Land Transport NZ
Ikiiki Whenua Aotearoa

# briefing notes road safety issues

## Hastings District

Land Transport New Zealand has prepared this road safety issues report. It is based on reported crash data and trends for the 2002–2006 period.

The intent of the report is to highlight the key road safety issues and be a resource to identify possible ways to reduce the number of road deaths and injuries in Hastings District.

This report is the eighth road safety report for Hastings District. Most of the data in this report applies to both local roads and state highways. Where relevant the details of the crashes on the local road and state highways are provided and discussed.

In each new report the latest year's data is added to a five year block and the oldest dropped, so it is unlikely that the core issues for any local body would change radically from report to report.

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

We have included a brief overview of crashes in the district for 2006.

| Major road safety issues |
|---|
| **Hastings District** |
| Loss of control on rural roads |
| Intersections |
| Vulnerable road users: |
| (pedestrians, cyclists, motorcyclists) |
| **Nationally** |
| Speed |
| Alcohol |
| Failure to give way |
| Restraints |

| 2006 road trauma | |
|---|---|
| **Casualties** | |
| Deaths | 11 |
| Serious casualties | 83 |
| Minor casualties | 327 |
| **Crashes** | |
| Fatal crashes | 9 |
| Serious injury crashes | 60 |
| Minor injury crashes | 218 |
| Non injury crashes | 489 |

# Overview of crashes in 2006

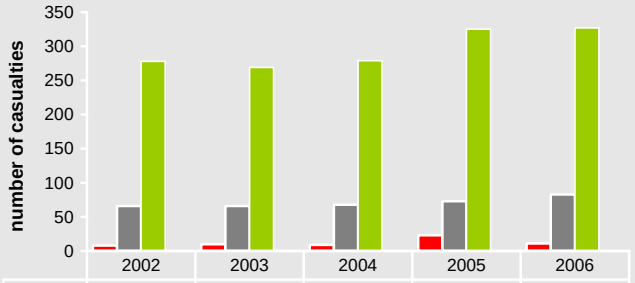
In 2006 on local roads in Hastings District there were 190 injury crashes and 354 non-injury crashes, in addition there were 97 injury crashes and 135 non-injury crashes on State Highways, as reported by the New Zealand Police.

The table below shows the number of injuries resulting from 2006 crashes by rural or urban areas for both local roads and state highways (rural is defined as an area with a speed limit of 80km/h or more).

| | Casualties in 2006 | | | |
|---|---|---|---|---|
| | Fatalities | Serious injuries | Minor injuries | Total |
| Rural | 11 | 62 | 194 | 267 |
| Urban | 0 | 21 | 133 | 154 |
| Total | 11 | 83 | 327 | 421 |

Total number of casualties in 2006 is among the highest in the last 5 years. Although number of fatalities in 2006 is approximately half that of 2005, it is still the second highest in the 5 year period. The number of serious injuries have increased by 13 percent in 2006 .

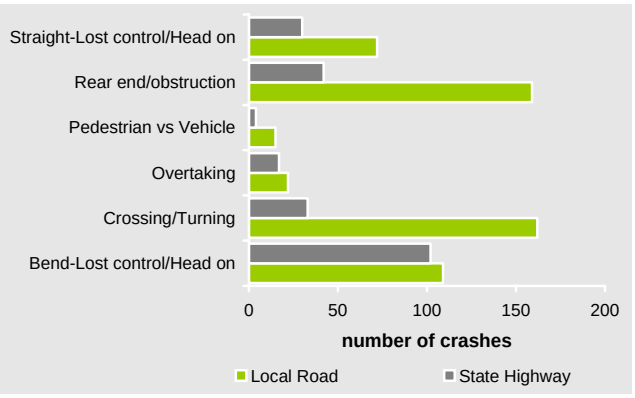
## Casualties trend 2002-2006




| | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|
| Fatal | 8 | 10 | 9 | 23 | 11 |
| Serious | 66 | 66 | 68 | 73 | 83 |
| Minor | 278 | 269 | 279 | 325 | 327 |
| TOTAL | 352 | 345 | 356 | 421 | 421 |

The following graph shows the distribution of the injury and non-injury crashes on local roads and state highways in year 2006 by movement category.

## Movement category distribution 2006




Further information about 2006 injury and non-injury crashes on:

### Local roads

- Worst month December (11 percent), best months February and September (7 percent each)
- Worst day Friday (17 percent), best day Monday (10 percent)
- Wet road 22 percent
- Night time 31 percent
- Mid-block 54 percent
- Social cost of crashes $53m
- At fault male driver (injury crashes) 62 percent
- Full NZ licence (injury crashes) 55 percent of at fault drivers

### State highways

- Worst month April (13 percent), best month August (5 percent)
- Worst day Friday (18 percent), best days Monday and Tuesday (10 percent each)
- Wet road 37 percent
- Night time 29 percent
- Mid-block 71 percent
- Social cost of crashes $43m
- At fault male driver (injury crashes) 69 percent
- Full NZ licence (injury crashes) 59 percent of at fault drivers

It has been observed nationally that there is a growing group of drivers who have not been exiting the graduated licence system and who are choosing to stay on restricted licences. This is making it increasingly difficult to distinguish drivers who are truly inexperienced from those that should have moved to a full licence. As a consequence it is more difficult to target educational material.

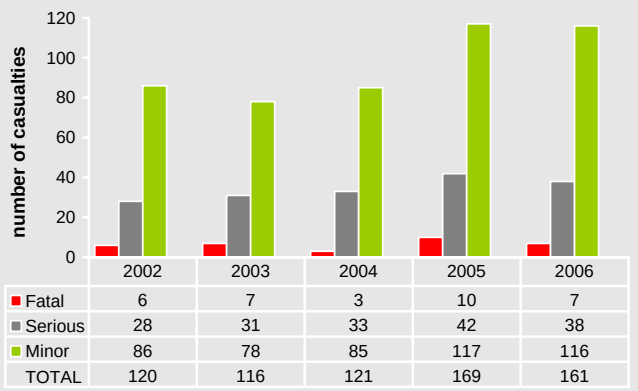
In 2006, in Hastings District, 38 percent of at fault drivers in injury crashes have either never been licensed, or hold a learner or a restricted driving licence.

| License status | Injury crashes percentage of at fault drivers | |
|---|---|---|
| | Hastings District | New Zealand |
| Full | 56.5 | 58.4 |
| Learner | 13.7 | 9.5 |
| Restricted | 20.9 | 17.6 |
| Never licensed | 3.2 | 2.2 |
| Disqualified | 0 | 1.7 |
| Overseas | 2.2 | 4.2 |
| Expired | 0 | 0.5 |
| Other/unknown | 3.6 | 5.6 |

# Loss of control on rural roads

Between 2002 and 2006, there were 28 fatal, 122 serious injury, 294 minor injury and 628 non-injury crashes recorded in Hastings District that occurred due to Loss of control on rural roads. These crashes resulted in 33 fatalities, 172 serious injuries and 482 minor injuries.

## Casualties trend (2002-2006 )




| | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|
| Fatal | 6 | 7 | 3 | 10 | 7 |
| Serious | 28 | 31 | 33 | 42 | 38 |
| Minor | 86 | 78 | 85 | 117 | 116 |
| TOTAL | 120 | 116 | 121 | 169 | 161 |

Seventy-five percent of Loss of Control/Head On crashes occurred at bends, with 269 crashes occurring on straight road section.

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

After drivers lose control of their vehicles they often crash into roadside hazards such as ditches, banks, poles or trees. Hitting these objects can result in a relatively minor off-road event turning into something far more serious.

The most common roadside hazards struck in a loss of control crash in Hastings District were fences (274) followed by ditches (230), cliff bank (176), over banks (129) and posts (11) from a total of 1193 objects struck.

The following table lists the main characteristics of these loss of control crashes.

| Crash characteristic | |
|---|---|
| Single vehicle | 83 percent |
| Roadside object struck (fence-most common) | 1193 Total |
| Alcohol (injury crashes only) | 20 percent |
| Excessive speed for the conditions (injury crashes only) | 33 percent |
| Road factors | 24 percent |
| Poor handling (injury crashes only) | 41 percent |
| Wet road | 42 percent |
| Night time | 42 percent |

The following table lists the licence status of at fault drivers of loss of control crashes at bends:

| License Status | Injury crashes Percentage of at fault drivers | |
|---|---|---|
| | Hastings District | New Zealand |
| Full | 54.2 | 55.4 |
| Learner | 12.5 | 8.7 |
| Restricted | 19.6 | 16.8 |
| Never Licensed | 3.1 | 2.8 |
| Disqualified | 2.4 | 2.5 |
| Overseas | 3.1 | 6.7 |
| Expired | 0.9 | 0.9 |
| Other/ Unknown | 4.2 | 6.1 |

Higher than national average proportion of at-fault learner, restricted and disqualified drivers being involved in the injury crashes are a matter of concern.

Further facts about loss of control on rural roads injury and non-injury crashes in 2002-2006 period are:

### Local roads

- 10 deaths, 65 serious injuries and 200 minor injuries
- 71 percent of at fault drivers in injury crases are male
- Most common crash factor is *excess speed*
- Most common at fault age range 15-19
- 29 percent alcohol over limit in injury crashes
- Worst month December (11 percent), best month September (4 percent)
- Worst day of week Saturday (20 percent), best day Monday (10 percent)

### State highways

- 23 deaths, 107 serious injuries and 282 minor injuries
- 71 percent of at fault drivers in injury crases are male
- Most common crash factor is *poor handling*
- Most common at fault age range 30-39
- 13 percent over alcohol limit in injury crashes
- Worst month March (11 percent), best month September (5 percent)
- Worst day of week Sunday (20 percent), best day Wednesday (11 percent)

## Recommended actions

### Engineering

- Continue with programmes to upgrade and maintain curve warning signs, markings and delineation on local rural roads, to the appropriate standards
- Continue with rural crash reduction studies on both local roads and state highways to investigate and carry out remedial treatment to black spots and routes, giving priority to those with a higher incidence of crashes reported
- Maintain pavement surface to provide good standards for skid resistance
- Maintain roadsides clear of hazards and provide side protection where appropriate
- Widen road carriageway and seal shoulders to provide additional vehicle wander and recovery space where feasible and cost effective
- Improve road geometry

### Education

- Educate drivers to be aware of the risks of driving too fast for road conditions
- Promote safe and secure stock fences in rural areas
- Promote safe driving policies and training in businesses and the heavy transport industry
- Promote safe riding courses for motorcyclists

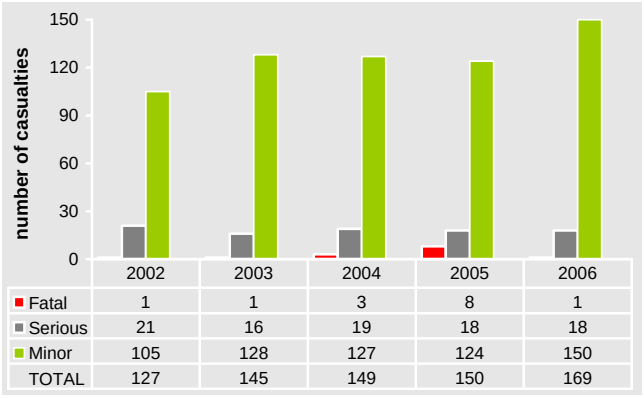
### Enforcement

- Continue enforcement focusing on inappropriate speed in rural areas
- Target enforcement to times and locations of greatest risk
- Co-ordinate enforcement campaigns, targeting road-user behaviour
- Maintain stock and animal control in the district

# Intersections

In Hastings District, during the five year period between 2002 to 2006 there were 11 fatal, 80 serious injury, 425 minor injury and 1086 non-injury crashes at intersections. In these, 14 deaths, 92 received serious injuries and 634 received minor injuries.

### Casualties trend (2002-2006 )




| | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|
| Fatal | 1 | 1 | 3 | 8 | 1 |
| Serious | 21 | 16 | 19 | 18 | 18 |
| Minor | 105 | 128 | 127 | 124 | 150 |
| TOTAL | 127 | 145 | 149 | 150 | 169 |

The table below shows the locations of intersections with some of the highest number of crashes in Hastings District between 2002 and 2006.

| Intersection name | Total crashes 2002 - 2006 | Injury crashes 2002 - 2006 | Total crashes in 2006 |
|---|---|---|---|
| SH 50A / Links Rd | 34 | 13 | 14 |
| SH 2/ Napier Rd | 16 | 12 | 2 |
| SH 50A / Links Rd | 21 | 8 | 5 |
| Eastbourne St West/ Nelson St South | 28 | 8 | 7 |
| Nelson St North / Queen St West | 32 | 8 | 7 |
| Karamu Rd Nth/ Federick St | 18 | 7 | 5 |
| St Aubyn St East/ Warren St Nth | 28 | 7 | 9 |

Crashes at X junctions in urban areas are the most common type of intersection crash reported, followed by T junction crashes at urban areas.

| Junction Type | Rural | Urban |
|---|---|---|
| T | 261 | 419 |
| Driveways | 9 | 30 |
| Cross (X) | 61 | 519 |
| Y | 21 | 7 |
| Roundabout | 33 | 236 |
| Multi Rd Junc. | 1 | 3 |
| Unknown | 1 | 1 |

The main causes contributing to crashes described in Police reports were **:**

- vehicles failed to give way at give way signs (31 percent).
- did not look where required (21 percent)
- driver failed to give way when turning to non turning traffic (12 percent)

Intersections present most drivers with one of their biggest driving challenges. The licence status of at fault drivers involved in *intersection* crashes is shown in the table below:

| Licence status | Injury crashes percentage of at fault drivers | |
|---|---|---|
| | Hastings District | New Zealand |
| Full | 59.8 | 60.9 |
| Learner | 11.4 | 9.4 |
| Restricted | 14.9 | 14.8 |
| Never licensed | 3.6 | 2.5 |
| Disqualified | 1.6 | 0 |
| Overseas | 3.2 | 3.7 |
| Expired | 0.4 | 0 |
| Other/unknown | 5.2 | 6.3 |

Further facts about crashes at intersections in Hastings District between 2002 and 2006 are:

### Local roads

- 11 deaths, 71 serious injuries and 492 minor injuries
- Male driver at fault—64 percent in injury crashes
- Most common crash factor *failed to give way*
- 12 percent alcohol over limit in injury crashes
- 85 percent on urban roads
- 21 percent on wet roads
- 30 percent at night time
- Worst month May (11 percent), best month January (6 percent)
- Worst day of week Friday (17 percent), best days Monday (12 percent)

### State highways

- 3 deaths, 21 serious injuries and 142 minor injuries
- Male driver at fault 58 percent in injury crashes
- Most common crash factor *poor observation* closely followed by *failed to give way*
- 4 percent alcohol over limit in injury crashes
- 33 percent on urban roads
- 19 percent on wet roads
- 30 percent at night time
- Worst month April (12 percent), best month January and November (6 percent each)
- Worst day of week Friday (20 percent), best Monday (9 percent)

## Recommended actions

### Engineering

- Continue with crash reduction studies to investigate and if required, carry out remedial work at local road and state highway intersections
- Ensure adequate sight distance is available at intersections and appropriate Give Way or Stop controls are installed

### Education

- Focus on road-user behaviour at intersections, including roundabouts and driveways
- Consider targeted advertising promotions, using appropriate media
- Promote the need at intersections to:
  - check for oncoming traffic (including cyclists and motorcyclists)
  - give way to other traffic
  - reduce speed
  - increase following distance
  - be more alert

### Enforcement

- Increase enforcement of compliance with Give Way, Stop and signal controls at intersections
- Conduct enforcement campaigns in conjunction with community programmes targeting intersections

# Vulnerable road users

Vulnerable road users are those who have very little physical protection in the event of a crash and are therefore susceptible to severe injuries.

On 24 February 2005, the Government launched *Getting there - on foot, by cycle*, its strategy to advance walking and cycling in New Zealand transport.

*Getting there - on foot, by cycle* aims to improve environments for walking and cycling, improve safety for pedestrians and cyclists, and increase the choice of walking and cycling for day-to-day transport.

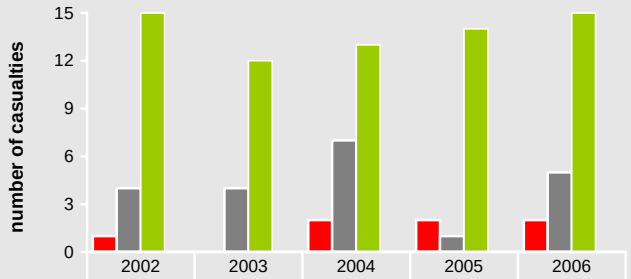
As a result Land Transport NZ expects local bodies to take a proactive approach to this subject. This should include the development of a walking and cycling strategy and making appropriate funding applications to progress that strategy.

It is vitally important to recognise that promotion alone of cycling and walking is not going to be effective at increasing their mode share unless they can be made safer.

## Pedestrians

Pedestrian injuries do not feature highly in the total road injury picture in Hastings District, representing 5 percent of all injuries, but make up 11 percent of all fatalities in last five year period.

### Casualties trend (2002-2006 )



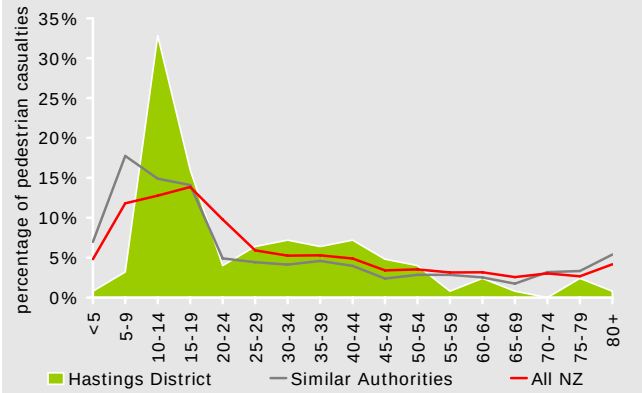

| | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|
| Fatal | 1 | 0 | 2 | 2 | 2 |
| Serious | 4 | 4 | 7 | 1 | 5 |
| Minor | 15 | 12 | 13 | 14 | 15 |
| TOTAL | 20 | 16 | 22 | 17 | 22 |

In 2006, the total number of pedestrian casualties, both fatalities and serious injuries were the highest in last five year period. Pedestrian deaths constitute 18 percent of all fatalities in 2006.

Most of the pedestrian crashes occurred on urban mid-block local roads. Twenty-nine percent of these crashes occurred during hours of darkness.

Hastings District is experiencing problems with a significant number of pedestrian crashes involving young people crossing roads. Approximately 33 percent of pedestrians injured during this five year period were in the 10-14 year age group and 16 percent in the 15-19 year age group.

### Pedestrian injuries by age 2002 -2006




Following are the non driver crash factors involved in pedestrian crashes:

- Pedestrian crossing roads (walking/running) heedless of traffic (40 percent )
- Children without supervision or escaped from supervision (25 percent )

Following are the driver crash factors involved in pedestrian crashes:

- Did not see or look behind when reversing/ manoeuvring (13 percent)
- Did not see or look for other party until too late (10 percent)

Pedestrian crashes are concentrated on arterial and collector routes. The top roads (on the basis of fatal and serious injuries) are shown in the table below.

| Crash road | Number of pedestrian injury crashes (Route count) |
|---|---|
| Herretaunga St West | 7 |
| Herretaunga St East | 5 |
| King St North | 4 |
| Orchard Rd | 4 |
| Queen St West | 4 |
| SH 2 | 4 |
| SH 50A | 4 |
| Flaxmere Ave | 3 |
| Karumu Rd North | 3 |
| Omahu Rd (40 m) | 3 |

Further information regarding 2002 -2006 pedestrian injury and non-injury crashes:

### Local roads

- 2 deaths, 20 serious injuries and 65 minor injuries
- Worst month September (13 percent each), best month November (2 percent)
- Worst days of week Friday (25 percent), best day Monday (7 percent)
- 34 drivers at fault in injury crashes in 5 years

### State highways

- 5 deaths, 1 serious injuries and 4 minor injuries
- No casualties in first two years of 5 year period
- Number of at fault drivers 8 in 5 years

## Recommended actions

### Education

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

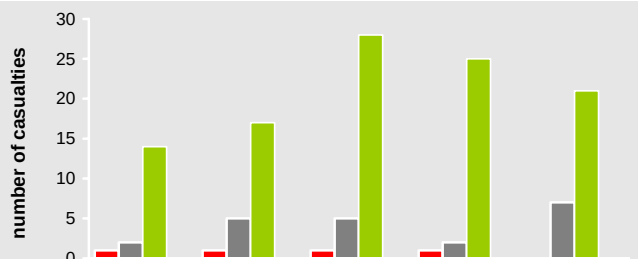
### Engineering

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

# Cyclists

Cyclist injuries do not feature high in the total road injury picture in Hastings District, representing 6 percent of all injuries and 7 percent of all fatalities in the last 5 years. Most (88 percent) cycling crashes occurred on urban roads, 61 percent at intersections and 86 percent during daylight hours.

### Casualties trend (2002-2006 )

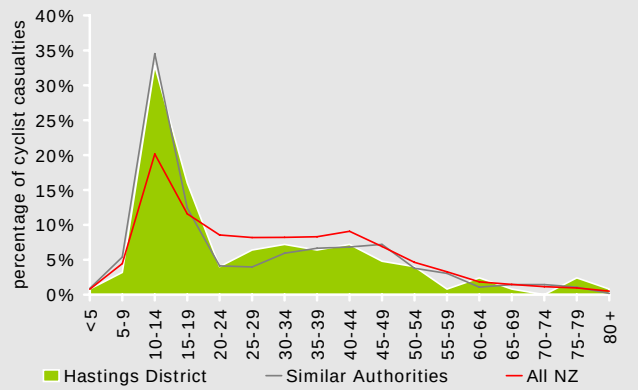



| | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|
| Fatal | 1 | 1 | 1 | 1 | 0 |
| Serious | 2 | 5 | 5 | 2 | 7 |
| Minor | 14 | 17 | 28 | 25 | 21 |
| TOTAL | 17 | 23 | 34 | 28 | 28 |

Last year (2006) more cycles than cars were imported into New Zealand. It is certainly noticeable in many areas across the country that there are many more cyclists using the roads than in past years. Consequently the number of casualties have been found to be increasing.

Cyclist injuries are not spread evenly across all age distributions with significant number of injured cyclist were of age between 10 and 14 years old.

### Cyclist injuries by age (2002 -2006)




Further information regarding 2002 to 2006 cycling crashes:

### Local roads

- 2 deaths, 19 serious injuries and 99 minor injuries
- The most common crash type was *a crossing or turning movement.* The second most common crash type *was rear end or obstruction types*
- 62 percent at intersections
- 14 percent at night time
- Worst month May (12 percent), best month January (3 percent)
- Worst day of the week Wednesday (22 percent), best day Thursday (6 percent)
- 55 percent of the cyclists injured were male

### State highways

- 3 serious injuries and 20 minor injuries
- The most common crash type was *a crossing or turning movement* The second most common crash type *was rear end or obstruction types*
- 81 percent at intersections
- 11 percent at night time
- Worst month January (33 percent )
- Worst day of the week Thursday (33 percent)
- 79 percent of the cyclists injured were male

## 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

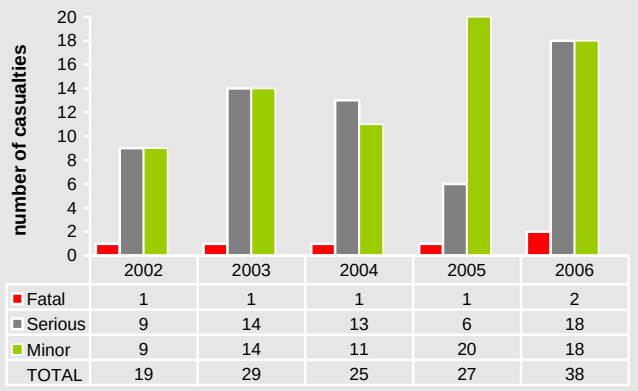
- Implement dedicated cycle lanes and cycle ways in the city commencing with higher demand routes with high cycle crash rates
- Provide cycle facilities such as formal marked cycle lanes and establish cycle ways to improve safety for cyclists as recommended in the cycling strategy

- Adopt and implement recommendations of Transit New Zealand and Hastings District Councils cycling strategies

# Motorcyclists

Motorcyclist injuries represent 9 percent of all injuries in Hastings District and make up 10 percent of all fatalities. Total number of injuries as well as fatalities and serious injuries were highest in 2006 in comparison to any single year in the last five year period.

## Casualties trend (2002-2006 )



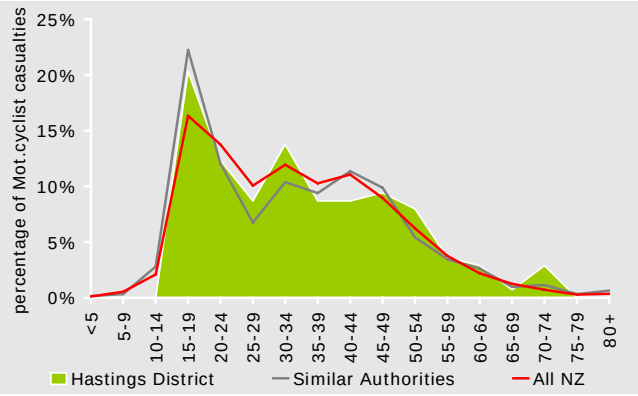

| | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|
| Fatal | 1 | 1 | 1 | 1 | 2 |
| Serious | 9 | 14 | 13 | 6 | 18 |
| Minor | 9 | 14 | 11 | 20 | 18 |
| TOTAL | 19 | 29 | 25 | 27 | 38 |

Nationally motorcycling fatalities dropped from a high of 20 percent of fatalities in 1988 to just six percent in 2003. Since then there has been a significant increase in motorcycle registrations and this has reversed the downward trend. In 2006 motorcyclists accounted for 9.5 percent of road fatalities in New Zealand.

Fifty five percent of motorcycling crashes occurred on urban roads during daylight hours.

Almost 20 percent of motorcycle casualties were in 15-19 age group, the majority of which were males.

## Motorcyclist injuries by age 2002 -2006




Further information regarding 2002 to 2006 motorcycling crashes:

### Local roads

- 4 deaths, 37 serious injuries and 51 minor injuries
- The most common crash type was *a crossing or turning movement* (38 percent). The second was *rear end/obstruction* (32 percent)
- 47 percent were at intersections
- 23 percent at night time
- 11 percent on wet roads
- Worst month November (15 percent)
- Worst days of week Saturday (21 percent)
- 58 percent of motorcyclists injured were male

### State highways

- 2 deaths, 23 serious injuries and 21 minor injuries
- The most common crash type was *bend –loss of control/head On* (39 percent) followed by *rear end/obstruction* (28 percent)
- 18 percent at intersections
- 21 percent at night time
- 18 percent on wet roads
- Worst month May (24 percent)
- Worst day of the week Sunday (27 percent )
- 73 percent of motorcyclists injured were male

33 percent of crashes involved a road factor mainly slippery surface due to loose material, oil/diesel/fuel. Uneven surface and road surface under construction or maintenance were also cited.

## 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

# National issues

## Speed

Speed *too fast* was recorded in 17 percent of all nationally reported injury crashes in the last five years. In Hastings District, this factor was recorded in 17 percent of crashes resulting 19 deaths, 74 serious and 253 minor injuries. There were also 412 non-injury speed-related crashes reported. Speed as a factor in crashes is not reducing in the district.

Seventy-three percent of speed-related injury crashes were *bend-lost control/head on*. Male drivers aged less than 24 years were involved in almost half of the speed related crashes.

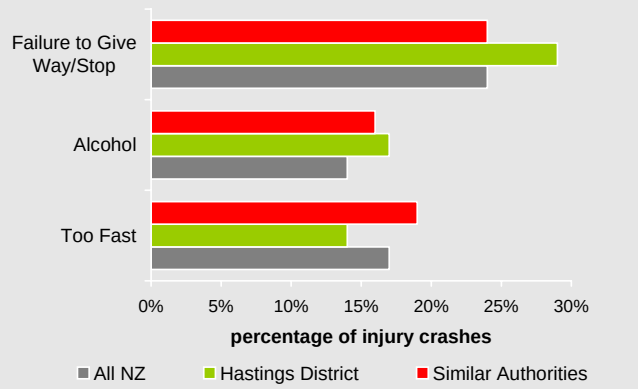
## Alcohol

Alcohol was involved in 14 percent of all nationally reported injury crashes in the last five years. In Hastings District, Alcohol was involved in 14 percent of crashes resulting 20 deaths, 54 serious and 185 minor injuries. Alcohol as a factor in crashes is not reducing in the district.

Forty-eight percent of alcohol-related injury crashes were *bend-lost control/head on*.

## Failure to give way

Failure to give way or stop was reported in 24 percent of all nationally reported injury crashes for the last five years. In Hastings District, this factor was recorded in 29 percent of injury crashes resulting in 6 deaths, 79 serious and 461 minor injuries. There were also 612 non-injury crashes reported with this factor. Seventy-eight percent of the crashes were in urban areas of the district.




## Restraints

The Ministry of Transport conducts surveys of restraint use. The results of these surveys are at a regional level, and may not be fully appropriate to a Territorial Authority. The results are obtainable from the Ministry of Transport website.

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

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