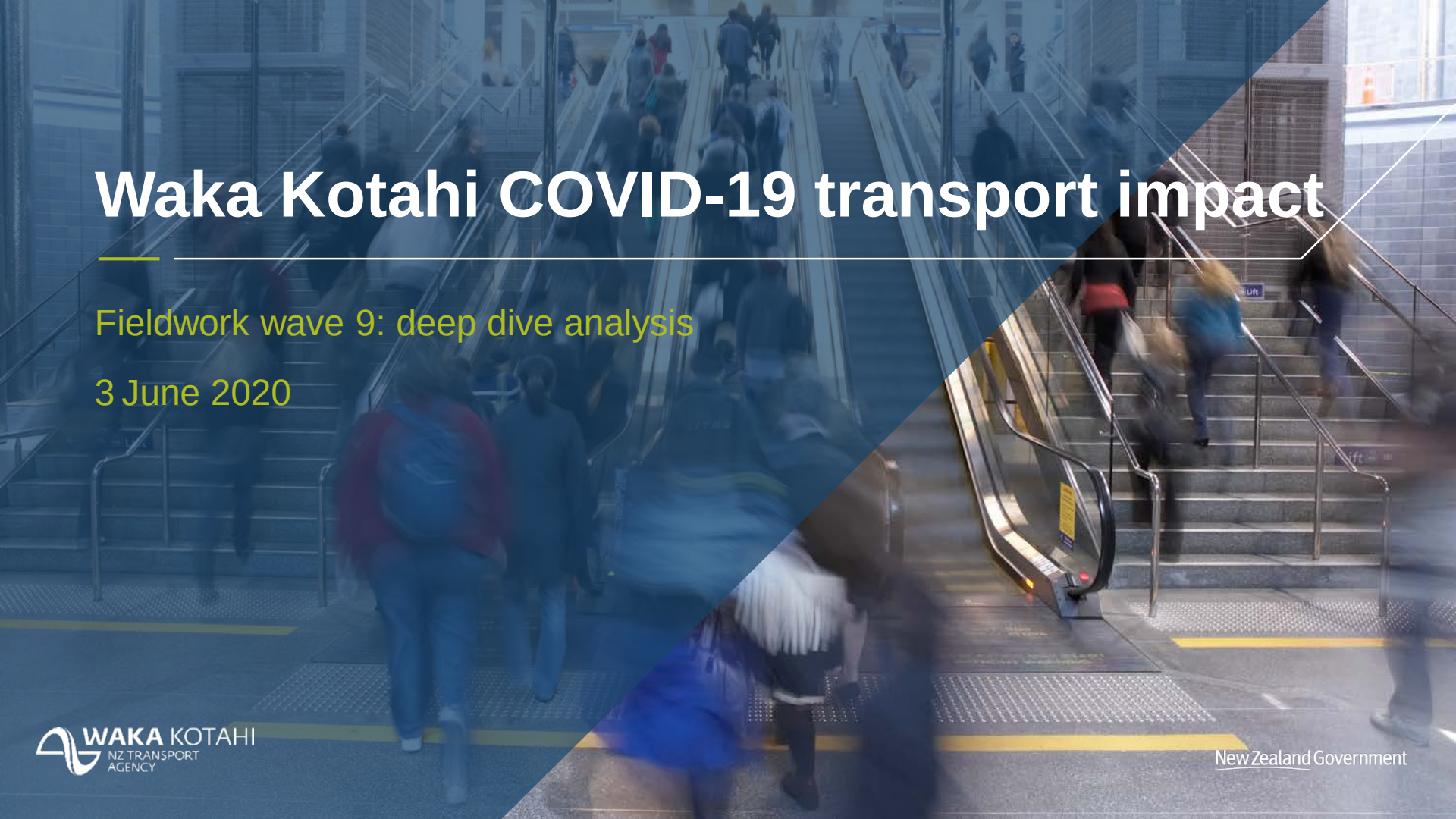


Waka Kotahi COVID-19 transport impact

Fieldwork wave 9: deep dive analysis

3 June 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.

Deep dive report content

COVID-19 transport impact

- Section 1 – About this research
- Section 2 – Journeys within regions
- Section 3 – Active modes within regions
- Section 4 – Public transport within regions
- Section 5 – Private vehicles within regions

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 15+ 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:

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 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, e tc.

Report notes (i)

Key information to note for this report

- This report is based on the eight waves of fieldwork, see table ►
- Total sample for this report is presented in a number of ways, including as a combined sum of the first four fieldwork waves, combined sum of waves 5 and 6, combined sum of waves 7 and 8, as well as individual waves where appropriate.
- The focus of this report is tracking the 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'* i.e. in February this year.

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	

- At a total population level, significance testing indicated in this wave 8 report is based on a statistically significant shift of results between waves 1 to 8, as well as statistically significant shifts from combined level 4 alert results vs combined level 3 alert results vs. combined level 2 alerts.
- 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.

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.

Sample structure and further definitions

	Definition	Waves 1 - 4		Waves 5 - 6		Waves 7 - 9		Wave 9	
		Sample	MoE*	Sample	MoE*	Sample	MoE*	Sample	MoE*
Total		n=5,060	1.38	n=2,532	1.95	n=3,782	1.59	n=1,255	2.77
Auckland	All in Auckland Region, including city and surrounding rural areas	n=1,324	2.69	n=662	3.81	n=993	3.11	n=331	5.39
Tauranga	All living in the city of Tauranga	n=400	4.9	n=200	6.93	n=300	5.66	n=100	9.8
Hamilton	All living in the city of Hamilton	n=400	4.9	n=200	6.93	n=300	5.66	n=100	9.8
Wellington	All in Wellington Region, including city and surrounding rural areas	n=684	3.75	n=418	4.79	n=610	3.97	n=179	7.32
Christchurch	All living in the city of Christchurch	n=400	4.9	n=200	6.93	n=300	5.66	n=100	9.8
Dunedin	All living in the city of Dunedin	n=398	4.91	n=200	6.93	n=293	5.73	n=93	10.16
Rest of NZ	All living in areas outside of those noted above	n=1,454	2.57	n=652	3.84	n=986	3.12	n=352	5.22
	Disability, Vulnerability and COVID-19**								
Any Disability	See previous page	n=550	4.18	n=297	5.69	n=458	4.58	n=162	7.7
COVID-19 Vulnerable	See previous page	n=1,230	2.79	n=597	4.01	n=836	3.39	n=262	6.05
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=481	4.47	n=155	7.87

*Margin of error is calculated at 95% confidence level based upon an estimated population of 4,978,388 as at Thursday 16 Apri l 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.

Summary

Wave 9 deep dives

The ninth wave of fieldwork took place between Thursday 29 May and Monday 1 June, the third weekend under level 2 conditions. This deep dive addresses regional commonalities and differences across regions, urbanity and between major cities and their surrounding areas.

Essential journeys within regions

The proportion staying home and forgoing essential journeys has declined in level 2 across all regions, although certain cities and rural areas did not see a consistent decline through level 3.
Returning to work has been largely consistent across geographies in level 2, although it is happening quicker in areas of greater population density. Wellington lags a little on the proportion returning to work, chiefly influenced by lower level 2 activity in the greater Wellington area rather than in the city.

Active mode usage within regions

Perhaps due to more wintry weather conditions, active mode usage hasn't recovered the way that other modes have in level 2. This is particularly the case in rural New Zealand and Hamilton.
Walking and running for fitness and leisure have been declining across the country, particularly in Hamilton and Auckland. Patterns of cycling have been more erratic.

Public transport usage within regions

Public transport usage has returned close to normal in rural areas, where usage had always been lower, although level 2 usage is overall highest in cities. The trajectory of recovery in public transport usage in Auckland and Wellington has differed majorly. The increase in Wellington has been most pronounced in the city, whilst increases in Auckland have largely come from the greater Auckland area and commuter zones.

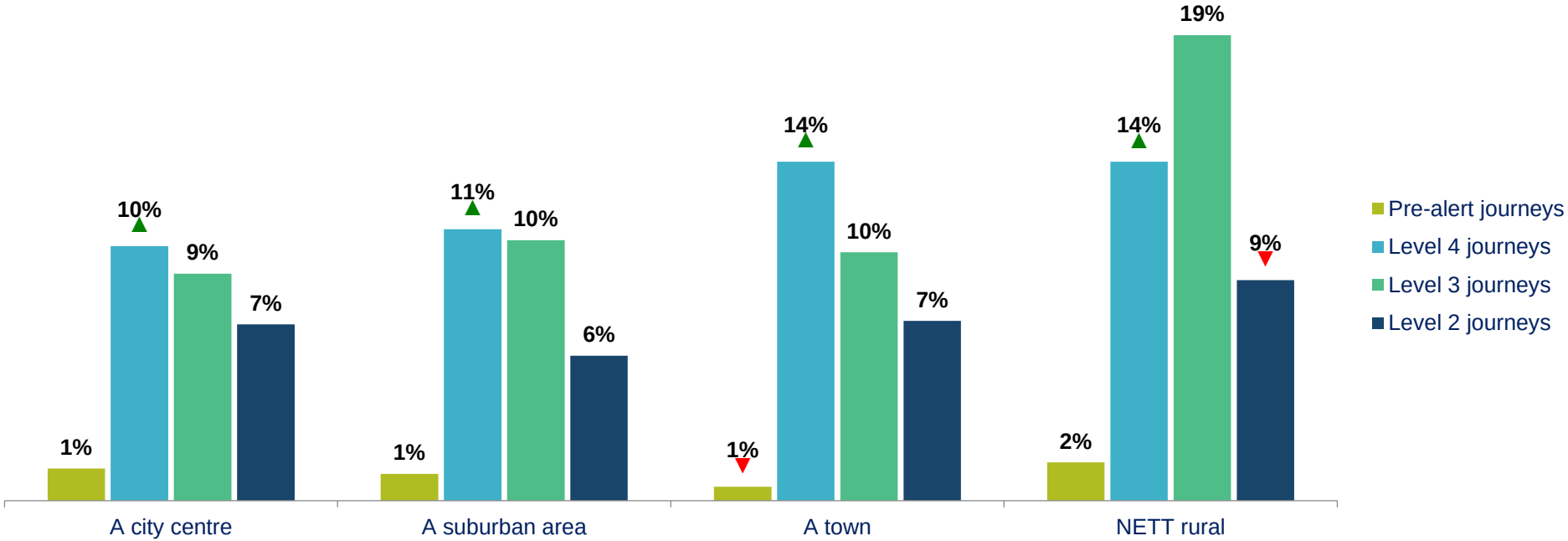
Private vehicle usage within regions

Car, van and motorcycle usage has trended upwards in all regions, although more in rural and suburban areas than in city centres. Car usage recovery has lagged a little in the Wellington region, but this isn't attributable more to the city or the surrounding areas.

Section 2 – Journeys within regions

The proportion *not* travelling in all areas of the country has generally decreased nationwide, but in rural areas they have not fallen consistently

Proportion not making any essential journeys in each region by level



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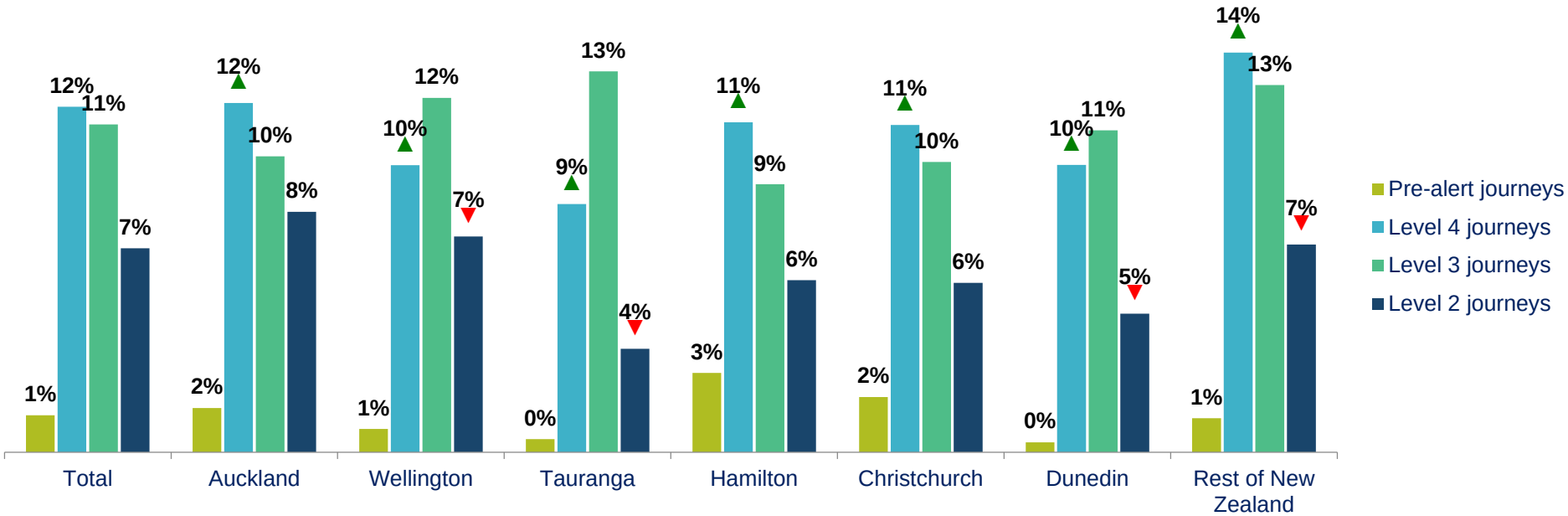
Base: all adults 15+ in city centres/ suburban areas/ towns/ rural areas in Pre-alert level: (n=677 / 1,989 / 595 / 440); level 4 (n=884 / 2,693 / 790 / 612); level 3 (n=431 / 1,416 / 391 / 262); Level 2 (n=677 / 2,012/ 575 / 426)

Tauranga has seen the biggest decrease in those staying home during level 2

Proportion not making any essential journeys in each region by level



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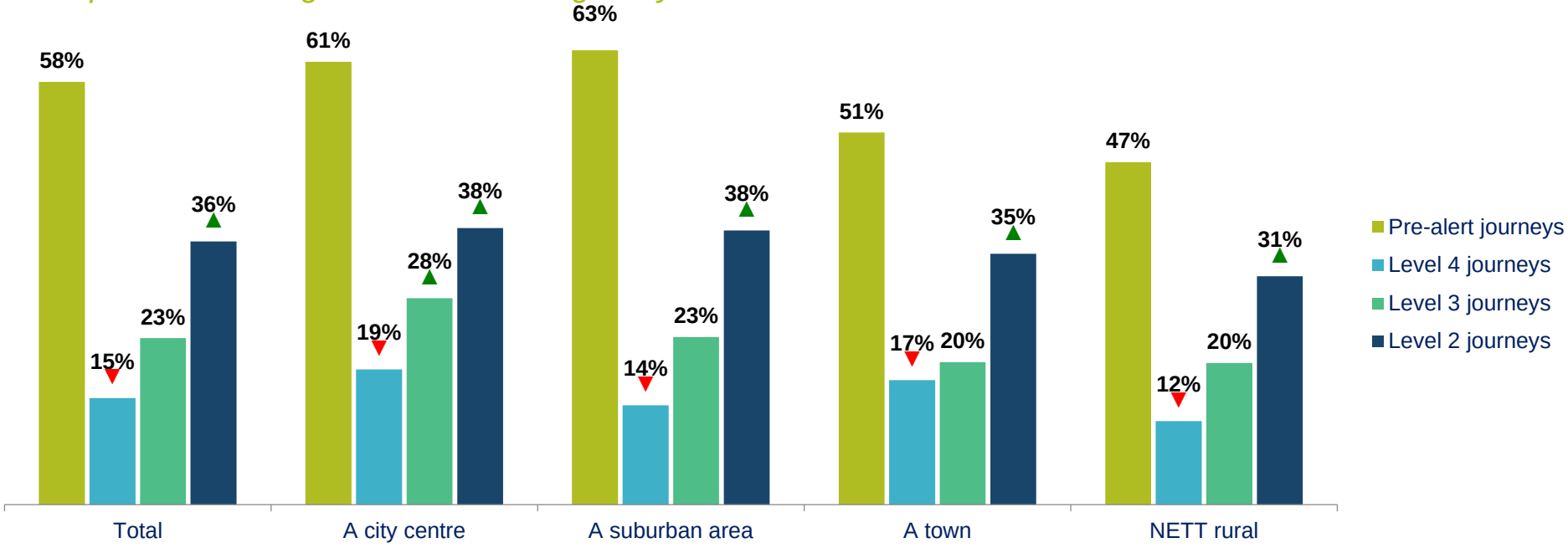
Work travel has seen the biggest change in journeys nationwide, with towns and rural areas now closest to their normal levels

Proportion travelling to work in each region by level



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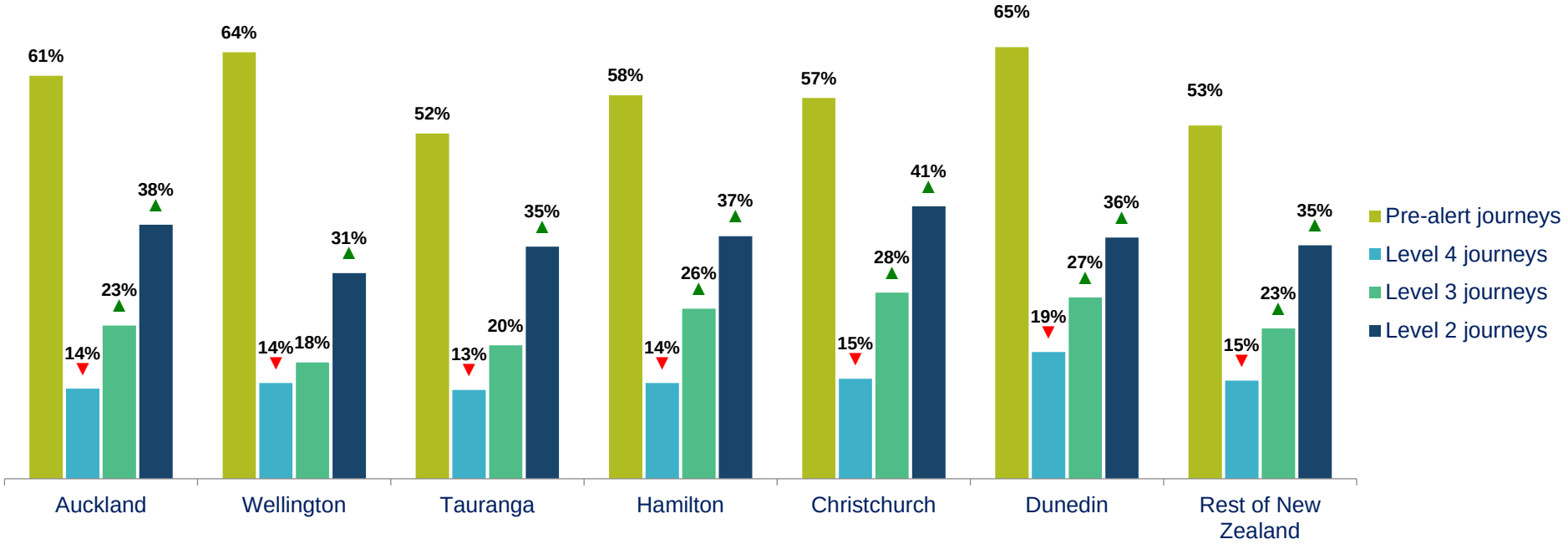
In terms of major population centres, the proportion returning to a regular commute has been slower in the greater Wellington region

Proportion travelling to work in each region by level



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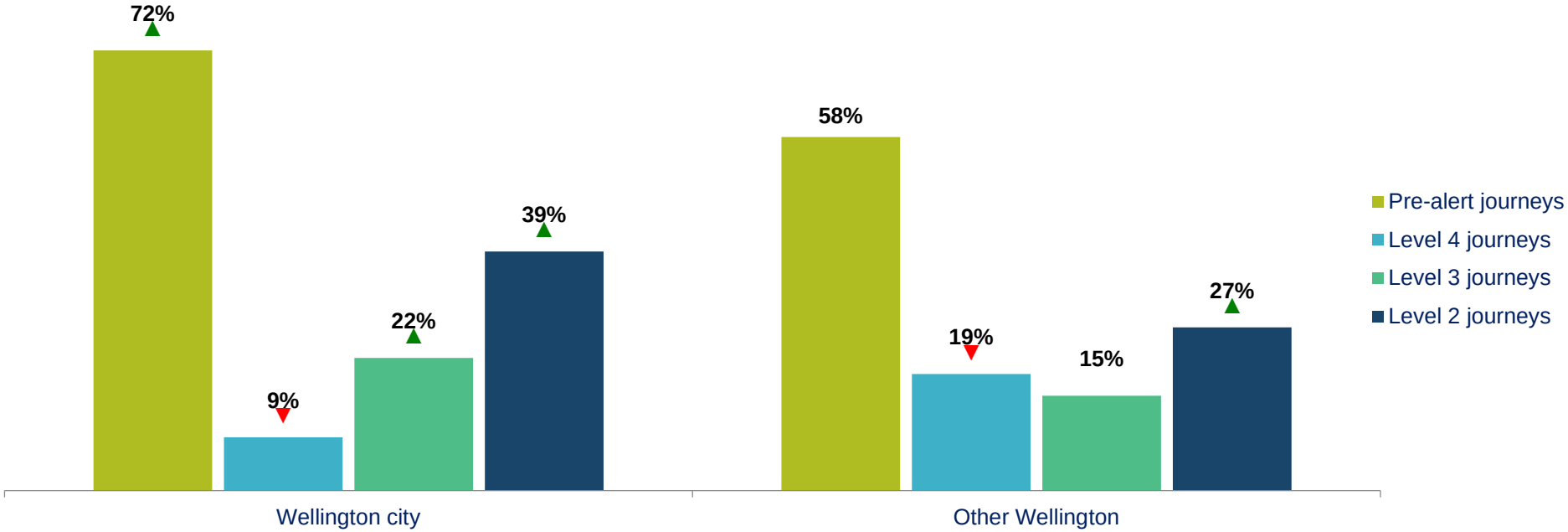
The proportion beginning to travel to work in the city of Wellington is a lot more in line with the national average than in the wider Wellington area

Proportion travelling to work in each region by level



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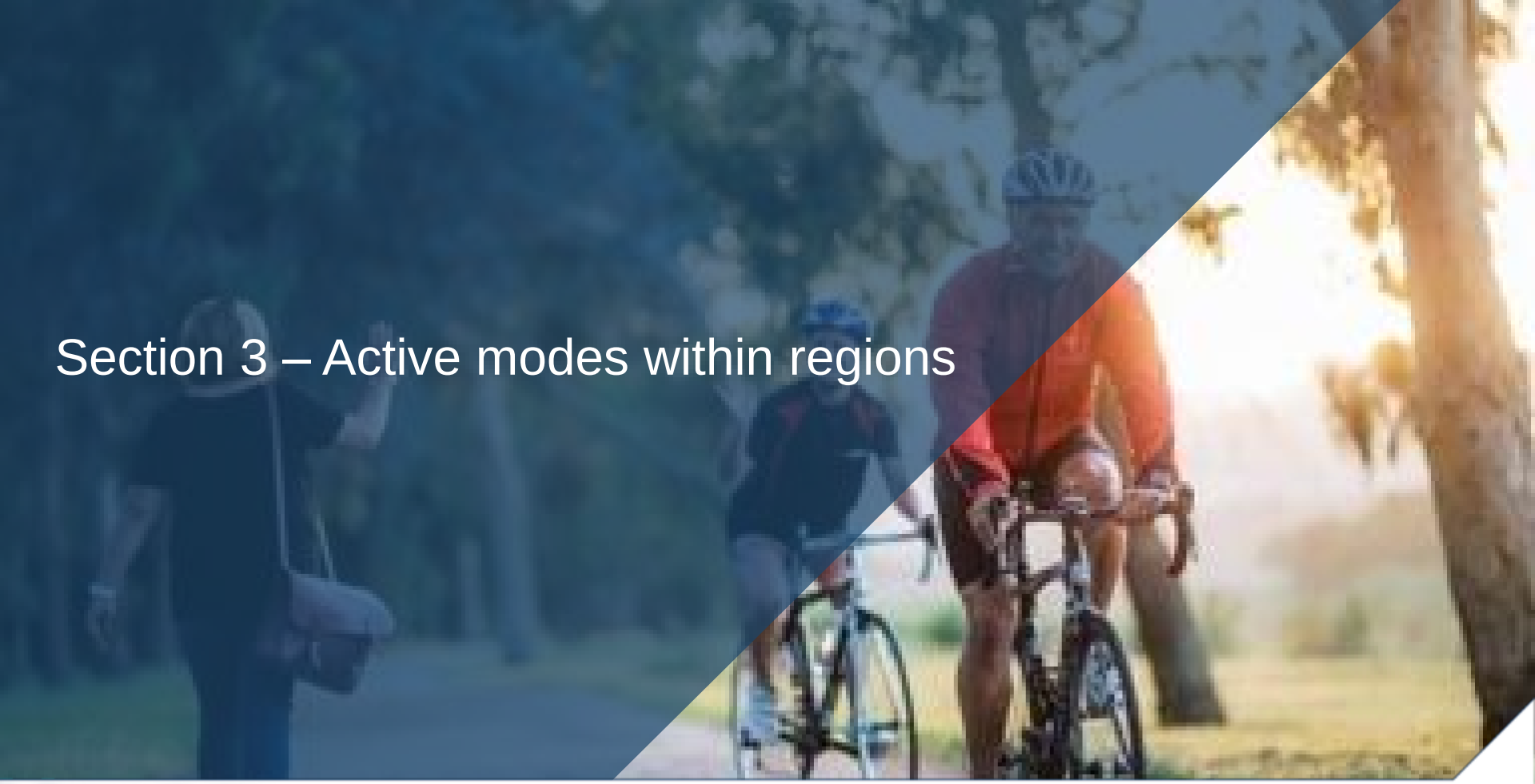
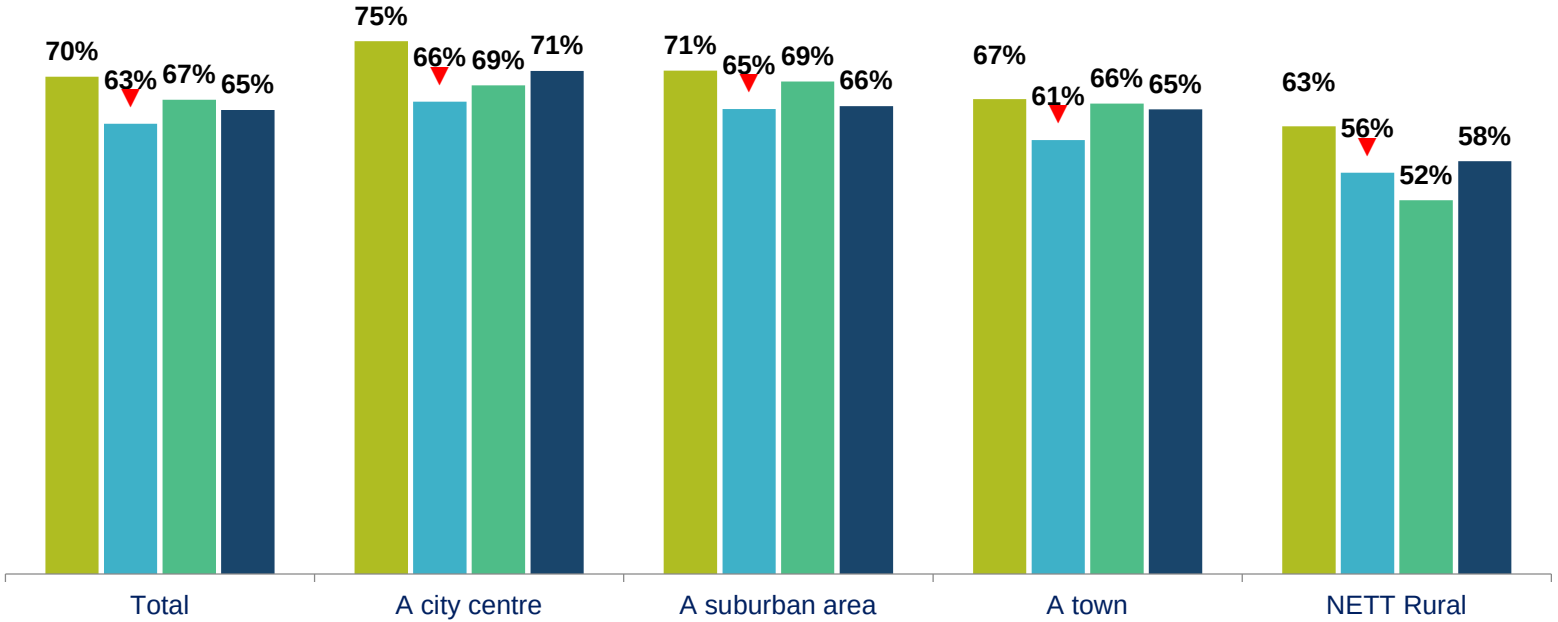
Section 3 – Active modes within regions



Active mode usage is generally more common for transportation in areas of greater population density

Proportion walking or cycling for transport by region at each level



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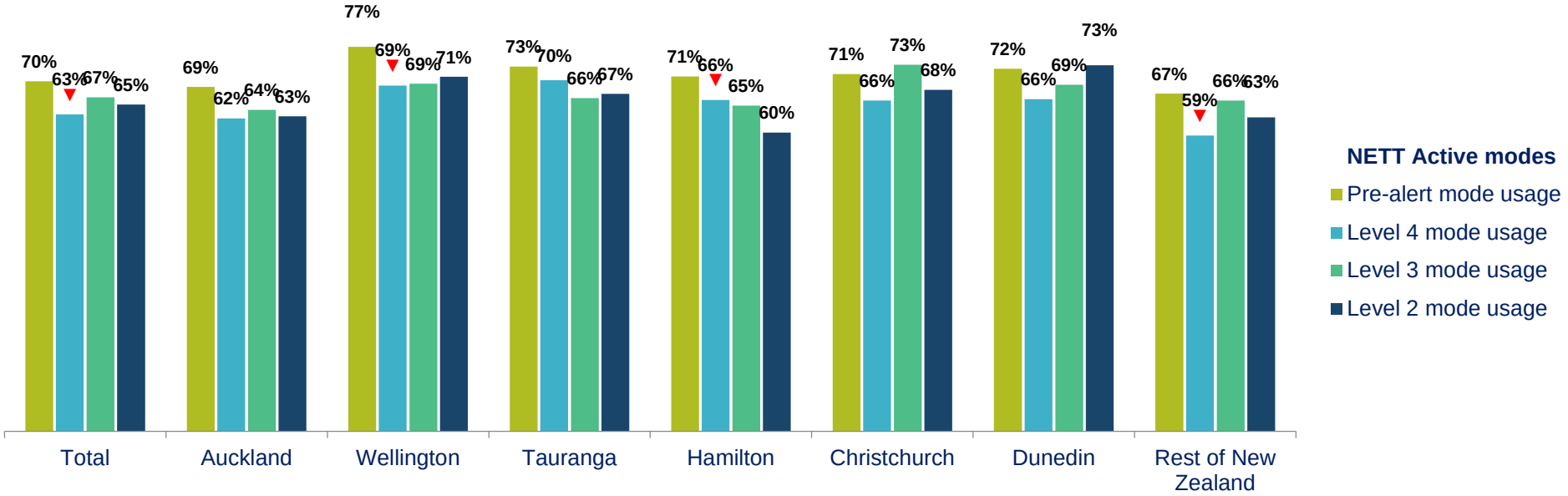
This bears out in regional analysis, where the rest of New Zealand sees a little less travel by this mode than the major population centres

Proportion walking or cycling for transport by region at each level



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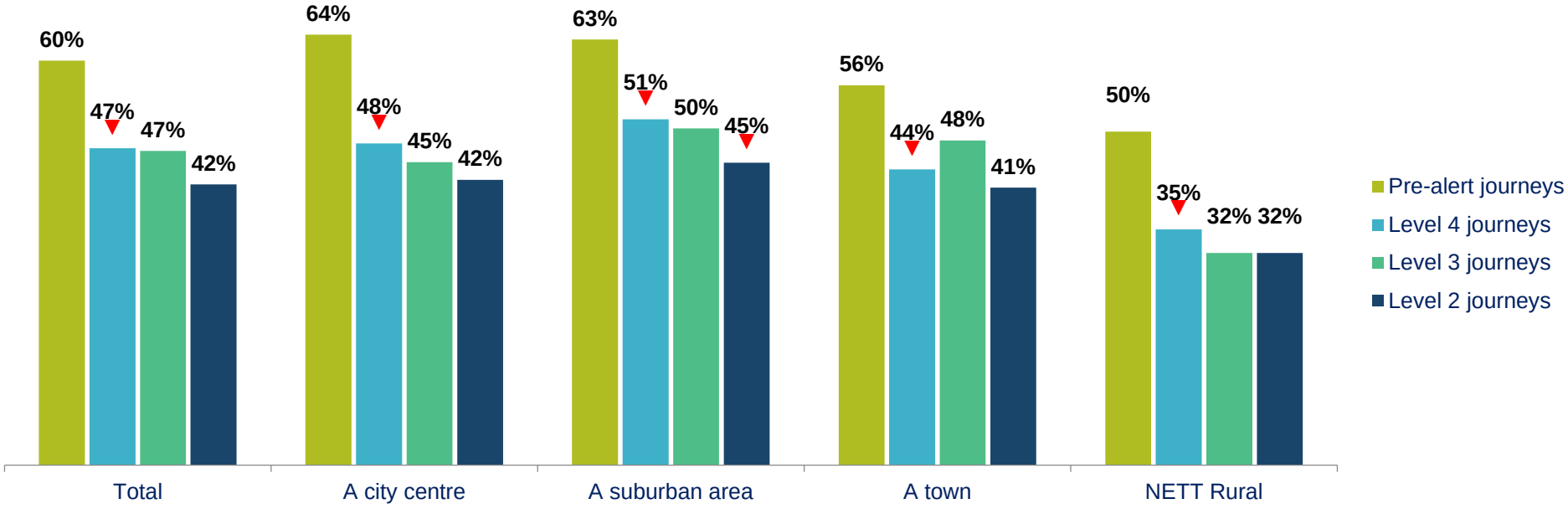
Unlike a lot of other journeys, the proportion going out for a walk or a run has continued to trend downwards in every type of region

Proportion walking or running for leisure by region at each level



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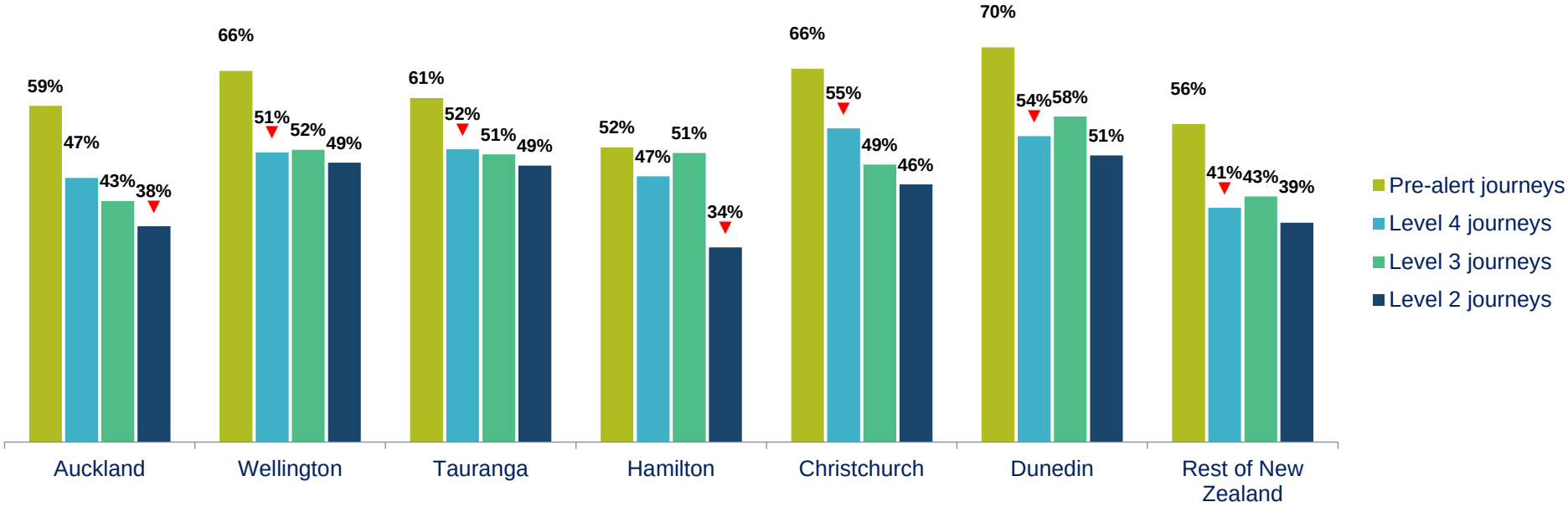
Auckland and Hamilton are the two population centres where the proportion going out for this sort of exercise is now lowest

Proportion walking, or running for leisure by region at each level



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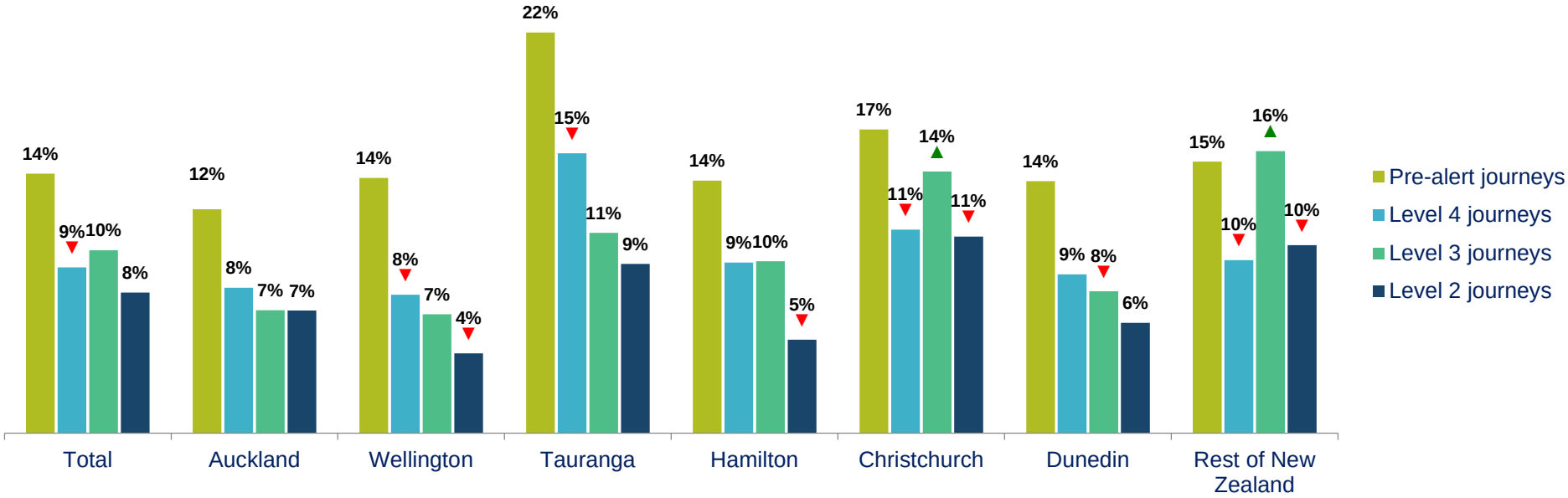
There is a bit more variation in terms of going out for a bike ride, where certain areas saw a small spike in this activity during level 3

Proportion cycling for leisure by region at each level



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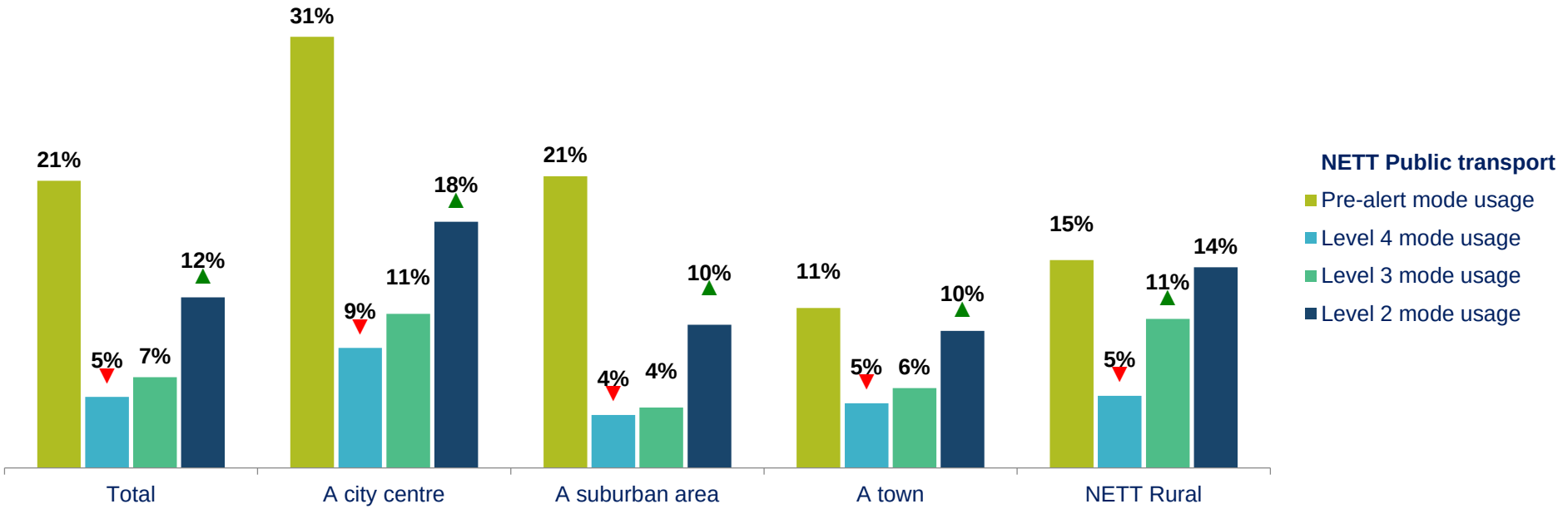
Section 4 – Public transport within regions

After three weeks in level 3, the proportion returning to public transport in city centres is one in five, but public transport usage is almost at normal levels in rural areas

Proportion using public transport by region at each level



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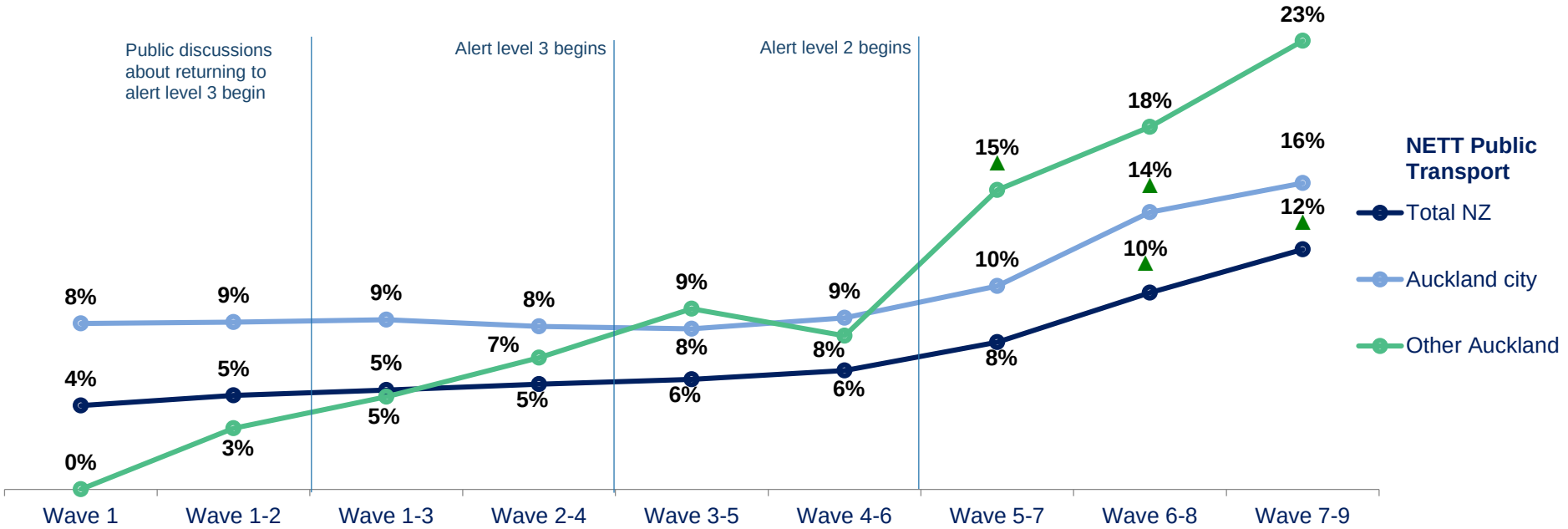
Looking at a rolling average, there has been a sharper increase in public transport usage from suburban Auckland than there has been in the city

Proportion in the Auckland area using public transport: rolling three week average



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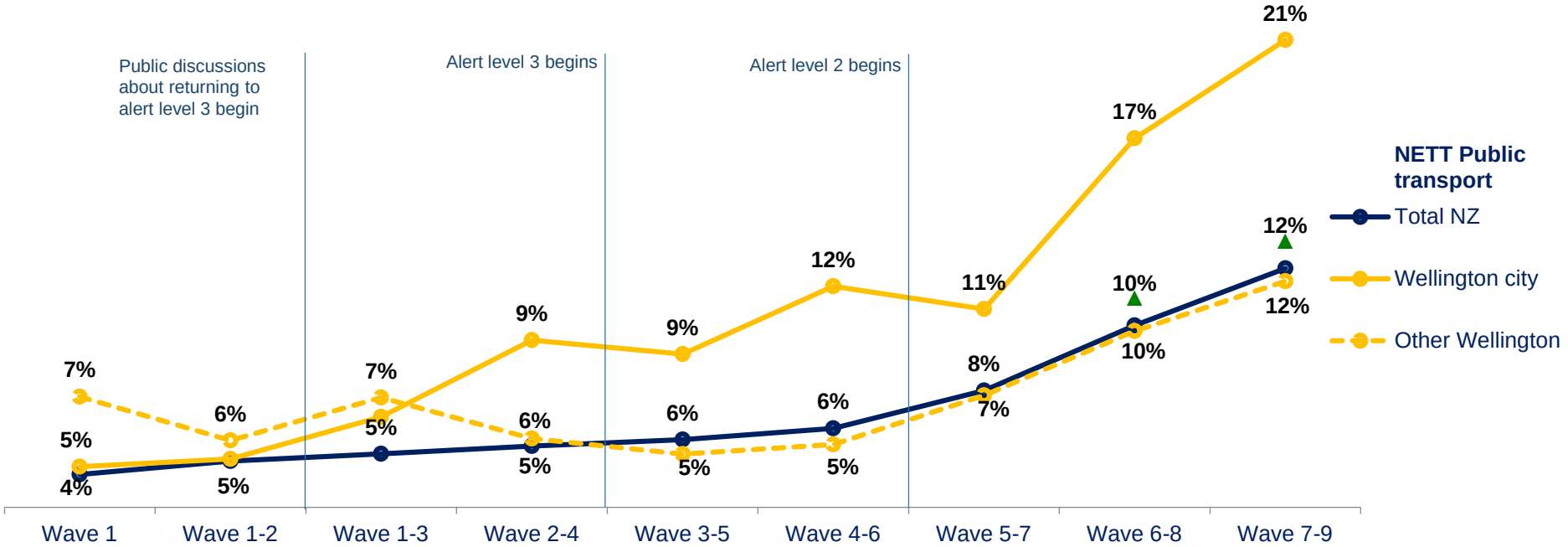
The story is inverted in Wellington: while the shifts are statistically significant, there is a clear gap between the city and surrounding areas

Proportion using public transport: rolling three week average



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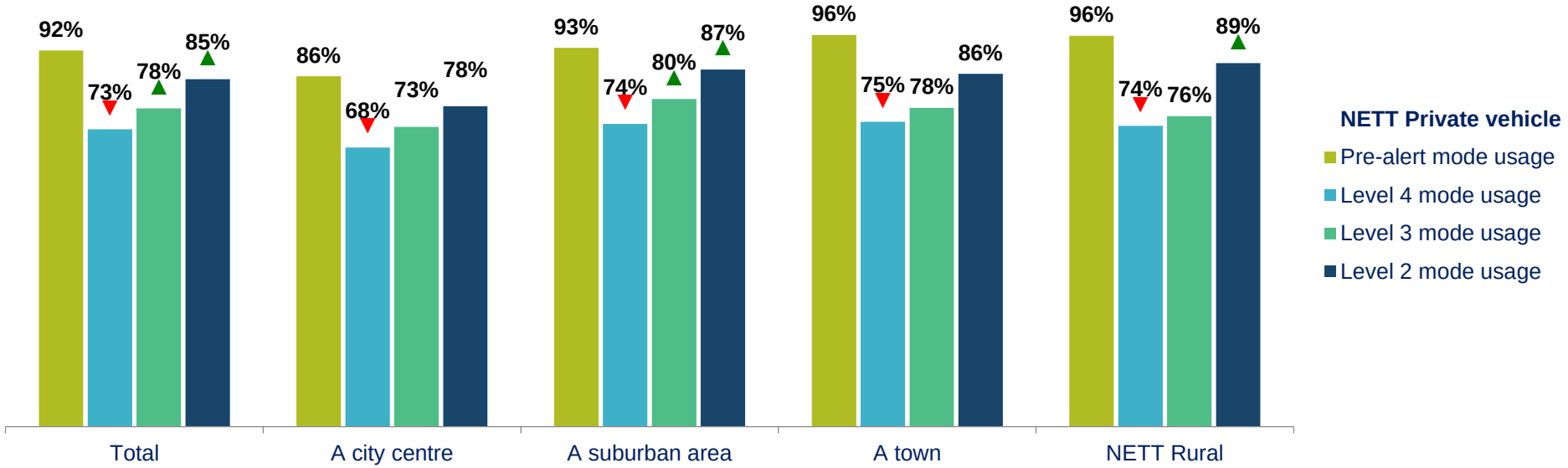
Section 5 – Private vehicles within regions

The switch to level 2 was the trigger for a big increase in private vehicle usage within rural areas, but this has been more muted in city centres

Proportion using a car or motorcycle for transport by region at each level

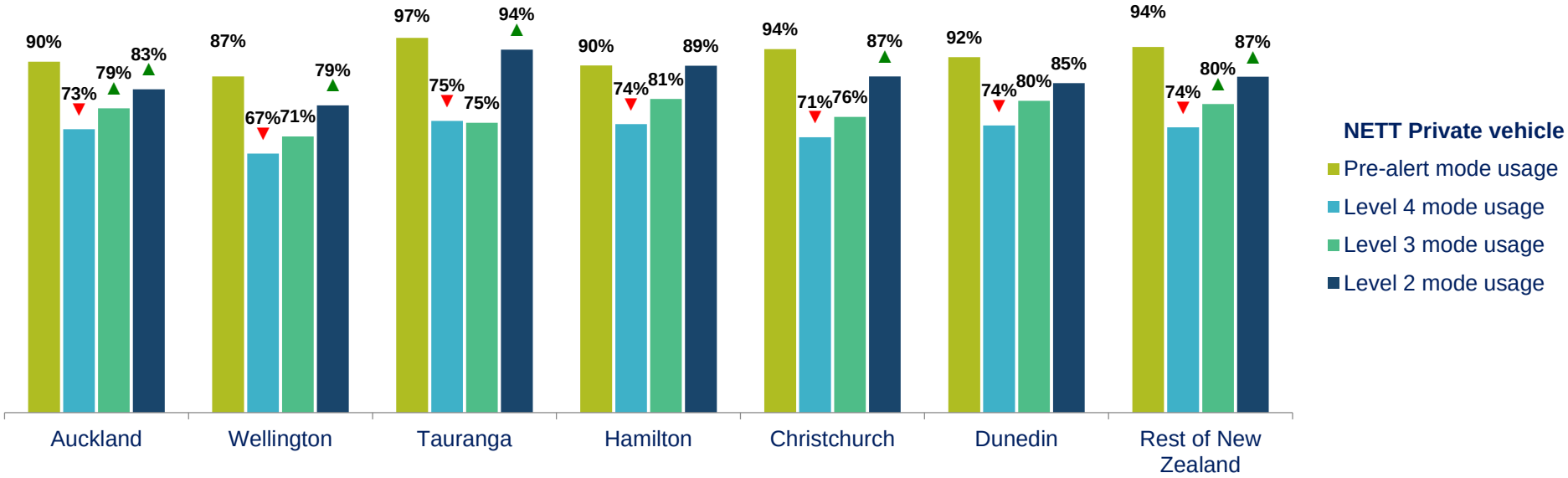


QFREQ1/QFREQ2 –And in the course of a normal week, **on how many days** would you normally travel via each of the methods listed below? And during the past seven days, **on how many days** have you travelled via each of the modes listed below?

Base: all adults 15+ in city centres/ suburban areas/ towns/ rural areas in Pre-alert level: (n=677 / 1,989 / 595 / 440); level 4 (n=884 / 2,693 / 790 / 612); level 3 (n=431 / 1,416 / 391 / 262); Level 2 (n=677 / 2,012/ 575 / 426)

The return to private vehicle usage has been slower in Auckland and Wellington, but jumped most dramatically in Tauranga and Christchurch

Proportion using a car or motorcycle for transport by region at each level

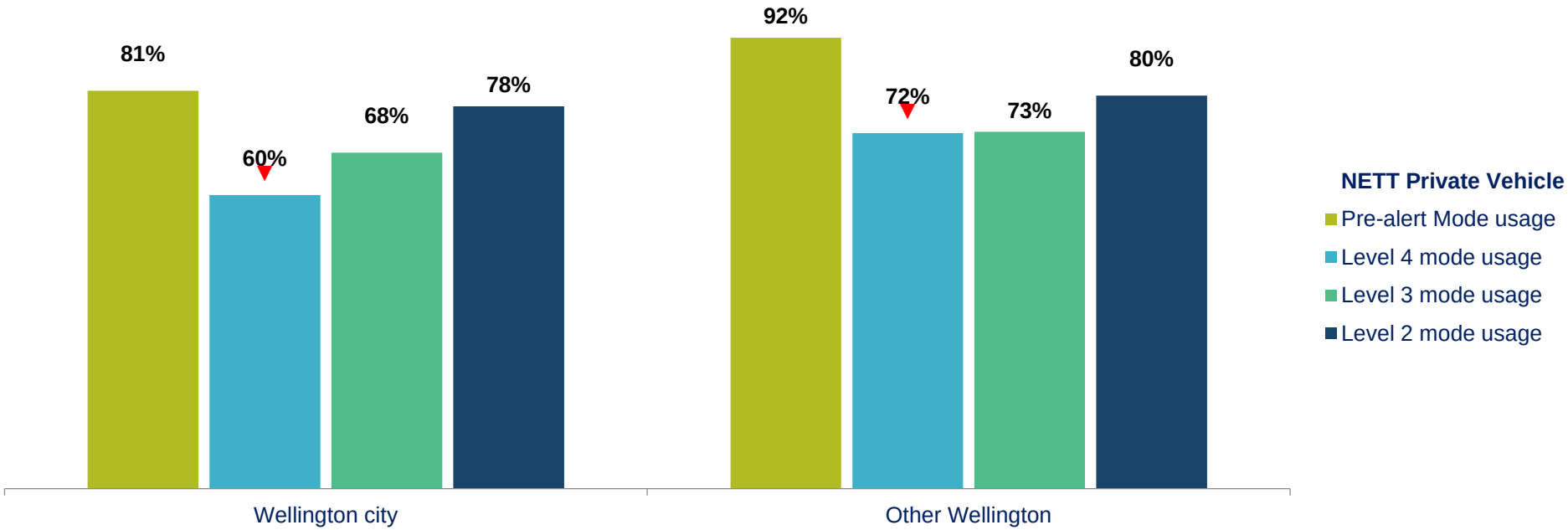


QFREQ1/QFREQ2 –And in the course of a normal week, **on how many days** would you normally travel via each of the methods listed below? And during the past seven days, **on how many days** have you travelled via each of the modes listed below

Base: all adults 15+ in each region in Pre-alert level/level 4 / level 3/ level 2 in Auckland (n=1,252 / 1,685 / 843 / 1,259); Wellington (n=349 / 522 / 343 / 471); Tauranga (n=171 / 221 / 111 / 168); Hamilton (n=174 / 245 / 121 / 180); Christchurch (n=277 / 376 / 179 / 282); Dunedin (n=354 / 474 / 246 / 356); Rest of New Zealand (n=1,182 / 1,537 / 688 / 1,066)

Private vehicle usage in the area surrounding Wellington stayed at a relatively high level through levels 4 and 3

Proportion travelling to work in each region by level



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 each region in Pre-alert level/level 4 / level 3/ level 2 in Wellington city (n=166 / 230 / 116 /169)Other Wellington (n=183 / 292 / 227 / 303)



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