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# 2015 Victorian Road Trauma

## Analysis of Fatalities and Serious Injuries

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 **VICTORIA**  
State  
Government

# 2015 Victorian Road Trauma

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*The purpose of this report is to provide an overview of Victoria's road fatalities and serious injuries, highlighting key changes and emerging trends. The report focuses on the people, activities and situations relating to road trauma and is not an analysis of responsibility.*

## Some Key Findings

### Overall fatalities

- There were 252 deaths on Victoria's roads in 2015 – 4 more than in 2014 and 9 more than our lowest year in 2013. The road toll has now risen for two years in a row.
- Victoria has set a 20% target of fewer than 200 deaths per year by 2020. If the trend for the last 2 years continues, we will not achieve this target.
- The rate of fatalities per 100,000 population, per 10,000 vehicles and 100 million vehicle kilometres travelled has plateaued over the last three years.

### Country versus Melbourne

- Country deaths (136) continue to be higher than in metropolitan Melbourne (116).

### Lane departure crashes

- In 2015, 25 more fatalities resulted from vehicles leaving their lane and running off the road or hitting an oncoming vehicle. The majority of lane departure fatalities occur on roads in rural and outer urban areas.
- Ninety-seven lives lost on country roads involved lane departure by the vehicle – this is three out of four lives lost on country roads.
- Police assessment at the crash scene suggests that around 30% involve alcohol or drugs and 27% involve speeding.
- Across Victoria, 146 (58%) deaths involved lane departure by a vehicle.

### Young drivers and passengers

- Ten more young drivers (18 to 20 years) and seven more young passengers (16 to 17 years) died on our roads in 2015 compared to 2014, and all but one of the young passengers died in vehicles driven by drivers aged 17 to 22. Many of these fatalities involved lane departure collisions, and occurred on weekends and on outer urban and rural roads.
- In contrast, seven fewer 21 to 25 year old drivers were killed in 2015.

### Unprotected road users

- Pedestrian deaths were 11 fewer in 2015 compared to 2014, and 5 fewer than the 3 year average.
- Motorcycle and cyclist fatalities remained stable.

### Serious injuries

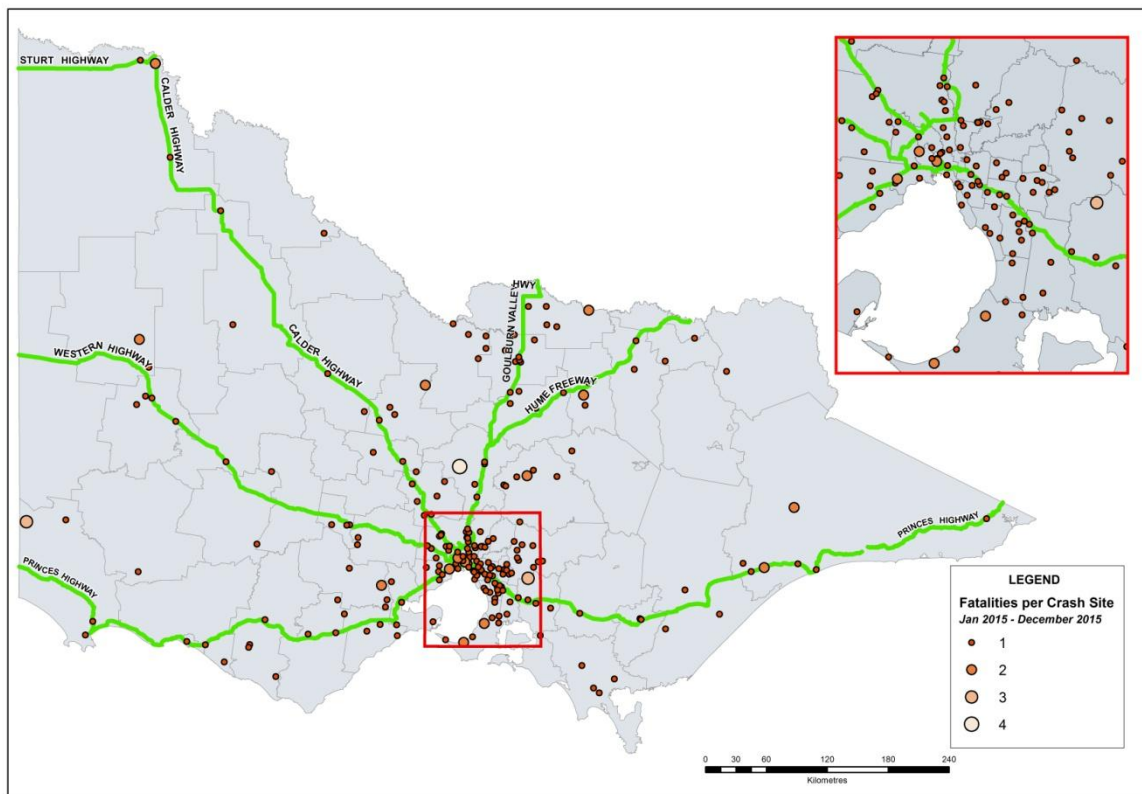
- There were 4951 serious injuries for the 12 months ending June 2015. This was 247 (5%) less than the 5198 in the 12 months to June 2014.
- The rate of serious injuries fell slightly relative to population, vehicles and kilometres travelled.
- Serious injuries reduced across most groups of road users:
  - 4% fewer drivers, 8% fewer young drivers (18-20 years), 15% fewer older drivers (75 years or older),
  - 7% fewer passengers, 27% fewer young passengers,
  - 13% fewer motorcyclists, 9% fewer pedestrians and similar serious injuries for bicyclists.

# 2015 Victorian Road Fatalities

## Overview

In 2015, there were 252 deaths on Victoria's roads, resulting from 231 fatal crashes. The annual road toll has now increased for two consecutive years. The 2015 road toll was 4 (2%) more than the 2014 road toll and 9 (4%) more than our lowest road toll in 2013.

More than 50% of fatalities occur across Country Victoria. This presents a particular challenge for achieving reductions in the road toll, given the large rural road network compared to Metropolitan Melbourne where crashes are more tightly clustered over a smaller area (Map 1).



Map 1: Location of fatalities across Victoria (2015)

## Trends

Victoria has set a 20% fatality reduction target of fewer than 200 deaths per year by 2020.

While fatalities per 12 month period reduced from 299 to 243 between January 2012 and December 2013, fatalities have not been reducing over the last two years (from January 2014 to December 2015). Instead, they have fluctuated around an average of 253 per 12 month period.

The solid line in Figure 1 shows the rolling 12 months fatalities for January 2011 to December 2015. The dotted line shows the target trend from January 2016 to December 2020 to reduce road deaths to fewer than 200 per year in 2020.

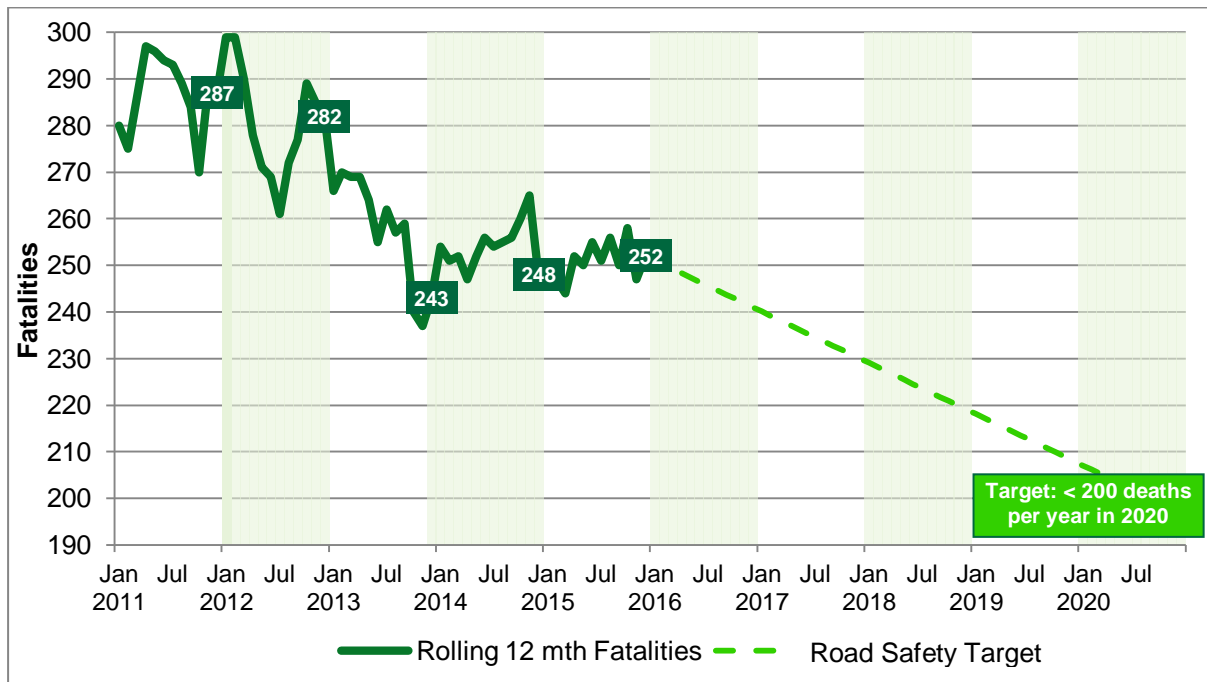


Figure 1: Rolling 12 month fatalities (January 2011 to December 2015) and target trend from January 2016 to 2020

Figure 2 shows trends in fatality rates over the last decade. While there has been a general decline over the decade, the rate of fatalities per 100 000 population has remained stable over the last three years. Fatalities per 10 000 registered vehicles and per 100 000 vehicle kilometres travelled (VKT) have also remained fairly stable for the last three years.

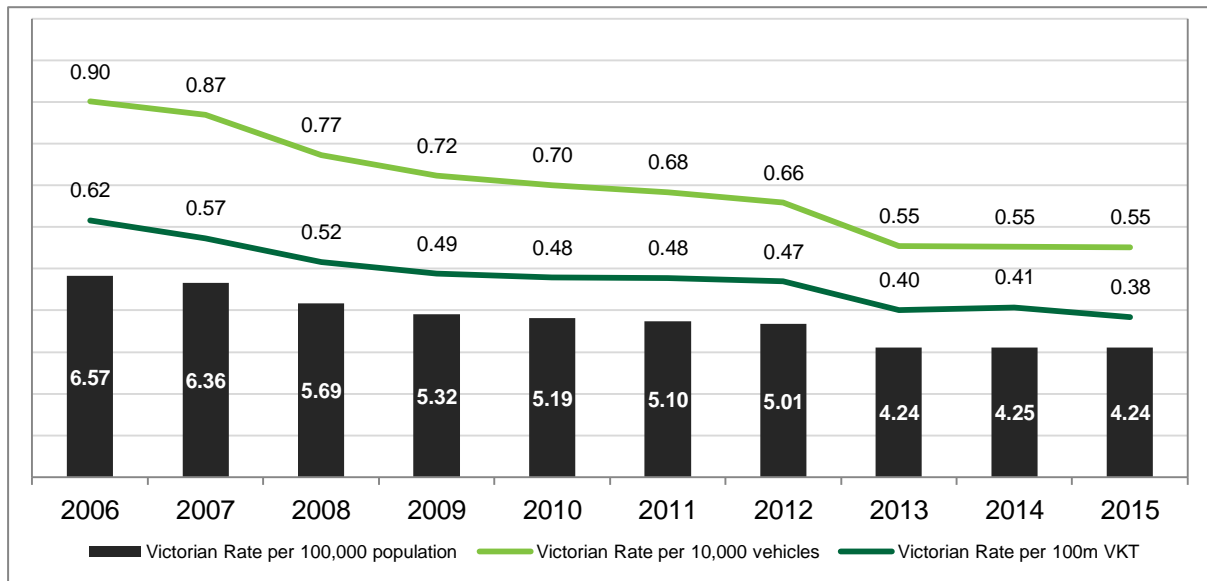


Figure 2: Trends in fatality rates per 100 000 population, 10 000 registered vehicles and 100 million VKT (2006 to 2015)

### Metro Melbourne versus Country Victoria

Figure 3 shows (a) fatalities and (b) fatalities per 100 million VKT for Metro Melbourne and Country Victoria. In 2015, there continues to be approximately 1.2 times as many fatalities in Country Victoria. This is a particular concern as the total number of vehicle kilometres travelled in Country Victoria is 40% higher than the kilometres travelled in Metro Melbourne (not shown), making the risk of a fatality about twice as high for Country Victoria road users for every vehicle kilometre travelled. On a population basis, the risk of fatalities in country Victoria is about four times that of Metro Melbourne. Two out of three deaths on country roads involve country people.

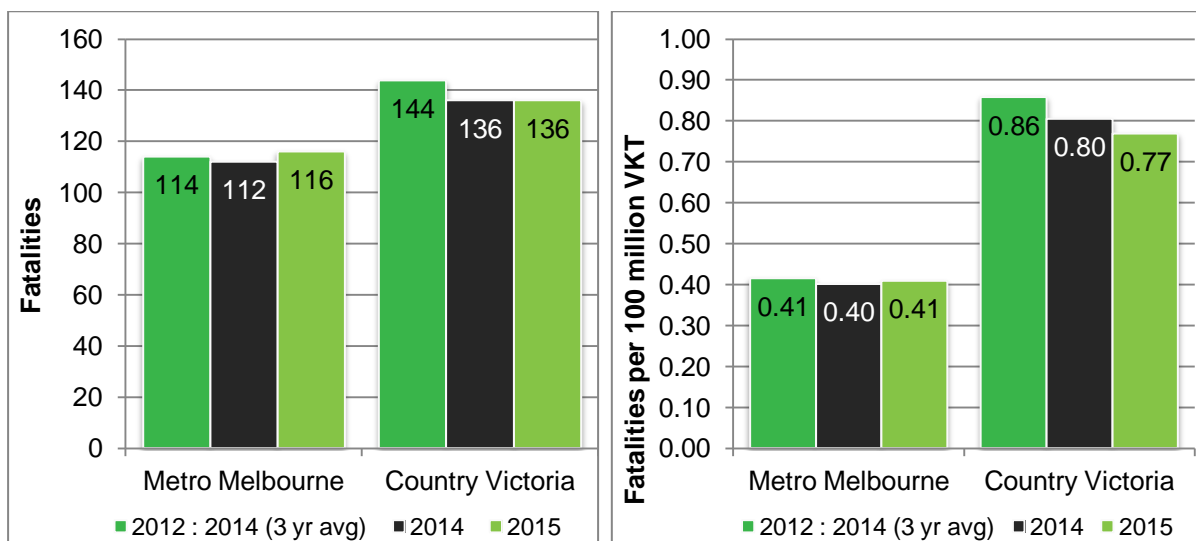


Figure 3: (a) Fatalities and (b) Fatalities per 100 million VKT in Metro Melbourne and Country Victoria (3 year average 2012 to 2014, and totals for 2014 and 2015)

Table 1 shows the number of fatalities by road user group within region of Victoria and year. Drivers comprise the largest single group of fatalities (around 38% of fatalities in Metro Melbourne and 57% of fatalities in Country Victoria).

**Metro Melbourne:**

- In 2015 there were 5 more **driver** fatalities compared with 2014, and 4 more compared with the three year average (2012 to 2014).
- There are two to three times as many **pedestrian** fatalities in Metro Melbourne compared with Country Victoria. Pedestrian fatalities in 2015 were 8 fewer in Metro Melbourne compared with 2014, and 7 fewer than the three year average.
- Whilst there were reductions in motorcycle fatalities in Country Victoria, this improvement has not been seen in Metro Melbourne.

**Country Victoria:**

- **Driver** fatalities were 3 more than in 2014, but 9 fewer than the three year average.
- **Passenger** fatalities were 4 more than in 2014, and 7 more than the three year average.
- **Motorcyclist** fatalities were 2 less than in 2014 and 7 fewer than the three year average.

**Table 1: Fatalities by road user type and Metro Melb versus Country Vic for 2015, 2014 and 3 year average 2012 to 2014**

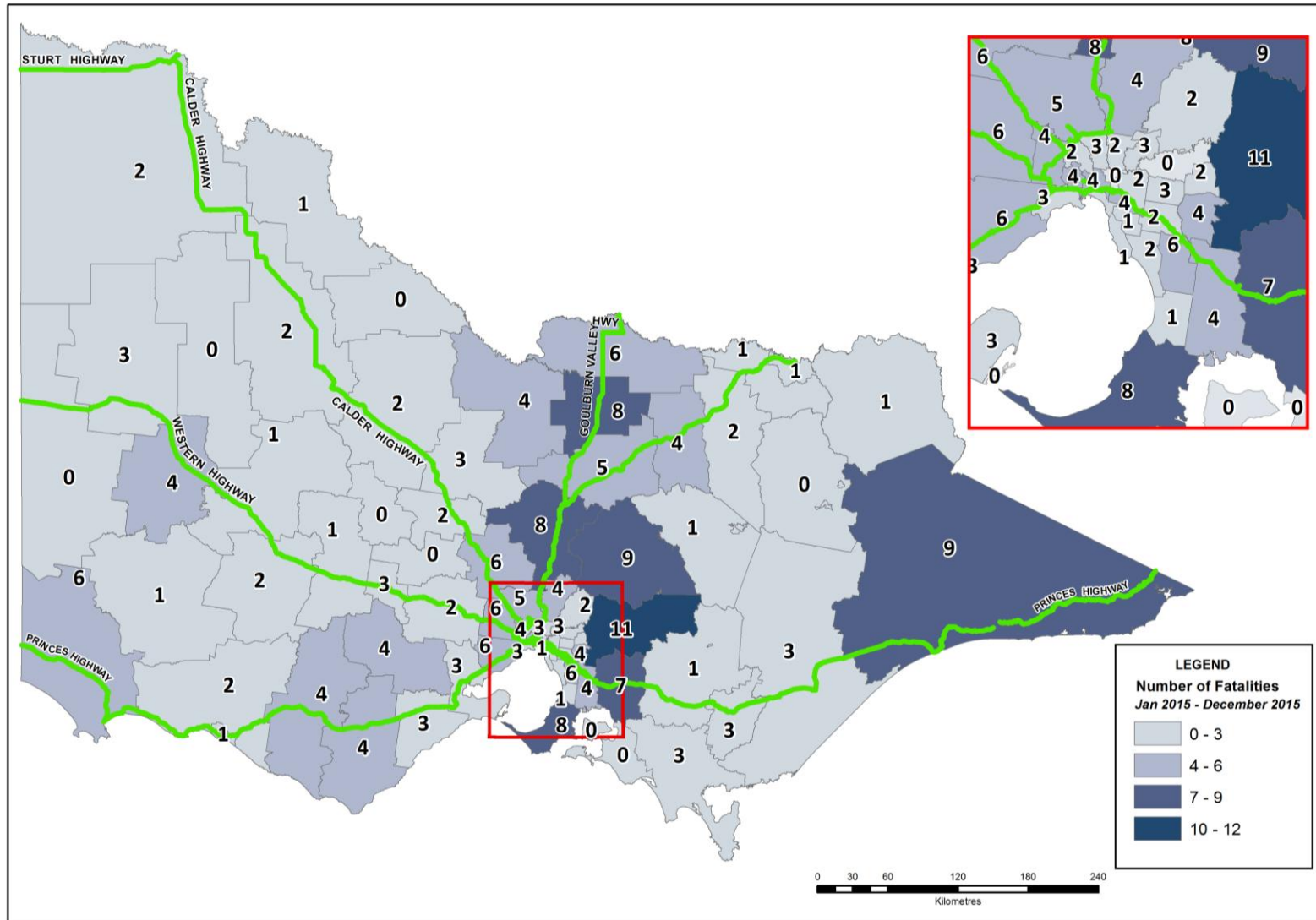
| Road User                     | 2015       |             |         | 2014       |             |         | 2012 to 2014<br>(3 Year Avg) |             |         |
|-------------------------------|------------|-------------|---------|------------|-------------|---------|------------------------------|-------------|---------|
|                               | Metro Melb | Country Vic | All Vic | Metro Melb | Country Vic | All Vic | Metro Melb                   | Country Vic | All Vic |
| <b>Driver</b>                 | 44         | 78          | 122     | 39         | 75          | 114     | 40                           | 87          | 127     |
| <b>Passenger</b>              | 25         | 32          | 57      | 22         | 28          | 50      | 22                           | 25          | 47      |
| <b>Pedestrian</b>             | 22         | 11          | 33      | 30         | 14          | 44      | 29                           | 10          | 38      |
| <b>Motorcyclist*</b>          | 19         | 11          | 30      | 17         | 13          | 30      | 19                           | 18          | 37      |
| <b>Cyclist</b>                | 6          | 4           | 10      | 4          | 6           | 10      | 4                            | 4           | 8       |
| <b>Total</b>                  | 116        | 136         | 252     | 112        | 136         | 248     | 114                          | 144         | 258     |
| <b>Heavy Vehicle Involved</b> | 16         | 25          | 41      | 27         | 29          | 56      | 18                           | 25          | 43      |

\* including pillion passengers (<1%)



## Fatalities by Local Government Area

The local government areas with the highest number of fatalities in 2015 were disproportionately clustered around the fringe of Melbourne. In descending order of frequency, they were the shires of Yarra Ranges (11 fatalities), Murrindindi (9 fatalities) and Mitchell and Mornington Peninsula Shires (8 fatalities each).



In addition to these “fringe” LGAs, the shire of East Gippsland recorded 9 fatalities, and Greater Shepparton recorded 8.

Map 2: Fatalities by LGA (2015)

## Jurisdictional comparisons

In 2015, Victoria's 4.24 fatalities per 100 000 population would place the state 12th lowest among OECD (Organisation for Economic Cooperation and Development) countries in 2013 (the most recent year for which data is available). With 5.34 fatalities per 100 000 population, the rest of Australia ranked 18<sup>th</sup>.

For every 10 000 vehicles, there were 0.55 fatalities and for every 100 million vehicle kilometres travelled there were 0.38 fatalities. This places Victoria 7<sup>th</sup> among OECD countries based on number of registered vehicles, and 4<sup>th</sup> based on vehicle kilometres travelled.

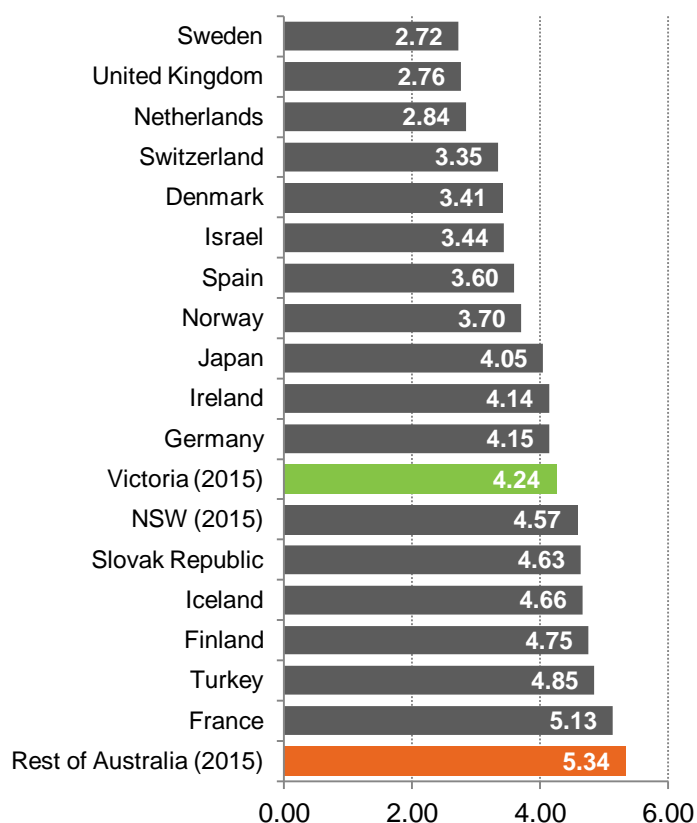


Figure 4: Fatalities per 100 000 population (2013)

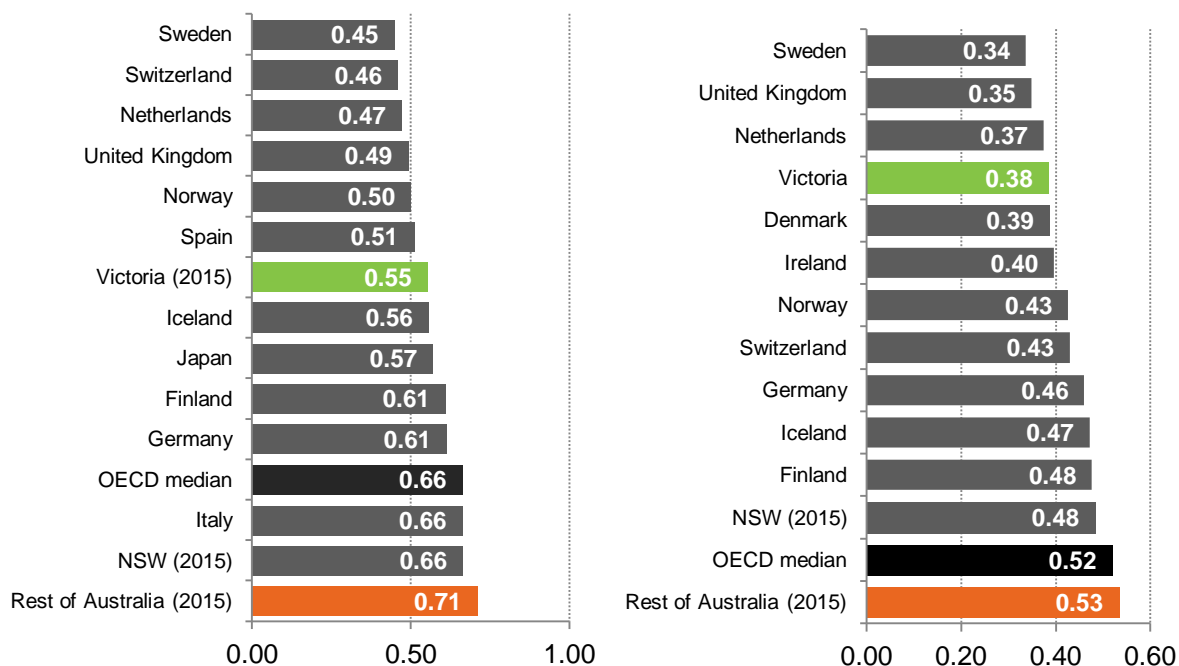


Figure 5: Fatalities per (a) 10 000 registered vehicles and (b) 100 million VKT (2013)




## Road Users

### Drivers and passengers

In 2015, 122 drivers and 57 passengers died on Victoria's roads.

- **Driver fatalities** were 8 more than in 2014, but 5 lower than the 3 year average.
- **Young driver (18 to 20 year olds)** fatalities were 10 more than in 2014, and 6 more than the 3 year average.
- **Older driver (75 years and older)** fatalities were one fewer than in 2014, and 7 fewer than the 3 year average.
- **Passenger** fatalities were 7 more than in 2014, and 10 more than the three year average.
- **Young passenger** fatalities (16 to 17 year olds) were 7 more than in 2014, and 9 more than the 3 year average.
- **Vehicle occupant fatalities not wearing a seatbelt** were 8 more than in 2014, and 4 less than the three year average.

**Table 2: Drivers and Passengers**

| Change (2015 versus 2014)   |    |        | Group   | 2015 | 2014 | Avg. 2012-2014 |
|---|----|--------|---|------|------|----------------|
|  | 8  | (7%)   | All drivers                                   | 122  | 114  | 127            |
|  | 10 | (125%) | Young drivers (18 to 20 years)                | 18   | 8    | 12             |
|  | -7 | (-44%) | Young drivers (21 to 25 years)                | 9    | 16   | 14             |
|  | -1 | (-8%)  | Older drivers (75 years or older)             | 12   | 13   | 19             |
|  | 7  | (14%)  | All passengers                                | 57   | 50   | 47             |
|  | 7  | (175%) | Young passengers (16 to 17)                   | 11   | 4    | 2              |
|  | 8  | (44%)  | Drivers and passengers not wearing a seatbelt | 26   | 18   | 30             |

### Characteristics of drivers and passengers:

- Drivers killed in crashes had an average age of 44 years, and passengers had an average age of 40 years.
- 75% of driver fatalities were males, compared with 53% of passenger fatalities.


**Table 3: Age and gender of driver and passenger fatalities (2015 versus 3 year average 2012 to 2014)**

|                   | Fatalities per year | % of all fatalities | Percentages within road user group that were... |                    |                   | Average Age (years) |
|-------------------|---------------------|---------------------|---|--------------------|-------------------|---------------------|
|                   |                     |                     | male  | 18 to 25 years old | 60 years or older |                     |
| <b>Drivers</b>    |                     |                     |   |                    |                   |                     |
| 2015              | 122                 | 48%                 | 75%   | 21%                | 30%               | 44.2                |
| 3 year average    | 127                 | 49%                 | 72%   | 21%                | 32%               | 47.3                |
| <b>Passengers</b> |                     |                     |   |                    |                   |                     |
| 2015              | 57                  | 23%                 | 53%   | 19%                | 30%               | 39.8                |
| 3 year average    | 47                  | 18%                 | 42%   | 20%                | 30%               | 42.0                |

### Heavy Vehicle Involvement

There were 15 fewer fatalities resulting from crashes involving heavy vehicles in 2015 compared with 2014.




**Table 4: Heavy Vehicle involvement**

| Change (2015 versus 2014)   |     |        | Group  | 2015 | 2014 | Avg. 2012-2014 |
|---|-----|--------|--|------|------|----------------|
|  | -15 | (-27%) | People killed in crashes involving a heavy vehicle | 41   | 56   | 43             |

### Unprotected Road Users

- **Pedestrian** fatalities were 11 fewer in 2015 compared with 2014, and 5 fewer than the 3 year average.
- There were no changes among other groups.

**Table 5: Vulnerable Road Users**

| Change (2015 versus 2014)   |     |        | Group  | 2015 | 2014 | Avg. 2012-2014 |
|---|-----|--------|--|------|------|----------------|
|  | -11 | (-25%) | All pedestrians                              | 33   | 44   | 38             |
|  | 0   | (0%)   | Motorcyclists (including pillion passengers) | 30   | 30   | 36             |
|  | 0   | (0%)   | Cyclists                                     | 10   | 10   | 8              |

### Characteristics of unprotected road user fatalities

- **Motorcyclist** fatalities were 90% male and had an average age of 39 years.
- **Pedestrian** fatalities were 69% male and had an average age of 60 years; 58% were 60 years or older.
- **Bicyclists** were 100% male and had an average age of 47 years; 30% were 60 years or older.

**Table 6: Age and gender of unprotected road user fatalities (2015 versus 3 year average 2012 to 2014)**

|   | Fatalities per year | % of all fatalities | Percentages within road user group that were... |                    |                   | Average Age (years) |
|---|---------------------|---------------------|---|--------------------|-------------------|---------------------|
|   |                     |                     | male  | 18 to 25 years old | 60 years or older |                     |
| <b>Motorcyclists (including pillion passengers)</b> |                     |                     |   |                    |                   |                     |
| 2015  | 30                  | 13%                 | 90%   | 7%                 | 3%                | 39.3                |
| 3 year average                                      | 37                  | 14%                 | 93%   | 23%                | 13%               | 38.0                |
| <b>Pedestrian</b>                                   |                     |                     |   |                    |                   |                     |
| 2015  | 33                  | 13%                 | 69%   | 6%                 | 58%               | 60.1                |
| 3 year average                                      | 38                  | 15%                 | 67%   | 11%                | 48%               | 54.4                |
| <b>Bicyclist</b>                                    |                     |                     |   |                    |                   |                     |
| 2015  | 10                  | 4%                  | 100%  | 10%                | 30%               | 47.1                |
| 3 year average                                      | 8                   | 3%                  | 96%   | 0%                 | 43%               | 55.7                |










## Crash Types

### Fatal crashes by location

Fatal crashes increased by 3% overall (Table 7). The greatest increases occurred in Metro Melbourne where the number of crashes increased by 6 (6%), compared with an increase of 1 (1%) in Country Victoria.

Within Metro Melbourne, fatal crashes increased by 7 (54%) on 50 km/h or less roads. Despite the increase in fatal crashes in Metro Melbourne, there were still more fatal crashes in Country Victoria (122 versus 109). This has been the case for a number of years.

**Table 7: Fatal crashes in Metro Melbourne and Country Victoria**

| Change<br>(2015 versus 2014)  |    |       | Group  | 2015 | 2014 | Avg.<br>2012-<br>2014 |
|---|----|-------|--|------|------|-----------------------|
|    | 7  | (3%)  | <b>All fatal crashes</b>                                   | 231* | 224  | 237                   |
|    | 6  | (6%)  | <b>Metro Melbourne</b>                                     | 109  | 103  | 107                   |
|    | 7  | (54%) | <i>... roads with a speed limit of 50 km/h or less</i>     | 20   | 13   | 16                    |
|   | 1  | (1%)  | <i>... roads with a speed limit between 60 and 80 km/h</i> | 69   | 68   | 70                    |
|  | 0  | (0%)  | <i>... roads with a speed limit of 100 km/h or greater</i> | 20   | 20   | 18                    |
|  | 1  | (1%)  | <b>Country Victoria</b>                                    | 122  | 121  | 130                   |
|  | 1  | (20%) | <i>... roads with a speed limit of 50 km/h or less</i>     | 6    | 5    | 4                     |
|  | 0  | (0%)  | <i>... roads with a speed limit between 60 and 80 km/h</i> | 17   | 17   | 28                    |
|  | -5 | (-5%) | <i>... roads with a speed limit of 100 km/h or greater</i> | 94   | 99   | 96                    |

\* The number of fatal crashes is lower than the number of fatalities because multiple fatalities can arise from a single crash.

## Fatalities by crash type

**Metro Melbourne:** Lane departure crashes accounted for 14 extra fatalities in Metro Melbourne in 2015 compared with 2014. Four out of every ten deaths result from the vehicle leaving the lane and running off the road or hitting an oncoming vehicle.

**Table 8: Fatalities in Metro Melbourne by crash type**

| Change<br>(2015 versus 2014)  |    |        | Group                             | 2015 | 2014 | Avg.<br>2012-<br>2014 |
|---|----|--------|-----------------------------------|------|------|-----------------------|
|  | 6  | (5%)   | All fatalities in Metro Melbourne | 116  | 112  | 114                   |
|  | 14 | (40%)  | Lane departure                    | 49   | 35   | 43                    |
|  | -9 | (-28%) | Involving a pedestrian            | 23   | 32   | 28                    |
|  | 1  | (5%)   | Side impact at intersection       | 22   | 21   | 17                    |
|  | 2  | (50%)  | Involving a cyclist               | 6    | 4    | 4                     |

**Country Victoria:** More than seven out of ten fatalities in Country Victoria resulted from lane departure crashes, and

- Run-off-road fatalities increased by 4 (6%)
- Head-on fatalities (not overtaking) increased by 7 (29%)

**Table 9: Fatalities in Country Victoria by crash type**

| Change<br>(2015 versus 2014)  |    |        | Group                              | 2015 | 2014 | Avg.<br>2012-<br>2014 |
|---|----|--------|------------------------------------|------|------|-----------------------|
|  | 0  | (0%)   | All fatalities in Country Victoria | 136  | 136  | 144                   |
|  | 11 | (13%)  | Lane departure                     | 97   | 86   | 100                   |
|  | -4 | (-24%) | Side impact at intersection        | 13   | 17   | 15                    |
|  | -4 | (-27%) | Involving a pedestrian             | 11   | 15   | 10                    |
|  | -2 | (-33%) | Involving a cyclist                | 4    | 6    | 4                     |

## Key Changes

### Increase in lane departure fatalities

There was an increase of 25 lane departure fatalities across both Metro Melbourne and Country Victoria. Table 10 breaks the lane departure fatalities in 2015 down by location and speed zone.

In **Metro Melbourne**, lane departure fatalities were most likely to occur on:

- 100 km/h roads
- 80 km/h roads
- 60 & 70 km/h roads

In **Country Victoria**, lane departure fatalities were most likely to occur on:

- 100 km/h or more roads

**Table 10: Lane departure fatalities in 2015 by location and speed limit**

| Location                | All lane departure fatalities        | 40 or 50 km/h           | 60 or 70 km/h             | 80 km/h                   | 100 km/h or more          |
|-------------------------|--------------------------------------|-------------------------|---------------------------|---------------------------|---------------------------|
|                         | (% of all lane departure fatalities) |                         |                           |                           |                           |
| <b>Metro Melbourne</b>  | <b>49</b><br><b>(34%)</b>            | <b>7</b><br><b>(5%)</b> | <b>12</b><br><b>(8%)</b>  | <b>13</b><br><b>(9%)</b>  | <b>13</b><br><b>(9%)</b>  |
| <b>Country Victoria</b> | <b>97</b><br><b>(66%)</b>            | <b>2</b><br><b>(1%)</b> | <b>2</b><br><b>(1%)</b>   | <b>7</b><br><b>(5%)</b>   | <b>76</b><br><b>(52%)</b> |
| <b>Total</b>            | <b>146</b><br><b>(100%)</b>          | <b>9</b><br><b>(6%)</b> | <b>14</b><br><b>(10%)</b> | <b>20</b><br><b>(14%)</b> | <b>89</b><br><b>(61%)</b> |

Numbers in the speed limit columns do not add up to "All lane departure fatalities" due to some crashes not having a speed limit coded.

### Run off roads fatalities

Table 11 shows that one-quarter of run-off-road fatalities in Metro Melbourne were from multi-fatality collisions, compared with approximately one-fifth of run-off-road fatalities in Country Victoria.

- **Speeding** as reported by Victoria Police, was suspected in a greater proportion (but not a greater number of cases) in Metro Melbourne fatalities than in Country Victoria.
- **Drugs and/or alcohol** as reported by Victoria Police, were suspected in a greater proportion (and a greater number of cases) in Country Victoria.

Of the 38 run-off-road fatalities in **Metro Melbourne**:

- single fatalities were more likely to be **males**
- the driver was about twice as likely to be **60 years** and older or **18 to 25 years old** in multiple fatalities compared with single fatalities
- **speeding** was more frequently suspected in multiple fatalities
- **drugs and/or alcohol** were more frequently suspected in single fatalities than in multiple fatalities.

Of the 66 run-off-road fatalities in **Country Victoria**:

- there was no difference in the distribution of genders in single versus multiple fatalities
- the average age of people in multiple fatalities was four years lower versus single, and were also more likely to be either **60 years** and older or **18 to 25 years old**



- **speeding** was more frequently suspected in single fatalities (26% versus 15%)
- **drugs and/or alcohol** were more frequently suspected in multiple fatalities than in single fatalities.

**Table 11: Run-off-road fatalities in 2015 by location, number and characteristics of fatalities**

| Location and number of fatalities | All ROR fatalities | % male     | Average age | % 18 to 25 years | % 60 years and older | % speeding | % drugs / alcohol |
|-----------------------------------|--------------------|------------|-------------|------------------|----------------------|------------|-------------------|
| <b>Metro Melbourne</b>            |                    |            |             |                  |                      |            |                   |
| Single fatality                   | 29                 | 83%        | 37          | 21%              | 10%                  | 41%        | 31%               |
| Multiple fatalities               | 9                  | 56%        | 33          | 44%              | 22%                  | 56%        | 0%                |
| <b>All Metro Melbourne</b>        | <b>38</b>          | <b>76%</b> | <b>36</b>   | <b>26%</b>       | <b>13%</b>           | <b>45%</b> | <b>24%</b>        |
| <b>Country Victoria</b>           |                    |            |             |                  |                      |            |                   |
| Single fatality                   | 53                 | 75%        | 38          | 21%              | 13%                  | 26%        | 25%               |
| Multiple fatalities               | 13                 | 77%        | 35          | 31%              | 23%                  | 15%        | 46%               |
| <b>All Country Vic</b>            | <b>66</b>          | <b>76%</b> | <b>37</b>   | <b>23%</b>       | <b>15%</b>           | <b>24%</b> | <b>29%</b>        |
| <b>Total</b>                      | <b>104</b>         | <b>76%</b> | <b>37</b>   | <b>24%</b>       | <b>14%</b>           | <b>32%</b> | <b>27%</b>        |

### **Increase in young driver and young adolescent passenger fatalities**

18 young drivers aged 18 to 20 were killed in 2015 compared with 8 in 2014 and 11 passengers aged 16 to 17 were killed in crashes compared with 4 in 2014.

#### **16 to 17 year old passenger fatalities:**

- 9 were killed in vehicles driven by 17 to 20 year old drivers. One was killed in a vehicle driven by a 22 year old driver, and one by a 44 year old driver.
- All but two of the fatalities occurred between 4 pm on a Friday and 7 am on a Sunday.
- 8 of the fatalities resulted from run-off-road crashes.
- Most of the crashes occurred in Country Victoria or the outer suburbs of Melbourne (e.g. in Cardinia and Yarra Ranges shires).
- Drug-driving or drink-driving was suspected in half of the fatalities.

#### **18 to 20 year old driver fatalities:**

- 14 of the fatalities occurred in Country Victoria, and most of the fatalities that occurred in Melbourne were on the outer fringe (e.g. Casey, Hume and Yarra Ranges).
- More than half occurred on a weekend.
- 8 of the deaths resulted from run-off-road crashes and 8 from head-on crashes.
- At least 13 occurred on 100 km/h roads.
- 14 were males.

**Table 12: Trauma components – fatalities**

| FATALITIES  | 2015       |            | 2014       |            | 2012-2014<br>(3 year average) |            | % change<br>2015 vs<br>2014 | % change<br>2015 vs<br>3 yr avg |
|---|------------|------------|------------|------------|-------------------------------|------------|-----------------------------|---------------------------------|
|   | No.        | %          | No.        | %          | No.                           | %          |                             |                                 |
| <b>TOTAL PERSONS KILLED</b>                                       | <b>252</b> |            | <b>248</b> |            | <b>258</b>                    |            | <b>1.6</b>                  | <b>-2.2</b>                     |
| <b>Factors / Components of individual road trauma</b>             |            |            |            |            |                               |            |                             |                                 |
| High speed rural roads  | 105        | 42%        | 105        | 42%        | 108                           | 42%        | 0.0                         | -2.2                            |
| Intersections in 60 zones   | 23         | 9%         | 26         | 10%        | 31                            | 12%        | -11.5                       | -26.6                           |
| Residential Streets (40 and 50 zones)                             | 22         | 9%         | 18         | 7%         | 21                            | 8%         | 22.2                        | 6.5                             |
| Same direction vehicle crashes                                    | 8          | 3%         | 13         | 5%         | 15                            | 6%         | -38.5                       | -46.7                           |
| Distracted drivers and riders                                     | N/A        | N/A        | N/A        | N/A        | N/A                           | N/A        | N/A                         | N/A                             |
| Drink and drug driving*   | 25         | 10%        | 22         | 9%         | 34                            | 13%        | 13.6                        | -25.7                           |
| Fatigued / drowsy drivers and riders                              | N/A        | N/A        | N/A        | N/A        | N/A                           | N/A        | N/A                         | N/A                             |
| Speeding drivers and riders*                                      | 59         | 23%        | 48         | 19%        | 60                            | 23%        | 28.3                        | -2.2                            |
| Cyclists in urban areas   | 3          | 1%         | 2          | 1%         | 2                             | 1%         | 50.0                        | 80.0                            |
| Heavy vehicles  | 41         | 16%        | 56         | 22%        | 43                            | 17%        | -28.6                       | -7.0                            |
| Motorcyclists   | 29         | 11%        | 30         | 12%        | 36                            | 14%        | -3.3                        | -20.2                           |
| Involve older drivers (75 & older)                                | 22         | 9%         | 18         | 7%         | 21                            | 8%         | 22.2                        | 6.5                             |
| Pedestrians in urban areas  | 31         | 12%        | 32         | 13%        | 32                            | 13%        | -3.1                        | -4.1                            |
| Involve younger drivers (18-25 years)                             | 54         | 21%        | 52         | 21%        | 60                            | 23%        | 3.8                         | -10.5                           |
| <b>OVERALL ROAD TRAUMA INVOLVING ONE OR MORE COMPONENTS ABOVE</b> | <b>231</b> | <b>92%</b> | <b>225</b> | <b>91%</b> | <b>241</b>                    | <b>94%</b> | <b>2.7</b>                  | <b>-4.1</b>                     |

\* Estimates based on preliminary findings from police members first on scene.

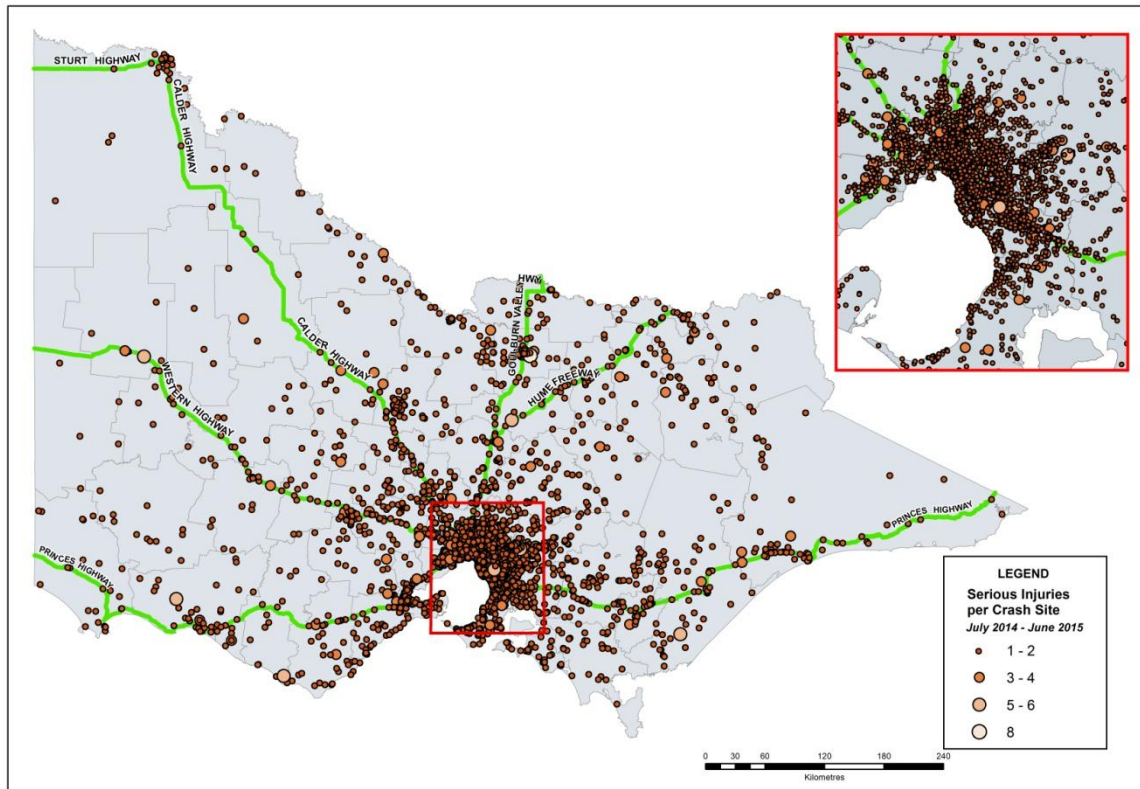
There are insufficient data to provide police estimated fatigued/ drowsy driving road statistics for this report.

Refer to the Glossary on page 28 for definitions of terms used in this table.

## 2014–2015 Victorian Serious Injuries

### Overview

In the financial year 2014-15, there were 4951 serious injuries due to crashes on roads in Victoria<sup>1</sup>. Similar to fatalities, serious injuries are more concentrated in Melbourne and crashes in Country Victoria are more dispersed (Map 3).



Map 3: Location of serious injuries across Victoria (2015)

<sup>1</sup> As coded at 5 January 2016.

## Trends

Serious injuries fluctuated between 5,100 and 5,400 per year over the last 5 years. Over the last two years, the overall trend appears to be downward particularly in the last 6 to 12 months (Figure 6).

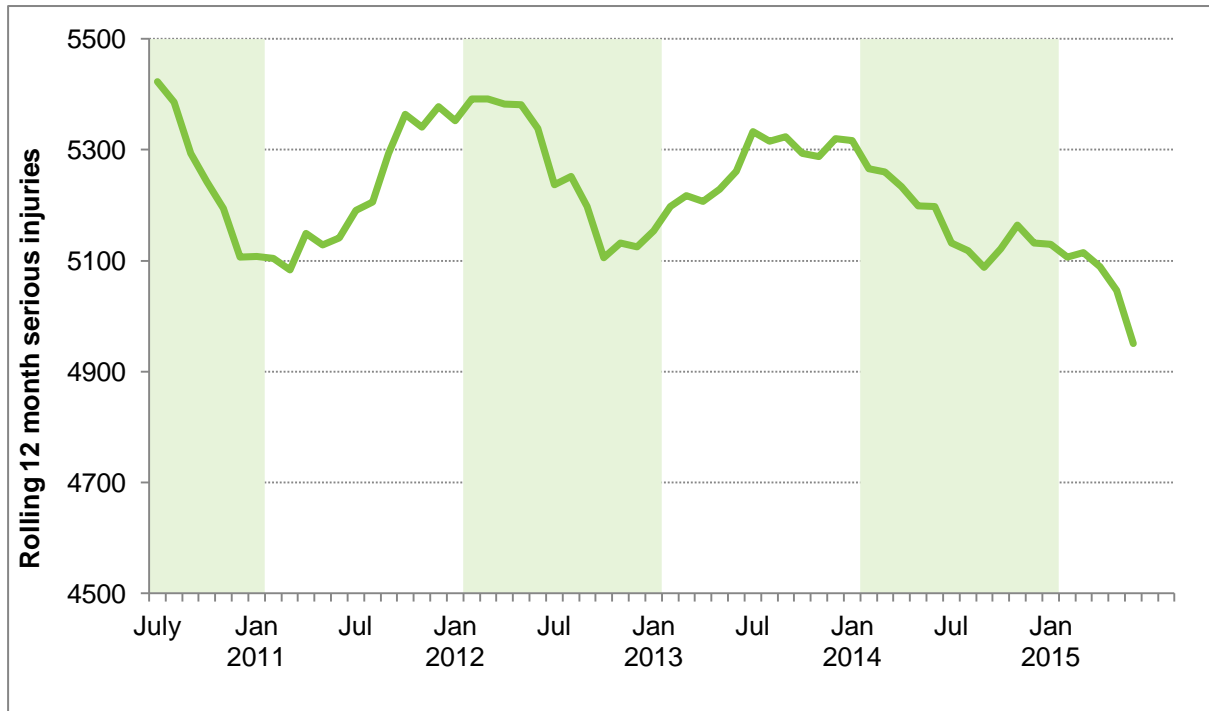


Figure 6: Rolling 12 month serious injuries (July 2010 to June 2015)

Since 2009, the rate of serious injuries:

- per 100 000 **population** has fluctuated but generally decreased
- per 10 000 **vehicles** has also fluctuated but generally decreased
- per 100 million **vehicle kilometres travelled** reduced in 2010 and has since fluctuated around 8.5 to 9.0

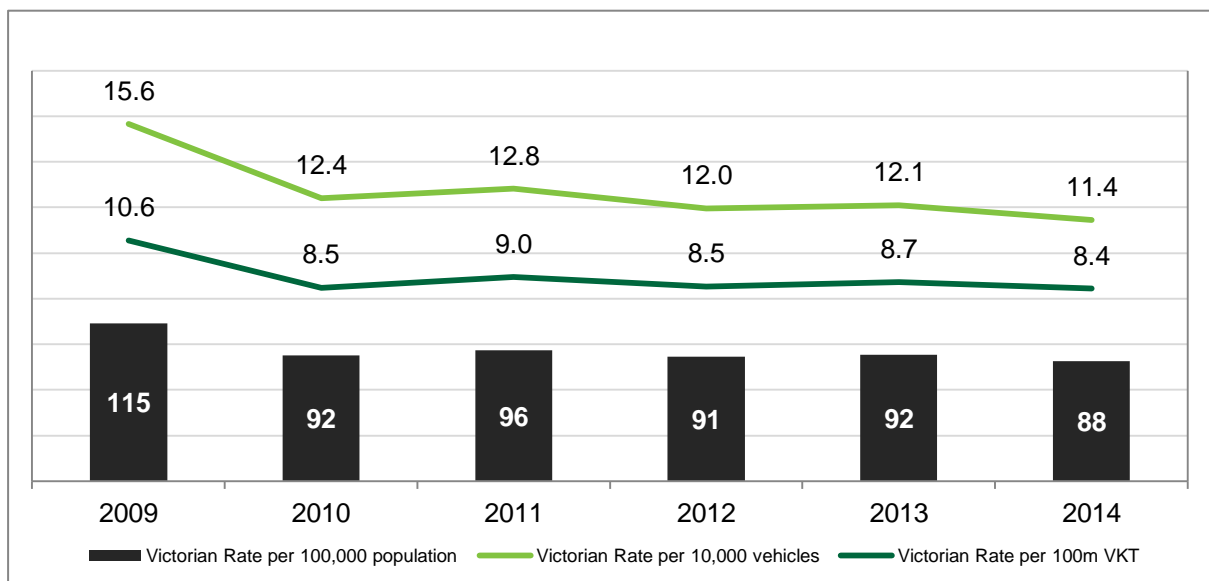


Figure 7: Trends in serious injury rates per 100 000 population, 10 000 registered vehicles and 100 million VKT (2009 to 2014)

## Metro Melbourne versus Country Victoria

Both the number and rate of serious injuries reduced both in Metro Melbourne and Country Victoria. While serious injuries occur almost 1.9 times as frequently in Metro Melbourne compared with Country Victoria, the rate of serious injuries per vehicle kilometre travelled is only approximately 15% higher in Metro Melbourne.

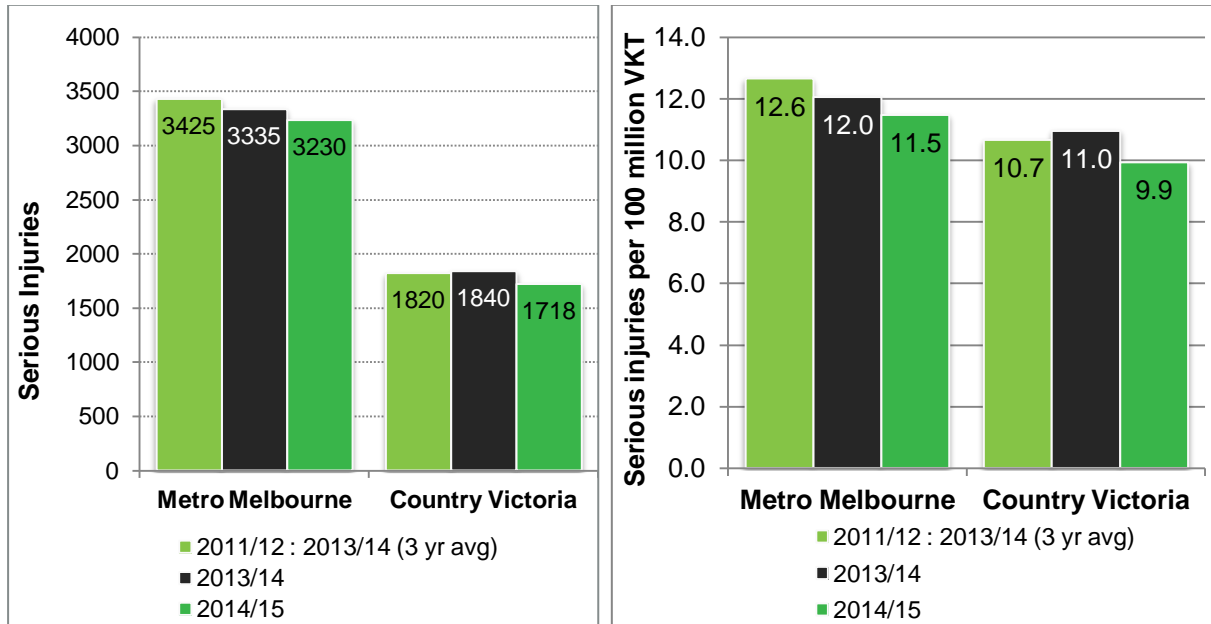
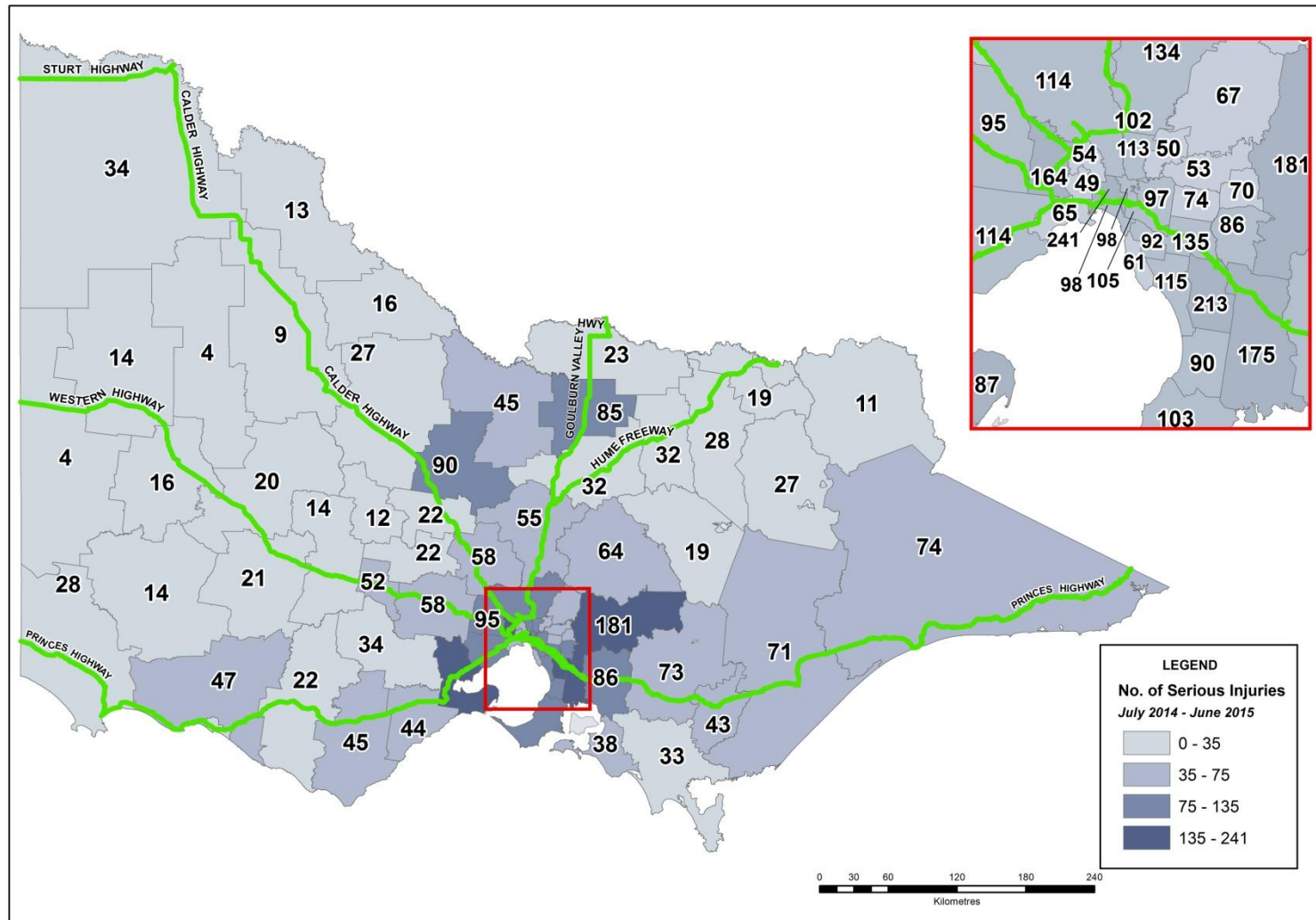


Figure 8: (a) Serious injuries and (b) serious injuries per 100 million VKT in Metro Melbourne and Country Victoria

## Serious injuries by Local Government Area



All but one of the 5 LGAs with the highest number of serious injuries were within the Melbourne area, including the City of Melbourne (241), City of Dandenong (213), City of Geelong (187), Shire of Yarra Ranges (181), and City of Casey (175). 18 of the 20 LGAs with the most serious injuries were within Metro Melbourne.

Map 4: Serious Injuries by LGA (2015)

Overall in the 2014/15 period:

- **Drivers** represent almost 46% of serious injuries.
- **Passengers and motorcyclists** represent approximately 17% each.
- **Pedestrians** approximately 10% and **cyclists** approximately 9%.
- **Pedestrians and cyclists** represent a higher proportion of serious injuries in Metro Melbourne.

In 2015, serious injuries were consistently lower in both Metro Melbourne and Country Victoria across all road user groups except for cyclists which experienced little change. (Table 13).

- **Driver** serious injuries reduced by 88 (4%) compared with 2013/14 and 140 (6%) compared with the 3 year average to June 2015.
- **Passenger** serious injuries reduced by 60 (7%) compared with 2013/14 and 102 (11%) compared with the 3 year average.
- **Pedestrian** serious injuries reduced by 49 (9%) compared with 2013/14 and 85 (15%) compared with the 3 year average.
- **Motorcyclist** serious injuries reduced by 124 (13%) compared with 2013/14 and 64 (12%) compared with the 3 year average.

**Table 13: Serious injuries by road user type and Metro Melb versus Country Vic for 2015, 2014 and 3 year average 2012 to 2014**

| Road User                     | 2014/15    |             |            | 2013/14    |             |            | 3 Year Avg to June 2015 |             |            |
|-------------------------------|------------|-------------|------------|------------|-------------|------------|-------------------------|-------------|------------|
|                               | Metro Melb | Country Vic | All Vic ** | Metro Melb | Country Vic | All Vic ** | Metro Melb              | Country Vic | All Vic ** |
| <b>Driver</b>                 | 1419       | 847         | 2267       | 1453       | 897         | 2355       | 1518                    | 884         | 2407       |
| <b>Passenger</b>              | 486        | 333         | 819        | 514        | 365         | 882        | 532                     | 389         | 922        |
| <b>Pedestrian</b>             | 414        | 74          | 488        | 440        | 97          | 538        | 480                     | 93          | 573        |
| <b>Motorcyclist*</b>          | 481        | 365         | 849        | 554        | 406         | 973        | 526                     | 374         | 913        |
| <b>Cyclist</b>                | 367        | 65          | 432        | 365        | 66          | 431        | 362                     | 74          | 437        |
| <b>Unknown</b>                | 63         | 34          | 96         | 9          | 9           | 19         | 8                       | 5           | 13         |
| <b>Total</b>                  | 3230       | 1718        | 4951       | 3335       | 1840        | 5198       | 3425                    | 1820        | 5266       |
| <b>Heavy Vehicle Involved</b> | 120        | 102         | 222        | 136        | 121         | 257        | 155                     | 115         | 270        |

\*Including pillion passengers


\*\* The total Victoria numbers in this table include serious injuries that have not been coded as either Metro Melbourne or Country Victoria.

## Road Users

2015 also saw a reduction in the number of younger and older drivers seriously injured, and in the number of vehicle occupants who were seriously injured and who were not wearing a seatbelt.

The increases in fatalities for young drivers and passengers were not reflected in serious injuries (Table 14).

**Table 14: Drivers and passengers**

| Change<br>(2015 versus 2014)  |     |        | Group   | 2014/15     | 2013/14     | 3 yr avg<br>to June<br>2015 |
|---|-----|--------|---|-------------|-------------|-----------------------------|
|    | -88 | (-4%)  | <b>All drivers</b>                            | <b>2267</b> | <b>2355</b> | <b>2407</b>                 |
|    | -17 | (-8%)  | Young drivers (18 to 20 years)                | 201         | 218         | 221                         |
|    | -6  | (-2%)  | Young drivers (21 to 25 years)                | 294         | 300         | 327                         |
|    | -38 | (-15%) | Older drivers (75 years and older)            | 221         | 259         | 255                         |
|    | -63 | (-7%)  | <b>All passengers</b>                         | <b>819</b>  | <b>882</b>  | <b>922</b>                  |
|  | -32 | (-27%) | Young passengers (18 to 20)                   | 85          | 117         | 110                         |
|  | -6  | (-8%)  | Drivers and passengers not wearing a seatbelt | 66          | 72          | 70                          |



## Crash Types

### Serious injury crashes by location

Serious injury crashes decreased by 155 (3%), including a reduction of 72 (2%) on Metro Melbourne roads and 64 (4%) on Country Victoria<sup>2</sup>.

Within Metro Melbourne, serious injury crashes increased by 12 (2%) on roads with a speed limit of 50 km/h or less and by 6 (3%) on roads with a speed limit of 100 km/h or more. In Country Victoria, they decreased by 32 (15%) on roads with a speed limit of 50 km/h or less and by 48 (6%) on roads with a speed limit of 100 km/h or more.

**Table 15: Serious injury crashes in Metro Melbourne and Country Victoria**

| Change<br>(2014/15 versus<br>2013/14)   |      |        | Group  | 2014/15     | 2013/14     | 3 yr<br>avg to<br>June<br>2015 |
|---|------|--------|--|-------------|-------------|--------------------------------|
|    | -155 | (-3%)  | <b>All serious injury crashes</b>                          | <b>4303</b> | <b>4458</b> | <b>4496</b>                    |
|    | -72  | (-2%)  | <b>Metro Melbourne</b>                                     | 2851        | 2923        | 3008                           |
|   | 12   | (2%)   | <i>... roads with a speed limit of 50 km/h or less</i>     | 733         | 721         | 759                            |
|  | -118 | (-6%)  | <i>... roads with a speed limit between 60 and 80 km/h</i> | 1716        | 1834        | 1873                           |
|  | 6    | (3%)   | <i>... roads with a speed limit of 100 km/h or greater</i> | 233         | 227         | 215                            |
|  | -64  | (-4%)  | <b>Country Victoria</b>                                    | 1448        | 1512        | 1467                           |
|  | -32  | (-15%) | <i>... roads with a speed limit of 50 km/h or less</i>     | 183         | 215         | 212                            |
|  | -24  | (-5%)  | <i>... roads with a speed limit between 60 and 80 km/h</i> | 415         | 439         | 431                            |
|  | -48  | (-6%)  | <i>... roads with a speed limit of 100 km/h or greater</i> | 693         | 741         | 721                            |

<sup>2</sup> 19 serious injury crashes were not classified to Metro Melbourne or Country Victoria at the time of this analysis.





## Serious injuries by crash type

Lane departure crashes represent 25% of serious injuries and side impact at intersection crashes represent over 20% of serious injuries in Metro Melbourne. In contrast, lane departure serious injuries related to crashes produce almost 50% of serious injuries in Country Victoria.

There was a decrease of 93 (11%) side-impact at intersection crashes in Metro Melbourne and 47 (15%) in Country Victoria.

The increase seen in lane departure fatalities also occurred for serious injuries in Metro Melbourne but not in Country Victoria.

**Table 16: Serious injuries by crash type in Metro Melbourne**

| Change<br>(2014/15 versus<br>2013/14)   |      |        | Group  | 2014/15     | 2013/14     | 3 yr avg<br>to June<br>2015 |
|---|------|--------|--|-------------|-------------|-----------------------------|
|    | -105 | (3%)   | <b>All serious injuries in Metro Melbourne</b> | <b>3230</b> | <b>3335</b> | <b>3425</b>                 |
|    | 36   | (5%)   | Lane departure                                 | 804         | 768         | 792                         |
|    | -93  | (-11%) | Side impact at intersections                   | 722         | 815         | 816                         |
|  | 30   | (7%)   | Rear end                                       | 456         | 426         | 442                         |
|  | -30  | (-7%)  | Involving a pedestrian                         | 395         | 425         | 468                         |

**Table 17: Serious injuries by crash type in Country Victoria**

| Change<br>(2014/15 versus<br>2013/14)   |      |        | Group   | 2014/15     | 2013/14     | 3 yr avg<br>to June<br>2015 |
|---|------|--------|---|-------------|-------------|-----------------------------|
|  | -122 | (7%)   | <b>All serious injuries in Country Victoria</b> | <b>1718</b> | <b>1840</b> | <b>1820</b>                 |
|  | -47  | (-5%)  | Lane departure                                  | 848         | 895         | 865                         |
|  | -47  | (-15%) | Side impact at intersections                    | 259         | 306         | 324                         |
|  | 19   | (20%)  | Rear end  | 113         | 94          | 111                         |
|  | -29  | (-30%) | Involving a pedestrian                          | 68          | 97          | 90                          |

**Table 18: Trauma components – serious injuries**

| SERIOUS INJURIES  | 2014-2015   |            | 2013-2014   |            | 2013-2014 to 2010-2011<br>(3 year average) |            | % change<br>2014-<br>2015 vs<br>2013-<br>2014 | % change<br>2014-<br>2015 vs<br>3 yr avg |
|---|-------------|------------|-------------|------------|--|------------|---|--|
|   | No.         | %          | No.         | %          | No.  | %          |   |  |
| <b>TOTAL PERSONS SERIOUSLY INJURED</b>                              | <b>4951</b> |            | <b>5198</b> |            | <b>5266</b>                                |            | <b>-4.8</b>                                   | <b>-6.0</b>                              |
| <b>Factors / Components of individual road trauma †</b>             |             |            |             |            |  |            |   |  |
| High speed rural roads  | 927         | 19%        | 990         | 19%        | 992  | 19%        | -6.4  | -6.6                                     |
| Intersections in 60 zones   | 930         | 19%        | 1116        | 21%        | 1192                                       | 23%        | -16.7   | -22.0                                    |
| Residential Streets (40 and 50 zones)                               | 954         | 19%        | 983         | 19%        | 1023                                       | 19%        | -3.0  | -6.7                                     |
| Same direction vehicle crashes                                      | 716         | 14%        | 706         | 14%        | 738  | 14%        | 1.4   | -3.0                                     |
| Distracted drivers and riders                                       | 223         | 5%         | 267         | 5%         | 216  | 4%         | -16.5   | 3.2                                      |
| Drink and drug driving*   | 608         | 12%        | 603         | 12%        | 589  | 11%        | 0.8   | 3.2                                      |
| Fatigued / drowsy drivers and riders                                | N/A         | N/A        | N/A         | N/A        | N/A  | N/A        | N/A   | N/A                                      |
| Speeding drivers and riders*  | 207         | 4%         | 207         | 4%         | 239  | 5%         | 0.0   | -13.4                                    |
| Cyclists in urban areas   | 327         | 7%         | 328         | 6%         | 334  | 6%         | -0.3  | -2.2                                     |
| Heavy vehicles  | 222         | 4%         | 257         | 5%         | 270  | 5%         | -13.6   | -17.9                                    |
| Motorcyclists   | 818         | 17%        | 937         | 18%        | 874  | 17%        | -12.7   | -6.4                                     |
| Involve older drivers (75 & older)                                  | 1012        | 20%        | 1096        | 21%        | 1120                                       | 21%        | -7.7  | -9.7                                     |
| Pedestrians in urban areas  | 475         | 10%        | 525         | 10%        | 562  | 11%        | -9.5  | -15.4                                    |
| Involve younger drivers (18-25 years)                               | 1234        | 25%        | 1345        | 26%        | 1438                                       | 27%        | -8.3  | -14.2                                    |
| <b>OVERALL ROAD TRAUMA INVOLVING ONE OR MORE COMPONENTS ABOVE †</b> | <b>4535</b> | <b>92%</b> | <b>4797</b> | <b>92%</b> | <b>4874</b>                                | <b>93%</b> | <b>-5.5</b>                                   | <b>-7.0</b>                              |

\* Estimates based on preliminary findings from police members first on scene.  
 There are insufficient data to provide fatigued/ drowsy driving road statistics for this report.  
 Refer to the Glossary on page 28 for definitions of terms used in this table.

## Glossary

**Country Victoria:** All of Victoria except for Metro Melbourne.

**Metro Melbourne:** Melbourne as defined as the Capital City Statistical Area, including all of Yarra Ranges LGA.

**Cyclists urban:** Pertains to crashes involving cyclists on roads with a speed limit of 40, 50 or 60 km/h in urban environments.

**Fatality:** Death within 30 days from injuries sustained in a road crash.

**Fatal crash:** A road crash in which at least one person died within 30 days from injuries sustained in the crash.

**High speed rural roads (crashes on):** Crashes involving at least one motor vehicle on roads with a speed limit of 100 or 110 km/h in Country Victoria.

**Intersections in 60 zones (crashes at):** Crashes at intersections where the speed limit on the road is 60 or 70 km/h.

**Lane departure:** A road crash involving a vehicle running off the road or hitting an oncoming vehicle head-on (but not when overtaking).

**Residential streets (crashes on):** Crashes on roads with a 40 or 50 km/h speed limit in urban environments.

**Pedestrians urban:** Pertains to crashes involving pedestrians in urban environments.

**Serious injury:** Injury sustained in a road crash for which the person was admitted to hospital.

**Serious injury crash:** A road crash in which at least one person sustained serious injuries but there were no fatalities.

**Vehicle kilometres travelled (VKT):** VKT is one of the main variables used as a measure of motor vehicle activity. Annual VKT can be defined as the number of kilometres travelled in an area by all vehicles during a one year period, expressed as:

*VKT = Number of Vehicles × Distance Travelled in Kilometres*