

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 2003–2007 period.

This report is the ninth road safety report for the Hastings 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 Hastings 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 Hastings district is compared to similar local bodies or those with high social cost (relating mainly to high numbers of injury crashes).

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

Major road safety issues		2007 road trauma	
Hastings District		Casualties	Hastings District
Loss of control on rural roads		Deaths	16
Intersections		Serious casualties	63
Vulnerable road users: (pedestrians, cyclists, motorcyclists)		Minor casualties	311
Nationally		Crashes	Hastings District
Speed		Fatal crashes	15
Alcohol		Serious injury crashes	43
Failure to give way		Minor injury crashes	215
Restraints		Non injury crashes	607

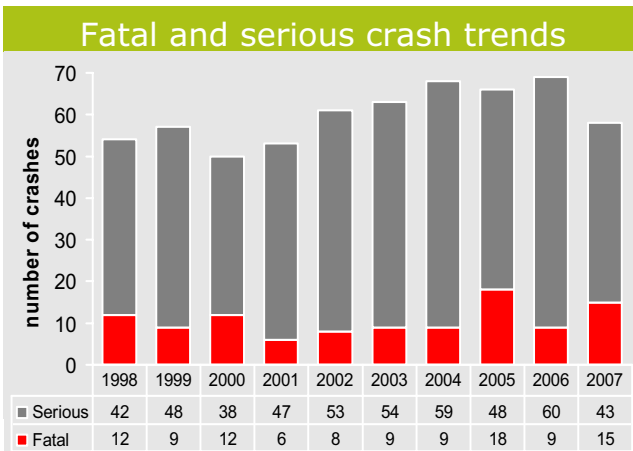
Overview 2007

In 2007 in the Hastings district there were 273 injury crashes and 607 non-injury crashes reported by the New Zealand Police. Twenty six 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.

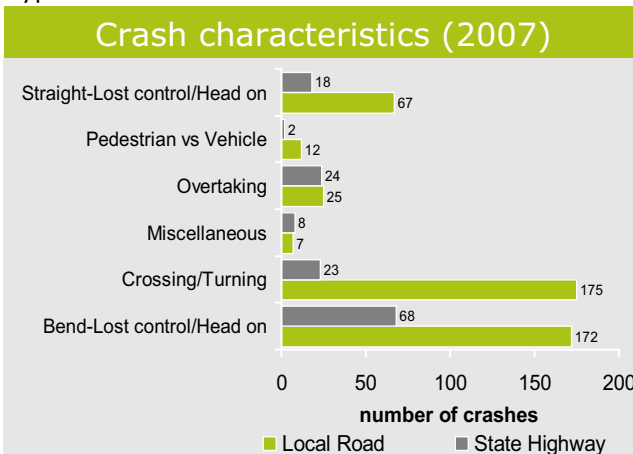
Casualties by injury type in 2007				
	Fatalities	Serious injuries	Minor injuries	Total
Total	16	63	311	390
Local roads Vs State highways				
Local Roads	11	40	228	279
State Highway	5	23	83	111
Rural Vs Urban roads				
Rural ¹	12	46	170	228
Urban	4	17	141	162

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

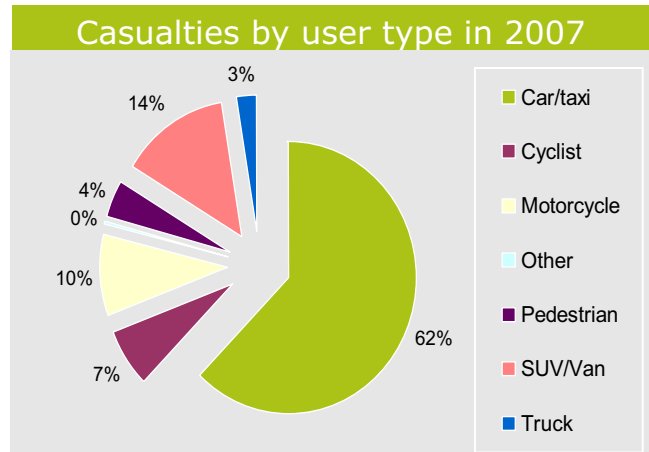
The total number of serious and fatal crashes were steadily increasing for the last few years. However there was a slight reduction in 2007.



In 2007, *lost control/head-on at bends* and the *crossing/turning* were the most predominant crash types in the district.



The highest number of casualties in 2007 were driver and passengers of cars, followed by those of SUV/van, motorcycles and cyclists.



Further information about injury and non injury crashes in 2007 on:

Local roads

- Worst day of week: *Friday* (17 percent)
- Wet road: 20 percent
- Night time: 29 percent
- Alcohol over limit: 22 percent
- Too fast for conditions: 16 percent
- Intersection: 51 percent
- Road factors: 6 percent
- At fault or part fault male driver (injury crashes): 69 percent
- 40 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed

State highways

- Worst day of week: *Friday* (19 percent)
- Wet road: 29 percent
- Night time: 31 percent
- Alcohol over limit: 7 percent
- Too fast for conditions: 17 percent
- Intersection: 28 percent
- Road factors: 11 percent
- At fault or part fault male driver (injury crashes): 68 percent
- 25 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed

Social cost of crashes

Local roads \$ 81.41M

State highways \$ 35.95M

Total \$ 117.36M

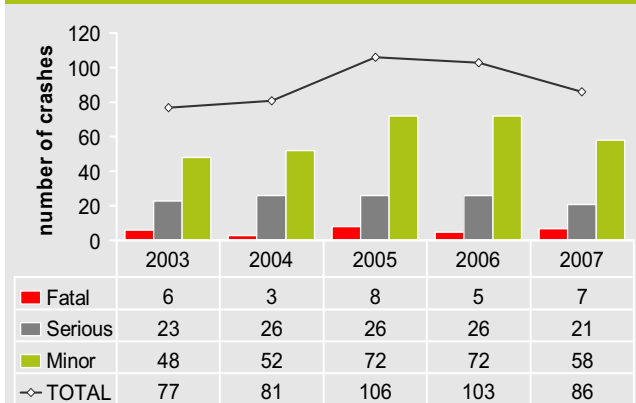
NOTE: The estimated social cost includes loss of life or life quality, loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage.

Rural loss of control

During the five year period between 2003 and 2007, 27 percent of all crashes in the Hastings district occurred due to loss of control in rural roads. These crashes resulted in 35 deaths, 180 serious injuries and 506 minor injuries. There were further 648 non-injury crashes reported.

Following an increase in injury crashes in 2005 and 2006, there have been some reduction in 2007.

Rural loss of control injury crash trends



Seventy five percent of loss of control crashes occurred at bends.

Crashes distribution 2003 to 2007

Loss of Control	Local roads	State highways
At bends	387 crashes	439 crashes
On Straight	142 crashes	133 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 *fences* (27 percent), *ditches* (22 percent) and *cliff banks* (16 percent).

Characteristics of loss of control crashes

Crash characteristic	Percentage occurrence
Single vehicle	85%
Alcohol (injury crashes)	20%
Too fast for the conditions (injury crashes)	33%
Road factors	22%
Poor handling (injury crashes)	43%
Wet road	39%
Night time	43%

Further information about all injury and non injury crashes due to loss of control in the district for the period 2003-2007 on:

Local roads

- 13 deaths, 75 serious injuries and 231 minor injuries
- Worst day of week: *Sunday* (20 percent)
- Wet road: 29 percent
- Night time: 49 percent
- With alcohol over limit: 29 percent
- Most common injury crash factor: *poor handling* and *too fast* (41 percent each)
- At fault male driver (injury crashes): 72 percent
- 41 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common age group (injury crashes): *under 40 years old*

State highways

- 22 deaths, 105 serious injuries and 275 minor injuries
- Worst day of week: *Sunday* (19 percent)
- Wet road: 49 percent
- Night time: 37 percent
- With alcohol over limit: 12 percent
- Most common injury crash factor: *poor handling* (44 percent) and *too fast* (26 percent each)
- At fault male driver (injury crashes): 70 percent
- 31 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common age group (injury crashes): *under 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
- 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

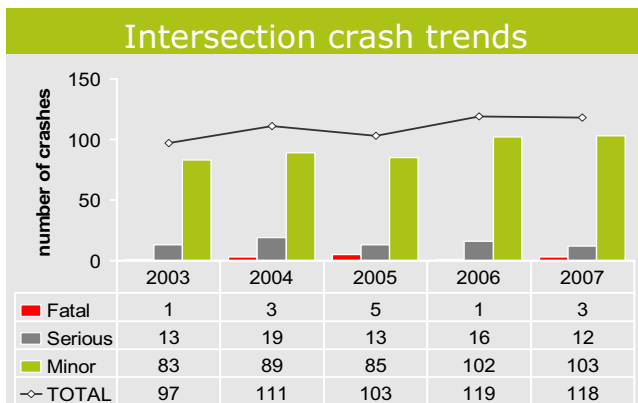
Enforcement

- 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, 41 per cent of all crashes in the Hasting district occurred at intersections. These crashes resulted in 17 deaths, 89 serious injuries and 669 minor injuries. There were a further 1165 non-injury crashes reported.

The number of injury crashes have steadily increased in 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
Pakowhai Rd / Elwood Rd	18	9	9
Havelock Rd / St Georges Rd	17	8	2
Nelson St N / Queen St W	31	8	5
Willowpark RD N / Aubyn St E	16	8	3
Karamu Rd N / Frederrick St	21	7	4
Nelson St S / Eastbourne St W	24	7	3
Pakowhai Rd / Rua-hapia Rd	15	7	3

Crashes at *T* (tee) junctions and cross roads are the most common types of intersection crashes reported, followed by roundabouts.

Junction Type	Rural	Urban
T (tee)	281	474
Driveways	9	39
X (cross)	66	526
Y	25	8
Roundabout	38	242
Multi roads Join	1	3

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

Local roads

- 14 deaths, 69 serious injuries and 524 minor injuries
- Worst day of week: *Friday* (18 percent)
- Wet road: 21 percent
- Night time: 29 percent
- With alcohol over limit: 12 percent
- Most common injury crash factor: *failed to give way/stop* (61 percent) followed by *poor observation* (53 percent)
- At fault male driver (injury crashes): 66 percent
- 32 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common age group (injury crashes): *all age groups but more predominant 15 to 19 years age group*

State highways

- 3 deaths, 20 serious injuries and 145 minor injuries
- Worst day of week: *Friday* (20 percent)
- Wet road: 19 percent
- Night time: 27 percent
- With alcohol over limit: 5 percent
- Most common injury crash factor: *failed to give way/stop* (57 percent) and *poor observation* (60 percent)
- At fault male driver (injury crashes): 58 percent
- 30 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common age group (injury crashes): *15 to 19 years and 30 to 60 years 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

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

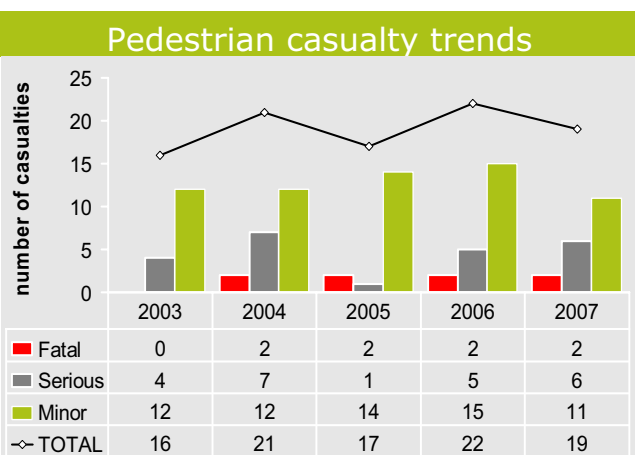
Vulnerable road users

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

Pedestrians

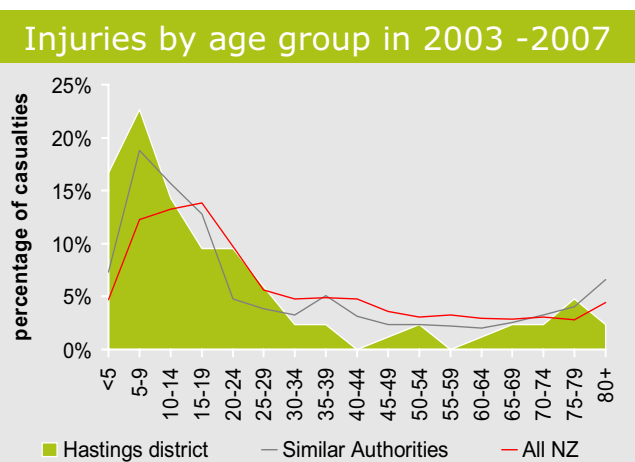
Pedestrians represent 5 percent of all casualties in the Hastings district. However they make up 12 percent of all fatalities in the last five year period.

There has been no significant reduction in the number of pedestrians injured in the last five years. It should be noted that pedestrian deaths constitute 13 percent of all fatalities in 2007.



Most pedestrian accidents occurred on urban roads (88 percent), away from intersections and during daylight hours. There is a very strong bias (44 percent) toward the mid to late afternoon peak hour (3 to 6 pm).

Approximately 40 percent of the pedestrians injured during this five year period were in the less than 9 year age group.



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 (22 percent)*

Pedestrian crashes are concentrated on arterial and collector routes.

The worst accident locations or routes pedestrian accidents in the district are listed below:

High pedestrian accident locations
Hastings town centre intersections generally
Heretaunga St West
Intersections on Karamu Road North
Havelock North town centre

Further information regarding 2007 -2007 pedestrian crashes in the district on:

Local roads

- 3 deaths, 21 serious injuries and 60 minor injuries
- Most common crash: *pedestrian crossing the road being hit by a driver approaching from their right (47 percent)*.
- Night time: 28 percent
- With alcohol over limit: 13 percent
- At intersection: 26 percent
- Worst day of week: *Thursday and Friday (16 crashes each)*

State highways

- 5 deaths, 1 serious injury and 4 minor injuries
- Most common crash: *pedestrian walking with or facing traffic (40 percent)*.
- Wet road: 10 percent
- Night time: 80 percent
- With alcohol over limit: 40 percent
- At intersection: 20 percent
- Worst day of week: *Wednesday (5 crashes)*

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

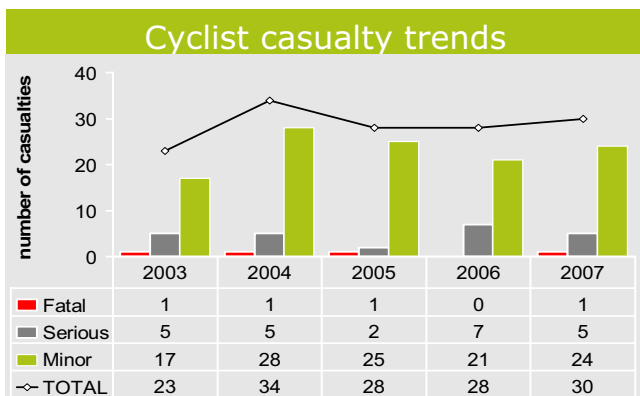
Engineering

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

Cyclists

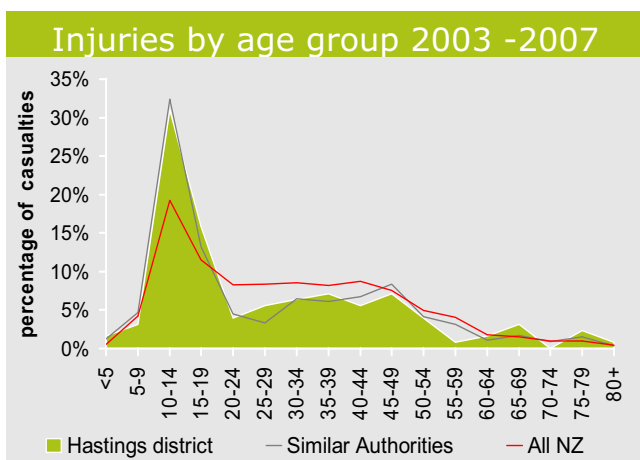
Cyclists are over represented in the Hastings district in comparison to the numbers injured in other similar authorities. In the last 5 years, 7 percent of all road users injured were cyclists.

The number of cyclist casualties have been fluctuating for last five years.



Most (86 percent) cycling crashes occurred on urban roads, 57 percent at intersections and 87 percent during daylight hours.

The cyclists injured are not spread evenly across all age distributions. A significant number of injured cyclists were of age between 10 and 14 years old.



The worst accident locations or routes for cyclist injuries in the district are listed below:

High cyclist injury locations
Main routes in & out of Hastings town centre
Hastings suburban intersections
Omahu Road / Heretaunga Street route
Karamu Road route
Heretaunga Street East route
Intersection on the main routes in & out of Havelock North

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

Local roads

- 1 death, 20 serious injuries and 97 minor injuries
- Most common crash: *crossing or turning movement* (67 percent)
- At Intersection: 59 percent
- Worst day of week: *Tuesday and Friday* (28 crashes each)
- Male cyclist injured: (79 percent)

State highways

- 3 deaths, 1 serious injuries and 6 minor injuries
- Most common crash: *crossing or turning movement*(50 percent)
- At Intersection: 42 percent
- Worst day of week: *Thursday* (4 crashes)
- Male cyclist injured: (79 percent)

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

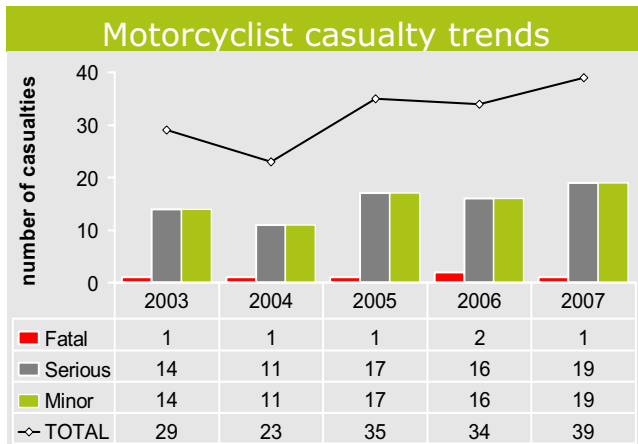
- Co-ordinate enforcement campaigns targeting cycle safety
- Increase enforcement of road-user compliance with Give Way, Stop and signal controls at intersections
- Continue with safe cycling education programmes in schools

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

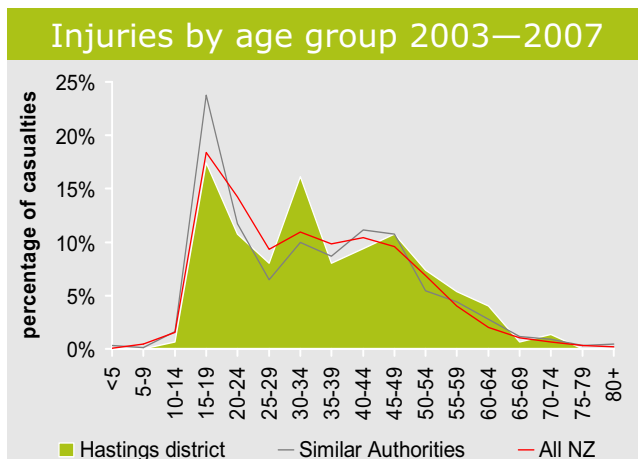
Motorcyclists represent 6 percent of all injuries in the Hastings district and make up 9 percent of all fatalities. The total number of injuries has increased over the past five years.



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

Forty seven percent of motorcycle crashes in the district occurred on urban roads during daylight hours.

The number of motorcyclist injured is distributed widely across the age groups.



The worst accident locations or routes for motorcyclist crashes in the district are listed below:

High motorcyclist crash locations

- Intersections on main routes through Hastings town centre
- Rural SH5 & SH2 north of Napier
- SH50 rural
- Intersections on main routes through Havelock North town centre

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

Local roads

- 4 deaths, 37 serious injuries and 40 minor injuries
- Most common crash: *crossing or turning movement (35 percent)*.
- Wet road: 10 percent
- Night time: 24 percent
- With alcohol over limit: 19 percent
- At Intersection: 45 percent
- Worst day of week: *Saturday (22 crashes)*
- Male cyclist injured: (79 percent)

State highways

- 2 deaths, 16 serious injuries and 16 minor injuries
- Most common crash: *loss control at bend (42 percent)*.
- Wet road: 18 percent
- Night time: 18 percent
- With alcohol over limit: 6 percent
- At Intersection: 18 percent
- Worst day of week: *Saturday (11 crashes)*

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

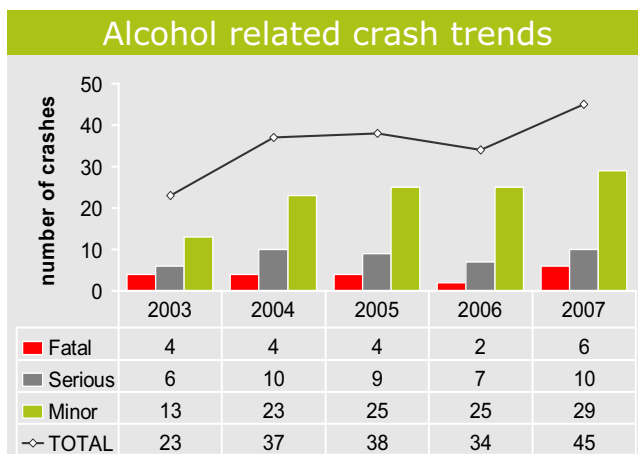
Alcohol

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 Hastings district, alcohol was a factor in 18 percent of all injury crashes in 2007 which is higher than the national average and higher than the last five year district average of 14 percent.



There were 177 alcohol-related injury and 280 non-injury crashes reported in the last five years. These crashes have resulted in 22 deaths, 59 serious and 160 minor injuries. Injuries in 2007 related to alcohol were the highest in five year period.

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

Local roads

- 15 deaths, 46 serious injuries and 129 minor injuries
- Worst month: *November (11 percent)*
- Worst day of week: *Saturday (26 percent)*
- Wet road: *23 percent*
- Night time: *76 percent*
- At Intersection: *38 percent*
- Excessive speed: *34 percent*
- Most common injury crash factor: *poor observation (26 percent)* followed by *poor handling (23 percent)*
- At fault male driver (injury crashes): *78 percent*

- 43 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common at fault drivers' age group (injury crashes): *15 to 19 years old*

State highways

- 7 deaths, 13 serious injuries and 31 minor injuries
- Worst day of week: *Sunday (28 percent)*
- Wet road: *22 percent*
- Night time: *74 percent*
- At Intersection: *17 percent*
- Excessive speed: *23 percent*
- Most common injury crash factor: *poor handling (38 percent)* followed by *poor observation (25 percent)*
- At fault male driver (injury crashes): *79 percent*
- 38 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common at fault drivers' age group (injury crashes): *15 to 19 and 30 to 39 years old age groups*

Recommended actions

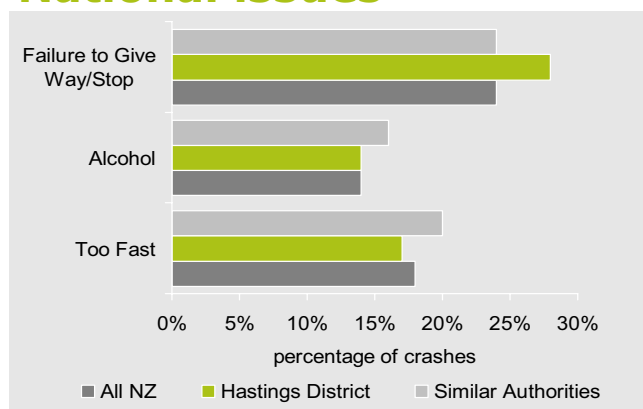
Education

- 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 Hastings district, "too fast" was recorded in 17 percent of injury crashes in the last five years, resulting in 24 deaths and 322 injuries. Speed as a factor in crashes is not reducing in the district.

Seventy-two 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 20 years old were most involved in these crashes.

Alcohol

In the Hastings district, *alcohol* was involved in 14 percent of injury crashes in the last five years, resulting in 29 deaths and 244 other injuries. The number of injury crashes involving alcohol is increasing.

Fifty-four percent of alcohol crashes occurred in urban areas. Seventy-one percent of these crashes involved *Loss of control/head-on* crashes. Traveling *too fast*, *poor handling* and *poor observations* were the factors often associated with alcohol.

Failure to give way

In the Hastings district, *Failure to give way or stop* was reported in 28 percent of all reported injury crashes for the last five years resulting in 7 deaths and 544 other injuries. Most (93 percent) of these were *crossing/turning* manoeuvres, often associated with failure to look for other parties. Sixty-one percent of at fault drivers in these crashes were males distributed in all age groups.

Restraints

The Ministry of Transport conducts surveys of restraint use. According to 2007 survey results restraint rate in Hastings District for front seat and rear seat are 96 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/>

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