SUMMARY

- Injury is "a serious and costly issue in New Zealand" and the Waimakariri District is no exception. The statistics for injury reflect the make-up of the District from the ageing population to rural industry involvement. The priority areas included in this report are in accordance with the New Zealand Injury Prevention Strategy. These are: work-related injury, assault, drowning, falls, road safety, suicide/deliberate self-harm and alcohol-related injury.

- The report draws data from a range of different sources. From all priority areas the latest possible data available to the public has been used.

- The top ACC claims for work-related injuries come from males working in agriculture, fisheries, forestry, trades (including construction) and manufacturing. These results reflect 2013 Census industry participation statistics.

- Falls are increasingly becoming a concern in the District as the population ages. In 2012 falls contributed to almost a third (32.3%) of all hospitalisation from the District and the rate of hospitalisations for falls experienced an overall increase between 2008 and 2012.

- Road crashes have long been a concern for the District and it is becoming increasingly obvious that the majority of crashes are caused by young drivers who made up 34% of those at fault between 2008 and 2012. Alcohol was the third most common contributor to crashes caused by young drivers. Other contributing factors for all crashes included intersections and excessive or unsuitable speeds.

- There had been four deaths caused by drowning in the Waimakariri District between 1 January 2009 and 31 December 2013 and one hospitalisation. The rate of drowning incidents in the Waimakariri District is relatively low in terms of %age of the national population.

- The rate of assault in the Waimakariri District is comparatively lower than the national average. Police found that the alcohol had been contributing factor where assault was concerned. Of all assaults where alcohol was found to be a contributing factor, 90% occurred between 6:00pm on Saturday night and 6:00am on Sunday morning.

- It is difficult to acquire official and up to date statistics for suicide and deliberate self-harm. Statistics from Injury Prevention Research Unit (IPRU) show a 30% increase in hospitalisations for self-harm between 2008 and 2012. The rate of hospitalisations for self-harm in the Waimakariri District has been under half the national rate for the
majority of the past five years. The Christchurch region showed an overall decrease in suicidal deaths between July 2010 and May 2013.

- Alcohol-related injuries are discussed in relation to both assault and road crashes. Statistics for hazardous drinking are available at a DHB level. The North Canterbury District Health Board yielded unfavourable statistics when compared to the national rate. There were 1,146 alcohol-related admissions to Christchurch hospital in a 38 week period in 2011/12 and 275 of those were wholly attributable to alcohol.
1 INTRODUCTION

The New Zealand Injury Prevention Strategy (NZIPS) identifies injury as “a serious and costly issue in New Zealand.” Injury affects personal and family well-being as well as the local and national economies. The “social and economic cost of injury was estimated at 10.39 billion in 2010.”

This report discusses priority areas and presents the statistics available for each. The priority areas outlined by the NZIPS and included in this report are:

- Work-related injury
- Falls
- Assault
- Drowning
- Road Safety
- Suicide and deliberate self-harm
- Alcohol-related injury

Information was gathered from a range of sources including:

- Injury Prevention Research Unit (IPRU)
- Accident Compensation Corporation (ACC)
- Water Safety New Zealand (DrownBase™)
- New Zealand Transport Agency (NZTA)
- Ministry of Transport
- Statistics New Zealand (NZ.stat)
- Canterbury District Health Board (CDHB)
- Australia and New Zealand Society of Criminology (ANZSOC)
- New Zealand Police, Alco-Link Database
- Coronal Services Unit, Ministry of Justice

2 ACCIDENT COMPENSATION CORPORATION (ACC) INJURY OVERVIEW

Table 2.1 shows the number and average cost of ACC claim rates for both the Waimakariri District and New Zealand as a whole.

<table>
<thead>
<tr>
<th>Table 2.1</th>
<th>Overview of all ACC claims for the Waimakariri District 2011/2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>Waimakariri District</td>
</tr>
<tr>
<td>ACC injury claim rate</td>
<td>49,200</td>
</tr>
<tr>
<td>ACC moderate to serious cost injury claim rate</td>
<td>3,931.7</td>
</tr>
<tr>
<td>Number of days lost productivity</td>
<td>105,555</td>
</tr>
<tr>
<td>ACC catastrophic injury rate</td>
<td>298.0</td>
</tr>
<tr>
<td>ACC fatal injury rate</td>
<td>0.2</td>
</tr>
</tbody>
</table>

1 TLA is allocated based on claimant’s residence at the time of accident per 10,000 of population

1 New Zealand Injury Prevention Outcomes Report – June 2012, p. 15
2 ACC Injury Comparison Report – Community Profile of Waimakariri District
The rate of ACC injury claims in the Waimakariri District in 2011/12 was 1.8% higher than the rate for all of New Zealand and the rate for moderate to serious cost was also significantly higher (32.7%). The number of days of lost productivity in the Waimakariri District constituted 1.2% of the total number for the whole of the country; this is relatively high when considering the District in terms of percentage of population (1.1%). However the District’s catastrophic and fatal injury rates were noticeably lower than nationwide rates.

Table 2.2 shows the total number of accepted claims and claim costs for the Waimakariri District, over the last five years.

<table>
<thead>
<tr>
<th>Lodgment by year</th>
<th>Accepted Claims</th>
<th>NZD$ Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008/09</td>
<td>10,580</td>
<td>9,961,101</td>
</tr>
<tr>
<td>2009/10</td>
<td>9,856</td>
<td>8,377,245</td>
</tr>
<tr>
<td>2010/11</td>
<td>9,973</td>
<td>6,099,394</td>
</tr>
<tr>
<td>2011/12</td>
<td>10,463</td>
<td>6,394,303</td>
</tr>
<tr>
<td>2012/13</td>
<td>10,669</td>
<td>5,695,979</td>
</tr>
</tbody>
</table>

The costs shown do not include Goods and Service Tax (GST). Total costs have been calculated as year to date costs. This means that if a claim is lodged in the 2011/12 year, and the claim remains active during 2012/13, any costs ACC pays will be attributed to the year the claim was lodged. This means that where there is any long term or serious injury claimants, the total costs provided below are likely to change.

The number of accepted claims in the 2012/13 year was the highest it had been over the five year period and yet the total cost was the lowest; this is in part due to the exclusion of future cost for long term or serious injury. The number of accepted claims was at its lowest in the 2009/10 year.

Figure 1 shows all accepted ACC claims by gender over the last five years.
The patterns for female and male claimants have differed slightly over the last five years and for the first time in the 2012/13 year; female claims represented over half of all accepted claims (50.3%). The number of male claimants has been relatively steady since the 6.9% drop between 2008/09 and 2009/10. The number of female claimants, however, has increased by 16.4% since 2009/10.

Figure 2 shows all accepted claims by age at the time of the accident.

Figure 2 shows that there has been little change in the pattern of age distribution for accepted claims over the past three years. The largest increase over the three year period was in the 50-59 year age group (16.2%). There has been slight increases in most other age groups with the exception of the 0-9 year olds which decreased by 6.4%.

The highest percentage of all accepted claims over the three year period came from the 10-19 year age group, which averaged 17.1% of all annual claims. This was followed closely by 40-49
and 50-59 year olds. The lowest percentage of claims came from those in the 80 years and over age group at 5.8%.

**ACC top injury sources for 2011/12**

The ACC Injury Comparison Report for the Waimakariri District provides a summary of information regarding new claims lodged in 2011/12 and one section of the report is dedicated to the sources of injury claims. This included scene, cause, activity prior to the accident, and external agency. The findings are summarized below:

The top three physical locations of the injury were:

- 55.8% in the home
- 17.0% at a sports and recreation facility
- 7.8% at a commercial location

The top three causes of injury were:

- 30.1% were loss of balance
- 14.4% were lifting, carrying or strain
- 10.3% were struck by a person or animal

The top three activities prior to injury were:

- 27.1% were recreation or sporting activities
- 25.4% were walking or running
- 13.2% were lifting, lowering or loading

The top three external agencies of injury were:

- 26.8% were the ground or path
- 9.0% were another person
- 7.8% were sports and recreation equipment
3 WORK-RELATED INJURY

Work-related injuries and injury prevention in New Zealand is recorded by the Ministry of Business, Innovation and Employment (MBIE). According to the New Zealand Injury Prevention Outcomes Report from June 2012, New Zealand’s overall rates for fatal and serious work-related injury have been fairly stable in the past decade, but have not decreased, and the New Zealand rates of work-related fatal injury are poorer than in other OECD countries.

The majority of work-related serious injuries in New Zealand occur in agriculture, forestry, fishing, manufacturing and construction and the same is true for the Waimakariri District. The District is well represented in all of the most prominent industries for work-related claims as shown in Table 3.1.

Table 3.1 Waimakariri District: Industry participation for people employed in full- and part-time work in 2013

<table>
<thead>
<tr>
<th>Industry</th>
<th>Full-time</th>
<th>Part-time</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>3,162</td>
<td>351</td>
<td>3,516</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>2,034</td>
<td>1,116</td>
<td>3,147</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>2,637</td>
<td>366</td>
<td>3,003</td>
</tr>
<tr>
<td>Property and Business Services</td>
<td>1,992</td>
<td>618</td>
<td>2,613</td>
</tr>
<tr>
<td>Health and Community Services</td>
<td>1,455</td>
<td>870</td>
<td>2,322</td>
</tr>
<tr>
<td>Agriculture, Forestry and Fishing</td>
<td>1,470</td>
<td>603</td>
<td>2,073</td>
</tr>
<tr>
<td>Education</td>
<td>1,047</td>
<td>570</td>
<td>1,617</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>1,185</td>
<td>210</td>
<td>1,395</td>
</tr>
<tr>
<td>Personal and Other Services</td>
<td>825</td>
<td>297</td>
<td>1,119</td>
</tr>
<tr>
<td>Transport and Storage</td>
<td>924</td>
<td>132</td>
<td>1,056</td>
</tr>
<tr>
<td>Government Administration and Defense</td>
<td>594</td>
<td>102</td>
<td>696</td>
</tr>
<tr>
<td>Finance and Insurance</td>
<td>540</td>
<td>108</td>
<td>645</td>
</tr>
<tr>
<td>Accommodation, Cafes and Restaurants</td>
<td>438</td>
<td>387</td>
<td>822</td>
</tr>
<tr>
<td>Cultural and Recreational Services</td>
<td>309</td>
<td>165</td>
<td>477</td>
</tr>
<tr>
<td>Communication Services</td>
<td>231</td>
<td>54</td>
<td>282</td>
</tr>
<tr>
<td>Electricity, Gas and Water Supply</td>
<td>186</td>
<td>15</td>
<td>201</td>
</tr>
<tr>
<td>Mining</td>
<td>51</td>
<td>0</td>
<td>54</td>
</tr>
<tr>
<td>Not Elsewhere Included</td>
<td>495</td>
<td>345</td>
<td>843</td>
</tr>
<tr>
<td>Total</td>
<td>19,563</td>
<td>6,312</td>
<td>25,875</td>
</tr>
</tbody>
</table>
A large proportion of the Waimakariri District’s labour-force is involved in industries that require some form of manual labour. Of the 25,875 individuals from the Waimakariri District that are active in the labour-force, the highest percentage was involved in the construction industry in 2013 (13.6%). Over 3,000 were involved in the manufacturing industry and 8.0% were employed in the agriculture, forestry and fishing sector.

The large amount of participation in the construction industry is in part due to the overall increase in demand for new housing after the Canterbury earthquakes in 2010 and 2011. Red-zoned houses in Kaiapoi have been demolished and new developments constructed in areas such as Silverstream, Pegasus, Sovereign Palms and the west and east of Rangiora.

**ACC claims for work-related injuries 2010 – 2012**

In 2012 the Waimakariri District had 0.81% of all claims for work-related injuries in New Zealand. This percentage was up slightly from the 0.73% in 2011 and 0.75% in 2010. In relation to percentage of total population (1.1%) the District’s contribution to work-related injuries is relatively low.

Figure 3 shows the distribution of all claims for work-related injury received by ACC from 2010 – 2012. Please note that the 2012 numbers are provisional counts.

**Figure 3: All claims for work-related injury in the Waimakariri District 2010-2012**

The most prominent areas for work-related claims reflect national findings. Claims for industries which require manual labour are the most common. The highest percentage of claims for all years came from the agriculture, fishery and forestry industry. In 2012 there was a spike in the number of claims coming from trade industries, in part due to the increase in trade industry involvement in the District. Trade industry claims increased by 29.4% between 2011 and 2012. Provisional counts in 2012 have shown an increase in claims from machine and plant operators by 11.9% from 2010.
The distribution of claims for work-related injuries is, in addition to being a reflection of the District’s industry performance, also a reflection of the District’s distinctive age structure. Figure 4 shows the age distribution of the Waimakariri District as at the 2006 and 2013 Censuses.

**Figure 4: Age distribution for the Waimakariri District at the 2006 and 2013 Census**

Between the 2006 and 2013 Censuses both the 25 – 34 and 35 – 44 year age groups decreased in number despite the 16% growth in the overall population of the District. Since 1996 there have been low numbers of young people between their late teens and early twenties; in 2013 this decline had extended into the late twenties and early thirties.

This pattern of age distribution is evident in work-related injury claims from the District as shown in the Figure 5.

**Figure 5: All claims for work-related injury in the Waimakariri District by age**

The largest amounts of claims for work-related injuries come from the 45 – 54 year age group in 2010, 2011 and 2012; this is in part due to the representation of this age group in the District’s overall population. The 65+ year group has a low number of claims because there are fewer numbers of this cohort still in the workforce. Claims for 25 – 34 year olds have increased...
between 2010 and 2012 despite the population decrease evident at the 2013 Census. Claims for 35 – 44 year olds decreased slightly from 2011 to 2012 as did claims from the 55 – 64 year olds.

Figure 6 shows the distribution of work-related injury claims by age and gender from the provisional 2012 records.

Figure 6: All claims for work-related injury in the Waimakariri District by age and gender in 2012

![Graph showing distribution of work-related injury claims by age and gender in 2012.](image)

Work-related injury claims for males were often double that of females in 2012. Of the total number of claims made in 2012 (1,443), males made up 74%. Both male and female injury claims follow a similar age pattern, although the male decline to retirement age is significantly steeper.

Figure 7 sets out the provisional results for type of injuries from all claims for work-related injuries in 2012. Note “other/unspecified” includes concussions and pain syndromes.

Figure 7: All claims for work-related injury in the Waimakariri District by type of injury in 2012

![Pie chart showing distribution of work-related injury claims by type in 2012.](image)
The overwhelming majority of work-related claims were pertaining to soft tissue damage which includes sprain, strain and overuse (57.8%). Of the 1,443 work-related injuries, 23.7% were sustained by laceration and puncture, and sting and burns held a surprisingly low percentage of 1.7%.

Both incidences of soft tissue damage and lacerations, punctures and stings had increased since 2010, but fracture/dislocation and foreign body in the eye had decreased and no incidences of hernia and compression syndrome were recorded in 2012.

The priority industries

Agriculture, forestry, fishing, manufacturing and construction have been recognized nationally as the most prominent industries for work-related incidences as they often involve various forms of physical activity. Figure 8 sets out all claims for work-related injuries in the Waimakariri District in 2012 from the priority industries: agriculture, trades and manufacturing.

Figure 8: Work-related injury claims from the priority industries in the Waimakariri District

Of all the claims for the agriculture, fishing and forestry industry, 30.7% came from the 45 – 54 year age group; this is almost double numbers for all other age groups. Claims from the trades industry are relatively steady for all age groups up to 54 years and the same is true for the manufacturing industry although the numbers are considerably lower.

Figure 9 shows the distribution of work-related injury for the priority industries by gender in 2012.
Of all 894 claims from the priority industries, 14.4% (129) were from female workers. Of all 330 claims from trade workers, only nine or 2.7% were from females in 2012. The agriculture industry had the largest percentage of female claims at 25.7% and females represented 14.7% of claims from the manufacturing industry.
4 FALLS

According to the NZIPS outcomes report from 2012, falls had overtaken road crash injuries as a major cause of death in New Zealand. Injuries caused by falls are most common in older people 65 years and above as well as young children 0 – 14 years.

The increase in injuries caused by falls is directly related to the ageing population of New Zealand, the change in the age structure and distribution in the Waimakariri District reflects this national change as the graph below demonstrates. Figure 10 shows the age distribution of the Waimakariri District’s population at the 2006 and 2013 Census.

Figure 10: Age distribution of the Waimakariri District at the 2006 and 2013 Census

Since the 2006 Census the age structure of the District has made a notable shift to the right. The number of people aged 40 years and over had increased by 33.3% over the seven year period. There had also been a significant decrease (-16.8%) in the number of people in their early and late thirties.

Figure 11 shows all causes of hospitalisations in the Waimakariri District in 2012 as recorded by the Injury Prevention Research Unit at the University of Otago (IPRU).

Note that “Other Specified” includes over exertion, suffocation, drugs, poisoning, pedestrian incidents, fire, hot substances and drowning; similarly transport includes occupants of Motor Vehicle Traffic Crash (MVTC), motorcyclists, pedal cyclists and other land transport.
Falls were the leading cause of hospitalisation in the Waimakariri District in 2012. Of all 697 recorded hospitalisations from the District, 225 or 32.3% were caused by some kind of fall.

Hospitalisations caused by falls between 2010 and 2012 showed an age distribution pattern that reflected the age structure of the District. Figure 12 shows the age distribution of hospitalisations caused by falls in 2010, 2011 and 2012.

All three years between 2012 and 2012 demonstrated a similar age distribution in which hospitalisations were predominantly individuals aged 80 years and over. Individuals between the ages of 20 and 59 years were the least common age group to be hospitalised for an injury caused by falling. Children in 0-9 year age group had a consistent number of falls every year but falls for the 10-19 year age group decreased substantially between 2011 and 2012.
Falls for 0 – 14 year olds in the Waimakariri District

Children in the 0-14 year age group were among those most commonly hospitalised for fall injuries. Table 4.1 shows how the Waimakariri District numbers compare to records for the whole of New Zealand. The comparison is made by looking at the crude rates of both (per 100,000 persons).

<table>
<thead>
<tr>
<th>Year</th>
<th>Waimakariri</th>
<th>Crude Rate</th>
<th>New Zealand</th>
<th>Crude Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>40</td>
<td>396.4</td>
<td>3,708</td>
<td>425.0</td>
</tr>
<tr>
<td>2009</td>
<td>36</td>
<td>355.7</td>
<td>3,899</td>
<td>437.5</td>
</tr>
<tr>
<td>2010</td>
<td>43</td>
<td>425.3</td>
<td>3,749</td>
<td>419.1</td>
</tr>
<tr>
<td>2011</td>
<td>48</td>
<td>472</td>
<td>3,603</td>
<td>402.8</td>
</tr>
<tr>
<td>2012</td>
<td>34</td>
<td>336.6</td>
<td>3,612</td>
<td>404.8</td>
</tr>
</tbody>
</table>

This table shows that for both 2008 and 2009 the Waimakariri District had a significantly lower rate of hospitalisations caused by falls in 0 to 14 year olds than the national rate. There were, however, significant spikes in 2010 and 2011 with the 2011 District’s rate exceeding the nationwide rate by 69.2. Numbers in 2012 and 2009 were the lowest of the five years and both had rates which were considerably lower than the national average.

Figure 13 shows the number of hospitalisations caused by falls for individuals in the 0 – 14 year age group by gender from 2008 to 2012.

**Figure 13: Hospitalisations cause by falls for 0-14 year olds by gender 2008-2012**

Over the five year period, of the 201 hospitalisations caused by falls, 64.7% were male. In 2008 and 2009 the number of male hospitalisations was more than double that of females. There
was a pattern of incline between 2009 and 2011 which ended with a sharp drop in 2012. Where the number of male hospitalisations in 2012 was by far the lowest it had been over the five year period, the number of female hospitalisations was more than in both 2008 and 2009.

**Falls for 65 year olds and over in the Waimakariri District**

Hospitalisations from falls are most often people 65 years and over. The numbers of hospitalisations has been increasing with the ageing of the population. Figure 14 shows the rate per 100,000 persons for both the Waimakariri District and the whole of New Zealand.

**Figure 14: Hospitalisations caused by falls for 65 year olds and over 2008- 2012**

![Hospitalisations caused by falls for 65 year olds and over 2008- 2012](image)

Rates of falls in the Waimakariri District have been consistently lower than the national average over the five year period, with 2008, 2010 and 2012 showing the largest differences. The number of hospitalisations for 65 year olds and over has fluctuated slightly over the five year period but has seen an overall increase as numbers in 2012 had increased by 42.9% since 2008.

Figure 15 shows numbers of hospitalisations caused by falls for individuals 65 years and older by gender from 2008 to 2012.

**Figure 15: Hospitalisations cause by falls for 65 year olds and over by gender 2008-2012**

![Hospitalisations cause by falls for 65 year olds and over by gender 2008-2012](image)
The graph above shows that over the five year period the overwhelming majority of hospitalisations as a result of falls were from females. Of all 560 cases over the five year period, 67% were female. Of the 120 cases in 2012, only 45 were male. Falls from males 65 years and over has increased only slightly between 2008 and 2012. The number of female hospitalisations, however, increased by 63% between 2008 and 2011.

**ACC claims for falls**

The top cause of accepted ACC claims was loss of balance or personal control with 2012/13 figures showing loss of balance constituting 24.4% of all accepted ACC claims. Note that this figure does not include tripping, stumbling, slipping or skidding.

The Waimakariri District’s ACC claim rate for fall injuries per 10,000 head of population was 6.9% higher than the nationwide rate in 2011/12. However, the fatal injury rate for falls in 2011/12 was very low for both the District and New Zealand as a whole and incidences of catastrophic injury in the District during that time period were non-existent.
5 ROAD CRASHES

According to the NZIPS outcomes report June 2012 the rate of road crash fatalities in New Zealand continues to decline steadily, and the provisional 2011 road toll was the lowest it had been since the 1970s. However, New Zealand continues to rate poorly on road safety for children in youth in comparison with other OECD countries. Road Safety is managed by the Ministry of Transport and improving road safety has been an important focus for the Government in recent years.

New Zealand Transport Agency Crash data showed that there were 1,107 crashes (389 injury, 718 non-injury) in the Waimakariri District between 2008 and 2012. The Waimakariri District Council’s Road Safety Action Plan 2013 - 2014 has identified five priority areas for road safety in the District. These priority areas are:

- Young drivers
- Roads and roadsides including intersections
- Speeds including drive to the conditions
- Restraints
- Alcohol and drugs

Young drivers

Of all 318 injury crashes in the District between 2008 and 2012 young drivers between the ages of 15 and 24 constituted 34% of those at fault. NZTA nationwide crash trends show a decrease in fatal and serious injuries in young driver data but an increase for the Waimakariri District.

Figure 16 shows the fatal, serious and minor injury crashes caused by young drivers in the Waimakariri District accord to NZTA findings.

Figure 16: Fatal, serious and minor injury crash trends for young drivers 2008-2012

![Waimakariri District: Fatal, serious & minor injury crash trends for young drivers](image)

The number of minor injury crashes in the District has been steadily decreasing over the five year period. The number of serious injury crashes had fluctuated over the five year period but was lower in 2012 than 2011.

The number of fatal injury crashes reached a peak at two in 2010 and there were no fatal crashes caused by young drivers in 2011. Although crash numbers involving young drivers has
decreased from 32 in 2008 to 23 in 2012, fatal and serious injury crashes have increased by three.

Figure 17 shows the characteristics of all injury crashes involving young drivers between 2008 and 2012.

**Figure 17: Injury crash characteristics involving young drivers 2008-2012**

The top three characteristics for injury crashes in both rural and urban settings were:

1) Crossing/turning (23% rural, 33% urban)
2) Failure to give way/stop (22% rural, 33% urban)
3) Alcohol (18% rural, 29% urban)

The largest causes for injury crashes on rural roads were loss of control on a straight road or around a bend, both of which were head on.

Alcohol was a factor in 22% of young driver crashes on rural road and 21% of crashes on State Highways. The overwhelming majority of crashes involving young drivers occurred on local roads (84%). The highest percentage of young driver crashes was male.

NZTA also provides data for the driver license status of at-fault young drivers. Figure 18 sets out the results.
The above graph shows that the highest percentage of crashes was by young drivers that held a full license (41%). Drivers with restricted licenses made up 36%, learners constituted only 15% and 3.0% of crashes were caused by young drivers that had never been licensed.

**Roads and roadsides (including intersections)**

Intersections are a key area of concern in the Waimakariri Road Safety Strategy and the Safer Journeys Road Safety Strategy identified “Safe Roads and Roadsides” as a priority area. Rural intersections are of particular concern as any crashes at those intersections generally occur at a higher speed than those in urban areas. Given the nature of the District there are many long straight and intersecting roads and there has been an increase in the sale of lifestyle blocks in recent years with a corresponding growth in traffic in rural areas.

The following statistics were procured from New Zealand Transport Agency for 2008-2012:

- There were 431 reported crashes at intersections in the Waimakariri District between 2008 and 2012. Of these 153 (35.5%) resulted in injury, two of which were fatal.
- The most common causes of these crashes were failure to give way or stop and poor observation on the part of the driver. Speed (15%) and alcohol (12%) were also relatively high factors.
- The largest amount of crashes at intersections over a three hour period occurs between 3:00pm and 6:00pm.
- Nearly three quarters of the at-fault drivers held full licenses
- Drivers come from all age groups but they are most well-represented in those 24 years and under (34%) and 60 years and over (28%).
- Over the five year period the number of crashes per year reduced by 13.4%.

**Speed (including drive to the conditions)**

Speed is a high area of concern for road safety across the country and has been identified as a priority area of Safer Journeys. Similarly the New Zealand Police have labeled it one of their “fatal five”. The Waimakariri District Council Road Strategy has taken a similar approach and labeled “safe speeds” as a priority area.
• Of all 1,107 crashes in the Waimakariri District between 2008 and 2012, 179 (16.2%) involved speed too fast for the road (or weather) conditions.
• Of all crashes in which speed was identified as a factor, 48 (26.8%) resulted in injury, four of which were fatal, 23 were serious injuries and 21 were minor.
• Death and serious injuries have increased by 66.7% between 2008 and 2012. This differs from the decreasing trend evident for the whole of New Zealand and the Canterbury Region.
• Reported crashes did however decrease by 52.9% over the five year time period.
• Two thirds of the crashes occurred in rural areas with 89% on local roads and 85% involving only one vehicle.
• Nearly half of the crashes (47%) occurred on the weekends and 60% at night.
• The predominant type of crash involved loss of control around a bend which resulted in a head on collision and over a third involved alcohol.
• Nearly half of those at fault were 24 years and under.
• Of all those at fault 21% held restricted licenses and 13% held learner licenses.

Restraint use

Restraint use is one of the New Zealand Police’s “Fatal Five” priority areas. It has not however been identified as a serious area of concern for the Waimakariri District although monitoring will continue. The Safer Journeys Strategy shows restraint as an area of continued and emerging focus.

A National Survey of Restraint use by children between the ages of 5 and 9 was carried out in October 2011, 2012 and 2013 by the Ministry of Transport. Children in more than 6,300 cars were observed at 112 sites throughout the country and a determination of local authority rates was determined by proportions of population.

The percentage of children found to be in restraints in the Waimakariri District (100%) was comparatively high when looking at other territorial authorities across the Canterbury region in 2011. Surveys in 2012 and 2013 combined both the Waimakariri and Christchurch local authorities. In 2012 Waimakariri/Christchurch showed 93% of children between 5 and 9 years in restraints. This number increased to 98% in the most recent survey in 2013.

Alcohol Action

Alcohol has been identified by the Government’s Road Safety Strategy as a major area of concern and is similarly regarded in the Waimakariri District. Like speed and restrain use, it has also been identified as a priority area on the New Zealand Police “Fatal Five”.

The New Zealand Police’s Alco-Link database provides a wealth of information about alcohol in connection to crime. The data for the Waimakariri District revealed that approximately 45% of consumption was in private residences while only 20% indicating having their last drink prior to arrest on a licensed premises. It was also noted that 90% of illegal incidences involving alcohol consumption occur between 6:00pm on Saturday and 6:00am on Sunday.

The following statistics were recorded by NZTA:

• In relation to Road Safety, alcohol has been a contributing factor in 15.3% (169) of road crashes in the District between 2008 and 2012, eight of which resulted in death and 26 in serious injuries.
• In 2012 alcohol was the second highest cause factor for fatal and serious crashes
• The majority of crashes in which alcohol was a contributing factor took place on local roads (86%).
• Over half occurred on weekends (54%) and 72% occurred at night.
• The majority of crashes involved loss of control and head on collisions (81%), 48% on bends, 33% on straight roads and 38% involved speed too fast for the conditions.
• Young drivers 24 years and under were responsible for 53% of crashes and 39% were between 30 and 50 years old.
• Just under a third were on their restricted license (29%) and 12% on their learners licenses.
6 DROWNING

Drowning has been identified by New Zealand Injury Prevention Strategy (NZIPS) as a priority area for injury prevention in New Zealand. According to the 2012 outcomes report the rate of drowning in New Zealand had been declining steadily since 2006. ACC is the lead agency that deals with drowning prevention in collaboration with the Drowning Prevention Council and other water safety organisations throughout the country such as Coastguard and Water Safety NZ.

One of the most attractive features of life in the Waimakariri District is the access to water. The District has a wealth of lakes, rivers and beaches that are frequented by many and because of this drowning and injuries that occur in and around water must be a priority area for attention.

Drowning is defined by Water Safety New Zealand as “the process of experiencing respiratory impairment from submersion/immersion in liquid.”\(^3\) Statistics on drowning fatalities and hospitalisations were obtained from Water Safety New Zealand’s DrownBase\(^\text{TM}\) and the figures provided are provisional. The following are statistics given for 1 January 2009 to 31 December 2013:

- Between 1 January 2009 and 31 December 2013 there were four drowning deaths in the Waimakariri District. Of the four fatal drowning incidents, three occurred in 2012 and one in 2010.
- Of the 514 drowning fatalities across New Zealand for the same time period this was 0.78%. In relation to the District’s share of the New Zealand population (1.1%), this was comparatively low.
- There were a total of 843 hospitalisations caused by drowning in New Zealand over the same time period and only one or 0.12% occurred in the Waimakariri District.
- All drowning deaths and hospitalisations in the Waimakariri District over that time period were male.

Activities that led to the all incidents were classified as the following:

- Other activity
- Powered Boat
- Water Sport/Recreation
- Accidental Immersion

Age groups involved in all incidents were:

- 15-24 (2)
- 35-44
- 65+ (2)

Environments in which incidents occurred:

- Domestic
- Inland Still Waters
- Rivers
- Large area of water

The results are testament to the success of water safety initiatives from the very organisations throughout the District such as the Waikuku Beach Surf Life Saving Club, Coastguard and Search and Rescue and WaiSwim.

\(^3\) Water Safety New Zealand, 2013 Provisional Drowning Report, p. 2
7 ASSault

The Assault priority area described in the NZIPS covers family violence, sexual assault and other assaults where there is no family or sexual violence involved. According to the NZIPS outcomes report despite New Zealand having a low number of fatal assaults, the rate is relatively high by international standards. New Zealand's rate of fatal assaults is placed 23rd equal with Greece and South Korea out of 33 OECD countries. Although other rates had remained relatively steady, the number of convictions for assault had increased which could be attributed to the increased likelihood of the public to report assaults and changes to the New Zealand Police.

The rates of assault in the Waimakariri District are comparatively lower than the national average as Table 7.1, compiled from ACC’s Injury Comparison Community Profile, suggests.

<table>
<thead>
<tr>
<th>Table 7.1 Waimakariri District: ACC Community Profile for Assaults in 2011-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious assaults resulting in injury rate$^{1,2}$</td>
</tr>
<tr>
<td>Waimakariri District</td>
</tr>
<tr>
<td>12.56</td>
</tr>
<tr>
<td>Public place assault rate$^{1,2}$</td>
</tr>
<tr>
<td>13.78</td>
</tr>
<tr>
<td>Dwelling assault rate$^{1,2}$</td>
</tr>
<tr>
<td>29.13</td>
</tr>
<tr>
<td>ACC injury claim rate$^{2,3}$</td>
</tr>
<tr>
<td>56.50</td>
</tr>
<tr>
<td>ACC moderate to serious cost injury claim rate$^{2,3}$</td>
</tr>
<tr>
<td>2.24</td>
</tr>
<tr>
<td>Number of days lost productivity$^{3}$</td>
</tr>
<tr>
<td>876</td>
</tr>
</tbody>
</table>

Notes from the table:

$^{1}$ = New Zealand Police recorded offences for Northern Canterbury Area based on the location of the assault

$^{2}$ = per 10,000 of population

$^{3}$ = TLA is allocated based on claimants residence at the time of accident

The ACC injury claim rate for assault comes closest to the national average, but serious assaults resulting in injury and assaults in public places are almost half the nationwide rate. While the Waimakariri District’s rate of dwelling assault is much lower in comparison to the whole of the country, it is still significantly higher than public assaults.

Figure 19 compares the crude rate per 100,000 head of population for hospitalisation caused by assault in both the Waimakariri District and the whole of New Zealand from 2008 to 2012. The data was calculated using the Injury Prevention Research Unit’s (IPRU) National Injury Query System.
The IPRU findings clearly support those of ACC and the New Zealand Police. The rate of hospitalisations for assault in the Waimakariri is less than half the national rate. The rate of hospitalisations for assault in the whole of New Zealand has remained relatively steady over the past few years with counts from all years fluctuating between 1,900 and 2,100.

The annual number of hospital discharges for assault in the Waimakariri District peaked at 11 in 2010 and was 10 in 2012. Of all 44 discharges over the five year period, 54.5% were from individuals between the ages of 15 and 24. Of the hospitalisations for assault, two were children under the age of nine.

Males made up 84.1% of assault victims and 68.2% were assaults involving being “Struck by or against” again representative of national findings. Only one assault which resulted in hospitalisation involved a firearm and another seven were classified as “unspecified”.

Alcohol-related assaults

In September 2010 Howard Broad, Commissioner of Police, introducing the framework for preventing and reducing alcohol-related offending and victimization 2010 – 2014, commented that “….alcohol is still the drug that most impacts offending and victimization in New Zealand and therefore causes the most problems for the Police.”

In 2011 ACC in conjunction with the Canterbury Area Health Board and the New Zealand Police developed a “Community Profile – Alcohol” for the Waimakariri District. The data was provided at Territorial Authority level and where it was not available at this level, it was presented at the next highest level available.

Table 7.2 describes serious, dwelling and public space assaults and information from the Police’s Alco-Link database for the Waimakariri District and for comparison, New Zealand as a whole:
Table 7.2  Assault statistics for the Waimakariri District and New Zealand

<table>
<thead>
<tr>
<th>Offence</th>
<th>Waimakariri District</th>
<th>New Zealand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious Assaults by Police District, per 10,000</td>
<td>16.1</td>
<td>25.4</td>
</tr>
<tr>
<td>Dwelling Assaults by Police District, per 10,000</td>
<td>35.5</td>
<td>61.2</td>
</tr>
<tr>
<td>Public Place Assaults by Police District, per 10,000</td>
<td>22.5</td>
<td>28.1</td>
</tr>
<tr>
<td>Alco-Link Offences by Licensed Premises, Police District</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Alcohol consumed prior to offence</td>
<td>30.0%</td>
<td>29.7%</td>
</tr>
<tr>
<td>Drunks taken to detox by Police Area*, per 10,000</td>
<td>29.8</td>
<td>40.8</td>
</tr>
</tbody>
</table>

This table shows that in 2011 the incidence of serious and dwelling assaults per 10,000 head of population is significantly lower in the Waimakariri District compared to the rest of New Zealand. Public place and Alco-Link offences are more closely aligned as is the incidence of alcohol consumed prior to the offence being committed.

The 2011 Alco-Link data for the District shows that where alcohol had been consumed prior to the offence, the level of intoxication was moderate for just under 60% of arrests, and approximately 13% of people who were arrested were extremely intoxicated. The level of moderate intoxication for the Waimakariri District is greater than that reported for the wider New Zealand population (49%), but is similar to the wider New Zealand population for those extremely intoxicated at the time of arrest.

The Alco-Link data also provides information about the place alcohol was consumed prior to the arrest. In the District approximately 45% of this consumption was in private residences followed by just over 20% who reported that they had their last drink in licensed premises.

Local Police report that between 6.00 pm Saturday night and 6.00 am Sunday morning over 90% of incidents attended in the Waimakariri District have alcohol as a significant contributing factor. Private parties, outside of the licensed premises, are identified by the Police as events where an uncontrolled supply of alcohol is available, contributing to significant issues in the wider community such as vandalism, nuisance and assault.

The Police also report that the liquor ban areas specified in the Liquor Ban Bylaw provide a useful tool to control public nuisance, vandalism and other criminal activity in town centres and public parks.
8 SELF-HARM AND SUICIDE

The NZIPS outcomes report identified suicide and deliberate self-harm as “hot topics” throughout New Zealand. The report shows that the social and economic cost of suicide and self-harm in New Zealand is worsening both in the long term and the short term. The rate of serious self-harm injuries has a long term trend of increasing and the rate of youth suicides increased between 2011 and 2012.

Up-to-date data on suicide to territorial authority level is not particularly easy to acquire. IPRU has suicide data at territorial authority level up to 2010 and self-harm hospitalisation data up to 2012. The Coronial Service provides provisional information for periods between the official statistics which is currently up until the end of 2011. Information provided for periods occurring from 2012 to the present are provisional that is the deaths are still being investigated by the Coroner and some, perhaps many will be ruled as unintentional.

Figure 20 combines published data with provisional information supplied by the Chief Coroner to indicate the number of self-inflicted deaths over the last three business years.

**Figure 20: Self-inflicted deaths in the Christchurch DHB 1 July 2010 – 30 June 2013**

Self-inflicted deaths in the Christchurch region have shown an overall decrease with a few fluctuations in number. The number of suicides in the 2012/13 business year (68) was the second lowest since 2007/08. Note that due to the low numbers and volatile nature of the data there is not enough “power” to draw well-founded conclusions.

Data for the Waimakariri District is much less recent as IPRU is the only database that looks at such data at a territorial authority level. Table 8.1 shows the number of hospitalisations for self-inflicted injuries between 2008 and 2012 and the number of suicides in the Waimakariri District up to 2010.
Table 8.1  Waimakariri District: Number of hospitalisations and fatalities for self-inflicted injury

<table>
<thead>
<tr>
<th>Year</th>
<th>Hospitalisations</th>
<th>Number of deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>2009</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>2010</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>2011</td>
<td>27</td>
<td>N/A</td>
</tr>
<tr>
<td>2012</td>
<td>26</td>
<td>N/A</td>
</tr>
</tbody>
</table>

The number of hospitalisations for self-inflicted harm has increased by 30% between 2008 and 2012. The number of suicides, always in single figures, remained relatively steady over the three year period shown.

Of the 115 hospitalisations for self-harm over the five year period, 37.4% came from the 15 to 24 year age group and another 33.9% were between the ages of 35 and 49 years old. Of the 15 suicides over the three year period shown in the table, 20% were individuals in the 15 to 19 year age group.

In terms of external cause, the vast majority of hospitalisations were caused by poisoning (89.6%). The majority of suicides were caused by suffocation of some kind (60%).

Figure 21 shows a comparison between the rate of self-inflicted hospitalisations in the Waimakariri and the national rate.

Figure 21: Rate of hospitalisations for self-inflicted injuries 2008-2012

Hospitalisations for self-harm in the Waimakariri District are considerably lower than national rates. Both rates have been steadily increasing over the five year period shown, although where the New Zealand rate decreased in 2011 the Waimakariri District rate increased significantly.
9 ALCOHOL-RELATED INJURY

Alcohol-related injury data was sourced from the Waimakariri District Council’s Local Alcohol Policy Findings Report May 2013 and from the ACC Alcohol Profile for the Waimakariri District in 2011. Alcohol-related injury is a new Cross-Sector Focus area in the New Zealand Injury Prevention Strategy (NZIPS) and is led by ACC. Cross-sector focus areas are newly introduced under the Strategy to address risk factors and population segments that cut across most, if not all, the existing priority areas.

Alcohol in New Zealand has been identified as a contributing factor in many different kinds of injury including, road safety, assault and suicide as noted in the above sections. The ACC Community Alcohol Profile from 2011 provides a comprehensive overview of behavior relating to alcohol consumption in the District and how this compares to national descriptions. According to the NZIPS outcomes report the percentage of fatal and serious crashes with alcohol as a contributing factor has been on the rise, nationally, since at least 2000 and in 2010/11 40% of suicides were found to be alcohol or drug related.

Although the Waimakariri District has significantly less licensed premises than the national average it has the same amount of alcohol available for consumption at 9.6 litres per person. Table 9.1 shows the National and District Health Board drinking behaviour figures.

<table>
<thead>
<tr>
<th>Table 9.1 Drinking Behaviour in New Zealand and the Waimakariri District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waimakariri District</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Drinking Prevalence</td>
</tr>
<tr>
<td>Risky Drinking</td>
</tr>
<tr>
<td>Hazardous Drinking (at DHB level)</td>
</tr>
<tr>
<td>Drinking by Minors</td>
</tr>
</tbody>
</table>

The hazardous drinking rate in the Waimakariri District is significantly higher than the national average (2.9%). The other areas can only be measured nationally. The hazardous drinking results are supported by the number of alcohol-related injuries that occur in the District each year.

The following data was provided by the Canterbury District Health Board (CDHB) and includes alcohol related inpatient admissions for Waimakariri patients at Christchurch Hospital. The data is limited but gives an indication of the kind of harm alcohol is having on the population.
### Table 9.2 Waimakariri District: Alcohol related admissions at Christchurch Hospital 2011-12

<table>
<thead>
<tr>
<th>Alcohol Sub-conditions</th>
<th>ALL alcohol related episodes</th>
<th>Wholly attributable conditions</th>
<th>Chronic conditions (partially attributable)</th>
<th>Acute conditions (partially attributable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Alcohol-related episodes (38 weeks)</td>
<td>1,146</td>
<td>65</td>
<td>840</td>
<td>241</td>
</tr>
<tr>
<td>Wholly attributable alcohol-related admissions*</td>
<td>275</td>
<td>65</td>
<td>172</td>
<td>38</td>
</tr>
<tr>
<td>%age of all alcohol attributable admissions</td>
<td>100.0%</td>
<td>23.6%</td>
<td>62.5%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Annual projected admissions due to alcohol**</td>
<td>376</td>
<td>89</td>
<td>235</td>
<td>52</td>
</tr>
</tbody>
</table>

**Notes on the table**

*This is the equivalent number of Christchurch Hospital stays that are wholly due to alcohol

** Projected annual admissions (for 2012/13) based on 38 weeks data (1 July 2012 – 22 March 2013)

There were 1,146 alcohol related admissions recorded for the 38 weeks prior to the 22 March 2013. This is equivalent to 1,568 admissions per annum (to Christchurch Hospital from Waimakariri residents).

When these admissions are weighted to directly account for alcohol’s contribution, it is found that the equivalent of 376 admissions per annum were directly attributable to alcohol.

The proportion of admissions by sub-condition category can be broken down as follows:

- 23.6% wholly attributable admission i.e. those directly caused by alcohol – most of which broadly relate to dependent drinking
- 62.5% if alcohol’s contribution to these admissions was for chronic diseases such as epilepsy, cancers and heart diseases
- 13.8% were acute admissions such as accidents and injuries that needed an inpatient stay.