

# *briefing notes road safety issues*

## *Porirua City*

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 Porirua City. 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 city. More detailed information may be obtained from either Porirua City 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 either the most common crash types, those that appear over-represented when Porirua City is compared to similar authorities and those 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 Porirua City for 2008.

Major road safety issues		2008 road trauma	
<b>Porirua City</b>		<b>Casualties</b>	<b>Porirua City</b>
Loss of control at bends		Deaths	4
Rear-end/obstruction		Serious injuries	23
Crossing/turning		Minor injuries	82
Alcohol		Total casualties	109
Speed			
<b>National issues</b>		<b>Crashes</b>	<b>Porirua City</b>
Speed		Fatal crashes	4
Alcohol		Serious injury crashes	20
Failure to give way		Minor injury crashes	63
Restraints		Non injury crashes	373

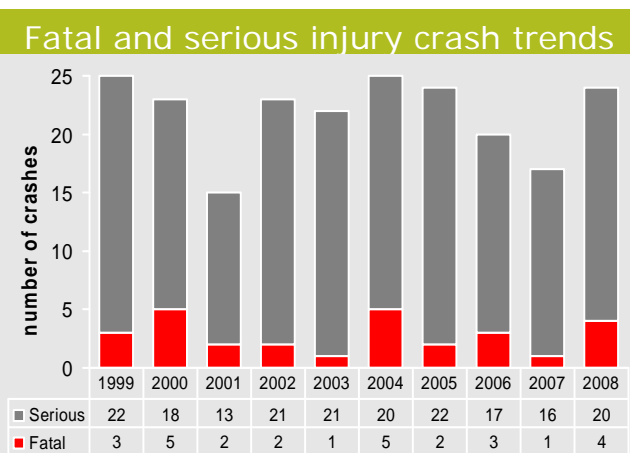
## Overview 2008

In 2008 in Porirua City there were 87 injury crashes and 373 non-injury crashes reported by the New Zealand Police. Twenty-three percent of the total injury crashes in the city were on state highways. The table below shows the number of injuries resulting from these crashes in the city.

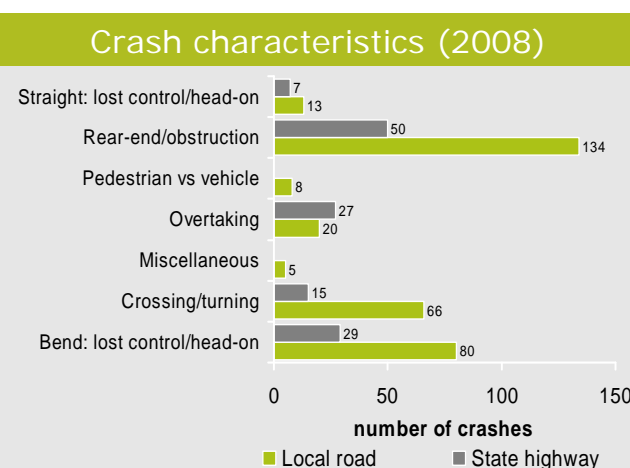
Casualties by injury type in 2008				
	Fatalities	Serious injuries	Minor injuries	Total
<b>Total</b>	<b>4</b>	<b>23</b>	<b>82</b>	<b>109</b>
Local roads vs state highways				
Local roads	3	19	64	86
State highways	1	4	18	23
Rural vs urban roads				
Rural <sup>1</sup>	0	6	17	23
Urban	4	17	64	86

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

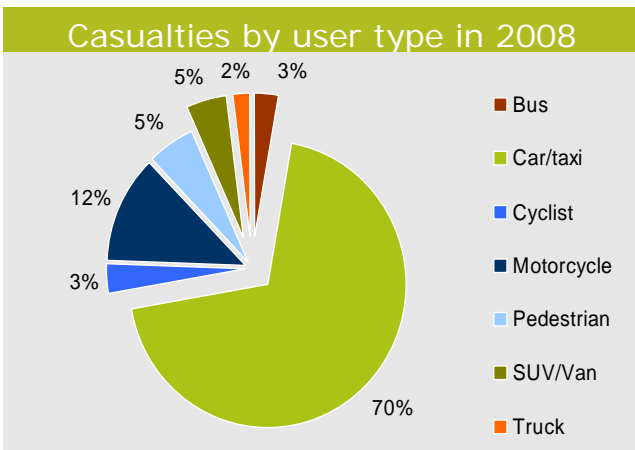
Last year (2008) saw an increase in the total number of fatal and serious injury crashes, upsetting the previous five year downward trend.



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



Vulnerable road users (pedestrians/cyclists/motorcyclists) constituted 20 percent of the casualties.



Further information about all crashes in 2008 on:

#### Local roads

- Worst months: March and July (12 percent each)
- Worst day of week: Sunday (20 percent)
- Wet road crashes: 24 percent
- Night time crashes: 30 percent
- Alcohol over limit (injury crashes): 23 percent
- Too fast for conditions (injury crashes): 23 percent
- Crashes at intersection: 47 percent
- Road factors: 5 percent
- At fault male driver (injury crashes): 63 percent
- At fault driver held full NZ licence (injury crashes): 48 percent

#### State highways

- Worst month: April (13 percent)
- Worst day of week: Tuesday (18 percent)
- Wet road crashes: 32 percent
- Night time crashes: 23 percent
- Alcohol over limit (injury crashes): 11 percent
- Too fast for conditions (injury crashes): 11 percent
- Crashes at intersection: 38 percent
- Road factors: 5 percent
- At fault male driver (injury crashes): 62 percent
- At fault driver held full NZ licence (injury crashes): 64 percent

### Social cost of crashes

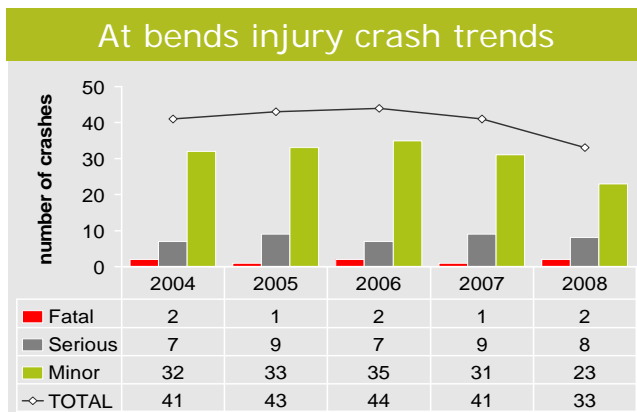
Local roads	\$ 33.2M
State highways	\$ 10.19M
<b>Total</b>	<b>\$ 43.40M</b>

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.

## Loss of control at bends

During the most recent five year period (2004-2008) 40 percent of all injury crashes in Porirua City occurred due to loss of control at bends. These crashes resulted in 11 deaths, 48 serious injuries and 237 minor injuries. There were a further 432 non-injury crashes reported.

The latest five year trends show the total number of injury crashes due to loss of control at bends was steady until 2007, though we observe a slight fall in 2008 mainly because of reduction in minor injury crashes.



One third of loss of control crashes at bends occurred on state highways resulting in 73 percent of total fatalities in the city. Approximately 60 percent of loss of control crashes at bends took place in urban areas.

The following table shows a breakdown of the general environment of all loss of control crashes (634 crashes) at bends in Porirua City for 2004-2008.

Loss of Control	Local Urban	Local Rural	SH urban	SH Rural
At bends	49%	19%	8%	24%

Most crashes at bends involved a driver losing control of their vehicle and running off the road and hitting a roadside object (79 percent) or perhaps colliding with another vehicle (31 percent).

The three most common roadside hazards struck during crashes in the city were *fences* (21 percent), *parked vehicles* and *cliff banks* (12 percent each) out of total 669 reported objects struck. Hitting these objects can result in more serious injuries than would otherwise be sustained.

Half of the at fault drivers in these crashes were aged under 24 years of age, mostly male (74 percent) and nearly half (46 percent) held either a learner licence, a restricted licence or were never licensed.

The following table shows speed too fast was a factor in half these injury crashes. Alcohol was a contributory factor in a quarter of these injury crashes. Half of all loss of control at bend crashes occurred during hours of darkness and a third of all crashes occurred in the wet.

Loss of control crashes at bends	
Crash characteristics	Percentage of crashes
Single vehicle	69
Alcohol (injury crashes)	26
Too fast for the conditions (injury crashes)	48
Road factors	16
Poor handling (injury crashes)	34
Rural road	43
Wet road	37
Night time	44

Further information about all loss of control crashes at bends in Porirua City 2004-2008 on:

### Local roads

- 3 deaths, 42 serious injuries and 152 minor injuries
- Worst months: April and October(43 crashes each)
- Worst day of week: Saturday (93 crashes)
- Wet road crashes: 34 percent
- Night time crashes: 48 percent
- Alcohol over limit: 28 percent
- Most common injury crash factors: too fast (58 percent) followed by poor handling (32 percent)
- At fault male driver (injury crashes): 77 percent
- At fault driver held full NZ licence (injury crashes): 35 percent
- Most common at fault drivers' age group (injury crashes): 15-24 years old

### State highways

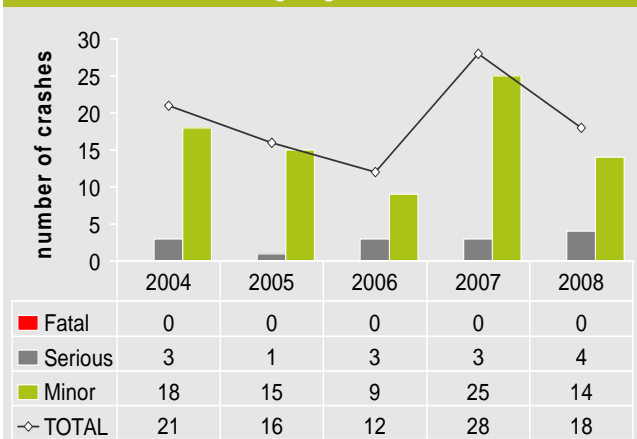
- 8 deaths, 6 serious injuries and 85 minor injuries
- Worst month: November (25 crashes)
- Worst day of week: Saturday (36 crashes)
- Wet road crashes: 44 percent
- Night time crashes: 36 percent
- Alcohol over limit (injury crashes): 21 percent
- Most common injury crash factors: poor handling (39 percent) followed by too fast (26 percent)
- At fault male driver (injury crashes): 66 percent
- At fault driver held full NZ licence (injury crashes): 58 percent
- Most common at fault drivers' age group (injury crashes): 15-24 years old

## Rear-end/obstruction

During the most recent five year period (2004-2008) 19 percent of all injury crashes in Porirua City were rear-end and/or obstruction type crashes. These crashes resulted in 17 serious injuries and 105 minor injuries. There were a further 757 non-injury crashes reported.

The latest five year trends show the total number rear-end/obstruction type injury crashes to be fluctuating, with little gain to be seen over this period.

### Rear-end injury crash trends



The main crash scenarios for injury crashes of this type in Porirua City 2004-2008 were:

- collision with a parked vehicle on the roadside: 22 percent
- collision with the end of a queue of traffic: 18 percent
- collision with a vehicle ahead slowing or stopped for cross traffic: 15 percent
- collision with a right turning vehicle near centre line, from behind by a straight through vehicle: 13 percent
- collision while manoeuvring, particularly non-injury crashes in car parking areas: 9 percent
- collision with a slower vehicle ahead: 8 percent

Driver factors play a significant part in crashes of this type. The number of crashes involving poor observation was a factor in 58 percent of all rear-end injury crashes. Factors contributing to rear-end injury crashes were; failing to notice the car ahead slowing (27 percent) and following too close (18 percent).

Rear-end/obstruction type crashes are more commonly a route rather than a site specific problem.

The following table shows locations for rear-end/obstruction injury crashes in the city based on high social cost 2004-2008 and higher crash numbers in 2008.

### High rear-end/obstruction crash locations

SH1: Mana View Road, Pascoe Avenue area

Titahi Bay Road / Awarua Street intersection

SH1 / Acheron Road intersection

SH1 / Whitford Brown Avenue intersection

SH58 junction with SH1

Mungavin off NBD / Titahi Bay Road intersection

Further information about rear-end/obstruction type crashes in Porirua City 2004-2008 on:

#### Local roads

- 10 serious injuries and 61 minor injuries
- Worst month: June (60 crashes)
- Worst days of week: Thursday and Friday (100 crashes each)
- Wet road crashes: 18 percent
- Night time crashes: 27 percent
- Intersection crashes: 25 percent
- Road factors: 3 percent
- Alcohol over limit (injury crashes): 20 percent
- Most common injury crash factors: poor observation (53 percent) followed by incorrect lane position (33 percent)
- At fault male driver (injury crashes): 81 percent
- At fault driver held full NZ licence (injury crashes): 55 percent
- Most common at fault drivers' age group (injury crashes): 15-24 years old

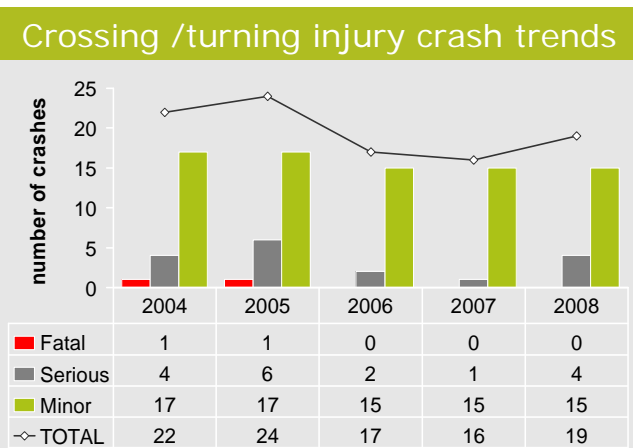
#### State highways

- 7 serious injuries and 44 minor injuries
- Worst month: May (31 crashes)
- Worst day of week: Saturday (47 crashes)
- Wet road crashes: 21 percent
- Night time crashes: 21 percent
- Crashes at intersection: 37 percent
- Road factors: 9 percent
- Alcohol over limit (injury crashes): 6 percent
- Most common injury crash factors: poor observation (66 percent) followed by incorrect lane position (29 percent)
- At fault male driver (injury crashes): 56 percent
- At fault driver held full NZ licence (injury crashes): 78 percent
- Most common at fault drivers' age group (injury crashes): 15-39 years old

## Crossing/turning

In Porirua City during the most recent five year period (2004-2008) 19 percent of all injury crashes involved a crossing or turning movement. These crashes resulted in 4 deaths, 18 serious injuries and 110 minor injuries. There were a further 345 non-injury crashes reported.

The latest five year trends show a slight decrease in the total number of injury crashes involving crossing/turning movement.



During the latest five year period 2004-2008, there were 389 crashes at intersections. Failing to give way/stop was recorded in 21 percent of injury crashes over this period and was a factor in 90 percent of all crossing/turning type injury crashes.

The table below shows the locations of intersections with a high number of crashes in the city between 2004 and 2008.

Intersection name	Total crashes 2004-	Injury crashes 2004-	Total crashes 2008
Titahi Bay Road/ Lyttelton Avenue	21	8	3
Kenepuru Drive/ Titahi Bay Road	88	6	16
Titahi Bay Road/ Te Hiko Street	14	6	3
Titahi Bay Road/ Te Pene Avenue	17	4	3
Kenepuru Dr/Raiha St	16	4	2
Postgate Drive/ Omapere Street	13	4	2
Whitford Brown Ave/ Papakowhai Road	8	4	0
Titahi Bay Road/ Prosser Street	18	3	2

The majority (60 percent) of at fault drivers held a full NZ drivers' licence in these crossing/turning injury crashes. Forty percent of at fault drivers in injury crashes were under 29 years old.

The following table shows the number of crossing/turning crashes, 2004-2008, by junction type and urban/rural split.

Junction Type	Rural	Urban
T-junction	6	199
Driveways	6	53
Crossroad	5	37
Y-junction	2	1
Roundabout	2	130

The most common crash movement for all crossing/turning crashes was a vehicle turning right across oncoming traffic being hit by an oncoming vehicle (34 percent). Almost as common is a vehicle turning right from a side road or driveway being hit from the right by a vehicle travelling straight through (30 percent).

Further information about crossing/turning related crashes in Porirua City 2004-2008 on:

### Local roads

- 14 serious injuries and 71 minor injuries
- Worst month: May (43 crashes)
- Worst day of week: Wednesday (59 crashes)
- Wet road crashes: 19 percent
- Night time crashes: 24 percent
- Alcohol over limit (injury crashes): 3 percent
- Most common injury crash factors: failed to give way/stop (92 percent) followed by poor observation (52 percent)
- Road factors: 5 percent
- At fault male driver (injury crashes): 54 percent
- At fault driver held full NZ licence (injury crashes): 59 percent
- Most common at fault drivers' age group (injury crashes): under 24 years old

### State highways

- 4 deaths, 4 serious injuries and 39 minor injuries
- Worst month: April (13 crashes)
- Worst days of week: Tuesday and Thursday (19 crashes each)
- Wet road crashes: 19 percent
- Night time crashes: 34 percent
- Alcohol over limit (injury crashes): 4 percent
- Most common injury crash factors: failed to give way/stop (85 percent) followed by poor observation (67 percent)
- Road factors: 2 percent
- At fault male driver (injury crashes): 50 percent
- At fault driver held full NZ licence (injury crashes): 64 percent
- Most common at fault drivers' age group (injury crashes): under 24 years old and 50-59 years old

## 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 in similar crashes.

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

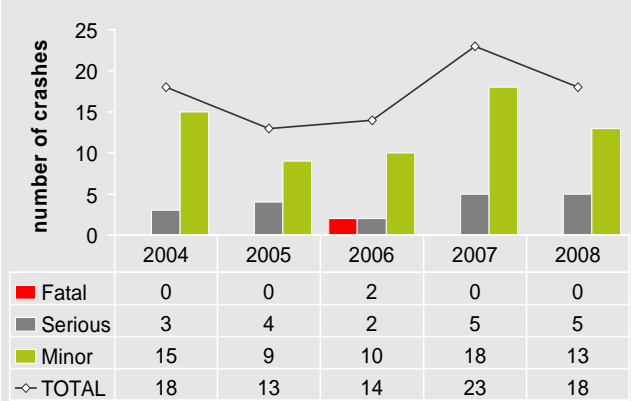
### Porirua City

During the last five year period (2004-2008) 17 percent of all injury crashes in Porirua City were alcohol related which is higher than the national average (15 percent) and similar authorities average (16 percent) for the same period. Last year 21 percent of all injury crashes in the city recorded alcohol as a contributing factor.

There were 86 alcohol-related injury and 141 non-injury crashes reported in the last five years. These crashes have resulted in 2 deaths, 24 serious and 100 minor injuries.

The latest five year trends show little gain in reducing the total number of alcohol-related injury crashes in the city.

### Alcohol related injury crash trends



Seventy-eight percent of the alcohol related crashes occurred on local roads in urban areas. Fifty-eight percent of these crashes involved a loss of control at bend crash movement. Twenty-eight percent of these crashes occurred at intersections.

More than two thirds (70 percent) of these crashes occurred during the hours of darkness. Just over half (55 percent) of these crashes occurred on weekends, between 6pm Friday and 6am Monday.

Two-thirds (67 percent) of the at fault drivers involved in alcohol related crashes on the local roads were either learner or restricted license holders, or never licensed or disqualified drivers.

### Alcohol and speed

Alcohol combined with speed was a factor in 42 percent of the 86 alcohol related injury crashes in Porirua City 2004-2008, resulting in 1 death, 12 serious injuries and 44 minor injuries. Speed itself has been a factor in 24 percent of all injury crashes in the city during the last five years.

Eighty-six percent of the crashes where alcohol and speed were both contributing factors occurred on local roads mostly in dark conditions (70 percent). Eighty-six percent of these crashes were loss of control at bend type crashes. Similarly three quarters of the at fault drivers in these injury crashes were males under 24 years of age (77 percent).

Further information about alcohol related crashes in Porirua City 2004-2008 on:

#### Local roads

- 1 death, 21 serious injuries and 68 minor injuries
- Worst month: December (23 crashes)
- Worst day of week: Saturday (48 crashes)
- Wet road crashes: 24 percent
- Night time crashes: 75 percent
- Crashes at Intersection: 28 percent
- Most common injury crash factors: too fast (52 percent) followed by poor handling (16 percent)
- Road factors: 3 percent
- At fault male driver (injury crashes): 83 percent
- At fault driver held full NZ licence (injury crashes): 20 percent
- Most common at fault drivers' age group (injury crashes): 15-24 years old

#### State highways

- 1 death, 3 serious injuries and 32 minor injuries
- Worst month: February (6 crashes)
- Worst day of week: Thursday (12 crashes)
- Wet road crashes: 23 percent
- Night time crashes: 55 percent
- Crashes at Intersection: 25 percent
- Excessive speed: 23 percent
- Most common injury crash factors: poor handling (23 percent) followed by fatigue and poor observation (18 percent each)
- Road factors: 13 percent
- At fault male driver (injury crashes): 77 percent
- At fault driver held full NZ licence (injury crashes): 68 percent
- Most common at fault drivers' age group (injury crashes): 30-49 years old

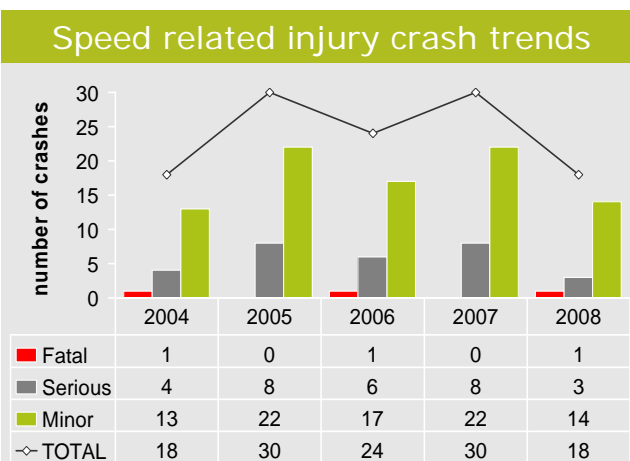
## Speed

Nationally, speed is one of the major contributing factors to road crashes. In 2008, excessive speed contributed to 34 percent of all fatal crashes (113 crashes) and 17 percent of all injury crashes (1935 crashes) in New Zealand.

In Porirua City, speed too fast for conditions was a factor in 21 percent of all injury crashes in 2008, which was higher than the national average (17 percent) and the average for similar authorities (20 percent).

In the last five years there were 120 speed related injury crashes resulting in 3 deaths, 34 serious injuries and 138 minor injuries. There were also 267 non-injury crashes reported in this period with travelling too fast for conditions as a factor.

The latest five year data shows a fluctuating trend in the total number of speed related injury crashes. Significantly 2008 recorded the lowest number of fatal and serious injury speed related crashes for this this period.



Three-quarters of the speed related crashes occurred on local roads and nearly a two-thirds of them took place in urban areas.

The following table shows a breakdown of the speed limit environ of all speed related crashes in Porirua City 2004-2008. Rural roads are roads with a speed limit of 80km/h or more.

	2004	2005	2006	2007	2008
Urban	35	53	45	52	54
Rural	27	36	28	32	25
<b>Total</b>	<b>62</b>	<b>89</b>	<b>73</b>	<b>84</b>	<b>79</b>

Fifty-nine percent of the at fault drivers in these crashes were either learner or restricted licence holder, or never licensed or disqualified drivers.

Eighty-two percent of at fault drivers in speed related crashes were male and eighty percent were less than 29 years old.

Age (years)	Male	Female	Total
15 - 19	43	7	50
20 - 24	22	5	27
25 - 29	13	2	15
30 - 39	11	4	15
40 - 49	3	2	5
50 - 59	3	1	4
60 - 69	0	1	1
70+	0	0	0
<b>Total</b>	<b>95</b>	<b>22</b>	<b>117</b>

Further information about speed related crashes in Porirua City 2004-2008 on:

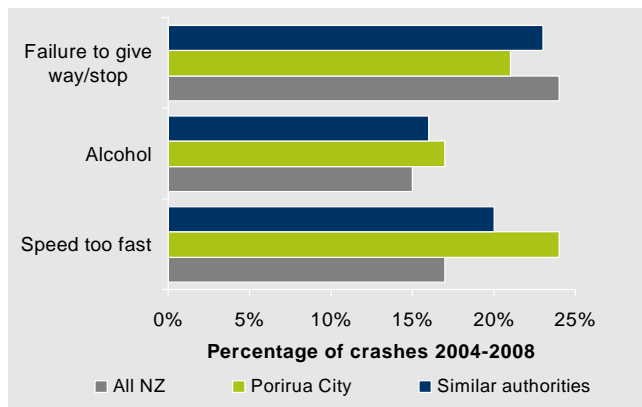
### Local roads

- 2 deaths, 31 serious injuries and 109 minor injuries
- Worst month: May (31 crashes)
- Worst day of week: Saturday (63 crashes)
- Wet road crashes: 35 percent
- Night time crashes 47 percent
- Alcohol over limit (injury crashes): 33 percent
- Most common injury crash factor: loss of control at bends (79 percent)
- At fault male driver (injury crashes): 84 percent
- At fault driver held full NZ licence (injury crashes): 33 percent
- Most common at fault drivers' age group (injury crashes): 15-29 years old

### State highways

- 1 death, 3 serious injuries and 29 minor injuries
- Worst month: November (14 crashes)
- Worst day of week: Tuesday (20 crashes)
- Wet road crashes: 54 percent
- Night time crashes: 42 percent
- Alcohol over limit (injury crashes): 24 percent
- Most common injury crash factor: loss of control at bends (67 percent)
- At fault male driver (injury crashes): 67 percent
- At fault driver held full NZ licence (injury crashes): 52 percent
- Most common at fault drivers' age group (injury crashes): 15-24 years old

## National issues



### Speed

In Porirua City speed too fast was recorded in 24 percent of injury crashes in Porirua city in the last five years resulting in 3 deaths and 172 injuries. Speed as a factor in crashes in the city in 2008 is significantly higher in comparison with similar authorities.

Eighty-one percent of speed related injury crashes were *lost control/head-on at bend* types. *Alcohol* and *poor handling* were the other driver factors most often associated with speed. Drivers aged under 25 years old were most involved in speed related crashes.

### Alcohol

In Porirua City, alcohol was recorded in 17 percent of injury crashes in the last five years resulting in 2 deaths and 124 other injuries. Alcohol as a factor in crashes is not showing much sign of reducing in the city.

Most (71 percent) of alcohol related crashes were in urban areas. Seventy-four percent of these involved *lost control/head-on* crashes. Travelling *too fast* and *poor handling* were often associated with alcohol. Eighty-two percent of at fault drivers in these crashes were male.

### Failure to give way

In Porirua City, failure to give way or stop was reported in 21 percent of all reported injury crashes in the last five years resulting in 3 deaths and 136 other injuries. Most (81 percent) of these involved *crossing/turning* manoeuvres and were often associated with *failure to look* for other parties. Fifty-nine percent of at fault drivers in these crashes were males.

### Restraints

The Ministry of Transport conducts surveys of restraint use. According to 2008 survey results restraint use rate in Porirua City for front seat and rear seat are 97 and 81 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/>

## Contacts

### NZ Transport Agency

#### Wellington Regional Office

PSIS House, L9  
20 Ballance Street  
PO Box 5084  
Wellington 6145

Tel 64 4 894 5200  
Fax 64 4 894 3305

<http://www.nzta.govt.nz>

#### Wellington Regional Director

Deborah Hume (04 894 6417)

#### Programmes & Funding Manager

Peter Hookham (04 894 5249)

#### Senior Programmes Advisor (Engineering)

Eddie Anand (04 931 8920)

#### Senior Programmes Advisor (Education)

Roy Hitchcock (04 931 8910)

#### Highways & Network Operations (Safety Manager)

Fabian Marsh (04 894 5222)

#### Performance Measurement Manager

Balt Gregorius (04 894 6156)

#### Senior Engineer (Performance Information - CAS)

James King (04 931 8917)

### Porirua City Council

PO Box 50 218 Porirua City

#### Road Asset Manager

Marian Radu (04 237 1479)

#### Road Safety Coordinator

Mark Kairua (04 237 1493)

### New Zealand Police

#### Road Policing Manager

Wellington Central  
PO Box 693 Wellington  
Telephone 04 381 2000