

# Traffic Safety Basic Facts 2012

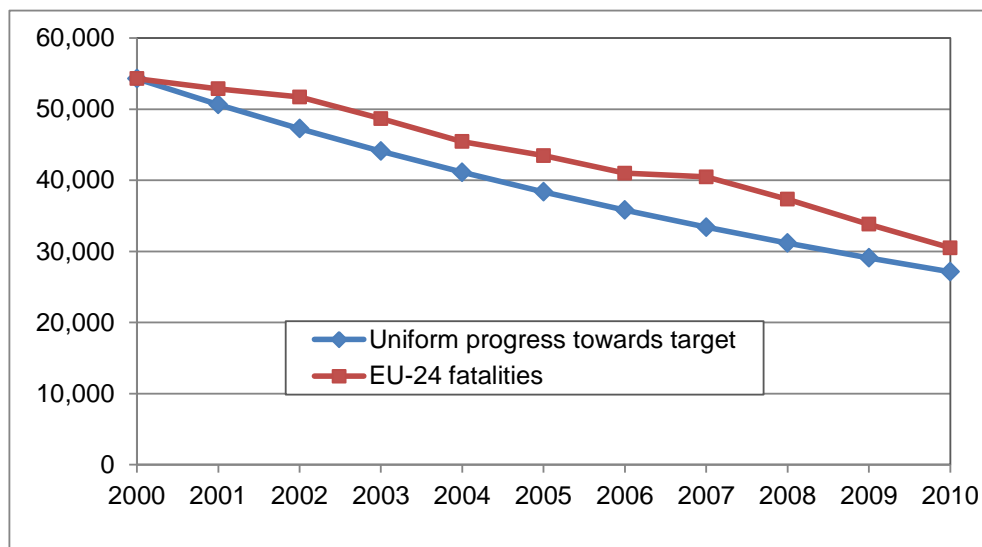
## Main Figures

### EU road safety targets

The European Commission set the ambitious target of halving the number of road traffic fatalities by 2010 in its White Paper “European transport policy for 2010: time to decide” of 2001. The European Road Safety Action Programme of 2003 underlines the fact that this target is a “shared responsibility” and can thus only be achieved with the joint effort of all stakeholders.

Figure 1 shows that much progress has been made with reducing the number of fatalities, but the number has fallen more slowly than had been envisaged. The number would have needed to fall by 6,7% per year on average to have halved by 2010, as shown by “uniform progress” in the Figure. The average reduction between 2000 and 2007 was 3,6% per year. The number fell more rapidly in the following years, and it is estimated that the number of road accident fatalities in the EU-24 fell by 44% between 2000 and 2010.

Figure 1: The number of road accident fatalities in the EU-24, 2000-2010, compared with the trend required to reach the 2010 objective <sup>1</sup>



Source: CARE Database  
Date of Query: September 2012

<sup>1</sup> As Table 1 shows, CARE data are not available for all 24 EU member states for each year. NI data for 2009 are used to estimate UK data for 2010. The data for this Figure have been estimated from the EU-19 data in the Table, plus the available data for the other five countries.

The EC's goal of reducing fatalities by 50% by 2010 was almost achieved; the actual reduction is estimated to be 44%.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

## Road accident fatalities in Europe

Table 1 shows that almost 29 thousand people were killed in road traffic accidents in the EU-19 countries in 2010, a reduction of over two fifths (42%) since 2001. Over 1.400 were killed in 2010 in the other five countries. In each of the 19 countries there were fewer fatalities in 2010 than in 2001.

Table 1: Fatalities in Europe by country, 2001-2010<sup>2</sup>

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
BE	1.486	1.306	1.213	1.162	1.089	1.069	1.071	944	944	840
CZ	1.333	1.430	1.447	1.382	1.286	1.063	1.221	1.076	901	802
DK	431	463	432	369	331	306	406	406	303	255
DE	6.977	6.842	6.613	5.842	5.361	5.091	4.949	4.477	4.152	3.648
IE	412	378	337	377	400	365	338	280	238	212
EL	1.880	1.634	1.605	1.670	1.658	1.657	1.612	1.553	1.456	1.258
ES	5.516	5.347	5.400	4.741	4.442	4.104	3.822	3.099	2.714	2.479
FR	8.160	7.655	6.058	5.530	5.318	4.709	4.620	4.275	4.273	3.992
IT	7.096	6.980	6.563	6.122	5.818	5.669	5.131	4.725	4.237	4.090
LU	70	62	53	50	47	43	45	35	48	32
NL	993	987	1.028	804	750	730	709	677	644	-
AT	958	956	931	878	768	730	691	679	633	552
PL	5.534	5.826	5.642	5.712	5.444	5.243	5.583	5.437	4.572	3.908
PT	1.671	1.675	1.546	1.294	1.247	969	974	885	840	937
RO	2.450	2.411	2.229	2.442	2.629	2.587	2.800	3.061	2.796	2.377
SI	278	269	242	274	258	262	293	214	171	138
FI	433	415	379	375	379	336	380	344	279	272
SE	583	560	529	480	440	445	471	397	358	-
UK	3.598	3.581	3.658	3.368	3.336	3.298	3.059	2.645	2.337	1.965
<b>EU-19</b>	<b>49.859</b>	<b>48.777</b>	<b>45.904</b>	<b>42.872</b>	<b>41.001</b>	<b>38.676</b>	<b>38.175</b>	<b>35.209</b>	<b>31.896</b>	<b>28.759</b>
<b>Yearly reduction</b>		2,2%	5,9%	6,6%	4,4%	5,7%	1,3%	7,8%	9,4%	9,8%
EE	-	-	-	-	170	204	196	132	98	-
HU	-	-	1.326	1.296	1.278	1.303	1.232	996	822	740
LV	-	-	-	-	-	407	419	316	254	218
MT	-	-	-	-	17	11	12	9	15	13
SK	-	-	-	-	606	614	661	606	384	371

NI data for 2009 used to estimate UK data for 2010

Source: CARE Database  
Date of Query: September 2012

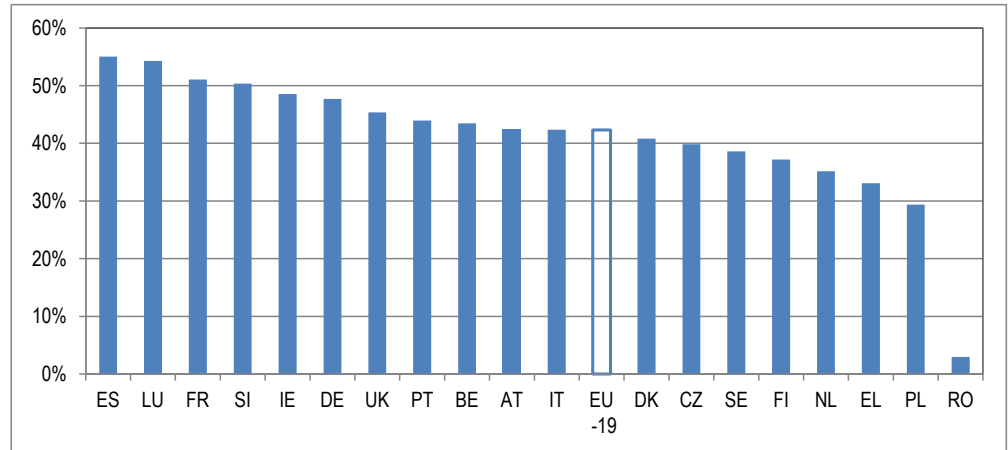
Figure 2 shows the relative change in fatality numbers in the EU-19 countries over the decade. The greatest reduction occurred in Spain, where there were 55% fewer fatalities in 2010 than in 2000.

<sup>2</sup> The country abbreviations and definition of EU level are shown on Page 20. Where a value is missing for an EU-19 country in a particular year (EE, NI, NL & SE in 2010), its contribution to the EU-19 total is estimated as the previous known value.

Road accident fatalities in the EU-19 countries fell by 42% between 2001 and 2010.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

Figure 2: Reduction in number of fatalities between 2001 and 2010

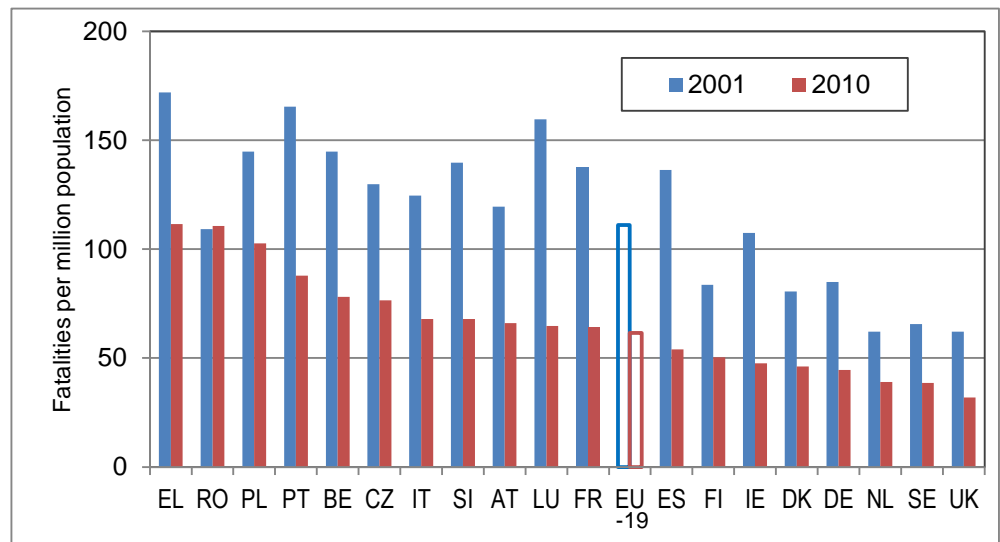


2009 data for NL and SE used as proxies for the 2010 data.  
NI data for 2009 used to estimate UK data for 2010.

Source: CARE Database  
Date of Query: September 2012

Figure 3 shows the rate of fatalities per million population in each of the 19 countries in 2001 and 2010, also the EU-19 average. The largest rate reduction over the decade occurred in Spain (60%), and the rate only increased in Romania.

Figure 3: Fatalities per million population by country, 2001 and 2010



2009 data for NL and SE used as proxies for the 2010 data.  
NI data for 2009 used to estimate UK data for 2010.

Source: CARE Database  
Source of population data: EUROSTAT  
Date of Query: September 2012

The number of fatalities fell by more than one half in Spain and France between 2001 and 2010.

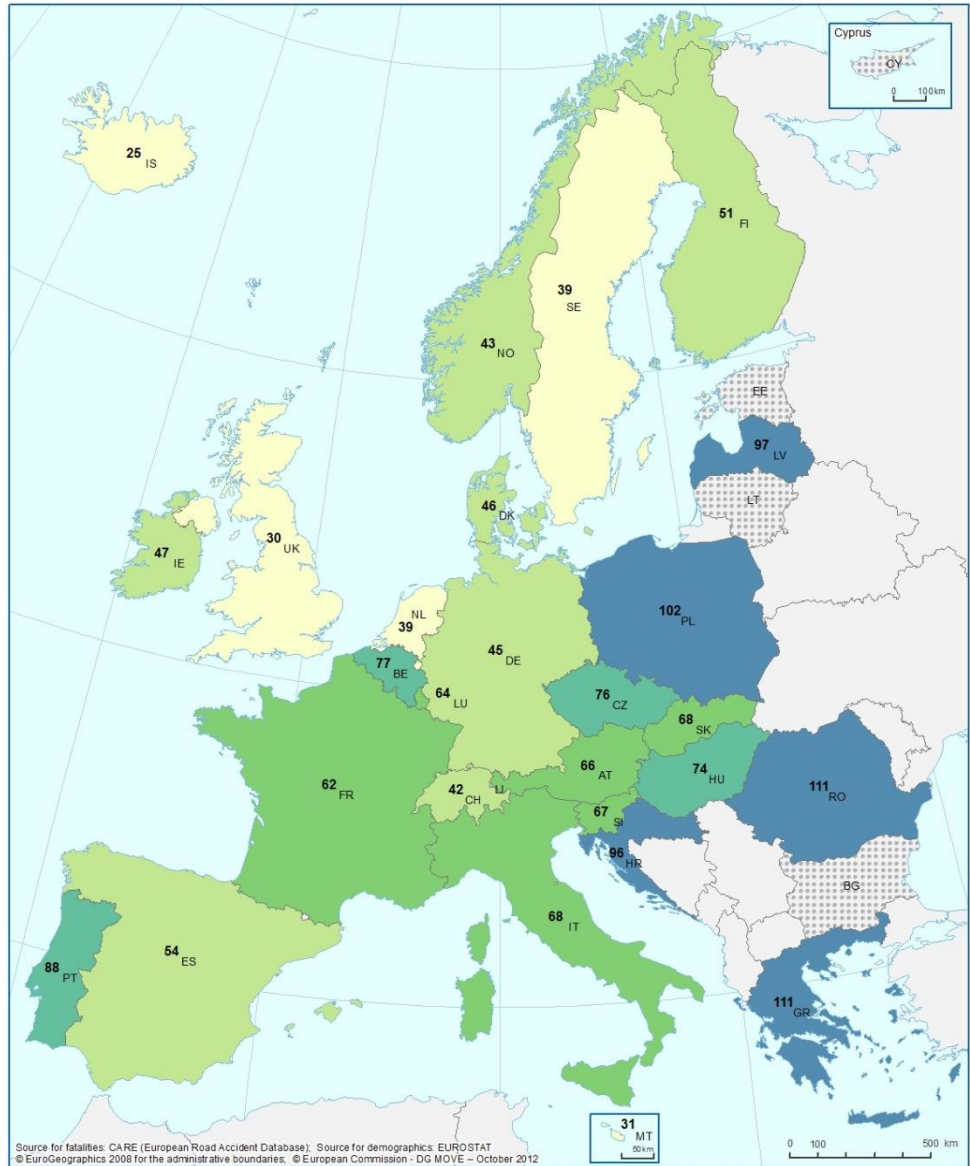
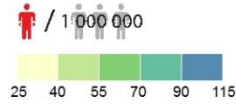
Fatality rates decreased between 2001 and 2010 in all EU-19 countries except Romania.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

# Traffic Safety Basic Facts 2012

The geographical representation of fatality rates in Map 1 shows a tendency for rates to be lower in the north than in the south and lower in the west than in the east, which is probably the result of different historical backgrounds and policies for traffic safety.

**Map 1: Fatality rates: Fatalities in Europe per million inhabitants, 2010**



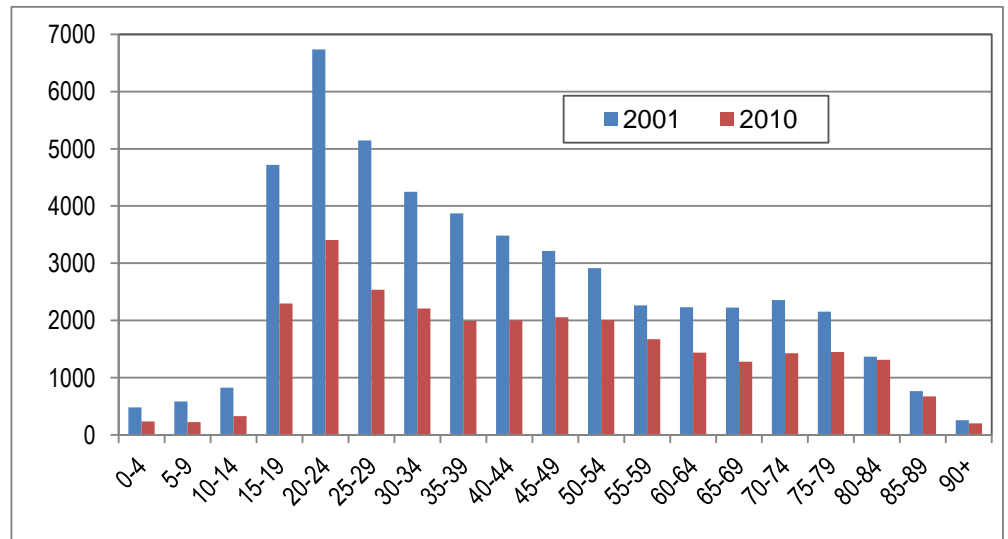
Fatality rates show both a north-south divide and an east-west divide across Europe.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

### Age and gender

Figure 4 compares the number of fatalities per 5-year age group in 2001 and 2010. The distribution remained broadly the same, with the highest fatality numbers between the ages of 15 and 29 years.

Figure 4: Fatalities by age group, EU-19, 2001 and 2010

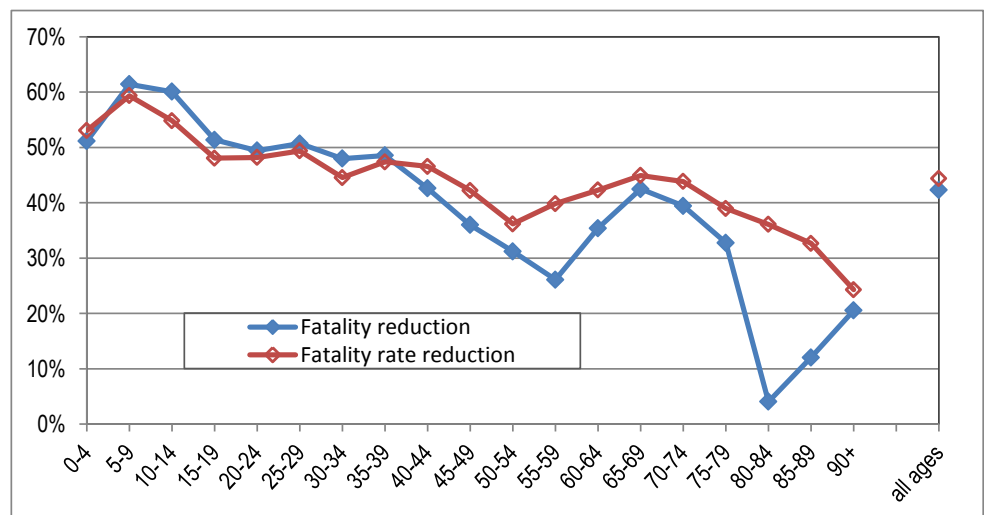


2009 data for NI, NL and SE

Source: CARE Database  
Date of Query: September 2012

Demographic change has contributed to the changes seen in Figure 4. The population of the EU-19 countries grew by 3,7% over the decade, but the growth occurred mainly among the older age groups and indeed the population declined in the age groups between 5 and 39 years. Figure 5 presents the reduction in fatality numbers and fatality rates by age group.

Figure 5: Reduction in fatality numbers and rates by age group, EU-19, 2001 and 2010



2009 data for NI, NL and SE

Source: CARE Database  
Date of Query: September 2012

Table 2 shows the distribution of fatalities by age group in the 24 countries in 2010. There are clear differences between countries, with fatalities in countries such as Ireland being on average younger than in others such as Germany and the Netherlands. The median age of fatalities across the EU-24 was 40 years.

The number of fatalities in the EU-19 decreased by more than half among children between 2001 and 2010, but by less than one tenth among those at least 80 years old.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People Aged 18-24
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

Table 2: Distribution of fatalities by age group, 2010

	0-14	15-24	25-59	60-99	Number	Median age
BE	3%	23%	52%	22%	840	34
CZ	2%	18%	54%	26%	802	40
DK	4%	20%	44%	33%	255	44
DE	3%	22%	46%	29%	3,648	44
EE	4%	24%	52%	21%	98	34
IE	3%	30%	49%	18%	212	29
EL	2%	18%	53%	26%	1,258	39
ES	3%	15%	56%	26%	2,479	40
FR	3%	25%	48%	24%	3,992	35
IT	2%	17%	50%	32%	4,090	40
LV	4%	17%	54%	25%	218	45
LU	0%	31%	56%	13%	32	34
HU	3%	11%	59%	27%	740	44
NL	4%	24%	39%	34%	644	40
MT	8%	31%	54%	8%	13	29
AT	2%	23%	44%	30%	552	44
PL	3%	21%	53%	23%	3,908	39
PT	2%	10%	54%	34%	937	45
RO	4%	15%	53%	28%	2,377	44
SI	1%	17%	55%	27%	138	44
SK	3%	21%	54%	22%	371	35
FI	3%	22%	49%	26%	272	44
SE	3%	24%	41%	33%	358	44
UK	2%	24%	48%	25%	1,965	39
EU-24	3%	20%	51%	27%	30,199	40

2009 data for NL and SE

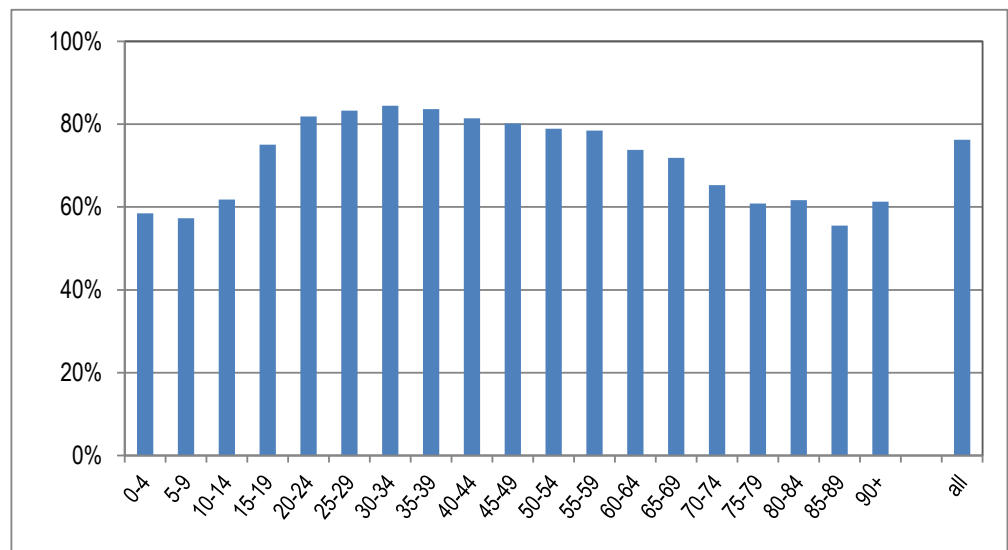
NI data for 2009 used to estimate UK data for 2010

Source: CARE Database

Date of Query: September 2012

Far more males than females are killed in road accidents: 76% of all fatalities were male and 24% were female. Figure 6 shows that this proportion varies by age and exceeds four fifths between the ages of 20 and 49 years.

Figure 6: Proportion of fatalities who were male by age group, EU-24, 2010



2009 data for NI, NL and SE

Source: CARE Database  
Date of Query: September 2012

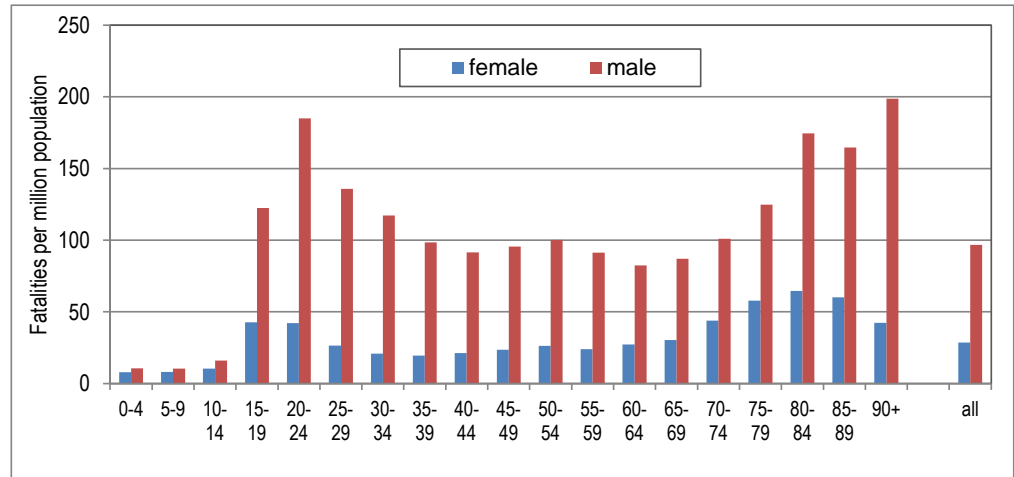
The distribution of fatalities by age varies appreciably among European countries.

76% of all road accident fatalities in 2010 were male.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

Figure 4 showed that the number of fatalities varied with age, and Figure 7 shows that the number of fatalities per million population also varies considerably with age. Rates are high among the young road users (15-24 years old), then fall with age. They then begin to rise again, and rates for eldest road users (at least 80 years old) are similar to those for the young. The male fatality rate is over three times the female rate, 97 deaths per million population compared with 29.

Figure 7: Fatality rates by age and gender, EU-24, 2010

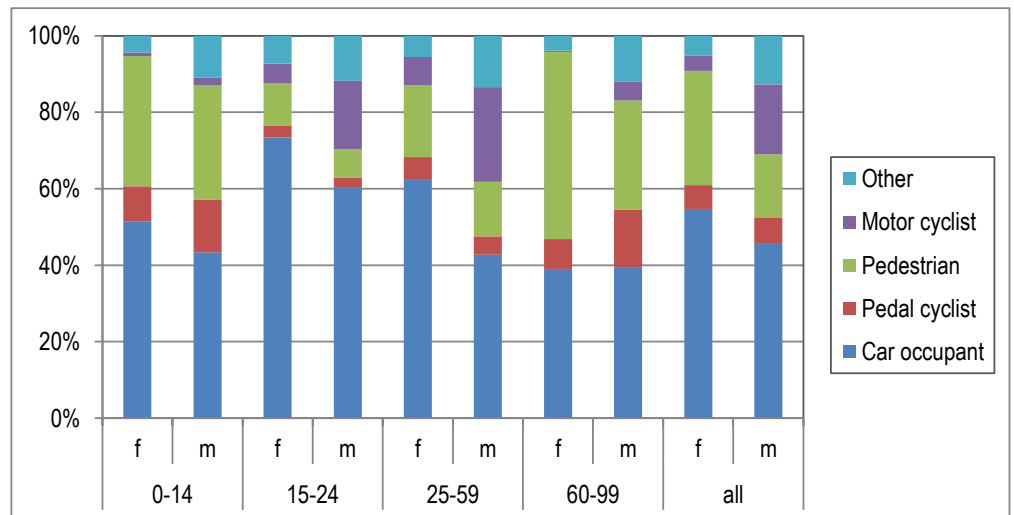


2009 fatality data for NI, NL and SE

Source: CARE Database  
Date of Query: September 2012  
Source of population data: EUROSTAT

Figure 8 compares the male and female fatality distributions by road user type for four age groups (Figure 11 compares the all-ages distributions in more detail).

Figure 8: Distribution of fatalities by road user type, EU-24, 2010



2009 data for NI, NL and SE

Source: CARE Database  
Date of Query: September 2012

The fatality rate for males in the EU-24 is over three times the rate for females.

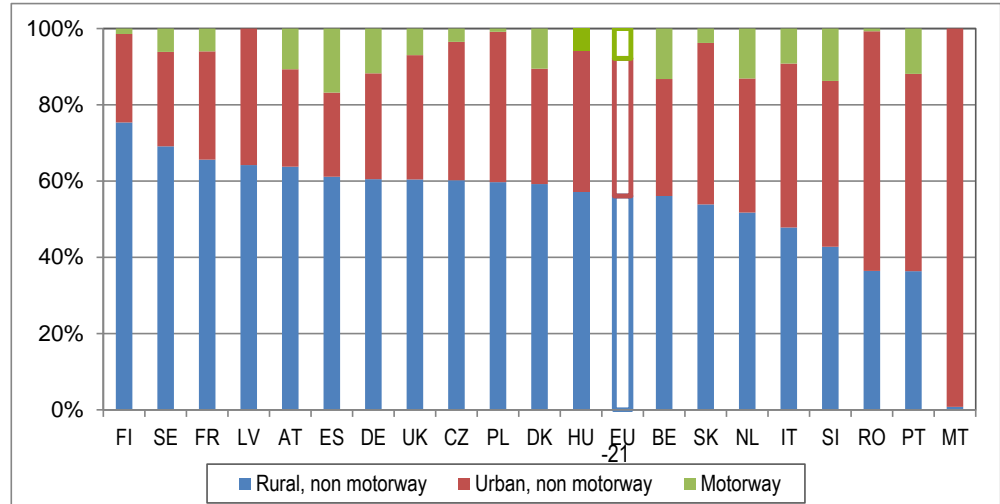
The distribution of road user type among fatalities in the EU-24 varies considerably with age and gender.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

### Type of road

Figure 9 shows the proportion of fatalities by type of road, with countries sorted by the proportion on rural roads. Overall, only 8% of road accident fatalities in 2010 died in accidents on motorways, and 56% died in accidents on non-motorway rural roads.

Figure 9: Distribution of fatalities by type of road, EU-21, 2010

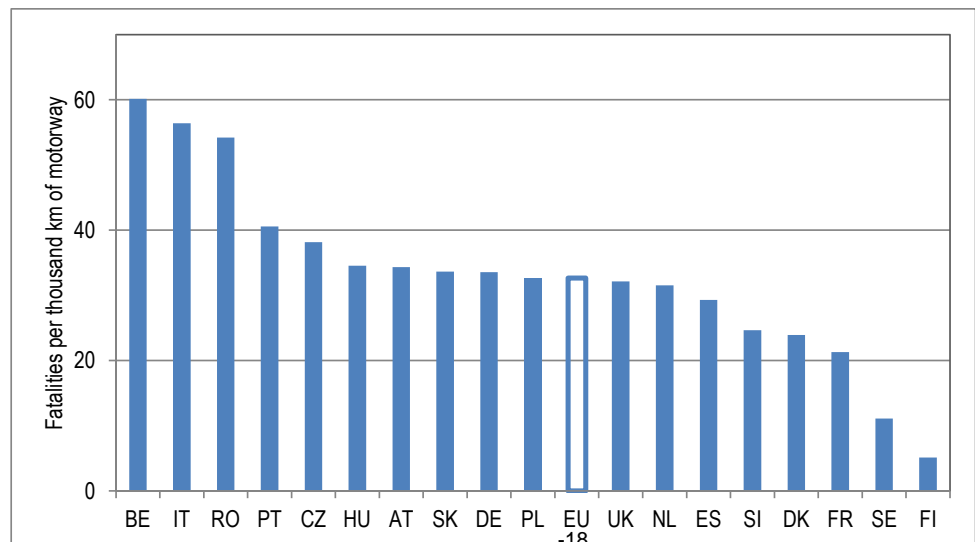


EE, EL and IE excluded because road type is unknown for more than half of fatalities. 2009 data for NL and SE. NI data for 2009 used to estimate UK data for 2010.

Source: CARE Database  
Date of Query: September 2012

To allow for the differences between their motorway networks, Figure 10 compares the rate of fatalities per thousand km of motorways. The fatality rate in 2010 ranged from 5,1 in Finland to 60 in Belgium, and the EU average was 33.

Figure 10: Motorway fatality rate by country, 2010



2009 data for NL and SE. NI data for 2009 used to estimate UK data for 2010.

Source: CARE Database  
Source of motorway lengths: EUROSTAT  
Date of Query: September 2012

In the EU-21, more than half of all fatalities occurred on rural non-motorway roads.

The rate of fatalities per thousand km of motorways varies more than tenfold across the EU.

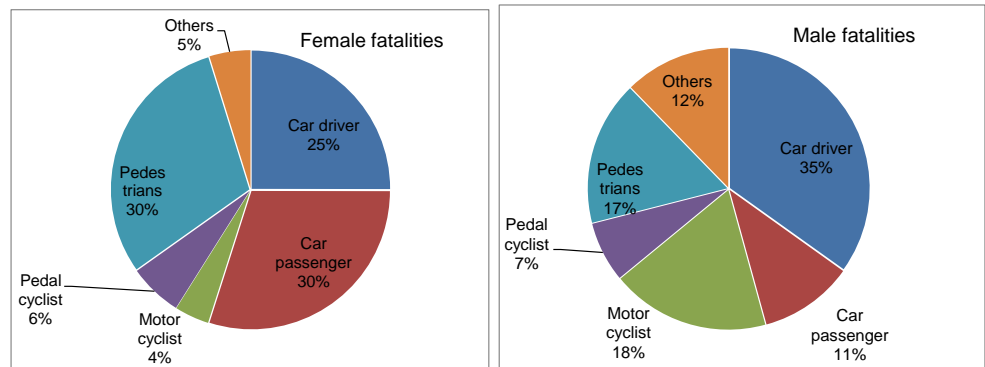
- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motorways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation



### Mode of transport and road user type

Figure 11 shows the male and female distributions of fatalities in the EU-24 by road user type, and these differ considerably. Nearly two third of female fatalities were car passengers (30%) or pedestrians (30%) while only 11% of male fatalities were car passengers and 17% pedestrians: 18% were motorcyclists. Figure 12 shows the national distributions (both sexes), sorted by the proportion of car drivers.

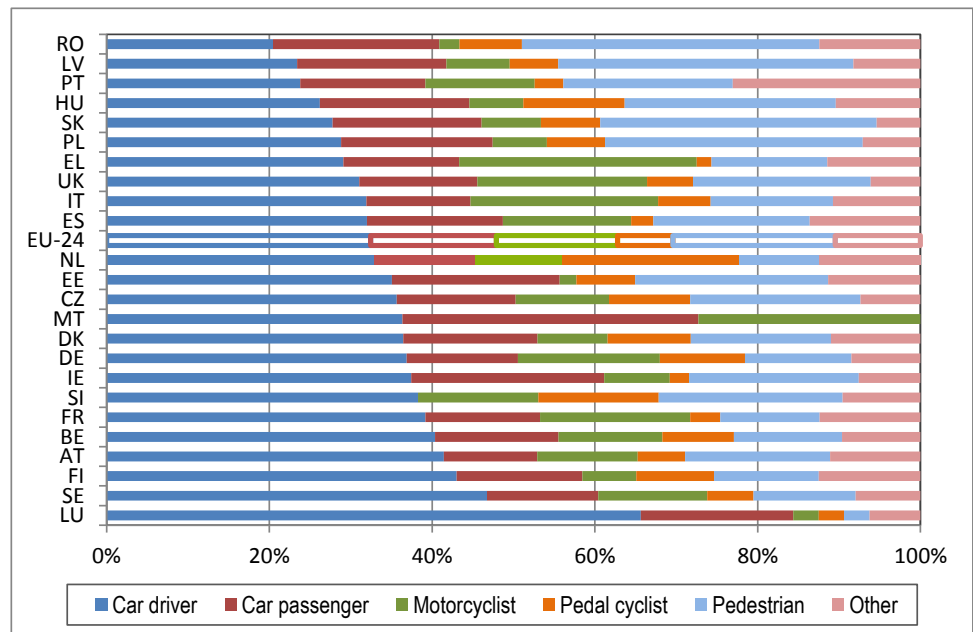
Figure 11: Distribution of male and female fatalities by mode of transport, EU-24, 2010



2009 data for EE, NL and SE. NI data for 2009 used to estimate UK data for 2010.

Source: CARE Database  
Date of Query September 2012

Figure 12: Fatalities by road user type and country, 2010



2009 data for EE, NL and SE. NI data for 2009 used to estimate UK data for 2010.

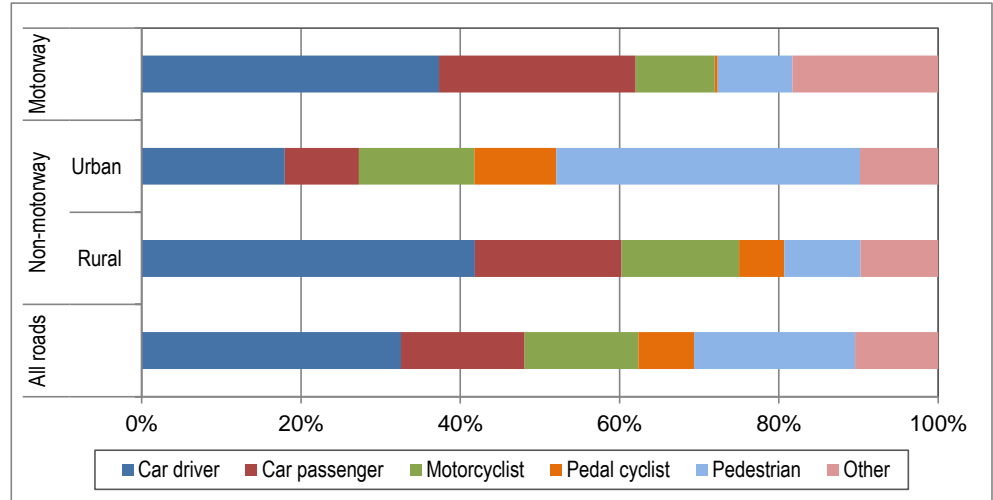
Source: CARE Database  
Date of Query: September 2012

By comparison with male fatalities, females were more likely to be travelling as car passengers and pedestrians, and less likely to be travelling as car drivers and motorcyclists.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

Figure 13 shows the proportion of fatalities by road user type on three types of road. This varies with type of road and is influenced by the modes of transport typically used on each type of road.

Figure 13: Distribution of fatalities by road user type on three types of road, EU-22, 2010



Fatality data for 2009 for EE, NI, NL and SE. EE and EL excluded as road type not reported.

Source: CARE Database  
Date of Query: September 2012

On motorways, where cars are the prevalent mode of transport, almost two thirds of all fatalities were car occupants. There is more non-motorised traffic on urban roads, however; almost half of fatalities on these roads were pedestrians or cyclists, and about one quarter were car occupants.

71% of car driver fatalities and 65% of car passenger fatalities died on rural roads in 2010, compared with 9% and 12% respectively on motorways. 57% of motorcycle fatalities died on rural roads and only 5% on motorways.

Almost half of all road fatalities (48%) are car occupants. On motorways this proportion increases to almost two thirds

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motorways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

Table 3 shows the trends in fatalities by vehicle type in the period 2000-2010. The number of fatalities decreased by 44% in the EU-19 countries over this period. Car occupants accounted for almost two thirds of the overall reduction.

Figure 13 shows that the number of fatalities for most groups of road user decreased appreciably between 2000 and 2010. In contrast, the number of motorcyclist fatalities scarcely changed until 2009 then fell in 2010.

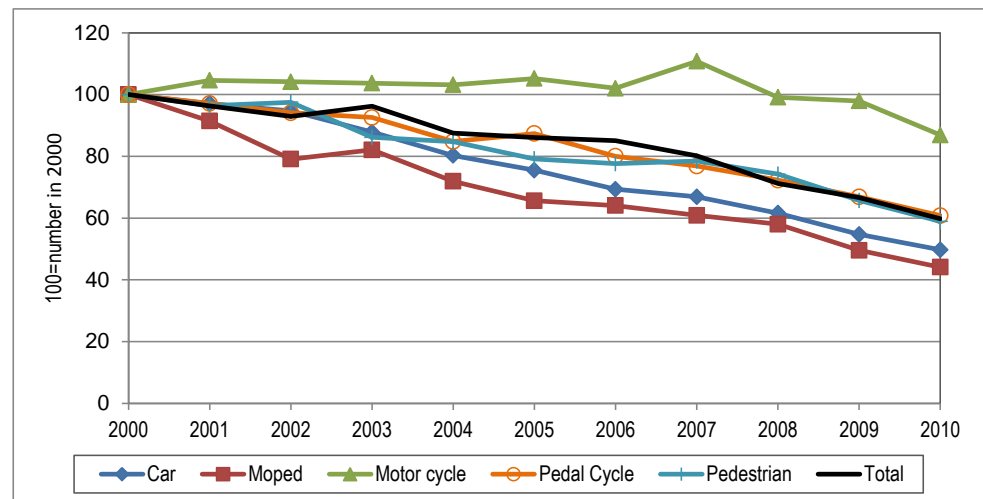
**Table 3: Evolution of fatalities by vehicle type in EU-19, 2000-2010**

Year	Car	Moped	Motor cycle	Pedal Cycle	Pedestrian	Other	Total
2000	27.651	2.440	5.029	3.129	9.476	3.476	51.201
2001	26.850	2.231	5.261	3.039	9.131	3.348	49.859
2002	26.194	1.930	5.239	2.944	9.241	3.229	48.777
2003	24.284	2.002	5.214	2.897	8.162	3.345	45.904
2004	22.201	1.755	5.189	2.653	8.032	3.042	42.872
2005	20.879	1.601	5.290	2.734	7.504	2.992	41.001
2006	19.165	1.563	5.132	2.504	7.356	2.956	38.676
2007	18.490	1.485	5.573	2.405	7.436	2.787	38.176
2008	17.035	1.416	4.984	2.262	7.035	2.475	35.208
2009	15.129	1.209	4.926	2.093	6.223	2.316	31.896
2010	13.749	1.075	4.371	1.902	5.582	2.079	28.759
<b>Overall reduction</b>	50%	56%	13%	39%	41%	40%	44%

2009 data for NI, NL and SE used as proxies for the 2010 data.  
2001 data for PL used as proxies for the 2000 data.

Source: CARE Database  
Date of Query: September 2012

**Figure 14: Trends for fatalities by vehicle type, EU-19, 2000- 2010**



2009 data for NI, NL and SE used as proxies for the 2010 data.  
2001 data for PL used as proxies for the 2000 data.

Source: CARE Database  
Date of Query: September 2012

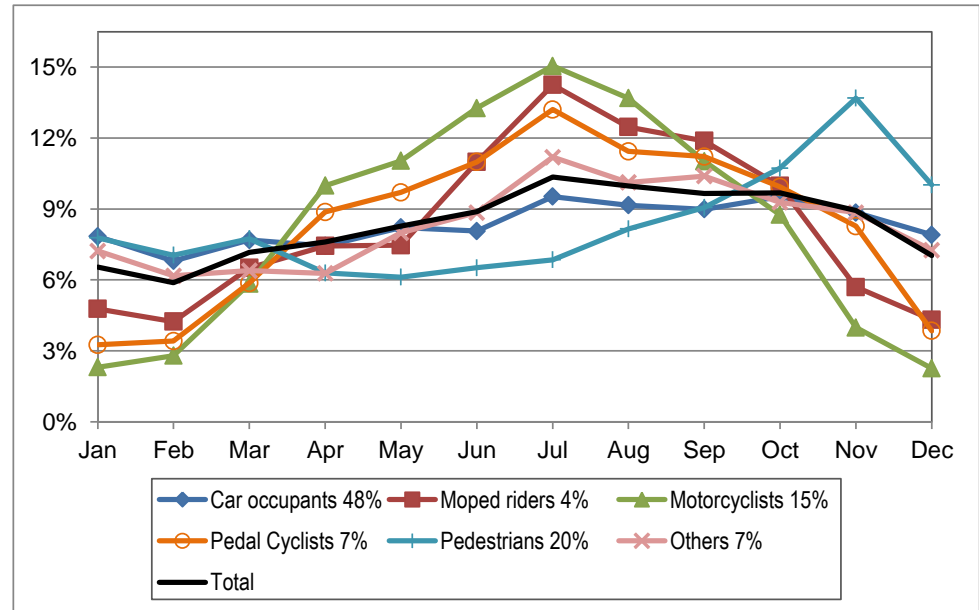
The number of motorcycle fatalities changed only slightly between 2000 and 2009, then fell in 2010. For all other vehicle types, the number of fatalities decreased appreciably over the decade.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

### Seasonality

The distribution of fatalities by month is studied in the Seasonality Basic Fact Sheet, which shows that this distribution has not changed appreciably over the years. Figure 15 shows that the fatality total peaks in the summer, with the greatest number in July. Certain modes have distributions that differ considerably from the overall distribution; the peak for pedestrians is in November, while the peak for motorcyclists in the summer is especially pronounced.

Figure 15: Seasonal distribution of fatalities by vehicle type, EU-24, 2010



2009 data used for EE, NI, NL and SE

Source: CARE Database  
Date of Query: September 2012

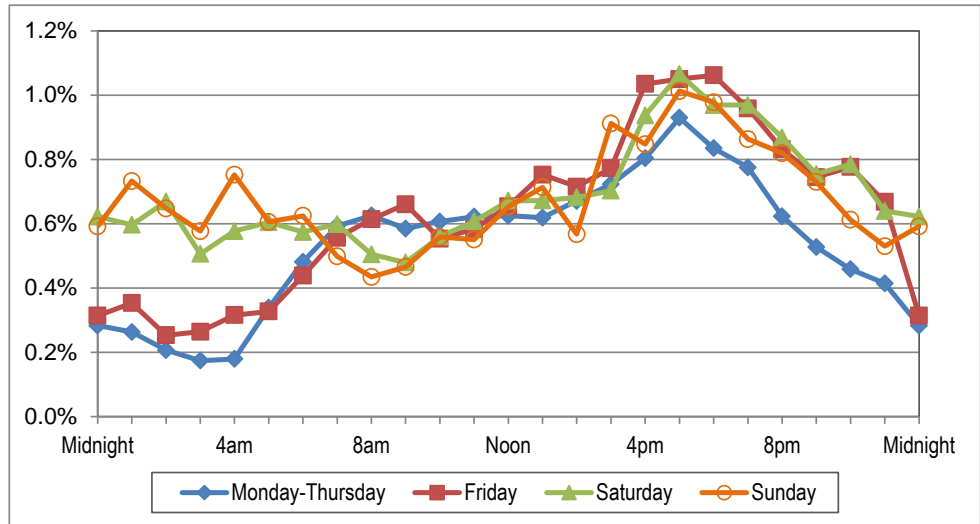
The overall number of fatalities is greatest between June and August. The monthly number of pedestrian fatalities is greatest in the winter.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

### Day of week and time of day

The distribution of the fatality total by day of week and time of day is shown in Figure 16. There are 168 hours per week, so on average 0,60% of fatalities occur per hour through the week. The fatality distribution by time of day is similar from Monday to Thursday, with a daily afternoon peak and relatively few during the night, so these days are combined in Figure 16. The high number of fatalities early on Saturday and Sunday mornings is also notable.

Figure 16: Fatalities in EU-23 by day of week and time of day, 2010



2009 data used for EE, NI, NL and SE, DE is excluded as time of day is not reported. Source: CARE Database  
 Date of Query: September 2012  
 Monday-Thursday values are the averages of the daily values from Monday to Thursday.

As well as the absolute numbers of fatalities, the weekend distribution by time of day differs from weekday distribution. Between Monday and Friday, 64% of fatalities occurred between 8am and 8pm, compared with 53% on Saturday and Sunday.

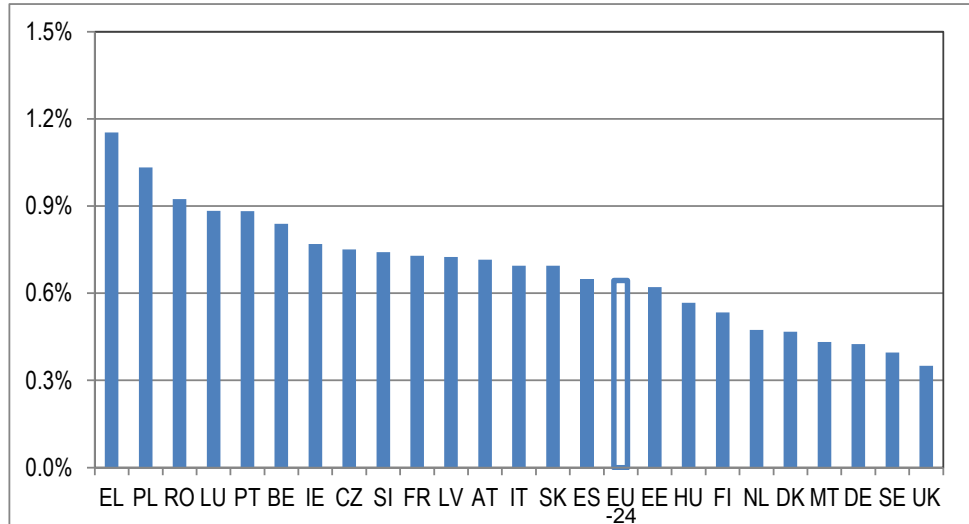
There are more fatalities between midnight and 6am on Saturdays and Sundays than on other days of the week.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

### Road accidents' share in overall mortality

Road accidents accounted for 0,64% of all deaths in the EU-24 countries in 2010. Figure 17 shows that the proportion ranged from 1,15% of all deaths in Greece to 0,35% in the UK.

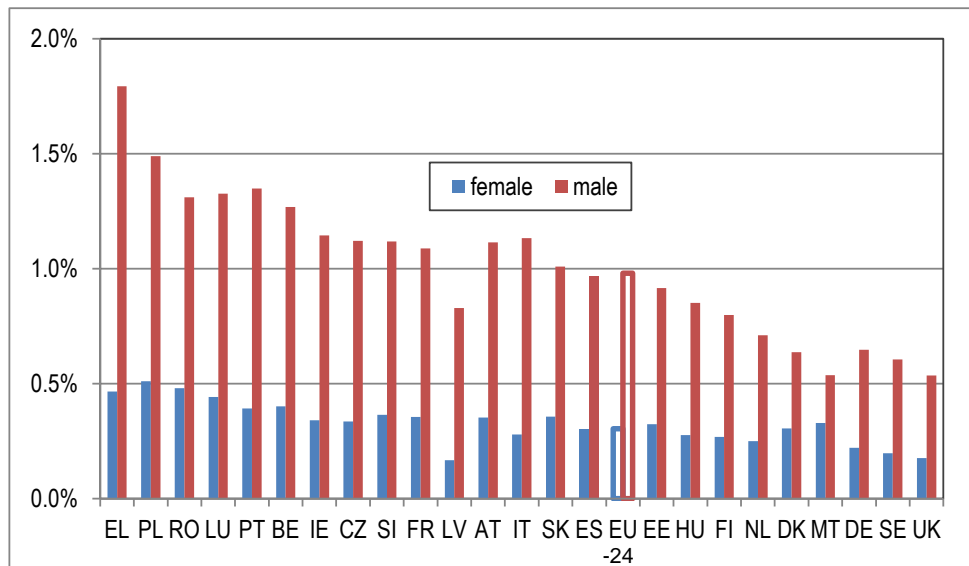
Figure 17: Road accident fatalities as a share of all deaths by country, 2010



Number of all deaths in BE from 2006, DK, FR and RO from 2009. Source: CARE Database  
 Number of road deaths in EE, NI, NL and SE from 2009. Source for deaths: EUROSTAT  
 Date of Query: September 2012

Figure 18 develops this analysis by gender. Road accidents accounted for 0,98% of all male deaths in the EU-24 countries in 2010 and for 0,30% of all female deaths. Among males, the proportion ranged from 1,79% of all deaths in Greece to 0,54% in the UK and Malta. Among females, the proportion ranged from 0,51% of all deaths in Poland to 0,18% in the UK.

Figure 18: Road accident fatalities as a proportion of all deaths, by gender, 2010



Number of all deaths in BE from 2006, DK, FR and RO from 2009. Source: CARE Database  
 Number of road deaths in EE, NI, NL and SE from 2009. Source for deaths: EUROSTAT  
 Date of Query: September 2012

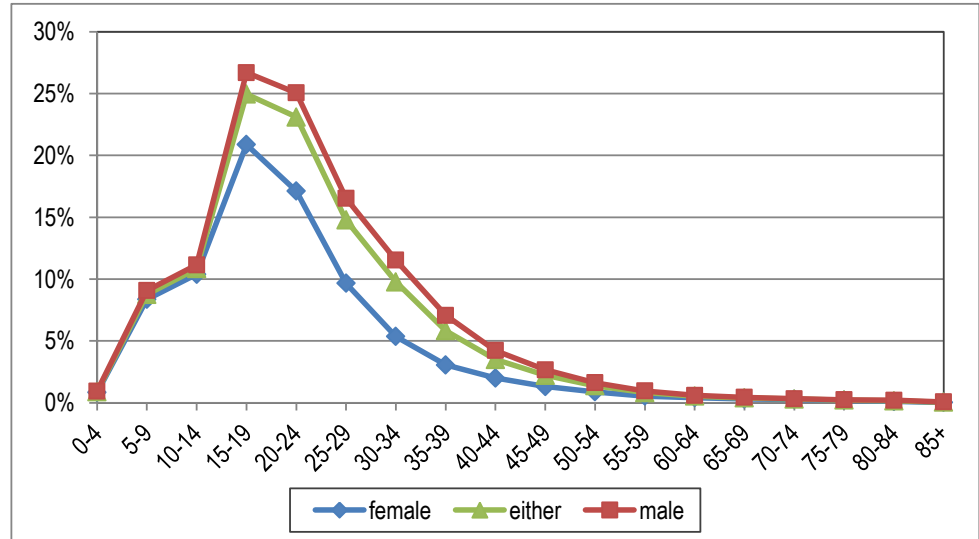
Road accidents accounted for 0,64% of all deaths in the EU-24 countries in 2010.

Road accidents account for almost one per cent of all male deaths in the EU-24 countries, but only about one third as many female deaths.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

Figure 19 shows that the proportion of fatalities that occur in road accidents varies strongly with age. Road accidents account for one quarter of fatalities in the 15-19 age group. The proportions for females and for males are nearly equal up to the age of 14, but the proportion is clearly greater for males than for females thereafter.

Figure 19: Road accident fatalities as a proportion of deaths by age group, EU-24, 2010



Number of all deaths in BE from 2006, DK, FR and RO from 2009.  
 Number of road deaths in EE, NI, NL and SE from 2009.

Source: CARE Database  
 Source for deaths: EUROSTAT  
 Date of Query: September 2012

Road accidents account for one quarter of all deaths in the EU-24 countries in the 15-19 age group.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

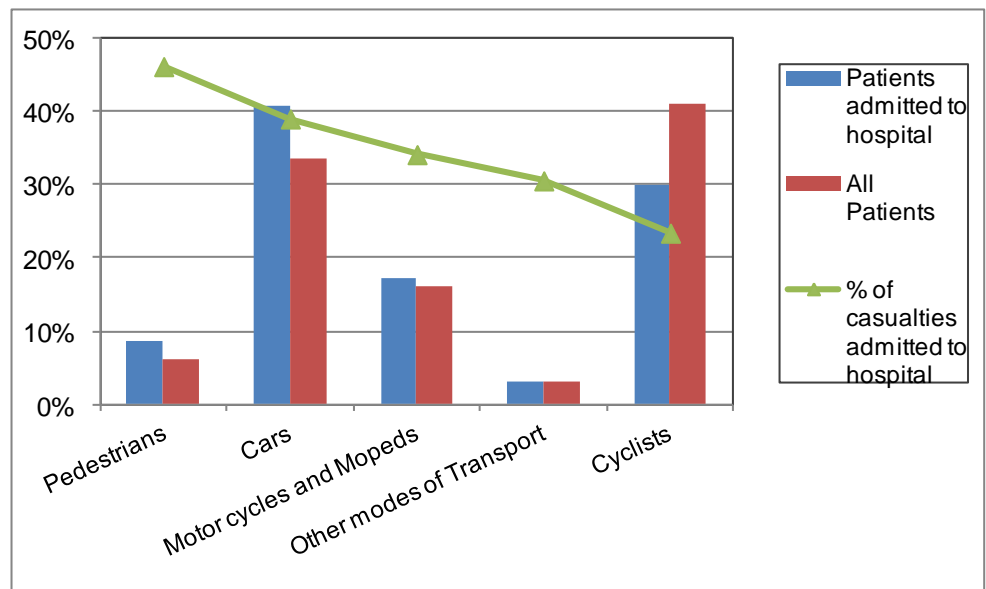
## ROAD ACCIDENT HEALTH INDICATORS

Injury data can be obtained from a wide range of sources, such as police and ambulance reports, national insurance schemes, and hospital records. Each of these provides a specific yet incomplete picture of the injuries suffered in road accidents. In order to obtain a comprehensive view of these injuries, the EU Council issued a Recommendation that urges member states to use synergies between existing data sources and to develop national injury surveillance systems rooted in the health sector.<sup>3</sup> At present, thirteen member states are routinely collecting injury data in a sample of hospitals and delivering these data to the Commission. This system is called the EU Injury Database (EU IDB).<sup>4</sup>

Within the EU IDB “transport module”, injuries suffered in road accidents are recorded by “mode of transport”, “role of injured person” and “counterpart”. These variables can complement information from police records, in particular for injury patterns and the improved assessment of injury severity. The indicators used include the percentage of casualties attending hospital who are admitted to hospital, the mean length of stay of hospital admissions, the nature and type of body part injured, and potentially the long term consequences of injuries.

According to estimates based on the EU IDB, more than four million people are injured annually in road traffic accidents in Europe, one million of whom have to be admitted to hospital.

**Figure 20: Distribution of non-fatal road accident casualties attending hospital, by mode of transport**



EU Injury Database (EU IDB AI) - hospital treated patients. IDB AI Transport module and place of occurrence (code 6.n [public road]); n-all = 73.600: n-admitted = 23.568 (DE, DK, LV, MT, AT, NL, SE, SI, CY, years 2005-2008).

<sup>3</sup> OJ C 164/1, 18.7.2007

<sup>4</sup> <https://webgate.ec.europa.eu/sanco/heidi/index.php/IDB>

By 2012, thirteen member states routinely collected injury data in a sample of hospitals and contributed them to the EU Injury Database.

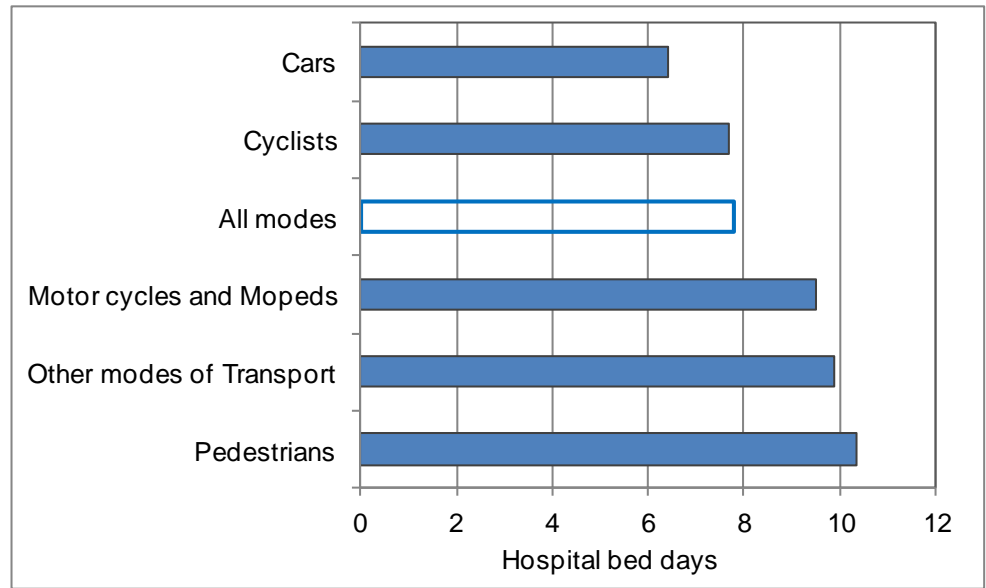
Almost half of pedestrian casualties who attended a hospital were admitted to the hospital, compared with one quarter of pedal cyclists.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motoways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation



Figure 20 is based on IDB data from nine countries for accidents that occurred between 2005 and 2008. Vulnerable road users accounted for almost two thirds of road accident casualties attending hospital: 6% were pedestrians, 16% used motorcycles and mopeds, 41% were pedal cyclists. They accounted for over half of casualties admitted to hospital: 9% were pedestrians, 16% used motorcycles and mopeds, 30% were pedal cyclists. Almost half of pedestrian casualties who attended a hospital were admitted to the hospital, twice the proportion found for pedal cyclists. Overall, 32% of road accident casualties recorded in the IDB were admitted to the hospital.

Figure 21: Average length of stay (hospital bed days), by mode of transport



EU Injury Database (EU IDB) - hospital treated patients. IDB AI Transport module and place of occurrence (code 6.n [public road]); n = 23.568 (DE, DK, LV, MT, AT, NL, SE, SI, CY, years 2005-2008).

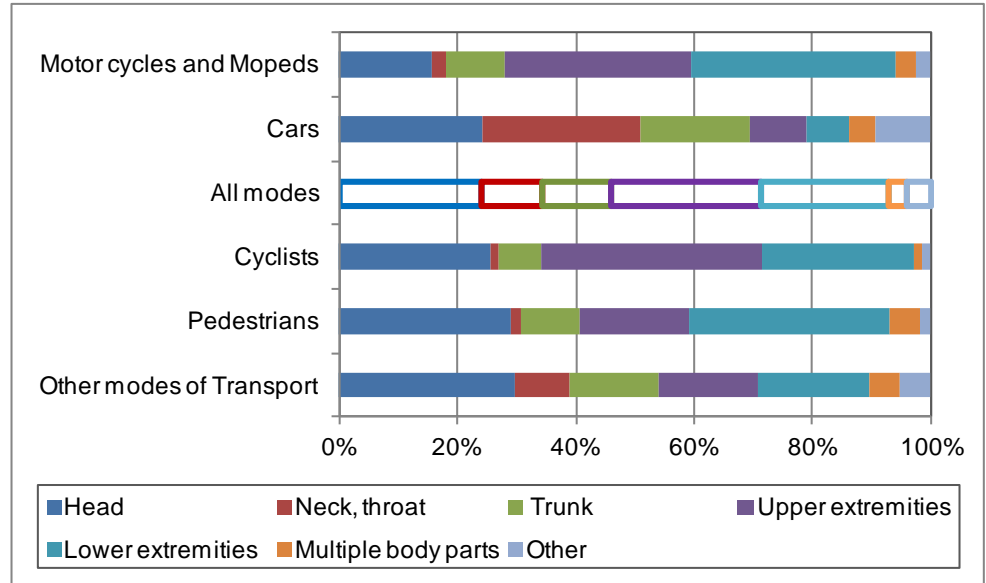
Figure 21 compares the average Length of Stay of casualties who were admitted to hospital. This was longest for pedestrians and shortest for car occupants.

Naturally, hospital data can provide information on the injury patterns sustained by the accident victims. For example, Figure 22 illustrates the distribution of body parts injured of the various road user types. It shows that the proportion with head injuries is least among users of motorcycles and mopeds. On the other hand, the proportion with neck and throat injuries is greatest among car occupants, presumably linked to the incidence of whip-lash.

The average stay in hospitals is longest for pedestrians and shortest for car occupants.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motomways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

Figure 22: Body part injured, by mode of transport



EU Injury Database (EU IDB) - hospital treated patients. IDB AI Transport module and place of occurrence (code 6.n [public road]); n=71.460 (DE, DK, LV, MT, AT, NL, SE, SI, CY, years 2005-2008).

Table 4 shows the full range of injury types within the EU IDB. It compares the distribution of injuries among vulnerable road users (pedestrians, pedal cyclists, motorcycle and moped users) and motorized road users. Contusions, fractures, open wounds, distortions and concussions are the five most common injury types and account for almost 90% of injuries.

Table 4: Type of injury, by mode of transport

	% of all injuries suffered by:		% of injuries of this type that were suffered by vulnerable road users
	vulnerable road users	motorized road users	
Contusion, bruise	31%	38%	43%
Fracture	34%	22%	59%
Open wound	13%	7%	62%
Distortion, sprain	6%	10%	33%
Concussion	7%	9%	41%
Other specified brain injury	2%	2%	56%
Luxation, dislocation	3%	1%	63%
Injury to muscle and tendon	1%	2%	23%
Abrasion	1%	2%	44%
Other specified type of injury	1%	1%	37%
Unspecified type of injury	1%	1%	32%
Injury to internal organs	0%	1%	27%
Injury to blood vessels	1%	0%	53%
Multiple injuries	0%	1%	26%
Injury to nerves and spinal cord	0%	0%	32%
Crushing injury	0%	0%	35%
Burns, scalds	0%	0%	4%
Traumatic amputation	0%	0%	44%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>48%</b>

EU Injury Database (EU IDB) - hospital treated patients. IDB AI Transport module and place of occurrence (code 6.n [public road]); n=71.460 (DE, DK, LV, MT, AT, NL, SE, SI, CY, years 2005-2008).

Contusions, fractures, open wounds, distortions and concussions are the five most common injury types and account for almost 90% of all injuries.

- Main Figures
- Children (Aged < 15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged > 64)
- Pedestrians
- Bicycles
- Motorcycles & Mopeds
- Car occupants
- Heavy Goods Vehicles
- Motomways
- Junctions
- Roads in urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Causation

## Disclaimer

The information in this document is provided as it is and no guarantee or warranty is given that the information is fit for any particular purpose, Therefore, the reader uses the information at their own risk and liability,

## For more information

Further statistical information about fatalities is available from the CARE database at the Directorate General for Energy and Transport of the European Commission, 28 Rue de Mot, B -1040 Brussels.

Traffic Safety Basic Fact Sheets available from the European Commission concern:

- Main Figures
- Children (Aged <15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged >64)
- Pedestrians
- Cyclists
- Motorcycles and Mopeds
- Car occupants
- Heavy Goods Vehicles and Buses
- Motorways
- Junctions
- Urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender
- Accident Causation

Main Figures

Children  
(Aged < 15)

Youngsters  
(Aged 15-17)

Young People  
(Aged 18-24)

The Elderly  
(Aged > 64)

Pedestrians

Bicycles

Motorcycles  
& Mopeds

Car  
occupants

Heavy Goods  
Vehicles

Motorways

Junctions

Roads in  
urban areas

Roads outside  
urban areas

Seasonality

Single vehicle  
accidents

Gender

Causation

### Country abbreviations used and definition of EU-level

EU - 19		EU-24 = EU-19 +	
BE	Belgium	EE	Estonia
CZ	Czech Republic	HU	Hungary
DK	Denmark	LV	Latvia
DE	Germany	MT	Malta
IE	Ireland	SK	Slovakia
EL	Greece		
ES	Spain		
FR	France		
IT	Italy		
LU	Luxembourg		
NL	Netherlands		
AT	Austria		
PL	Poland		
PT	Portugal		
RO	Romania		
SI	Slovenia		
FI	Finland		
SE	Sweden		
UK	United Kingdom (GB+NI)		

Detailed data on traffic accidents are published annually by the European Commission in the Annual Statistical Report. This includes a glossary of definitions on all variables used.

More information on the DaCoTA Project, co-financed by the European Commission, Directorate-General for Mobility and Transport is available at the DaCoTA website: <http://www.dacota-project.eu/index.html>

Please refer to this report as follows:  
Broughton, J., et al. (2012) Basic Fact Sheet "Main Figures", Deliverable D3.9 of the EC FP7 project DaCoTA.

#### Authors

Jeremy Broughton	TRL, UK
Christian Brandstatter	KfV, Austria
George Yannis, Petros Evgenikos, Panagiotis Papantoniou	NTUA, Greece
Nimmi Candappa, Michiel Christoph, Kirsten van Duijvenvoorde, Martijn Vis	SWOV, The Netherlands
Jean-François Pace, María Teresa Tormo, Jaime Sanmartín	INTRAS-UVEG, Spain
Mouloud Haddak, Léa Pascal, Marie Lefèvre, Emmanuelle Amoros	IFSTTAR, France
Pete Thomas, Alan Kirk, Laurie Brown	Loughborough University, UK