

# Analysis of Birmingham Road Safety Data

There are particular road user groups which are more likely to be involved in collisions and be injured or killed. These vulnerable groups are:

- Children - Child Casualties, Child Pedestrians and Child Cyclists;
- Pedestrians;
- Cyclists;
- 16 to 24 year olds; and
- Motorcyclists.

It is important to understand the data and undertake baseline analysis of each of the vulnerable groups helps to focus resources more effectively and to tailor interventions to the road users and communities most in need.

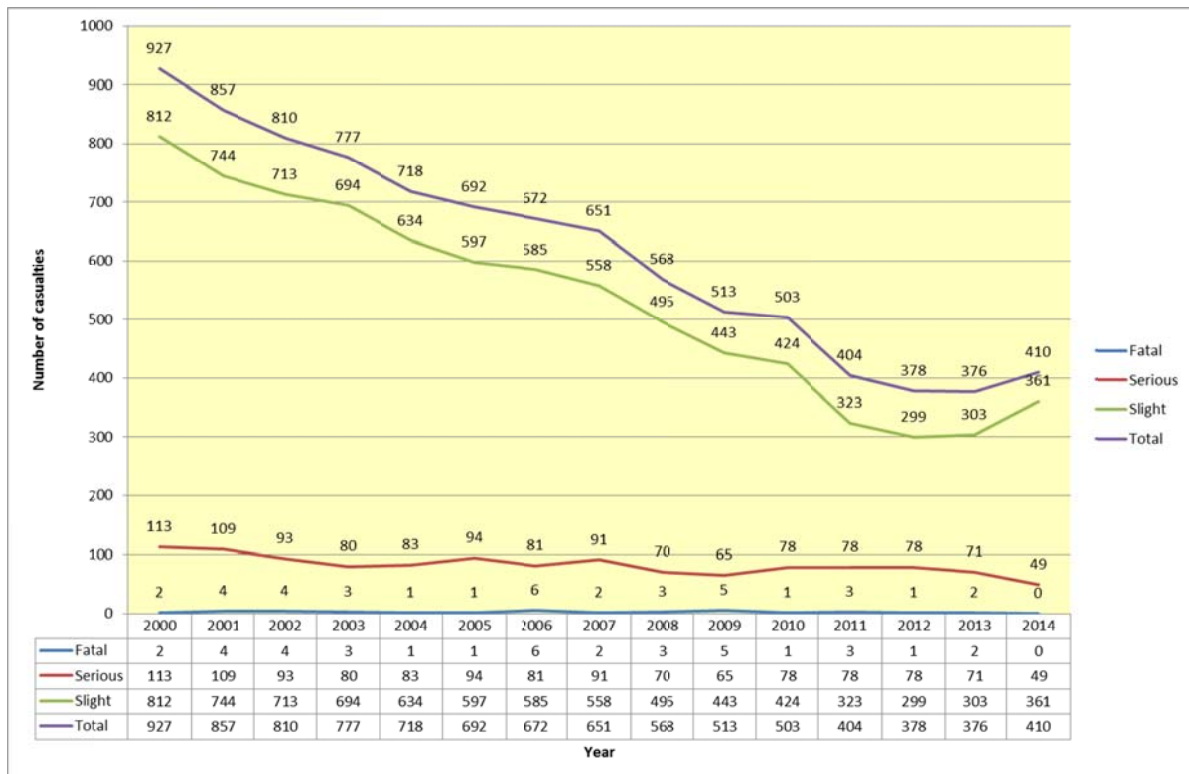
## 1 Children

### 1.1. Child Casualties

Over the past five years (2010-2014) there have been a total of seven fatal child casualties, which is an average of 1.4 fatal child casualties per year. There were no child fatalities in 2014.

As shown in Figure 1 child casualties have reduced significantly over the fourteen year period from 927 child casualties in 2000 to 410 child casualties in 2014, a reduction of 55.8% over the period. Child KSI casualties have decreased from 115 in 2000 to 49 in 2014, a decrease of 57.4% over the period.

Child casualty rates for Birmingham residents aged sixteen and under are slightly higher than the national rate, and also those of Comparator Authorities (road risk for Birmingham’s residents has been systematically compared to eight authorities including Derby City, Leicester City, Salford City, Coventry City, Dudley Metropolitan Borough, Sandwell Metropolitan Borough, Walsall Metropolitan Borough and Leeds City that have similar socio-economic characteristics). Within Birmingham, Hall Green district has the highest child casualty rate and the constituencies of Yardley, Hodge Hill, Erdington and Ladywood are also above both the national level and the average for Birmingham. Sutton Coldfield has the lowest level of child casualties in districts across Birmingham.



**Figure 1- Child casualties in Birmingham involved in road traffic collisions (2000-2014)**

## 1.2. Child Pedestrians

Child pedestrians are the most likely group to suffer injuries as a result of road traffic collisions. In general these numbers have continued to reduce. Figure 2 shows that child pedestrian casualties have reduced from 497 in 2000 to 207 in 2014, a reduction of 58.4% over the period. KSI casualties have reduced by 59.2% from 98 in 2000 to 40 in 2014.

The districts with the highest annual average number of child casualties are Hall Green, Ladywood, Hodge Hill and Erdington which are all above both the national rate and the average for Birmingham. The constituencies of Edgbaston, Northfield, Yardley, Selly Oak and Perry Barr are also above the national rate, but the numbers fall below that of the average child pedestrians casualties for Birmingham.

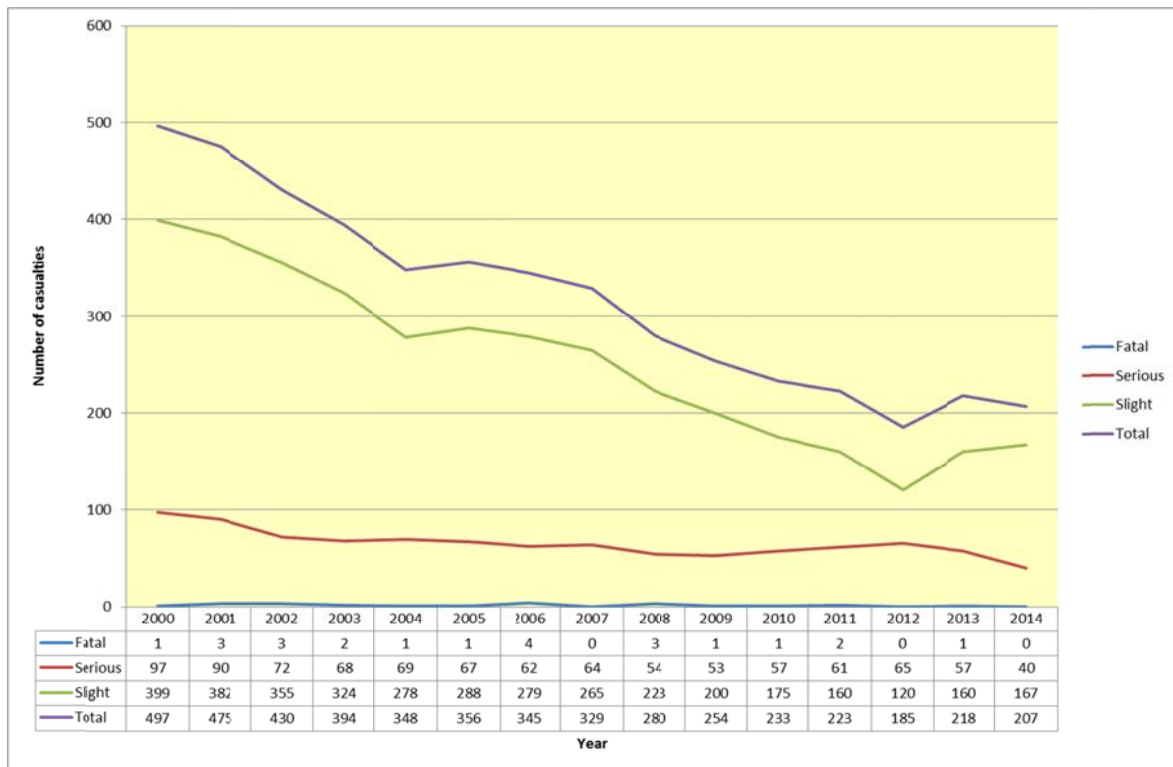
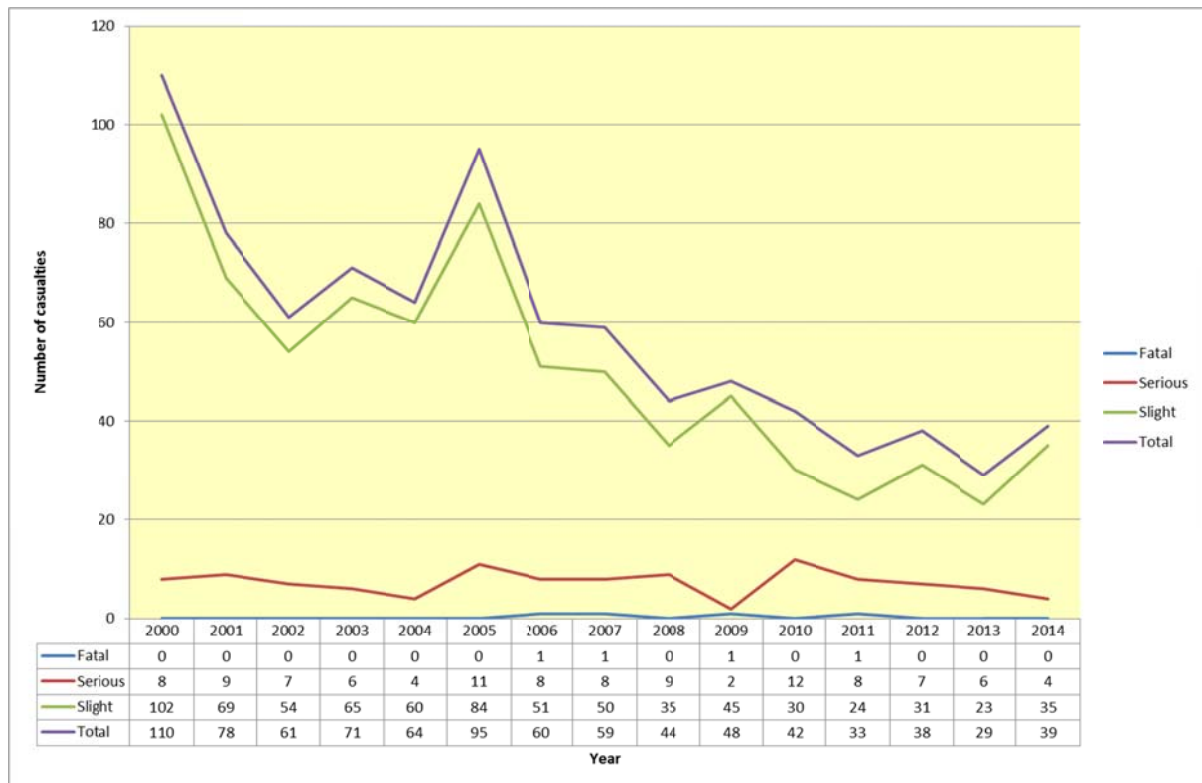


Figure 2 - Child pedestrian casualties in Birmingham involved in road traffic collisions (2000-2014)

### 1.3. Child Cyclist Casualties

**Figure 3** Figure 3 shows child cyclist casualties in Birmingham. Casualties have reduced from 2000 to 2014, from 110 casualties to 39. The overall trend is generally down from 2000 to 2014. KSI child cyclist casualties have decreased from a high of twelve in 2010 to a low of four in 2014.

Birmingham, at 16.2 child cyclist casualties per 100,000 populations, is lower than the national average rate of child cyclist casualties (at 25.1 child cyclist casualties per 100,000 population). Within Birmingham, the constituencies of Erdington, Yardley, Edgbaston, Hall Green and Hodge Hill have the highest child pedal cycle casualty rate, above that of the average across Birmingham. The constituencies of Ladywood and Perry Barr have the lowest rates of child cycle casualties across Birmingham.



**Figure 3 – Child cyclist casualties in Birmingham involved in road traffic collisions (2000-2014)**

## 2 Pedestrians

As shown in Figure 4, adult pedestrian casualties in Birmingham have reduced between 2000 and 2014, from 691 casualties to 461. This is an overall reduction of 33.2%, although the total figures have risen between 2012 and 2014.

Birmingham's pedestrian casualty rate, at 50.5 adult pedestrian casualties per 100,000 population, is significantly higher than the national rate of 37.4 adult pedestrian casualties per 100,000 population and those of comparator authorities.

Pedestrian casualty rates within Birmingham vary with the Hall Green, Hodge Hill and Ladywood districts having the highest resident pedestrian casualty rates and Sutton Coldfield having the lowest.

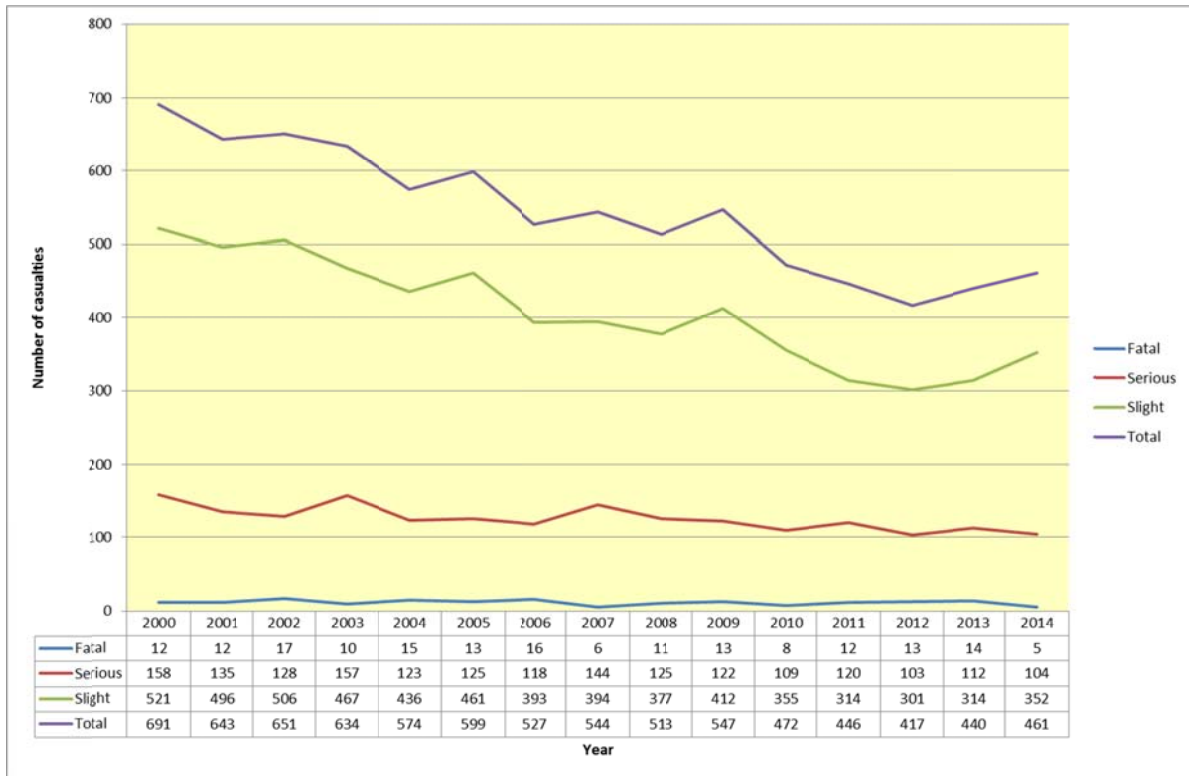


Figure 4 – Adult pedestrian casualties in Birmingham involved in road traffic collision (2000-2014)

### 3 Cyclists

The trend in number of cyclists involved in road traffic collisions has increased in recent years, rising year-on-year since 2008, from 231 to 295 in 2014, a rise of 27.7%. Overall the number of KSIs involving cyclists has remained fairly constant since 2010, despite the increased levels of cycling.

Birmingham's resident pedal cyclist casualty rate is below that of the overall Great Britain rate and broadly typical of comparator authorities. The pedal cyclist casualty rate is higher than both the national and Birmingham average rates for the constituencies of Hall Green and Edgbaston. The constituencies of Selly Oak, Northfield and Erdington have a rate higher than, or equal to, the Birmingham average but lower than the national average.

The Birmingham constituencies that tend to experience the higher cyclist casualty rates tend to be those with the higher recorded levels of cycle use.

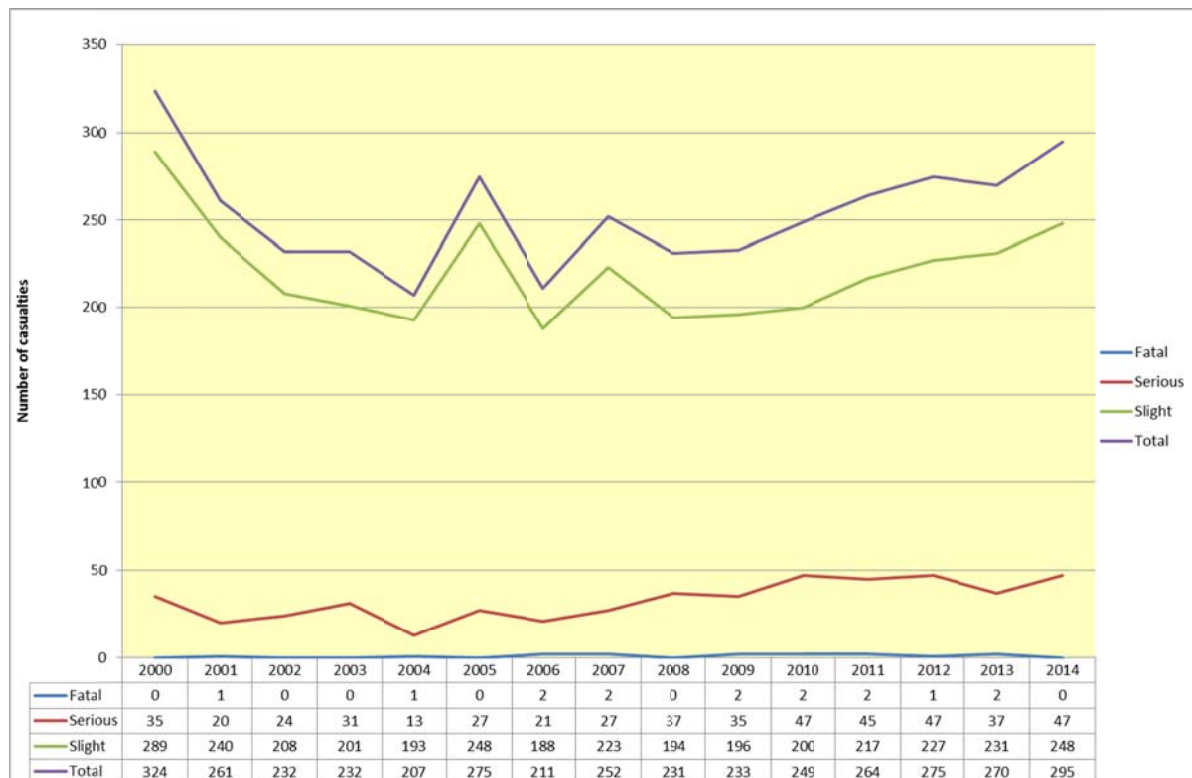


Figure 5 – Pedal cyclist casualties in Birmingham involved in road traffic collisions (2000-2014)

## 4 16 to 24 year olds

The 16-24 year old Birmingham resident age group are the most vulnerable age group in terms of absolute casualty numbers, and also exhibit higher casualty rates relative to population than other age groups. This is likely because within this age group are many young drivers. However, the young driver (16-24 year old) casualty rate at 42.5 casualties per 100,000 population is relatively lower than the national norm for this age group (58.6 casualties per 100,000 population). This age group also experiences driver collision involvement rates which are higher than other groups, but below the national norm for their peers and is typical across comparator authorities.

Figure 6 shows that the number of young drivers involved in collisions in Birmingham reduced from 2004 to 2012 and then has risen slightly since then, Casualties have reduced from 915 in 2000 to 519 in 2014, a reduction of 43.2% . The number of young drivers involved in KSI collisions has decreased by 43.2% from 2000 to 2014 (111 to 63) . Around 10% of young drivers involved in injury collisions on Birmingham's roads between 2009 and 2013 were subject to death or serious injury

Birmingham has a rate of young drivers involved in injury collisions which is 28% lower than the national rate and also substantially lower than comparator authorities. Of the Birmingham constituencies: Hall Green, Hodge Hill, Yardley and Sutton Coldfield experience the highest young driver casualty rates whilst Edgbaston, Ladywood and Selly Oak have the lowest.

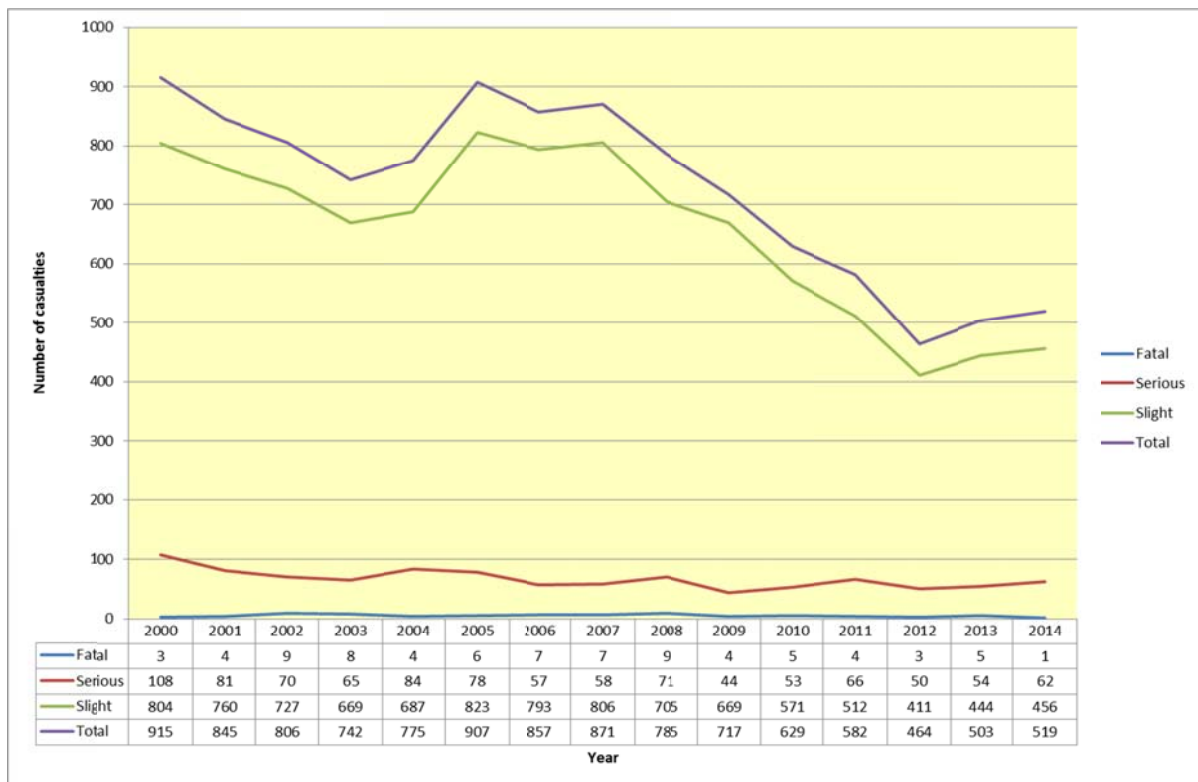


Figure 6 - Young driver casualties in Birmingham involved in road traffic collisions (2000-2014)

## 5 Motorcyclists

Motorcyclists make up a disproportionate number of KSIs compared to their overall mode share. The number of motorcycle accidents resulting in a fatality remains consistent with between two and five per year since 2000 (with the exception of 2003 when there were nine fatalities). KSI casualties generally declined between 2006 and 2010, but have been increasing since then.

Birmingham has a motorcyclist casualty rate of 24.6 casualties per 100,000 population, which is lower than the national rate of 40.0 casualties per 100,000 population, and lower than most of Birmingham's comparator authorities. There is a variation in casualty numbers across the city and Northfield district has a significantly higher motorcycle casualty rate than all of Birmingham's other constituencies and the national rate, whilst Ladywood has the lowest rate.

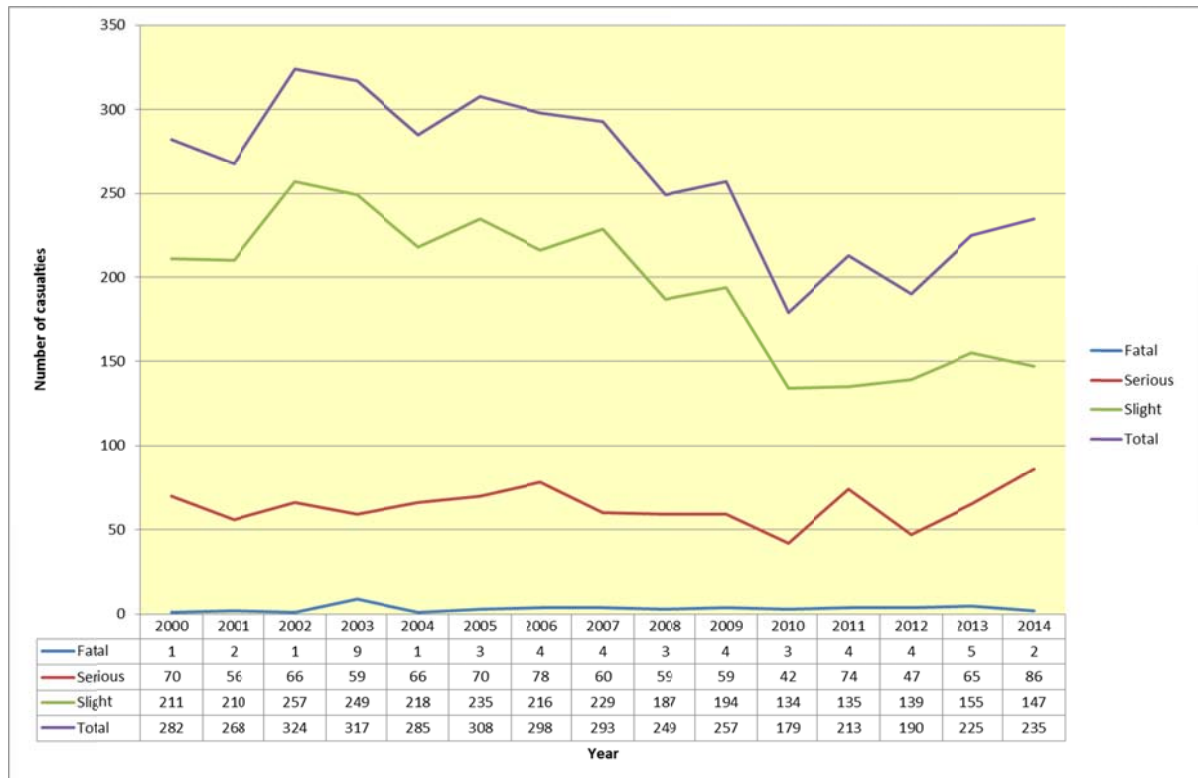


Figure 7 – Powered two-wheeler user casualties on Birmingham's roads by severity (2000-2014)

## **6 Analysis by Birmingham District**

Figure 8 provides an overview of the casualty rates by districts within Birmingham. Figure 9 shows the districts with higher than average rates for Birmingham and/or UK for different vulnerable groups.

Within Birmingham, Erdington has the highest KSI rate; a rate that is above the national norm, the Birmingham average, and that of the comparator authorities. The districts of Yardley, Hall Green, Northfield, Selly Oak and Ladywood also have a KSI rate equal to or above the average rate for Birmingham, but below the national trend.

It should be noted that the analysis by district does mask differences within the Districts. For example, in the Hall Green district, the Sparkbrook ward is in the top five for numbers of road traffic collisions, Moseley and Kings Heath and Springfield are in the middle third and the Hall Green ward is in the lower third.



		District											
		GB	Birmingham	SuttonColdfield	Erdington	Perry Barr	Ladywood	Hodge Hill	Yardley	Edgbaston	Hall Green	Selly Oak	Northfield
Casualty type	KSIs (per 100,000 population)	<b>42.3</b>	38.5	28.0	49.4	34.4	38.8	37.3	40.9	36.6	40.2	39.7	39.4
	Child casualties (per 10,000 population)	<b>17.2</b>	18.1	11.4	19.5	14.2	18.8	20.0	20.2	17.2	23.2	14.9	16.8
	Child pedestrian casualties (per 100,000 population)	<b>68.5</b>	89.0	47.1	93.6	72.4	109.3	97.4	83.8	82.4	112.1	79.7	83.3
	Child pedal cycle casualties (per 100,000 population)	<b>25.1</b>	16.2	14.9	23.9	8.7	9.4	16.2	20.7	20.3	18.8	15.1	16.1
	Adult pedestrian casualties (per 100,000 population)	<b>37.4</b>	50.5	24.6	59.1	51.1	65.3	58.5	54.7	46.4	59.0	42.1	40.2
	Adult pedal cycle casualties (per 100,000 population)	<b>29.9</b>	22.4	16.6	22.9	13.3	20.5	12.5	19.7	32.6	33.7	27.8	24.6
	16-24 year olds casualties (per 10,000 population)	<b>58.6</b>	42.5	59.8	49.5	43.2	23.6	61.8	63.1	25.7	62.2	22.7	47.6
	Motorcycle casualties (per 100,000 population)	<b>40.0</b>	24.6	15.9	29.7	20.3	14.5	17.9	28.7	25.0	17.5	32.6	46.9

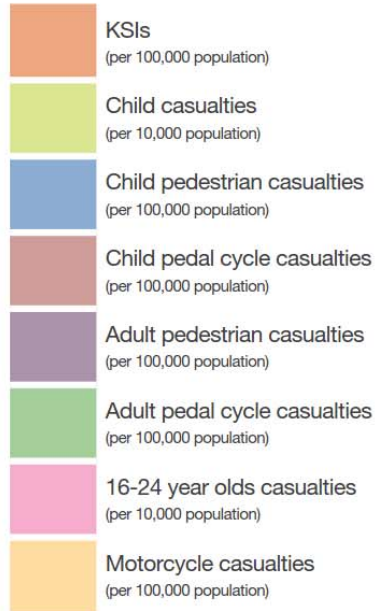


\* Data taken from the Area Profile (2014 update)

\*\* Coloured squares have casualty rates above the national or Birmingham rate (or both)

**Figure 8 - Summary of Casualty Analysis from Birmingham Area Profile Report 2014**

### Casualty type



### Higher casualty rates by district



\* Data taken from the Area Profile (2014 update)

**Figure 9 – Districts with higher than average rates for Birmingham and/or UK for different vulnerable groups**