

# *briefing notes road safety issues*

## *Palmerston North 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 Palmerston North 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 Palmerston North 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 with high social cost of crashes (relating mainly to high numbers of fatal and serious crashes) or those that appear over-represented when the Palmerston North city is compared to similar local authorities.

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

<b>Major road safety issues</b>		<b>2007 road trauma</b>	
<b>Palmerston North City</b>		<b>Casualties</b>	<b>Palmerston North City</b>
Vulnerable road users		Deaths	6
Intersections		Serious casualties	43
Alcohol		Minor casualties	169
Speed			
<b>Nationally</b>		<b>Crashes</b>	<b>Palmerston North City</b>
Speed		Fatal crashes	6
Alcohol		Serious injury crashes	40
Failure to give way		Minor injury crashes	134
Restraints		Non injury crashes	394

## Overview 2007

In 2007 in Palmerston North city there were 180 injury crashes and 394 non-injury crashes reported by the New Zealand Police. Only 15 percent of the total injury crashes in the city were on State highways.

### Crashes by injury type in 2007

	State highways				Local roads			
	F	S	M	NI	F	S	M	NI
Rural <sup>1</sup>	1	3	8	28	0	2	2	16
Urban	0	3	12	51	5	32	112	299

Note: 1/ Rural - area with a speed limit of 80km/h or more  
 F - Fatal crashes                      S - Serious injury crashes  
 M - Minor injury crashes            NI - Non-Injury crashes

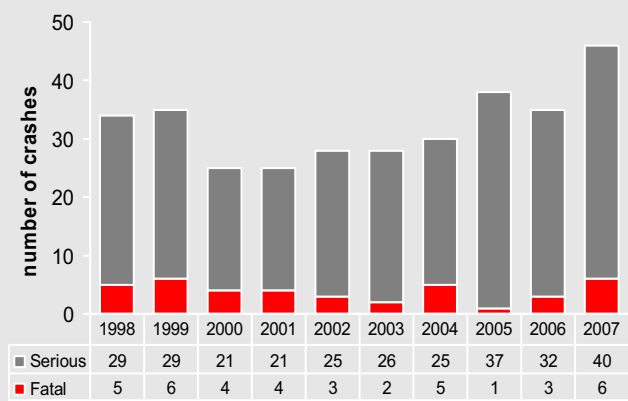
The table below shows the number of injuries resulting from these crashes in the city.

### Casualties by injury type in 2007

	Fatalities	Serious injuries	Minor injuries	Total
Total	6	43	169	218

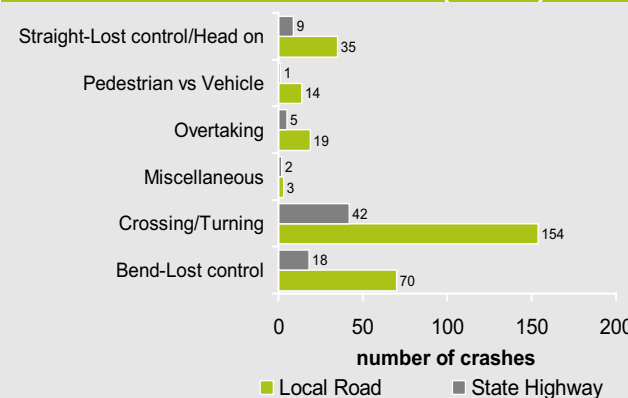
The total number of serious and fatal crashes have been increasing since 2000. The total of these crashes in 2007 was the highest in the last 10 year period.

### Fatal and serious crash trends



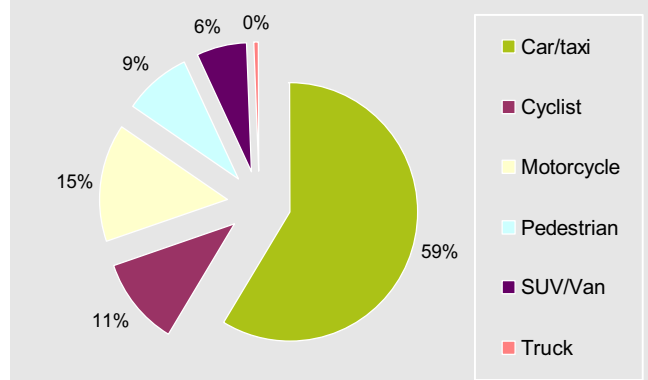
In 2007, *crossing/turning* were the main type of crashes in the city followed by *bend-lost control* crash type.

### Crash characteristics (2007)



The highest number of casualties in 2007 were car drivers and passengers. Vulnerable road users (pedestrians, cyclists and motorcycles) constitute almost one third of the casualties.

### Casualties by user type in 2007



Further information about all crashes in 2007 on:

#### Local roads

- Worst day of week: *Friday* (22 percent)
- Wet road crashes: 18 percent
- Night time crashes: 34 percent
- Drivers with alcohol over limit (injury crashes): 11 percent
- Too fast for conditions (injury crashes): 13 percent
- Crashes at intersection: 53 percent
- Road factors: 6 percent
- At fault male driver (injury crashes): 57 percent
- Full NZ licence held by at fault (injury crashes) drivers: 63 percent

#### State highways

- Worst day of week: *Monday* (19 percent)
- Wet road crashes: 23 percent
- Night time crashes: 31 percent
- Drivers with alcohol over limit (injury crashes): 7 percent
- Too fast for conditions (injury crashes): 7 percent
- Crashes at intersection: 61 percent
- Road factors: 5 percent
- At fault male driver (injury crashes): 63 percent
- Full NZ licence held by at fault (injury crashes) drivers: 48 percent

### Social cost of crashes

Local roads	\$ 53.57M
State highways	\$ 11.92M
<b>Total</b>	<b>\$ 65.49M</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.

## Vulnerable road users

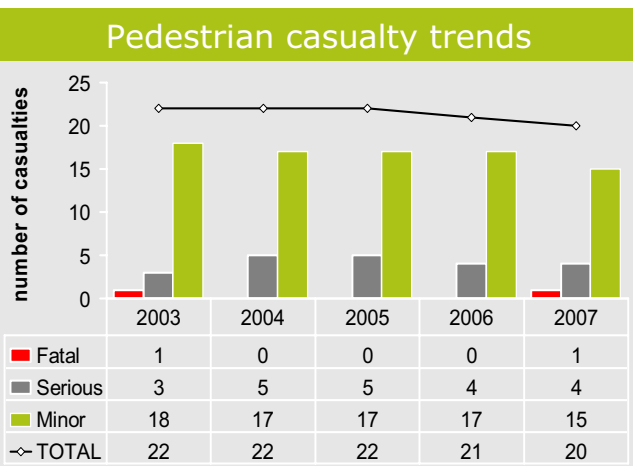
Pedestrians, cyclists and motorcyclists are all considered vulnerable road users as they have very little physical protection in the event of a crash and are therefore susceptible to severe injury.

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

Between 2003 and 2007, 38 percent of injury crashes in the Palmerston North city involved a vulnerable road user. Of the 1,063 road users injured in the city between 2003 and 2007, 109 were motor-cyclists, 124 were cyclists and 107 were pedestrians (including 2 deaths in each of the above road user group).

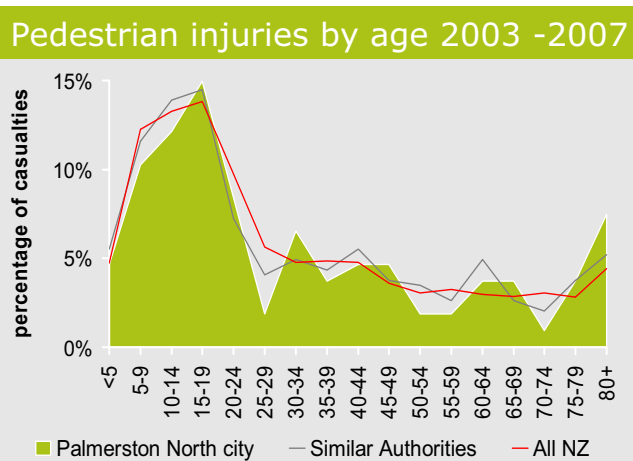
## Pedestrians

Pedestrians injured feature highly in the total road injury picture in the Palmerston North city, accounting for 10 percent of all injuries. They account for 11 percent of all fatalities and 11 percent of serious injuries in the last five year period.



The total number of pedestrian injuries has been steady in the last five year period.

Almost all (98 percent) of the pedestrian crashes occurred on urban roads and only 29 percent occurred at intersections. Twenty-four percent of these crashes occurred during the hours of darkness.



Thirty-two percent of accidents involved pedestrians crossing the road being hit by a driver approaching from their right. Twenty-five percent involved pedestrians crossing the road being hit by a driver approaching from their left.

High pedestrian crash locations/routes
Fitzherbert St / Ferguson St intersection & vicinity
Around the The Square
Pioneer Highway route through town centre
Broadway Avenue
Featherson Street

Further information about pedestrian injury crashes in the city between 2003 and 2007 on:

### Local roads

- 2 deaths, 19 serious injuries and 75 minor injuries
- Worst day of week: Thursday (21 crashes)
- Most common injury crash factors: poor observation (46 percent) followed by failure to give way/stop (18 percent)
- Wet road crashes: 14 percent
- Night time crashes: 26 percent
- Alcohol over limit (injury crashes): 17 percent
- Crashes at intersection: 30 percent

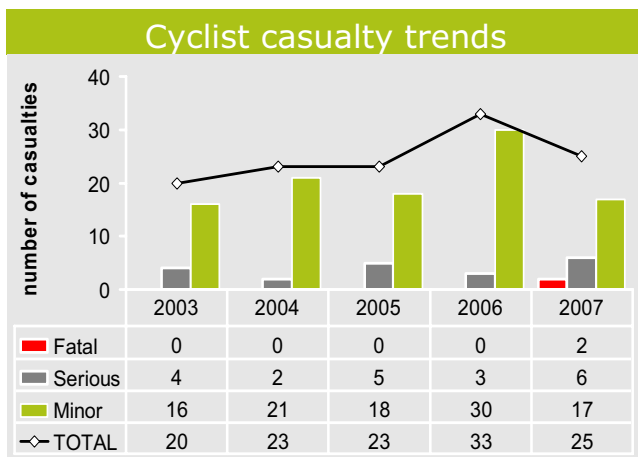
### State Highways

- 2 serious injuries and 9 minor injuries
- Worst day of week: Monday (5 crashes)
- Most common injury crash factors: pedestrian factors (70 percent) followed by poor observation (30 percent)
- Wet road crashes: 10 percent
- Night time crashes: none
- Alcohol over limit (injury crashes): none
- Crashes at intersection: 20 percent

## Cyclists

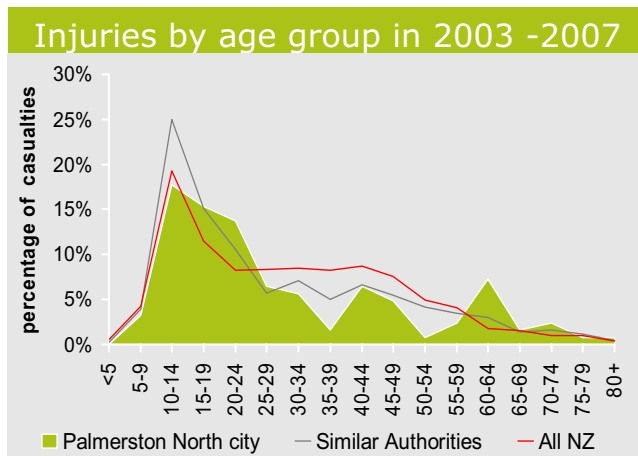
In the Palmerston North city, cyclists injury crashes were 14 percent of all injury crashes in the last five years.

An increasing trend in the cyclist casualties has been observed in the last five years. Both fatalities and serious cyclist injuries in 2007 were the highest in this overview period. It is reported that there were 2 cyclist deaths in 2007.



Most (95 percent) cycling crashes occurred on urban roads, the majority of these were at intersections and during daylight hours.

Cyclist injuries are not spread evenly across all age groups. Just less than half (46 percent) of the injured cyclists were between 10 to 24 years of age.



Cyclist crashes are spread throughout the main routes in the Palmerston North city. Two thirds of the cyclist crashes have occurred at intersections. Some of the high cyclist crash locations or routes are given in the table below:

**High cyclist crash locations/routes**

In the vicinity of The Square
Pioneer Highway route through the centre
Ferguson St
Tremaine Avenue
Featherson Street

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

### Local roads

- 2 deaths, 16 serious injuries and 86 minor injuries
- Worst day of week: *Friday* (29 crashes)
- Most common injury crash factors: *poor observation* (67 percent) followed by *failure to give way /stop* (63 percent)
- Crashes at intersection: 71 percent
- Wet road crashes: 13 percent
- Night time crashes: 14 percent

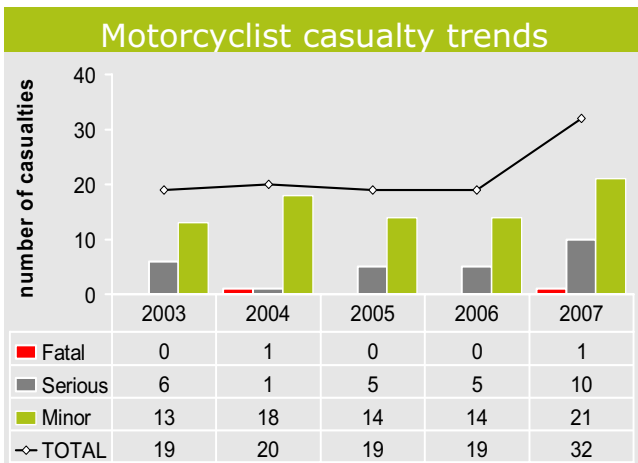
### State highways

- 5 serious injuries and 15 minor injuries
- Worst day of week: *Monday* (5 crashes)
- Most common injury crash factors: *poor observation* (60 percent) and *failure to give way /stop* (55 percent)
- Crashes at intersection: 65 percent
- Wet road crashes: 13 percent
- Night time crashes: 9 percent

## Motorcyclists

Motorcyclists in Palmerston North city make up 13 percent of all injury crashes and 11 percent of fatalities in the last five year period.

The total number of motorcyclists injury crashes was steady between 2003 and 2006. A significant increase motorcyclist casualties was observed in 2007, consisting of 1 death, 10 serious injuries and 21 minor injuries.

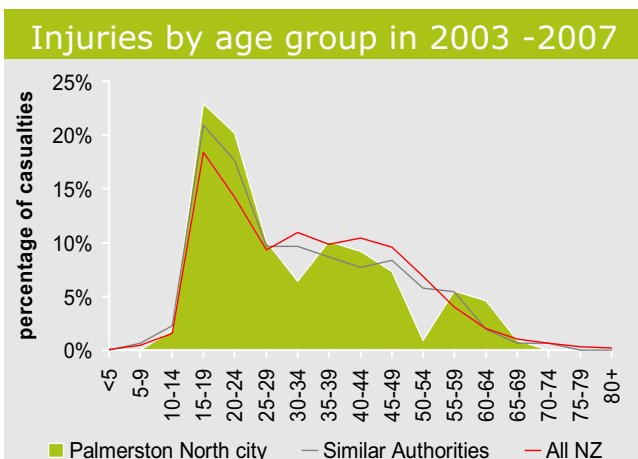


Nationally motorcycling fatalities dropped from a high of 20 percent of all fatalities in 1988 to just 6 in 2003. Since then there has been a significant increase in motorcycle registrations and this has reversed the downward trend. In 2007 motorcyclists accounted for 11 percent of road fatalities nationally.

Most of the motorcyclist crashes in Palmerston North city (90 percent) occurred on local roads in urban areas.

Approximately half of the motorcycling crashes were at intersections.

Young motorcyclists of 15 to 24 years of age are the most (43 percent) commonly injured age group in the last five years period. Similarly 42 percent of the motorcyclists injured were between 25 and 49 years of age.



Motorcyclist crashes are spread throughout the main routes in Palmerston North city. Some of the high motorcyclist crash locations or routes are given in the table below:

### High motorcyclist crash locations

In the vicinity of The Square
Pioneer Highway route through the centre
Ferguson St
Featherson Street
Albert Street
Rangitikei Street / Fitzbert Avenue
Church Street

Further information regarding 2003 to 2007 motorcycling crashes in the city:

#### Local roads

- 2 deaths, 23 serious injuries and 77 minor injuries
- Worst month: *May (18 crashes)*
- Worst day of week: *Friday (28 crashes)*
- Most common injury crash factors: *Poor observation (61 percent)* followed by *failure to give way/stop (48 percent)*
- Wet road crashes: *14 percent*
- Night time crashes: *18 percent*
- Alcohol over limit (injury crashes): *5 percent*
- Crashes at intersection: *55 percent*

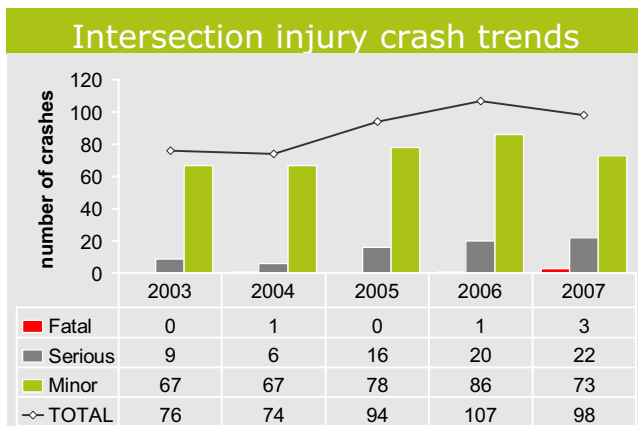
#### State highways

- 4 serious injuries and 10 minor injuries
- Worst month: *August (3 crashes)*
- Worst day of week: *Friday (5 crashes)*
- Most common injury crash factors: *Poor observation (69 percent)* followed by *failure to give way/stop (54 percent)*
- Wet road crashes: *18 percent*
- Night time crashes: *29 percent*
- Alcohol over limit (injury crashes): *15 percent*
- Crashes at intersection: *47 percent*

## Intersections

Between 2003 and 2007 fifty-four percent of all crashes in the Palmerston North city occurred at intersections. Over this period there were a total of 449 injury crashes at intersections, resulting in 6 deaths, 83 serious injuries and 473 minor injuries. There were an additional 1330 non-injury crashes at intersections.

The overall trend of injury crashes is increasing. In 2007 the total number of fatal and serious injury crashes was the highest in last five years.



The table below shows the locations of the intersections with a high number of crashes in the city between 2003 and 2007.

Intersection name	Total crashes 2003 - 2007	Injury crashes 2003 - 2007	Total crashes in 2007
Cook St/Ferguson St	47	13	4
Main St/Cook St	47	12	2
Fitzherbert Ave/Ferguson St	29	8	5
Ruahine St/Church St	26	8	5
Albert St/Broadway Ave	15	7	4
Grey St/Albert St	20	7	2
Albert St/Ferguson St	10	6	4
College St/Cook St	25	6	1
Fitzherbert Ave/Te Awe Awe St	33	6	4

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

Junction type	Rural	Urban
T (tee)	72	613
Driveways	2	38
X (cross)	48	801
Y	12	24
Roundabout	0	163
Multi road join	0	3

Most of the crashes (92 percent) had occurred on urban intersections. Less than 20 percent of intersection crashes occurred on state highways.

Crash Location	Local Urban	Local Rural	SH urban	SH Rural
Intersection Crashes	1387	53	256	82

*Failure to stop or give way* was identified as a factor in almost two third of injury crashes at intersections. *Poor observation* was identified as a factor in half of injury crashes. Eight percent of injury crashes involved *poor handling*, 11 percent involved travelling *too fast* for the conditions and 9 percent involved *alcohol*.

Thirty nine percent of the urban intersection crashes occurred at intersections with a give way control, 28 percent were at intersections controlled by traffic signals, 13 percent had a Stop control and 19 percent occurred at intersections with no form of traffic control. Seventeen of the 56 serious injury crashes on local roads occurred at intersections with no form of traffic control.

Further information about crashes at intersections in the city between 2003 and 2007 on:

### Local roads

- 6 deaths, 63 serious injuries and 383 minor injuries
- Worst day of week: *Friday* (270 crashes)
- Wet road crashes: 20 percent
- Night time crashes: 28 percent
- Drivers with alcohol over limit (injury crashes): 10 percent
- Most common injury crash factors: *Failed to give way/stop* (60 percent) followed by *poor observation* (53 percent)
- At fault male driver (injury crashes): 59 percent
- 40 percent of drivers at fault (injury crashes) were either on *restricted, learner or not licensed*
- Most common age group (injury crashes): 15-24 and followed by well distributed up to 70+ years old

### State highways

- 20 serious injuries and 90 minor injuries
- Worst day of week: *Friday* (34 crashes)
- Wet road crashes: 24 percent
- Night time crashes: 29 percent
- Drivers with alcohol over limit (injury crashes): 8 percent
- Most common injury crash factors: *Failed to give way/stop* (74 percent) followed by *poor observation* (38 percent)
- At fault male driver (injury crashes): 62 percent
- 36 percent of drivers at fault (injury crashes) were either on *restricted, learner or not licensed*
- Most common age group (injury crashes): 15 to 29 and 40 to 49 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.

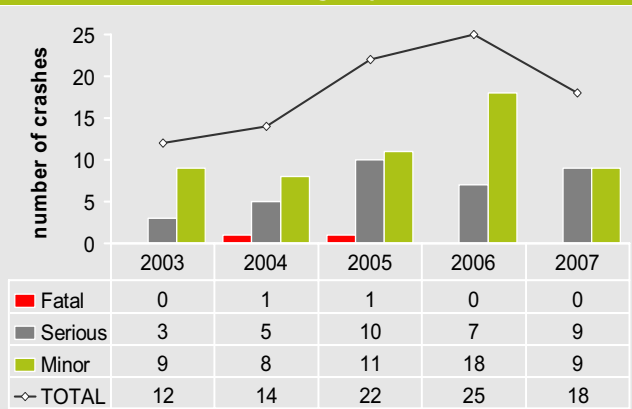
Nationally in 2007, alcohol-affected drivers contributed to 34 percent of all fatal crashes and 15 percent of all injury crashes.

In Palmerston North city, alcohol was a factor in 11 percent of injury crashes in 2007 which is lower than the national average and also lower than the last five year city average of 12 percent.

There were alcohol-related 91 injury and 173 non-injury crashes reported in the last five years. These crashes resulted in 2 deaths, 45 serious and 81 minor injuries.

A slight reduction in the total number of alcohol related injury crashes was observed in 2007, particularly minor injury, after an upward trend between 2003 and 2006. However the number of serious injury crashes in 2007 was the second highest in the last five year period.

Alcohol related injury crash trends



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

### Local roads

- 1 death, 32 serious injuries and 61 minor injuries
- Worst day of week: Saturday (63 crashes)
- Wet road crashes: 27 percent
- Night time crashes: 85 percent
- Crashes at intersection: 43 percent
- Most common injury crash factors: too fast (48 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): 32 percent
- Most common at fault drivers' age group (injury crashes): 15 to 29 years old

### State highways

- 1 death, 13 serious injury and 20 minor injuries
- Worst day of week: Saturday (1 crash each)
- Wet road crashes: 32 percent
- Night time crashes: 76 percent
- Crashes at intersection: 32 percent
- Most common injury crash factors: failure to give way/stop (25 percent) followed by poor handling and failed to keep left (20 percent each)
- Road factors: 8 percent
- At fault male driver (injury crashes): 73 percent
- Full NZ licence at fault drivers (injury crashes): 55 percent
- Most common at fault drivers' age group (injury crashes): 15 to 24 years old

## Speed

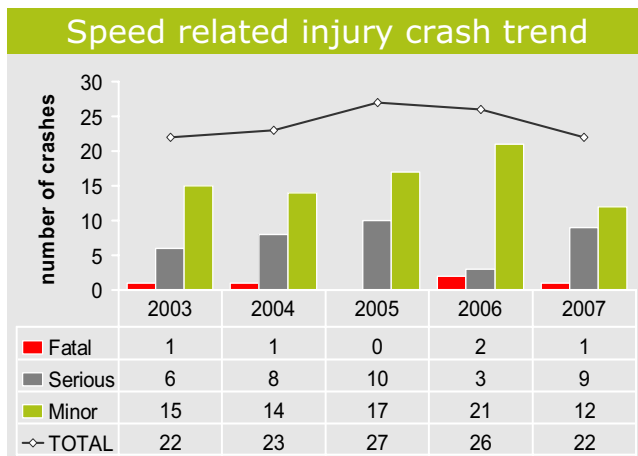
Nationally, speed is one of the major contributing factors to crashes on our roads. During 2007, nationally there were 2,115 injury crashes where the driver was travelling *too fast* for the conditions. Excessive speed contributed to around 33 percent of fatal crashes and 18 percent of injury crashes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

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 Palmerston North city, excessive speed was a factor in 12 percent of all injury crashes in 2007.

There were 120 speed-related injury crashes and 269 non-injury crashes reported in the last five years. These crashes resulted in 5 deaths, 42 serious injuries and 125 minor injuries.

Although a slight reduction in injury crashes has been observed since 2005, the total number of fatal and serious injury crashes in 2007 was among the highest.



Most (78 percent) of the speed related crashes occurred on urban roads.

Speed related crashes					
Speed related crashes	2003	2004	2005	2006	2007
Urban	50	57	75	56	66
Rural	17	29	17	18	4
<b>Total</b>	<b>67</b>	<b>86</b>	<b>92</b>	<b>74</b>	<b>70</b>

Males represented 80 percent of at fault drivers in speed related crashes. Only 44 percent of at fault drivers were full driver's license holders.

## Age and sex of at fault drivers

Drivers at fault in speed related injury crashes (2003- 2007)	Male	Female	Total
15 - 19 years	45	10	55
20 - 24	19	4	23
25 - 29	12	3	15
30 - 39	10	2	12
40 - 49	5	2	7
50 - 59	1	2	3
60 - 69	3	1	4
70+	0	0	0
<b>Total</b>	<b>95</b>	<b>24</b>	<b>119</b>

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

### Local roads

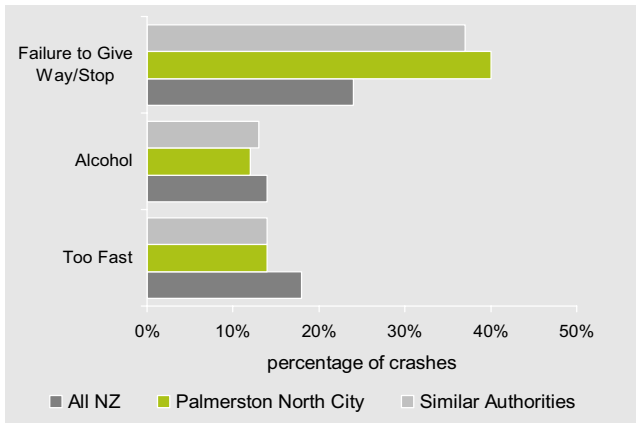
- 3 deaths, 37 serious injuries and 114 minor injuries
- Worst day of week: *Friday (70 crashes)*
- Wet road crashes: *33 percent*
- Night time crashes: *56 percent*
- Drivers with alcohol over limit (injury crashes): *33 percent*
- Most common injury crash factor: *bend—loss of control (68 percent)*
- At fault male driver (injury crashes): *82 percent*
- Full NZ licence at fault drivers (injury crashes): *41 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 24 followed by 25 to 39 years old*

### State highways

- 2 deaths, 5 serious injuries and 11 minor injuries
- Worst day of week: *Friday (11 crashes)*
- Wet road crashes: *36 percent*
- Night time crashes: *54 percent*
- Drivers with alcohol over limit (injury crashes): *7 percent*
- Most common injury crash factor: *bend—loss of control (48 percent)*
- At fault male driver (injury crashes): *66 percent*
- Full NZ licence at fault drivers (injury crashes): *60 percent*
- Most common at fault drivers' age group (injury crashes): *15 to 19 years old*



## National issues



### Speed

In Palmerston North city, *too fast* was recorded in 14 percent of injury crashes in the last five years, resulting 5 death and 167 injures. *Speed* as a factor in crashes is lower than national averages and similar to similar authorities.

Sixty-five 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 Palmerston North city, *alcohol* was involved in 12 percent of injury crashes in the last five years, resulting in 3 deaths and 95 other injuries.

Eighty-five percent of *alcohol* related crashes occurred in urban areas. Sixty-three percent of these crashes involved *loss of control/head-on* crashes. Travelling *too fast* and *poor handling* were the factors often associated *alcohol*.

### Failure to give way

In Palmerston North city, *Failure to give way or stop* was a factor in 40 percent of all reported injury crashes for the last five years, resulting in 4 deaths and 427 other injuries. This value is higher than national and similar authorities average. Most (92 percent) of these crashes are related to *crossing/turning* manoeuvres and often associated with *failure to look for other parties*. Fifty-six percent of at fault drivers in these crashes were male.

### Restraints

The Ministry of Transport conducts surveys of restraint use. 2007 survey results show restraint rates in Palmerston North City for front seat and rear seat are 98 and 95 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/>

## Contacts

### Land Transport New Zealand

#### Palmerston North Office

Level 3, IRD Building  
Corner Ashley and Ferguson Streets  
PO Box 1947 PALMERSTON NORTH

Phone 06 953 6396

Fax 06 953 6203

[www.landtransport.govt.nz](http://www.landtransport.govt.nz)

#### Partnerships Manager Central

Ian Hunter (04 931 8904)

#### Manager Performance Information Central

Nabin Pradhan (04 931 8928)

#### Manager Programmes

Denise Elers (06 97 8928)

#### Senior Engineer

Sol Hessel (06 953 6622)

#### Education Advisor

Jane Street (06 953 6623)

### Palmerston North City Council

#### Roading Manager

Graeme Tongs

Private Bag 11034, Palmerston North

Phone 06 356 8199

### Transit New Zealand

#### Regional Manager

Errol Christiansen

PO Box 345, Wanganui

Phone 06 349 6520

### Road Safety Coordinator

Mary Mitchell

Private Bag 11025, Palmerston North

Phone 06 952 2810

### New Zealand Police

#### Road Policing Manager Central District

Neil Wynne

Central District Headquarters

Private Bag 11040

Phone 06 351 3600