

briefing notes road safety issues

Hastings 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 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 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 Hastings 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 Hastings District for 2008.

| Major road safety issues | | 2008 road trauma | |
|---|--|---------------------------|--------------------------|
| Hastings District | | Casualties | Hastings District |
| Rural loss of control | | Deaths | 7 |
| Intersections | | Serious injuries | 62 |
| Vulnerable road users: pedestrians, cyclists and motorcyclists | | Minor injuries | 233 |
| Alcohol | | Total casualties | 302 |
| National issues | | Crashes | Hastings District |
| Speed | | Fatal crashes | 7 |
| Alcohol | | Serious injury crashes | 45 |
| Failure to give way | | Minor injury crashes | 168 |
| Restraints | | Non-injury crashes | 527 |

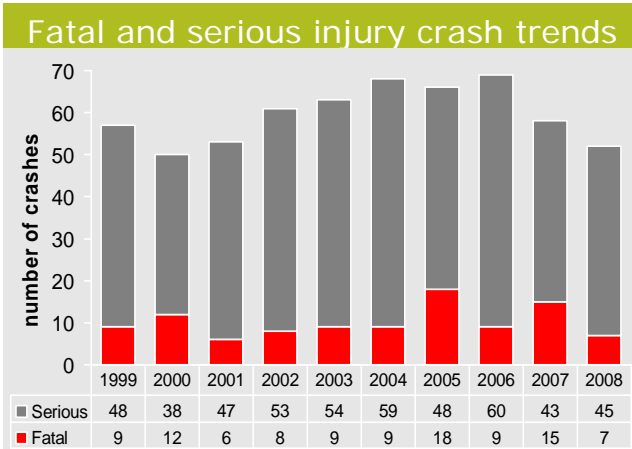
Overview 2008

In 2008 in Hastings District there were 220 injury crashes and 527 non-injury crashes reported by the New Zealand Police. Twenty-eight 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.

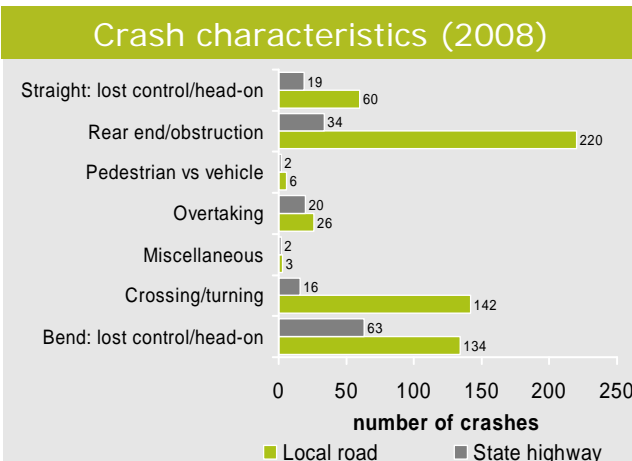
| Casualties by injury type in 2008 | | | | |
|-----------------------------------|------------|-----------|------------|------------|
| | Fatalities | Serious | Minor | Total |
| Total | 7 | 62 | 233 | 302 |
| Local roads vs state highways | | | | |
| Local | 4 | 34 | 165 | 203 |
| State | 3 | 28 | 68 | 99 |
| Rural vs urban roads | | | | |
| Rural ¹ | 4 | 45 | 122 | 171 |
| Urban | 3 | 17 | 111 | 131 |

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

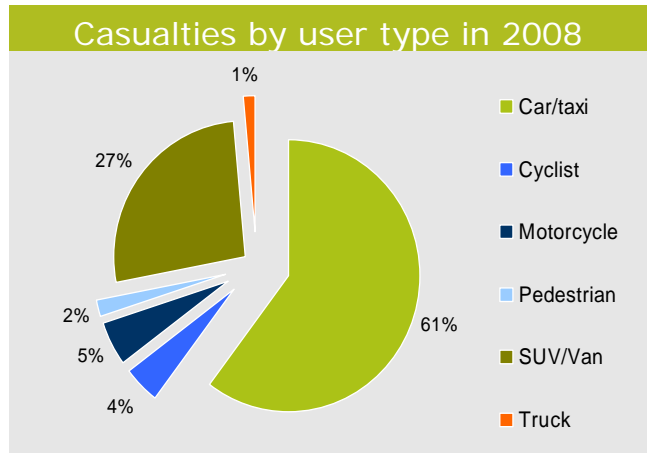
While the number of fatal crashes fluctuates year to year, the total number of fatal and serious injury crashes has been slowly decreasing over the last five years.



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.



The majority of casualties in 2008 were drivers and passengers of cars, followed by those of SUV/van. Meanwhile vulnerable road users (pedestrians/cyclists/motorcyclists) constituted 11 percent of all casualties.



Further information about injury and non-injury crashes in 2008 on:

Local roads

- Worst day of week: Wednesday(16 percent)
- Wet road: 18 percent
- Night time: 30 percent
- Alcohol over limit: 16 percent
- Too fast for conditions: 15 percent
- Intersection: 44 percent
- Road factors: 6 percent
- At fault or part fault male driver (injury crashes): 62 percent
- 33 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed

State highways

- Worst day of week: Friday and Sunday(17 percent each)
- Wet road: 26 percent
- Night time: 33 percent
- Alcohol over limit: 7 percent
- Too fast for conditions: 23 percent
- Intersection: 27 percent
- Road factors: 15 percent
- At fault or part fault male driver (injury crashes): 62 percent
- 31 percent of drivers at fault (injury crashes) were either on restricted or learner license

Social cost of crashes

| | |
|----------------|------------------|
| Local roads | \$ 56.50M |
| State highways | \$ 32.38M |
| Total | \$ 88.88M |

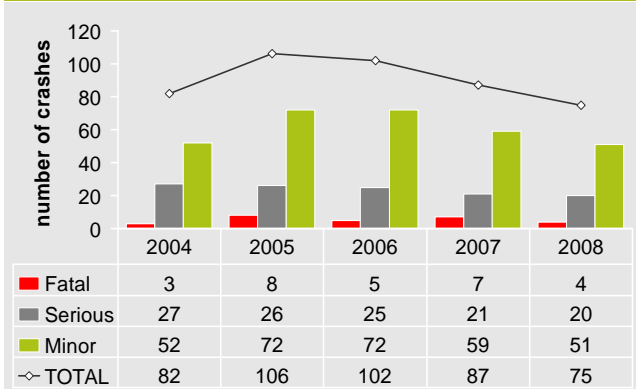
NOTE: The estimated social cost includes loss of life or life quality, loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage.

Rural loss of control

During the most recent five year period (2004-2008) 26 percent of all crashes in Hastings District occurred due to loss of control on rural roads. These crashes resulted in 32 deaths, 184 serious injuries and 505 minor injuries. There were further 625 non-injury crashes reported.

The latest five year trends for rural loss of control show a decreasing trend in the total number of injury crashes and also positive gains in both the number of serious and minor injury crashes in recent years.

Rural loss of control injury crash trends



Seventy-four percent of rural loss of control crashes occurred at bends.

Rural loss of control 2004-2008

| Loss of control | Local roads | State highways |
|-----------------|-------------|----------------|
| At bend | 403 crashes | 397 crashes |
| Straight road | 148 crashes | 129 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 *fences* (30 percent), *ditches* (22 percent) and *banks* (14 percent). Hitting these objects can result in more serious injuries than would otherwise be sustained.

Rural loss of control crashes

| Crash characteristics | Percentage occurrence |
|--|-----------------------|
| Single vehicle | 85% |
| Alcohol (injury crashes) | 21% |
| Too fast for the conditions (injury crashes) | 33% |
| Road factors | 20% |
| Poor handling (injury crashes) | 41% |
| Wet road | 37% |
| Night time | 43% |

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

Local roads

- 12 deaths, 78 serious injuries and 245 minor injuries
- Worst day of week: Saturday and Sunday (20 percent each)
- Wet road: 27 percent
- Night time: 49 percent
- Alcohol over limit: 29 percent
- Most common injury crash factor: too fast (40 percent) and poor handling (37 percent)
- At fault male driver (injury crashes): 73 percent
- 42 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 old

State highways

- 20 deaths, 106 serious injuries and 260 minor injuries
- Worst day of week: Sunday (19 percent)
- Wet road: 47 percent
- Night time: 38 percent
- Alcohol over limit: 12 percent
- Most common injury crash factor: poor handling (45 percent) and too fast (25 percent)
- At fault male driver (injury crashes): 68 percent
- 32 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 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

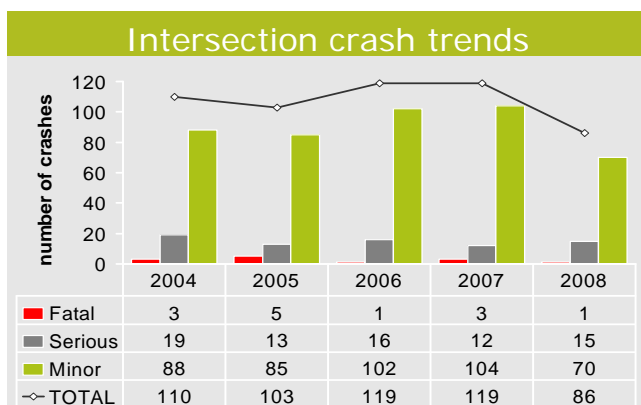
Enforcement

- Continued 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) 41 percent of all crashes in Hastings District occurred at intersections. These crashes resulted in 17 deaths, 90 serious injuries and 631 minor injuries. There were a further 1174 non-injury crashes reported.

The latest five year trends show a decrease in the number of intersection injury crashes.



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 |
|--|---------------------------|----------------------------|-----------------------|
| SH 50 / SH 50A | 33 | 12 | 2 |
| Havelock Rd / St Georges Rd | 18 | 10 | 3 |
| Napier Rd / SH 2 | 15 | 10 | 2 |
| SH50A Maraekakaho / York Road | 20 | 9 | 2 |
| St Aubyn St East / Willowpark Rd North | 17 | 9 | 4 |
| Pakowhai Rd / Ruahapia Rd | 18 | 8 | 4 |
| Nelson St North / Queen St West | 28 | 7 | 3 |
| St Aubyn St West / Nelson St North | 29 | 6 | 4 |

Crash numbers by junction type and rural urban split.

| Junction Type | Rural | Urban |
|----------------|-------|-------|
| T-junction | 262 | 492 |
| Driveways | 8 | 38 |
| Crossroad | 66 | 516 |
| Y-junction | 22 | 8 |
| Roundabout | 62 | 234 |
| Multi-junction | 1 | 2 |

Further information about all crashes at intersections in Hastings District 2004-2008 on:

Local roads

- 14 deaths, 72 serious injuries and 499 minor injuries
- Worst day of week: Friday (18 percent)
- Wet road: 20 percent
- Night time: 29 percent
- Alcohol over limit: 13 percent
- Most common injury crash factor: failed to give way/stop (61 percent) followed by poor observation (56 percent)
- At fault male driver (injury crashes): 62 percent
- 33 percent of drivers at fault (injury crashes) were either on restricted, learner or not licensed
- Most common at fault drivers' age group (injury crashes): all age groups, though a significant predominance in 15 to 19 year olds

State highways

- 3 deaths, 18 serious injuries and 132 minor injuries
- Worst day of week: Friday (19 percent)
- Wet road: 21 percent
- Night time: 25 percent
- Alcohol over limit: 5 percent
- Most common injury crash factor: poor observation (62 percent) and failed to give way/stop (54 percent)
- At fault male driver (injury crashes): 60 percent
- 31 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

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 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

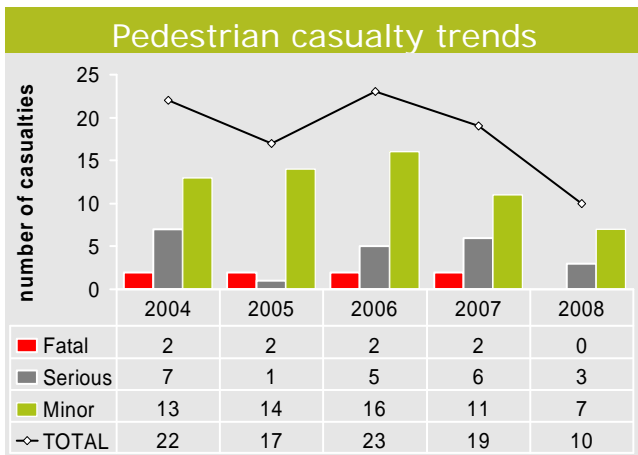
Vulnerable road users are those who have very little physical protection in the event of a crash and are therefore susceptible to severe injuries. These are described as pedestrians, cyclists and motorcyclists.

In Hastings District vulnerable road users constituted 19 percent of all injuries over the last five years (2004-2008).

Pedestrians

Injury crashes involving pedestrians in the Hastings district accounted for 5 percent of all injury crashes during the last five year period, resulting in 3 deaths, 19 serious injuries and 55 minor injuries.

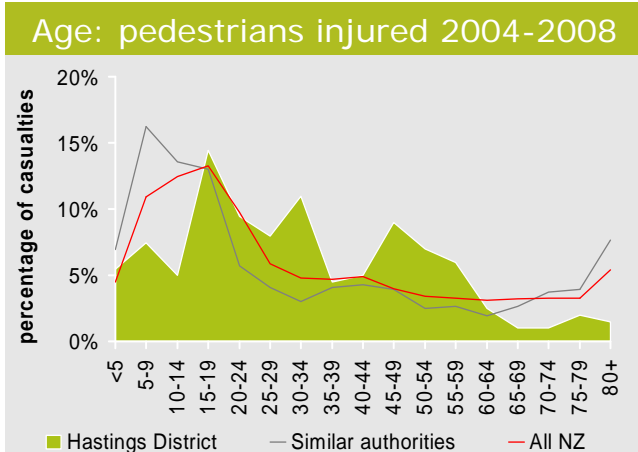
The latest five year trends show a reduction in each severity (fatal, serious and minor injury) of pedestrian injury crashes in the district.



Most pedestrian accidents occurred on urban roads (86 percent), three quarters (76 percent) were mid-block thus away from intersections and mostly (63 percent) during daylight hours.

Almost half (44 percent) occurred towards the mid to late afternoon peak hour (3 to 6 pm).

Uncharacteristically compared to similar authorities it's older pedestrians that stand out as being injured in Hastings District, aged the 20-34 (28%) and 45-59 (22%) year age groups.



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

- 35% of pedestrians injured were crossing the road heedless of traffic
- 26% of those injured were unsupervised children or that had escaped from supervision
- 11% of pedestrians injured were visibly intoxicated

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 about pedestrian injury crashes in Hastings District 2004-2008 on:

Local roads

- 3 deaths, 19 serious injuries and 55 minor injuries
- Most common crash: pedestrian crossing the left, being hit by a driver approaching from their right (47 percent)
- Night time: 31 percent
- Alcohol over limit: 16 percent
- Intersection: 25 percent
- Worst day of week: Friday (14 crashes)

State highways

- 5 deaths, 3 serious injury and 6 minor injuries
- Most common crash: pedestrian walking with or facing traffic (42 percent) and 3 out of these 5 accidents involved trucks
- Wet road: 8 percent
- Night time: 75 percent
- Alcohol over limit: 33 percent
- Intersection: 17 percent
- Worst day of week: Wednesday (5 crashes)

Recommended actions

Education

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

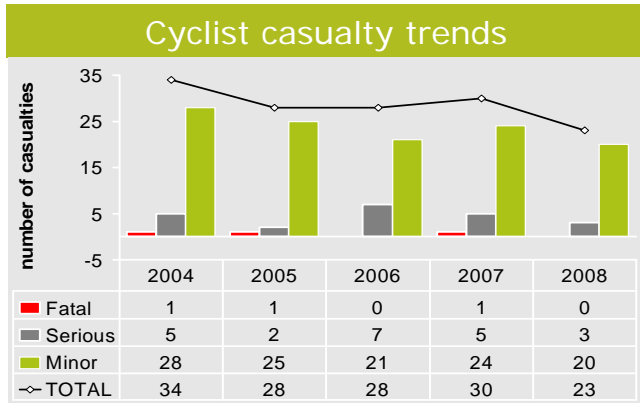
Engineering

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

Cyclists

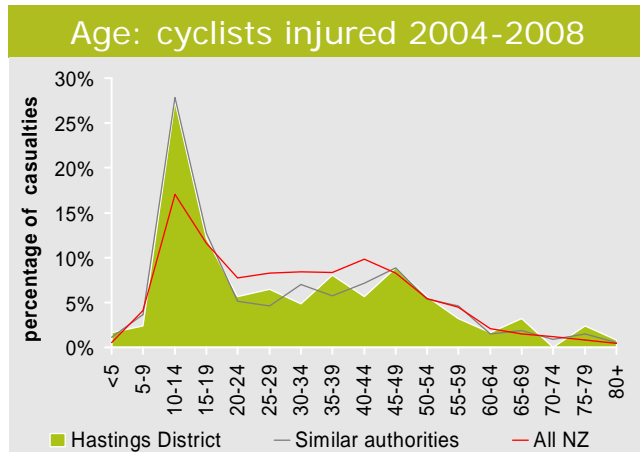
Injury crashes involving cyclists in Hastings District accounted for 10 percent of all injury crashes during the last 5 years, resulting in 3 deaths, 22 serious injuries and 118 minor injuries.

The latest five year trends show injury crashes involving cyclists to be gradually reducing.



Most (85 percent) cyclist crashes occurred on urban roads, the majority at intersections (60 percent) and mostly during daylight hours (88 percent).

Those injured cyclists were not spread evenly across all age distributions. Over a third (37 percent) of those cyclists injured were in the 10-19 year old age group.



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 crashes involving cyclists in Hastings District 2004-2008 on:

Local roads

- 1 death, 21 serious injuries and 112 minor injuries
- Most common crash: crossing or turning movement (62 percent)
- Intersection: 61 percent
- Worst day of week: Tuesday (29 crashes)
- Gender: At fault drivers and those injured is split equally male and female

State highways

- 2 deaths, 1 serious injuries and 6 minor injuries
- Most common crash movement: rear end or obstruction on roadway (50 percent)
- Intersection: 50 percent
- Worst day of week: Monday (3 crashes)
- Gender: At fault drivers and those injured is split four to one - male to female

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

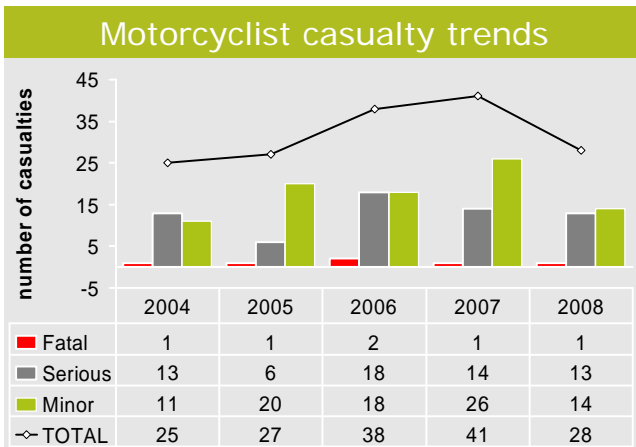
Engineering

- 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 New Zealand Transport Agency and Hastings District Council's cycling strategies

Motorcyclists

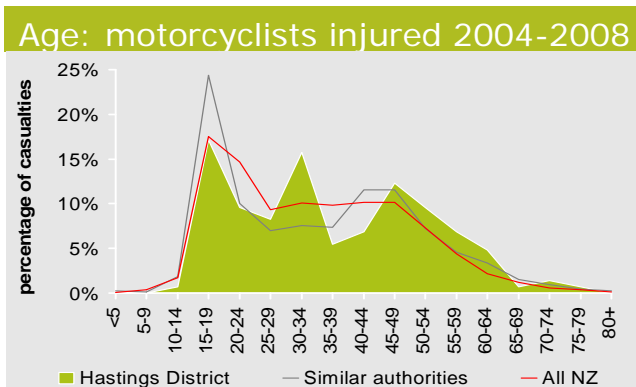
Injury crashes involving motorcycles represent 10 percent of all injury crashes in Hastings District during the last five year period, resulting in 6 deaths, 64 serious injuries and 89 minor.

The latest five year trends show little change, with fatal numbers remaining steady, while serious injury and minor injury crash numbers fluctuating slightly year to year without major gains.



Half (54 percent) of motorcycle crashes in the district occurred on urban roads during daylight hours.

Just over a quarter (27%) of injured motorcyclists were in the 15 to 24 year old age group. Uncharacteristically compared to similar authorities it's motorcyclists aged the 30-34 years (16%) that stand out as being injured in Hastings District .



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 Hastings District between 2004-2008 on:

Local roads

- 4 deaths, 44 serious injuries and 62 minor injuries
- Most common crash: crossing or turning movement (37 percent)
- 37 percent of drivers didn't look until too late for a motorcyclist
- 36 percent of drivers didn't give way to a motorcyclist when required to do so
- 28 percent of motorcyclists lost control
- Wet road: 12 percent
- Night time: 22 percent
- Alcohol over limit: 15 percent
- Intersection: 45 percent
- Worst day of week: Saturday (23 crashes)

State highways

- 2 deaths, 20 serious injuries and 27 minor injuries
- Most common crash: lost control at bend (42 percent)
- 12 percent of drivers didn't look until too late for a motorcyclist
- 10 percent of drivers didn't give way to a motorcyclist when required to do so
- 44 percent of motorcyclist lost control
- Wet road: 15 percent
- Night time: 22 percent
- Alcohol over limit: 6 percent
- Intersection: 18 percent
- Worst day of week: Saturday (11 crashes)

Recommended actions

Education

- Focusing on improving drivers' 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, 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.

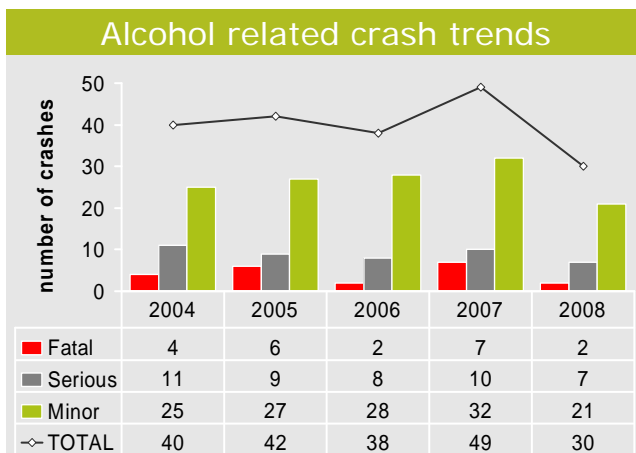
During 2008 within New Zealand, alcohol-affected drivers contributed to 34 percent of all fatal crashes and 15 percent of all injury crashes.

Hastings District

During the last five year period (2004-2008) 15 percent of all injury crashes in Hastings District were alcohol related. This compares to an average of 16 percent for similar authorities over this period.

The latest five year trends show a slight decline in the district for all alcohol related injury crashes. In Hastings District, alcohol was a factor in 14 percent of all injury crashes and alcohol related injury crashes in 2008 were the lowest they have been during the last five year period.

There were 199 alcohol-related injury and 301 non-injury crashes reported during the last five years. These crashes have resulted in 26 deaths, 68 serious and 187 minor injuries.



Over a quarter (29 percent) of alcohol related injury crashes show drivers driving too fast for conditions. Most occurred after sunset (73 percent), on local roads (81 percent) and involved male drivers being *at fault* (77 percent).

Significantly, 46 percent of *at fault* drivers 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 fact drivers under 25 years of age account for nearly half (47 percent) of *at fault* drivers in alcohol related injury crashes in the district.

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

Local roads

- 20 deaths, 52 serious injuries and 153 minor injuries
- Worst month: November (12 percent)
- Worst day of week: Saturday (26 percent)
- Wet road: 20 percent
- Night time: 73 percent
- Intersection: 38 percent
- Excessive speed: 33 percent
- Most common injury crash factor: too fast (33 percent) followed by poor observation (25 percent)
- At fault male driver (injury crashes): 77 percent
- 48 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

- 6 deaths, 16 serious injuries and 34 minor injuries
- Worst day of week: Sunday (28 percent)
- Wet road: 21 percent
- Night time: 69 percent
- Intersection: 20 percent
- Excessive speed: 14 percent
- Most common injury crash factor: poor handling (36 percent) followed by poor observation (29 percent)
- At fault male driver (injury crashes): 79 percent
- 40 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

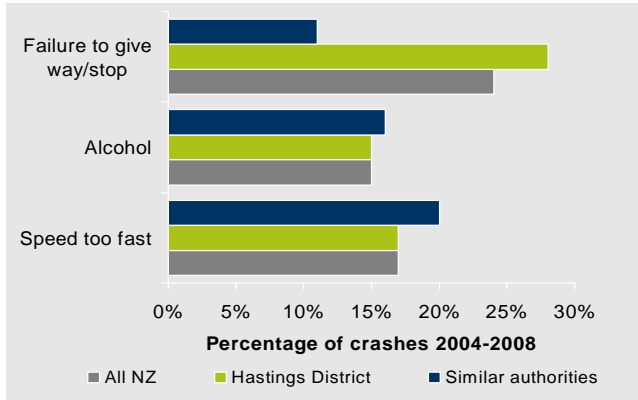
Education

- 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 Hastings District, speed too fast was recorded in 17 percent of injury crashes in the last five years resulting 21 deaths and 321 injures. The number of these *speed* related crashes has been slightly decreasing over the last five year.

Seventy-one percent of speed-related crashes were *lost control/head-on at bend* crash movement types. *Alcohol* and *poor handling* are the driver factors most often associated with *speed* crashes. Male drivers aged under 20 years old were the group most involved in these crashes.

Alcohol

In Hastings District, alcohol was involved in 15 percent of injury crashes in the last five years resulting in 26 deaths and 255 other injuries. The five year trend is showing a slight decrease in the number of these crashes.

Forty-six percent of alcohol related crashes occurred in urban areas. Seventy-three percent of these crashes involved *lost control/head-on* crash movement types. *Travelling too fast*, *poor handling* and *poor observations* are factors often associated with alcohol.

Failure to give way

In 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 503 other injuries. Most (94 percent) of these were *crossing/turning* manoeuvres, often associated with failure to look for other parties. Sixty 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 Hastings District for front seat and rear seat are 95 and 89 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/research/safetybeltstatistics/>

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