



New Zealand Government

New Zealand's Road Safety
Strategy 2020-2030





Finding your way around this document

With thanks to the NZ Transport Agency and Tourism NZ for use of their photo libraries

Purpose and structure of this document

Road to Zero outlines a strategy to guide improvements in road safety¹ in New Zealand over the next 10 years [i.e. from 1 January 2020 to 31 December 2029].

01 Case for change



Outlines the importance of road safety in New Zealand, the role of a road safety strategy in driving improvements, and how the elements of this document were developed.

p8

02 Vision



Sets out our vision of a New Zealand where no one is killed or seriously injured in road crashes.

p20

03 Target for 2030



Sets out where we want to be by 2030, as a step towards achieving our overarching vision.

p24

04 Principles



Sets out the principles to guide decision-making.

p28

05 Focus areas



Outlines the five focus areas for the next decade. Together, these play a part in meeting the significant challenges and opportunities of road safety facing New Zealand in the years ahead.

p34

06 Measuring success



Sets out an outcomes framework that will help hold us accountable to progress.

p60

For more information

View the road safety strategy webpages at www.transport.govt.nz/zero

¹ On our roads, streets, footpaths, cycleways, bus lanes and state highways

“Ka noho ana te haumarutanga i te pokapū o te anamata mō te haere i ngā ara, ka āta whakaaro tātau ki te āhua o te haere me tā tātau e rongō nei i a tātau e haere ana.”

HE WĀHINGA KŌRERO MŌ TE RAUTAKI

Ka tohu tēnei rautaki i te huringa o te tai mō te haumarū o te haere i ngā rori i tēnei whenua.

Ka huri atu i te whakaaetanga o ngā aitua hei tūraru e kore e taea te pare i a tātau e haere ana i tēnei whenua ātaahua o tātau. Ka neke ki tētahi pūnaha rori, ko te tangata tonu i te pokapū, e whakamātāmua ana i te oranga me te āhua o te noho. E whakahau ana i a tātau kia manawanui, kia ngākau tapatahi.

Ko te huringa e takoto mai ana, he whitake nui, he kōhukihuki.

Ka whakarewa ana mātau i tēnei rautaki, neke atu i te kotahi tangata ka mate, e whitū anō ka tino whara i ia rā i ngā tuinga waka i te rori. Ki te pēnei tonu, ka āhua 3,000 ngā mate, ā ka āhua 30,000 ngā tāngata ka tino whara me te raru i aua wharanga ā haere ake nei, mai i tēnei wā ā tae noa ki te tau 2030. Ka mutu, ka pāngia ngā whiringa o tētahi tokomaha, mō rātau anō me ā rātau tamariki, nā runga i te wehi ka rongō rātau i a rātau e haere ana i te rori. Ka kore e whakamahia ngā hua pai ā-hauora nei, ā-taiao nei, ā-whakahaumarū nei ka taea te whakamahi mēnā ka tautokona te iwi kia haere wehikore mā raro, mā te paihikara rānei, tēnā i te haere mā te waka.

Ka whakatakoto tēnei rautaki i tētahi mahere e huri ai te tai, ko te pae tawhiti ko tētahi Aotearoa e kore nei e mate tētahi, e tino whara rānei tētahi tangata i ngā rori. Ka whakamahere i te ara e tutuki ai tēnā mā te pūnaha rori whakahaumarū me te tika o te tere o te haere; te haumarū o te waka mā te whakamahinga o ngā hangarau hou; te haumarū o te haere i te rori mō ngā wāhi mahi; ngā whanonga tika o te kaihautū waka; me te whakawhanaketanga o te whakahaere i te pūnaha e kite mai ai i te momo hautūtanga, te taunga me te mahi tahi e tino pīrangitia ana.

Ko tēnei momo huringa o te tai, ka tautini, nō reira e whai ana te rautaki kia 40 ōrau te hekenga o ngā mate me ngā tino wharanga hei roto i te 10 tau. Ki te āta

whakatutuki haere i tērā whāinga, he 750 te hekenga iho o te hunga ka mate, he 5,600 te hekenga iho o te hunga ka tino whara hei roto i te 10 tau, tēnā i te āhua o ngā nama e kitea ana i tēnei wā.

Ka noho ana te haumarutanga i te pokapū o te anamata mō te haere i ngā ara, ka āta whakaaro tātau ki te āhua o te haere me tā tātau e rongō nei i a tātau e haere ana. Ka waihanga i ngā ara hikoi me ngā ara paihikara e tūhono ai ngā tāngata me ngā hapori. Ka tere te toro ki ngā kōwhiringa e puta mai ana i ngā hangarau o te anamata, ā ka whai kia whakawhanake i ngā tūhononga me ngā āheitinga puta noa i te motu e whakatutukihia ai ngā pīrangī rerekē o ngā hapori e ngā urupare whakahaumarū i te rori.

Hei Minita e kawē ana i te haepapa whakahaumarū i ngā rori, ka whakaaro au ki te 10 tau e tū mai nei, ka rongō i taua haepapa, me te manawanui ki te whakaū i tēnei mahere: he whakaatu i te hautūtanga e tika ana; he tono i ngā kōrero tohutohu mō ngā kaupapa here e takea mai ana i ngā taunakitanga; he takoha i te haumitanga nui, i te haumitanga toitū, e whāia ana kia tutuki ai tā mātau whāinga.

E tohu ana te *Road to Zero* i tērā manawanui i a tātau katoa e whakamahi ana i ngā rori, i ngā ara paihikara, i ngā ara hikoi, me te hunga e whai wāhi ana ki te waihanga, ki te manaaki, ki te tiaki i ō tātau rori me ngā ture mō te rori, kia mahi i te mahi.

I puta mai te rautaki nei i ētahi kōrero whānui puta noa i te motu, ā me haere tonu ēnei momo kōrero i a tātau e mahi tahi nei ki te whakawhanake i tō tātau pūnaha rori e hoki ora atu ai tātau katoa i ō tātau haerenga ki ngā kāinga.

MINISTER'S FOREWORD

“With safety at the heart of our transport future, we think more deeply about how we move around and how we feel as we travel.”



This strategy marks a step-change in road safety for this country.

It steps away from an acceptance that tragedy is an inevitable risk we all take when we move about this beautiful country of ours. It steps us towards a road transport system that has people at the centre, one that prioritises wellbeing and liveability. It calls on us to harness commitment and collaboration from everyone.

The change it outlines is critical and urgent.

As we launch this strategy, more than one person is killed every day and seven others are seriously injured in road crashes. If we continue as we are, around 3000 people will have lost their lives and about 30,000 people will have been seriously injured with life-long consequences between now and 2030. What's more, the feeling of danger that many people feel about road travel will continue to affect their lives and the freedom of choices for themselves and their children. We will fail to tap into the health, environmental and safety benefits that are within reach if we can support people to feel safe to walk or ride bikes, instead of taking the car.

This strategy provides a map for change, with a vision of a New Zealand where no one is killed or seriously injured on our roads. It charts a path to achieving this through: safe road infrastructure and safe speeds; safe vehicles through new and future technologies; workplace road safety; safe road user behaviour; and improved management across the system to provide the leadership, coordination and teamwork so keenly required.

This kind of meaningful step-change takes time, so the strategy sets a target of a 40 percent reduction in deaths and serious injuries over 10 years. Steady progress towards this target would mean about

750 fewer people would be killed and 5,600 fewer would be seriously injured over 10 years compared to current levels of harm.

With safety at the heart of our transport future, we think more deeply about how we move around and how we feel as we travel. We create more walking and cycling routes that connect people and communities. We act quickly to seize on opportunities provided by technologies of the future, and we ensure that we build relationships and capability across the country so that our road safety responses meet the diverse needs of all communities.

As the Minister responsible for road safety, I look to the next 10 years with a strong feeling of responsibility and commitment to deliver on this plan: to provide the leadership needed, to commission the quality evidence-based policy advice required, and to deliver the substantial and sustained investment that will be necessary to meet our target.

Road to Zero calls on a similar commitment from all of us who use our roads, cycleways and footpaths, as well as everyone involved in designing, maintaining, and upholding our roads and road rules, to play their part.

The strategy is the result of wide-ranging conversations across the country, and these sorts of conversations will need to continue as we work together to improve our road system so that everyone can arrive home safely from their journey.

I look forward to working with you all on this critical task.

Associate Minister of Transport
Julie Anne Genter

EXECUTIVE SUMMARY



Road to Zero places human wellbeing at the heart of our road transport planning. It outlines a road safety system that supports and expects road users to make good choices, but acknowledges that we can all make mistakes. It values every life and the liveability of our communities, and it upholds the right of all of us to feel safe and arrive safely on our journeys across Aotearoa.

New Zealanders and visitors use our roads every day. Our highways, streets, footpaths and cycleways connect us to each other and to the places we love.

People should be able to feel safe and travel safely around our country. Yet on average, one person is killed every day on New Zealand roads, and another is injured every hour. The ripple effect of these tragedies on families, survivors, colleagues, and local communities, as well as the economy and health system is devastating and it is unacceptable.

Other countries similar to New Zealand do not have the same rates of road deaths and serious injuries. We can and should do better.

Safe roads are a foundation of a safe New Zealand. Road safety goes beyond our obligation to prevent deaths and injuries to improving lives and lifestyles too. It ensures everyone, even our most vulnerable road users, feels safe to use our transport network. People can feel safe riding their bikes and letting their children walk, bike or scooter to school. It creates road networks that connect people and communities rather than dividing them. It is part of making New Zealand, our towns and our cities, places we can be proud of and love to live in.

Influencing road user behavior and enhancing our driving culture will continue to be critical if we are to improve road safety. Every one of us who uses our roads, streets and footpaths has a responsibility to make good choices and follow the rules, and central and local government has a responsibility to support and enforce that behaviour.



But we know from overseas experience that a focus on improving driving skills and addressing risk-taking behaviours will not solve the road safety problem by itself. No one expects to crash, but people make mistakes – including those of us who are usually careful and responsible drivers.

We need to build a safe road system that is designed for people. This means doing our best to reduce crashes, but acknowledging that crashes will continue to happen. When crashes occur, we can prevent serious harm through safe vehicles, safe speeds and forgiving road design.

This approach has dramatically improved road safety in other countries, so we know it works. It was introduced in the previous road safety strategy *Safer Journeys* 2010-2020. In the instances where we have fully applied this approach, it has been proven to save lives on our roads. But we haven't done enough.

Safer Journeys has not been implemented as intended. Although it was based on a sound approach and compelling evidence, it did not have sufficient buy-in, investment, leadership and accountability to achieve a significant reduction in deaths and injuries. Most critically it did not have the buy-in from all New Zealanders that it is unacceptable for people to be killed or injured on our roads.

We now have the opportunity to do more and to go further. We can commit to a bolder vision about what is possible – no longer regarding zero deaths and serious injuries as an aspiration but as necessary and achievable.

Adopting this vision for road safety represents a commitment to embed road safety in transport design, regulation, planning and funding. Safety should be a critical investment priority and should not be traded off against other priorities. Every death or serious injury on our roads is a call to act, investigate, diagnose and address.

Road to Zero looks to a future New Zealand where no one is killed or seriously injured in road crashes. Over the next decade, we know that new transport technologies will bring significant opportunities as well as challenges, and the very nature of how we transport goods and people across the country is likely to change. By placing safety at the core of our transport system, we can anticipate and adapt to the changes ahead while continuing to strive for our vision.

Throughout the development of this strategy, the Ministry of Transport engaged with representatives from central and local government, key players in the transport sector, and road safety experts and advocates through a series of reference group workshops. They also held workshops with stakeholders from across New Zealand to listen to their road safety concerns and priorities for their communities and regions, and to gauge their level of support for a new road safety vision. We also received feedback from over 1,300 submitters about our proposals in the *Road to Zero* consultation document. We are grateful to all those whose perspectives and expertise have helped to shape this strategy.

This strategy articulates our vision, guiding principles for how we design the road network and how we make road safety decisions, as well as targets and outcomes for 2030. It sets out the five areas we want to focus on over the next decade, and a framework for how we will hold ourselves to account.

This strategy will be implemented through a series of separate action plans that will outline the actions we will take to drive change, as well as the timelines and responsibilities for implementing them.

Our vision is:

a New Zealand where no one is killed or seriously injured in road crashes. This means that no death or serious injury while travelling on our roads is acceptable.





Underpinning this vision are seven guiding principles:

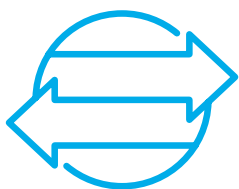
- 01** We promote good choices but plan for mistakes
- 02** We design for human vulnerability
- 03** We strengthen all parts of the road transport system
- 04** We have a shared responsibility for improving road safety
- 05** Our actions are grounded in evidence and evaluated
- 06** Our road safety actions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

As a step towards achieving this vision, we have set a target of a 40 percent reduction in deaths and serious injuries by 2030.

This will be achieved through action in five key areas:

- 01** Infrastructure improvements and speed management
- 02** Vehicle safety
- 03** Work-related road safety
- 04** Road user choices
- 05** System management.

This strategy will be supported by a series of action plans over the next 10 years that will outline priority actions to deliver on our vision.



01

CASE FOR CHANGE

SUMMARY



New Zealanders and visitors travel on our roads every day for work and leisure. The road system, including our streets, footpaths, cycleways, bus lanes and state highways, shapes how we get around, and how we use and interact around public spaces.

In 2018, 377 people were killed on our roads, and thousands more seriously injured.

Deaths or serious injuries should not be an inevitable cost of travelling around. We can and should do better. We need to commit to taking sustained action to create a transport system where human life is protected and no one is killed or seriously injured in road crashes.

By placing safety at the foundation of our transport decisions, we open up opportunities to New Zealanders and our visitors to choose different modes of travel, to think carefully about how we want to shape our towns and cities, and how we want to connect to each other.

This road safety strategy charts a bold course for the next decade, outlining a plan to build the safest road system we can, and work towards zero deaths and serious injuries on New Zealand roads. It sets out priority focus areas to drive national road safety performance to the end of 2030, lays the groundwork for longer-term goals and aspirations, and will hold us accountable through clear and measurable outcomes.



Safe roads are a foundation of a safe and healthy New Zealand.

Our road system shapes how people and products move around, and how communities interact. It plays an important role in connecting people, and gives New Zealanders access to education, work and recreation. It also supports economic activity through movements of freight, by connecting businesses with their employees, customers, and other goods and services, and by creating vibrant towns and cities.

The safety of our roads and streets is a critical part of ensuring the system delivers on these purposes. A safe road system not only prevents needless deaths and serious injuries, but can help improve lives and lifestyles too.

Improving road safety makes our towns and cities more accessible, connected and liveable, ensuring people feel safe to walk or cycle. A safer road network would encourage parents to let their children walk to school, which promotes independence, and improve accessibility for older and disabled people. Walking and cycling trips can support healthier lifestyles, improve mental health, and reduce pressure on our health system.

Improving road safety can also support environmental sustainability. More people walking and cycling reduces emissions, reduces noise, and improves air quality. Well designed and safer roads supports productive economic activity resulting from fewer crashes and reliable travel times. Local economies benefit too, as people who walk or cycle have been found to be more likely to stop and visit shops and businesses on the way to their destination.

Active modes and safe, efficient public transport also deliver direct safety benefits by reducing the proportion of private vehicles on the roads.

When we think about road safety in this way, we also think about designing towns and spaces that people want to be in, not just travel through.

Beyond this strategy, the Government is also undertaking a number of initiatives and investing in public transport, walking and cycling, and rail infrastructure. Over time this will see more people travelling by other modes – reducing emissions and congestion, and resulting in less trauma on our roads.



People in New Zealand spend an average of **AN HOUR A DAY TRAVELLING**



37% of people aged 15+ in New Zealand have **USED PUBLIC TRANSPORT IN THE PAST YEAR**



31% of people aged 15+ in New Zealand have **CYCLED IN THE PAST YEAR**





Recent research found that **SAFETY CONCERNS WERE A BIGGER DETERRENT TO TRYING CYCLING THAN TRAVEL TIME OR WEATHER** [TRA, 2018].

WALKING is estimated to provide **HEALTH BENEFITS OF \$2.60 PER KILOMETRE** and **CYCLING OF \$1.30 PER KILOMETRE** [NZTA, 2013].



There are
94,000KM
OF ROADS ON THE NETWORK

There are
83,000KM
OF LOCAL ROADS

There are
11,000KM
OF STATE HIGHWAYS

On average, **ONE PERSON IS KILLED EVERY DAY ON NEW ZEALAND ROADS**, and another seven are seriously injured.

However, thousands of people are killed or seriously injured on our roads every year.

Over the past six years we have seen an unprecedented rise in the number of deaths and serious injuries.

We know the rate of increase is partly due to an increase of people travelling on our roads. But this isn't the only factor.

The number of deaths and serious injuries are increasing at a much faster rate than can be explained by simple traffic growth.

About half the people who were harmed did not contribute to the crash. They were harmed by other people's errors in judgement, and were let down by a system that failed to protect them from those mistakes.

We collect and publish a large amount of information on road safety. For more information, please visit:

- The Ministry of Transport's website for Annual Crash Statistics and fact sheets:
<https://www.transport.govt.nz/mot-resources/new-road-safety-resources/>
- NZTA's website for road safety information and tools:
<https://www.nzta.govt.nz/safety/safety-resources/road-safety-information-and-tools/>

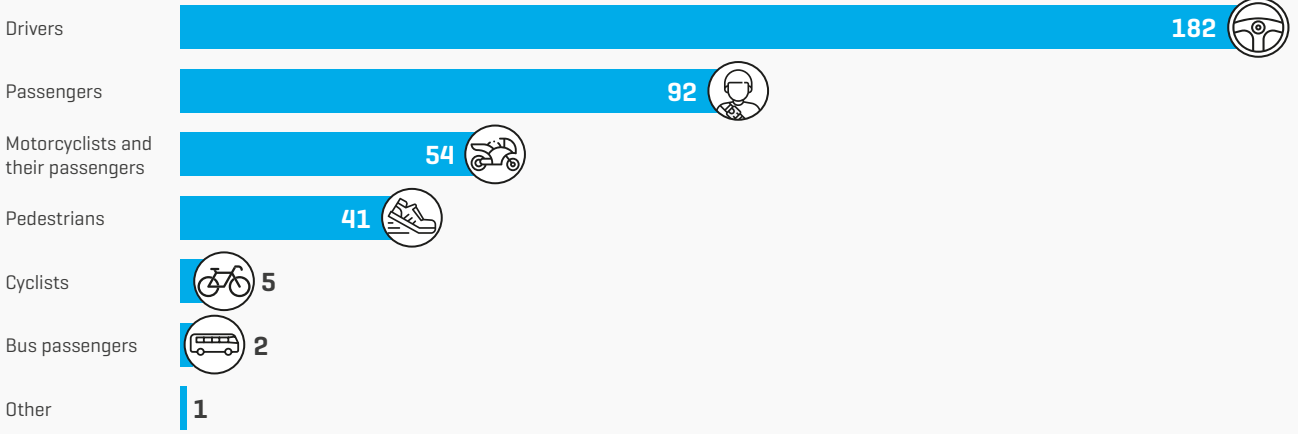


About the photo: In July 2010 a couple were driving from Napier to Taupo in their four-wheel drive vehicle. It was mid-morning and a bright, sunny day – ideal driving conditions. But they never got to Taupo. A car going in the opposite direction suddenly crossed the centre line. There was no time for anyone to brake, and this was the result. Both drivers were killed. The passenger in the four-wheel drive vehicle was seriously injured.

The Coroner was unable to determine the reason for the driver crossing the centre line so sharply. Neither driver was speeding, neither driver was using a cell phone, neither driver had been drinking alcohol. They were both wearing seatbelts. Until that moment, they had both been obeying the law.

However, there was no median barrier on the road, which could have prevented a head-on collision. The vehicles involved did not protect the occupants from the crash forces, and the posted speed limit was too high for the nature of the road.

Casualties by road user type 2018 *[Ministry of Transport, 2018]*





**We do not have to accept this.
We can and should do better.**

Deaths and serious injuries should not be an inevitable cost of travelling in New Zealand.

Most other developed countries have far lower rates of death on their roads. If New Zealand’s roads were as safe as Norway’s [a country with a similar road network and population to New Zealand], approximately 260 of the 377 people who were killed last year would still be alive. If we performed even as well as Australia, 150 people would still be alive [IRTAD, 2018].

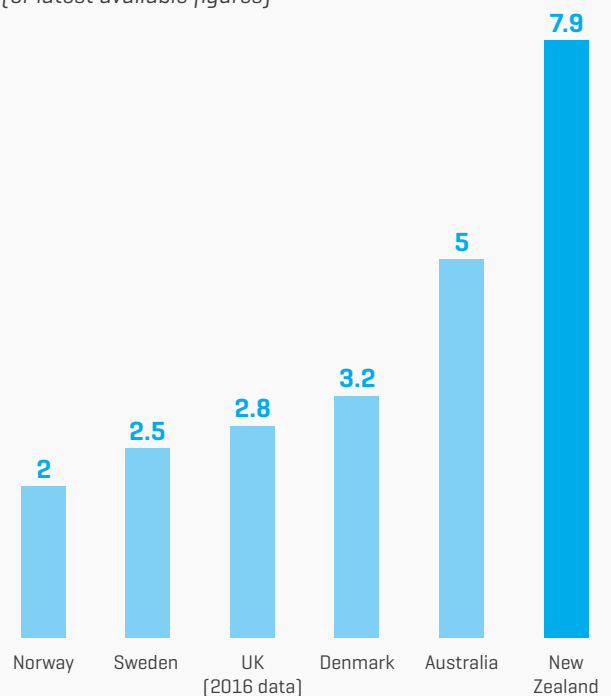
If we continue as we are, we estimate that around 3000 people will have lost their lives between now and 2030. Approximately 30,000 people will have been seriously injured with ongoing or long-term consequences.

The social cost of these tragedies would be about \$45 billion in today’s dollars [Ministry of Transport, 2019].

This social cost is not just the cost on individuals, our health system and the disruption and delay on our road network. It reflects the permanent and profound devastation that deaths and serious injuries have on loved ones, families and whānau, colleagues and workplaces, and communities.

Alongside these alarming numbers, we need to consider the unquantifiable impact of these tragedies on thousands of whānau, friends, colleagues and workplaces, as well as on the emergency services personnel and the many other professionals who respond to the crashes.

Road fatalities per 100,000 population 2017
[or latest available figures]





We need a safe system which recognises crashes are inevitable but deaths and serious injuries are not.

Traditional approaches to road safety assume that the root of the road safety problem is crashes. 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.

But 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 [International Transport Forum, 2016].

Instead of simply asking: “Why did that person crash?”, what if we also asked: **“Why was that person killed or seriously injured in the crash?”**

In shifting our focus, we’re required to develop solutions that target a different culprit: an unforgiving system that doesn’t take into account the fact that people sometimes make mistakes when using our roads.

While actions to improve people’s skills and behaviour and to deter risk-taking behaviour are still critical to our success, this alone will not fix the problem. We must also turn our attention to fixing a transport

system that fails to protect people – by improving our road network, tackling unsafe speeds and lifting the safety of our vehicle fleet.

This kind of ‘Safe System’ thinking has dramatically improved road safety in some countries, and underpins approaches adopted in other fields like aviation, shipping, and workplace health and safety. It was introduced to New Zealand in our current road safety strategy *Safer Journeys*. In cases where we have successfully adopted this approach, it has proved to save lives on our roads.

We now have the opportunity to do more and to go further.

The Safe System approach remains the gold standard in road safety. However, New Zealand has had mixed results in embedding this approach. Other countries have done better through also adopting a galvanising vision [such as Vision Zero], underpinned by clear targets to reduce road trauma.

This strategy seizes the opportunity to commit to a bolder vision about what is possible, to learn from what did or did not work in *Safer Journeys* and take more transformative actions to reduce deaths and serious injuries on New Zealand roads.

OVER 50% of major trauma injuries treated in our hospitals are from road crashes [Major Trauma Network, 2018].

ROAD CRASHES ARE THE SECOND LARGEST CAUSE OF DEATH from injury, after suicide [IPRU, 2012].

Even **IF EVERYONE OBEYED THE ROAD RULES**, New Zealand would still have **MORE THAN 180 DEATHS** on the road each year.



Safe System in action: Centennial Highway

SH1 Centennial Highway, a 3.5 km stretch of road just north of Wellington, was once particularly treacherous. On average, at least one person died and another was seriously injured here every year.

In 2005, a flexible median safety barrier was installed and the speed limit was lowered to 80 km/h. Since then, there have been no fatal or serious injury crashes. The barrier is hit around twice per month without a single death.

What can we learn from reviews of *Safer Journeys*?

In 2015, an independent interim evaluation of the effectiveness of *Safer Journeys* found that while the focus of the strategy was sound, there was insufficient leadership and sector capacity necessary for successful implementation. Greater collective and sustainable leadership, coordination and participation from Ministers and government agencies was needed.

In addition, *Safer Journeys* lacked national targets and overall outcome targets. This allowed operational focus to shift away from road safety. It also meant there was limited ability to track the impacts of interventions and the overall impact of the strategy over time.

The interim evaluation made a series of recommendations about how the road safety system is managed in New Zealand. These included recommendations that any new strategy set ambitious trauma reduction targets and that we update the value of statistical life to help us allocate resources more rationally. It also recommended that we strengthen road safety management capability and refresh the high-level governance group for road safety in New Zealand.

Road to Zero charts a bold course for the next decade.

Road to Zero articulates a shared vision for New Zealand, as well as the key principles to guide decision-making across the system. It outlines our approach to the challenges of the next decade and the steps we need to take to meaningfully reduce road trauma.

The strategy will be supported by several action plans. These will set out the key interventions that will support progress towards each of the focus areas over the course of this strategy. An initial three year action plan is being published alongside the strategy. Further will follow.

The strategy complements a number of other Government strategies and work programmes. This includes:

- ▶ developing NZTA's mode shift plan – a strategy to achieve a shift to public and active transport through joint investment and land-use decisions
- ▶ implementing the New Zealand Rail Plan to enable a resilient and reliable rail network for moving freight and increased public transport options through metropolitan rail
- ▶ improving public transport services
- ▶ delivering on the Disability Action Plan's intentions to increase the accessibility of transport for disabled people
- ▶ delivering on *Better Later Life He Oranga Kaumātua* 2019 – 2034 to improve the health and social participation outcomes of older people.

Ongoing engagement with tangata whenua will be important

We recognise iwi Māori as tangata whenua of New Zealand holding unique and direct relationships with the Crown. The Government has obligations under the Treaty of Waitangi to work in partnership with Māori, to ensure equal participation at all levels, to protect Māori interests, and to reflect the views and aspirations of Māori in decision-making that directly affects them.

In developing this strategy, the Ministry of Transport consulted with a range of Māori-focused stakeholders. The insights from these groups have been appreciated. Work is underway to better understand the issues and opportunities for Māori in road safety, but much more is needed to build relationships, insights, and responses to appropriately meet the needs of tangata whenua in New Zealand. Ongoing partnership with Māori will be a focus as we move from the development of the strategy to the implementation. On the specific actions in the strategy, we recognise that mainstream policy approaches do not always work for Māori and different policy responses may be needed.

This is the start of what will be an ongoing and important process.



WHAT WE HEARD

Road Safety Summit

Work on the strategy began in April 2018 when the Associate Minister of Transport, Hon Julie Anne Genter, held a one-day Local Government Road Safety Summit in Wellington. More than 100 senior local government representatives from across New Zealand took part in the event.

Attendees expressed near universal support for a Vision Zero approach to road safety. They said they wanted strong leadership from central government to promote safety and for the new strategy to adopt measurable and meaningful road safety targets. There was widespread recognition that speed was a key road safety issue. Improving the safety of children, cyclists and pedestrians was also a common theme.

Reference groups

In July 2018, five reference groups were set up to discuss key road safety issues and identify priorities and potential interventions. More than 100 people, including representatives of local and central government, businesses and advocacy groups, and academics, took part in four half-day meetings.

The reference groups focused on five areas: infrastructure, design and planning; speed; vehicles as a workplace; road user behaviour; and vehicles, vehicle standards and certification. Although the groups were not asked to reach a common position, a number of themes emerged – including broad (but not universal) support for a Vision Zero approach. The groups acknowledged the level of complexity in improving road safety and highlighted the importance of clear and ambitious outcomes. They wanted initiatives to be supported by additional investment and stronger Government leadership, and greater focus to be put on the capacity and capability of agencies to deliver a more robust strategy. The selection of the focus areas in the action plan was informed by these groups.

Roadshows and further engagement

Over the course of the strategy development, officials from the Ministry of Transport also met with a wide range of people with an interest in road safety, including regional and local road safety groups, industry groups and advocacy groups, groups providing perspectives from people with disabilities, and iwi. We sought feedback on a Vision Zero approach and heard a broad range of perspectives and concerns about road safety. There was a clear appetite for substantial change but differing views on pace. Stakeholders called for support to bring the community with us, especially in our regions.

Officials met with local government representatives and regional stakeholders at 14 roadshows held across the country in March–April 2019. Overall, we received positive feedback on the direction and content of the consultation document, and support for a more ambitious approach. Stakeholders often focused on driver behaviour as a key factor in road safety. Many also noted the importance of speed and were keen to see the streamlining of the processes for setting speed limits. Some stakeholders stressed that the strategy needed to take into account rural needs, issues of equity and access to jobs and services.

Ongoing communication from the public

Transport Ministers and officials received a substantial number of letters and emails on the subject of road safety as work progressed. Many correspondents urged the Government to take additional action to make the road network safer for all road users, including cyclists and pedestrians. There has been a high volume of correspondence reporting unsafe road use, as well as the impacts of high speeds on communities.

PUBLIC SUBMISSIONS

We invited public feedback on the *Road to Zero* consultation document in July – August 2019, and received over 1,000 submissions through the main survey tool. It is clear that New Zealanders care deeply about the number of people being killed and seriously injured on our roads, and about the negative impact that poor road safety has on people's travel choices.

Vision: Most submitters (almost 85 percent) were broadly in support of the proposed vision, with most organisational submitters indicating strong support.

Target: There was broad support for including a target in the strategy, with 42 percent support for the proposed target and 34 percent wanting something more ambitious.

Principles: There was broad support for all the proposed principles, with at least 80 percent of submitters indicating broad support for each principle.

Focus areas:

Infrastructure and speed: Over 75 percent of submitters were broadly in support of this focus area, although there were questions around funding of the infrastructure changes, and some opposition towards a focus on speed.

Vehicle safety: Over 85 percent of submitters were broadly in support of this focus area, with a desire for more urgent action on vehicle standards, and from the other side a concern about costs and impacts on consumers.

Work-related road safety: Over 90 percent of submitter broadly supported this focus area, with many noting the positive role business could play in improving the safety and sustainability of the vehicle fleet. Some also noted the opportunity for businesses to support mode shift by encouraging commuting by different modes, especially in urban areas.

Road user choices: There was near universal and very strong support for this area, with some suggestions that this should be prioritised over other focus areas, and a clear call for improvements to driver education, licensing and driver culture, as well as enforcement and penalties.

System management: Over 87 percent of submitters supported this area, with calls for strong central leadership, while also empowering local communities to develop local solutions.

We also heard from 185 children and young people through a survey created with support from the Office of the Children's Commissioner. Frequent road safety concerns included: incompetent drivers, vehicles travelling too fast, walking alone, and a lack of footpaths and cycle paths. More than 80 percent of respondents supported the vision and almost 90 percent either supported the proposed target or believed it should be more ambitious.

People with learning disabilities were asked through a People First NZ survey what made them feel safe and unsafe when travelling on the road and footpath. Following the road rules and simple safety measures, such as drivers travelling at safe speeds and separated bike lanes, were common themes, as were well-maintained and well-lit roads and footpaths, graded slopes off kerbs for wheelchairs, reliable bus and train services, and courtesy and care from other road users. Many of these submitters noted the level of aggression they experience from other road users, cars and buses going too fast, drivers not stopping at pedestrian crossings, not having enough time to cross the road, and the danger of e-scooters and other silent vehicles for disabled and vision-impaired people.

You can read a full summary of submissions at www.transport.govt.nz/zero.



ALMOST 85% of submitters were broadly in **SUPPORT OF THE PROPOSED VISION**

42% support towards the **PROPOSED TARGET. 34%** proposed a more **AMBITIOUS TARGET**

AT LEAST 80% of submitters indicating broad support **FOR EACH PROPOSED PRINCIPLE**



02 VISION

SUMMARY



Our vision is a New Zealand where no one is killed or seriously injured in road crashes. It is based on Vision Zero – a global movement that has seen significant decreases in road trauma in Sweden, New York and parts of Australia.

Adopting this vision for road safety means we need to make concerted efforts towards building a road transport system that protects everyone from road trauma. It represents a commitment to embed road safety principles and harm reduction in transport design, regulation, planning, operation and funding.



Our vision is a New Zealand where no one is killed or seriously injured in road crashes.

Adopting this vision means acknowledging that:

- ▶ no loss of life is acceptable in the transport system
- ▶ deaths and serious injuries on our roads are preventable
- ▶ we all make mistakes, but these mistakes should not cost us our lives.

What does this mean?

It means no longer viewing the deaths on our roads as a “toll” that we’re prepared to pay for mobility. Systems cannot be designed to prevent every crash. But they can – and should – keep people alive when crashes happen.

When we board an aeroplane, we expect that those responsible, the airline and the aviation authorities, have taken responsibility for our journeys, and that the system is safe and works for everyone. When we go to work, our health and safety laws places clear expectations and responsibilities on businesses and other organisations to ensure that everyone who goes to work comes home healthy and safe. In the same way, we should expect our road system to be designed for people, travelling in different ways, instead of blaming people for failing to survive in the system we have designed.

It is not acceptable that people die. This is what fundamentally underpins our vision.

The Vision Zero approach

Our vision is based on Vision Zero. First launched in Sweden in 1997, Vision Zero provided a common vision that brought together stakeholders, changed public attitudes and raised public expectations. Over the years this vision has led to infrastructure improvements (e.g. road barriers that separate cars from bikes and oncoming traffic, and safer pedestrian environments), lower urban speed limits, and an emphasis on safe vehicles. In the 20 years since launching the strategy, road deaths in Sweden have halved.

Vision Zero has become a global movement. It has been adopted by places like Norway, New York and London and has led to significant decreases in road trauma. Vision Zero is framed as ‘Towards Zero’ in some jurisdictions, such as Victoria and New South Wales in Australia, as well as Canada and the European Union.

Vision Zero in action

New York City

Since introducing a Vision Zero approach to road safety in 2014, New York City has experienced a 28 percent decline in road deaths (including a 45 percent reduction in pedestrian deaths). Fewer people now die on New York’s streets than at any time since records began. This progress has been credited to the focussed and coordinated Vision Zero approach, which has strongly prioritised safety, achieved strong community buy-in and effectively used data to target investment.

New York City’s people-centric approach has prioritised pedestrian and cyclist safety, through changes to pedestrian crossings and protected bike lanes, alongside strengthened enforcement and education. Speed limits were also reduced across the city, from 30 m/h [48km/h] to 25 m/h [40km/h]. These changes have been combined with widespread use of speed cameras and increased enforcement focussed on the offences most likely to cause a death or injury.



Vision Zero in action

Changes to roads and roadsides, Mangere – before and after



Before



After

Adopting this vision means doing things differently.

Adopting a more ambitious vision represents a commitment for New Zealand to make some transformative changes. It requires stronger leadership and a new level of commitment by everyone, underpinned by a shift in the national conversation on road safety. Adopting Vision Zero means committing to safety as a critical priority for investment and decision-making, and a greater focus on system changes rather than on addressing human error alone. It requires us to set clear goals and measure our progress against them.

This vision can be achieved if, as a country, we fundamentally shift the way we think about road safety and what we are prepared to accept. Achieving lasting change in road safety will require government,

industry and the broader community to work together. It will also require significant improvements in the way we manage the safety of our road transport system.

A car can never be safe unless the passengers use seatbelts. A road is never safe for the wrong speeds or impaired drivers. If the whole system is to work, a number of different measures are necessary that allow us to travel at the right speed, protect us in the right way and ensure that we all behave responsibly on our roads, supported by laws and technology to remind us to do the right thing.

Our collective task is to build a culture where safety is an integral part of all decision-making that affects the road system, its operation and its use.



03


WHERE DO WE WANT TO BE BY 2030?

SUMMARY



As an intermediate target towards achieving our vision, we have set a target to reduce deaths and serious injuries on our roads by 40 percent over the next decade. Steady progress towards this target would mean approximately 750 fewer people would be killed and 5,600 fewer would be seriously injured on our roads over the next 10 years, compared to current levels of harm.



A white motorhome is driving across a metal truss bridge. The bridge spans over a dense forest of trees with bright yellow and orange autumn foliage. The scene is captured from a low angle, looking up at the bridge and the trees. The motorhome is moving from left to right across the bridge.

As a step towards achieving our vision, we have set a target of a 40 percent reduction in deaths and serious injuries by 2030.



We recognise that we have a long way to go, and that zero deaths and serious injuries on our roads may not be achievable in the next 10 to 20 years. We have a road system that hasn't always been designed with the safety of all users as a priority, a network that can feel hostile when people are walking or cycling on it. We have a large number of less safe vehicles on our roads, a growing number of heavy vehicles and motorcycles on the network, and a vehicle fleet that is slow to turn over. We have a culture that has not always made road safety a priority. Change will not happen overnight.

However, if we are truly committed to this vision, we need to set a target for achieving sustained and substantial reductions in deaths and serious injuries. This target must be backed by evidence and we must rigorously monitor and evaluate our progress towards it.

We want to reduce annual deaths and serious injuries on our roads by 40 percent by 2030 (from 2018 levels). This is a challenging but achievable target, based on modelling of a substantial programme of road safety improvements over the next 10 years. This target will ensure that we continue to prioritise effective road safety interventions and allow us to be held to account on overall outcomes.

Steady progress towards this target would mean approximately 750 fewer people would be killed and 5,600 fewer would be seriously injured on our roads over the next 10 years, compared to current levels of harm. Doing so would reduce the total social cost of road crashes on New Zealanders by approximately \$9.6 billion. It would also have a significant impact on the long-term costs to ACC of road crashes.

Modelling suggests that just over half the target could be achieved through a combination of infrastructure improvements [such as median barriers and intersection treatments], targeted speed limit changes on the highest risk parts of the network, and increased levels of enforcement [both by safety cameras and by Police officers]. These changes will require increasing our investment in road safety over the next decade by about 25 percent, from about \$800 million per year to about \$1 billion per year.

Up to a further quarter of the target could be achieved by lifting the safety performance of the vehicle fleet. The remaining quarter would need to be achieved by a combination of other interventions, such as improvements to driver licensing and increases to penalties for safety offences.

Our target also takes account of broader changes to how we travel on our roads, such as shifting towards safer and more sustainable modes, and future changes in vehicle technologies. The impact of these developments may be significant, but the timing and size of these impacts is less certain. We will need to respond flexibly to these opportunities and challenges over the next decade.



04 PRINCIPLES

SUMMARY



Clear guiding principles provide a shared understanding of how we will work, and the values that will guide our actions and decision-making.

Our seven guiding principles for our road safety strategy are:

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



Clear and transparent guiding principles are integral to how we design the network and how we make road safety decisions.

Our vision is grounded in the Safe System. We have built on its principles² to create a broader set of guiding principles for the strategy.

These guiding principles are integral to how we design the network and how we make road safety decisions. They are intended to guide participation and decision-making across the system by providing a shared understanding of how we will work and the values that will guide our activities. These principles have equal weighting, and the ordering is not intended to give greater priority to some principles over others.



²The four Safe System principles are: [1] People make mistakes that lead to road crashes. [2] The human body has a limited physical ability to tolerate crash forces before harm occurs. [3] The responsibility for safety is shared amongst those who design, build, manage and use roads and vehicles. [4] All parts of the system must be strengthened so that, if one part fails, road users are still protected.



1

We promote good choices but plan for mistakes

We expect everyone to make good choices and follow the rules when they use the roads, but acknowledge that people make mistakes and some will take risks. Most serious crashes are not caused by people deliberately breaking the law, but rather the result of a momentary lapse or error in judgement. The most common crash is by an average driver [or motorcycle rider] who makes an error of judgement. Even really well-trained drivers and riders make mistakes. These mistakes should not result in loss of life or serious injury.



2

We design for human vulnerability

In the event of a crash, there are physical limits to the amount of force our bodies can take before we are injured, and our chances of survival or avoiding serious injury decrease rapidly above certain impact speeds. For a pedestrian, wheeled pedestrian, cyclist or motorcyclist hit by a car, it's around 30-40 km/h. In a side impact collision involving two cars, it's around 50 km/h. And in a head-on crash involving two cars, it's around 70-80 km/h. Some groups are particularly vulnerable, such as children and the elderly, economically disadvantaged communities, and disabled people. With an aging population and an anticipated mode shift to more walking, cycling, scootering and mobility aids, there are likely to be more vulnerable users on our roads. In designing our road system, we must acknowledge the limits of our capabilities and plan for human error, so that the impact of a collision does not cause fatal or serious injuries.



3

We strengthen all parts of the road transport system

We need to improve the safety of all parts of the system – roads and roadsides, speeds, vehicles, and road use – so that if one part fails, other parts will still protect the people involved. This means that when crashes do happen, death and serious injuries can be avoided through safe vehicles, forgiving infrastructure design, and safe and appropriate speeds. We also need to understand and make roads and streets safer for unprotected road users such as pedestrians, cyclists, motorcyclists and scooter riders.

Principle in action: What could this look like in practice?

If a distracted parent driving a car turns their head for a second to see why their child is crying in the back, tactile edge lines on the road or a lane departure warning device in their vehicle could alert them in time to recover. Where there is no time to recover, a barrier could prevent them from hitting another vehicle head-on or running off the road, hitting a tree and being killed.

4

We have a shared responsibility for improving road safety

The responsibility for safety needs to be shared amongst those who design, build, manage and use the road transport system, as well as those who enforce the rules. Individuals, families and communities also need to play a part in building cultural change, and in using our roads with care and in caring for our more vulnerable users. But the burden of road safety responsibility cannot rest on the individual road user alone. Many organisations – the ‘system managers’ – have a responsibility to provide a safe operating environment for road users. If road users fail to obey these rules due to lack of knowledge, acceptance or ability, or if injuries occur, the system managers are required to take necessary further steps to counteract people being killed or seriously injured. This includes central and local government and industry organisations that design, build, maintain and regulate roads and vehicles, as well as those who are part of post-crash responses, rehabilitation and care. Businesses and organisations need to provide a safe workplace and actively manage for a safety-focussed environment. Our strategy and interventions need to ensure that there is appropriate collective responsibility and accountability.



5

Our actions are grounded in evidence and evaluated

We need to focus our efforts on what works. Decision-making should be informed by the best available science and information, and needs to operate in an environment of continuous learning and system improvement. We need to keep abreast of emerging road safety issues, changing trends, and new solutions over the life of this strategy. We expect that some technology-based solutions to road safety will develop within the next decade. New problems may also emerge. This is why it is critical that we invest in research, robust analytics and modelling to inform key interventions and decisions, while balancing that with ensuring the quest for evidence doesn't delay important decisions, nor hinder the trialling of new or innovative approaches. Our road safety actions also need to be supported by regular process and outcome evaluation so we can see what works, doesn't work or needs to be altered, so we can maximise effort and also achieve ongoing buy-in to change. Evidence and information also needs to be shared across all road safety partners, particularly at a regional and territorial local authority level, to support decision-making by councils and communities.





6

Our road safety actions support health, wellbeing and liveable places

Roads and streets do not just help people and goods move from one point to another – they are spaces that can add to or detract from the vibrancy of an area, particularly in our urban and residential areas. Our road network, including our footpaths, includes places where people meet, shop and connect to their communities, rather than just a means of moving people and freight between destinations. Our built environment is a key determinant of public health, access, and the ease of incorporating physical activity into our day to day lives. These functions should be central to how we think about safety on different roads.

Principle in action: What could this look like in practice?

Where a road plays a key role as a place for a community, our road safety focus should be broader – seeking to leverage safety to improve urban access and liveability. Our roads and streets should also promote accessibility for all road users. This is particularly important for disabled people, with personal mobility recognised as a right under the United Nations Convention on the Rights of Persons with Disabilities (ratified by New Zealand in 2008).

In contrast, where a road is key to part of the freight network, ensuring good road infrastructure and maintaining appropriate higher speeds will be important.

7

We make safety a critical decision-making priority

Taking more ambitious action means that safety objectives, along with wider social priorities such as public health and sustainability, must be prioritised in our investment and regulatory frameworks, rather than being optional or nice-to-have add-ons. This does not mean that other objectives, such as increased efficiency, are not achieved. However, we need to achieve these in a way that improves safety.





05

FOCUS AREAS

The journey towards our vision will require significant effort to enhance the quality of our roads, to strengthen regulation and social expectations for safer vehicles, to improve people's compliance with traffic laws 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.

This section highlights areas that will require our sustained focus over the next decade, and the strategic directions that we will need to take to address them. By examining how and why crashes occur, and what interventions have been proven to be most effective, we have established the following five focus areas.

OUR FIVE FOCUS AREAS

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

These proposed key areas will focus actions under the road safety strategy that will be mapped out in a series of action plans over the decade. We will also continue to take action in areas where we identify the potential to make improvements to road safety outcomes.





FOCUS AREA 1

Infrastructure improvements and speed management

OUR OBJECTIVE



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

Our roads and streets reflect our natural landscape and changing communities: our roads are winding, hilly and often narrow, and our streets can be full of people, and bustling retail areas. Not all risks are visible, and often our roads and streets are not self-explaining. This means the wrong speed can result in an unforeseen tragedy. Improving our road infrastructure, and setting and enforcing safe speed limits, are some of the most powerful ways we can create a road system that is forgiving of human mistakes.



New Zealand roads can be unforgiving and the speed limits are not always safe for the road.

We all know that not all roads are equal. The safety of a road's design and the speed we travel on it influence both the risk of a crash and whether we survive it.

By improving the safety of our roads, streets and footpaths, and setting and maintaining safe travel speeds, we can save lives and prevent injuries.

Long stretches of our highway networks are narrow, unseparated two-way roads lined with roadside hazards such as fences, ditches, and trees. In our towns and cities, we have high volumes of people walking, biking and in mobility scooters and wheelchairs travelling alongside fast-moving vehicles with no separation.

We cannot continue to rely on four inches of paint for avoiding head-on collisions between vehicles travelling at 100 km/h towards each other on busy stretches of open road. Equally, we cannot continue to define cycle lanes as a painted white line that disappears when it gets too hard, or place unrealistic expectations on our most vulnerable road users as they try to co-exist on a complex urban network with two tonne vehicles travelling at speeds that would make a crash unsurvivable.

In our conversations to date, there has been clear agreement about the importance of tackling infrastructure and travel speeds together. Roads and streets can either be engineered up to support existing or higher travel speeds, or speeds lowered to reflect the context and risk of streets and surrounding environment.

We have also heard a strong call for enforcing safe speed limits as a priority to achieve our road safety ambitions. Stakeholders noted the need to address both the highest risk parts of the network, where the greatest potential road safety improvements lie and the areas where safe infrastructure and safe speeds can help to promote active, liveable communities.

A safe road network starts with good planning.

We need to start by embedding our road safety principles into infrastructure planning, design, operations and maintenance decision-making.

Infrastructure is expensive and long-lasting, so it is important to get it right, and to properly prioritise where we invest. Safety for all modes of transport and improved accessibility needs to be a priority right through the infrastructure lifecycle and in investment decision-making.

Stakeholders have told us that we need to improve our standards and guidelines to deliver a nationally consistent approach to infrastructure design and maintenance. This will help to establish self-explaining roads, incentivise innovation, and support the creation of safe and liveable urban areas.

There are also opportunities to better integrate transport with urban and land use planning to deliberately shape how the road network is used and what infrastructure investments are required. Population and housing growth are generating new and different demands for transport services, and transport technologies are also changing. We need to make sure that our roads and streets are safe as people increasingly choose to get around by public transport, active modes and emerging mobility devices.

In the last 10 years (2009-2018)

929
PEOPLE DIED IN
HEAD ON CRASHES

A further
372
WERE KILLED IN
CRASHES AT
INTERSECTIONS

while another
1,254
DIED IN CRASHES
WHERE A DRIVER
LOST CONTROL OR
RAN OFF THE ROAD

Meanwhile,
332
PEDESTRIANS

and
78
CYCLISTS DIED
IN CRASHES
INVOLVING OTHER
MOTOR VEHICLES,
largely in our urban
areas.





Biomechanical research indicates that the chances of survival or avoiding serious injury decrease rapidly above certain impact speeds. [IRTAD, 2018]

For a
**PEDESTRIAN, CYCLIST
OR MOTORCYCLIST HIT
BY A CAR,**
it's around
30-40 KM/H.

In a
**SIDE IMPACT COLLISION
INVOLVING TWO CARS,**
it's around
50 KM/H.

And in a
**HEAD-ON CRASH
INVOLVING TWO CARS,**
it's around
70-80 KM/H.

Building a safe road network means investing in infrastructure safety treatments that are proven to save lives.

While infrastructure safety treatments can be expensive, when well planned, designed and managed, they provide lasting benefits for all road users.

International research shows flexible barriers fitted along the side and centre of high speed roads can reduce the number of people killed by up to 90 percent [Johansson, 2009]. Rumble strips alone can reduce all crashes by around 25 percent and fatal run-off-road crashes by up to 42 percent. Similarly, treatments such as roundabouts can help reduce casualties at intersections and raised crossings can make it easier and safer for people to cross streets.

In urban areas, safer infrastructure can also provide environmental, health, and access benefits by ensuring road users feel safe to choose more active transport. This includes treatments such as traffic calming, separated walking and cycling facilities or safe shared-use pathways, and clear lighting and path definition

New Zealand already has a significant programme of work underway to improve our infrastructure but much more is needed. This investment needs to be targeted to where the greatest potential trauma and risk reductions are possible, focussed on the most effective treatments to address key crash types.





It requires us to establish safe and appropriate travelling speeds across our road network.

The maxim: 'The faster you go, the bigger the mess' remains as true today as when the campaign was launched more than a decade ago. Faster travel speeds reduce everyone's ability to avoid or recover from mistakes, and exponentially increase the trauma to everyone involved in a crash when it happens.

Safer travel speeds will save lives. They also reduce the stress for other road users, including passengers, and help other people feel safe to walk, bike, or travel with children. Slower speeds can also reduce harmful emissions.

A critical issue in New Zealand is that approximately 87 percent of our current speed limits are not appropriate for the conditions of our roads. Reducing travel speeds across parts of the network is one of the most efficient and immediate things we could do to reduce trauma.

During the life of the strategy, we will work to create more consistent speed limits for roads according to their function, design standards and risk. While we can engineer up on the highest risk and economically important roads, speeds will need to be lowered in some other areas.

However, we also know the road safety benefits of speed reductions are not always obvious, and the costs, particularly impacts on travel times, can often be overestimated. Sustained improvement in speed management will require everyone involved in road safety to work to build the support of our communities by explaining and demonstrating the benefits of lower speeds.



PERCEPTION

Reducing speeds in some areas won't save lives, it will just take people longer to get anywhere.

RESEARCH FINDINGS

Research has shown that reducing your speed a little generally results in a very small increase in travel time [Rowland & McLeod, 2017].

When you factor in traffic lights, congestion, intersections and road quality, travel times don't vary as much as many people think. For example, when the speed limit on most of Saddle Road (a 14 km stretch near Woodville, New Zealand) was reduced from 100 to 60 km/h due to an increasing number of crashes, average travel times only increased by around 50 seconds (or less than 4 seconds per kilometre). In some instances, lower travel speeds can also deliver significant fuel savings.

We also need to help people comply with these speeds.

Whatever the speed limit, improved compliance and enforcement of the limit plays a vital role in improving the safety of all road users.

New Zealand currently operates an 'anytime, anywhere' approach where enforcement can occur anywhere on the network without signage, with the purpose of discouraging drivers from speeding anywhere on the network.

Countries like Sweden have adopted a very different approach where there are many more cameras on the network, all placed in high risk areas, and clearly marked so drivers know where they should slow down.³ The aim is to ensure that people slow down and drive safely on dangerous stretches of road. This kind of approach has a higher level of public acceptance as drivers view it as fairer. Most importantly, the Swedish approach has been successful in reducing deaths and serious injuries.

Changing our approach and improving how we use safety cameras is a key priority for this strategy. This needs to be combined with effective officer enforcement and a review of penalties and demerits, as discussed in *Focus Area 4: Road User Choices*.

Over the life of this strategy, new vehicle technologies [such as intelligent speed assistance] will also help support the majority of law-abiding drivers avoid inadvertently travelling above the speed limit. Other technologies [such as speed limiting devices] could also be targeted to recidivist offenders.

³ Sweden has about 11 safety cameras per 100,000 population [this includes fixed cameras, mobile cameras, average speed cameras, red light cameras and combined red light/safety cameras], whereas New Zealand has about 2.2 cameras per 100,000 population [New Zealand does not currently have any operational average speed or combined red light/safety cameras].



FOCUS AREA 2

Vehicle safety

OUR OBJECTIVE

**Significantly improve the safety performance of the vehicle fleet.**

The design and safety features of our vehicles matter. Safer vehicles not only help drivers avoid crashes, but also protect occupants and other road users when crashes do happen. A focus of this strategy will be on improving the safety of vehicles entering into New Zealand, ensuring that existing vehicles are as safe as they can be (including through retrofitting new technologies where appropriate), and building public demand for safer vehicles.





New Zealand has a high number of unsafe vehicles.

The safety of your vehicle matters. Safer vehicles not only help drivers avoid crashes, but also protect occupants and other road users when crashes do happen.

Vehicles with high safety performance and features such as airbags and seatbelts are designed to absorb the impacts of a crash and protect people from serious trauma.

Increasingly, they are also built with active safety features to reduce the chances of a crash occurring in the first place. These include features such as lane-keep assistance, collision warning systems and autonomous emergency braking. For motorcycles, anti-lock braking systems (ABS) are proven to reduce out-of-control crashes.

Rapid advances in technology mean vehicles are getting safer, and we have the data to support good consumer choices. Yet, many New Zealanders don't know about the role their car's safety plays in their chances of having or surviving a crash.

While most new vehicles coming into New Zealand have good safety features, not all do – and more expensive cars aren't necessarily safer either. We also import many used vehicles that vary greatly in their safety performance. Most of these vehicles will stay on our roads for well over a decade before they are finally scrapped. If we do nothing, it could take a long time for the rapid improvements in vehicle safety technologies to be available to most New Zealanders.

We have heard strong calls to increase the overall safety performance of the fleet. There is strong support for greater regulation by government in this space, supported by initiatives aimed at building greater consumer demand for safe vehicles. Key players in the vehicle sector (including insurers, manufacturers, and vehicle testing and inspection providers) have indicated their desire and willingness to help. Their support is critical for making significant gains in this area.

We need to improve the safety of the vehicles on our roads.

A focus for this strategy is on lifting minimum standards for vehicles coming into the fleet for both new and imported used vehicles. We will look for opportunities to adopt standards that improve both safety and emissions outcomes.

We will also need to support the uptake of proven safety technologies into our existing fleet. Not all technologies can be easily retrofitted, but some technologies, such as alcohol interlocks, can be.

We also know that some vehicle types (e.g. motorcycles and heavy vehicles) are overrepresented in death and serious injury numbers. Fitting these vehicle types with safety technologies (e.g. ABS in the case of motorcycles) can bring significant safety benefits. Further information on heavy vehicles can be found in *Focus Area 3: Work-related road safety*.

We will also need to investigate our warrant of fitness and certificate of fitness systems to ensure that the existing vehicles in New Zealand are as safe as they can be. In particular, our vehicle inspection regime must be fit to assess emerging safety technology, and we will need to look at ways we can incorporate new testing technology into the inspection process.

In the medium-to-long term, we need to work with the vehicle industry to accelerate the removal of less safe vehicles from the fleet. There are benefits for both safety and environmental outcomes if we can find effective, sustainable and equitable ways of increasing the number of unsafe vehicles that are permanently removed from the fleet.



A car with a **FIVE-STAR SAFETY RATING** or crashworthiness rating offers the **SAFEST LEVEL OF PROTECTION** for its occupants while a **ONE-STAR CAR OFFERS THE LEAST**.

Vehicles with a **ONE AND TWO STAR** crashworthiness rating make up **45% OF THE FLEET, BUT 66% OF DEATHS AND SERIOUS INJURIES** on our roads occur in these vehicles.

Young drivers are more likely to be driving less safe cars. **81% OF DEATHS AND SERIOUS INJURIES FOR YOUNG PEOPLE OCCUR IN ONE AND TWO STAR CARS.**





You're at least **90 PERCENT MORE LIKELY TO DIE** or be seriously injured in a crash **IN A ONE-STAR SAFETY-RATED CAR** than in a five-star safety-rated car.

1 IN 5 VEHICLES imported in 2016 had **A ONE OR TWO STAR SAFETY RATING**.

You're **21 TIMES MORE LIKELY OF BEING KILLED OR INJURED IN A ROAD CRASH ON A MOTORCYCLE** than in a car over the same distance.

Approximately **20 PERCENT OF DEATHS** on our roads every year **INVOLVE A HEAVY VEHICLE**.

We also need to build public demand for safer vehicles.

Many people are unaware of the role their car's safety would play in crash outcomes, and that the safety of different vehicles – both used and new – can vary greatly. If we want people to buy safer cars, they need reliable, understandable and accessible information about which cars to buy.

We can improve our fleet safety through building demand for safer vehicles. This includes building on existing initiatives, such as making the information on the RightCar website (which contains data on safety, fuel economy and vehicle emissions) more readily accessible. This can help people choose safer, cleaner and more economical cars.

We also need to ensure vehicle safety ratings are accurately applied and effectively communicated to consumers. This could start immediately by promoting two existing vehicle star-rating programmes that can help buyers to make informed decisions. The Australasian New Car Assessment Program (ANCAP) assigns star-ratings based on the vehicle's ability to protect the occupants and other road users in a crash and its ability to avoid a crash. The Used Car Safety Rating (UCSR) provides crashworthiness ratings based on how well vehicles perform in protecting occupants



and other road users in real world crashes. Taking every opportunity to promote and explain ANCAP and UCSR results so that they are easily understood by consumers is an important part of our work over the next 10 years.

As discussed in *Focus Area 3: Work-related road safety*, businesses and organisations will continue to have a significant role to play in generating demand for safer vehicles and improving the vehicle safety of the New Zealand fleet over time.

This will be supported by a responsive approach to new technologies.

New and emerging technologies are continuing to make our transport system safer.

While fully-autonomous and self-driving vehicles may play a role in our future, the greatest technological safety benefits during the term of this strategy are likely to come from the continued adoption of active safety features and driver-assistance technologies. The development of connected vehicle-to-road infrastructure technologies will also assist people – and eventually vehicles – to drive more safely, providing drivers with real-time information about road risks, speed limits, and road conditions.

However, we also need to anticipate some transitional challenges, including drivers finding it difficult to switch between vehicles with safety features they rely on [e.g. rear-view cameras and collision avoidance systems] and vehicles without these features.

New Zealanders' attitudes towards new transport technologies and services will affect the speed of any transitions. A growth of shared vehicle fleets could accelerate the modernisation of vehicles, but only if attitudes towards vehicle ownership also change. New technologies can also create both opportunities and barriers to people who find it difficult to travel due to disabilities, age or financial hardship.

Alongside the benefits, new and emerging technologies will require us to continue to adapt over the next 10 years and beyond. New standards will be required to ensure that different systems are compatible. Some of our existing infrastructure will need to be modernised, and data privacy and cyber-security issues will become increasingly important. Our policy and regulatory settings need to be responsive and ready to deal with technological change when it starts to happen.



FOCUS AREA 3

Work-related road safety

OUR OBJECTIVE



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

Businesses and organisations in every sector have a moral and legal responsibility to ensure that work-related road travel is safe for their staff and the public. They also have the expertise, resources, and influence to make a real difference to our road safety outcomes. About 25 percent of the deaths on our roads involve someone driving for work, whether as a commercial driver or as a secondary part of their main role. Ensuring that road safety is treated as a critical health and safety at work issue has the potential to significantly reduce this harm.



Research suggests that around **25 PERCENT OF ROAD FATALITIES INVOLVE A PERSON DRIVING FOR WORK** [Lilley, 2019].

This makes **ROAD CRASHES** by far the **SINGLE LARGEST CAUSE OF WORK-RELATED FATALITIES**.

BUSINESSES AND OTHER ORGANISATIONS HAVE BROAD OBLIGATIONS under the Health and Safety at Work Act 2015 to **ENSURE THE SAFETY AND HEALTH OF WORKERS** and others.

Commercial transport services also have specific obligations under the Land Transport Act 1998, such as **MAXIMUM WORKING TIMES**.

While **TRUCKS** are not involved in significantly more crashes per kilometre than other types of vehicles, these **CRASHES ARE FAR MORE LIKELY TO BE FATAL**, accounting for over **20 PERCENT OF ROAD DEATHS**.

Road safety is a critical health and safety at work issue.

Every day, thousands of people travel on our roads while at work. Some of these people are professional drivers, moving people and goods around the country. Others drive as a secondary part of their main role, such as a tradesperson moving between jobs, a salesperson visiting clients, and the many thousands of people working in agriculture and the emergency services. All of these people have the right to come home from work healthy and safe.

However, far too many workers are involved in crashes that result in deaths and serious injuries. Often it is other road users who are killed in these crashes, particularly if they crash with heavy vehicles.

Work-related road safety is a critical issue for the new strategy, not only because of the size of the problem, but also because there is a real opportunity for businesses across the supply chain and across many sectors to take steps to significantly improve the safety of their workers and the public on the road. Shifting driving culture at work may also flow on to personal driving choices.

Stakeholders have expressed concern that some businesses do not treat road safety as a critical health and safety risk, and that businesses in all sectors need better information about how to meet their obligations. Fatigue, distraction and vehicle safety have been seen as priority issues, as well as using chain of responsibility obligations to drive change. Stakeholders have also noted that factors such as long working hours can also impact on the safety of workers travelling to and from their workplace.

This issue is already a focus for several agencies and sectors. It is an important part of WorkSafe's developing focus on working in and around vehicles, as well as delivering on the Government's recently published *Health and Safety at Work Strategy 2018-2028*. Our actions to improve work-related road safety will contribute towards both strategies, and be delivered in partnership across agencies, together with businesses and other organisations to effectively drive change.

The whole supply chain needs to take ownership of road safety.

There is significant further scope for organisations to drive improvements in road safety – especially as safety risks can be impacted by factors such as incentives, work arrangements and scheduling. While some organisations are showing admirable leadership in improving road safety, others do not treat safety risks on the road the same way that they would treat similar risks on the worksite.

Businesses and other organisations have clear legal obligations for work-related road safety and need to take ownership of this issue. Organisations should identify the particular road safety risks that apply to their workers, and implement policies and requirements that are specifically aimed at addressing those risks.

This includes central and local government agencies, who employ or engage thousands of New Zealanders, many of whom drive for work. These agencies can play an important role in improving road safety outcomes for their workers and in setting a best practice example for other organisations.

Safety obligations extend to organisations across the supply chain, including those who purchase transport services. These organisations can help to drive change by setting clear safety standards for safety practices and technologies in their procurement practices and by maintaining appropriate oversight over the services they contract. Agencies will work together to ensure that obligations across the supply chain are clear and are enforced in an effective and coordinated way.

Purchasers of goods services have a critical role to play. Concerns have been raised that tight margins and business structures in the freight sector can cause drivers to make unsafe choices to meet deadlines and remain price competitive. We are seeing leadership on this issue from some major purchasers of goods services who are establishing clear minimum safety standards and effectively monitoring driver safety. Supporting the whole supply chain to take up this challenge is a key focus for our work.

We need a modern and responsive regulatory framework for commercial transport.

Business leadership needs to be accompanied by a regulatory framework that incentivises the right behaviours in commercial transport, applies obligations at the right level and is enforced in a responsive and risk-based manner.

We heard clear concerns from stakeholders about the adequacy of the regulatory framework under the Land Transport Act 1998 to address key safety issues such as fatigue. They also noted that regulation needs to prioritise the personal safety of both passengers and drivers on passenger services.

We also heard concerns about the effectiveness of our current approach to oversight and enforcement. Reference group members emphasised the need to strengthen the NZTA's regulatory activities and powers in relation to commercial transport services, and for it and WorkSafe to work effectively together to drive safety improvements across the sector.

Safer vehicles and new technologies can help to reduce risks.

Businesses purchase the vast majority of new vehicles that enter the New Zealand fleet, and typically sell them after three to five years. These vehicles will usually stay on New Zealand's roads for another 15 years before they are eventually scrapped. This means that lifting business demand for safer vehicles can improve not only the safety of those driving for work, but also lift the overall safety of New Zealand's fleet in the longer term.

Businesses will be important in leading the uptake of many of the emerging technologies discussed in *Focus Area 2: Vehicle safety*. These new safety features, such as active driver assistance systems, are particularly critical for our heavy vehicle fleet. Emerging technologies over the next decade will not only improve crash outcomes, but also help to avoid the chances of the crash occurring in the first place. In the longer term increasing levels of vehicle automation may help businesses manage the risks associated with freight movement.



Organisations also have the opportunity to install aftermarket technologies that can help them and their drivers to improve their safety on the road. For example, telematics devices and other in-cab technologies that record and transmit information about vehicle travel can enable businesses to better identify, manage and monitor key safety risks, such as speed, fatigue and hours travelled.

We need to improve our understanding of the size of the challenge.

To properly address the problem of work-related road safety, we need to clearly understand it. While we can piece together data from a range of sources to get an understanding of the total level of harm, we do not currently have the full picture of the key risks at play and harms that are occurring.

Improving this data will help us to better target our efforts on work-related road safety, giving us a better understanding of the causes of work-related crashes, the types of vehicles involved, and the industries and sectors that have the highest levels of harm. There are also opportunities to work with the private sector to better share and coordinate work-related road safety information.





FOCUS AREA 4

Road user choices

OUR OBJECTIVE



Encourage safer choices and safer behaviour on our roads.

We make choices on our roads and streets every day. We choose whether to speed up or slow down at a yellow light, whether to take the call or let it go to voicemail, whether to pull over or keep driving when we're feeling tired. When it comes to driving or riding, most people think that other people are the problem – but we all have a responsibility for making safe choices, and taking care of ourselves and other road users. Over the next 10 years, it will be critical that we continue to promote responsible behaviour and consideration of others on our roads and target deliberate violations if we are to achieve our vision.

Everyone has a responsibility to act with care and consideration on our roads.

Supporting good road user choices is fundamental to tackling road trauma. We need to build a safety culture where people not only accept but expect road safety interventions and enforcement.

While a safe road system requires us to plan for people's mistakes by investing in improving our road network, tackling unsafe speeds and lifting the safety of our vehicle fleet, there is also an ongoing task to positively influence people's behaviour and attitudes on our roads.

There is no doubt that if everyone followed the rules, stayed alert and sober, drove at safe travel speeds for the road, stayed off their phones, and wore a seatbelt, death and serious injuries on our roads would decrease.

Poor road user choices also impact on the lives and freedoms of vulnerable groups such as disabled people, elderly, and children. We heard from these groups that high travel speeds both on roads and by bikes and scooters on footpaths, and dangerous or aggressive driving and riding, can make them feel very unsafe and often choose to avoid travel, causing social isolation.

We know this is also important to New Zealanders. Throughout our conversations, we have heard that the safety and skill of road users is a major concern for communities across the country and there is a strong



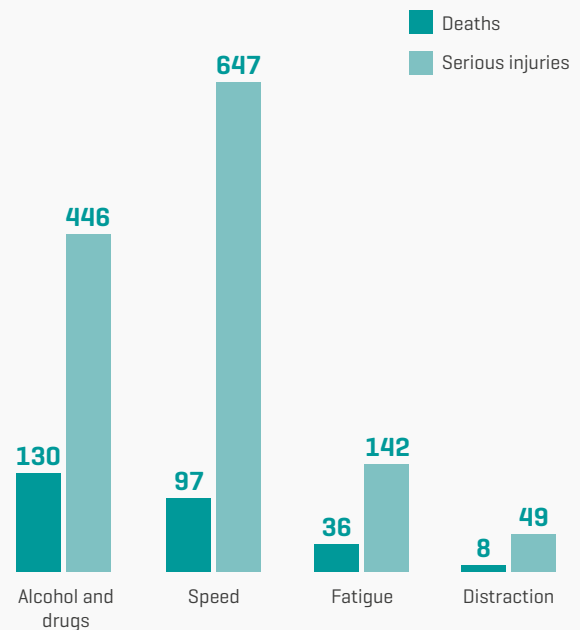
WEARING A SEATBELT DURING A CRASH DOUBLES YOUR CHANCES OF SURVIVING a serious crash. Yet, every year, over 80 people die in crashes not wearing a seatbelt.

A recent AA survey found **66 PERCENT** of surveyed members **CONSIDERED ROAD USER BEHAVIOUR THE MOST IMPORTANT AREA FOR SAFETY GAINS** over the next decade [AA, 2019]

DISTRACTION OF TWO SECONDS or more can significantly increase the likelihood of a crash.

ONLY 26 PERCENT OF DRIVERS THINK THEY ARE LIKELY TO BE CAUGHT DRUG DRIVING, compared to 60 percent for drink driving.

Contributing factors to deaths and serious injuries (2017)



desire that we continue to promote good, law-abiding driving, riding, scooting, and walking. As a community, it's important that we have a culture where the loss of life and injury is not accepted as inevitable, and we all take active steps to not get complacent or overconfident on our roads.

Poor choices continue to be a major factor contributing to deaths and serious injuries.

Driving (and motorcycle riding) are complicated tasks that require both knowledge and skill as well as dedicated, constant attention.

While most road users intend to follow the rules of the road, many of us will push the limits or make poor choices occasionally. It could be going too fast while turning at a busy intersection, or driving too close when passing a cyclist or school bus. Or it could be diverting attention – even for a second or two – to a phone or a passenger.

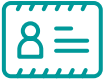
All of these actions – along with speeding [discussed in more detail in *Focus Area 1: Infrastructure improvements and speed management*], driving under the influence of drugs or alcohol, choosing not to wear seatbelts or use child restraints, driving while fatigued or driving while unlicensed or disqualified – are contributors to harm.

Impairment from alcohol and drugs remains a significant contributing factor to deaths on our roads. While drink driving rates have decreased since 2012, a significant number of New Zealanders are driving after

taking recreational or prescription drugs that can impair driving, with over 20 percent of road deaths involving a driver with drugs in their system. While the presence of these drugs in a driver's system does not necessarily indicate impairment, addressing this problem is an important part of improving the safety of our roads.

The effect of drugged driving can be escalated by alcohol, with both combined having far worse effects on driving ability than either substance alone. Our current system for identifying drug-impaired drivers, based on a roadside behavioural test, is effective but does not adequately deter drug driving. Roadside testing for drug driving is undertaken infrequently, and is time-consuming to administer.

We also know that there is a small cohort of high risk drivers that take part in deliberate, high-end and repeat offending and risk taking. These drivers make up a very small part of the population but are significantly overrepresented in fatal or serious injury crashes. High risk drivers include unlicensed and disqualified drivers, high-end alcohol and speeding offenders, repeat offenders, fleeing drivers, and drivers involved in illegal street racing. Many of these drivers do not respond well to traditional enforcement measures and deterrence-based initiatives.



Between 2013 and 2017, **YOUNG DRIVERS (15-19 YEAR OLDS) WHO HAVE NEVER HELD A DRIVER LICENCE** were involved in **150 FATAL OR SERIOUS INJURY CRASHES.**

We need to shift public attitudes, behaviour and understanding of road safety.

In 2018, the Government increased funding for road safety education and promotion through the National Land Transport Fund. Our road safety advertising is currently focused on speed, impaired driving, vehicle safety, cycling and keeping left.

Over the next 10 years, we will continue to advance our advertising and education programmes to shift public attitudes for the type of changes we need to see, and encourage more empathetic and considerate behaviour on our roads. These initiatives are aimed at helping the community understand and support the need for infrastructure improvements, speed management and other road safety initiatives.

We will continue to ensure that our driver licensing system and training programmes equip drivers and motorcycle riders with the skills required to be safe, alert and compliant. We also need to reduce the number of people on our roads who are driving without a licence.

Driver training and education is also an important part of promoting the safety of drivers on our roads. We will increase access to and expand on skills training initiatives, such as BikeReady for cyclists, Ride Forever for motorcyclists, and Drive for young learner drivers.

Research shows that overseas drivers crash at about the same rate as the general population, but it is important that we continue to raise awareness about our road rules and conditions with our visitors to support their safety and that of other road users. Programmes such as the Visiting Drivers Project aim to provide overseas drivers with the information they need about New Zealand's roads and road rules to help them travel safely while they visit our country.

These initiatives will be supported by ongoing efforts to make it easier for people to behave safely on our roads, including through clear road design and a new approach to safety cameras (as set out in *Focus Area 1: Infrastructure improvements and speed management*).

In April 2019, the Prime Minister announced a new initiative that will **COVER THE COSTS OF PROFESSIONAL DRIVING LESSONS FOR YOUNG PEOPLE ON YOUTH BENEFITS.** Helping this group of drivers through the restricted driver licensing process can help **INSTIL SAFE DRIVING HABITS, MAKE THE ROADS SAFER FOR EVERYONE AND REDUCE HARM ON OUR ROADS.**

As discussed in *Focus Area 2: Vehicle safety*, we will also encourage the uptake of emerging in-vehicle technologies which can simplify the driving task and reduce driver error.

We also need to ensure that we deliver effective enforcement targeted towards risk.

Enforcement and Police presence will continue to be an important part of improving road safety, in particular where additional deterrence for deliberate high risk behaviours is needed. Over the last year, NZ Police has focussed on targeting its road enforcement and prevention activities to risk. In the immediate term, they will focus on the behaviours we know cause the most harm: impaired driving from alcohol, drugs and fatigue, speed, distracted driving (especially from mobile phone use) and not wearing seatbelts or using a child restraint.

Over the life of this strategy, we will take a systems approach that looks at how we mobilise infrastructure improvements, safety cameras and Police enforcement to achieve positive safety outcomes across the highest risk parts of the network.

We heard a strong desire from our stakeholders for enhanced enforcement. We also want road users to understand and support the use of enforcement, and better appreciate the role it plays in keeping people safe. We know that many of our current financial penalties and remedies are often inconsistent with each other and do not provide the desired deterrence effect. We need to impose effective penalties that reflect the relative seriousness of the road safety risk created by the offending behaviour.

Our approach also needs to address the underlying issues which lead to some people's offending, rather than responding solely to the behaviour itself. This will include a new approach to dealing with the highest risk drivers, providing for alternative resolutions to convictions and supporting locally-led prevention programmes to reduce recidivist high risk behaviours in a fair and equitable way.

A SNAPSHOT OF DIFFERENT ROAD USERS

Māori

Young drivers

Young road users

Older people

Disabled people

High risk drivers

Pedestrians

Cyclists

Motorcyclists

Māori

We currently have incomplete data on road safety outcomes for Māori. The limited evidence we do have suggests that Māori are at greater risk when travelling on our roads than the rest of the population, at all ages. For example, we know that Māori make up about 15 percent of the population, but some data suggests about 31 percent of people killed and 30 percent of people seriously injured in road crashes in 2018, where ethnicity was known, were Māori.

A key component of this strategy is working together to understand and reduce this trauma so that Māori can arrive safely on their journeys across Aotearoa. Increasing our understanding of the contributing factors is an immediate action in this space. Access to driver licensing opportunities was also a specific focus for Māori in our engagement to date. Finding ways to help Māori obtain and retain their driver's licence so that they can access social and economic opportunities without incurring fines or ongoing interaction with the justice system will be an important part of our work programme with our partners.

There is much to be done to build the relationships and insights, and to co-design research and responses with Māori so that we improve road safety outcomes for Māori in New Zealand. This will be a priority action within the system management focus area, to travel together to create more equitable outcomes for Māori.

Young drivers

Over the past 10 years, around 7,000 young people aged 16-24 were killed or seriously injured on our roads.

Young drivers aged between 16 and 24 are much more at risk of being involved in fatal or serious injury crashes. In 2017, 16-24 year-old drivers made up 13 percent of licensed drivers, but were responsible for 30 percent of serious injury crashes and 26 percent of fatal crashes.

Young drivers are often less familiar with the driving task, more likely to take risks, and tend to drive in higher-risk situations (e.g. at night and with peer passengers). They are also more likely to drive while affected by alcohol and drugs, and are more likely to have speed as a contributing factor in a fatal crash than drivers over the age of 25. Young drivers are also more likely to drive and travel in vehicles with lower safety ratings, placing them at greater risk of serious harm if they do crash.

Overseas experience shows that to improve safety for young drivers, we need to expand our focus beyond trying to create the perfect teenager or young adult to a broader package of safety improvements to both promote good choices to reduce the incidence of crashes, and to prevent serious injury when crashes do happen.

Young road users

Over the past 10 years, 145 children under the age of 15 were killed in road crashes and more than 4,600 more were hospitalised following a road crash. New Zealand has one of the highest rates of road crash deaths for children aged 0-14 year olds in the developed world.

Road safety also impacts whether young people and their parents/caregivers feel enabled to use active modes of transport, such as walking or biking to school. This is a key reason why safe speeds around schools and other urban areas with high volumes of vulnerable users are so important.

Older people

Older New Zealanders have a higher level of road trauma than other age groups, except for young people. Between 2008-2017, nearly 1,400 people 75 or over were killed or seriously injured while travelling on our roads, streets and footpaths. They included drivers, passengers, pedestrians, motorcycle riders and passengers, and cyclists.

New Zealand has an aging population and a growing proportion of older age groups using the road network. It is projected that by 2034, about one in five New Zealanders will be aged 65 plus.

Older adults often travel in different ways to younger people. They tend to drive more slowly, less often, and in less risky situations, and they are involved in fewer vehicle crashes but the crashes are often more severe due to their fragility. They are also more vulnerable as pedestrians.

Ceasing or reducing driving in older age can lead to social isolation. Older people undertake a greater proportion of their overall travel by walking, so it is important to ensure our roads and roadsides are safe for everyone, including those with balance challenges, or visual or cognitive decline.

Improving the safety of our footpaths, raising the safety of our vehicle fleet, and other safety interventions will all help to improve the safety of elderly road users.

Disabled people

One in four New Zealanders are limited by a physical, sensory, learning, mental health or other impairment. For people with a disability, as with other vulnerable groups, those who feel unsafe to travel on the roads may choose not to travel, leaving them isolated and unable to access essential services.

Personal mobility is recognised as a right under the United Nations Convention of the Rights of Persons with Disabilities.

We currently have a road network that has been designed for able-bodied people. A lack of safe and accessible transport options, poor road infrastructure design, and unsafe use of footpaths and shared paths by other road users can be major barriers for disabled people in the road transport system.

High risk drivers

A small group of drivers are at higher risk of being involved in a serious crash, and more likely to be at fault, because of the choices they make. High risk drivers, defined as dangerous and reckless drivers, disqualified drivers, unlicensed drivers, speeders, repeat drink/drug drivers, and very drunk drivers, are low in number but contribute disproportionately to road trauma and expose other drivers to high-crash risk.

Every year, around 67,000 people are disqualified from driving, and about 8700 a year are prosecuted for driving while disqualified. Between 2008 and 2017, 113 people were killed in crashes involving disqualified drivers. 27 percent of drink-drive offenders are repeat offenders.

Targeted enforcement and road safety marketing are the most effective measures to reduce high risk behaviours. Technology can also play a role, such as mandatory alcohol interlocks or intelligent speed adaption.

Pedestrians

Walking is the second safest mode after buses per hour spent travelling. In the last 10 years pedestrians were involved in about 22 percent of serious casualty crashes on urban roads, and around 11 percent nationally. In the 10 years to 2017, 325 pedestrians were killed and 2,434 were seriously injured in road crashes. 80 wheelchair and mobility scooter users were killed or seriously injured in that time.

Pedestrians, mobility impaired, and wheeled pedestrians are highly vulnerable because they lack the protection afforded by vehicles. Pedestrian crashes can happen to people of any age or gender with people under 25 and the older age groups particularly at risk.

We know there are significant benefits to individuals and communities in encouraging more walking and other active modes. Improving safety and the feeling of safety will become ever more important as this type of travel increases. Safer speeds and more walking and cycling friendly streets and neighbourhoods are a key to achieving this.

Cyclists

Between 2008 and 2017, 92 cyclists were killed and over 1,700 seriously injured in road crashes on New Zealand roads.

Like walking, cycling can deliver significant benefits to our communities. Cycling in our urban centres is growing in popularity, and with the increasing uptake in e-bikes, many cyclists are travelling faster than before.

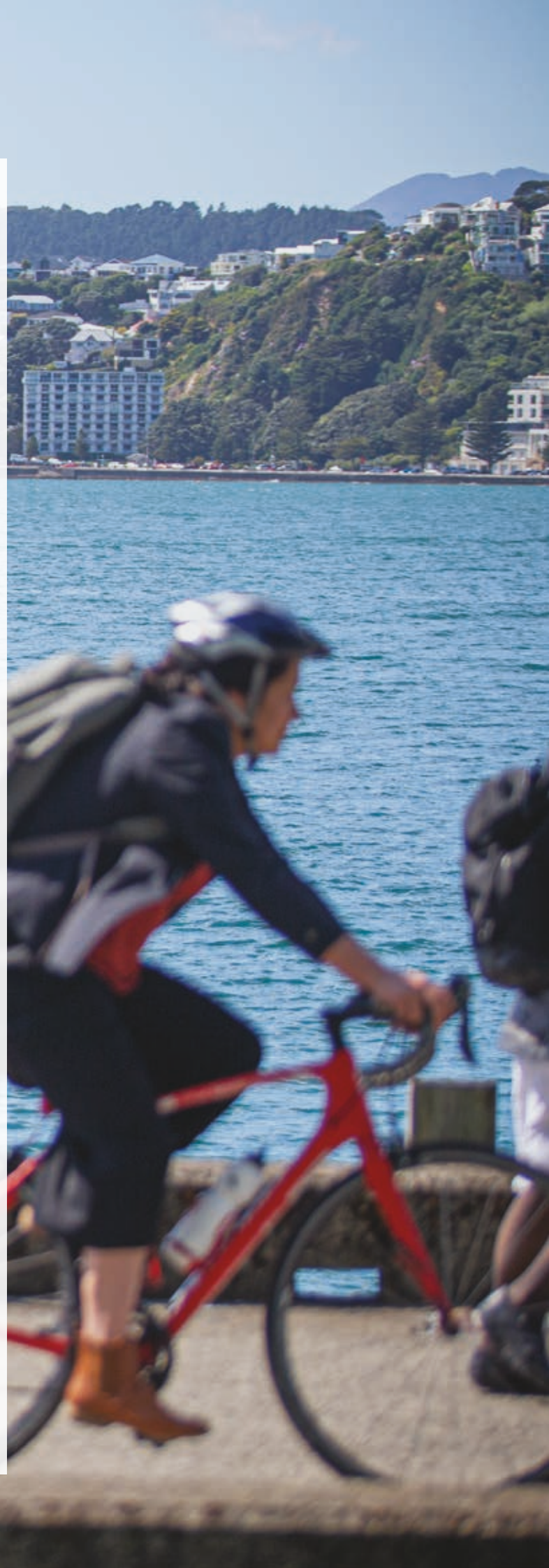
The most effective ways to improve bicycle safety are by creating lower speeds in areas where there are many cyclists, or by providing separation between vehicles and cyclists. Many regions are considering the best ways to create safe bicycle networks to ensure athletes, work commuters, families, and children on their way to school can all travel safely.

Motorcyclists

Motorcycling is a high risk mode of travel, with motorcyclists being 21 times more likely to be killed or seriously injured in road crashes than those travelling the same distance in a car.

85 percent of all injured motorcyclists, and 93 percent of motorcyclist deaths, are males. The increasing popularity of motorcycling, especially in older males, has been linked to the increase in road trauma in recent years, and reversing this trend is critical to this strategy.

Increased enforcement, supporting improved rider skills, improved standards for road design and maintenance on high risk roads, and personal protective equipment, as well as mandating anti-lock braking systems (ABS), are all interventions that can make a difference in motorcycle safety.



FOCUS AREA 5

System management

OUR OBJECTIVE



Develop a management system that reflects international best practice.

Road safety belongs to all of us. Everyone who uses, designs, manages and maintains our roads, streets and footpaths has an important role to play. Leadership, coordination, engagement, and accountability will therefore be critical if we are to achieve our road safety ambitions.





“Where leaders effectively communicate the vision that road traffic does not need to be deadly, their contribution can be critical in creating a sense that road safety must improve and that a Safe System is the way to go.”

[International Transport Forum, 2016]

We need to work together to deliver this strategy.

Road safety belongs to everyone. This strategy’s success will require visionary leadership, strong partnerships, sound governance, and communities working together. We need to build strong relationships across the network so that we can share information and implement collaborative approaches.

An effective road safety strategy requires effective system management. The road safety system is complex – involving many agencies at both national and local level. It is vital to embed Safe System thinking across all those working in road safety, and to ensure accountability and alignment of relevant decision-making and investment processes.

We also know that change is often most effective and long lasting when it is driven by communities and grounded in their deep understanding of the needs in their area. Our conversations have stressed the importance of ensuring communities are empowered to address local road safety priorities.

Effective leadership and coordination is critical for a well-functioning system.

International studies highlight the importance of leadership and inter-agency coordination in the delivery of an effective road safety strategy. Countries that have made meaningful improvements to road safety have had leaders that have effectively made the case for change, and commitment to bringing communities with them.

In conversations and through submissions, stakeholders have also been clear that delivering on our vision will require strong leadership and commitment from all levels. We need to ensure that everyone working in road safety shares our vision and has the confidence to make change happen. This

includes strengthening governance arrangements in central and local government and ensuring these are supported by the appropriate resource to drive the changes we want to see.

Strong leadership, however, must be accompanied by coordination and collaboration across the sector. Research carried out in New Zealand, along with feedback received from stakeholders, tells us that there is room for improvement.

Local government has a critical role to play, both because it owns and maintains 88 percent of New Zealand’s roading network but also as an advocate for road safety in local communities. Stronger central and local government partnerships can help support local government leadership and promote effective coordination within and between regions. This should include sharing knowledge and best practice through forums such as Regional Transport Committees and the Road Controlling Authorities Forum.

Delivering on the Government’s obligation to work in partnership with Māori will require a stronger focus on Māori engagement, not only on the initial actions, but also throughout the life of the strategy. The initial priority is to strengthen our mechanisms for engaging and collaborating with Māori on road safety, in order to better understand and respond to the particular road safety challenges facing Māori communities.





We need to build public understanding and support for action.

We know that people care about road safety, and yet proven safety interventions can sometimes meet community resistance. Actions to increase public understanding of how to reduce road risk will need investment and coordination. Without public and political support at all levels, it will be difficult to embed changes required to achieve our road safety goals.

Shared responsibility for road safety starts with building collective understanding. We need to develop a greater level of awareness of the complexity of the problem and solutions to road safety to bring about a shift in thinking. Our strategic vision and objectives also now need to be explained clearly to the community to encourage public discussion and understanding.

The ongoing development and sharing of road safety evidence is important.

Decision makers need access to sound data and a strong evidence base about what works if they are to take action with confidence. It is vital that we collect accurate and carefully targeted data and monitor new developments, particularly in the context of rapid social and technological change.

Regional road safety stakeholders have been clear that they face real challenges in collecting and understanding road safety data and trends. We need to provide agencies, local government and road safety groups with better information, intelligence and tools, and support capacity- and capability-building across the sector, to help them understand, communicate and respond to their road safety issues.

We will embed monitoring and evaluation of our road safety actions.

We will continue our work on an intervention model that will enable us to model and analyse the effectiveness of particular interventions with greater accuracy. Data provided by the intervention model will underpin future action plans.

A new results management framework will support effective monitoring and evaluation by highlighting critical intermediate outcome and output measures (discussed in more detail in *Part Six: Measuring Success*). Regular public monitoring and reporting of performance indicators will help us evaluate which programmes are working and where changes may be required. It will also help hold responsible agencies accountable to delivering on outcomes. It is also important that we closely monitor the trends and lessons from serious crashes and that this informs our approach at both a national and local level.



A recent report found that improved **POST-CRASH CARE COULD HAVE AFFECTED 11 PERCENT OF FATAL CRASHES** sampled [Opus Research, 2018].

Most of these relate to crashes that occurred in rural areas. **IN SOME CASES THERE WAS NO ONE ABLE TO CALL 111** and in others it was difficult for emergency services to access the crash site.

Improving how we work together to respond to crashes will save lives.

The way we respond to crashes can affect whether people are killed or left with life-changing injuries. A focus of the new strategy will be to ensure that post-crash response is recognised as an important part of the road safety system.

Good post-crash response requires action in a number of systems, including communications and health, to ensure that crashes are reported to emergency services as soon as possible, assistance arrives quickly and injured people receive the highest standards of care, both at the crash site and afterwards.

Initial research and engagement suggests that while many parts of the system are working well, we can make it more effective in a number of areas.

In particular, we have heard that there is scope to improve our crash notification systems, the way that emergency services gain access to crash sites, and the consistency of care that injured people receive. Improvements in these areas depend on decision makers across relevant agencies sharing their learning and coordinating effectively. Improved data collection and information sharing will also strengthen our understanding of the impacts of road safety on our emergency services and health systems, and improve responsiveness and capability.



06

MEASURING SUCCESS

Regular monitoring and reporting is critical to keep us on track towards our 2030 target.

The overarching goal of *Road to Zero* is to reduce the number of deaths and serious injuries (DSI) by 40 percent by 2030. Achieving our 2030 target will require significant and sustained commitment by government and government agencies at all levels to implement the actions outlined in this strategy. It also requires the support of businesses, organisations and community groups that play an important role in promoting road safety and influencing the way the road system functions. An outcomes framework with a clear results focus can help drive action and hold relevant agencies accountable for the delivery of the strategy.

The Road to Zero outcomes framework and the reporting mechanism will be reviewed regularly to ensure that they are fit for purpose, and provide transparency on the progress of the strategy. The outcomes framework will also be complemented by several of other reporting mechanisms. This includes formal reporting requirements by key government agencies in delivering the Government Policy Statement (GPS) on land transport, the Road Safety Partnership Programme, and specific programmes and interventions such as the Safe Network Programme. Evaluations of specific programmes, interventions and policies will also be considered and prioritised to provide additional insights



Our outcomes framework sets out indicators to help us measure progress.

To help us track progress towards our goal, this framework sets out intervention indicators, safety performance indicators, and outcome indicators against each of the five focus areas. This will enable 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.

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.

Importantly, we will also track a range of **outcome indicators** that 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.

Some of the indicators are not currently monitored. Identifying the appropriate mechanisms to fill the data gaps is therefore our first priority.



Intervention indicators measure progress of specific action plan initiatives.

These will be published in each action plan and will be updated in each action plan to ensure that they stay relevant.

e.g. percentage of the general public are exposed to advertising and/or resources on vehicle safety ratings

Safety performance indicators are what we seek to improve through successful delivery of programmes in each focus area.

The safety performance indicators are enduring and will be monitored throughout the duration of the strategy.

e.g. percentage of the vehicle fleet with a high safety rating

Outcome indicators that relate closely to the overarching 40% DSI reduction target for 2030.

Outcome indicators are enduring and will be monitored throughout the duration of the strategy.

e.g. number of DSI crashes involving a vehicle with a low safety rating

Outcomes framework

| FOCUS AREA | ① INFRASTRUCTURE AND SPEED | ② VEHICLE SAFETY |
|--|--|---|
| SUCCESS LOOKS LIKE | Roads and roadsides protect road users if they make a mistake. Road users travel at speeds that are safe for the road environment. | Safe vehicles help drivers and riders avoid crashes, and protect occupants and other road users when crashes do happen. |
| PROGRAMME DELIVERY | | |
| <p>▽</p> <p>SYSTEM PERFORMANCE</p> | <ul style="list-style-type: none"> ▶ Percentage of VKT on roads with speed limit above 80km/h that have a median barrier ▶ Percentage of VKT on rural network that have a 3-star equivalent rating or better ▶ Percentage of high risk intersections treated to operate within Safe System limits ▶ Network kilometres of roads adapted for safe pedestrian and cyclist use ▶ Network kilometres of roads with motorcycling safety treatment ▶ Perceived safety of walking and cycling (by rural, urban, urban centres, & around schools) ▶ Percentage of road network where speed limits align with Safe and Appropriate Speed ▶ Percentage of road network where speed limits align with Safe System ▶ Percentage of traffic travelling within speed limits (by rural, urban and urban centres) ▶ Mean speed of vehicles (by rural, urban and urban centres) ▶ Percentage of the general public who understand the risk associated with driving speed ▶ Percentage of the general public who agree that they are likely to get caught when driving over the posted speed limit ▶ Percentage of road network covered by automated safety cameras ▶ Percentage of the general public who agree that safety cameras are an important intervention to reduce the number of road deaths | <ul style="list-style-type: none"> ▶ Percentage of the vehicle fleet with a high safety rating ▶ Percentage of the general public understand vehicle safety information ▶ Percentage of the general public who agree that it is important to have a vehicle that has a high safety rating ▶ Percentage of motorcycles over 125 cc fitted with ABS |
| <p>▽</p> <p>SAFETY OUTCOMES</p> | <ul style="list-style-type: none"> ▶ Number of head-on and run-off-road DSI crashes ▶ Number of intersection DSI crashes ▶ Number of DSI crashes with speed being a contributing factor ▶ Number of DSI crashes where the speed limit does not align with the Safe System ▶ Number of DSI crashes involving a vulnerable road user ▶ Number of ACC entitlement claims related to walking and cycling injuries | <ul style="list-style-type: none"> ▶ Number of DSI crashes involving a vehicle with a low safety rating ▶ Number of DSI crashes involving motorcycling ▶ Number of ACC entitlement claims related to motorcycling injuries |
| <p>▽</p> <p>40 PERCENT REDUCTION IN DEATHS AND SERIOUS INJURIES BY 2030</p> | | |



3 WORK-RELATED ROAD SAFETY

Road safety is treated as a critical health and safety at work issue.

- ▶ Number of organisations with health and safety plans in place that recognise road safety as a critical health and safety issue
- ▶ Percentage of sector satisfied with their access to relevant data on road safety work-related travel

- ▶ Number of DSI crashes involving a person travelling to/from work
- ▶ Number of DSI crashes involving a person travelling as part of work
- ▶ Number of DSI crashes involving a heavy vehicle
- ▶ Number of DSI crashes at roadworks sites
- ▶ Number of DSI crashes with fatigue being a contributing factor
- ▶ Percentage of work-related fatalities and serious injuries involving motor vehicles

4 ROAD USER CHOICES

Road users comply with road rules and are enabled to make safe choices.

- ▶ Percentage of drivers impaired by alcohol
- ▶ Percentage of drivers impaired by drugs
- ▶ Percentage of drivers using handheld cellphones while driving
- ▶ Percentage of car occupants using a seatbelt or child restraint
- ▶ Percentage of the general public who agree that they are likely to get caught for undertaking risky behaviours
- ▶ Involvement in a motorcycling crash following participation in an approved motorcycling training course
- ▶ Number of driver licences issued per licence type
- ▶ Proportion of learner drivers who have progressed to restricted
- ▶ Proportion of restricted drivers who have progressed to full

- ▶ Number of DSI crashes involving alcohol and/or drugs
- ▶ Number of DSI crashes with fatigue being a contributing factor
- ▶ Number of DSI crashes with distraction being a contributing factor
- ▶ Number of vehicle occupant deaths where restraints were not worn
- ▶ Number of DSI crashes involving motorcycling
- ▶ Number of unlicensed or disqualified drivers involved in a DSI crash
- ▶ Number of "novice" drivers involved in a DSI crash

5 SYSTEM MANAGEMENT

System designers and policy makers share the responsibility to ensure New Zealand has a safe road system.

- ▶ Percentage of the general public who understand and support the Vision Zero approach
- ▶ Percentage of the general public who show acceptance of road safety interventions
- ▶ Percentage of people who have completed an approved Safe System training course showed improved understanding of the Safe System
- ▶ Percentage of road infrastructure projects that have been subject to a Road Safety Audit and/or Safe System Assessment
- ▶ Percentage of indicators that can be measured, tracked and reported annually

- ▶ Percentage of sector satisfied with their access to information relevant to road safety decision making
- ▶ Percentage of local government satisfied with support they received from central government transport agencies

References

- AA.** [2019].
Road Safety Actions. NZ Automobile Association.
- Cerema.** [2019].
Lowering the speed limit to 80km/h: Assessment – Initial conclusions. Cerema.
- International Transport Forum.** [2016].
Zero Road Deaths and Serious Injuries: Leading a Paradigm Shift to a Safe System. OECD. Retrieved from https://www.oecd-ilibrary.org/transport/zero-road-deaths-and-serious-injuries_9789282108055-en
- IPRU.** [2012].
Factsheet 42 – Causes of injury by age. Injury Prevention Research Unit. University of Otago. Retrieved from <https://psm-dm.otago.ac.nz/ipru/FactSheets/FactSheet42.pdf>
- IRTAD.** [2018].
Road Safety Annual Report 2018. OECD. Retrieved from: https://www.itf-oecd.org/sites/default/files/docs/irtad-road-safety-annual-report-2018_2.pdf
- IRTAD.** [2018].
Speed and Crash Risk. OECD. Retrieved from <https://www.itf-oecd.org/sites/default/files/docs/speed-crash-risk.pdf>
- Johansson, R.** [2009].
Vision Zero – Implementing a policy for traffic safety. *Safety Science*, 47(6), 826–831. doi:10.1016/j.ssci.2008.10.023
- Lilley, R.** [2019].
Factsheet 44 – Work Related Fatal Injury Study – 3: Work-related Road Traffic Fatalities 1999–2014. Injury Prevention Research Unit. University of Otago. Retrieved from <https://psm-dm.otago.ac.nz/ipru/FactSheets/FactSheet44.pdf>
- Major Trauma Network.** [2018].
NZ Major Trauma Registry & National Clinical Network: Annual Report 2017–18. Major Trauma National Clinical Network. Retrieved from <https://docs.wixstatic.com/ugd/bbebfbd937ac9d7beb4429bcdad42f07be884f.pdf>
- Ministry of Transport.** [2018].
Annual Crash Statistics 2018. Ministry of Transport. Retrieved from <https://www.transport.govt.nz/mot-resources/new-road-safety-resources/annual-crash-statistics/>
- Ministry of Transport.** [2019].
Social cost of road crashes and injuries 2018 update. Ministry of Transport. Retrieved from <https://www.transport.govt.nz/assets/Import/Uploads/Research/Documents/b67f729bf5/Social-cost-of-road-crashes-and-injuries-2018-update.pdf>
- NZTA.** [2013].
The Economic Evaluation Manual. NZ Transport Agency. Retrieved from <https://www.nzta.govt.nz/resources/economic-evaluation-manual>
- Opus Research.** [2018].
Post-impact care: How can New Zealand address the fifth pillar of road safety? New Zealand Transport Agency. Retrieved from <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>
- Rowland, T., & McLeod, D.** [2017].
Travel time savings and speed: action and perceived. *Malatest International*. NZ Transport Agency. Retrieved from <https://www.nzta.govt.nz/assets/resources/568/RR-568-Travel-time-savings-and-speed-actual-and-perceived.pdf>
- TRA.** [2018].
Urban New Zealanders attitudes and perceptions of cycling and walking 2018. New Zealand Transport Agency. Retrieved from <https://www.nzta.govt.nz/assets/Walking-Cycling-and-Public-Transport/docs/NZTA-Attitudes-to-cycling-and-walking-final-report-2018.pdf>



New Zealand Government

www.transport.govt.nz/zero

ISBN 978-0-478-10046-4 [PDF]
ISBN 978-0-478-10029-7 [Print]