

# *briefing notes road safety issues*

## *Gisborne District*

NZ Transport Agency has prepared this road safety issues report. It is based on reported crash data and trends for the 2004–2008 period.

This report is the tenth road safety report for 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 NZ Transport Agency. Please refer to the last page for contact details.

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

We have also included a brief overview of crashes in Gisborne District for 2008.

Major road safety issues	2008 road trauma	
<b>Gisborne District</b>	<b>Casualties</b>	<b>Gisborne District</b>
Rural loss of control	Deaths	8
Intersections	Serious injuries	35
Vulnerable road users: pedestrians, cyclists and motorcyclists	Minor injuries	172
Alcohol	Total casualties	215
<b>National issues</b>	<b>Crashes</b>	<b>Gisborne District</b>
Speed	Fatal crashes	7
Alcohol	Serious injury crashes	21
Failure to give way	Minor injury crashes	119
Restraints	Non-injury crashes	332

## Overview 2008

In 2008 in Gisborne District there were 147 injury crashes and 332 non-injury crashes reported by the New Zealand Police. Thirty-nine 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.

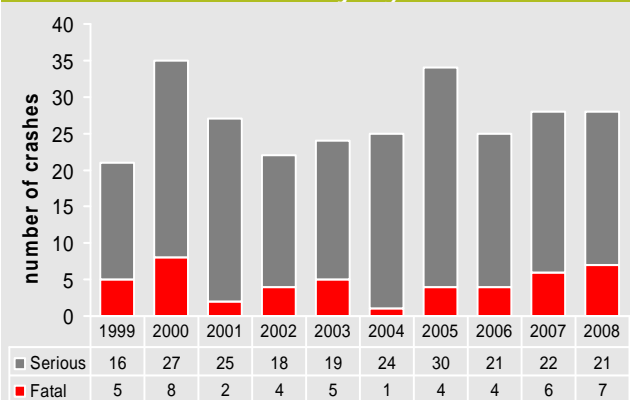
### Casualties by injury type in 2008

	Deaths	Serious injuries	Minor injuries	Total
<b>Total</b>	<b>8</b>	<b>35</b>	<b>172</b>	<b>215</b>
<b>Local roads vs state highways</b>				
Local roads	2	19	102	123
State highways	6	16	70	92
<b>Rural vs urban roads</b>				
Rural <sup>1</sup>	7	20	69	96
Urban	1	15	103	119

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

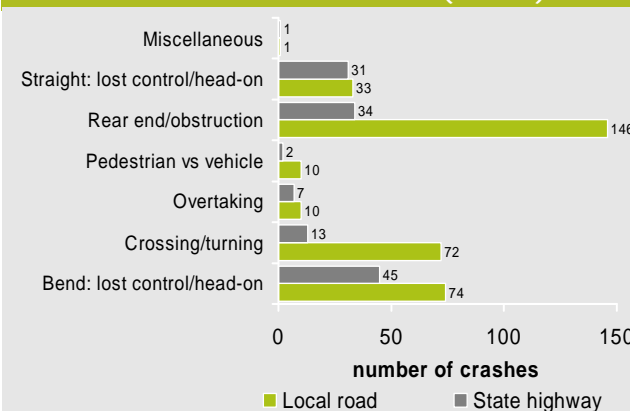
The total number of fatal and serious injury crashes has been gradually rising since 2002. The number of fatal crashes in 2008 was the highest in the last eight years.

### Fatal and serious injury crash trends



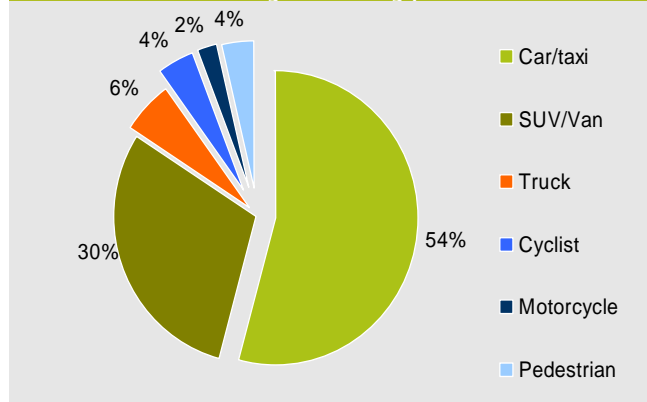
The main type of crash (all crashes in the district, both injury and non-injury combined) in 2008 was *rear end/obstruction* followed by *lost control/head-on at bend* and *crossing/turning* crash types.

### Crash characteristics (2008)



The majority of casualties in 2008 were drivers and passengers of cars. Meanwhile vulnerable road users (pedestrians/cyclists/motorcyclists) constituted 10 percent of all casualties.

### Casualties by user type in 2008



Further information about all crashes in 2008 on:

#### Local roads

- Worst day of week: Thursday (18 percent)
- Wet road: 21 percent
- Night time: 31 percent
- Alcohol over limit: 27 percent
- Too fast for conditions: 19 percent
- Intersection: 46 percent
- Road factors: 5 percent
- At fault or part fault male driver: 70 percent
- 48 percent of drivers at fault (injury crashes) were either: restricted, learner or not licensed

#### State highways

- Worst day of week: Tuesday (18 percent)
- Wet road: 24 percent
- Night time: 39 percent
- Alcohol over limit: 19 percent
- Too fast for conditions: 19 percent
- Intersection: 26 percent
- Road factors: 10 percent
- At fault or part fault male driver: 77 percent
- 33 percent of drivers at fault (injury crashes) were either: restricted, learner or not licensed

### Social cost of crashes

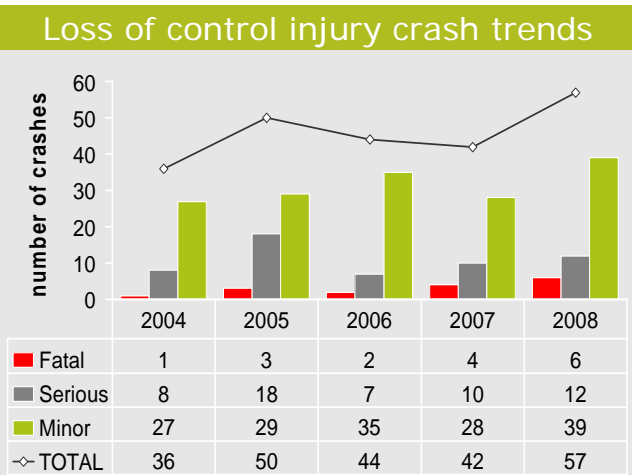
Local roads	\$ 38.01M
State highways	\$ 54.22M
<b>Total</b>	<b>\$ 83.23M</b>

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 most recent five year period (2004-2008) 22 percent of all crashes in Gisborne District occurred due to loss of control on rural roads. These crashes resulted in 23 deaths, 79 serious injuries and 246 minor injuries. There were a further 265 non-injury crashes reported.

The latest five year trends show fatal, serious and minor injury crashes all increasing.



Eleven percent of rural loss of control injury crashes involved trucks (2004-2008), a trend that is showing a significant increase, resulting in 3 deaths, 6 serious and 13 minor injuries in just the last two years alone.

Seventy-three percent of rural loss of control crashes occurred at bends. A quarter (24 percent) of those on state highways record *fatigue* as a contributing factor.

Rural loss of control 2004 - 2008		
Loss of control	Local roads	State highways
At bend	117 crashes	244 crashes
Straight road	53 crashes	81 crashes

Most crashes at bends involved a driver losing control of their vehicle, then running off the road or perhaps colliding with another vehicle. The three most common roadside hazards struck during these crashes in the district were *ditches* (31 percent), *fences* (27 percent) and *banks* (17 percent). Hitting these objects can result in more serious injuries than would otherwise be sustained.

Rural loss of control crashes	
Crash characteristics or factors	Percentage occurrence
Single vehicle	86%
Alcohol (injury crashes)	27%
Too fast for the conditions (injury crashes)	23%
Road factors	18%
Poor handling (injury crashes)	45%
Wet road	30%
Night time	43%

Further information about all rural loss of control crashes in Gisborne District 2004-2008 on:

### Local roads

- 6 deaths, 30 serious injuries and 77 minor injuries
- Worst day of week: Saturday (32 crashes)
- Wet road: 28 percent
- Night time: 46 percent
- Alcohol over limit: 36 percent
- Most common injury crash factor: poor handling (50 percent) followed by too fast (30 percent)
- At fault male driver (injury crashes): 72 percent
- 40 percent of drivers at fault (injury crashes) were either: restricted, learner or not licensed
- Most common at fault drivers' age group (injury crashes): 15 to 24 year old

### State highways

- 17 deaths, 49 serious injuries and 169 minor injuries
- Worst day of week: Saturday (59 crashes)
- Wet road: 31 percent
- Night time: 42 percent
- Alcohol over limit: 23 percent
- Most common injury crash factor: poor handling (42 percent) and fatigue (24 percent)
- At fault male driver (injury crashes): 62 percent
- 30 percent of drivers at fault (injury crashes) were either: restricted, learner or not licensed
- Most common at fault drivers' age group (injury crashes): 15 to 24 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 and seal shoulders to provide additional vehicle wander
- Monitor and maintain pavement surfaces to provide good standards for skid resistance
- 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

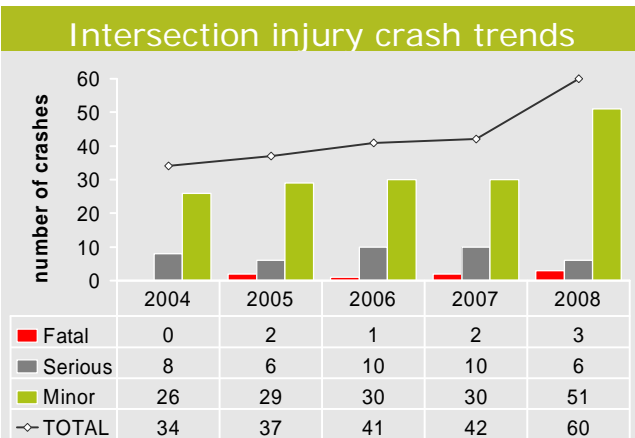
#### Enforcement

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

## Intersections

During the most recent five year period (2004-2008) 37 percent of all crashes in Gisborne District occurred at intersections. These crashes resulted in 14 deaths, 48 serious injuries and 227 minor injuries. There were a further 631 non-injury crashes reported.

The latest five year trend for intersection crashes shows the total injury crashes increasing. The number of fatal crashes last year was the highest we have seen over this period. Minor injury crashes at intersections have doubled in five years.



The table below shows the locations of intersections with a high number of crashes in the district 2004-2008.

Intersection name	Total crashes 2004 - 2008	Injury crashes 2004-2008	Total crashes in 2008
Gladstone Rd / Roebuck Rd	25	5	5
Gladstone Rd / Disraeli St	12	5	3
Ormond Rd / Fitzherbert St	9	5	2
Carnarvon St / Childers Rd	7	5	1
Gladstone Rd / Derby St	21	3	7
Gladstone Rd / Peel St	17	3	5
Ormond Rd / Wi Pere St	11	3	5

Crash numbers by junction and rural/urban split.

Junction type	Rural	Urban
T-junction	57	287
Driveway	1	24
Crossroad	16	286
Y-junction	6	11
Roundabout	2	155

Further information about all intersection crashes in Gisborne district 2004-2008 on:

### Local roads

- 3 deaths, 24 serious injuries and 164 minor injuries
- Worst day of week: *Friday (121 crashes)*
- Wet road: 20 percent
- Night time: 28 percent
- Alcohol over limit: 13 percent
- Most common injury crash factor: *failed to give way/stop (54 percent) and poor observation (55 percent)*
- At fault male driver (injury crashes): 63 percent
- 31 percent of drivers at fault (injury crashes) were either: *restricted, learner or not licensed*
- Most common at fault drivers' age group (injury crashes): *15 to 19 years old*

### State highways

- 11 deaths, 24 serious injuries and 63 minor injuries
- Worst day of week: *Thursday and Saturday(32 crashes each)*
- Wet road: 22 percent
- Night time: 33 percent
- Alcohol over limit: 24 percent
- Most common injury crash factor: *poor observation (51 percent) and failed to give way/stop (44 percent)*
- At fault male driver (injury crashes): 80 percent
- 32 percent of drivers at fault (injury crashes) were either: *restricted, learner or not licensed*
- Most common at fault drivers' age group (injury crashes): *15 to 24 years old*

### 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 community consultation when determining targeted advertising promotions, media 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

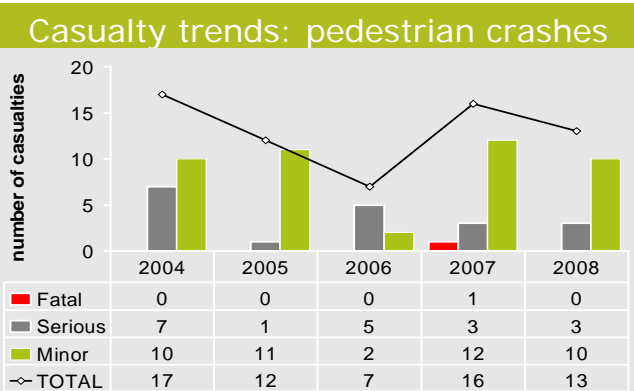
Vulnerable road users are those who have very little physical protection in the event of a crash and are therefore more susceptible to severe injuries. These are described as pedestrians, cyclists and motorcyclists.

In Gisborne District vulnerable road users constituted 22 percent of all injuries over the last five years (2004-2008).

## Pedestrians

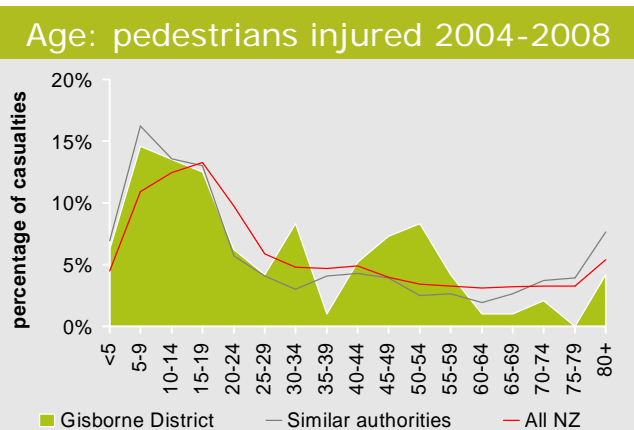
Injury crashes involving pedestrians in Gisborne District accounted for 10 percent of all injury crashes during the last five year period, resulting in 1 death, 19 serious injuries and 45 minor injuries.

There is very little in the way of an emerging trend in these accidents except to say that during the last five year period the number of persons injured each year fluctuated with no gains being seen. However, encouragingly there were no pedestrian deaths in 2008.



More than half (61 percent) of pedestrian accidents occurred at urban road intersections, during daylight hours and significantly (41 percent) the mid to late afternoon (3pm-6pm).

Young people are the most commonly injured pedestrians in these crashes. Forty-six percent of pedestrians injured during the last five-year period were in the 5 to 24 year old age group.



Pedestrian accidents occur most frequently when high volume traffic and pedestrians abound, or in areas where few pedestrians are present and are perhaps not expected by motorists.

The worst accident locations or routes for pedestrian accidents in the district are found in the Gisborne city environ as 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 in Gisborne District 2004-2008 on:

### Local roads

- 1 death, 16 serious injuries and 38 minor injuries
- Night time: 20 percent
- Alcohol over limit: 11 percent (drivers)
- Intersection: 52 percent

### State highways

- 3 serious injuries and 7 minor injuries
- Night time: 10 percent
- Alcohol over limit: none (drivers)
- Intersection: 50 percent

### Recommended actions

#### Education

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

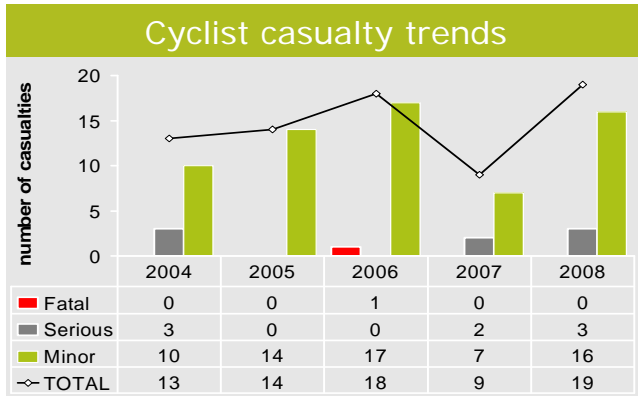
#### Engineering

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

## Cyclists

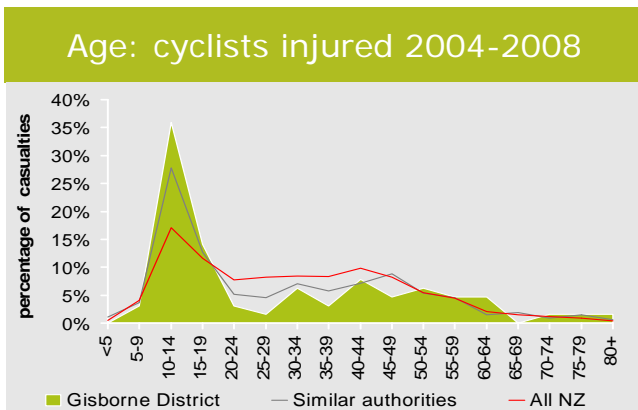
Injury crashes involving cyclists in Gisborne District accounted for 10 percent of all injury crashes during the last 5 year period, resulting in 1 death, 5 serious injuries and 56 minor injuries.

The latest five year trend shows that the total number of casualties involved in cyclist crashes is increasing.



Almost all (97 percent) crashes involving cyclists occurred on urban roads. The majority of these were at intersections and during daylight hours.

Those injured cyclists were not spread evenly across all age distributions as shown in the chart below. Fifty percent of all those cyclists injured were young persons in the 10-19 year old age group.



The worst accident locations or routes for cyclist accidents in the district are found in the Gisborne city environ as 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 in Gisborne District 2004-2008 on:

### Local roads

- 1 death, 5 serious injuries and 56 minor injuries
- Most common crash: crossing or turning movement (63 percent).
- Night time: 12 percent
- Alcohol over limit: 7 percent (driver)
- Intersection: 66 percent
- Worst day of week: Thursday (16 crashes)

### State highways

- 3 serious injury and 8 minor injuries
- Most common crash: crossing or turning movement (69 percent).
- Night time: 39 percent
- Alcohol over limit: none (driver)
- Intersection: 77 percent
- Worst days of week: Wednesday, Saturday and Sunday (3 crashes each)

### 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 safe cycling education programmes in schools

#### Engineering

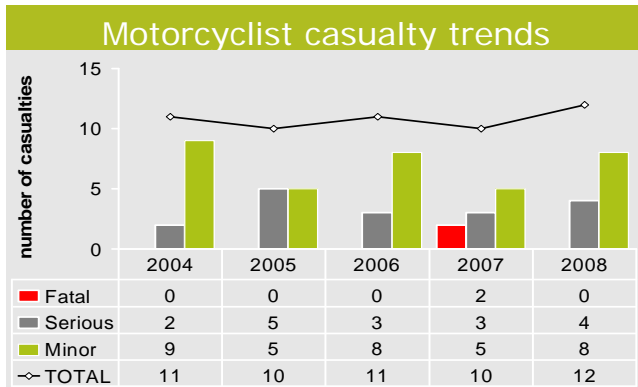
- Implement dedicated cycle lanes and cycle ways in the city, commencing with higher demand routes with high cycle crash rates
- Provide cycle facilities such as formal marked cycle lanes and establish cycle ways to improve safety for cyclists as recommended in the cycling strategy
- Adopt and implement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



## Motorcyclists

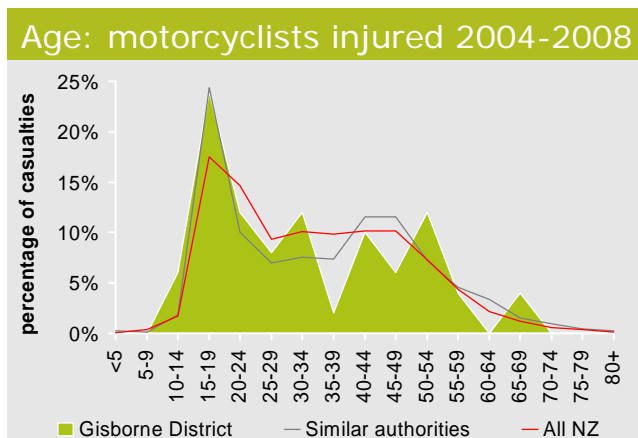
Injury crashes involving motorcyclists represent 9 percent of all injury crashes in Gisborne District during the last five year period, resulting in 2 deaths, 17 serious injuries and 35 minor injuries.

The latest five year trends show little change in total casualties. Even though there were no deaths due to motorcycle crashes last year, the numbers injured do not show much sign of decreasing.



Three quarters of motorcycle crashes occurred on urban roads (73 percent), three quarters also occurred during daylight hours and in dry conditions. Half of the crashes were at intersections.

Those injured motorcyclists are not spread evenly across all age distributions, as shown in the chart below. A quarter (24 percent) of all those motorcyclists injured were young persons in the 15-19 year old age group.



The worst accident locations or routes for motorcyclist accidents in the district are found in the Gisborne city environ as listed below:

### High motorcyclist crash locations

Gladstone Road route through town centre

Gladstone Road / Disraeli St intersection

Gladstone Road / Roebuck Road intersection

Wi Pere St / Ormond Rd & Stout St intersections

Further information about motorcyclist injury crashes in Gisborne District 2004-2008 on:

### Local roads

- 12 serious injuries and 25 minor injuries
- Most common crash: crossing or turning movement (43 percent).
- Wet road: 15 percent
- Night time: 26 percent
- Intersection: 57 percent
- Worst day of week: Wednesday (11 crashes)

### State highways

- 2 deaths, 5 serious injuries and 10 minor injuries
- Most common crash: lost control cornering (40 percent).
- Wet road: 25 percent
- Night time: 25 percent
- Intersection: 45 percent
- Worst day of week: Friday and Saturday (4 crashes each)

### Recommended actions

#### Education

- Focus 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 users' awareness of motorcycle safety
- Promote the wearing of high visibility clothing by motorcyclists

#### Enforcement

- Co-ordinate enforcement campaigns and 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.

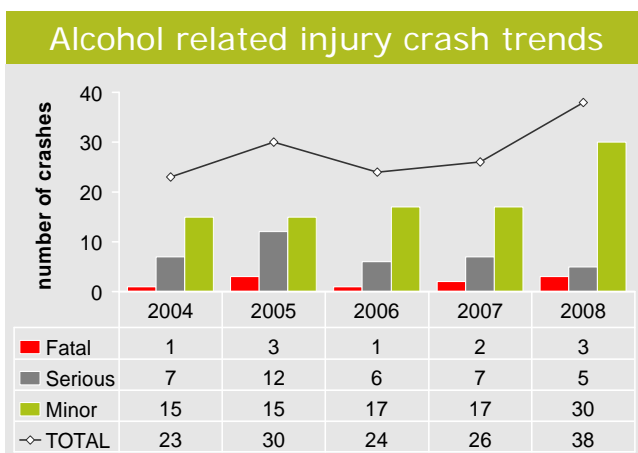
During 2008, alcohol-affected drivers contributed to 34 percent of all fatal crashes and 15 percent of all injury crashes in New Zealand.

### Gisborne District

During the last five year period (2004-2008) 23 percent of all injury crashes in Gisborne District were alcohol related. In 2008 there was a significant rise in the total number of alcohol related casualties, in fact alcohol was a factor in a quarter (25 percent) of all injury crashes in the district.

This is much higher than the national average and also, more significantly, much higher than in similar authorities.

There were 141 alcohol related injury crashes and 192 non-injury crashes reported during the last five years. These crashes resulted in 17 deaths, 53 serious injuries and 154 minor injuries.



A third (34 percent) of alcohol related crashes show drivers driving too fast for conditions. Most occurred after sunset (71 percent), on urban roads (68 percent) and involved male drivers (77 percent).

Significantly, 41 percent of *at fault* drivers in alcohol related injury crashes held a learner or restricted licence or have never been licensed. Young drivers (15-19 year olds) constituted 28 percent of *at fault* drivers in these crashes.

Further information about all alcohol related crashes in Gisborne District 2004-2008 on:

### Local roads

- 5 deaths, 29 serious injuries and 103 minor injuries
- Worst day of week: *Saturday (74 crashes)*
- Wet road: *25 percent*
- Night time: *73 percent*
- Intersection: *38 percent*
- Excessive speed: *40 percent*
- Most common injury crash factor: *poor observation (20 percent)* followed by *poor handling (17 percent)*
- At fault male driver (injury crashes): *77 percent*
- 41 percent of drivers at fault (injury crashes) were either: *restricted, learner or not licensed*
- Most common at fault drivers' age group (injury crashes): *15 to 24 years old*

### State highways

- 12 deaths, 24 serious injuries and 51 minor injuries
- Worst day of week: *Saturday (30 crashes)*
- Wet road: *31 percent*
- Night time: *73 percent*
- Intersection: *28 percent*
- Excessive speed: *24 percent*
- Most common injury crash factor: *fatigue (24 percent)* followed by *poor handling (22 percent)*
- At fault male driver (injury crashes): *77 percent*
- 43 percent of drivers at fault (injury crashes) were either: *restricted, learner or not licensed*
- Most common at fault drivers' age group (injury crashes): *15 to 29 years old*

### Recommended actions

#### Education

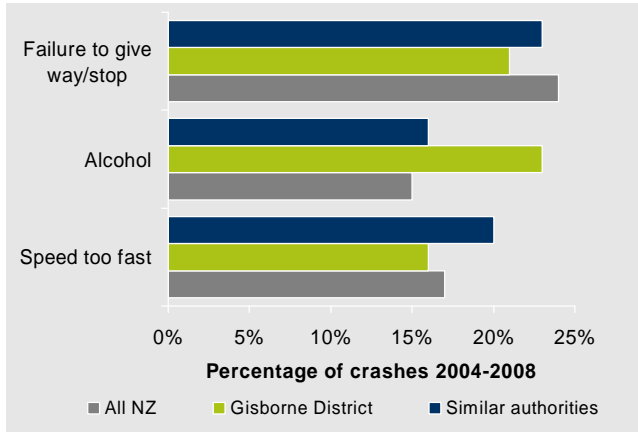
- Promote safe drinking and driving habits, particularly among male drivers aged 15 to 40
- Encourage and support licensees to actively promote host responsibility practices and designated driver schemes
- Work with community groups to convey sober driver messages to young drivers

#### 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 Gisborne District, speed too fast was recorded in 16 percent of injury crashes in the last five years resulting in 8 deaths and 150 injures. In 2008 there was a significant increase in the number of speed related minor injury crashes.

Seventy percent of speed-related injury crashes were *lost control/head-on at bend* crash movement types. *Alcohol and poor handling* were the driver factors most often associated with *speed* related injury crashes. Male drivers aged under 25 years old were the group most involved in these crashes.

### Alcohol

In Gisborne District, *alcohol* was involved in 23 percent of injury crashes in the last five years resulting in 17 deaths and 198 other injuries. In 2008 there was a significant increase in the number of *alcohol* related minor injury crashes.

Fifty-two percent of alcohol crashes were in urban areas. Seventy-nine percent of these crashes were *lost control/head-on* crash movement types. Travelling *too fast* and *poor handling* were factors often associated with alcohol.

### Failure to give way

In 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 4 deaths and 159 other injuries. Most (90 percent) of these were *crossing/turning manoeuvres*, often associated with *failure to look* for other parties. Sixty-seven percent of at fault drivers in these crashes were male.

### Restraints

The Ministry of Transport conducts surveys of restraint use. According to 2008 survey results restraint rate in Gisborne District for front seat and rear seat are 85 and *sample too small* 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/research/safetybeltstatistics/>

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