COVID-19 transport impact in New Zealand

Australian Transport Data Action Network
31 March 2021
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.
COVID-19 Transport Impact Study purpose and design

Description
- Continuously monitor and assess the impacts of COVID-19 on New Zealanders’ transport choices
- Investigates how transport choices, attitudes and perceptions are changing
- Help to understand, respond and influence future travel habits

Study design
- Online 15 minute quantitative survey of a nationally representative sample
- Weekly sample (in alert level 2 and above) of about 1,260 (15+ yr olds), including those with disability

Surveying weekly, then as needed, 24 waves to date
Since Friday 3 April (alert level 4 began Thursday 26 March)

Published online: www.nzta.govt.nz/covid-19-impacts-on-transport
Report notes (i)

Key information to note for this report

- This report is based on twenty-four 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’ i.e. in February this year.
- At a total population level, significance testing indicated in this report is based on a statistically significant shift of results between waves 1 to 24, 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.

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

*Please note: During the fieldwork period, on the 7th March AKL dropped to Alert Level 2 and the rest of New Zealand moved to Alert Level 1.
Sample structure and further definitions

<table>
<thead>
<tr>
<th>Definition</th>
<th>Waves 1-4</th>
<th>Waves 5-6</th>
<th>Waves 7-10</th>
<th>Waves 11–16</th>
<th>Waves 17-18</th>
<th>Waves 19-20</th>
<th>Wave 21</th>
<th>Wave 22</th>
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<tbody>
<tr>
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<td>Sampl e</td>
<td>MoE*</td>
<td>Sampl e</td>
<td>MoE*</td>
<td>Sampl e</td>
<td>MoE*</td>
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<tr>
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<td>2,032</td>
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<td>5,943</td>
<td>1.38</td>
<td>1,964</td>
<td>2.21</td>
<td>2,626</td>
<td>1.91</td>
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<td>2,455</td>
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<td>2.69</td>
<td>1,964</td>
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<td>4.9</td>
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<td>Wellington</td>
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<td>799</td>
<td>3.47</td>
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<td>400</td>
<td>4.9</td>
<td>601</td>
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<td>200</td>
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<td>Dunedin</td>
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<td>392</td>
<td>4.95</td>
<td>607</td>
<td>3.98</td>
<td>200</td>
<td>6.93</td>
<td>208</td>
<td>6.79</td>
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<td>Rest of NZ</td>
<td>1,454</td>
<td>2.57</td>
<td>652</td>
<td>3.84</td>
<td>1,328</td>
<td>2.69</td>
<td>683</td>
<td>3.75</td>
<td>771</td>
<td>3.53</td>
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<td>Disability, Vulnerability and COVID-19**</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>Any Disability</td>
<td>See previous page</td>
<td>n=550</td>
<td>4.18</td>
<td>n=297</td>
<td>5.69</td>
<td>n=811</td>
<td>3.96</td>
<td>n=866</td>
<td>3.33</td>
<td>n=284</td>
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<tr>
<td>COVID-19</td>
<td>See previous page</td>
<td>n=1,230</td>
<td>2.79</td>
<td>n=597</td>
<td>4.01</td>
<td>n=1,139</td>
<td>2.9</td>
<td>n=1,640</td>
<td>2.42</td>
<td>n=584</td>
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<tr>
<td>Vulnerable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aged 70 + years</td>
<td>All indicating that they are considered higher risk for COVID-19 as they are aged 70 or over</td>
<td>n=618</td>
<td>3.94</td>
<td>n=315</td>
<td>5.52</td>
<td>n=827</td>
<td>3.91</td>
<td>n=830</td>
<td>3.4</td>
<td>n=266</td>
</tr>
</tbody>
</table>

*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.
Key insights

1. Covid concerns – high level of concern continues
2. Transport behaviour – public transport slow to recover, reasons why
3. Working from home – settling at around twice as many

Many other topics – disability, Covid-19 vulnerable, domestic tourism, active modes, self-isolation, re-introducing of fares for public transport, modal shift patterns and journey barriers and lost journeys
### Alert Levels Summary

<table>
<thead>
<tr>
<th>Alert level</th>
<th>Travel restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4 Lockdown</strong></td>
<td>Stay home in bubble, only essential movement e.g. essential workers, grocery, medical&lt;br&gt;Safe recreational activity, local area only&lt;br&gt;Public venues, non-essential businesses, schools and universities closed</td>
</tr>
<tr>
<td><strong>3 Restrict</strong></td>
<td>Stay home in bubble, only essential movement&lt;br&gt;Physical distancing two metres outside home, one metre workplaces- where open&lt;br&gt;Businesses can open, but no close personal contact (e.g. offering “click and collect”)&lt;br&gt;Gatherings up to 10 people for weddings, funerals and tangihanga only</td>
</tr>
<tr>
<td><strong>2 Reduce</strong></td>
<td>Can socialise with people outside of household bubbles&lt;br&gt;Non-essential journeys permitted&lt;br&gt;Businesses opened provided physical distancing and contact tracing are practiced&lt;br&gt;Schools reopened&lt;br&gt;Face coverings required on public transport and aircraft&lt;br&gt;Gatherings limited to 100 people&lt;br&gt;Inter-regional domestic travel permitted</td>
</tr>
<tr>
<td><strong>1 Prepare</strong></td>
<td>Schools and workplaces open in full but must operate safely&lt;br&gt;No restrictions on personal movement domestically, contact tracing encouraged&lt;br&gt;No restrictions on gatherings, contact tracing encouraged&lt;br&gt;Face masks are required on public transport upon return to level 1 in October 2020</td>
</tr>
</tbody>
</table>
New Zealand’s COVID-19 transport impact survey timing

COVID impact timeline

<table>
<thead>
<tr>
<th>Alert level</th>
<th>Level 1*</th>
<th>Level 2/1</th>
<th>Level 2.5/2</th>
<th>Level 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Lockdown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Restrict</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>2 Reduce</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Prepare</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note diminishing frequency of research waves
Concerns
Nationally, concerns about transmission increase significantly each time new cases are reported in the community, especially during the latest March travel restrictions.

COVID-19 concerns (NETT all concerned)

Public/school holidays

The risk of COVID-19 infection to yourself

The risk of transmitting COVID-19 to others

QPTUSE3. How personally concerned are you about each of the following?
Base: all adults 15+ in New Zealand  *fieldwork frequency decreased from weekly during level 1

- Indicates a statistically significant increase from previous time period
- Indicates a statistically significant decrease from previous time period
March alert level rises increased self-isolation, with the general profile of behaviours similar to the higher alerts in August.

Reported activity and movement during the past seven days by wave, excludes exercise.
Indications of greater confidence and comfort with restrictions, a fifth of New Zealanders strongly agree that they are better able to adjust to restrictions

*I was able to adjust better to travel restrictions and get the things I need than I was following the first outbreak of COVID-19*

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Strongly Agree</th>
<th>Mostly Agree</th>
<th>Somewhat Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Disagree</th>
<th>Mostly Disagree</th>
<th>Strongly Disagree</th>
<th>Don’t Know/Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>20Aug - 23Aug (n=1254)</td>
<td>14%</td>
<td>14%</td>
<td>13%</td>
<td>13%</td>
<td>12%</td>
<td>13%</td>
<td>21%</td>
<td>5%</td>
</tr>
<tr>
<td>27Aug - 30Aug (n=1201)</td>
<td>17%</td>
<td>17%</td>
<td>22%</td>
<td>22%</td>
<td>22%</td>
<td>19%</td>
<td>26%</td>
<td>4%</td>
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<td>3Sep - 6Sep (n=1219)</td>
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<td>21%</td>
<td>19%</td>
<td>31%</td>
<td>30%</td>
<td>19%</td>
<td>4%</td>
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<td>17Sep - 20Sep (n=1407)</td>
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<td>29%</td>
<td>28%</td>
<td>28%</td>
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<td>24Sep - 27Sep (n=1253)</td>
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<td>3%</td>
</tr>
<tr>
<td>15Oct - 18Oct (n=1220)</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
<td>3%</td>
</tr>
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<td>12Nov - 15Nov (n=1247)</td>
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<td>24%</td>
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<td>19%</td>
<td>22%</td>
<td>22%</td>
<td>19%</td>
</tr>
<tr>
<td>4Mar - 8Mar (n=1232)</td>
<td>14%</td>
<td>14%</td>
<td>14%</td>
<td>13%</td>
<td>13%</td>
<td>12%</td>
<td>21%</td>
<td>20%</td>
</tr>
</tbody>
</table>

QATT: To what extent do you agree or disagree with the following statements?

*Base: all adults 15+ in New Zealand *fieldwork frequency decreased from weekly during level 1, statement suppressed for most waves during this time period*
Impact on behaviour
Alert level increases significantly decrease most essential journeys. But March work journeys were five points higher than August indicating better adaption to restrictions.

Essential journeys

- Travelling to work
- Travelling to a place of education (school, university, library etc.)
- Taking children to/from school

QJOURNEY1/QJOURNEY. 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. Base: all adults 15+ in New Zealand in Benchmark: (n=3,759); Wave 1 – 20 (n= between 1,230 – 1,300)
Less frequent essential journeys also drop significantly when alert levels rise. Impact of travel restrictions on essential journeys in March roughly matches August.

**Essential journeys**

QJOURNEY1/QJOURNEY. 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

**Benchmark:** (n=3,759); Wave 1 – 20 (n= between 1,230 – 1,300)

**Indicates a statistically significant increase from previous time period**

**Indicates a statistically significant decrease from previous time period**

<table>
<thead>
<tr>
<th>Level 4</th>
<th>Level 3</th>
<th>Level 2</th>
<th>Level 1*</th>
<th>Level 3/2</th>
<th>Level 2.5/2</th>
<th>Level 1</th>
</tr>
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<tbody>
<tr>
<td>Pre-alert</td>
<td></td>
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<td>3Apr - 8Apr (n=1264)</td>
<td>9Apr - 14Apr (n=1263)</td>
<td>16Apr - 20Apr (n=1252)</td>
<td>23Apr - 26Apr (n=1301)</td>
<td>30Apr - 3May (n=1267)</td>
<td>7May - 9May (n=1255)</td>
<td>14May - 17May (n=1265)</td>
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<td>90%</td>
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<td>44%</td>
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<td>10%</td>
<td>9%</td>
<td>10%</td>
<td>12%</td>
</tr>
</tbody>
</table>

**QJOURNEY1/QJOURNEY.** 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?

- Going to a medical appointment
- Shopping for groceries
- Travel to support vulnerable friend or family
- Public/school holidays

**Indicates a statistically significant increase from previous time period**

**Indicates a statistically significant decrease from previous time period**
A similar pattern can be seen with non-essential journeys, with falls seen during the August and March travel restrictions.

**Non-essential journeys**

QMODE1A/2A. How would you normally make each of the following types of journeys? And thinking about other types of journeys you might have made in the past seven days.

How, if at all did you make each of the journeys listed below in the past seven days?

Base: all adults 15+ interviewed during level 2, level 1, level 3/2 and level 2.5/2 in New Zealand (c. 1,200 per wave)

- Shopping for non-grocery items
- Travel for leisure
- Travel to visit friends or family
- Travel to somewhere else
- No non-essential journeys taken

Public/school holidays

Indicates a statistically significant increase from previous time period
Indicates a statistically significant decrease from previous time period
Use of Tomtom data as a proxy for travel demand based on average speeds

Speeds on key urban routes

Average Speed-Auckland

- **Average Speed 2019/20**
- **Average Speed 2018/19**
- **Average Speed Freeflow**

**Key Events**:
- 04 March 2020: First case confirmed in NZ
- 25 March 2020: NZ moves to AL-4
- 19 March 2020: Government closes the borders to all but citizens and residents
- 27 April 2020: NZ moves to AL-3
- 13 May 2020: NZ moves to AL-2
- 15 August 2020: Auckland region moves back into AL-3
- 12 August 2020: Auckland region moves into AL-2, the rest of the country moves into AL-2
- 20 August 2020: AL-2.5 in Auckland, AL-2 in rest of the country
- 16 September 2020: Auckland Harbour Bridge damages due to the strong winds
- 21 September 2020: AL-2 in Auckland, AL-1 in rest of the country
- 07 October 2020: Auckland joins the rest of NZ at AL-1, Harbour Bridge restored to 100% capacity

**Day of Month**

**Average Speed**
- 90
- 85
- 80
- 75
- 70
- 65
- 60
- 55
- 50
- 45
- 40
- 35
- 30
- 25
- 20

**New Zealand Government**

NZ Transport Agency
Public transport usage
Public transport modes are the most affected form of transportation. When New Zealand moves up alert levels public transport use significantly decreases.
All public transport modes are impacted, with stated weekly usage of each similar in both March and August travel restrictions. Train recovery supressed.

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
After the first lockdown all Auckland public transport modes increased in a similar way. Following August travel restrictions, several non-COVID shocks occurred boosting ferry recovery and stalling return to trains.

Actual public transport patronage and traffic data in Auckland NZ.
Transmission concerns continue to be a key concern on public transport, but around seven in ten have reduced need compared to before the pandemic.

**Reasons for decrease in PT activity**

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

*Base: decreasing PT usage in past week; current alert level: level 1 (2nd)*
While top barriers relate to reduced need, one in five express concern about others not wearing masks as required and a third are explicitly worried about transmission.

**Reasons for decrease in PT activity (March 2021)**

- I am just travelling less in general as I have less reason to do so: 43%
- I don’t need to travel to the places that I used to use public transport for (e.g. work): 38%
- Worried about catching Covid-19 from surfaces or people: 34%
- I am concerned that other people are not wearing masks on public transport, even when required: 19%
- I’ve decided to use private transport options instead: 18%
- Reduced services mean it’s no longer convenient: 11%
- I don’t want to have to wear a mask when using public transport: 10%
- The roads are quieter so I’m less likely to get stuck in traffic when driving: 10%
- Services are not running regularly enough at the moment to be useful to me: 8%
- I use my essential journeys as an opportunity to get exercise, instead of using public transport: 8%
- I find that the services I would normally use are too crowded at the moment: 6%
- The bus, train or ferry is often full and there isn’t spaced seating available: 5%
- It’s difficult to scan the contact tracing QR codes on the public transport I need to use: 5%
- Services are not running quickly enough at the moment to be useful to me: 5%
- I usually need help using public transport and cannot access that help right now: 3%
- Services don’t currently stop where I usually catch them: 2%
- Other, please specify: 3%
- Don’t know: 3%

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

*Base: decreasing PT usage in past week (n=211)*
Many are waiting for normal travel without alert levels to resume before they will return to using public transport like they used to

Triggers for return to PT activity (March 2021)

- Return to a lower alert level: 39%
- The end of COVID-19 alert levels: 36%
- When I have to pay for parking in the city again: 28%
- When the roads are congested again: 28%
- When others need to use the car: 17%
- When roads are too busy to cycle or drive safely: 14%
- When services are less crowded and it's easier to get on or get a seat: 11%
- When services return to a normal timings and schedule: 11%
- When I have been vaccinated: 19%
- When bus, train or ferry services return to a normal timetable: 17%
- When I am no longer required to wear a mask on public transport: 14%
- When services return to a normal timings and schedule: 11%
- When we are all allowed to travel as normal: 25%
- When I have been vaccinated: 19%
- When enough people in the community have been vaccinated (herd immunity): 19%
- When I don’t think my public transport usage will ever return to what it was before: 7%
- When I have to go back to work or education: 6%
- When others need to use the car: 5%
- When the roads are congested again: 4%
- When I have to pay for parking in the city again: 3%
- When I am personally comfortable that there are not any more risks of transmission: 28%
- When roads are too busy to cycle or drive safely: 14%
- When services are less crowded and it's easier to get on or get a seat: 11%
- When services return to a normal timings and schedule: 11%
- When we are all allowed to travel as normal: 25%
- When I have been vaccinated: 19%
- When enough people in the community have been vaccinated (herd immunity): 19%
- When I don’t think my public transport usage will ever return to what it was before: 7%
- When I have to go back to work or education: 6%
- When others need to use the car: 5%
- When the roads are congested again: 4%
- When I have to pay for parking in the city again: 3%
- When I am personally comfortable that there are not any more risks of transmission: 28%
- When roads are too busy to cycle or drive safely: 14%
- When services are less crowded and it's easier to get on or get a seat: 11%
- When services return to a normal timings and schedule: 11%
- When we are all allowed to travel as normal: 25%
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- When I have to pay for parking in the city again: 3%
- When I am personally comfortable that there are not any more risks of transmission: 28%
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- When I am personally comfortable that there are not any more risks of transmission: 28%
- When roads are too busy to cycle or drive safely: 14%
- When services are less crowded and it's easier to get on or get a seat: 11%
- When services return to a normal timings and schedule: 11%
- When we are all allowed to travel as normal: 25%
- When I have been vaccinated: 19%
- Which, if any of the following would encourage you to start using public transport as much as you used to?
  - Base: decreasing PT usage in past week (n=211)
Perceptions of travelling by car have been stronger than other modes and the least likely to change from level to level

**Perceptions of car / van**

Perceptions of car / van

- **Is safe**
- **Is hygienic**
- **Is reliable**
- **Is convenient**
- **Is affordable**
- **Can get me to where I need to go**
- **Lets me travel the way I want to travel**

允许我与他人保持距离

- Level 4
- Level 3
- Level 2
- Level 1

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

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

*Base: New Zealanders who normally travel by Car / Van: level 4 (n=1,453), level 3 (n=746); level 2 (n=1,584); level 1 (n=1,861)*

Indicates a statistically significant increase against level 2

Indicates a statistically significant decrease against level 2
With each COVID-19 alert level, the proportion saying that buses are safe, convenient and can get them where they need has increased.

**Perceptions of the bus**

![Perception Graph]

**NB:** Users were only asked about transport modes that they personally use during a normal week.
Perceptions of travel by train are broadly better overall in level 1, with the exception of reliability and capacity for social distancing.

**Perceptions of the train**

![Graph showing perceptions of train travel]

- **Is safe**: Level 1 is significantly better than level 2.
- **Is hygienic**: Level 1 is significantly better than level 2.
- **Is reliable**: No significant difference.
- **Can get me to where I need to go**: Level 1 is significantly better than level 2.
- **Is affordable**: Level 1 is significantly better than level 2.
- **Allows me to keep my distance from others**: Level 1 is significantly better than level 2.
- **Is convenient**: Level 1 is significantly better than level 2.
- **Lets me travel the way I want to travel**: Level 1 is significantly better than level 2.

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

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

*Base:* New Zealanders who travel by train normally: level 4 (n=323), level 3 (n=160); level 2 (n=405); level 1 (n=443)

- Indicates a statistically significant increase against level 2
- Indicates a statistically significant decrease against level 2
Perceptions of cycling as a transport mode generally weakened since level 3 and changed little since level 2

Perceptions of bicycle including e-bike

- Is safe
- Is hygienic
- Is reliable
- Is convenient
- Allows me to keep my distance from others
- Can get me to where I need to go
- Lets me travel the way I want to travel

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

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

Base: New Zealanders who travel by bike normally: level 4 (n=782), level 3 (n=419); level 2 (n=795); level 1 (n=856)
Walking is stable throughout the levels, but in level 1 there is a significant increase in ‘walking can get where need to go’ and ‘travel how I want’.

**Perceptions of walking**

Indicates a statistically significant increase against level 2
Indicates a statistically significant decrease against level 2

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

QPTIMAGE: Image Statements – And which transportation methods would you currently associate with each of the following qualities?
Base: New Zealanders who normally use walking as a means of travel: level 4 (n=1,445), level 3 (n=736); level 2 (n=1,579); level 1 (n=1,840)
Working from home
Working from home increased significantly during the August and March restrictions, but was nine points lower in March.

Proportion working in and out of home by survey wave

QWORK1A/QWORK2A: And prior to any public health alert or lockdown, where did you mainly work? And where do you currently work?

Base: all adults 15+ who are usually working

Public/school holidays


Level 4 Level 3 Level 2 Level 1 Level 3/2 Level 2.5/2 Level 1 Level 1*

Indicates a statistically significant increase from previous time period
Indicates a statistically significant decrease from previous time period
As has often been the case, public transport is most impacted by the increase in commuters.

Proportion of commuters working from home who would normally travel by each mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Level 4 &amp; 3 (n=1299)</th>
<th>Level 2 (n=685)</th>
<th>Level 1 (n=589)</th>
<th>Split level lockdown period (n=560)</th>
<th>Level 1 (2nd) (n=145)</th>
<th>March split level lockdown (n=31)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NETT Active modes</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Proportion working from home in L3 &amp; 4</td>
<td>47%</td>
<td>31%</td>
<td>20%</td>
<td>24%</td>
<td>17%</td>
<td>19%</td>
</tr>
<tr>
<td>NETT Public transport</td>
<td>72%</td>
<td>69%</td>
<td>70%</td>
<td>70%</td>
<td>69%</td>
<td>63%</td>
</tr>
<tr>
<td>Proportion working from home in L2</td>
<td>9%</td>
<td>16%</td>
<td>19%</td>
<td>18%</td>
<td>19%</td>
<td>20%</td>
</tr>
<tr>
<td>NETT Private vehicle</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Proportion working from home in L1</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Proportion of each commuter type working from home

<table>
<thead>
<tr>
<th>Proportion WFH by level</th>
<th>Active mode commuters</th>
<th>Private vehicle commuters</th>
<th>Public transport commuters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion working from home in L3 &amp; 4</td>
<td>47%</td>
<td>53%</td>
<td>62%</td>
</tr>
<tr>
<td>Proportion working from home in L2</td>
<td>31% ▼</td>
<td>31% ▼</td>
<td>42% ▼</td>
</tr>
<tr>
<td>Proportion working from home in L1</td>
<td>20% ▼</td>
<td>17% ▼</td>
<td>24% ▼</td>
</tr>
<tr>
<td>Proportion working from home in split level</td>
<td>24% ▼</td>
<td>13% ▼</td>
<td>36% ▲</td>
</tr>
<tr>
<td>Proportion working from home in L1 (2nd)</td>
<td>17%</td>
<td>16% ▲</td>
<td>19% ▼</td>
</tr>
<tr>
<td>Proportion working from home in March '21</td>
<td>19%</td>
<td>11% ▼</td>
<td>13%</td>
</tr>
</tbody>
</table>

QWORK1A/QWORK2A: And prior to any public health alert or lockdown, where did you mainly work? And where do you currently work? By QMODE1_1 How would you normally make each of the following types of journeys listed below? – travelling to work

Base: all adults 15+ in New Zealand who normally commute by Active modes in L4&3 (n=292)/L2 (n=256)/L1 (n=402)/March (n=69*) split level (n=324) 2nd L1 (n=141) Private vehicle L4&3 (1,748)/L2 (n=2,916)/split (n=2,390)/ 2nd L1 (n=895)/March (n=464) Public transport L4&3 (n=323)/L2 (n=295)/L1 (n=436)/split (n=314)/ 2nd L1 (n=152)/March (n=83*) *low base, interpret with caution

Indicates a statistically significant increase from previous time period
Indicates a statistically significant decrease from previous time period
Uses of Transport Impact research integrated with data

- Informing decisions on freedoms and restrictions
- Enabling monitoring of compliance
- Understanding public confidence
- Understanding challenges faced by families and firms

Monitoring and forecasting impacts on services for service and revenue planning such as:
- Changing volume of passengers on public transport
- Changes to tolling and WOF revenues

Regulatory functions making decisions on requirements for road safety and compliance, such as ensuring safe environments and vehicles when WoF inspections not possible

Identifying and monitoring unintended consequences like:
- Opportunity to experience quiet streets
- Lower congestion resulting in higher speeds and greater risks

Informing policies to ensure actual and perceived safety, such as:
- the importance and impact of masks on public transport
- monitoring impacts and compliance around regional border checkpoints.

Informing communications targeting, such as identifying where local tourists were likely to be for comms and advertising.
Wrap-up & next steps

Take home messages

1. The New Zealand transport system recovery is still evolving, so it’s too early to be sure about enduring changes.
   - Clear patterns of behaviour are occurring with movements through COVID alert levels
   - New Zealanders and businesses are developing more capability to adapt to alert changes
   - A high level of COVID concern prevails, similar to the initial lockdown levels

2. Public transport: Return to public transport has been slower than other modes. People are travelling less overall, and have COVID concerns. Our largest city, Auckland, has had many issues with train line closures and slower train speeds - reducing patronage since August 2020.

3. Working from home: Twice as many New Zealanders now work from home, around 20%. Many wish to continue working from home, but we don’t know how enduring this trend will be yet. More of those working from home were using public transport, contributing to the erosion of patronage.

Next Steps: To determine the enduring changes in New Zealand's transport system, there will be four to six more waves of research, some of the waves will be while there are no travel restrictions or alert levels.
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Reports are available on many other topics including – disability, COVID-19 vulnerable, domestic tourism, active modes, self-isolation, re-introducing of fares for public transport, modal shift patterns and volume of mode usage, journey barriers and lost journeys, perceptions of travel modes.