Te Ara Ki Te Ora – Te Rīpoata Aroturuki Ā-Tau 2022 | Road to Zero Annual Monitoring Report 2022

September 2023

Report

Te Kāwanatanga o Aotearoa
New Zealand Government

Me mahi tahi tātou mō te oranga o te katoa ⌡ We work together for the wellbeing of everyone

TE MANATŪ WAKA
MINISTRY OF TRANSPORT

WAKA KOTAHI
NZ TRANSPORT AGENCY

NEW ZEALAND POLICE
Ngā Pirihimana o Aotearoa

Kupu takamua a te Hautū | Director foreword

> **It is not acceptable for people to be killed or seriously injured when using New Zealand's roads. Tragically, however, the death and serious injury rates for New Zealand road users are amongst the highest in the OECD.**

The tragedy of road trauma does not translate well into the lives of everyday New Zealanders. It is often forgotten or minimised until it happens to members of our whānau or friendship group. Road trauma leaves a lasting and far-reaching impact on the friends, families, and communities of its victims.

Road to Zero is New Zealand's road safety strategy for 2020 to 2030. It aims to reduce deaths and serious injuries on our roads by 40 percent by 2030.[1] A 'Safe System' approach forms the foundation for the strategy, viewing the responsibility for road safety as shared between designers, builders, managers, operators and users. All components of the road transport system need to be strengthened together to deliver sustainable improvements. The Safe System approach views any avoidable loss of human life as unacceptable.

This annual monitoring report is one of a series of annual reports comparing New Zealand's performance against the desired outcomes of the *Road to Zero* strategy. It provides an update on our performance over 2022 compared to the goals set out in the 2020-2022 *Road to Zero* Action Plan.

This past year has been challenging. In 2022, we have transitioned out of the pandemic into a new environment that often looks and feels similar to pre-Covid times. However, in reality there are significant changes to travel patterns and behaviours. This makes comparison between pre-, during and post-Covid periods more complex and less reliable than previously.

Despite these challenges, we know that Safe System interventions have been highly successful in New Zealand when implemented.

- The application of safe and appropriate speeds in the Auckland region in mid-2020 has seen a 30 percent reduction in road deaths on those roads that had their speeds lowered, compared to a 9 percent increase on those roads that did not.
- Deaths and serious injuries decreased by at least 30 percent following the introduction of lower speed limits on State Highway 2 Maramarua, State Highway 2 Karangahake Gorge and State Highway 58 between Paremata and Pāuatahanui.
- Following the installation of median barriers on State Highway 1 between Cambridge and Piarere from south of Fergusson Gully Road in December 2020, this 2.4km section of flexible safety barrier was struck 40 times in the first four months of operation – these are 40 incidents that could have led to serious head-on crashes.

The challenge facing us now is to apply these successful interventions at a scale and pace that will make a difference across the remaining years of the strategy. This will enable us to significantly reduce deaths and serious injuries on our roads as New Zealand so desperately needs.

Bryan Sherritt
Director, *Road to Zero*

1. When compared to 2018 levels.

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Please note: The data presented in this report may differ slightly from road safety data presented elsewhere, such as in other *Road to Zero* annual monitoring reports. Much of the data provided in this report is drawn from the Waka Kotahi Crash Analysis System (CAS). Information from sources such as coroner's reports or Police traffic crash reports is sometimes supplied to the CAS system at a later date. As new information becomes available, CAS is subsequently updated and therefore the data may be different at a later extraction.

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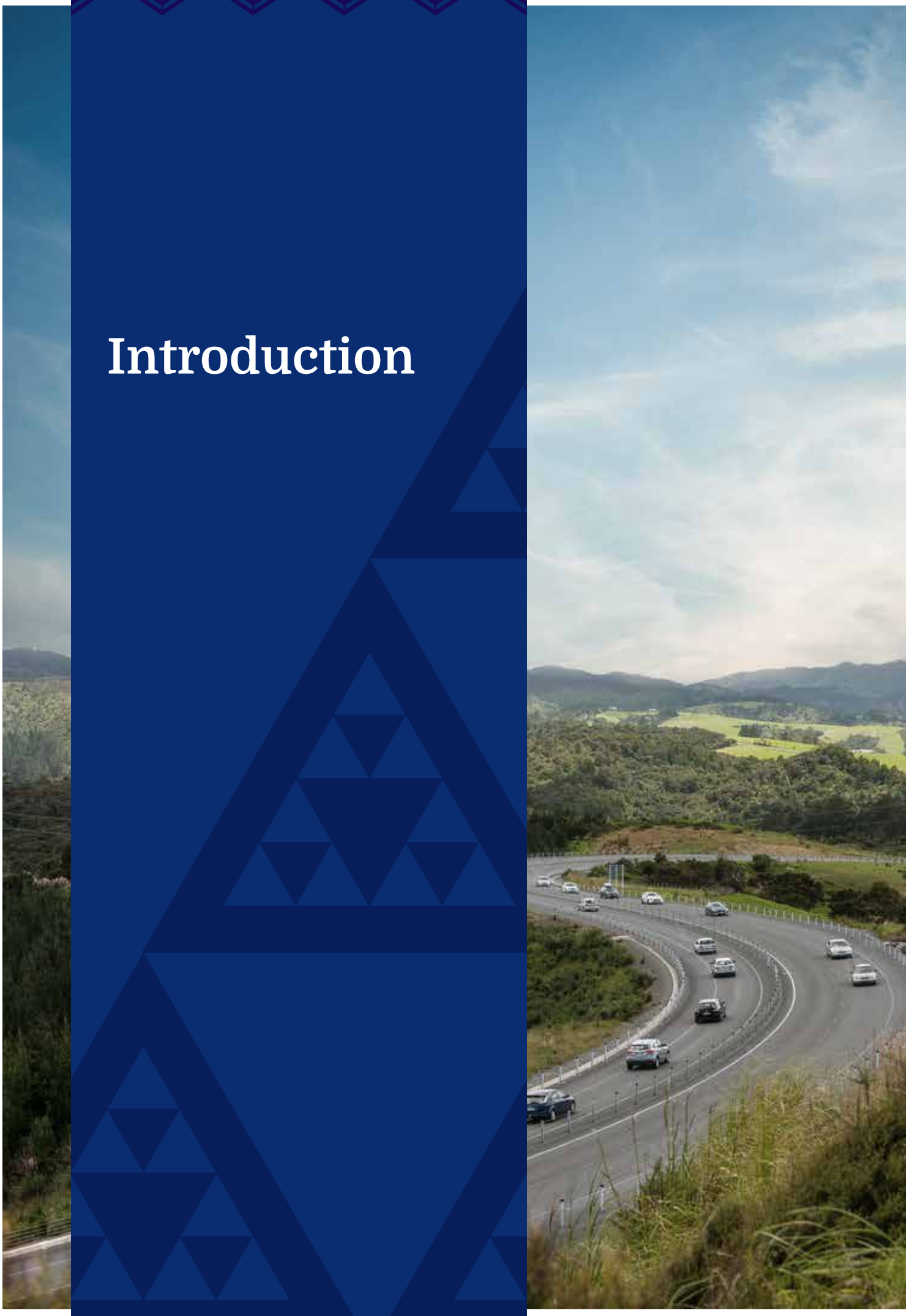
Introduction



Road to Zero – New Zealand's road safety strategy

> Too many people are seriously injured or killed on our roads. The fatality rate per capita on New Zealand roads is more than twice that of the better performing Australian states and more than three times the better performing countries in Europe.[2]

Many more people suffer permanent life-changing injuries as a result of road crashes. This level of harm, which is preventable, has a permanent and profound impact on New Zealand road users and communities.

To address this problem, *Road to Zero* – New Zealand's road safety strategy for 2020-2030 was published in December 2019. *Road to Zero* outlines a 10-year strategy to guide improvement in road safety in New Zealand from 2020 and sets out an overarching vision of a New Zealand where no one is killed or seriously injured in road crashes. *Road to Zero* is supported by an Action Plan. This plan outlines the key targets to work towards in order to reach the overall goal of the strategy – a 40 percent reduction in deaths and serious injuries (DSIs) on our roads by 2030.

This target and the ultimate vision of zero road deaths are underpinned by seven principles and five focus areas (as set out in the diagram overleaf), informed by the Safe System approach to road safety.[3]

Vision

A New Zealand where no one is killed or seriously injured in road crashes

2030 Target

A 40 percent reduction in deaths and serious injuries (from 2018 levels)

Principles

- We promote good choices but plan for mistakes
- We design for human vulnerability
- We strengthen all parts of the road transport system
- We have a shared responsibility for improving road safety
- Our actions are grounded in evidence and evaluated
- Our road safety actions support health, wellbeing and liveable places
- We make safety a decision-making priority

Focus areas

- Infrastructure and speed
- Vehicle safety
- Work-related road safety
- Road user choices
- System management

2. International Transport Forum. (2021). Road Safety Annual Report 2021. Paris: ITF OECD. Retrieved from: https://www.itf-oecd.org/sites/default/files/docs/irtad-road-safety-annual-report-2021.pdf
3. See Appendix 1 for more information on the Safe System approach.

Summary of progress on *Road to Zero* in 2022

2022 is the third year in a 10-year strategy and marks the end of the first *Road to Zero* Action Plan.

Overall progress on actions

Over the course of the year there have been a number of achievements within the *Road to Zero* programme despite several targets not yet being reached, in large part due to the long-term impacts of Covid-19 delaying the implementation of key initiatives and re-shaping travel behaviour.

A new Action Plan has recently been developed to look forward at the next three years and pick up on the targets not yet delivered. Several new measures of progress are included as part of this.

The following list includes key achievements over the past year.

- The Land Transport Rule: Setting of Speed Limits 2022, and associated Speed Management Guide and National Speed Limit Register, were created to support the application of safe and appropriate speeds across the New Zealand road network.
- Waka Kotahi New Zealand Transport Agency (Waka Kotahi) continued to explore opportunities to accelerate delivery of the Speed and Infrastructure Programme, in particular options to increase the installation of median barriers on the state highway network.

A regulatory review of the **Graduated Driver Licensing System** concluded that the regulatory settings for the driver licensing system are fit for purpose in improving safety outcomes without creating unnecessary barriers to entry and progression through the system. Operational improvements are needed to improve equity and access outcomes and work is underway to provide better driver licensing support.

Overall **NZ Police enforcement** in the 2022 calendar year has increased for road-related offences. Over 777,000 offences were detected by Police, an increase of 8.5 percent from the preceding 12 months in 2021.

Over the course of 2022, NZ Police conducted 2,407,721 **alcohol breath tests** which is an increase of 66 percent compared to the 2021 calendar year.[4]

Waka Kotahi continued preparation for transferring the operation of **safety cameras** from NZ Police to Waka Kotahi. When combined with an increase in the number of safety cameras on the roading network, this will improve detection and deterrence of speeding behaviours, with Waka Kotahi scheduled to begin issuing infringements in 2024.

Policy advice was provided to the Minister of Transport on **improving vehicle safety standards** through requiring certain modern safety features on vehicles entering the fleet.

Death and serious injury numbers per 100,000 people decreased by 9.2% when compared to 2018 numbers.

Parliament passed the **Land Transport (Drug Driving) Amendment Act 2022** to improve detection and deterrence of drug driving.[5]

The *Road to Zero* **Chief Executive governance group** and **Deputy Chief Executive management group** were established to lead sound governance and management practices.

Research was conducted into various aspects of road safety, to encourage improved safety outcomes.

Public awareness and information campaigns increased public knowledge and sparked discussion over the *Road to Zero* programme.

Further details on progress for each focus area and associated actions are set out later in the report.

4. The 2,407,721 figure reflects the total alcohol breath tests conducted for the 2022 calendar year. Indicator 4.1.2, later in the report, measures the number of breath tests conducted for the 2021/22 financial year as 1,748,153. The 2022 calendar year figure above shows the effort by NZ Police to increase breath testing in the second half of the year.
5. The random roadside oral fluid drug testing element of the Act is not yet ready for implementation. Further information on this can be found on page 44.

Approaches to reporting

Consistency with previous reports: The data presented in this report may differ slightly from road safety data presented elsewhere, including the previous *Road to Zero* annual monitoring reports. Much of the data provided in this report are drawn from the Crash Analysis System (CAS) of Waka Kotahi, which records all traffic crashes reported by NZ Police. As new information becomes available, CAS is subsequently updated and therefore the data may be different at a later date.

Financial year-based reporting: The majority of the data in this report are reported based on the financial year (1 July 2021 – 30 June 2022). This is to align with other government reporting. The exception is the overall number of people who have been killed or seriously injured on our roads, which is reported for the calendar year (1 January to 31 December 2022).

Impacts of Covid-19 on data: Covid-19 has had a significant impact on crash rates, contributing to lower DSI rates given reduced rates of travel during lockdowns and altered travel patterns. Data from this time period must therefore be carefully considered before being taken as an accurate reflection of the impact of *Road to Zero* interventions during this period. The perspective taken by this report, therefore, is to focus more heavily on the average figures across the past three years and, when comparing with an individual year, on 2018 figures. For this reason, table columns for 2018 and 2022 have been highlighted to encourage comparison between these years.

Death and serious injury data:[6] DSIs are reported by calendar year and are reliant on Police reporting data. The majority of these data come from the information recorded by Police at a crash site and therefore reflects what was observed at the time. Important contributing causes may not be entirely captured in all cases.

6. Serious injuries includes fractures, concussions, internal injuries, crushings, severe cuts and lacerations, severe general shock necessitating medical treatment and any other injury involving admission to hospital (which covers the more permanent debilitating injuries like limb amputation, traumatic brain injury, severe burns, paraplegia and post-traumatic stress disorder). DSIs for the purposes of this report do not include deaths or serious injuries that are sustained in a crash but are not directly caused by the crash itself (for example, when the coroner determines that a driver died from a heart attack), nor do they include suicide and murder or assault. Only crashes that occurred on public roads are included, which excludes most parking lots or private driveways. Pedestrians are only included where a motor vehicle was involved.

Deaths and serious injuries on New Zealand's roads in 2022

Progress in 2022

As the third year in the 10-year *Road to Zero* strategy, the death and serious injury figures on New Zealand roads are beginning to reveal a gradual downward trend when compared with previous years (see figure 1 on page 11).

In 2022, there were 371 deaths and 2,470 serious injuries on our roads, totalling 2,841 DSIs (provisional figures).

While there has been an overall decrease in DSIs from 2018 levels, there was an increase in deaths and serious injuries from 2021 to 2022. This observed increase in 2022 may be attributable to a increase in the number of road users and a subsequent increase in the number of crashes following the shift away from lockdowns and Covid restricted travel patterns. Covid-19 has had a significant impact on crash rates, contributing to lower DSI rates during 2020 and 2021.

When compared to 2018 figures, the total number of people killed or seriously injured on our roads in 2022 represents a 5 percent decrease (see table 1 on page 10). The decrease in DSIs is not taking place at the intended rate but it is trending downwards. Although we are behind in *Road to Zero* intervention delivery, where it has been rolled out it is supporting DSI reductions. We now need to focus on ramping up our commitment to these initiatives to achieve reductions at a faster pace.

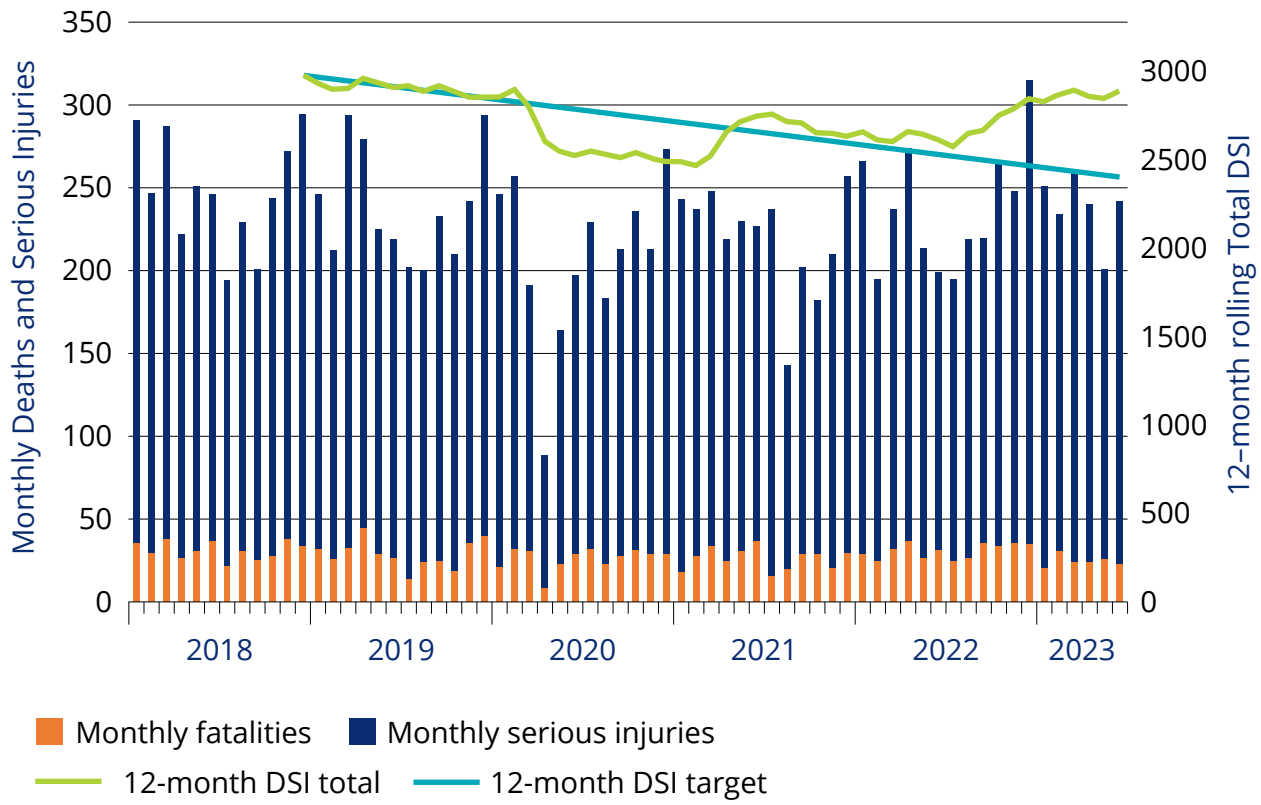
A more detailed DSI breakdown by age, gender, mode, road type, contributing factor and region can be found in Appendix Two.

Table 1. Number of deaths and serious injuries in New Zealand 2018-2022[7]

Year	Deaths	Serious injuries	Total DSIs	Reduction in total DSIs from the 2018 level	Standardised DSI rate	
					Per 100,000 population	Per billion vehicle-kilometres
2018	378	2,601	2,979	-	60.8	61.9
2019	348	2,510	2,858	-4%	57.4	59.6
2020	318	2,175	2,493	-16%	49.0	53.8
2021	318	2,323	2,641	-11%	51.6	Not available
2022 (provisional)	**371**	**2,470**	**2,841**	**-5%**	**55.2**	**Not available**
2030 target	**<227**	**<1,561**	**<1,787**	**-40%**	**N/A**	**N/A**

7. The numbers presented in this table are drawn from the Waka Kotahi Crash Analysis System (CAS) and are provisional. The 2022 figures were current as of 1 March 2023. As new information becomes available CAS is subsequently updated and therefore the data may change at a later extraction. For this reason, the numbers presented in this report will differ slightly from those presented elsewhere, such as in previous *Road to Zero* annual monitoring reports or the Ministry of Transport website.

Figure 1. Number of deaths and serious injuries in New Zealand – monthly figures and 12-month rolling total against planned trajectory



Focus areas

Our focus areas

The journey towards our vision will require significant effort to enhance the safety of our roads, to strengthen regulation and social expectations for safer vehicles, to improve people's compliance with traffic laws, to address work-related road safety risks and to create a more empathetic transport culture that protects human life. Action across these areas must be underpinned by effective system management to drive long-term change.

These goals form the basis of our five focus areas:

1. Infrastructure and speed
2. Vehicle safety
3. Work-related road safety
4. Road user choices
5. System management

Each focus area has a set of indicators under the outcomes framework to monitor our progress. We have categorised progress in our five focus areas by the actions that were set in the 2020-2022 Action Plan. A full list of indicators sorted by focus area and action can be found in Appendix Three.

Progress on the overarching safety outcomes for each focus area, as well as each action and its relevant system performance and programme level indicators, has been included in the following pages.

Regular monitoring is crucial to success

Regular monitoring and reporting is critical to keep us on track towards our 2030 target and provides a transparent way to assess and review progress on actions.

Road to Zero has an outcomes framework that covers programme delivery, system performance and outcomes across all five focus areas. This enables us to take stock of where things are at, identify areas where more action is needed, and report publicly on our progress on an annual basis.

As noted in the *Road to Zero* strategy:

- Intervention indicators measure progress of specific Action Plan initiatives. These will be published in each Action Plan to show how we intend to monitor the progress of those actions. The intervention indicators will be updated in each Action Plan to ensure that they stay relevant.
- Safety performance indicators are what we seek to improve through successful programme delivery. The safety performance indicators are enduring and will be monitored throughout the duration of the strategy.
- Safety outcome indicators relate closely to the overarching goal of a 40 percent reduction in the number of deaths and serious injuries by 2030. Like the safety performance indicators, these indicators are enduring and will be monitored throughout the duration of the strategy.

Achieving *Road to Zero* takes partnership

A range of agencies lead and contribute towards the actions under *Road to Zero*, including:

- Te Manatū Waka Ministry of Transport (Te Manatū Waka), which is the steward of the transport system and the Government's principal transport adviser.
- Waka Kotahi New Zealand Transport Agency (Waka Kotahi), which is the Government's land transport delivery agency. It is a Crown entity, and its functions are set out in the Land Transport Management Act 2003.
- NZ Police, which is responsible for road policing, including enforcement of both legislative and regulatory provisions relating to road traffic and transport. NZ Police also undertakes preventative actions to improve road safety and emergency management during and after major incidents affecting the network.

Other agencies such as the Accident Compensation Corporation (ACC), WorkSafe New Zealand and the Ministry of Business, Innovation and Employment, the Ministry of Social Development, the Ministry of Justice, the Ministry of Health and Te Whatu Ora Health New Zealand/health providers and services, as well as local government including Auckland Transport, non-government organisations, Māori, and transport industry partners also have key roles to play.

Focus Area 1: Infrastructure improvements and speed management

Improve road safety in our cities and regions through infrastructure improvements and speed management.

Improving the safety of our roads is critical to reducing deaths and serious injuries. New Zealand roads can be unforgiving, and the speed limits are not always safe for the road. Building a safe road network requires investment in infrastructure safety treatments proven to save lives, as well as ensuring that speeds across the network are safe, appropriate, and enforced effectively.

Actions in this focus area – such as investing in road safety infrastructure and aligning the network with safe and appropriate speeds – are central to decreasing the number of people killed or seriously injured on our roads. Updated modelling predicts that key actions under the Infrastructure improvements and speed management focus area will contribute more than 45 percent of the programme's targeted reduction in DSIs.

The *Speed and Infrastructure Programme* aims to create safer roads by reducing the risk of death and serious injury due to head-on and run-off road crashes, urban and rural intersection crashes, and harm to vulnerable road users such as pedestrians and cyclists.

The initial actions in this focus area are to:

- invest more in safety treatments and infrastructure improvements
- introduce a new approach to tackling unsafe speeds
- review infrastructure standards and guidelines
- enhance the safety and accessibility of footpaths, bike lanes and cycleways.

Safety outcomes

We measure the safety outcomes for this focus area through six indicators, as presented in the below table.

As actions in this focus area progress – such as investing in road safety infrastructure and aligning the roading network with safe and appropriate speeds – the number of DSIs shown in these indicators is expected to decrease over time.

There have been small but steady decreases in most of the infrastructure-related DSI figures. These small DSI reductions reflect the importance of meeting our intervention targets. In the coming years we will need to ramp up our performance in order to reach our goal of a 40 percent reduction in deaths and serious injuries.

Safety outcome indicators	2018/19 n (% of DSIs)	2019/20 n (% of DSIs)	2020/21 n (% of DSIs)	2021/22 n (% of DSIs)
Number of head-on and run-off-road DSIs (#1.3.1)	1,504 (52%)	1,439 (57%)	1,437 (53%)	1,425 (50%)
Number of DSIs involving a crash where vehicles have intersected (#1.3.2)	524 (18%)	367 (15%)	447 (16%)	379 (13%)
Number of DSIs with speed being a contributing factor (#1.3.3)[8]	605 (21%)	605 (24%)	620 (23%)	671 (24%)
Number of DSIs where the speed limit does not align with the Safe and Appropriate Speed (#1.3.4)	Not available[9]	1,540 (61%)	1,575 (58%)	1,500 (53%)
Number of pedestrian and cyclist DSIs (#1.3.5)[10]	514 (18%)	394 (16%)	481 (18%)	421 (15%)
Number of ACC entitlement claims related to walking and cycling injuries (#1.3.6)[11]	1,320 cyclists and 3,067 pedestrians (4,387 total)	1,340 cyclists and 3,039 pedestrians (4,379 total)	1,338 cyclists and 3,000 pedestrians (4,338 total)	1,248 cyclists and 2,222 pedestrians (3,470 total)

8. These figures represent crashes where speed is directly recorded by Police as a contributing factor, however speed is a contributing factor to the severity of every crash. The faster a vehicle is travelling, the greater the force of impact and, in general, the greater the severity of injuries. These figures are no reflection on the posted speed limit.
9. 2018/19 Quarter 1 data are not available, and therefore we could not calculate the annual figure for that year.
10. This indicator includes skateboards, in-line skates and wheeled pedestrians (such as wheelchairs and mobility scooters).
11. Data for this indicator are sourced from a live administrative database, and the number of claims for previous years has been re-extracted and updated in this report.

FOCUS AREA 1

Progress on specific actions

Invest more in safety treatments and infrastructure improvements

The action Invest more in safety treatments and infrastructure improvements focuses on adding median and side barriers, rumble strips, wider centrelines, and roundabouts to New Zealand's roading network. In addition, this action is responsible for introducing safe and appropriate speed limits on high-risk roads.

Refinements to reporting systems have enabled more direct reporting on progress against *Road to Zero* targets for a number of speed and infrastructure indicators.

Updated reporting indicates that to date a total of 97km of median barriers have been retrofitted to address high-risk roads identified under *Road to Zero*, with 47km of new median barriers installed on the network during 2021/22. A further 85km of new state highway median barrier have been installed across other areas of state highway network (predominately as part of new expressway projects).

As indicated in the table below, progress on infrastructure treatments and speed management needs to be ramped up to be on track to meet our targets.

	2018/19	2019/20	2020/21	2021/22	Targets
Intervention indicators					
Kilometres of the network treated with new median barriers (#1.1.1)	Not applicable	37km	13km (50km cumulative total)	47km (97km* cumulative total)	400km by 2024 1,000km by 2030
Kilometres of the network treated with new Supporting Safe System interventions (which include side barriers, and could also include other interventions such as rumble strips and wider centrelines) (#1.1.2)	Not applicable	169km of side barriers	132km of side barriers (301km cumulative total)	55km of side barriers (356km cumulative total)	1,700km by 2024 4,000km by 2030
Number of intersections treated with Primary Safe System treatments (#1.1.3)	Not applicable	Not available	71 roundabouts	84 new Primary Safe System treatments[12]	500 by 2024 1,300 by 2030

Note: Network targets are for both state highways and local roads, but figures reported for the 2019/20 financial year are for state highways only. Local road data have been added for later years. The number for 2020/21 is significantly lower than 2019/20 despite this change due to the impact of Covid-19.

*97km of median barriers have been installed to date. The target is 400km by 2024.

12. We are now able to measure more interventions for this indicator compared to 2020/21, beyond just the number of new roundabouts on state highways. The figure for 2021/22 represents the number of Safe System interventions on state highways and local roads.

	2018/19	2019/20	2020/21	2021/22	Targets
Safety performance indicators[13]					
Percentage of vehicle kilometres travelled on roads with speed limit above 80km/h that have a median barrier (#1.2.1)[14]	Not available	21.4%	28%	29.7%	37% by 2024 51.8% by 2030
Percentage of vehicle kilometres travelled on rural network that have a 3-star equivalent rating or better (#1.2.2)[15]	Not available	63.6%	63.9%	71.9%	70.6% by 2024 77.4% by 2030
Percentage of high-risk intersections treated with Primary Safe System interventions (#1.2.3)	Not available	Not available	Not available	8.6%	25% by 2024 69.6% by 2030

Note: Network targets are for both state highways and local roads, but figures reported for the 2019/20 financial year are for state highways only. Local road data have been added for later years.

Work underway to improve the delivery of road safety infrastructure

We have set challenging goals under *Road to Zero*. Striving to achieve these goals can drive significant improvements to planning, delivery and implementation processes. Improving the ability of Waka Kotahi to invest in and install safety infrastructure will result in long-term improvements in road safety performance, and therefore will help achieve our long-term DSI reduction targets.

The "joined-up" approach of the Speed and Infrastructure Programme provides Waka Kotahi with an opportunity to holistically assess the programme's road safety interventions. On high-risk areas of the network where it will not be realistic to deliver meaningful infrastructure interventions by 2030, Waka Kotahi will look to improve safety on those corridors/intersections through other components of road safety. For example, although Waka Kotahi will continue to prioritise road safety infrastructure interventions, it will also continue to complement this work by aligning New Zealand's high-risk roads with safe and appropriate speed limits (for more information on this area see page 20, *Introduce a new approach to tackling unsafe speeds*).

13. Annual safety performance indicator figures are calculated from the nationwide MegaMaps dataset, which includes input from CoreLogic, national road asset register RAMM datasets and the National Speed Limits Register. Figures for year 2020/21 will include some variance due to modifications made to the input datasets and calculation methodologies.
14. Improvements in this measure reflect both the completion of new infrastructure and the retrofitting of median barriers to existing roads. This indicator is also influenced by changes in speed limits.
15. We use the iRAP (international Road Assessment Programme) ratings system for this indicator. iRAP ratings are an objective measure of the level of safety which is 'built-in' to the road through more than 50 road attributes that influence risk for vehicle occupants, motorcyclists, cyclists, and pedestrians.

FOCUS AREA 1

Case study: Taupō's new Safe System roundabout reduces injuries to zero

Taupō District Council and Waka Kotahi partnered to transform the Napier-Kiddle-Arrowsmith intersection to a single-lane urban roundabout.

The opening of the Eastern Taupō Arterial bypass changed the Napier Road, Kiddle Drive and Arrowsmith Ave intersection from a state highway to a 50km zone. The intersection is close to a hospital, secondary schools, a water park and residential areas. Soon after the bypass opened, there was an increase in crossing and turning crashes, with 18 crashes reported between 2016 and 2020 before the roundabout was finished.

Most crashes at the Napier-Kiddle-Arrowsmith intersection were caused by people failing to stop at the stop sign. Since the single lane roundabout was finished in March 2022 there have been no reported injury crashes at the intersection.

Location	Napier-Kiddle-Arrowsmith intersection
Safe System intervention	Transformation = urban roundabout
Project cost	$1.4 million – 51 % funded by Waka Kotahi
Start	November 2021
Completion	March 2022

Images courtesy of Google maps and Taupō District Council. Taken during and after the roundabout was built.

Waka Kotahi has made changes to design, procurement and funding of median barrier projects which has allowed identification of easy to progress sections of road, standardisation of road design elements to streamline the process, explored ways to improve efficiency in building roads, and reduced the time taken to start new projects. The plan is to scale up delivery by forming strong relationships with the construction industry and changing programme funding methods. As a result of these activities, Waka Kotahi estimates faster delivery of median barrier projects.

Review infrastructure standards and guidelines

New Zealand should plan, design, and build infrastructure in a way that improves the safety of our roads. All new road infrastructure should include Safe System treatments. This would save lives and prevent expensive retrofitting after projects are completed.

The review and update of a suite of standards and guidelines by Waka Kotahi to ensure they have Safe System principles embedded within them is largely complete. In 2022, this included updating documents such as the 'Aotearoa urban street planning and design guide'. This, and other guides such as the 'Pedestrian planning and design guide', 'Public transport design guidance' and the 'Safe System audit guidelines', can now be found on the Waka Kotahi website.[16]

> All new road infrastructure should include Safe System treatments. This would save lives and prevent expensive retrofitting after projects are completed.

	2018/19	2019/20	2020/21	2021/22
Intervention indicator				
Progress around the review of infrastructure standards and guidelines (#1.1.4)	Not applicable	Described in the 2020 report	Described in the 2021 report	Described above

16. Pedestrian planning guidance: https://nzta.govt.nz/walking-cycling-and-public-transport/walking/walking-standards-and-guidelines/pedestrian-network-guidance
Public transport design guidance: https://nzta.govt.nz/walking-cycling-and-public-transport/public-transport/public-transport-design-guidance
Safe System audit guidelines: https://nzta.govt.nz/resources/safe-system-audit-guidelines-for-transport-projects

FOCUS AREA 1

Introduce a new approach to tackling unsafe speeds

Tackling Unsafe Speeds is the second major component of the Infrastructure improvements and speed management focus area. This action will reduce DSIs on New Zealand's roads by:

- establishing a new regulatory framework for speed management,
- transitioning to safer speed limits around schools, and
- increasing safety camera coverage.

The initial target for this action was to address 10,000km of high-risk roads by 2030 through speed management techniques.[17] By the end of the 2022 calendar year the total length of high risk roads treated was 1,780km.

Currently, over 90 percent of our speed limits are inappropriate for the conditions of our roads. The Tackling Unsafe Speeds Programme (TUS) is streamlining the process for speed management, creating a more transparent and effective approach to automated speed enforcement, and introducing safer speeds around schools. This is being achieved by implementing a more efficient, consistent, and coordinated regulatory process for setting speed limits.

Over the past year a new Land Transport Rule: Setting of Speed Limits 2022 was introduced with accompanying guidance and information. The Rule, which came into force in May 2022, gives effect to the new approach to reducing unsafe speeds.

Waka Kotahi has produced the Speed Management Guide: *Road to Zero* edition. Drawing on international best practice, this guide helps regional transport committees (RTCs) and road controlling authorities (RCAs) to develop high-quality speed management plans that will enable informed, accurate and consistent speed management decisions in their communities.

During 2022, many RCAs that are responsible for maintaining and regulating roads have begun development and consultation on speed management plans and had their changes certified by the Director of Land Transport as required under the Rule. While speed limit reductions remain a contentious subject, the number of safer and more appropriate speed limits being introduced is increasing, which suggests the new programme is working.

Te Manatū Waka is supporting the Minister of Transport to appoint an independent Speed Management Committee. Established in 2023, the committee will review and provide advice to the Director of Land Transport on draft state highway speed management plans. The committee will also oversee the information and guidance Waka Kotahi provides on speed management.

Waka Kotahi launched the road safety advertising campaign Safe Limits at the end of 2021 which has been running throughout 2022. The campaign aims to increase public awareness and understanding of how setting safe speed limits plays an important part in keeping everyone safe – no matter how they travel. Safe Limits is a national campaign targeting all public aged 25 to 54 years and is planned to run for at least one year.

While the amount of speed management across the network has been encouraging, particularly on local roads, we are still below the expected trajectory. With the help of the new Setting of Speed Limits Rule delivering this goal is expected to be more achievable. However, delivery will be slowed by a recent Government decision that Waka Kotahi focus on the one percent of the state highway network that poses the highest risk to safety, and speed limit changes around schools, marae and in townships that state highways transit through.

17. Speed management includes measures such as enforcement through safety cameras and setting safer speed limits.

	2018/19	2019/20	2020/21	2021/22	Targets
Intervention indicator					
Kilometres of high-risk roads addressed through speed management (#1.1.5)	Not applicable	*	*	1,780km (cumulative total)*	3,500km by 2024 10,000 by 2030
Percentage of traffic travelling within speed limits (#1.2.8)	Not measured	Not measured	Not measured	Rural (100km/h roads): 80% Urban (50km/h roads): 77% Urban centres: not yet defined	
Mean speed of vehicles (#1.2.9)	Not measured	Not measured	Not measured	Rural (100km/h roads): 93.9km/h Urban (50km/h roads): 44.4km/h Urban centres: not yet defined	
Safety performance indicators					
Percentage of road network where speed limits align with Safe and Appropriate Speed (#1.2.7)[18]	Not available	**	**	9.2%	15.5% by 2024 21.2% by 2030

Note: Additional speed-related indicators are reported under Focus Area 4 – Road user choices.

Note: Network targets for intervention indicator #1.1.5 are for both state highway and local roads, but figures reported for the 2019/20 financial year are for state highways only.

* This number is the length of the 10,000km targeted high-risk network that now aligns with safe and appropriate speeds. By this definition some speed limits may pre-date 2018.

** Reporting has changed in 2021/22 to more accurately reflect progress and is therefore not comparable with figures from 2019/20 and 2020/21.

18. Annual monitoring for indicator 1.2.7 is calculated from the nationwide MegaMaps dataset which reflects the criteria for Safe and Appropriate Speed outlined in the Speed Management Guide. It is important to note that much of the variance in this indicator will be due to the adoption of the new Speed Management Guide: *Road to Zero* edition in July 2022, which includes an updated approach to defining Safe and Appropriate Speed limits. Refer to the Guide for more information on the latest methodology – https://www.nzta.govt.nz/resources/speed-management-guide-road-to-zero-edition

Case study: SH6 Blenheim to Nelson

State Highway 6 is a key route for locals, tourists, businesses and agriculture, along with freight travelling between Nelson, Blenheim and Picton. It's also a commuter, cyclist and tourist route. There are several different roadside environments extending in a 100km corridor from Blenheim to Nelson with a range of speed limits varying between 50km/h and 100km/h. Between 2009 and 2018 it had the reputation of a high-risk rural highway where 20 people died and 92 were seriously injured in crashes on this stretch of road. Nineteen of these deaths, and 87 of the serious injuries, were on the 100km/h sections of SH6.

Many of these crashes involved loss of control, with drivers running off the road and hitting roadside objects such as trees and power poles. There have also been head-on crashes on this highway, and some that occurred at intersections.

Following the engagement and consultation with communities during October 2019, it was decided to reduce the existing 100km/h limits to 80km/h in places, introduce new 90km/h speed limits on appropriate sections, and introduce two new variable school speed zones. Three existing advisory school speed zones on the route remained unchanged. The new speed limits took effect on 18 December 2020.

Speed limit changes on SH6 Blenheim to Nelson have reduced DSIs by approximately 80% in the first two years post-implementation whilst the average journey time has increased by about 4 minutes over the 110km length, i.e. 2 seconds per kilometre.

Speed around schools

A key action under *Road to Zero* is to transition to safer speeds around schools. The aim is to create safer environments that encourage more children to walk, cycle or scooter to school.

The new Setting of Speed Limits Rule 2022 requires all RCAs to implement safe and appropriate speed limits outside all schools on their roads. Each RCA must address 40 percent of its schools by July 2024 and all schools by the end of 2027. The previous urban and rural descriptors have been replaced by two new categories: urban (category 1) schools must have a speed limit of 30km/h (permanent or variable); rural (category 2) schools can have a speed limit of 40-60km/h (permanent or variable) if it is safe and appropriate.

Each RCA must address the speed limits around its schools:

40% of schools by July 2024

100% of schools by end of 2027

urban (category 1) schools must have a speed limit of 30km/h*; rural (category 2) schools can have a speed limit of 40-60km/h* if it is safe and appropriate

*permanent or variable

Increasing safety camera coverage

Safety cameras are an important intervention, alongside other speed enforcement activity, to reduce travel speed and, ultimately, help to lower DSIs. Drivers are more likely to drive within speed limits when they perceive that there is a high risk of being detected for speeding. Extending safety camera coverage over more of the roading network will support the new speed management regime (as described under *Introduce a new approach to tackling unsafe speeds* on page 20).

A total of 58,406 hours of mobile safety camera deployment activity were recorded by NZ Police against a target of 80,000 hours for the 2021/22 financial year. This is a decrease from previous reporting years, which averaged 61,500 hours. The current number of safety cameras in the fleet and the number of trained camera operators available have impacted the ability to meet this target.

NZ Police has recently completed a replacement of all 43 mobile safe speed cameras in operation with a newer model which has resulted in increased sustainability and reliability. However, further investment into the number of mobile camera operators will be required to meet the 2030 target.

Surveys of the public show that a higher percentage of respondents agree that they are likely to get caught when driving over the speed limit (60 percent this year, compared to 49 percent last year), but a lower percentage of respondents agree that safety cameras are an important intervention to reduce the number of road deaths (51 percent, compared to 60 percent last year).

	2018/19	2019/20	2020/21	2021/22	Targets
Intervention indicator					
Mobile safety camera deployment activity (hours) (#1.1.9)	61,274 hours	62,090 hours	61,199 hours	58,406 hours	80,000 hours a year

	2018/19	2019/20	2020/21	2021/22
Safety performance indicators				
Percentage of the general public who understand the risk associated with driving speed (#1.2.10)[19]	Not available	97%	97%	96%
Percentage of the general public who agree that they are likely to get caught when driving over the posted speed limit (#1.2.11)[20]	Not available	62%	49%	60%
Percentage of the general public who agree that safety cameras are an important intervention to reduce the number of road deaths (#1.2.13)[21]	Not available	65%	60%	51%

19. The percentage of adults who agree that the higher the speed you are travelling, the more serious the injuries you would receive in a crash.
20. The percentage of adults who agree that they are likely to get a ticket when exceeding 110km/h past a police officer.
21. The percentage of adults who agree that using safety cameras helps lower the road toll.

FOCUS AREA 1

Actions to increase safety camera coverage

Waka Kotahi has been progressing the delivery of a new approach to safety cameras which includes an expansion of the safety camera network in future years. Waka Kotahi is working to establish an offence processing operating model and to transfer the ownership and operation of existing safety cameras from NZ Police. NZ Police will still be responsible for officer-issued infringements.

Waka Kotahi has selected key technology suppliers, secured funding and identified locations for new cameras in the first phase of the expansion programme. These will be confirmed through the speed management plan process, working with road controlling authorities, iwi and hapū, Road Policing Managers, local communities and other key stakeholders.

Waka Kotahi, Auckland Transport and NZ Police are partnering to start the camera expansion with nine cameras to be installed in Auckland by mid-2023. Police will issue infringements and prosecute traffic offences for these cameras until Waka Kotahi has the systems in place to take over these functions. Waka Kotahi will be ready to commence the main camera expansion soon after the camera installation, with the transfer of existing cameras due to start during the 2024 calendar year.

Waka Kotahi has also been trialling the use of safety cameras to detect mobile phone use and people not wearing seatbelts. A six-month trial began in May 2022 using safety cameras in three sites in Auckland to better understand the scale of distracted driving. Initially, the trial only captured mobile phone use before being expanded to include seatbelt use from July 2022. The trial detected a total of 199,515 people using a mobile phone while driving and 43,444 people not wearing their seatbelts over the trial period, although no enforcement action was taken as a result of the trial. This demonstrates the importance of continued deterrence to reduce mobile phone usage while driving and to increase the number of people wearing seatbelts.

Waka Kotahi, Auckland Transport and NZ Police are partnering to start the camera expansion with nine cameras to be installed in Auckland by mid-2023.

Enhance the safety and accessibility of footpaths, bikes lanes and cycleways

		2018/19	2019/20	2020/21	2021/22
Safety performance indicators					
Perceived safety of walking (#1.2.6a)	Urban roads	Not available	90%	Not available	86%
	Urban centres		89%		88%
	Rural roads		47%		37%
	Around schools		87%		83%
Perceived safety of cycling (#1.2.6b)	Urban roads	Not available	69%	63%	61%
	Urban centres		65%	65%	61%
	Rural roads		38%	33%	30%
	Around schools		77%	68%	65%

Accessible Streets is a package of rule changes designed to increase the safety and accessibility of our footpaths, shared paths, cycle paths, cycle lanes and roads. By increasing the visibility and priority of path users, the rule changes aim to support the uptake of active modes of transport. The proposed rules also respond to the increasing use of different transport devices on our paths and roadways, in particular the growth of "micromobility" devices such as e-scooters. The new rules would help to make our footpaths and cycle lanes safer and more accessible for everyone, whilst also improving our cities by supporting liveable and vibrant urban environments.

The next steps for Accessible Streets

Te Manatū Waka and Waka Kotahi officials have prepared advice for Cabinet on the final package of rule changes. Once decisions have been made, Waka Kotahi will lead the development and delivery of an education campaign to support the implementation of any new rules.

Focus Area 2: Vehicle safety

Significantly improve the safety performance of the vehicle fleet.

Safer vehicles not only help drivers avoid crashes, they also protect occupants and other road-users when crashes do happen. The design of a vehicle and its safety features can lessen the risk to occupants and other road users if a crash occurs, and in some cases, prevent a crash from occurring. New Zealand has a high number of low safety-rated vehicles. When comparing with a 5-star car, a driver is 60 percent more likely to be killed or suffer a serious injury in a 2-star car, and 90 percent more likely in a 1-star car.

The initial actions in this focus area are to:

- Raise standards for vehicles entering New Zealand.
- Increase understanding of vehicle safety.
- Implement anti-lock braking systems for motorcycles.

Safety outcomes

The safety outcomes for this focus area are measured through three indicators, as shown in the table below. We expect these DSI figures to decrease over time as we work towards our focus area goals.

There has been a decrease in motorcyclist DSIs below the 2018/19 numbers, reversing the gradual upward trend in deaths and serious injuries in this area. We need to continue this downward trend into 2023 and beyond. Deaths and serious injuries for vehicles with low safety ratings show a similar trend, supporting the need to continue to ramp up our *Road to Zero* initiatives to make sustainable reductions in this area.

Safety outcome indicators	2018/19 n (% of DSIs)	2019/20 n (% of DSIs)	2020/21 n (% of DSIs)	2021/22 n (% of DSIs)
Number of DSIs involving a vehicle with a low safety rating[22] (#2.3.1)	827 (28%)	745 (29%)	862 (32%)	859 (30%)
Number of motorcyclist DSIs (#2.3.2)	511 (18%)	490 (19%)	533 (20%)	493 (17%)
Number of ACC entitlement claims related to motorcycling injuries (#2.3.3)	1,253	1,085	1,110	1,190

22. Defined as deaths and serious injuries sustained by users of low safety rated light vehicles (a 1-star, 2-star or 3-star vehicle based on the 2018 Crash Worthiness Rating Band Range). Vehicles are rated as at December 2018 in order to determine what increase, if any, there has been in the number of DSIs in low safety rated vehicles.

FOCUS AREA 2

Progress on specific actions

Raise standards for vehicles entering New Zealand

This action seeks to improve the safety of imported vehicles entering the light vehicle fleet. About one in four used vehicle imports have a safety rating of 1 or 2-stars. The low crashworthiness of the New Zealand light vehicle fleet imposes disproportionate, substantial, and ultimately avoidable costs.

Road to Zero involves a commitment to raise the safety performance of vehicles entering the New Zealand fleet. This can be done by mandating that vehicle imports – whether new or used vehicles – are fitted with certain technologies that improve safety for drivers, passengers or other users of the transport network. While standards are slowly improving over time, mandating certain technologies in the near future will help to ensure that we benefit from safety gains sooner.

Significant policy progress has been made on this action over the 2022 calendar year, though not enough to make up for delays in previous years. We have provided the Minister of Transport with initial advice on the vehicle standards work programme and immediate steps to increase the fitment of modern safety features in light vehicles entering the fleet.

During 2022 Te Manatū Waka and Waka Kotahi undertook preliminary work on potentially mandating certain vehicle safety features that would have a significant impact on reducing DSIs given the types of crashes on New Zealand roads. A review of the regulatory framework for how New Zealand accepts and implements vehicle standards is also in the process of being scoped.

Inclusion of a 3-star minimum safety rating as a criteria of the Clean Car Discount has shown to be effective at raising the safety profile of vehicles entering the New Zealand fleet. When comparing the 12 months prior to the introduction of the Clean Car Discount and then the 12 months after, there is a noticeable increase in the safety rating of both new and used vehicles entering the fleet, the beginning of which can be seen in indicator 2.2.1 figures (see the table below). However, the number of new vehicles entering the fleet is low compared to the overall number of vehicles in the fleet, lowering the overall impact of the programme in improving fleet safety ratings.

Work has also begun on a review of the current in-service vehicle inspection system (Warrant of Fitness and Certificate of Fitness inspections) to ensure that it is fit for purpose for modern vehicles. A full report is set to be released during 2023 including recommendations to ensure that vehicles in the fleet are appropriately inspected to maintain a high level of safety. Complementary work has begun to ensure that vehicles fitted with advanced driver assistance systems are maintained and repaired to manufacturer specifications.

	2018/19	2019/20	2020/21	2021/22
Intervention indicators				
Progress around the delivery of a package of new safety standards for vehicles entering the fleet (#2.1.1)	Not applicable	Re-phased to begin in 2021/22	Re-phased to begin in 2021/22	Underway
Safety performance indicators				
Percentage of the vehicle fleet with a high safety rating (#2.2.1)	32.7%	33.7%	32.2%	33.9%

Increase understanding of vehicle safety

Many people are unaware of the unnecessary risk they place themselves in by driving a low safety-rated vehicle. The safety of light vehicles on our roads varies significantly. It is therefore important that New Zealanders understand the risks of low-safety vehicles before purchasing a car.

During 2022, there was a slight increase in the number of drivers knowing the star safety rating of their vehicle. However, the percentage of people stating it is important for their car to have a high safety rating remained unchanged.

Waka Kotahi has undertaken various educational and promotional activities to improve safety rating awareness. The Rightcar website is constantly updated and shows the star rating and crash avoidance features of vehicles in New Zealand, allowing people to make informed car choices.

Minimum safety rating requirements have been integrated into the Clean Car Discount and in 2022 a lot of focus has been given to ensuring industry understanding of how safety ratings are calculated and their importance.

Implement anti-lock braking systems for motorcycles

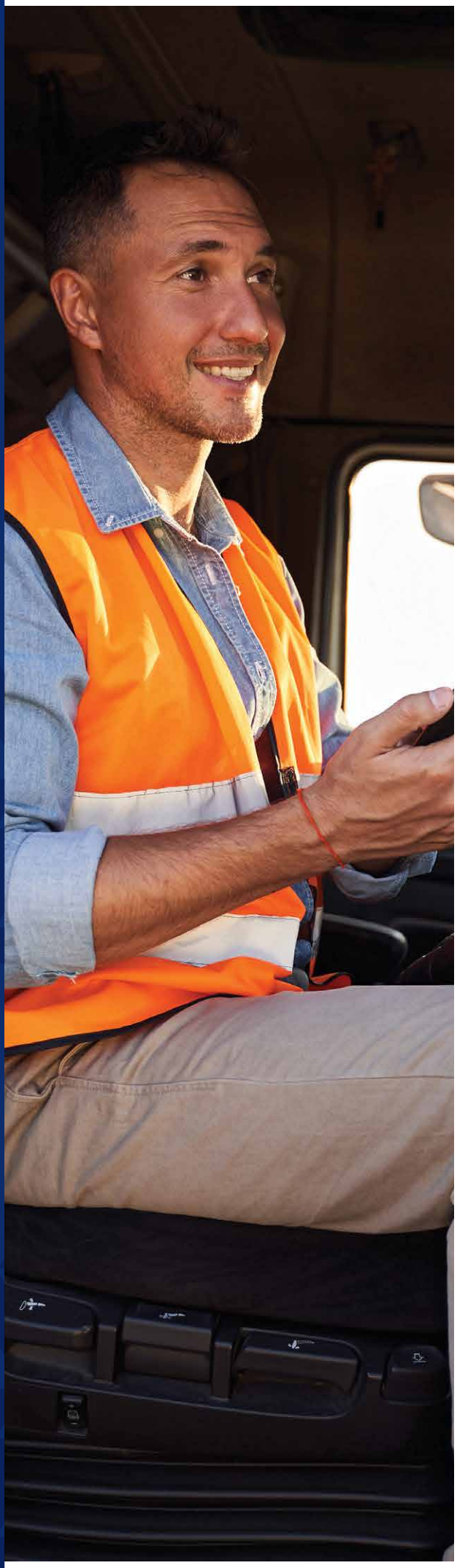
From 1 April 2020, new-model motorcycles have been required to be fitted with ABS or a combined braking system (CBS). Te Manatū Waka has not received any feedback suggesting industry has struggled to adapt to the new requirements.

All existing-model new motorcycles and all used motorcycles entering the fleet have been required to be fitted with ABS or CBS since 1 November 2021.

	2018/19	2019/20	2020/21	2021/22
Safety performance indicators				
Percentage of drivers who know the star safety rating of their car (#2.2.2)	Not available	42%	51%	53%
Percentage of drivers who think it is important for their car to have a high safety rating (#2.2.3) (see Figure 12)	Not available	74%	75%	74%

	2018/19	2019/20	2020/21	2021/22
Intervention indicator				
Policy implemented to mandate ABS for new motorcycles over 125 cc by April 2020 (#2.1.3)	Not applicable	Complete	Complete	Complete

Focus Area 3: Work-related road safety



Ensure that businesses and other organisations treat road safety as a critical health and safety issue.

Road safety is a critical health and safety at work issue – studies suggest that around 25 percent of road fatalities involve a person driving for work. An Otago University study found that:

- 23 percent of all road fatalities involve a crash where someone is working, and
- 29 percent of all road fatalities involve someone who is working or commuting.[24]

Fatigue, distraction and vehicle safety are important issues, and we know that factors such as long working hours can also impact on the safety of workers travelling to and from their workplace.

The initial actions in this focus area are:

- Strengthen commercial transport regulation
- Support best practice for work-related road safety

23. 2019; Work Related Fatal Injury Study, Work-related Road Traffic Fatalities 1999-2014; https://psm-dm.otago.ac.nz/ipru/FactSheets/FactSheet44.pdf

Safety outcomes

This focus area has two safety outcome indicators, as set out in the table below.

We would generally expect the number of DSIs shown in this table to decrease as progress is made towards the actions in this focus area, particularly for the fatigue indicator.

Deaths and serious injuries for these safety indicators have largely remained constant. While they have not worsened, they have also not improved. We need to do more to support work-related road safety and meet our targets under *Road to Zero*.

Safety outcome indicators	2018/19 n (% of DSIs)	2019/20 n (% of DSIs)	2020/21 n (% of DSIs)	2021/22 n (% of DSIs)
Number of DSIs involving a heavy vehicle (#3.3.3)[24]	360 (12%)	264 (10%)	295 (11%)	302 (11%)
Number of DSIs with fatigue being a contributing factor (#3.3.5)	145 (5%)	156 (6%)	141 (5%)	111 (4%)

24. This measure now includes "buses" under the definition of a "heavy vehicle". Therefore, the total number of DSIs for this indicator will be higher than in the 2020 report.

FOCUS AREA 3

Progress on specific actions

Strengthen commercial transport regulation

There are opportunities to strengthen our current regulatory settings for work-related driving. Our regulatory framework needs to incentivise the right behaviours in commercial transport, apply obligations at the right level, and ensure we can enforce these obligations in a responsive and risk-based manner.

Two key elements to this work include:

- reviewing logbook and work-time requirements under the Land Transport Act 1998, and
- reviewing the roles and powers of regulators (including considering designating Waka Kotahi to take on functions from the Health and Safety at Work Act 2015).

More effective management and enforcement of the working hours of commercial drivers could provide important road safety benefits. The Land Transport Act 1998 and the Land Transport Rule: Work Time and Logbooks 2007 specify maximum driving hours and rest requirements. Commercial drivers are required to record their hours of work in a logbook, with many operators using paper-based logbooks. This makes it difficult to enforce the regime. Additionally, telematics (devices that track and monitor vehicle movements) and fatigue-monitoring technology show promising potential to improve safety if carefully implemented.

In 2022, Te Manatū Waka commenced a review of work-time limits, logbook and fatigue-monitoring technology. The Ministry recognises the need to engage with industry and unions to better understand the issue of fatigue, including the benefits and challenges of potentially changing regulations in this area. This engagement is planned to get underway in 2023.

As part of a wider review of the Road-User Charges System, Te Manatū Waka consulted on mandating the use of e-RUC (electronic-road user chargers) devices in the commercial heavy transport sector. This would enable road user charges to be paid automatically through electronic, in-vehicle devices, as well as provide an opportunity to mandate the use of electronic logbooks to monitor driving hours and other worktime requirements. Consultation on these proposals was completed in 2022, with submissions analysed and advice prepared for Ministers. Cabinet decisions are expected in 2023.

> More effective management and enforcement of the working hours of commercial drivers could provide important road safety benefits

Work on designating Waka Kotahi to take on functions under the Health and Safety at Work Act 2015 (HSWA) continued in 2022. The HSWA provides a critical lever to influence how businesses think about road safety. Businesses have a duty to ensure the health and safety of their workers under the HSWA. In taking-on HSWA functions, Waka Kotahi would have an effective lever to improve road safety in the commercial transport sector by ensuring businesses recognise driving for work as an area of critical risk and have mitigation plans in place.

To date, work has been focussed on assessing the scope of the potential Waka Kotahi HSWA designation, with a view to ultimately presenting options and analysis on the merits of various scopes to the Minister of Transport.

	2018/19	2019/20	2020/21	2021/22
Intervention indicators				
Progress around the review of logbook and work-time requirements as part of the 2019/2020 rules programme (#3.1.2)	Not applicable	Re-phased to begin in 2021/22	Re-phased to begin in 2021/22	Review in progress

FOCUS AREA 3

Support best practice for work-related road safety

Waka Kotahi (and other organisations, including WorkSafe) are engaged in a programme of work to understand, implement, and support best practice in work-related road safety.

Supply-chain pressures: WorkSafe continued to work with representatives across government, industry, and the wider sector to understand the issues affecting work-related harm. Through this group, WorkSafe has initiated interventions aimed at addressing work-related road safety risks, including:

- supporting a fatigue management trial with commercial drivers. The trial uses performance-based assessment technology to manage fatigue risks and compare its effectiveness to prescriptive work-time models.
- commissioning a study to understand opportunities to improve the monitoring and mapping of harm in the commercial transport sector and research into the benefits and possibility of standardising site markings.
- publishing new guidance on how to keep workers healthy and safe while working on the road and roadside for businesses and persons undertaking work in these environments.[25]

Mapping death and serious injury across the system: WorkSafe has begun research on mapping harm across the transport system, looking at what is needed to develop a systems-based process for assessing harm in and around vehicles for the transport sector. This will be delivered in 2023.

Journey purpose data: Historical journey purpose data have been transferred from the Police Traffic Crash Report System to the Waka Kotahi Crash Analysis System, with newly collected data sent through automatically. More work will need to occur around analysing this data and ensuring quality around its collection. This data will be used to improve work-related road safety by helping to understand why people are making journeys, how this impacts DSI outcomes and how to target those most at risk.

The Gig Economy: Research into the Gig Economy and road safety in New Zealand was undertaken in 2022, with the report published on the Waka Kotahi website in 2023.[26] By combining observational data, surveys of gig workers and examining data and literature reviews this report will improve our understanding of how the Gig Economy's operation in a socio-technical system affects safety outcomes.

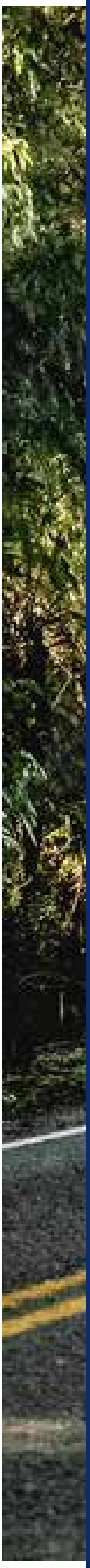
	2018/19	2019/20	2020/21	2021/22
Intervention indicators				
Progress around private sector initiatives to establish best practice road safety standards in the supply chain (#3.1.1)	Not applicable	In progress	In progress	In progress
Incorporate journey purpose into the CAS (#3.1.3)	Not applicable	In progress	Nearing completion	Complete

25. Roadside Worker Guidance: https://www.worksafe.govt.nz/topic-and-industry/road-and-roadside/keeping-healthy-safe-working-road-or-roadside/
26. https://www.nzta.govt.nz/resources/research/reports/709/

Government and private sector collaboration around work-related road safety: Work continues creating a platform for government, unions, iwi and the private sector to collaborate and work together co-designing, co-funding and co-delivering on road safety initiatives. The intent is to see an increase in work-related road safety activity in 2023 onwards.

A co-design process is currently in progress, involving the active participation of those who will run and benefit from the platform. The original concept for the platform took inspiration from the successful National Road Safety Partnership Program in Australia, hosted by Monash University (www.nrspp.org.au). The co-design process aims to test concept feasibility and to shape the platform accordingly, while also creating a roadmap for its implementation.

Focus Area 4: Road user choices



Encourage safer choices and safer behaviour on our roads.

Road users have a vital role to play in keeping themselves and other road users safe. The Safe System approach underpinning *Road to Zero* recognises that efforts to reduce DSIs should not be focused solely on the choices of road users. However, dangerous behaviours continue to be a major factor contributing to deaths and serious injuries. This focus area includes actions to shift public attitudes, behaviour and understanding of road safety, and ensure that we deliver effective enforcement targeted towards risk.

The initial actions in this focus area are:

- Prioritise road policing
- Review road safety penalties
- Increase access to driver training and licensing
- Enhance drug-driver testing
- Support motorcycle safety.

Safety outcomes

We measure the safety outcomes for this focus area through six indicators, as presented in the table below.

We expect the number of DSIs shown by these indicators to decrease as actions in the focus area progress.

There has been a consistent trend of gradual small reductions in impairment and distraction related DSIs. Restraints and disqualified driver related deaths and serious injuries, however, show the opposite trend. We need to focus on reversing this in order to achieve a significant reduction in DSIs.

Four indicators track the collective impact of actions in this focus area. These are displayed in the table below. These assess self-reported prevalence of various risky behaviours that are associated with DSIs, and the perceived likelihood of being caught for undertaking such behaviours. In general, these indicators appear to have remained relatively constant or decreased slightly, with the exception of the percentage of drivers who are using handheld mobile phones while driving which appears to be increasing each year.

Safety outcome indicators	2018/19 n (% of DSIs)	2019/20 n (% of DSIs)	2020/21 n (% of DSIs)	2021/22 n (% of DSIs)
Number of DSIs involving alcohol and/or drugs (#4.3.1)	490 (17%)	429 (17%)	379 (14%)	388 (14%)
Number of DSIs with fatigue being a contributing factor (#4.3.2)	145 (5%)	156 (6%)	141 (5%)	111 (4%)
Number of DSIs with distraction being a contributing factor (#4.3.3)	159 (6%)	149 (6%)	156 (6%)	153 (5%)
Number of vehicle occupant deaths where restraints were not worn (#4.3.4)	40 (12% of all road deaths)	46 (15% of all road deaths)	56 (16% of all road deaths)	68 (18% of all road deaths)
Number of unlicensed or disqualified driver DSIs (#4.3.5)	83 (3%)	75 (3%)	99 (4%)	100 (4%)
Number of DSI crashes where a restricted licence was held at the time of a crash (#4.3.6)[27]	≤12 months: 85 >12 months: 240	≤12 months: 82 >12 months: 207	≤12 months: 81 >12 months: 219	≤12 months: 78 >12 months: 212

27. 12 months refers to the amount of time the restricted licence has been held, i.e. ≤ 12 months refers to a driver who has held their restricted licence for 12 months or less. >12 months refers to a driver involved in the crash who had been on a restricted licence for more than 12 months.

FOCUS AREA 4

Each of these behaviours is related and targeting one often leads to benefits in the others. For example, there is a strong relationship between alcohol impairment and road deaths involving someone not wearing a seatbelt. Studies have shown that drink drivers are substantially less likely to wear a seatbelt.[28] [29] This highlights the benefits to road safety outcomes that can come from taking an all-of-system approach such as the *Road to Zero* programme.

	Behaviour	2018/19	2019/20	2020/21	2021/22
Safety performance indicators					
Percentage of drivers impaired by alcohol (#4.2.1)	N/A	Not available	*	*	7.6%
Percentage of drivers using handheld mobile phones while driving (#4.2.3)[30]	N/A	Not available	16%	20%	21%
Percentage of car occupants using a seatbelt or child restraint (#4.2.4)[31]	N/A	Not available	83%	85%	82%
Percentage of the general public who agree that they are likely to get caught for undertaking risky behaviours (#4.2.5)[32]	Drink driving	Not available	42%	37%	36%
	Speeding		40%	45%	30%
	Breaking a traffic law other than drink-driving or speeding		32%	32%	30%
	Not wearing a seatbelt		32%	34%	28%
	Mobile-phone use		17%	16%	15%
	Average		**32%**	**33%**	**28%**

*Reporting methodology has changed in 2021/22 to information recorded by breath tests and is no longer based on self-reporting. Figures from 2019/20 and 2020/21 are therefore not comparable with 2021/22.[33]

28. Foss, R. D., Beirness, D. J., & Sprattler, K. (1994). Seat belt use among drinking drivers in Minnesota. American Journal of Public Health, 84(11), 1732–1737. https://doi.org/10.2105/AJPH.84.11.1732
29. Valen, A., Bogstrand, S. T., Vindenes, V., Frost, J., Larsson, M., Holtan, A., & Gjerde, H. (2019). Driver-related risk factors of fatal road traffic crashes associated with alcohol or drug impairment. Accident Analysis & Prevention, 131, 191–199. https://doi.org/10.1016/j.aap.2019.06.014
30. Percentage of drivers who say they have used a mobile phone while driving in the last month. This indicator relies on self-report surveys.
31. Percentage of drivers who say that last time they drove with the youngest child they drive regularly with, the child was in a baby seat, child seat or booster seat. This indicator relies on self-report surveys.
32. Percentage of drivers who say they have undertaken the actions in the adjacent column. This indicator relies on self-report surveys.
33. In previous annual monitoring reports (2020 and 2021), reporting was based on self-report surveys for the percentage of drivers who say they have driven at least once during the past 12 months while slightly intoxicated. This was used as a proxy in lieu of surveys being developed to enable reporting on actual impairment levels from roadside testing. The methodology for this indicator is now based on roadside breath tests undertaken by Police. The values are based on the results of Police breath tests taken within the times of 10pm to 2am from Friday night to Sunday morning, weighted by the amount of traffic on the parts of the network where and when the tests were taken. 10pm to 2am at weekends are widely considered peak drink driving hours. The threshold for impairment is based on a blood alcohol content that exceeds 0.05 (250 mcg/L).

Progress on specific actions

Prioritise road policing

Effective road policing is a key component of the *Road to Zero* programme. Many of the actions across the programme – such as Tackling Unsafe Speeds and enhanced drug-driver testing – are dependent on effective road policing for them to achieve their full contribution towards the 2030 DSI target.

Road policing activities, such as directed patrols or specific road policing operations, raises the level of general deterrence for road users. General deterrence is achieved when drivers understand that there is a high chance of getting caught for offending, the penalty is in proportion with the risk, and that penalty is applied in a timely way. Enforcement efforts also need to be visible. If drivers know there is a high risk of offending being detected, this leads to greater levels of compliance and improved safety outcomes.

Road policing is focused on offences that cause the most trauma on the network: restraints, impairment, distractions and speed (RIDS).

> Many of the actions across the programme – such as Tackling Unsafe Speeds and enhanced drug-driver testing – are dependent on effective road policing for them to achieve their full contribution

	2018/19	2019/20	2020/21	2021/22	Targets
Intervention indicators					
Number of sworn staff dedicated to road policing (#4.1.1)[34]	Q1 – 1,054 Q2 – 1,062 Q3 – 1,060 Q4 – 1,053	Q1 – 1,073 Q2 – 1,066 Q3 – 1,068 Q4 – 1,068	Q1 – 1,069 Q2 – 1,058 Q3 – 1,078 Q4 – 1,074	Q1 – 1,050 Q2 – 1,067 Q3 – 1,073 Q4 – 1,065	1,070 (ongoing)
Number of breath tests conducted (#4.1.2)	1,270,648	1,647,543	1,500,268	1,748,153[35]	3 million a year from 2020/21

34. This represents the number of sworn staff as of the last day of each quarter.
35. This figure reflects the number of breath tests conducted for the 2021/22 financial year. This differs from the 2,407,721 breath test figure on page 41 which is for the 2022 calendar year.

FOCUS AREA 4

Police work on tackling RIDS offences

Raising performance across all road policing activities remains an operational priority for NZ Police. A RIDS focus has been incorporated into everyday activity for the Police frontline and is regularly reinforced. For this reason, NZ Police does not record the number of specific operations conducted locally across the country.

The average number of dedicated sworn staff dedicated to road policing for 2021/22 was 1,064, against a target of 1,070.

Police road safety enforcement activity has continued to improve in 2022, especially in the latter half of the year. This saw over 777,000 offences detected by NZ Police over the calendar year, an increase of 8.5 percent from 2021. This includes the offence detection figures for 2022 (calendar year) listed below.

- Restraint offence detection increased by 24 percent when compared with 2021 (35,142 offences), with 43,393 notices issued.
- Mobile phone offence detection increased by 16 percent from 2021 (41,008 offences), with 47,710 offences recorded.
- NZ Police enforcement of speed offences in 2022 was the highest it has been in over a decade. Police detected 326,789 speed offences, a 4 percent increase compared with 2021 (315,699 offences). In 2023, NZ Police will focus on enforcing excess speeds closer to the posted speed limit, aiming to issue at least 15 percent of all officer-issued speed notices to drivers who are exceeding the posted speed limit by fewer than 11km/h.
- 23,992 high-risk offences were detected, an increase of 7 percent compared with 2021 (22,481 offences).[36]

36. High-risk drivers include unlicensed and disqualified drivers, frequent or severe alcohol and speeding offenders, fleeing drivers, and drivers involved in illegal street racing.

Additionally, NZ Police conducted 2,407,721 alcohol breath tests over the 2022 calendar year, a 66 percent increase compared with 2021 (1,449,183 tests).[37]

Operational delivery has been an area of focus over the past year. A Road Policing Deployment Dashboard has been developed to support data informed and evidence-based road policing deployment decisions.

In December 2022, NZ Police launched the six-month long Operation 'Open Roads', which aims to redeploy predominantly urban-based traffic staff onto the rural highway network to better align prevention and enforcement activities to where the risk of death and serious injury is greatest.

Further detail on NZ Police's programme of work, including delivery of activities and measures which impact the outcomes we are working towards for *Road to Zero*, can be found in the Road Safety Partnership Programme.[38]

Review road safety penalties

To help make New Zealand's road safety penalties more effective, Te Manatū Waka is leading a review of the road safety penalties regime. The need for a review arose because many of New Zealand's current road safety penalties are too low to deter undesirable behaviour, do not align with the level of risk of the offending and, in some cases, are not effective in changing driver behaviour. The aim is to ensure that New Zealand's road safety penalties encourage positive behaviour change and that, where needed, we provide support to drivers to help them comply with the road rules.

Over 2022 Te Manatū Waka continued work on the road safety penalties review, aimed at targeting high-risk behaviours and exploring possible alternative enforcement pathways to support equitable outcomes. This will enable a penalties regime that will leverage the contribution penalties can make to improving road safety outcomes, while reducing the potential for increased hardship and further non-compliance. Te Manatū Waka has developed a discussion document that will require Cabinet consideration before being released for public feedback.

	2018/19	2019/20	2020/21	2021/22
Intervention indicator				
Progress around the alignment of key road safety penalties and remedies to the appropriate framework (#4.1.6)	Not applicable	Re-phased to begin in 2020/21	In progress	In progress

37. As noted by indicator 4.1.2, the number of breath tests conducted for the financial year was 1,748,153
38. More information on the Road Safety Partnership Programme can be found at https://www.nzta.govt.nz/planning-and-investment/funding-and-investing/road-safety-partnership-programme

FOCUS AREA 4

Increase access to driver training and licensing

This action seeks to make gaining a driver licence through the graduated driver licensing system (GDLS) more accessible to New Zealanders. The Government recognises that to be effective, the GDLS needs to be both safety-focussed and accessible. Creating a GDLS that provides more equitable access would enable currently disadvantaged people to gain improved access to employment, healthcare and other basic requirements.

Our current GDLS relies on informal support while learning to drive. Some learner drivers – particularly those from disadvantaged communities – do not have access to a suitable supervisor, vehicle, funds to pay for lessons or tests, or they face other barriers. Drivers who face these barriers feel locked out of the driver licensing system. Some will continue to drive despite being unlicensed or inappropriately licensed or in breach of their licence conditions. An important part of the GDLS is therefore how many drivers progress to a full licence. In 2021/22 the proportion of restricted holders who progressed to a full licence increased by 17 percent. This shows that efforts to improve licence accessibility is improving.

We also measure the number of ACC claims DRIVE (an approved training course) trained drivers make compared to untrained drivers (see opposite, indicator #4.2.6b).

Te Manatū Waka completed a regulatory review of the licensing system in 2022. The review concluded that the regulatory settings for the driver licensing system are fit for purpose in improving safety outcomes without creating unnecessary barriers to entry and progression through the system. Operational improvements are needed to improve equity and access outcomes for certain communities. A number of agencies, including the Ministry of Social Development (MSD) and Waka Kotahi, are working to deliver these improvements.

Budget 2022 confirmed funding for MSD to contract driver licence support for 64,000 people over four years, with a focus on improving equity for people disadvantaged by barriers to driver licences, including, Māori, Pacific people, sole parents, and rural cohorts. Funding has been secured by Waka Kotahi to support the continued improvement and expansion of these accessibility measures.

This year Waka Kotahi has also begun to lead a cross-agency Driver Licensing Improvement Programme (DLIP) to improve access, equity, safety and wellbeing. DLIP is a collaboration between Waka Kotahi, MSD, Te Manatū Waka, NZ Police, Te Puni Kōkiri and the Accident Compensation Corporation with support from the Ministry of Justice, Ministry of Education and the Driving Change Network.

Government agencies, non-government groups and community driver licensing support organisations are working together to develop recommendations on the direction for the future driver licensing system in 2023.

	2018/19	2019/20	2020/21	2021/22
Intervention indicator				
Progress around improving access to driver training and to the licensing system (#4.1.8)	Not applicable	In progress	In progress	In progress
Safety performance indicators				
Number of driver licences issued per stage of licence (#4.2.7)	Full: 57,286 Restricted: 62,314 Learner: 71,934 **Total: 191,534**	Full: 55,714 Restricted: 58,129 Learner: 67,274 **Total: 181,117**	Full: 65,980 Restricted: 73,725 Learner: 84,922 **Total: 224,627**	Full: 61,528 Restricted: 63,322 Learner: 67,231 **Total: 192,081**
Proportion of learner drivers who have progressed to restricted (#4.2.8)	27%	26%	33%	33%
Proportion of restricted drivers who have progressed to full (#4.2.9)	26%	25%	30%	47%
Number of adults and students attending cycle skills training courses (#5.2.6)	Not available	32,410 (including 1,485 adults and 30,925 students)	49,181 (including 2,725 adults and 46,456 students)	33,825 (including 1,367 adults and 32,458 students)
Number of ACC claims DRIVE trained drivers make compared to untrained drivers (#4.2.6b)	4.00 per 1,000 trained drivers vs 4.80 per 1,000 untrained drivers (standardised rate)	1.80 per 1,000 trained drivers vs 2.99 per 1,000 untrained drivers (standardised rate)	3.1 per 1,000 trained drivers vs 3.9 per 1,000 untrained drivers (standardised rate)	2.8 per 1,000 trained drivers vs 5.0 per 1,000 untrained drivers (standardised rate)[39]

39. Covid had a significant impact on the programme during this time. Improved data matching capability is demonstrating more young drivers are experiencing the safety benefits of participating in DRIVE.

FOCUS AREA 4

Enhance drug-driver testing

Many illicit, recreational and prescription drugs impair driving ability and increase crash risk. Data from the Waka Kotahi Crash Analysis System show that over 2019 – 2021, an average of 101 people per annum were killed in crashes where the driver had consumed impairing drugs before driving. This represented 31 percent of all road deaths. Many more people were seriously injured.

The Government recently took action to address the risks of drug driving through amendments to the Land Transport Act 1998. The amendments established new drug driving offences based on blood drug concentration levels for 25 potentially impairing drugs. The amendments were also intended to introduce a random roadside testing process for drug driving (similar to the existing random alcohol testing approach). These amendments were passed in 2022 and intended to come into force 12 months later (in March 2023).

During 2022, NZ Police undertook a procurement process to identify roadside oral fluid testing devices that meet the criteria set out in the legislation. This established that there was no testing device currently available that meets the legislative settings for approval.

Advice has been provided to the Minister of Police and Minister of Transport on options for progressing roadside oral fluid testing.

31%

of all road deaths involved a driver who had consumed impairing drugs

	2018/19	2019/20	2020/21	2021/22
Safety performance indicator				
Percentage of drivers impaired by drugs (#4.2.2)[40]	Not available	9%	5%	10%

40. Percentage of drivers that say they have driven when they felt affected by a prescription, pharmacy or other drug.

Support motorcycle safety

Motorcycle riders are particularly vulnerable road users. The risk of death or serious injury for a motorcycle rider is far greater than any other mode of transport. Motorcyclists account for approximately 20 percent of DSIs while motorcycles account for less than 4 percent of the vehicle fleet. In 2022 there were 493 motorcyclist DSIs, out of a total of 2,841 for the year, contributing 17 percent of total DSIs.

This action aims to improve the licensing pathway for motorcyclists, incentivise motorcycle skills training through courses, and increase road safety treatments for motorcyclists on the highest risk routes.

Motorcycle training: Programmes such as Ride Forever deliver skills training for motorcyclists. Ride Forever is an ACC initiative that improves motorcyclist handling skills and riding knowledge and supports the Waka Kotahi Competency Based Training and Assessment (CBTA) requirements for licensing. A comparison of the number of ACC claims made by trained versus untrained riders for the 2021/22 financial year found that there were 3.9 ACC claims per 1,000 trained riders compared to 8.6 per 1,000 untrained riders.

ACC has introduced incentives for attending rider training, offering riders $200 cash-back on their annual motorcycle registration if they attend a Ride Forever course. This initiative has been extended and is now available until 30 June 2023.

To increase awareness of the Ride Forever programme, ACC has continued to engage with the riding community via events such as Shiny Side Up, NZ Motorcycle Show and the Burt Munro Challenge. ACC will continue to target hard-to-reach riders (especially in rural, younger and Māori communities who are overrepresented in crash statistics).

Motorcycle licensing: The motorcycle licensing system in Aotearoa New Zealand is being reviewed. This review will assess the overall performance of the Graduated Driver Licence System (GDLS) for motorcycle licensing, the strengths and weaknesses of the existing motorcycle rider licensing pathway and identify the initiatives available to improve rider skill and reduce motorcycle related DSIs. The scope and plan for this review is being worked through with Te Manatū Waka and Waka Kotahi.

The findings of the review will be used to consider changes or additional interventions that could improve safety outcomes for motorcyclists.

	2018/19	2019/20	2020/21	2021/22
Intervention indicator				
Number and percentage of licensed motorcyclists who have taken an approved training course (#4.1.7)	4,818 new and unique riders (8% of licensed motorcyclists)	4,469 new and unique riders (8% of licensed motorcyclists)	5,005 new and unique riders (8% of licensed motorcyclists)	6,409 new and unique riders[41]
Safety performance indicator				
Number of ACC claims trained motorcycle riders make compared to untrained riders (#4.2.6a)	4.42 per 1,000 trained riders vs 18.82 per 1,000 untrained riders (standardised rate)	1.51 per 1,000 trained riders vs 3.89 per 1,000 untrained riders (standardised rate)	1.3 per 1,000 trained riders vs 2.7 per 1,000 untrained riders (standardised rate)	3.9 per 1,000 trained riders vs 8.6 per 1,000 untrained riders (standardised rate)

41. Covid had a significant impact on the programme during this time period.

Focus Area 5: System management

New Zealand's road safety management system reflects international best practice.

Effective system management is needed to implement the changes that the *Road to Zero* strategy requires. Evidence from other jurisdictions highlights the importance of strong leadership, accountability for results and coordinated action across government agencies.

The initial action in this focus area is:

- Strengthen system leadership, support and coordination.

Within this initial action, there are a number of sub-actions:

- Strengthen national system leadership and coordination of road safety and support ongoing monitoring and evaluation
- Support effective regional responses
- Develop and share evidence
- Improve road safety outcomes for Māori
- Assist in public understanding
- Improve post-crash response.

Progress on specific sub-actions

Strengthen national system leadership and coordination of road safety and support ongoing monitoring and evaluation

Te Manatū Waka and Waka Kotahi have developed a monitoring mechanism, including the indicator framework and production of annual monitoring reports like this one, to track progress on *Road to Zero*.

Since the release of *Road to Zero* and the indicators framework, some indicators have been refined or removed entirely due to data constraints. We are now reporting on 81 percent of indicators and will continue to work towards reporting on all indicators as soon as we can.

Progress has been made towards strengthening our national leadership and coordination of road safety. The *Road to Zero* Chief Executive governance group and Deputy Chief Executive management group were established in 2022 with broad representation from road safety partners. These groups will support sound governance and management practices to optimise the outcomes of the all the work under the *Road to Zero* portfolio.

Safety performance indicator	2018/19	2019/20	2020/21	2021/22
Percentage of indicators that can be measured, tracked and reported annually (#5.2.5)	Not applicable	75%	78%	81%

FOCUS AREA 5

Support effective regional responses (*Road to Zero* Collaboration Project)

The *Road to Zero* Collaboration Project formed by Waka Kotahi continues to support effective regional implementation of *Road to Zero*. The project team has advanced several initiatives in 2022, including communication and engagement resources to support effective road safety conversations, and a bi-monthly *Road to Zero* newsletter.

Several workshops have been held in 2022 to improve Vision Zero/Safe System capabilities. This includes a successful Safe and Sustainable Transport Association 2-day professional workshop run with Local Government Road Safety Coordinators.

The Australasian Road Safety Conference was hosted for the first time in Aotearoa in Ōtautahi Christchurch. The conference had a road safety focus, however there was plenty of crossover with sustainability and mode shift, highlighting the co-benefits realised through improving road safety for everyone. The conference was attended by over 600 delegates, 450+ in person and 200+ virtually, over three full days in September 2022, with more than 50 high impact presentations.

A Vision Zero/Safe System Foundations programme that aimed to improve understanding of the Vision Zero and the Safe System approach was delivered in late November 2022 to representatives from Waka Kotahi, local government and NZ Police from the Otago/Southland regions. A schedule of similar regional hui are planned for 2023. Waka Kotahi has also been developing online programmes, curriculums and knowledge building resources to embed best practice on Vision Zero/Safe System approaches. These resources are intended to roll out in 2023.

	2018/19	2019/20	2020/21	2021/22
Intervention indicators				
Number of people in the sector who have completed approved Safe System training (#5.1.3)	Not available	722	755	1,015
Outcomes Indicators				
Percentage of sector satisfied with their access to information relevant to road safety decision-making (#5.3.1)	Not available	46%	48%	50%
Percentage of local government satisfied with support they received from central government transport agencies (#5.3.2)	Not available	55%	46%	53%

Develop in-depth crash investigations

Waka Kotahi is leading the development of a pilot programme for in-depth investigations of fatal and serious crashes, building on the information available from existing Serious Crash Reports collected from NZ Police. Considerable work has been undertaken to build an in-depth crash investigation process that ensures the desired information is obtained, while at the same time not overburdening participants.

A soft launch of this pilot provided some valuable insights into how to effectively implement the process. 2022 saw the exploration of automated data capture approaches in an effort to reduce individual workloads.

Automating data extraction has proved complex, with a number of databases needing to be interrogated. A data specialist has been engaged to assist with the development of the automation process, allowing regional expertise to focus on 'gaps' in the Safe System that have allowed the death or serious injury to occur.

> Considerable work has been undertaken to build an in-depth crash investigation process that ensures the desired information is obtained

Improve road safety outcomes with Māori

Whakahaumaru huarahi mō ngā iwi Māori project update

Whakahaumaru huarahi mō ngā iwi Māori (Improving road safety outcomes with Māori) is a key initiative in the current and future *Road to Zero* Action Plan.

Māori are overrepresented in traffic related deaths and serious injuries. The Crown has an obligation under the Treaty of Waitangi to actively protect Māori. Waka Kotahi is seeking to prevent road trauma and to improve understanding of road safety outcomes for Māori. They will partner with Māori and support them to co-design and implement (where appropriate) meaningful activities to improve the safety and wellbeing of Māori communities.

This programme is being delivered in three phases:

Phase 1: To better understand and improve road safety outcomes for Māori by analysing existing research, data and information. This phase was completed with the publication of He Pūrongo Whakahaumaru Huarahi Mō Ngā Iwi Māori (Māori road safety outcomes report) in July 2021, a joint effort between Waka Kotahi and NZ Police. The findings provide a baseline to track progress against our aim to improve road safety outcomes for Māori.

FOCUS AREA 5

	2018/19	2019/20	2020/21	2021/22
Intervention indicators				
Progress around the development and delivery of a road safety programme that demonstrates the principles of Tikanga Māori (#5.1.4)	Not applicable	Described in the 2020 monitoring report	Described in the 2021 monitoring report	Described below

Phase 2: To engage and build relationships with Māori to better understand context, undertake further research, co-design road safety initiatives where appropriate and partner with Māori to support them to design and implement their own road safety initiatives.

Tai Tokerau (Northland) and Tairāwhiti (Gisborne) regions have the highest disparities. These two regions have been selected to run pilots.

- When it comes to safety top of mind for iwi and hapū representatives are the barriers Māori experience working through the Graduated Driver Licensing System, equitable access to all forms of transport, the maintenance of key transport routes, and safety infrastructure.
- Hapū members and representatives in Tai Tokerau and Tairāwhiti are interested in Māori led solutions.
- Our road safety partners (NZ Police, ACC, local, regional, territorial authorities) in both rohe are keen to support culturally relevant road safety solutions with Māori from their communities

Tai Tokerau progress:

- A Tai Tokerau road user behaviour report focusing on at risk Māori males was completed. Future actions are now being determined.
- An Engagement and Research plan has been developed for the region and is now being implemented.

Tairāwhiti progress:

- The Tairāwhiti Hapori Māori community are prioritising resilience issues, especially after recent severe weather events. They are not yet ready for formal engagement; however, the community are interested in Māori led solutions.

On a national level, meetings have been held with a number of community road safety education providers about activities with and for Māori. Initial meetings have been held that work with Māori to host wānanga during the winter of 2023 focused on understanding systemic barriers to safer outcomes for Māori, identifying gaps and potential opportunities for improvements.

Phase 3: To support delivery of interventions. As the relationships develop and strengthen, Waka Kotahi, NZ Police and other government agencies will continue to partner with iwi Māori to co-design and support delivery of culturally relevant interventions

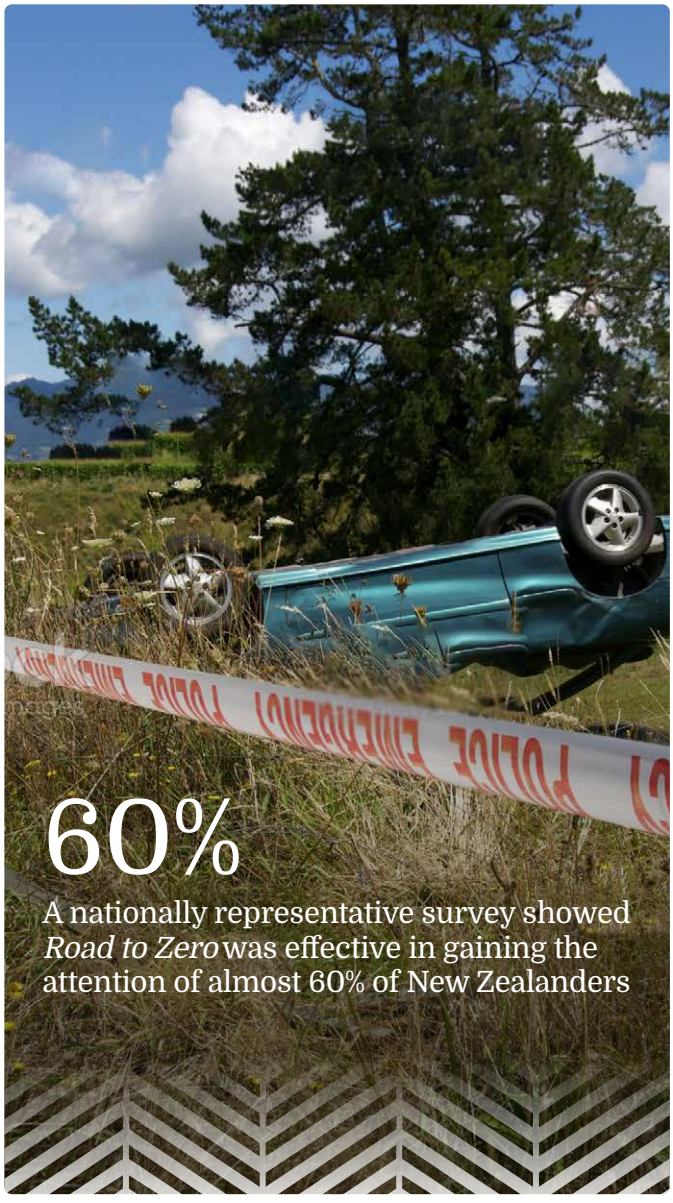
Assist public understanding

The *Road to Zero* Public Information and Awareness Campaign was launched in February 2022 as an important step in increasing New Zealanders' awareness of *Road to Zero* and the Safe System approach.

	2018/19	2019/20	2020/21	2021/22
Intervention indicators				
Percentage of road safety advertising campaigns that meet or exceed their agreed success criteria (#5.1.5)	87%	90%	85%	81%
Safety performance indicators				
Percentage of the general public who understand and support the Vision Zero approach (#5.2.1)[42]	Not applicable	44%	47%	46%
Percentage of the general public who show acceptance of road safety interventions (#5.2.2).[43] Acceptance of specific interventions is listed below:				
Increased use of median barriers	Not available	69%	70%	68%
More 30km/h urban centre speed limits		58%	64%	51%
Lower speed limits around schools		58%	74%	Unavailable for 2021/22
Using speed cameras is effective		65%	Measured every two years	51%
Raised safety standards for light vehicles		61%	58%	47%
Prioritise road policing		32%	Measured every two years	64%
Enhanced roadside drug testing		80%	78%	64%
Higher fines for mobile phone use when driving		80%	78%	75%

42. Percentage of adults who think that the acceptable number of deaths from road crashes is zero.
43. Percentage of adults who support or agree with the following interventions: enhanced roadside drug testing, increased use of wire rope median barriers, raised safety standards for light vehicles, more 30km/h urban centre speed limits, higher fines for mobile phone use when driving, more safety cameras, lower speed limits around schools and prioritised road policing.

FOCUS AREA 5



The campaign was effective in raising public discussion and discourse about *Road to Zero*. It prompted a record number of comments and reached the largest number of social media users since Waka Kotahi records began.

A nationally representative public survey completed between July and September 2022 showed that the principle of *Road to Zero* aligns with the views of many New Zealanders.[44] Almost half believe that it is unacceptable for anyone to die on our roads. This survey also showed that marketing and communication messages around the risks involved with speeding can help shift the attitudes of some New Zealanders. It showed that the Safe Limits campaign launched in November 2021 outlining the reasons for reviewing speed limits on New Zealand roads played an important part in raising awareness and increasing understanding around why this initiative is required.

Another nationally representative survey undertaken monthly to monitor awareness of *Road to Zero* showed that the public information and awareness campaign was effective in gaining the attention of almost 60% of New Zealanders.[45] Toll Booth, the first advertisement in the campaign series, sought to highlight that human lives are the toll we pay for mobility and disrupt the apathy New Zealanders have towards this. The creative and production quality of this campaign has been highly regarded. It was shortlisted in both the Film Craft category and the Film Cultural Insight category at Cannes Lions in 2022. Toll Booth was also a finalist in the global Immortal Awards for 2022.

44. Public Attitudes to Road Safety October 2022 Report, by Kantar Public
45. Social Licence Monitor and Ad Diagnostic September 2022 Report, by Camorra Research Ltd

During 2022 we continued to run campaigns targeting specific road safety issues associated with driver behaviour such as speeding, drink driving and distraction. Our Unsaid campaign, which ran in 2019 and aimed to raise awareness of harm caused by drug-impaired driving, was ranked in the top 10 media campaigns in the world by WARC in 2022.

Improve post-crash response

Effective post-crash response relies on collaboration between several government agencies. Emergency responders need to get to crash sites quickly. Providing effective immediate medical responses and rapid transfer to emergency departments that are ready to respond can make the difference between life and death. It is important that road controlling authorities and road policing work together with emergency services to provide the best possible outcomes for the available resource.

In 2018 Waka Kotahi released the report "Post-impact care: How can New Zealand address the fifth pillar of road safety?".[46] This report is being reviewed to evaluate progress, recommend actions for further improvement and provide a framework to monitor and evaluate progress. This work is expected to be completed in 2023 and will inform the work programme to be developed by the national responders group. The framework will be implemented to ensure that the actions taken are effective.

The Study of Road Trauma: Evidence and Data (SORTED) report was produced and published by the National Trauma Network in 2022.[47] This report gathered data from seven datasets across the transport and health sectors for the years 2017-2019. The report provided a comprehensive view of everyone injured on Aotearoa New Zealand roads and understand their journey of care. It also shows that this level of collaboration across the transport and health sectors is possible.

The next SORTED report will have more data from the years 2020 and 2021 which will begin to expand the picture we currently have of road trauma and allow greater insight into how to reduce it.

46. https://www.nzta.govt.nz/assets/resources/research/reports/645/645-Post-impact-care-How-can-NZ-address-the-fifth-pillar-of-road-safety.pdf
47. The report is available at https://www.transport.govt.nz/assets/Uploads/SORTED2022Web.pdf

APPENDIX 1

Appendix 1. Understanding *Road to Zero*

The Safe System approach

Underpinning *Road to Zero* is the Safe System approach to road safety. The Safe System approach involves a holistic view of the road transport system and the interactions among road and roadside infrastructure, travel speeds, vehicles and road users. All parts of the system need to work in harmony to ensure that no one is killed or seriously injured on our roads.

A Safe System recognises that crashes are inevitable but deaths and serious injuries on our roads are not. Instead of simply asking: "Why did that person crash?", under a Safe System approach we would also ask: "Why was a person killed or seriously injured in the crash?"

Traditional views of road safety assume that the root of the road safety problem is crashes caused by bad road user behaviour. As a result, individual road users – who are often blamed for being "bad drivers", "careless cyclists", or "distracted pedestrians" – have historically been presented as the cause of the problem. However, international evidence shows that only about 30 percent of serious crashes are caused by deliberate violations and risk-taking behaviour, while the majority result from simple errors of perception or judgement by otherwise compliant people.[48]

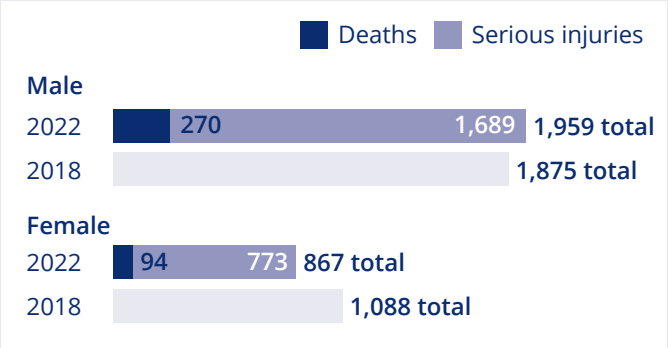
The Safe System approach has been embedded into each of the five *Road to Zero* focus areas.

48. International Transport Forum, 2016.

Appendix 2. DSI detailed breakdown data and regional variation

DSI Data by Gender, Age, Mode, Road Type and Contributing Factor

Gender



Age (deaths and serious injuries combined for 2022)

Age	Male	Female	Unknown	Total
0-14	83	60		**143**
15-19	242	89	2	**333**
20-24	229	120	1	**350**
25-39	549	200	3	**752**
40-59	500	215	1	**716**
60+	366	185		**551**

Fatal: mode

	Light Vehicle	Van/Ute	Bicycle	Truck	Motorcycle	Pedestrian	Other
2017	219	35	18	13	46	39	8
2018	220	48	5	6	53	39	7
2019	192	41	13	11	56	29	8
2020	182	29	11	6	57	32	3
2021	169	39	7	13	48	25	19
2022	148	57	19	6	51	34	-*

*Data not available for 2022

Serious injuries: rural/urban/motorway/other

	Urban	Rural	Motorway
2022	1,221 (49%)	1,248 (51%)	62 (3%)
2018	1,246 (48%)	1,208 (46%)	86 (3%)

DSI contributing factors in 2021/22

Speed (1.3.3)	671 (24%)
Fatigue (3.3.5)	111 (4%)
Involving alcohol/drugs (4.3.1)	388 (14%)
Distraction (4.3.3)	153 (5%)
Deaths where a restraint was not worn (4.3.4)	68 (18%)

The death and serious injury numbers on this page may not match those stated earlier in the report. Gender, age, mode, road type, and contributing factor data may not be available for all DSIs. Similarly, CAS is constantly updated as new information becomes available, leading to different figures being reported at different extraction dates. This information has been extracted at several different dates and therefore total figures may differ.

APPENDIX 2

Regional variation

The below tables display the number of deaths and serious injuries broken down by region. Despite an overall increase in DSI numbers between 2021 to 2022, when compared with 2018 levels there has been a 9.2% decrease in the number of deaths and serious injuries per 100,000 people across New Zealand in 2022. This represents continued progress in the right direction, albeit at a slower pace than projected.

Number of deaths and serious injuries per 100,000 people by region in 2018 and 2022

Region	2018	2022	% change
Gisborne	82.8	79	-4.6%
Northland	100.6	103.7	+3.1%
Manawatū-Whānganui	88.5	90.6	+2.4%
Southland	112.4	63.4	-43.6%
Waikato	92.3	85.3	-7.6%
West Coast	142.0	115.9	-18.4%
Hawke's Bay	71.3	70.1	-1.7%
Bay of Plenty	55.2	55.2	0%
Otago	69.4	57.2	-17.6%
Tasman	90.7	63	-30.5%
Taranaki	77.6	76	-2.1%
Canterbury	56.0	47.1	-15.9%
Wellington	47.3	35.5	-24.9%
Auckland	38.9	38.2	-1.8%
Marlborough	61.6	73.4	+19.2%
Nelson	72.1	36.8	-49%
All of New Zealand	**60.8**	**55.2**	**-9.2%**

Please note that the DSI figures in this table do not match those reported earlier in the report due to a different extraction date (13 March 2023).

Number of deaths, serious injuries and combined total of DSIs per region in 2022

Region	Deaths	Serious injuries	Total
Gisborne	7	34	41
Northland	35	174	209
Manawatū-Whānganui	36	198	234
Southland	13	54	67
Waikato	73	362	435
West Coast	7	31	38
Hawkes Bay	12	115	127
Bay of Plenty	39	155	194
Otago	15	127	142
Tasman	5	32	37
Taranaki	14	83	97
Canterbury	34	275	309
Wellington	11	182	193
Auckland	53	595	648
Marlborough	15	23	38
Nelson	1	19	20
Unallocated	2	14	16
Total (all of New Zealand)	**372**	**2,473**	**2,845**

Please note that the DSI figures in this table do not match those reported earlier in the report due to a different extraction date (18 May 2023).

Appendix 3. Full list of indicators

Monitoring against the outcomes framework

Regular monitoring and reporting are critical to keep us on track towards our 2030 target and provide a transparent way to assess and review progress on actions. *Road to Zero* has an outcomes framework that covers programme delivery, system performance and outcomes across all five focus areas. This enables us to take stock of where things are at, identify areas where more action is needed, and report publicly on our progress on an annual basis.

The annual number of deaths and serious injuries is reported for calendar years. This is because our overarching target on DSI reduction was set against the 2018 calendar year. Where appropriate, discussion on progress on *Road to Zero* actions has also been reported for the calendar year.

However, all other indicator data are reported by financial year (July to June) to align with the reporting time period for other monitoring reports. This means that for monitoring the progress of *Road to Zero* actions, we have used the 2018/19 financial year data as the baseline for most indicators. Where 2018/19 data are not available, we have used data from 2019/20 (or later) as the baseline.

As noted in the Strategy:

- Intervention indicators measure progress of specific Action Plan initiatives. These will be published in each Action Plan to show how we intend to monitor the progress of those actions. The intervention indicators will be updated in each Action Plan to ensure that they stay relevant.
- Safety performance indicators are what we seek to improve through successful programme delivery. The safety performance indicators are enduring and will be monitored throughout the duration of the strategy.
- Safety outcome indicators relate closely to the overarching goal, which is a 40 percent reduction in the number of deaths and serious injuries by 2030. Like the safety performance indicators, these indicators are enduring and will be monitored throughout the duration of the strategy.

Please note that the above report only includes the indicators that we have been able to report on so far during the *Road to Zero* programme. Below is a table showing the full list of indicators, including those we have not yet been able to report on, which were initially developed to measure progress on the *Road to Zero*.

Some of the indicators that we have not been able to report on will be removed from the framework entirely. For the indicators we have not yet reported on, but intend to report on in future monitoring reports, we will be progressing further work on how to **define** or **measure** those indictors.

APPENDIX 3

Indicator		Available in Year 2 reporting	Comments
1.1.1	Kilometres of the network treated with new median barriers	✓	
1.1.2	Kilometres of the network treated with new Supporting Safe System interventions (which include side barriers, and could also include other interventions such as rumble strips and wider centrelines) (#1.1.2)	✓	**Refined** to be consistent with operational practice in target setting and intervention decisions. (previously '*kilometres of the network treated with side barriers*' and '*kilometres of the network treated with new rumble strips*') Further **refined** in Year 2 reporting to reflect the nature of "Supporting **Safe System**" interventions. (previously '*kilometres of the network treated with new Supporting Safe System interventions (including side barriers, rumble strips and wide centrelines)*'
1.1.3	Number of intersections treated with Primary Safe System treatments	✓	**Refined** to measure Safe System interventions on state highways and local roads. Previously only the number of new roundabouts on state highways was reported.
1.1.4	Progress around the review of infrastructure standards and guidelines	✓	
1.1.5	Kilometres of high-risk roads addressed through peed management	✓	**Refined** to a better metric to measure overall progress as the top 10% high risk roads are identified/updated every 3 years. (previously '*percentage of highest risk roads addressed through speed management*')
1.1.6	Percentage of rural schools with 60km/h speed limits or lower	⊗	**Awaiting** information on school speed limits (permanent and variable) to be available through the National Speed Limits Register from 2022.
1.1.7	Percentage of urban schools with 30-40km/h speed limits	⊗	**Awaiting** information on school speed limits (permanent and variable) to be available through the National Speed Limits Register from 2022.
1.1.8	Percentage of road safety advertising campaigns that meet or exceed their agreed success criteria	✓	**Combined** with #4.1.5 to increase sample size, and reported under 'System management' #5.1.5.
1.1.9	Mobile safety camera deployment activity (hours)	✓	
1.1.10	Number of police operations targeting speed, restraints impairment and distraction offences	✓	**Combined** with #4.1.3 as breakdown by operation focus is not available. (previously '*number of police operations targeting speed*')
1.2.1	Percentage of VKT on roads with speed limit above 80km/h that have a median barrier	✓	

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Indicator		Available in Year 2 reporting	Comments
1.2.2	Percentage of VKT on rural network that have a 3-star equivalent rating or better	✓	
1.2.3	Percentage of high-risk intersections treated with *Primary Safe System* interventions	✓	**Refined** to enable more reliable recording of **Safe System** interventions. (previously '*number of high risk intersections treated to operate within Safe System limits*')
1.2.4	Network kilometres of roads adapted for safe pedestrian and cyclist use	✗	**Further work** required to define and measure.
1.2.5	Network kilometres of roads with motorcycling safety treatment	✗	**Further work** required to define and measure.
1.2.6	Perceived safety of walking and cycling (by rural, urban, urban centres and around schools)	✓	
1.2.7	Percentage of road network where speed limits align with Safe and Appropriate Speed	✓	
1.2.8	Percentage of traffic travelling within speed limits (by rural, urban and urban centres)	✓	
1.2.9	Mean speed of vehicles (by rural, urban and urban centres)	✓	
1.2.10	Percentage of the general public who understand the risk associated with driving speed	✓	
1.2.11	Percentage of the general public who agree that they are likely to get caught when driving over the posted speed limit	✓	
1.2.12	Percentage of road network covered by automated safety cameras	✗	**Further work** required to define.
1.2.13	Percentage of the general public who agree that safety cameras are an important intervention to reduce the number of road deaths	✓	
Percentage of road network where speed limits align with Safe System		✗	**Removed** as it is conceptually similar to #1.2.7.

APPENDIX 3

Indicator		Available in Year 2 reporting	Comments
1.3.1	Number of head-on and run-off-road DSIs	✓	**Refined** to be consistent with the overarching target that focuses on DSI reduction. (previously '*number of head-on and run-off-road DSI crashes*')
1.3.2	Number of DSIs involving a crash where vehicles have intersected	✓	**Refined** to be consistent with the overarching target that focuses on DSI reduction. (previously '*number of intersection DSI crashes*')
1.3.3	Number of DSIs with speed being a contributing factor	✓	**Refined** to be consistent with the overarching target that focuses on DSI reduction. (previously '*number of DSI crashes with speed being a contributing factor*')
1.3.4	Number of DSIs where the speed limit does not align with the Safe and Appropriate Speed	✓	**Refined** to be consistent with the overarching target that focuses on DSI reduction, and aligns indicator to the focus area on infrastructure and speed. (previously '*number of DSI crashes where the speed limit does not align with the Safe System*')
1.3.5	Number of pedestrian and cyclist DSIs	✓	**Refined** to be consistent with the overarching target that focuses on DSI reduction, and operationally define vulnerable road user. (previously '*number of DSI crashes involve a vulnerable road user*')
1.3.6	Number of ACC entitlement claims related to walking and cycling injuries	✓	
2.1.1	Progress around the delivery of a package of new safety standards for vehicles entering the fleet	✓	
2.1.2	Percentage of the general public exposed to advertising and/or resources on vehicle safety ratings	⊗	**Removed** from the framework. Indicators #2.2.2 and #2.2.3 will be our key indicators to measure the success of public awareness campaigns.
2.1.3	Policy implemented to mandate ABS for new motorcycles over 125 cc by April 2020	✓	
2.2.1	Percentage of the vehicle fleet with a high safety rating	✓	
2.2.2	Percentage of drivers who know the star safety rating of their car	✓	**Refined** to clarify population of interest and metric. (previously '*percentage of the general public understand vehicle safety information*')

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Indicator		Available in Year 2 reporting	Comments
2.2.3	Percentage of drivers who think it is important for their car to have a high safety rating	✓	**Refined** to clarify population of interest. (previously '*percentage of the general public who agree that it is important to have a vehicle that has a high safety rating*')
2.2.4	Percentage of motorcycles over 125 cc fitted with ABS	✗	**Removed** from the framework. Although all motorcycle imports will be fitted with ABS from 2022, we cannot measure how many of the current fleet have ABS.
2.3.1	Number of DSIs involving a vehicle with a low safety rating	✓	**Refined** to be consistent with the overarching target that focuses on DSI reduction. (previously '*number of DSI crashes involving a vehicle with a low safety rates*')
2.3.2	Number of motorcyclist DSIs	✓	**Refined** to be consistent with the overarching target that focuses on DSI reduction. (previously '*number of DSI crashes involving motorcycling*')
2.3.3	Number of ACC entitlement claims related to motorcycling injuries	✓	
3.1.1	Progress around private sector initiatives to establish best practice road safety standards in the supply chain	✓	
3.1.2	Progress around the review of logbook and work-time requirements as part of the 2019/2020 rules programme	✓	
3.1.3	Incorporate journey purpose into the Crash Analysis System (CAS)	✓	
3.2.1	Number of organisations with health and safety plans in place that recognise road safety as a critical health and safety issue	✗	**Further work** required to define and measure.
3.2.2	Percentage of sector satisfied with their access to relevant data on road safety for work-related travel	✗	**Further work** required to define and measure.
3.3.1	Number of DSIs involving a person travelling to/from work	✗	**Refined** to be consistent with the overarching target that focuses on DSI reduction, and **work underway** to have the information available for reporting. (previously '*number of DSI crashes involving a person travelling to/from work*')

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Indicator		Available in Year 2 reporting	Comments
3.3.2	Number of DSIs involving a person travelling as part of work	⊗	**Refined** to be consistent with the overarching target that focuses on DSI reduction. (previously '*number of DSI crashes involving a person travelling as part of work*' This indicator relates to the **work underway** to capture journey purpose data.
3.3.3	Number of DSIs involving a heavy vehicle	✓	**Refined** to be consistent with the target that focuses on DSIs. (previously '*number of DSI crashes involving a heavy vehicle*')
3.3.4	Number of DSIs at a roadworks site	⊗	**Refined** to be consistent with the overarching target that focuses on DSI reduction. **Further work** required to operationally define the indicator. (previously '*number of DSI crashes at roadworks sites*')
3.3.5	Number of DSIs with fatigue being a contributing factor	✓	**Refined** to be consistent with the overarching target that focuses on DSI reduction. (previously '*number of DSI crashes with fatigue being a contributing factor*')
3.3.6	Percentage of work-related fatalities and serious injuries involving motor vehicles	⊗	This indicator relates to the **work underway** to capture journey purpose data.
4.1.1	Number of sworn staff dedicated to road policing	✓	
4.1.2	Number of breath tests conducted	✓	
4.1.3	Number of Police operations targeting speed, restraints, impairment and distraction offences	✓	**Combined** with #1.1.11 as breakdown by operation focus is not available. (previously '*number of Police operations targeting restraints, impairment and distraction offences*')
4.1.4	Number of Offender Management Plans in place for high risk drivers	⊗	**Further work** required to improve the reporting of this indicator. For the Year 1 report we could only report on theoretical figures.
4.1.5	Percentage of road safety advertising campaigns that meet or exceed their agreed success criteria	✓	**Combined** with #1.1.10 to increase sample size, and reported under 'System management' #5.1.5.
4.1.6	Progress around the alignment of key road safety penalties and remedies to the appropriate framework	✓	

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Indicator		Available in Year 2 reporting	Comments
4.1.7	Number and percentage of licensed motorcyclists who have taken an approved training course	✓	
4.1.8	Progress around improving access to driver training and to the licensing system	✓	
4.2.1	Percentage of drivers impaired by alcohol	✓	Reporting methodology has changed. Information is now recorded by breath tests and is no longer based on self-reporting.
4.2.2	Percentage of drivers impaired by drugs	✓	Currently using self-reporting surveys. **Work underway** to introduce surveys based on observed behaviour.
4.2.3	Percentage of drivers using handheld mobile phones while driving	✓	Currently using self-reporting surveys. **Work underway** to introduce surveys based on observed behaviour.
4.2.4	Percentage of car occupants using a seatbelt or child restraint	✓	Currently using self-reporting surveys. **Work underway** to introduce surveys based on observed behaviour.
4.2.5	Percentage of the general public who agree that they are likely to get caught for undertaking risky behaviours	✓	
4.2.6a	Number of ACC claims trained motorcycle riders make compared to untrained riders	✓	**Refined** to clarify metric. (previously '*involvement in a motorcycling crash following participation in an approved motorcycling training course*')
4.2.6b	Number of ACC claims DRIVE trained drivers make compared to untrained drivers	✓	**New indicator**.
4.2.7	Number of driver licences issued per stage of licence	✓	
4.2.8	Proportion of learner drivers who have progressed to restricted	✓	
4.2.9	Proportion of restricted drivers who have progressed to full	✓	
4.3.1	Number of DSIs involving alcohol and/or drugs	✓	**Refined** to be consistent with the target that focuses on DSIs. (previously '*number of DSIs crashes involving alcohol and/or drugs*')

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Indicator		Available in Year 2 reporting	Comments
4.3.2	Number of DSIs with fatigue being a contributing factor	✓	**Refined** to be consistent with the target that focuses on DSIs. (previously '*number of DSI crashes with fatigue being a contributing factor*')
4.3.3	Number of DSIs with distraction being a contributing factor	✓	**Refined** to be consistent with the target that focuses on DSIs. (previously '*number of DSI crashes with distraction with a contributing factor*')
4.3.4	Number of vehicle occupant deaths where restraints were not worn	✓	
4.3.5	Number of unlicensed or disqualified driver DSIs	✓	**Refined** to be consistent with the target that focuses on DSIs. (previously '*number of unlicensed or disqualified drivers involving in a DSI crash*').
4.3.6	Number of DSI crashes where a restricted licence was held at the time of a crash	✓	**Refined** to be consistent with the target that focuses on DSIs. (previously '*number of 'novice' drivers involved in a DSI crash*').
5.1.1	Percentage of the general public who were exposed to messages on Vision Zero	✗	**Further work** is required to determine whether we are able capture the relevant data. However, this indicator could be **removed** from the framework, and indicators #2.2.2 and #2.2.3 will be our key indicators to measure the success of public awareness campaigns.
5.1.2	Percentage of the general public who were exposed to messages on effectiveness of road safety interventions	✗	**Further work** is required to determine whether we are able capture the relevant data. However, this indicator could be **removed** from the framework, and indicators #2.2.2 and #2.2.3 will be our key indicators to measure the success of public awareness campaigns.
5.1.3	Number of people in the sector who have completed an approved Safe System training course	✓	
5.1.4	Progress around the development and delivery of a road safety programme that demonstrates the principles of Tikanga Māori	✓	

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Indicator		Available in Year 2 reporting	Comments
5.1.5	Percentage of road safety advertising campaigns that meet or exceed their agreed success criteria	✓	
5.1.6	Percentage of the general public who were exposed to messages on effectiveness of road safety interventions	✗	**Removed** as it is the same as #5.1.2.
5.2.1	Percentage of the general public who understand and support the Vision Zero approach	✓	
5.2.2	Percentage of the general public who show acceptance of road safety interventions	✓	
5.2.3	Percentage of people who have completed an approved Safe System training course that showed improved understanding of the Safe System	✗	**Further work** required to develop a follow-up survey for course attendees.
5.2.4	Percentage of road infrastructure projects that have been subject to a Road Safety Audit and/or Safe System Assessment	✗	**Further work** planned to develop this indicator.
5.2.5	Percentage of indicators that can be measured, tracked and reported	✓	
5.2.6	Number of adults and students attending cycle skills training courses	✓	**New** indicator added to address a gap in the outcomes framework.
5.3.1	Percentage of sector satisfied with their access to information relevant to road safety decision-making	✓	
5.3.2	Percentage of local government satisfied with support they received from central government transport agencies	✓	

Ngā Uara Te Manatū Waka
Te Manatū Waka Values

WHAKAPAKARI
IMPROVING OUTCOMES

AKO
CAPABILITY DEVELOPMENT

MAHI TAHI
WORKING TOGETHER

RANGATIRATANGA
EMPOWERING
AND LEADING

KAITIAKITANGA
GUARDIANSHIP AND
PROTECTION

WHANAUNGATANGA
COLLABORATION
AND UNITY

MANAAKITANGA
CARING FOR AND
VALUING OTHERS

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ISSN 2744-6301 (Print)
ISSN 2744-6247 (Online)