

briefing notes road safety issues

Gisborne District

Land Transport New Zealand has prepared this road safety issues report. It is based on reported crash data and trends for the 2003–2007 period.

This report is the ninth road safety report for the Gisborne district. Most of the information, unless otherwise stated in this report, applies to both local roads and state highways.

The intent of the report is to highlight the key road safety issues and assist in identifying possible ways to reduce the number of road deaths and injuries in the district. More detailed information may be obtained from either Gisborne District Council (local roads) or Transit NZ (state highways). Please refer to the last page for contact details.

The issues chosen for this report are drawn from either the most common crash types, or those that appear over-represented when the Gisborne district is compared to similar local bodies, or those with high social cost (relating mainly to high numbers of fatal and serious crashes).

We have also included a brief overview of crashes in the district for 2007.

| Major road safety issues | | 2007 road trauma | |
|---------------------------------------|--|------------------------|-------------------|
| Gisborne district | | Casualties | Gisborne district |
| Rural loss of control | | Deaths | 7 |
| Intersection | | Serious casualties | 24 |
| Cyclists, Pedestrians & Motorcyclists | | Minor casualties | 94 |
| Alcohol | | | |
| Nationally | | Crashes | Gisborne district |
| Speed | | Fatal crashes | 6 |
| Alcohol | | Serious injury crashes | 22 |
| Failure to give way | | Minor injury crashes | 78 |
| Restraints | | Non injury crashes | 296 |

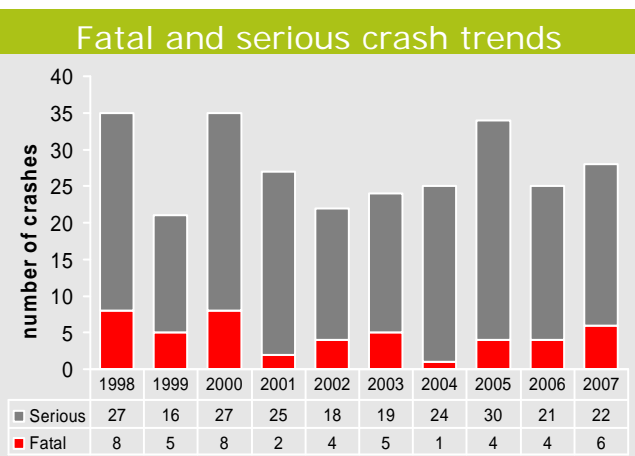
Overview 2007

In 2007 in the Gisborne district there were 106 injury crashes and 296 non-injury crashes reported by the New Zealand Police. Thirty-seven percent of the total injury crashes in the district were on state highways. The table below shows the number of injuries resulting from these crashes in the district.

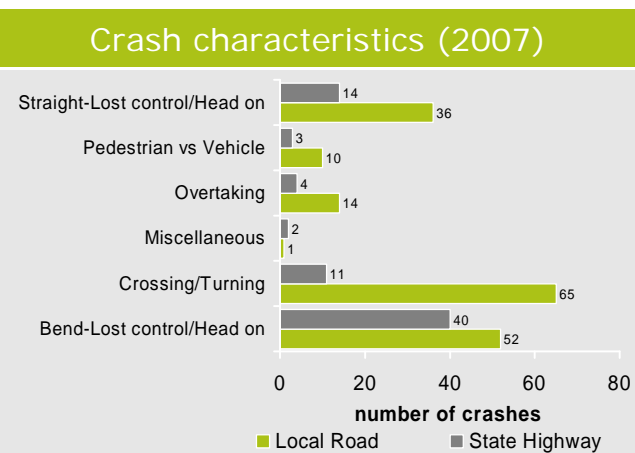
| Casualties by injury type in 2007 | | | | |
|-----------------------------------|----------|------------------|----------------|------------|
| | Deaths | Serious injuries | Minor injuries | Total |
| Total | 7 | 25 | 95 | 127 |
| Local roads Vs State highways | | | | |
| Local roads | 3 | 11 | 63 | 77 |
| State highways | 4 | 14 | 32 | 50 |
| Rural Vs Urban roads | | | | |
| Rural ¹ | 6 | 16 | 41 | 63 |
| Urban | 1 | 9 | 54 | 64 |

Note: 1/ Rural - area with a speed limit of 80km/h or more

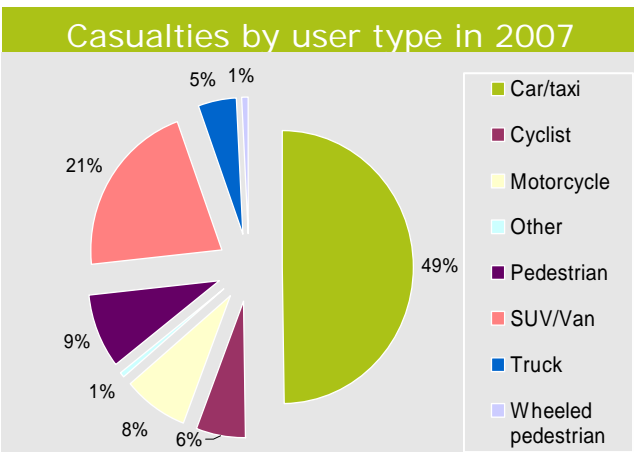
The total number of serious and fatal crashes have been fluctuating for the last ten years.



Bend – lost control/head-on and the *crossing/turning* crash types were the most predominant type of crashes in the district.



The highest number of casualties in 2007 were drivers and passengers of car followed by those of SUV/van, pedestrians, motorcyclists and cyclist.



Further information about all crashes in 2007 on:

Local roads

- Worst day of week: *Thursday (17 percent)*
- Wet road: *17 percent*
- Night time: *30 percent*
- Alcohol over limit: *20 percent*
- Too fast for conditions: *9 percent*
- Intersection: *42 percent*
- Road factors: *5 percent*
- At fault or part fault male driver: *57 percent*
- 25 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed

State highways

- Worst day of week: *Saturday (27 percent)*
- Wet road: *23 percent*
- Night time: *43 percent*
- Alcohol over limit: *28 percent*
- Too fast for conditions: *13 percent*
- Intersection: *34 percent*
- Road factors: *18 percent*
- At fault or part fault male driver: *71 percent*
- 25 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed

Social cost of crashes

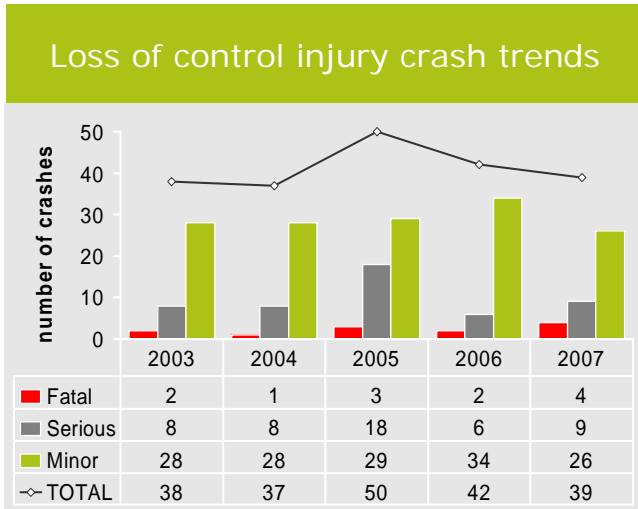
| | |
|----------------|------------------|
| Local roads | \$ 29.93M |
| State highways | \$ 41.13M |
| Total | \$ 71.06M |

NOTE: The estimated social cost includes loss of life or life quality, loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage.

Rural loss of control

During the five year period 2003 to 2007, 22 per cent of all crashes in the Gisborne district occurred due to loss of control in rural roads. These crashes resulted in 18 deaths, 69 serious injuries and 222 minor injuries. There were a further 274 non-injury crashes reported.

There has not been a notable reduction in number of injury crashes in the last five years.



Seventy five percent of loss of control crashes in the last five years have occurred at bends.

All loss of control crashes 2003 - 2007

| Loss of Control | Local roads | State highways |
|-----------------|-------------|----------------|
| At bends | 110 crashes | 251 crashes |
| On Straight | 53 crashes | 66 crashes |

Most crashes at bends involved a driver losing control of their vehicle running off the road or on occasions colliding with another vehicle.

The three most common roadside hazards struck during crashes in the district were *ditches* (30 per cent), *fences* (26 per cent) and *cliff banks* (17 per cent).

Characteristics of loss of control crashes

| Crash characteristic or factor | Percentage occurrence |
|--------------------------------|-----------------------|
| Single vehicle | 85% |
| Alcohol (injury crashes) | 27% |
| Too fast for the conditions | 23% |
| Road factors | 20% |
| Poor handling (injury crashes) | 44% |
| Wet road | 30% |
| Night time | 41% |

Further information follows about all crashes due to loss of control in the district for the period 2003-2007 on local roads and state highways:

Local roads

- 6 deaths, 28 serious injuries and 70 minor injuries
- Worst day of week: *Saturday* (17 per cent)

- Wet road: 25 per cent
- Night time: 42 per cent
- With alcohol over limit: 37 per cent
- Most common injury crash factor: *poor handling* (44 per cent) followed by *too fast* (31 per cent)
- At fault male driver (injury crashes): 71 per cent
- 38 per cent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common at fault drivers' age group (injury crashes): *well distributed up to 50 years old*

State highways

- 12 deaths, 41 serious injuries and 152 minor injuries
- Worst day of week: *Saturday and Sunday* (17 per cent each)
- Wet road: 32 per cent
- Night time: 40 per cent
- With alcohol over limit: 22 per cent
- Most common injury crash factor: *poor handling* (44 per cent) and *poor observation* (21 per cent each)
- At fault male driver (injury crashes): 59 per cent
- 31 per cent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common age group (injury crashes): *well distributed up to 60 years old*

Recommended actions

Engineering

- Establish programmes to review, upgrade and maintain warning signs, markings and delineation
- Maintain roadsides clear of hazards and provide side protection where appropriate
- Widen carriageways & seal shoulders to provide additional vehicle wander. Improve geometry
- Monitor and maintain pavement surfaces to provide good standards for skid resistance
- To improve road geometry where feasible and cost effective

Education

- Focus on raising awareness of concerns about inappropriate speed
- Raise drivers awareness of key speed issues and the need to drive according to road conditions
- Raise property owners' awareness of their responsibility to have secure road frontage fencing to prevent stock from wandering

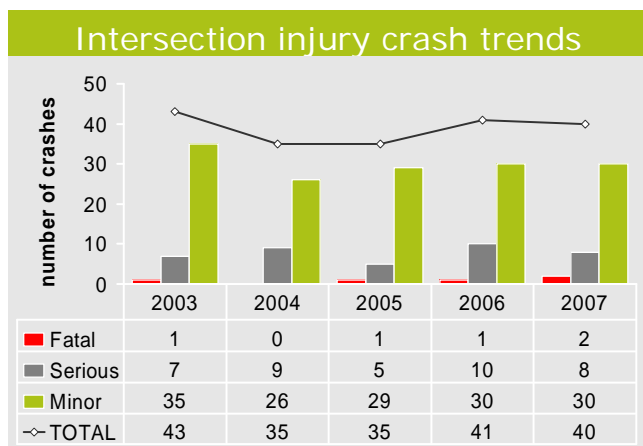
Enforcement

- Continued enforcement focusing on inappropriate speed in rural area
- Target enforcement to times and locations of greatest risk

Intersections

During the five year period 2003 to 2007, 37 per cent of all crashes in the Gisborne district occurred at intersections. These crashes resulted in 5 deaths, 43 serious injuries and 201 minor injuries. There were a further 620 non-injury crashes reported.

The number of fatal and serious injury crashes have stayed steady for the last five years.



The table below shows the locations of the intersections with the high number of crashes in the district between 2003 and 2007.

| Intersection name | Total crashes 2003 - 2007 | Injury crashes 2003 - 2007 | Total crashes in 2007 |
|----------------------------|---------------------------|----------------------------|-----------------------|
| Lytton Rd / Nelson Rd | 10 | 6 | 2 |
| Ormond Rd / Fitzherbert St | 9 | 6 | 4 |
| Gladstone Rd / Disraeli St | 11 | 5 | 3 |
| Carnarvon St / Childers Rd | 6 | 5 | 2 |
| Gladstone Rd / Roebuck Rd | 24 | 4 | 7 |
| Lytton Rd / Gladstone Rd | 14 | 4 | 5 |
| Wi Pere St / Stout St | 13 | 4 | 3 |

Crashes at T (tee) junctions and cross roads are the most common type of intersection crashes, followed by roundabout.

| Junction type | Rural | Urban |
|---------------|-------|-------|
| T (tee) | 61 | 249 |
| Driveways | 1 | 26 |
| X (cross) | 13 | 292 |
| Y | 10 | 12 |
| Roundabout | 1 | 146 |

Further information about all crashes at intersections in the district for the period 2003 to 2007 on:

Local roads

- 1 death, 23 serious injuries and 143 minor injuries
- Worst day of week: Friday (18 percent)
- Wet road: 20 percent
- Night time: 27 percent
- With alcohol over limit: 13 percent
- Most common injury crash factor: failed to give-way/stop (58 percent) followed by poor observation (55 percent)
- At fault male driver (injury crashes): 61 percent
- 29 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common age group (injury crashes): well distributed up to 60 years old

State highways

- 4 deaths, 20 serious injuries and 58 minor injuries
- Worst day of week: Thursday (19 percent)
- Wet road: 21 percent
- Night time: 33 percent
- With alcohol over limit: 22 percent
- Most common injury crash factor: poor observation (46 percent) and failed to giveaway/stop (38 percent)
- At fault male driver (injury crashes): 76 percent
- 34 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common age group (injury crashes): well distributed up to 70 years old with higher number in 15 to 19 age group

Recommended actions

Engineering

- Ensure there is appropriate sight distance at intersections and correct intersection controls are in place
- Carry out safety audits and continue with crash reduction studies to investigate and if required, carry out remedial work at intersections
- Remedy deficiencies in roundabout design to further address crashes at roundabouts

Education

- Focus on road-user behaviour at intersections, including roundabouts
- Consider targeted advertising promotions involving community consultation when determining appropriate media channel and style of resource to be developed

Enforcement

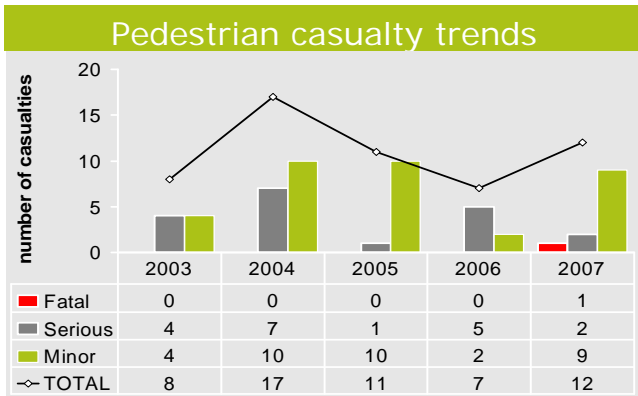
- Increase enforcement of compliance with controls at intersections
- Conduct enforcement campaigns targeting intersections with high crash rates and at times when crashes most frequently occur

Vulnerable road users

Vulnerable road users are those who have very little physical protection in the event of a crash and are therefore more susceptible to severe injuries. These are described as pedestrians, cyclists and motorcyclists. In the Gisborne district, vulnerable road users featured 16 percent of total injuries between 2003 and 2007.

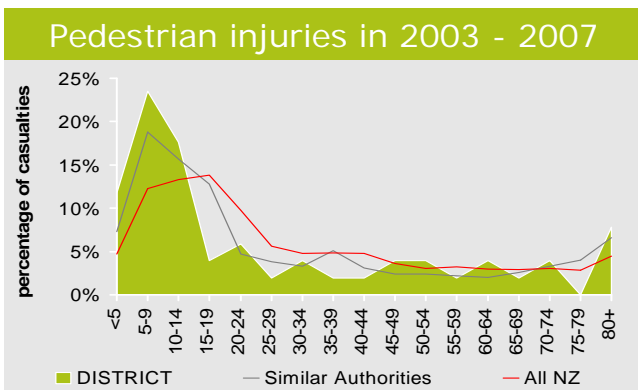
Pedestrian

Pedestrians represent 5 percent of all casualties and make up 12 percent of all the fatal and serious injures in the Gisborne district.



Approximately half (54 percent) of pedestrian accidents occur on urban road intersections and during daylight hours. There is a strong bias (45 percent) toward the mid to late afternoon, from 3pm to 6pm.

Young people are found to be most commonly injured in pedestrian crashes. Forty two percent of pedestrians injured during the last five-year period were in 5 to 14 year old age.



Pedestrian accidents occur predominantly when high volume traffic and either pedestrians abound, or areas where few pedestrians are present and are perhaps unexpected by motorists.

The worst accident locations or routes for pedestrian accidents in the district are found in Gisborne town, listed below:

- High pedestrian accident locations**
- Gladstone Road route through town centre
 - Gladstone Road / Grey Street intersection
 - Kaiti area generally
 - Childers Road route

Further information about pedestrian injury crashes between 2003 and 2007 on:

Local roads

- 1 death, 16 serious injuries and 27 minor injuries
- Night time: 21 percent
- With alcohol over limit: 14 percent
- At intersection: 54 percent

State highways

- 3 serious injuries and 5 minor injuries
- Night time: 13 percent
- With alcohol over limit: none
- At intersection: 50 percent

Recommended actions

Education

- Promote safe walking habits including wearing high visibility clothing
- Raise driver awareness of pedestrians as vulnerable road users
- Continue to support 'walking school bus' programmes

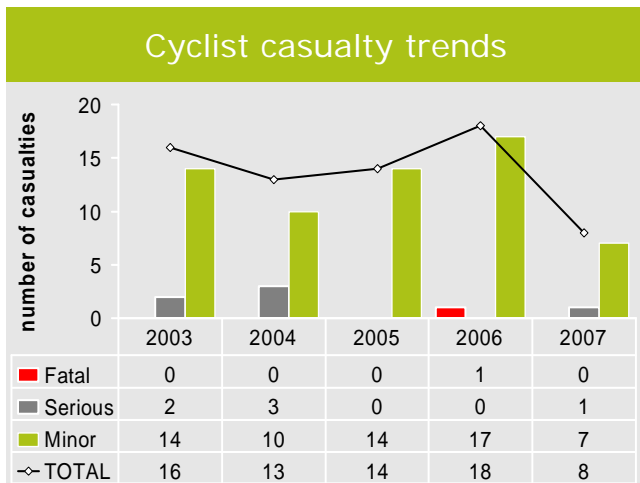
Engineering

- Improve pedestrian facilities, particularly on routes where pedestrians are more frequently injured.

Cyclist

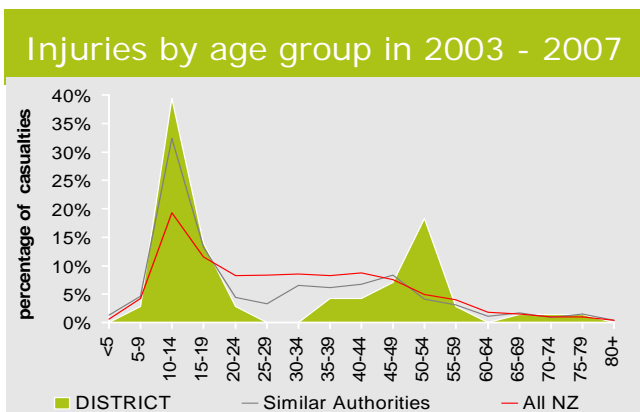
Cyclists represent 6 percent of all injuries in the Gisborne district in the last five years.

There was a reduction in number of cyclists injured in 2007.



All (96 percent) cycling crashes occurred on urban roads, the majority of these were at intersections and during daylight hours.

Cyclist injuries are not spread evenly across all age distributions as shown in the chart below. Forty one percent of all the injured cyclist were young children of age between 10 and 14 years old. Other cyclists in the 39 to 55 age group



The worst accident locations or routes for cyclist accidents in the district are found in Gisborne town, listed below:

- High cyclist injury locations
- Gladstone Road route through town centre
- Gladstone Road / Lytton Road intersection
- Wainui Road (SH35) through Kaiti
- Childers Road route
- Ormond Road / Fitzherbert Street intersection

Further information about cyclist injury crashes between 2003 and 2007 on:

Local roads

- 1 death, 5 serious injuries and 50 minor injuries
- Most common crash: *crossing or turning movement (62 percent)*.
- Night time: 13 percent
- With alcohol over limit: 7 percent
- At Intersection: 67 percent
- Worst day of week: *Thursday (16 crashes)*

State highways

- 1 serious injury and 7 minor injuries
- Most common crash: *crossing or turning movement (29 percent)*.
- Night time: 44 percent
- With alcohol over limit: none
- At Intersection: 67 percent
- Worst day of week: *Wednesday (3 crashes)*

Recommended actions

Education

- Work with local cycling clubs and coalitions
- Continue to support safe cycling programmes in schools
- Promote drivers awareness of cyclists and motorcyclists, especially at intersections
- Implement activities in conjunction with campaigns, such as National Bike Week and back to school promotions
- Promote the wearing of higher visibility clothing by cyclists

Enforcement

- Co-ordinate enforcement campaigns targeting cycle safety
- Increase enforcement of road-user compliance with Give Way, Stop and signal controls at intersections
- Continue with safe cycling education programmes in schools

Engineering

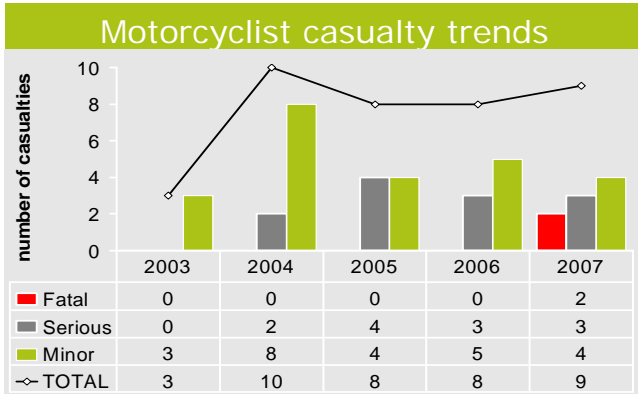
- Implement dedicated cycle lanes and cycle ways in the city commencing with higher demand routes with high cycle crash rates
- Provide cycle facilities such as formal marked cycle lanes and establish cycle ways to improve safety for cyclists as recommended in the cycling strategy
- Adopt and implement recommendations of Transit New Zealand and Gisborne District Councils cycling strategies

Motorcyclist

Motorcyclists represent 5 percent of all casualties in the Gisborne district.

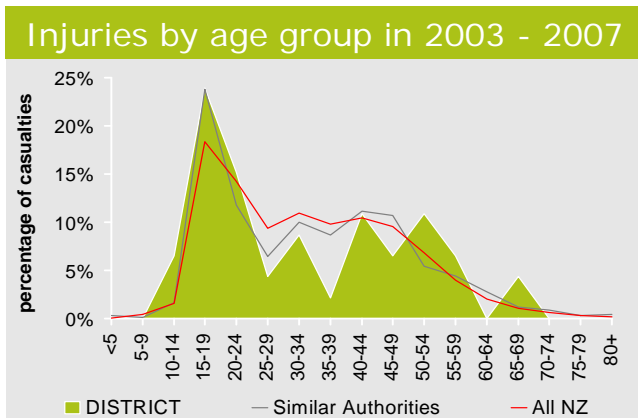
Nationally there has been a significant increase in motorcycle registrations and the number of motorcyclists injured is increasing.

The number of motorcyclists injured has been quite consistent for the last four years. However it should be noted that there were two fatalities in year 2007.



More motorcycle crashes occurred on urban roads (65 percent), half of the crashes were at intersections and during daylight hours.

Motorcyclist injuries is highest among the younger riders (15 to 19 years age group). Also a significant number of injuries were recorded for the age range between 40 to 59 years.



The worst accident locations or routes for motorcyclist accidents in the district are found in Gisborne town, listed below:

High motorcyclist crash locations

- Gladstone Road route through town centre
- Gladstone Road / Stanley Road intersection
- Gladstone Road / Roebuck Road intersection
- Fitzherbert Street / Ormond Road intersection
- Childers Road route

Further information about motorcyclist injury crashes in the district between 2003 and 2007 on:

Local roads

- 8 serious injuries and 24 minor injuries
- Most common crash: *crossing or turning movement (45 percent)*.
- Wet road: 6 percent
- Night time: 23 percent
- At Intersection: 55 percent
- Worst day of week: *Wednesday (9 crashes)*

State highways

- 2 deaths, 5 serious injuries and 7 minor injuries
- Most common crash: *lost control cornering (47 percent)*.
- Wet road: 27 percent
- Night time: 27 percent
- At Intersection: 47 percent
- Worst day of week: *Friday and Saturday (4 crashes each)*

Recommended actions

Education

- Focusing on improving driver awareness of motorcyclists especially at intersections
- Develop safe riding courses for motorcyclists
- Continue to involve motorcycle groups/clubs (eg. Ulysses) in raising motorcyclist and other road user awareness of concerns with the safety relating to motorcyclists
- Promote the wearing of high visibility clothing by motorcyclists

Enforcement

- Co-ordinate enforcement campaigns, programmes targeting cycle and motorcycle safety
- Increase enforcement of road-user compliance with give way, stop and signal controls at intersections

Engineering

- Ensure adequate visibility is provided and maintained at intersections
- Ensure pavement skid resistance quality is maintained

Alcohol

Alcohol affects the way people drive. Studies show that the risk of being involved in a crash increases rapidly as a driver's blood alcohol level rises. A driver over the legal limit (80mg of alcohol per 100ml of blood) is three times more likely to be involved in a crash than a sober driver.

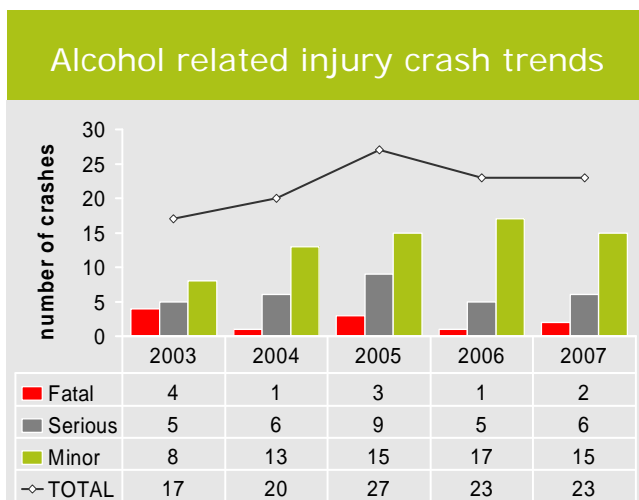
People with high blood alcohol levels are more likely to be injured or killed in a crash than sober drivers.

During 2007 within New Zealand, alcohol-affected drivers contributed to 34 percent of all fatal crashes and 15 percent of all injury crashes.

In the Gisborne district, alcohol was a factor in 23 percent of all injury crashes in 2007 which is much higher than the national average and is slightly higher than the last five year district average of 22 percent.

There were 110 alcohol-related injury and 175 non-injury crashes reported in the last five years. These crashes have resulted in 17 deaths, 45 serious and 116 minor injuries.

There is no significant reduction in number of crashes where alcohol is a factor.



Further information about alcohol related crashes in the district between 2003 and 2007 on:

Local roads

- 5 deaths, 19 serious injuries and 72 minor injuries
- Worst day of week: *Saturday (31 percent)*
- Wet road: *25 percent*
- Night time: *71 percent*
- At Intersection: *38 percent*
- Excessive speed: *47 percent*

- Most common injury crash factor: *poor observation (20 percent)* followed by *poor handling (18 percent)*
- At fault male driver (injury crashes): *72 percent*
- 36 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common at fault drivers' age group (injury crashes): *under 50 years old*

State highways

- 12 deaths, 26 serious injuries and 44 minor injuries
- Worst day of week: *Saturday (33 percent)*
- Wet road: *31 percent*
- Night time: *68 percent*
- At Intersection: *27 percent*
- Excessive speed: *18 percent*
- Most common injury crash factor: *poor handling (30 percent)* followed by *fatigue (20 percent)*
- At fault male driver (injury crashes): *74 percent*
- 41 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common at fault drivers' age group (injury crashes): *under 50 years old*

Recommended actions

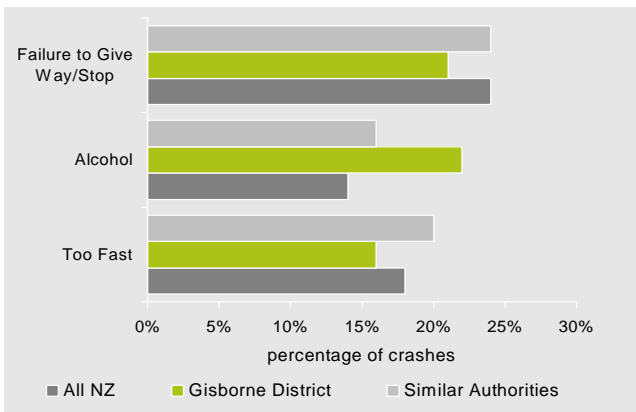
Education

- Promote safe drinking and driving habits, particularly among male drivers aged 15 to 40
- Encourage and support licensees to actively promote host responsibility practices and designated driver schemes
- Work with community groups to convey sober driver messages to young drivers

Enforcement

- Target enforcement at known high-risk areas and times and to the appropriate age group.
- Co-ordinate enforcement campaigns targeting drink-driving
- Continue to support compulsory breath testing programmes

National issues



Speed

In the Gisborne district, *too fast* was recorded in 16 percent of injury crashes in the last five years, resulting 7 deaths and 128 injures. Speed as a factor in crashes is slightly decreasing from 2005 to 2007 in the district.

Sixty-nine percent of speed-related crashes involved *Loss of control / heads-on at bends*. *Alcohol* and *poor handling* were the driver factors most often associated with speed crashes. Male drivers aged under 25 years old were most involved in these crashes.

Alcohol

In the Gisborne district, *alcohol* was involved in 22 percent of injury crashes in the last five years, resulting in 17 deaths and 171 other injuries. The number of injury crashes involving *alcohol* is pretty steady.

Sixty-five percent of alcohol crashes were in urban areas. Seventy-one percent of these crashes involved *Loss of control/head-on* crashes. Travelling *too fast* and *poor handling* were the factors often associated with alcohol.

Failure to give way

In the Gisborne district, *Failure to give way or stop* was reported in 21 percent of all reported injury crashes for the last five years resulting in 3 deaths and 151 other injuries. Most (90 percent) of these were *crossing/turning* manoeuvres, often associated with *failure to look for other parties*. Sixty-four percent of at fault drivers in these crashes were males.

Restraints

The Ministry of Transport conducts surveys of restraint use. According to 2007 survey results restraint rate in Gisborne District for front seat and rear seat are 78 and 92 percent respectively (while corresponding national rates are 95 and 87 percent). The results are obtainable from the Ministry of Transport website.

<http://www.transport.govt.nz/belts-index/>

Contacts

Land Transport New Zealand

Napier Regional Office

Level 3 Dunvegan House
215 Hastings Street
PO Box 972, Napier 4140

Telephone 06 974 5520

www.landtransport.govt.nz

Partnerships Manager (Central)

Ian Hunter (04 931 8904)

Performance Information Manager (Central)

Nabin Pradhan (04 931 8928)

Manager Programmes (Napier)

Denise Elers (06 974 5526)

Senior Engineer

Colin Goble (06 974 5522)

Gisborne District Council

Roading Manager

Geoff Cobb

P O Box 747, Gisborne

Phone 06 867 2049

Transit New Zealand

Area Engineer (Safety and programming)

Ken Holst

P O Box 740, Napier

Phone 06 835 1750

Road Safety Coordinator

Lenora McDonald

Gisborne District Council

P O Box 747, Gisborne

Phone 06 867 2049

New Zealand Police

Senior Sergeant Maui Aben

P O Box 546, Gisborne

Phone (06) 869 0200