

Briefing notes road safety issues

Porirua City

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 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 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 Porirua city is compared to similar local bodies or those with high social cost (relating mainly to high numbers of fatal and serious crashes).

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

Major road safety issues		2007 road trauma	
Porirua City		Casualties	Porirua City
Rear-end / obstruction		Deaths	1
Loss of control at bends		Serious casualties	20
Alcohol		Minor casualties	117
Speed			
Nationally		Crashes	Porirua City
Speed		Fatal crashes	1
Alcohol		Serious injury crashes	16
Failure to give way		Minor injury crashes	87
Restraints		Non injury crashes	347

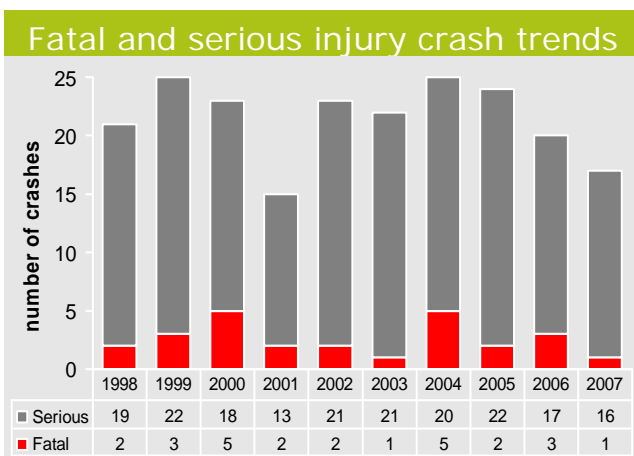
Overview 2007

In 2007, in Porirua city there were 103 injury crashes and 345 non-injury crashes reported by the New Zealand Police. Thirty-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.

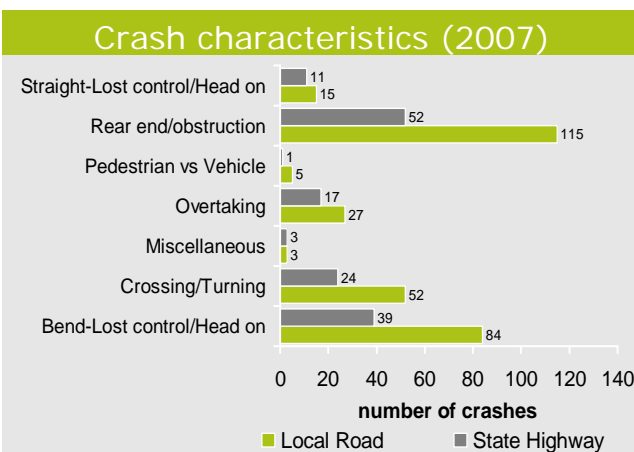
Casualties by injury type in 2007				
	Fatalities	Serious injuries	Minor injuries	Total
Total	1	20	117	138
Local roads Vs State highways				
Local roads	1	18	68	87
State highways	0	2	49	51
Rural Vs Urban roads				
Rural ¹	1	1	31	33
Urban	0	19	86	105

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

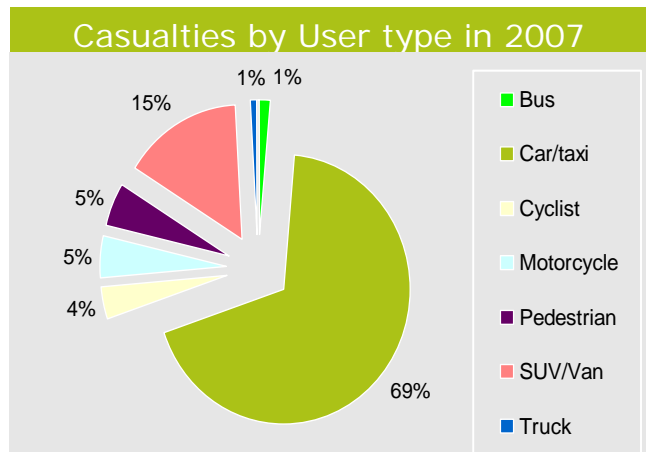
The total number of serious and fatal crashes have been fluctuating over the last ten years. However the total number crashes have shown a declining trend since 2004.



In 2007 *rear end/obstruction* was the main type of crash in the city followed by *bend-lost control/head-on* and *crossing/turning* crash types.



The highest number of casualties in 2007 were drivers and passengers of car followed by those of SUV/Van.



Further information about all crashes in 2007 on:

Local roads

- Worst month: *May (11 percent)*
- Worst day of week: *Friday (18 percent)*
- Wet road crashes: *16 percent*
- Night time crashes: *32 percent*
- Alcohol over limit (injury crashes): *21 percent*
- Too fast for conditions (injury crashes): *34 percent*
- Crashes at intersection: *40 percent*
- Road factors: *5 percent*
- At fault male driver (injury crashes): *77 percent*
- Full NZ licence held by at fault drivers (injury crashes): *57 percent*

State highways

- Worst month: *December (12 percent)*
- Worst day of week: *Tuesday (18 percent)*
- Wet road crashes: *16 percent*
- Night time crashes: *29 percent*
- Alcohol over limit (injury crashes): *21 percent*
- Too fast for conditions (injury crashes): *15 percent*
- Crashes at intersection: *40 percent*
- Road factors: *9 percent*
- At fault male driver (injury crashes): *68 percent*
- Full NZ licence held by at fault drivers (injury crashes): *65 percent*

Social cost of crashes

Local roads	\$ 22.30M
State highways	\$ 6.74M
Total	\$ 29.04M

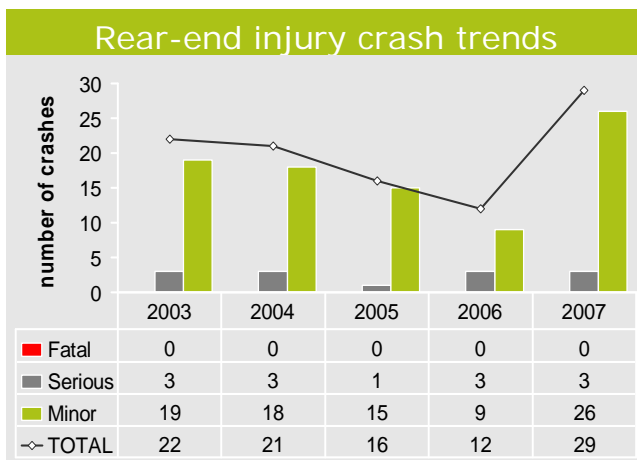
NOTE: The estimated social cost includes loss of life or life quality, loss of output due to injuries, medical and rehabilitation costs, legal and court costs, and property damage.

Rear-end/obstruction

Rear-end and obstruction type crashes were the most common crash type in Porirua city representing 37 percent of all injury and non-injury crashes in 2007.

Between 2003 and 2007, there were 13 serious injury, 87 minor injury and 749 non-injury rear-end/obstruction crashes recorded in Porirua city. These crashes resulted in 14 serious injuries and 109 minor injuries.

After gradual reduction of the number of rear-end/obstruction injury crashes between 2003 and 2006, these crashes have increased significantly in 2007.



The five most common vehicle movement in this category are:

- collision with the end of a queue of traffic
- collision with a parked vehicle
- collision with a vehicle crossing the road
- collision with a vehicle waiting to make a right turn
- collision with a slower vehicle

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

High rear-end/obstruction crash locations

SH1: from Papakowhai Rd to Camborne and from Porirua City centre to Paremata Junction

Main road route/Dimmock Street
Jillett St/Tireti St

Mungavin Ave to Titahi Bay Rd and
Champion St and Warspite Ave

Further information about rear-end crashes in the city between 2003 and 2007 on:

Local roads

- 8 serious injuries and 56 minor injuries
- Worst month: *June (11 percent)*
- Worst day of week: *Friday (18 percent)*
- Wet road crashes: *19 percent*
- Night time crashes: *27 percent*
- Intersection crashes: *23 percent*
- Road factors: *4 percent*
- With alcohol over limit (injury crashes): *18 percent*
- Most common injury crash factors: *poor observation (63 percent)* followed by *incorrect lane position (36 percent)*
- At fault male driver (injury crashes): *76 percent*
- Full NZ licence at fault drivers (injury crashes): *57 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 24 years old*

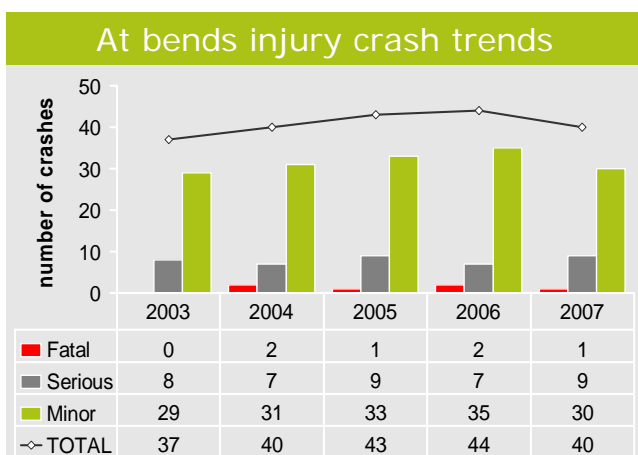
State highways

- 6 serious injuries and 53 minor injuries
- Worst month: *August (13 percent)*
- Worst day of week: *Saturday (19 percent)*
- Wet road crashes: *19 percent*
- Night time crashes: *24 percent*
- Crashes at intersection: *36 percent*
- Road factors: *11 percent*
- With alcohol over limit (injury crashes): *5 percent*
- Most common injury crash factors: *poor observation (68 percent)* followed by *incorrect lane position (30 percent)*
- At fault male driver (injury crashes): *56 percent*
- Full NZ licence at fault drivers (injury crashes): *81 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 19 years old*

Loss of control at bends

During the five year period from 2003 to 2007, 27 percent of all crashes in Porirua city occurred at bends. These crashes resulted in 9 deaths, 48 serious injuries and 243 minor injuries. There were a further 437 non-injury crashes reported.

The total number of injury crashes have been on the rise since 2003 although, these crashes have reduced slightly in 2007 primarily due to a small reduction in minor injury crashes as shown below:



One third of loss of control crashes at bends occurred on State highways resulting in 75 percent of total fatalities in the city. Approximately 60 percent of loss of control crashes at bends took place in urban areas.

Loss of Control	Local Urban	Local Rural	SH urban	SH Rural
At bends	51%	18%	8%	24%

Most of these crashes at bends involved a driver losing control of their vehicle and running off the road or on occasions colliding with another vehicle. After drivers lose control, their vehicles often crash into roadside hazards such as ditches, banks, poles or trees.

Main characteristics of loss of control crashes at bends

Crash characteristic	Percentage of crashes
Single vehicle	68
Alcohol (injury crashes)	25
Too fast for the conditions (injury crashes)	49
Road factors	17
Poor handling (injury crashes)	35
Rural road	41
Wet road	37
Night time	46

The three most common roadside hazards struck during crashes in the city were *fences* (21 percent), *parked vehicles* (13 percent) and *cliff banks* (13 percent) out of total 684 reported objects struck.

Further information about all crashes at bends in the city for the period 2003-2007 on:

Local roads

- 2 deaths, 40 serious injuries and 157 minor injuries
- Worst month: *April* (11 percent)
- Worst day of week: *Saturday* (21 percent)
- Wet road crashes: 32 percent
- Night time crashes: 48 percent
- With alcohol over limit: 27 percent
- Most common injury crash factors: *too fast* (59 percent) followed by *poor handling* (33 percent)
- At fault male driver (injury crashes): 76 percent
- Full NZ licence at fault drivers (injury crashes): 40 percent
- Most common at fault drivers' age group (injury crashes): 15 to 19 years old

State highways

- 7 deaths, 8 serious injuries and 86 minor injuries
- Worst month: *November* (13 percent)
- Worst day of week: *Saturday* (21 percent)
- Wet road crashes: 46 percent
- Night time crashes: 42 percent
- With alcohol over limit (injury crashes): 22 percent
- Most common injury crash factors: *poor handling* (39 percent) followed by *too fast* (28 percent)
- At fault male driver (injury crashes): 68 percent
- Full NZ licence at fault drivers (injury crashes): 53 percent
- Most common at fault drivers' age group (injury crashes): 15 to 19 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.

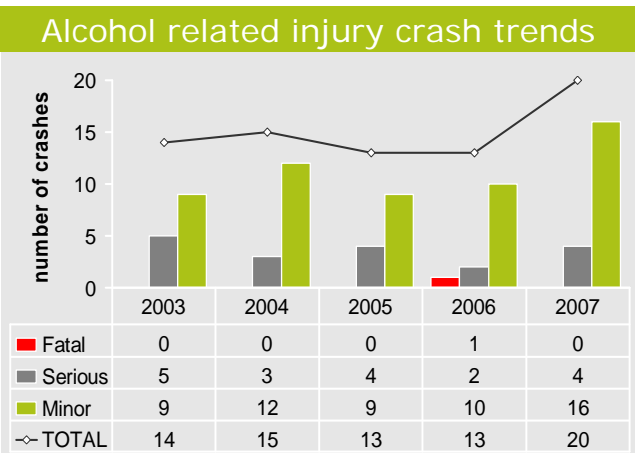
People with high blood alcohol levels are more likely to be injured or killed in a crash than sober drivers in the same crash.

During 2007 within New Zealand, alcohol-affected drivers contributed to 34 percent of all fatal crashes and 15 percent of all injury crashes.

In Porirua city, alcohol was a factor in 19 percent of all injury crashes in 2007 which is higher than the national average and also higher than the last five year city average of 14 percent.

There were 75 alcohol-related injury and 125 non-injury crashes reported in the last five years. These crashes have resulted in 1 death, 24 serious and 86 minor injuries.

After a relatively steady period between 2003 and 2006, the number of alcohol related injury crashes have increased significantly in 2007



More than 80 percent of the alcohol related crashes occurred in urban areas. Sixty-one percent of these crashes involved *loss of control at bends* crash movement. Only quarter of the crashes occurred at intersections.

Only 16 percent of the alcohol related crashes occurred on State highways. Eighty percent of these crashes took place in rural areas. Road factors were identified as contributory factor for almost 20 percent of these crashes

More than 75 percent of the accidents occurred during the hours of darkness. Approx. 60 percent of these crashes occurred on weekends between 6 PM Friday and 6 AM Monday.

Approx. two thirds of the at fault drivers involved in these crashes on the local roads of the city were either learner/ restricted license holder, never licensed or disqualified.

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

Local roads

- 1 death, 23 serious injuries and 61 minor injuries
- Worst month: *December (13 percent)*
- Worst day of week: *Saturday (26 percent)*
- Wet road crashes: *22 percent*
- Night time crashes: *78 percent*
- Crashes at Intersection: *26 percent*
- Excessive speed: *49 percent*
- Most common injury crash factors: *too fast (49 percent)* followed by *poor handling (23 percent)*
- Road factors: *4 percent*
- At fault male driver (injury crashes): *81 percent*
- Full NZ licence at fault drivers (injury crashes): *29 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 24 years old*

State highways

- 1 death, 2 serious injuries and 33 minor injuries
- Worst months: *February, June and August (13 percent)*
- Worst day of week: *Thursday (29 percent)*
- Wet road crashes: *24 percent*
- Night time crashes: *63 percent*
- Crashes at Intersection: *21 percent*
- Excessive speed: *18 percent*
- Most common injury crash factors: *poor handling and fatigue (23 percent each)*
- Road factors: *19 percent*
- At fault male driver (injury crashes): *76 percent*
- Full NZ licence at fault drivers (injury crashes): *67 percent*
- Most common at fault drivers' age group (injury crashes): *25 to 49 years old*

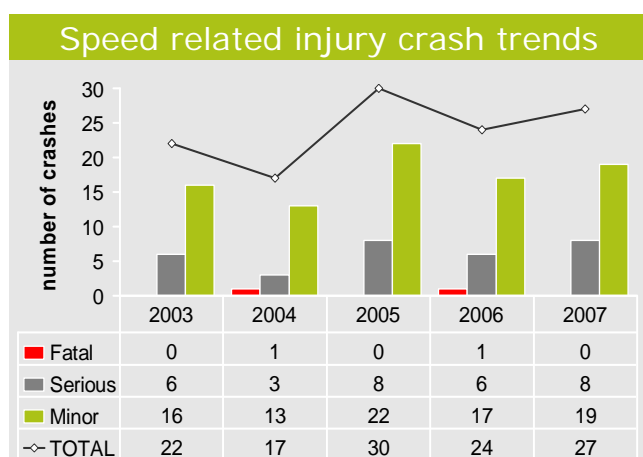
Speed

Nationally, speed is one of the major contributing factors to crashes on our roads. In 2007, speed contributed to around 33 percent of fatal crashes and 18 percent of injury crashes nationally. There were 2,115 injury crashes where the driver was travelling too fast for the conditions.

Reducing speeds to appropriate levels is an important road safety goal. Excessive speed increases the likelihood of a crash occurring by reducing the time available for drivers to respond to hazardous situations and it also leads to more serious injuries. Research has shown that a one km/h reduction in mean speeds can produce up to a three percent reduction in injury crashes.

In Porirua city, excessive speed was a factor in 28 percent of all injury crashes in 2007 which was much higher than national average.

There were 120 speed related injury and 241 non-injury crashes reported in the last five years. The total number of injury crashes have fluctuated between the years and is second highest in the year 2007.



Most (63 percent) of the speed related crashes occurred on local roads in urban areas.

Speed related crashes					
Speed related crashes	2003	2004	2005	2006	2007
Urban	38	32	53	44	59
Rural	26	26	35	28	20
Total	64	58	88	72	79

One fourth of the speed related crashes have occurred on State highways out of which two thirds took place in rural areas.

Approx. 60 percent of the at fault drivers in the city were either learner/ restricted license holder, never licensed or disqualified.

Males represented 79 percent of at fault drivers in speed related crashes and two thirds of them were less than 25 years old.

Age and sex of at fault drivers

Age (years)	Male	Female	Total
15 - 19	43	8	51
20 - 24	19	5	24
25 - 29	12	2	14
30 - 39	12	6	18
40 - 49	2	2	4
50 - 59	4	1	5
60 - 69	1	1	2
70+	0	0	0
Total	93	25	118

Further information about speed related crashes in the city between 2003 and 2007 on:

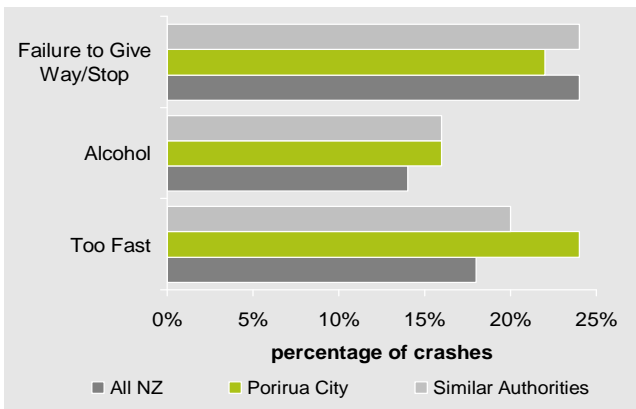
Local roads

- 1 death, 30 serious injuries and 104 minor injuries
- Worst month: *April (11 percent)*
- Worst day of week: *Saturday (22 percent)*
- Wet road crashes: *37 percent*
- Night time crashes *49 percent*
- With alcohol over limit (injury crashes): *30 percent*
- Most common injury crash factor: *loss of control at bends (82 percent)*
- At fault male driver (injury crashes): *80 percent*
- Full NZ licence at fault drivers (injury crashes): *33 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 19 years old*

State highways

- 1 death, 6 serious injuries and 30 minor injuries
- Worst months: *August and November (14 percent each)*
- Worst day of week: *Saturday (22 percent)*
- Wet road crashes: *56 percent*
- Night time crashes: *47 percent*
- With alcohol over limit (injury crashes): *17 percent*
- Most common injury crash factor: *loss of control at bends (73 percent)*
- At fault male driver (injury crashes): *75 percent*
- Full NZ licence at fault drivers (injury crashes): *54 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 24 years old*

National issues



Speed

In Porirua city *too fast* was recorded in 24 percent of injury crashes in Porirua city in the last five years resulting in 2 deaths and 175 injuries. *Speed* as a factor in crashes is relatively higher in comparison with national and similar authorities average and is not reducing.

Seventy nine percent of *speed* related injury crashes were *bend-lost control/head on* type. *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 16 percent of injury crashes in the last five years resulting in 2 deaths and 117 other injuries. *Alcohol* as a factor in crashes is relatively high in the city in comparison to national averages and is not reducing.

Most (80 percent) of *alcohol* related crashes were in urban areas. Seventy-six percent of these involved *loss of control/head-on* crashes. Travelling *too fast* and *poor handling* were often associated with alcohol. Seventy-nine percent of at fault drivers in these crashes were males.

Failure to give way

In Porirua city, *failure to give way or stop* was reported in 22 percent of all reported injury crashes in the last five years resulting in 3 deaths and 146 other injuries. Most (91 percent) of these involved *crossing/turning* manoeuvres and were often associated with *failure to look for other parties*. Sixty-five percent of at fault drivers in these crashes were males.

Restraints

The Ministry of Transport conducts surveys of restraint use. According to 2007 survey results restraint rate in Porirua city for front seat and rear seat are 90 percent and 95 percent respectively (while corresponding national rates are 95 percent and 87 percent). The results are obtainable from the Ministry of Transport website.

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

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