

briefing notes - road safety issues

Christchurch 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.

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

This report is the ninth road safety report for Christchurch City. All the material unless otherwise stated in this report applies to both local roads and to Transit New Zealand (Transit NZ) roads.

In each new report one year's data is added to a five year block and the oldest dropped so it is unlikely that the core issues 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 Christchurch City is compared to similar local bodies or those with high social cost (high numbers of fatal and serious crashes mainly). We have included a brief overview of crashes in the district.

We encourage local bodies to use the free access to the Ministry of Transport's Crash Analysis System to delve deeper into the highlighted issues.

Major road safety issues

Christchurch City

Intersections

Vulnerable Road Users

2007 road trauma

Casualties

Christchurch City

Deaths 13

Serious casualties 220

Minor casualties 1146

Nationally

Speed

Alcohol

Failure to give way

Restraints

Crashes

Christchurch City

Fatal crashes 12

Serious injury crashes 202

Minor injury crashes 852

Non-injury crashes 2002

Overview

In 2007 on local roads in Christchurch City there were 891 injury crashes and 1704 non-injury crashes. In addition there were 177 injury crashes and 301 non-injury crashes on Transit New Zealand (Transit NZ) roads, both as reported by the New Zealand Police.

The table below shows the number of injuries resulting from the 1068 injury crashes, by rural or urban areas for all roads, (rural is defined as an area with a speed limit of 80km/h or more).

Casualties by injury type 2007				
	Fatalities	Serious injuries	Minor injuries	Total
Rural	1	24	88	113
Urban	12	198	1064	1274
Total	13	222	1152	1387

The number of fatal and serious injury crashes (216) was higher in 2007 than previous years. The annual numbers have fluctuated with no obvious trend. The previous high number was 184 in 1998. There were also more minor injury and non-injury crashes in 2007 than previous years.

Crash trends				
Year	Fatal crashes	Serious injury crashes	Minor injury crashes	Non-injury crashes
1998	21	163	690	1686
1999	20	124	569	1967
2000	16	113	588	1815
2001	14	146	611	1997
2002	16	137	656	1821
2003	14	147	616	1671
2004	10	125	585	1489
2005	14	161	640	1711
2006	10	159	778	1982
2007	12	204	852	2005

Injury crashes 2003 - 2007		
Crash type or contributory cause 2003 to 2007	Local Road Percent of injury crashes	Transit Road Percent of injury crashes
Alcohol	13%	11%
Too fast	13%	11%
Straight—lost control crash	9%	11%
Bend—lost control crash	15%	14%
Crossing / turning crash	35%	40%
Road factors	6%	8%
Vulnerable road users (Percent of casualties)	30%	20%
1, Pedestrians	10%	4%
2, Cyclists	12%	6%
3, Motorcyclists	8%	10%

Further information about 2003 to 2007 injury and non-injury crashes on local roads:

- Worst month June
- Worst day Friday
- 18 percent on wet/icy roads
- 36 percent at night
- 54 percent at intersections
- Social cost of crashes in 2007 was \$241.5m

Further information about 2003 to 2007 injury and non-injury crashes on Transit NZ roads

- Worst month April
- Worst day Friday
- 19 percent on wet/icy roads
- 32 percent at night
- 65 percent at intersections
- Social cost of crashes in 2007 was \$54.2m

Intersections

In Christchurch City during the period 2003 to 2007 there were 2038 injury crashes at intersections and 4844 non-injury crashes. In these crashes, 29 people died, 446 received serious injuries and 2626 received minor injuries.

95 percent of these crashes were in urban areas of the district. These crashes make up 58 percent of all urban crashes. There were 382 intersection crashes in rural areas of the City.

Junction type Injury and Non-injury crashes		
Junction Type	Urban	Rural
Roundabout	533	136
Tee	3026	149
Cross (X)	3422	102
Multi leg	87	1
Total	7068	388

Over the last five years the number of crashes at intersections has shown a slight upward trend.

Crashes at Intersections					
	2003	2004	2005	2006	2007
Injury crash	425	383	440	545	595
Non-injury crash	953	851	924	1072	1044
Total	1378	1234	1364	1617	1639

The most common intersection crash was where two drivers cross paths at right angles and collide. The second most common crash was where a driver turns right into the path of a driver coming straight through from the opposite direction.

The main causes contributing to crashes described in Police reports were:

- Not checking properly
- Failure to stop or give way
- Incorrect lane position
- General errors of judgement

Locations with high crash numbers

Intersection name	Total crashes 2003-2006	Total 2007
Main North Road / QEII Drive	44	10
Bealey Ave / Manchester Street	41	12
Deans Ave / Riccarton Road	39	8
Brougham St / Colombo Street	35	7
Moorhouse Ave / Manchester St	31	9
Linwood Ave / Aldwins Road	30	9

These locations are listed regardless of work done.

Further information about injury crashes at intersections from 2003 to 2007 on local roads in Christchurch City :

- 21 deaths, 358 serious injuries and 2154 minor injuries
- 12 percent involved alcohol
- 10 percent involved speed
- 17 percent wet/icy roads
- 30 percent night time
- Worst month March, May, June
- Worst day of week Friday
- Worst time 3 pm - 6 pm

Further information about injury crashes at intersections from 2003 to 2007 on Transit NZ roads in Christchurch :

- 8 deaths, 88 serious injuries and 472 minor injuries
- 10 percent involved alcohol
- 9 percent involved speed
- 17 percent wet/icy roads
- 34 percent night time
- Worst month April
- Worst day of week Monday, Wednesday
- Worst time 3 pm - 6 pm

Vulnerable road users (Pedestrians, Cyclists and Motorcyclists)

Vulnerable road users are those who have little physical protection in the event of a crash and are more susceptible to severe injuries.

The Government is aiming to increase walking and cycling in New Zealand. Land Transport NZ encourages local authorities to take a proactive approach to this subject. This should include the development of a walking and cycling strategy and including appropriate projects that support the strategy in the Land Transport Programme.

It is vitally important to recognise that promotion alone of walking and cycling will not be effective at increasing mode share unless these activities can be made safer.

Pedestrians

Although pedestrian injuries do not feature highly in the overall road injury picture in Christchurch City, representing only 9 percent of all injuries, they make up 18 percent of fatal and serious injuries in the last five years.

The number of pedestrians being injured in crashes in Christchurch City is not reducing.

Pedestrian injuries 2003 to 2007					
Pedestrian injuries	2003	2004	2005	2006	2007
Fatal	4	2	1	5	3
Serious	33	29	26	29	34
Minor	64	69	73	68	66
Total	101	100	100	102	103

Most (98 percent) of pedestrian crashes occur on urban roads, and just under half of these at intersections. 75 percent were in daylight hours. The time of day for most pedestrian crashes was 3 pm - 6 pm with almost one third of all pedestrian crashes being in this period.

The numbers of male and female pedestrians injured in Christchurch City are similar. The largest age groups were the 15-19 years and the 10-14 years age groups, but all age ranges are represented.

The 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.

Ages of pedestrian casualties			
Pedestrian age	Female	Male	Total
0-4	2	11	29
5-9	15	19	34
10-14	30	32	62
15-19	35	41	76
20-24	24	30	54
25-29	5	17	22
30-39	31	21	52
40-49	17	22	40
50-59	21	7	28
60-69	17	13	30
70+	43	22	65
Total	256	248	504

Further information about the 494 injury pedestrian crashes on roads in Christchurch City from 2003 to 2007:

- The most common types of crash were
 - Pedestrian crossing road struck on right
 - Pedestrian crossing road struck on left
 - Pedestrian crossing at intersection hit by turning vehicle
- The most common crash factors were
 - Pedestrian crossing road commits error
 - Driver failed to give way
 - Driver did not see pedestrian
- Worst month April
- Worst day of week Wednesday
- Worst time 3 pm - 6 pm
- Pedestrians were intoxicated in 36 of the crashes

Cyclists

Although cyclist injuries do not feature highly in the overall road injury picture in Christchurch City, representing only 11 percent of all injuries, they make up 14 percent of fatal and serious injuries in the last five years.

The number of cyclists being injured in crashes in Christchurch City is increasing.

Cyclist injuries					
	2003	2004	2005	2006	2007
Fatal	0	2	1	0	2
Serious	20	19	24	23	40
Minor	94	68	76	111	125
Total	114	89	101	134	167

Most (95 percent) of cyclist crashes occur on urban roads, with almost two thirds being at intersections. 85 percent were in daylight hours. The time of day with most cyclist crashes was 6 am - 9 am and 3 pm - 6 pm with 57 percent of all cyclist crashes occurring in these two periods.

Almost 70 percent of cyclist casualties in Christchurch were males. The most common age groups were the 15-24 years and the 40-49 years age groups, but all age ranges were represented.

Ages of cyclist casualties			
Cyclist age	Female	Male	Total
0-9	6	14	20
10-14	19	52	71
15-19	17	51	68
20-24	26	27	53
25-29	27	31	58
30-39	30	71	101
40-49	32	77	99
50-59	15	41	56
60-69	2	16	18
70+	7	16	23
Total	190	414	604

Further information about the 597 cyclist injury crashes on roads in Christchurch City from 2003 to 2007:

- The most common types of crash were
 - A vehicle turning right across the path of an approaching cyclist
 - A right angle collision
 - A vehicle turning right out of a side road into the path of a cyclist
 - The door of a parked car being opened into the path of a cyclist
- The most common crash factors were
 - Did not see or look for another party
 - Failed to Give way
- 63 percent at intersections
- 15percent at night
- Worst month March
- Worst day of the week Wednesday
- Worst time 3 pm - 6 pm

Motorcyclists

Nationally motorcycling fatalities dropped from 20 percent of all fatalities in 1988, to just six percent in 2003. Since then there has been an increase in motorcycle registrations and this has reversed the downward trend. In 2007 motorcyclists accounted for 9.7 percent of road fatalities in New Zealand no change from 9.7 percent in 2006.

Motorcyclist injuries do not feature highly in the overall road injury picture in Christchurch City, representing only 8.4 percent of all injuries from 2003 - 2007. However, they make up 19 percent of fatal and serious crashes.

Motorcyclist injuries					
	2003	2004	2005	2006	2007
Fatal	2	1	1	3	1
Serious	25	21	39	34	47
Minor	45	40	47	65	93
Total	72	62	87	102	141

The number of reported serious injury and minor injury crashes involving motorcycles has almost doubled over the last five years in Christchurch City.

Most (85 percent) of motorcyclist injury crashes occurred on urban roads. 59 percent of these being at intersections.

76 percent were in daylight hours. Just over half of all motorcyclist crashes occurred between mid-day and 6 pm.

Males made up 80 percent of motorcyclists injured in Christchurch City. The largest age groups were the 15-19 years, the 20-24 years and the 40-44 years age groups, but all age groups are represented.

Ages of motorcyclist casualties			
Motorcyclist age	Female	Male	Total
5-9	0	1	1
10-14	2	1	3
15-19	20	86	106
20-24	16	50	54
25-29	8	35	43
30-39	14	67	81
40-49	17	83	100
50-59	8	35	43
60-69	2	5	7
70+	2	2	4
Total	94	369	163

Further information about the 448 motorcyclist injury crashes on roads in Christchurch City from 2003 to 2007:

- The most common types of crash were
 - A vehicle turning right across the path of a motor cyclist approaching from the opposite direction
 - Lost control on a bend
 - A vehicle turning right from a side road into the path of a motorcyclist
 - A u-tuning vehicle pulling into the path of a motorcyclist
 - Crossing the path of another vehicle at right angles and colliding

- The most common crash factors were
 - Did not see or look for another party
 - Failed to give way
 - Lost control

- 57 percent at intersections
- 24 percent at night
- Worst month October,
- Worst day of the week Friday
- Worst time 3 pm - 6 pm

National issues

This section contains some brief information on the key national road safety issues as measured in Christchurch City. They may have been covered elsewhere in this document or not be a specific issue.

Speed

In Christchurch City, "Too fast" was recorded in 519 fatal and injury crashes in the district in the last five years resulting in 18 deaths and 744 injuries. Speed as a factor in crashes is increasing in the city.

60 percent of all speed-related injury crashes were loss of control on a bend. Alcohol and Poor handling were the other driver factors most often associated with speed in injury crashes.

79 percent of at fault drivers in these injury crashes were males. The most common ages of these drivers were between the ages of 15 to 24 years .

Alcohol

In Christchurch City, alcohol was involved in 503 fatal and injury crashes in the district in the last five years resulting in 13 deaths, and 670 other injuries. The number of injury crashes involving alcohol is increasing.

91 percent of all alcohol crashes were in urban areas of the district. 40 percent were Lost control on a bend. Speed was the other factor often associated with alcohol in injury crashes.

76 percent of at fault drivers in these injury crashes were males. The most common ages of these drivers were between the ages of 15 to 24 years .

Failure to give way

In Christchurch City, failure to give way or stop was reported in 1589 fatal and injury crashes during the last five years resulting in 13 deaths and 2071 other injuries.

Poor observation was the driver factor most often associated with failure to give way.

59 percent of at fault drivers in these injury crashes were males. The most common ages of these drivers were between the ages of 15 to 24 years .

Restraints

The Ministry of Transport conducts surveys of restraint use. The results of these surveys are at a regional level, and may not be fully appropriate to a Territorial Authority. The results are obtainable from the Ministry of Transport website.

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

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