

road safety issues

The Land Transport Safety Authority (LTSA) has prepared this road safety issues report. It is based on reported crash data and trends for the 1999–2003 period. The intent of the report is to highlight key road safety issues in the Northland Region.

The social cost of crashes in the Northland Region is significant. In 2003 the cost reached \$221.8 million or \$4.27 million per week. The Far North District incurred 44 percent of the cost, Whangarei District 41 percent, and Kaipara District 15 percent. Crashes on the state highway network accounted for 56 percent of the cost and the remaining 44 percent was on local road networks within the three district councils.

When compared with the average over the previous four years, the number of crashes involving minor injury increased by 111 percent in 2003 and the number of non-injury crashes increased by 30 percent. The significant change is likely to have resulted from improved crash reporting rates by the Police over the past year. This is confirmed by the reduction in the number of reported fatal and serious injury crashes in 2003.

Between 1999 and 2003, the main crash type involved drivers losing control on curves. Contributing factors to these crashes were alcohol, travelling too fast for the conditions and road conditions. Car drivers were the main casualty group followed by car passengers and pedestrians. Males were more commonly injured in crashes and females made up 41 percent of casualties. Crashes occurred most often on Fridays, and December and April were the peak months for crashes in the Northland Region.

Major road safety issues



Northland Region


- Loss of control on curves
- Alcohol
- Road and environmental factors
- Passenger casualties

Nationally

- Speed
- Alcohol
- Failure to give way
- Restraints

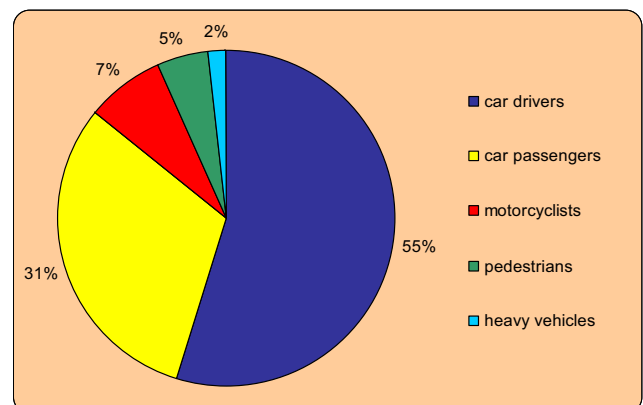
2003 road trauma for Northland Region

	Deaths	33
	Serious casualties	115
	Minor casualties	574

	Fatal crashes	31
	Serious injury crashes	86
	Minor injury crashes	378
	Non-injury crashes	1,045

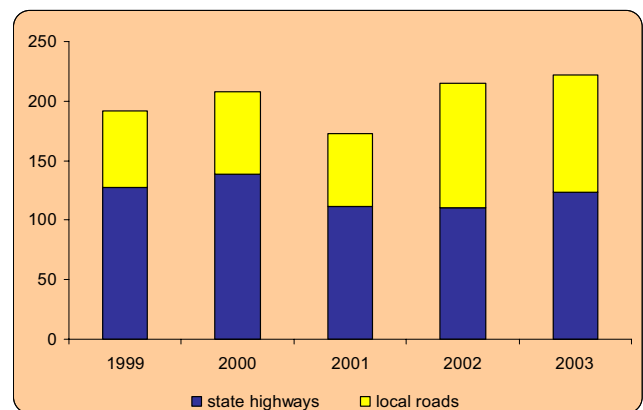
Road deaths 1999–2003

User type 1999–2003



Estimated social cost of crashes*

Social cost (\$ million)



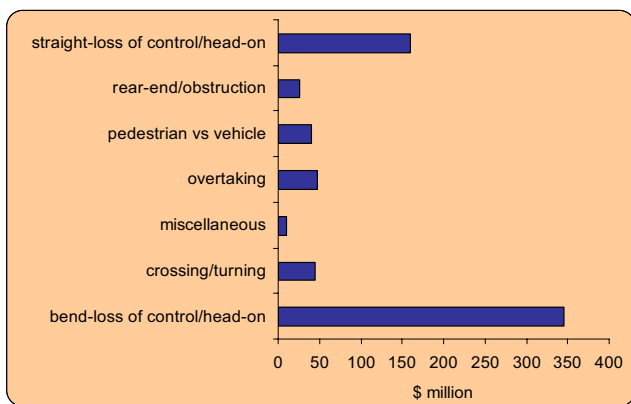
*The estimated social cost includes loss of life or life quality (estimated by the amount New Zealanders are prepared to pay to reduce their risk of fatal or non-fatal injury), loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage. These costs are expressed at June 2002 prices.

Loss of control on curves

Loss of control on curves is an ongoing problem on Northland Region roads and is the most common crash type in the region, making up 47 percent of all crashes or about 158 crashes causing death or injury each year.

Loss of control on curve crashes were over-represented on rural roads, accounting for 57 percent of all open road crashes. They were also the most common urban crash type, unlike other regions where urban crashes were dominated by collisions at intersections.

Costs by crash type



Crashes such as loss of control types have three components:

- what happens before a crash that results in its occurrence
- what happens during the crash that contributes to how severe it is and how severe the injuries are
- what happens after the crash that can minimise the harm caused or prevent a future event.

What happens before a loss of control on a curve crash can be affected by driver factors, environmental factors and vehicle factors. Common driver factors in the Northland Region include alcohol and driving too fast for the conditions. Driver inattention and distraction is also common. Drivers aged between 16 and 22 years are common contributors to loss of control crashes in the Northland Region along with drivers aged in their early 30s.

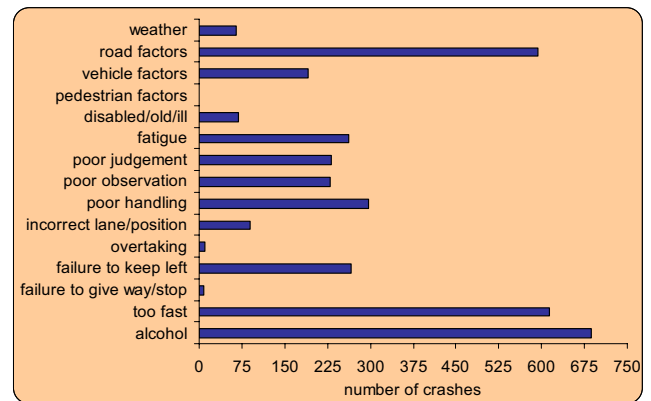
Common road environmental factors include wet and/or slippery surface, poor delineation or lighting and lack of shoulder for recovery space. The most common time of day for these crashes was between midday and 7 pm with Sunday being a common day for their occurrence.

Vehicle factors include worn tyres, uneven tyre pressure, punctures or blowouts, and steering or suspension faults, but most of these crashes are attributable to tyres with worn or no tread.

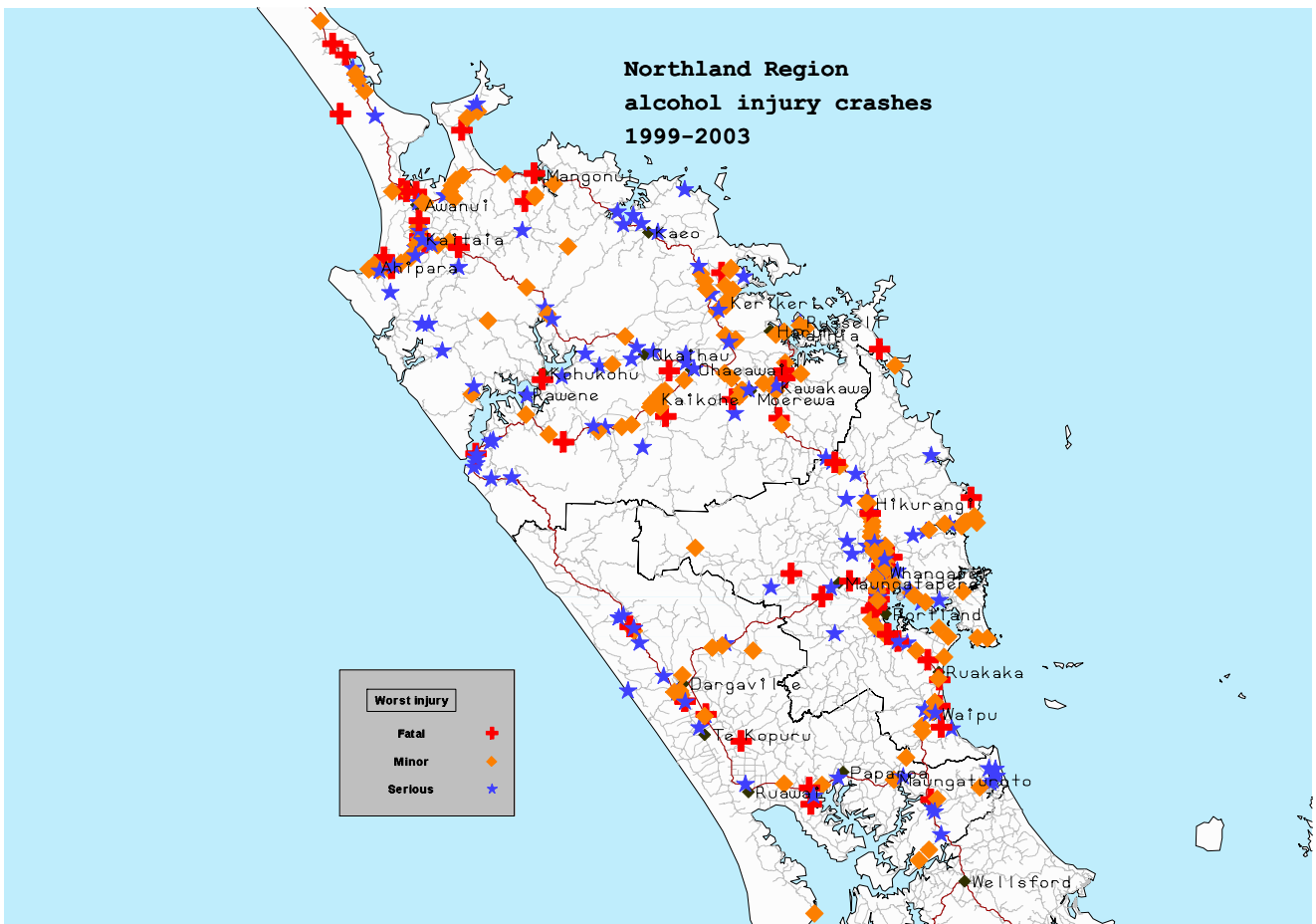
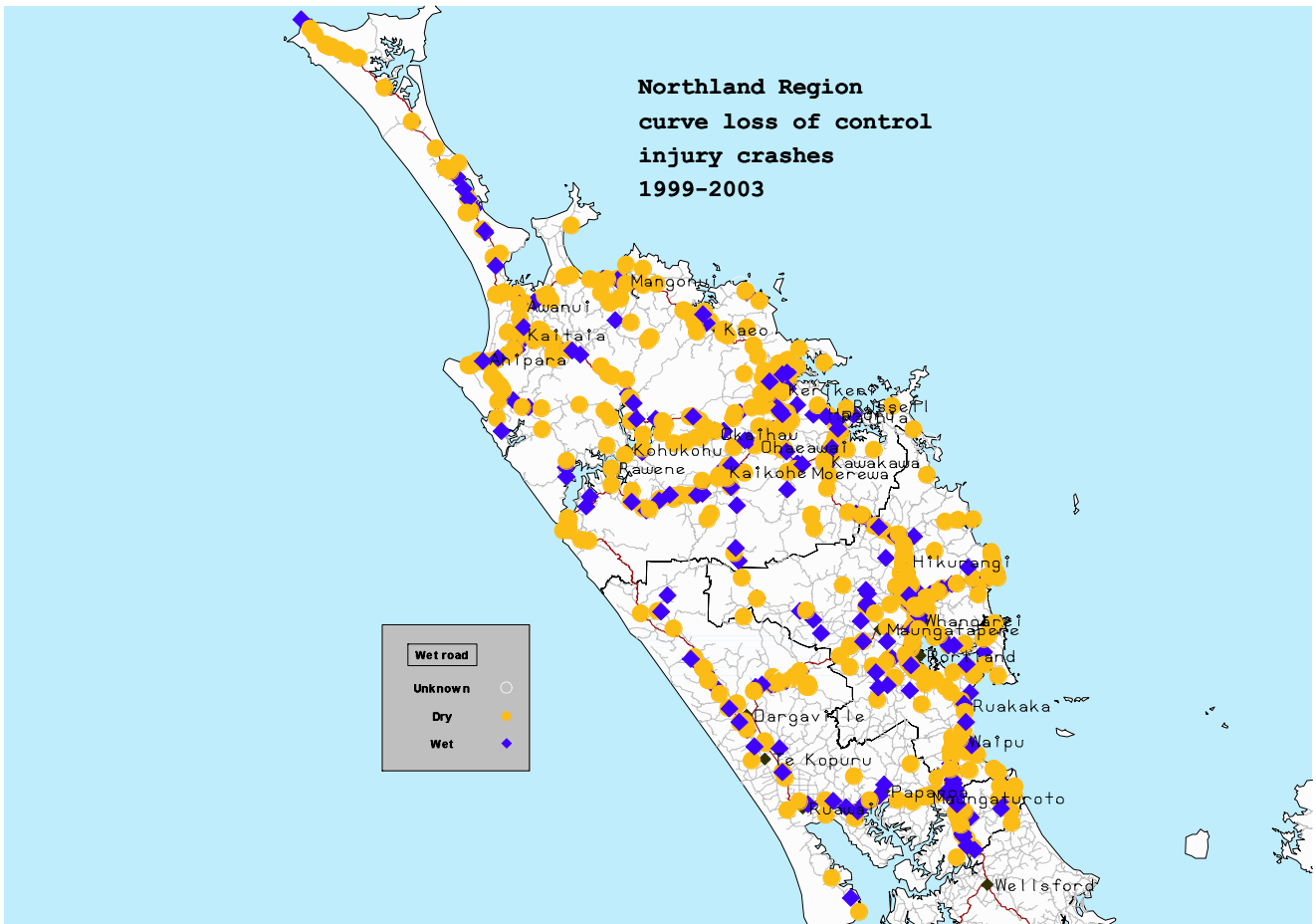
What happens during a crash can include driver factors such as whether the driver is wearing a safety belt and how well the driver can control the vehicle.

Environmental factors can increase the severity of a crash and include unprotected roadside environment, such as steep side-slopes into ditches, trees or poles close to the roadside, and solid structures such as bridges without guard-rail protection. Vehicle factors include whether the vehicle is equipped with airbags, an antilock-braking system, or a strong occupant protection structure.

Factors in loss of control on curve crashes



What happens after a crash is where emergency services need to be their most efficient in preserving life, reducing further harm and investigating causes. The public can contribute also by ensuring that the Police are informed of every crash. When equipped with the best crash information, road controlling authorities, the Police and road safety co-ordinators can set up systems to improve the road environment, driver education and vehicle design/standards requirements. This will ensure there is less likelihood of similar crashes occurring in the future..





Alcohol

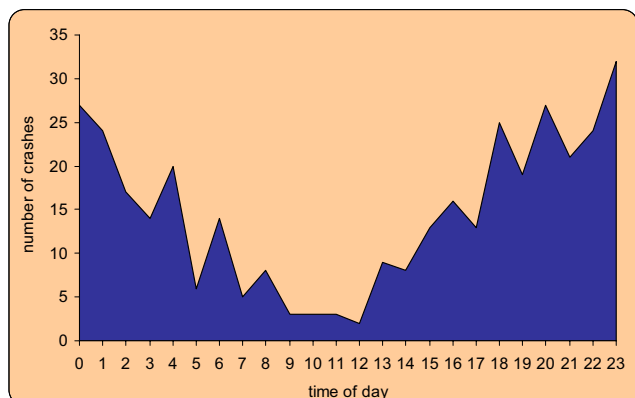
The influence of alcohol has traditionally been a common problem in Northland Region crashes where 34 percent of serious injury and fatal crashes are alcohol-related compared with a national figure of 21 percent.

Northland, Bay of Plenty and Gisborne stand out as regions with high alcohol involvement in crashes. Every other identified road safety issue will be aggravated by the involvement of alcohol.

Alcohol-related crashes on urban streets have reduced sharply since 2000. On the open road, the alcohol trend is steady and remains a common factor in rural crashes, especially those involving fatal and serious injury, and especially in the Far North. Police have set up a Northland-based traffic alcohol group and are working to increase the enforcement presence in Northland.

It is important that communities take responsibility for helping to reduce the level of drink-driving amongst their families, friends and neighbours.

Time of day for alcohol-related crashes



Unlike other crash types that occur more commonly during the day and early evening, alcohol-related crashes occur over a different time period. The peak time for these crashes is from around 6 pm through to 1 am. They occur most often on weekends.

The age of alcohol affected drivers causing crashes in the region is most often between 16 and 22 years old but the early 30s are also a common age group.

Road and environmental factors

Road and environmental factors often contribute to the problem of loss of control crashes, particularly on curves which is the most common crash type in the region.

Road factors make up 11 percent of urban road crash factors and over 22 percent of rural factors, making them the second most common contributing factor in rural road crashes (behind excessive speed).

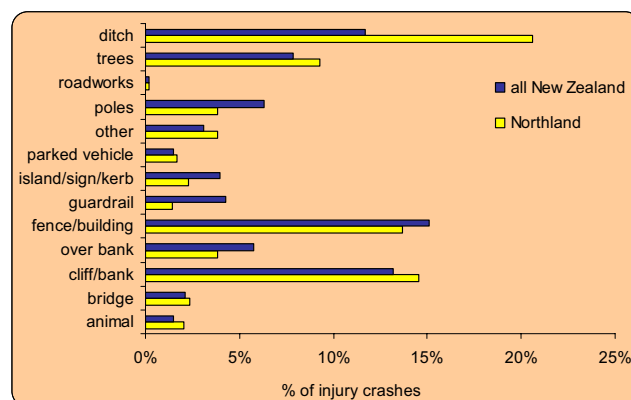
The most common road factor is where the road surface is slippery due to loose material on the sealed surface, an unsealed road surface, a worn or polished surface or mud, oil or other contaminants on the road. This usually becomes evident during wet weather and is often more pronounced when wet weather follows a long dry spell when stone chips become polished and contaminants have built up on the surface without being regularly washed away.

Roadwork sites can be unsealed or slippery. It is important that roadwork sites are signposted to warn of the presence of a specific hazard. It is also important that roadworks are only signposted when there are hazards present. If not, the signs and associated speed limits will soon lose credibility with motorists.

Traffic management plans of roadwork sites and temporary speed limits must be submitted to the road controlling authority for approval before the job is commenced.

The roadside environment can influence the severity of a crash. A clear area free of solid objects or protected by guard-rails can mean that vehicles do not roll or will sustain less damage. The Northland Region has a high proportion of crashes where a roadside object is struck, these commonly being ditches and trees.

Objects struck in rural crashes



Passenger casualties

Passengers injured in crashes make up 36 percent of the road user casualties on the open road and 25 percent on urban roads. The number of passengers killed in crashes is high in the Northland Region. They make up nearly a third (31 percent) of road users killed compared with the Auckland Region where passengers make up less than a quarter (22 percent).

The severity of injuries sustained by passengers in vehicles (not including the drivers) for each of the last five years in the Northland Region is shown in the table below.

Number of passenger casualties in the Northland Region

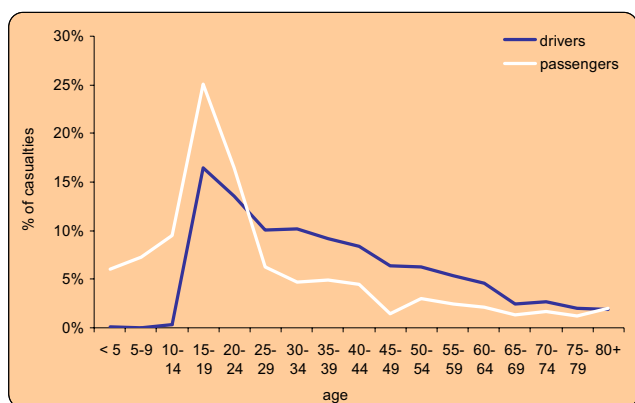
	1999	2000	2001	2002	2003	5 year total
Fatal	14	14	8	13	6	55
Serious	32	40	47	39	32	190
Minor	124	142	126	111	165	668
Total	170	196	181	163	203	913

Passengers are injured in the types of crashes already described such as loss of control on curves on open roads. If passengers are in a vehicle with an alcohol affected driver, or a driver that is speeding, then they are likely to be killed or injured in a crash.

Adults can choose not to travel with these drivers but children often do not have that choice.

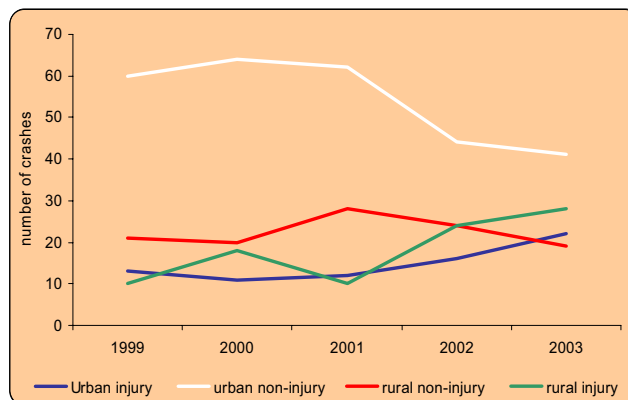
The peak age for injured passengers is 15 to 19 years old but children aged under nine years are more likely to be casualties than in other parts of the country.

Age of drivers and passengers involved in crashes



Factors that cause crashes or increase the severity of injuries in crashes need to be addressed as road safety issues. For instance, lack of restraint wearing can dramatically increase the possibility of serious injury to vehicle occupants.

Restraint wearing rates



The use of restraints has improved markedly in the Northland Region, particularly in the wearing of rear safety belts and child restraints. Only two years ago 28 percent of passengers were not wearing rear safety belts and 31 percent of children were not secured in child restraints. This has changed now to 13 percent not wearing rear safety belts and 16 percent of children not wearing child restraints.

There are a number of community programmes underway that work with people to ensure they or their children are restrained in vehicles. The road safety co-ordinator is involved in these programmes. In addition, the Police are rigorously enforcing lack of restraint wearing and have moved to a 'no more warnings' regime.

Road environment

The LTSA's crash reduction monitoring database shows that works implemented as a result of crash reduction studies have reduced crashes at the study sites by 51 percent in the Northland Region (56 percent at state highway sites and 45 percent at local road sites).

An ongoing programme of crash reduction studies should be undertaken on both local authority road and state highways to continue the reduction of crashes.

Where to get more information

For more specific information relating to road crashes in the Northland Region, please refer to the 1999 to 2003 Road Safety Data Report, the LTSA's Crash Analysis System, or contact the LTSA as listed below.

Contacts

Land Transport Safety Authority

Regional Manager
Peter Kippenberger
Private Bag 106-602
Auckland
Phone 09 969 9800

Regional Education Advisor
Karen Sandoy

Senior Road Safety Engineer
John Garvitch

See LTSA Northland contact details at bottom of page

Road Safety Co-ordinators

Gillian Archer
PO Box 1124
Whangarei
Phone 0274 938 703

Tania Tawhara
PO Box 200
Kaitaia
Phone 09 408 1380

Transit New Zealand

Area Engineer Northland
Richard Green
PO Box 1899
Whangarei
Phone 09 430 4355

New Zealand Police

District Traffic Manager
Inspector Rob Lindsay
Private Bag 9016
Whangarei
Phone 09 430 4500

Mid/Far North Area Controller

Inspector Mike Rusbatch
PO Box 31
Kerikeri
Phone 09 407 4850

Whangarei/Kaipara Area Controller

Inspector Paul Dimery
Private Bag 9016
Whangarei
Phone 09 430 4500

Northland satellite office
Level 1, NZ Post Building
corner Rathbone and Robert Streets
PO Box 1664, Whangarei
Phone 09 459 6315 or 09 459 6314
Fax 09 459 6318
www.ltsa.govt.nz