

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 2002–2006 period.

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

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

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

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

We have included a brief overview of crashes in Porirua City for 2006.

Major road safety issues		2006 road trauma	
Porirua City		Casualties	
Pedestrians		Deaths	3
Rear-end/obstruction		Serious casualties	20
Loss of control at bends		Minor casualties	107
Crossing/turning			
Nationally		Crashes	
Speed		Fatal crashes	3
Alcohol		Serious injury crashes	17
Failure to give way		Minor injury crashes	80
Restraints		Non injury crashes	390

Overview of crashes in 2006

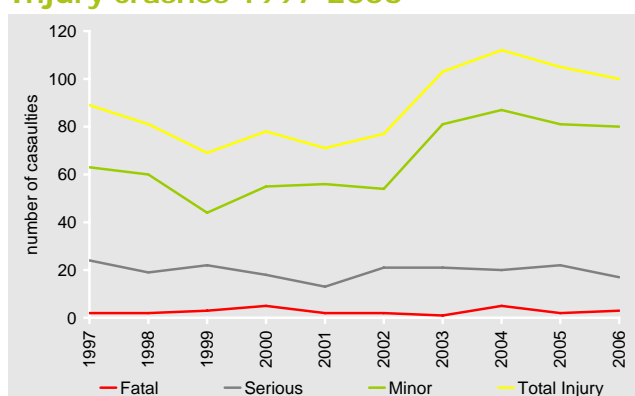
In 2006 on local roads in Porirua City, there were 67 injury crashes and 271 non-injury crashes, in addition there were 33 injury crashes and 119 non-injury crashes on state highways, as reported by Police.

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

	Fatalities	Serious	Minor	Total
Rural	1	3	37	41
Urban	2	17	70	89
Total	3	20	107	130

Fatalities in the district have been fluctuating over the last 10 years as shown in the following graph:

Injury crashes 1997-2006



Serious injuries increased after 2001, steadied and then dropped marginally in 2006. Minor injuries have increased since 2002 but seems to have reduced marginally in the last two years.

The following table shows the distribution of the injury and non-injury crashes on local roads and state highways in year 2006 by movement category with urban and rural split:

Movement category	Urban	Rural	Total
Bend-lost control/head on	84	66	160
Crossing/turning	81	1	82
Rear-end/obstruction	157	14	171
Straight-lost control/head on	19	16	35
Pedestrian vs vehicle	12	0	12
Overtaking	27	11	38
Miscellaneous	2	1	3

Further information about injury and non-injury crashes:

Local roads

- Worst month— June (40 crashes)
- Worst day— Saturday (58 crashes)
- Wet road crashes— 28 percent
- Night time crashes— 33 percent
- Mid-block crashes— 61 percent
- At fault male driver (injury crashes only)— 70 percent
- Social cost of crashes— \$21 million

State highways

- Worst months— June and October (17 crashes each)
- Worst day— Tuesday (27 crashes)
- Wet road crashes— 29 percent
- Night time crashes— 31 percent
- Mid-block crashes— 64 percent
- At fault male driver (injury crashes only)— 62 percent
- Social cost of crashes— \$14.5 million

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

Licence status of at fault drivers in injury crashes:

Licence status	Injury crashes percentage of at fault drivers	
	Porirua City	New Zealand
Full	44.0	58.4
Learner	13.0	9.5
Restricted	23.0	17.6
Never licensed	4.0	2.2
Disqualified	13.0	1.7
Overseas	2.0	4.2
Expired	0.0	0.5
Other/unknown	1.0	5.6

Pedestrians

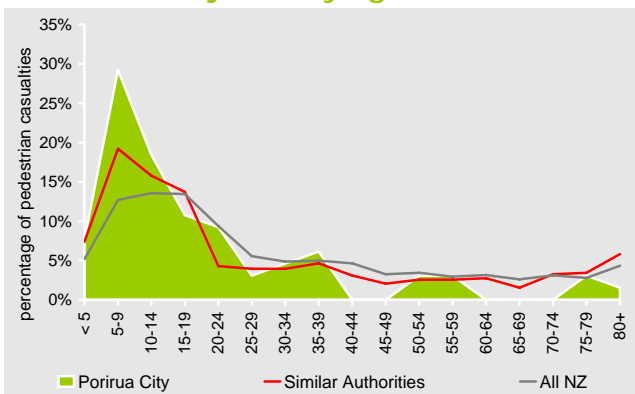
Although pedestrian injuries do not feature highly in the total road injury picture in Porirua City, representing only 10 percent of all injuries, they make up 16 percent of all serious injuries.

Pedestrian injuries	2002	2003	2004	2005	2006
Fatal	0	1	0	0	1
Serious	4	3	4	5	2
Minor	16	9	11	6	8
Total	20	13	15	11	11

Most (54 percent) pedestrian crashes occur on urban roads away from intersections and during daylight hours. There is a very strong bias (32 percent) toward the morning peak hour from 8am to 9am and in afternoon from 3pm to 4pm.

Young people are the most commonly injured in pedestrian crashes. This may be because they walk more than other age groups. However, many of them may not be mature enough to make the correct road crossing decisions.

Pedestrian injuries by age 2002 -2006



Porirua City is experiencing problem with younger people crossing roads. Forty-eight percent of pedestrians injured during this five-year period were between 5 years and 15 year age group as shown in the above graph. This percentage is considerably higher than similar authorities and all New Zealand.

Road designers and motorists alike need to understand that children do not think like “mini adults” when they are walking and playing near the road. The road environment needs to be made as safe as possible to mitigate against the unpredictable actions that children take.

The recent decision by Police to enforce a lower speed tolerance around schools is a strong step in creating a safer lower speed environment for young pedestrians.

The top five routes/locations (on the basis of injury crashes) for pedestrian crashes in Porirua City are shown in the table below:

Route/Location	Number of pedestrian injury crashes
Mungavin Avenue	15
Warspite Avenue	10
Titahi Bay Road	5
State Highway 1	4
Lyttelton Avenue	3

Further information regarding 2002-2006 pedestrian injury crashes:

Local roads

- The most common crash — *pedestrian crossing the road being hit by a driver approaching from their right (55 percent)*.
- Number of injured male pedestrians— 35
- Wet road crashes— 21 percent
- Night time crashes— 26 percent
- Worst month— November (8 crashes)
- Worst day of the week— Saturday (15 crashes)
- Worst time of the day— 8am to 9am (11 crashes)
- Number of at fault drivers— 27 (out of 62 crashes)

State highways

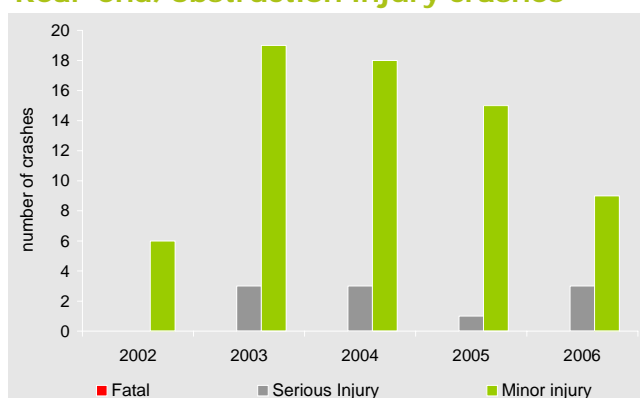
- The most common crashes — *pedestrian crossing the road hit by a driver (either) approaching from their right (or) approaching from their left (40 percent each)*
- Number of injured female pedestrians— 3
- Wet road crashes— 20 percent
- Night time crashes— 60 percent
- A total of five injury crashes occurred on state highway out of which two in June and one each in January, March and July.
- Worst day of the week— Wednesday (2 injury crashes)
- Number of at fault drivers— 2 (out of 5 crashes)

Rear-end/obstruction

Rear-end and obstruction type crashes are the third most common crash type in Porirua City representing 14 percent of the injury crashes. If reported non-injury crashes are included, they represent 34 percent of crashes.

The minor injury crash numbers are consistently on decline since 2003. Serious injury crashes showed a reduction in 2005 but have picked up again in 2006. Overall, total number of injury crashes are showing downward trend as shown below:

Rear-end/obstruction injury crashes



The five most common crashes (sorted in descending order) in this category are:

- collision with the end of a queue of traffic
- collision with a parked vehicle
- collision with a vehicle waiting to cross traffic
- collision with a vehicle waiting to make a right turn
- collision with a u-turning vehicle

When examining the times that these crashes occur, the weekday evening hours from 4pm to 8pm and the weekend evening hours from 8pm to 12am are the most hazardous.

Driver factors play a significant part in crashes of this type. The number of crashes involving poor observation, which includes driver failing to notice other traffic in front slowing, has increased in recent years.

These crashes were grouped together to identify any obvious problem spots or locations. The queue related crashes show a grouping on State Highway 1 between Paramata roundabout and Plimmerton. On the local road network, these crashes are scattered throughout the city and do not have any standout location.

Rear-end and obstruction crashes can more commonly be a route rather than site specific problem. A combination of engineering, education and enforcement interventions can be used to address these crashes.

Licence status of at fault drivers:

Licence status	Injury crashes percentage of at fault drivers	
	Porirua City	New Zealand
Full	55.0	43.0
Learner	20.0	15.3
Restricted	15.0	22.5
Never licensed	0.0	4.5
Disqualified	5.0	4.1
Overseas	0.0	3.7
Expired	0.0	0.5
Other/unknown	5.0	6.2

Further information about 2002 to 2006 rear-end and obstruction injury crashes:

Local roads

- 5 serious and 43 minor injuries
- Male drivers— 70 percent
- Most common crash factor— *did not see or look for another party until too late*
- Most common age group— 15 to 24 year old
- Alcohol related crashes—12 percent
- Worst month— September (8 crashes)
- Worst day of the week— Friday (10 crashes)

State highways

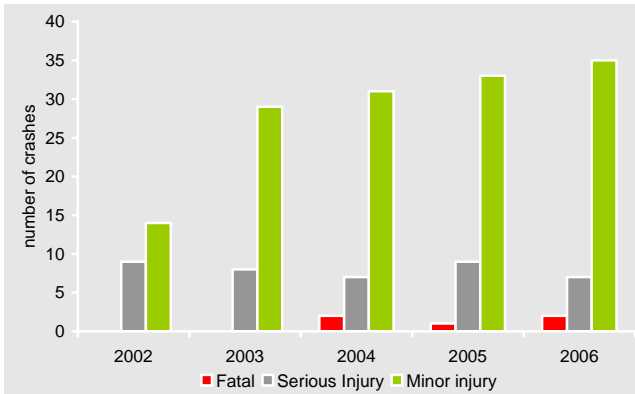
- 6 serious and 39 minor injuries
- Male drivers— 29 percent
- Most common crash factor— *inattentive/failed to notice*
- Most common age group— 35 to 39 years old
- Alcohol related crashes—6 percent
- Worst month— November (6 crashes)
- Worst day of the week— Saturday (10 crashes)

Loss of control at bends

Between 2002 and 2006, 38 percent of all injury crashes in Porirua City occurred at bends. These crashes resulted in 8 fatalities, 46 serious injuries and 227 minor injuries.

Reported minor injury crashes have increased in the last five years whereas serious injury crashes have fluctuated between years as shown below:

Loss of Control at bends 2002-2006



The following table lists the main characteristics of these crashes:

Crash characteristic	Percentage
Single vehicle	68 percent
Roadside object struck	80 percent
Alcohol	22 percent
Excessive speed for the conditions	47 percent
Road factors	24 percent
Poor handling	27 percent
Rural road	55 percent
Wet road	44 percent
Night time	46 percent

The following table shows the urban and rural split between crashes at bends on local roads and state highways:

Porirua City (2002-2006)	Loss of control at bends
Local urban	86
Local rural	40
State highway urban	17
State highway rural	44
Total	187

Most loss of control crashes involved a driver losing control of their vehicle and either running off the road or colliding with another vehicle. The three most common roadside hazards struck in injury crashes in Porirua City were Fence (42), Cliff bank (30) and Tree (28) from a total of 214 objects struck.

Licence status of at fault drivers:

Licence status	Injury crashes percentage of at fault drivers	
	Porirua City	New Zealand
Full	43.0	51.1
Learner	13.0	10.7
Restricted	26.0	17.9
Never licensed	9.0	4.1
Disqualified	6.0	2.8
Overseas	2.0	5.6
Expired	0.0	0.9
Other/ Unknown	3.0	6.8

Further information about 2002 to 2006 rear-end and obstruction injury crashes:

Local roads

- 1 fatality, 36 serious and 148 minor injuries
- Male drivers— 72 percent
- Most common crash factor— *too fast for conditions*
- Most common age group— 15 to 19 years old
- Alcohol related crashes— 25 percent
- Worst month— April (20 crashes)
- Worst day of the week— Sunday (26 crashes)

State highway

- 7 fatalities, 10 serious and 79 minor injuries
- Male drivers— 64 percent
- Most common crash factor— *poor handling*
- Most common age group— 15 to 19 years old
- Alcohol related crashes— 15 percent
- Worst month— November (12 crashes)
- Worst day of the week— Saturday (11 crashes)

Crossing/turning

Crashes due to crossing/turning movements are the second most common crash type in Porirua City.

During the five year period from 2002 to 2006, there were 83 injury crashes at intersections and 18 injury crashes at driveways. In these crashes, there were 4 fatalities, 20 received serious injuries and 109 received minor injuries.

The table below shows the locations of the five intersections with the highest number of crashes between 2002 and 2006:

Intersection name	Total crashes 2002 - 2006	Injury crashes 2002 - 2006	Total crashes in 2006
Titahi Bay Road/ Kenepuru Drive	48	3	8
Kenepuru/Raiha Street	17	5	1
Mungavin off Nbd/ Titahi Bay Road	16	1	2
Titahi Bay Road/Te Pene Ave	16	3	3
Titahi Bay Road/ Prosser Street	13	4	4

Injury crashes at Tee-junctions on local roads and state highways are the most common type of intersection crash reported as shown in following table:

Junction type	Local roads	State Highways
Tee	43	19
Driveways	11	7
Cross (X)	8	2
Y	5	5

The most common crash is one in which a vehicle failed to give way when turning right from side road or driveway. The second highest is the one in which a vehicle failed to find a safe gap in opposing traffic while making right turn.

Intersections present most drivers with one of their biggest driving challenges and as a result, less experienced drivers are over represented in these crashes as illustrated in the table below showing licence status of at fault drivers:

Licence status	Injury crashes percentage of at fault drivers	
	Porirua City	New Zealand
Full	69.0	60.9
Learner	14.0	9.4
Restricted	14.0	14.8
Never licensed	0.0	2.5
Disqualified	3.0	1.6
Overseas	0.0	3.7
Expired	0.0	0.8
Other/ Unknown	1.0	6.3

Further facts about 2002-2006 crossing/turning injury crashes:

Local roads

- 13 serious and 69 minor injuries
- Male driver—72 percent of crashes
- Alcohol related crashes— 1 percent
- Crashes in urban areas—97 percent
- Crashes on wet roads—22 percent
- Crashes at night time—22 percent
- Worst months— March, July and December (8 crashes each)
- Worst days of the week— Tuesday and Saturday (13 crashes each)

State highways

- 4 fatalities, 7 serious and 40 minor injuries
- Male driver—64 percent of crashes
- Alcohol was not a factor in any crash
- Crashes in urban areas—71 percent
- Crashes on wet roads—15 percent
- Crashes at night time—32 percent
- Worst month— July (7 crashes)
- Worst days of the week— Thursday and Friday (6 crashes each)

National issues

Speed

The contributing factor *too fast* was recorded in 17 percent of all nationally reported injury crashes in the last five years. In Porirua City, *too fast* was recorded in 22 percent of injury crashes in the district in the last five years resulting in 3 deaths and 105 injuries. Eighty-two percent of speed-related crashes were loss of control at bends and at straight sections of the road.

Male drivers aged less than 25 years were most involved in speed-related crashes.

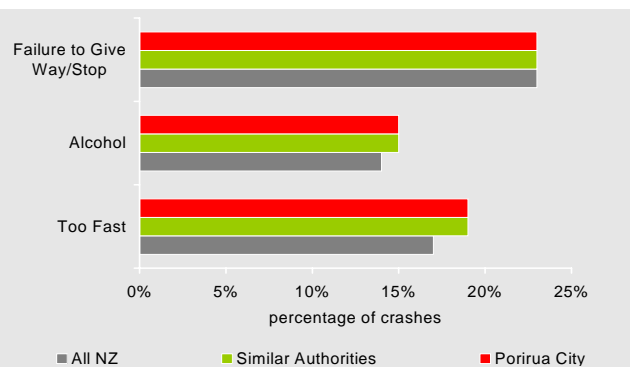
Alcohol

Alcohol was involved in 14 percent of all nationally reported injury crashes in the last five years. In Porirua City, alcohol was involved in 12 percent of injury crashes in the district in the last five years resulting in one death, and 59 other injuries. Sixty-eight percent of these were loss of control at bends and at straight sections of the road.

People that drink and drive (with a blood alcohol level over 80mg per 100ml) are three times more likely to be involved in a crash than a sober driver.

Failure to give way

While most failure to give way crashes result in non-injury or minor-injury crashes, many can have serious consequences. Failure to give way or stop was reported in 24 percent of all nationally reported injury crashes for the last five years. In Porirua City, failure to give way or stop was reported in 22 percent of all reported injury crashes for the last five years resulting in 21 serious and 87 minor injuries.



Restraints

Wearing a safety belt reduces the chance of death or serious injury in a crash by 40 percent. Whether you sit in the front or the back seat, the risk of serious or fatal injury is virtually the same.

Results from the 2006 national restraint wearing survey showed that the national average of front seat safety belt wearing was 95 percent, compared to 96 percent for Porirua City.

Contacts

Land Transport New Zealand

Wellington Regional Office

Master Builders House, L5
234-242 Wakefield Street
PO Box 27-249 Wellington
Telephone 04 931 8900
Fax 04 931 8929

www.landtransport.govt.nz

Partnerships Manager Central

Ian Hunter (04 931 8904)

Performance Information Manager Central

Nabin Pradhan (04 931 8928)

Senior Area Engineer

Eddie Anand (04 931 8920)

Regional Education Advisor

Roy Hitchcock (04 931 8910)

Transit New Zealand

Regional Safety Engineer

Fabian Marsh (04 801 2580)

Porirua City Council

Porirua City Council
PO Box 50 218
Porirua City
Phone 04 237 1479

Roading Asset Manager

Abdul Zaytoun (04 237 1415)

Road Safety Co-ordinator

Mark Kairua (04 237 1493)

New Zealand Police

Road Policing Manager

Wellington Central
Cnr Victoria and Harris Streets
PO Box 693 Wellington
Phone 04 381 2000