



Traffic Safety Basic Facts 2008

The Elderly (Aged >64)

Due to their greater frailty, the elderly are more likely to be seriously injured in any given accident than younger people.

In 2006¹, 4.744 elderly people were killed in road traffic accidents in the EU-14² (EU-15 without Germany). This represents 19,2% of all fatalities in 2006. There was a slight reduction of -3,9% of senior fatalities from 2005 to 2006. Table 1 presents the annual data by country that are available from CARE since 1997, with the totals¹ presented in Figure 1. The line is dashed for years where data up to 2006 is not available for all countries. Because the data for the new countries are only available for the year 2005 or 2006, they are not considered in EU total trends.

Table 1: Elderly fatalities by country and year, 1997 – 2006¹

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
BE	237	260	233	238	264	210	240	201	186	193
CZ	-	-	-	-	-	-	-	-	-	173
DK	132	123	117	134	102	103	99	80	70	72
EE	-	-	-	-	-	-	-	-	21	32
EL	406	445	415	428	385	340	322	317	322	327
ES	900	890	910	849	867	835	817	746	719	667
FR	1.494	1.587	1.443	1.370	1.393	1.361	1.120	962	1.014	921
IE	66	80	71	44	47	60	53	-	-	-
IT	1.548	1.379	1.391	1.365	1.276	1.394	1.266	1.165	-	-
LU	9	7	7	10	7	5	-	-	-	-
HU	-	-	-	-	-	-	232	214	206	216
MT	-	-	-	-	-	-	-	-	3	1
NL	266	227	242	235	222	213	221	-	-	-
AT	212	208	225	190	186	211	197	177	151	156
PL	-	-	-	-	-	-	-	-	931	-
PT	441	365	340	342	320	304	304	230	222	215
FI	123	104	96	106	96	99	96	97	91	71
SE	171	148	173	154	147	139	118	139	104	95
UK	788	771	758	679	652	655	658	589	616	583
EU-14 ¹	6.793	6.594	6.421	6.144	5.964	5.929	5.517	4.982	4.939	4.744
Yearly ¹ Change	-	-2,9%	-2,6%	-4,3%	-2,9%	-0,6%	-7,0%	-9,7%	-0,9%	-3,9%

EU-14 totals can differ due to rounding because of the use of coefficients in order to arrive to fatalities at 30 days

Source: CARE Database / EC
Date of query: July 2008

¹ Using latest data available, i.e. 2006 for all countries except LU (2002), IE and NL (2003), IT (2004), PL (2005) and UK (2006 for GB, 2005 for NI). The data from EE, HU, MT, PL and CZ are not considered.

² See table "Definition of EU-level and used Country abbreviations" on page 13

In 2006¹, more than 4.700 seniors died in road traffic accidents in 14 European countries.

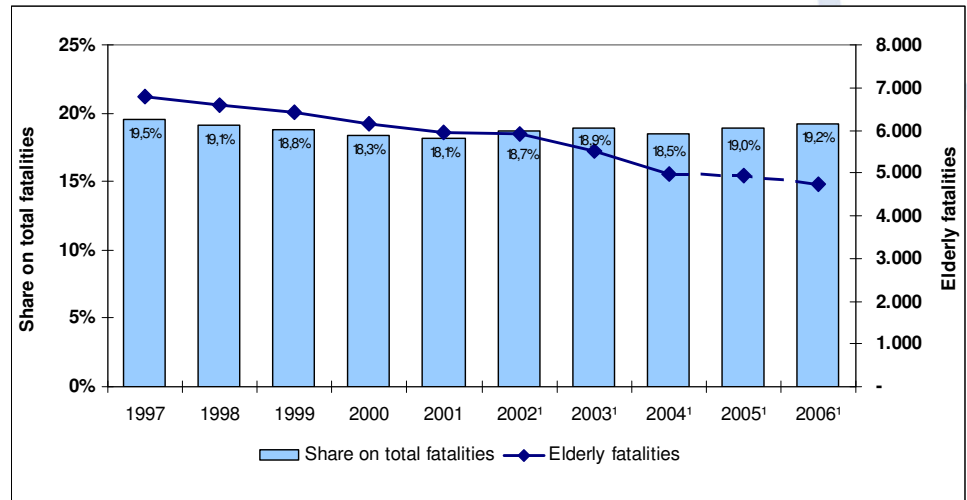
Fatalities of elderly people in road traffic accidents reduced by over 30% between 1997 and 2006.





Nearly one in five road traffic fatalities is 65 years or older.

Figure 1: Number of elderly fatalities and their proportion on total fatalities in EU-14, 1997-2006¹



Source: CARE Database / EC
Date of query: July 2008

The number of elderly fatalities in the EU-14 countries has decreased over the last decade, but the number in proportion to the total number of fatalities is stagnating.

Table 2 compares the fatality rates of elderly people and middle-aged people (45-64 years) with the fatality rate of the whole population. The ratios of elderly to middle-aged and of elderly to all fatalities clearly show that the risk of being killed in an accident is higher for the elderly than for the middle-aged. The elderly have a higher fatality risk than the average in almost all EU-19 countries. Some of the countries with the best overall road safety records, such as Sweden, Finland, The Netherlands and Denmark, have rather high proportions of elderly fatalities.





Table 2: Fatalities per million inhabitants (fatality rates) of the middle-aged and the elderly by country, 2006

	Fatalities per million inhabitants (fatality rate)			Comparisons	
	Middle-aged	Elderly	Total	Elderly/ Middle-aged	Elderly/ Total
BE	87	107	101	1,23	1,05
CZ	102	118	56	1,16	2,09
DK	44	87	56	1,98	1,54
EE	178	141	152	0,79	0,93
EL	105	158	149	1,51	1,06
ES	82	91	93	1,10	0,97
FR	60	90	75	1,51	1,21
IE***	52	112	79	2,14	1,42
IT**	70	100	95	1,42	1,04
LU****	77	75	131	0,97	0,57
HU	156	135	129	0,87	1,04
MT	0	18	27	-	0,66
NL***	45	94	63	2,09	1,50
AT	85	113	88	1,33	1,28
PL*	149	183	143	1,23	1,28
PT	88	118	92	1,35	1,29
FI	61	83	64	1,36	1,30
SE	46	60	49	1,32	1,23
UK*	39	58	55	1,49	1,06
EU-19	77	100	89	1,31	1,13

* Data from 2005 (UK = GB 2006 + NI 2005)
** Data from 2004

*** Data from 2003
**** Data from 2002

Source: CARE Database / EC
Date of query: July 2008
Source of population data: EUROSTAT

In most European countries, the elderly are at greater risk of being killed in a road accident than the overall population. Middle-aged people (age 45-64) are at a lower risk of being killed than seniors.

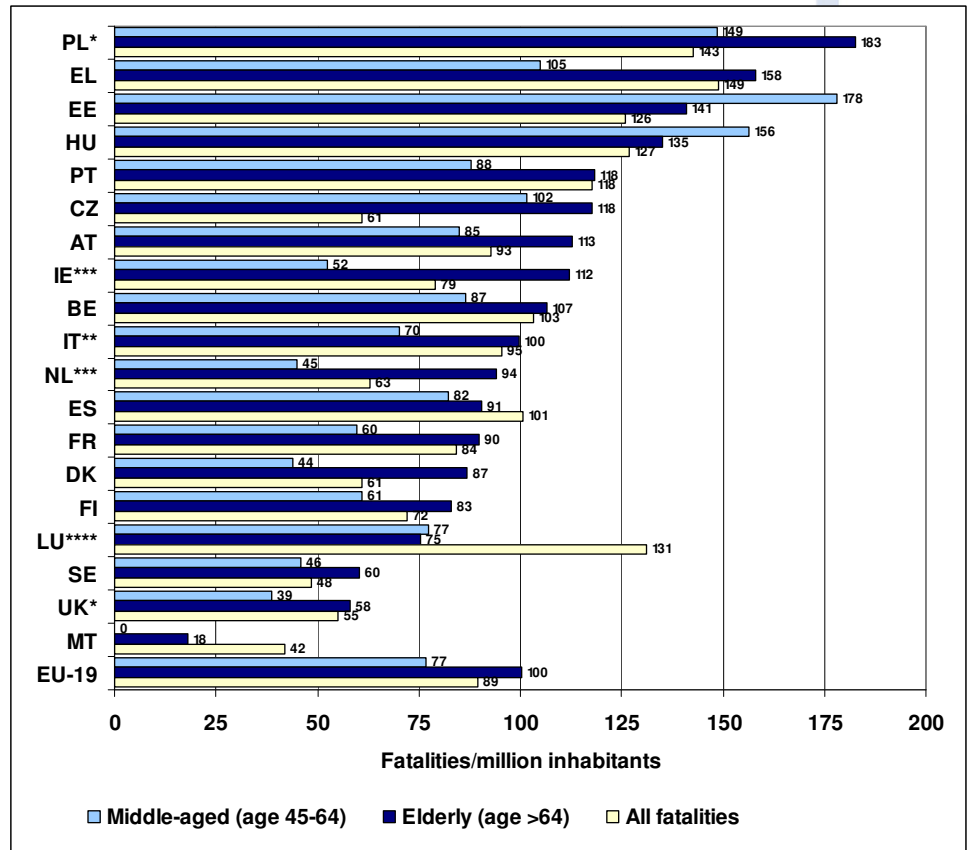
The fatality rates for the middle-aged and the elderly are illustrated in Figure 2, with countries being sorted by the fatality rate for the elderly. Fatality rates, both for the elderly and for the middle-aged, vary greatly in the member states. In 2006 Poland and Greece have the highest rates of fatalities per million inhabitants for elderly. Among the EU-19 countries the average rate of fatalities per million inhabitants for elderly is about 100.





The rate of elderly fatalities per million inhabitants in 2006 ranges from 18 in Malta to 183 in Poland.

Figure 2: Fatalities per million inhabitants for middle-aged, elderly and total fatalities, 2006



* Data from 2005 (UK = GB 2006 + NI 2005) ** Data from 2004 *** Data from 2003 **** Data from 2002 Source: CARE Database / EC Date of query: July 2008 Source of population data: EUROSTAT

Age and gender

Table 3 and Figure 3 give more details of the age groups and of gender distribution of elderly fatalities, using three age ranges. About two thirds (64%) of senior fatalities are men.





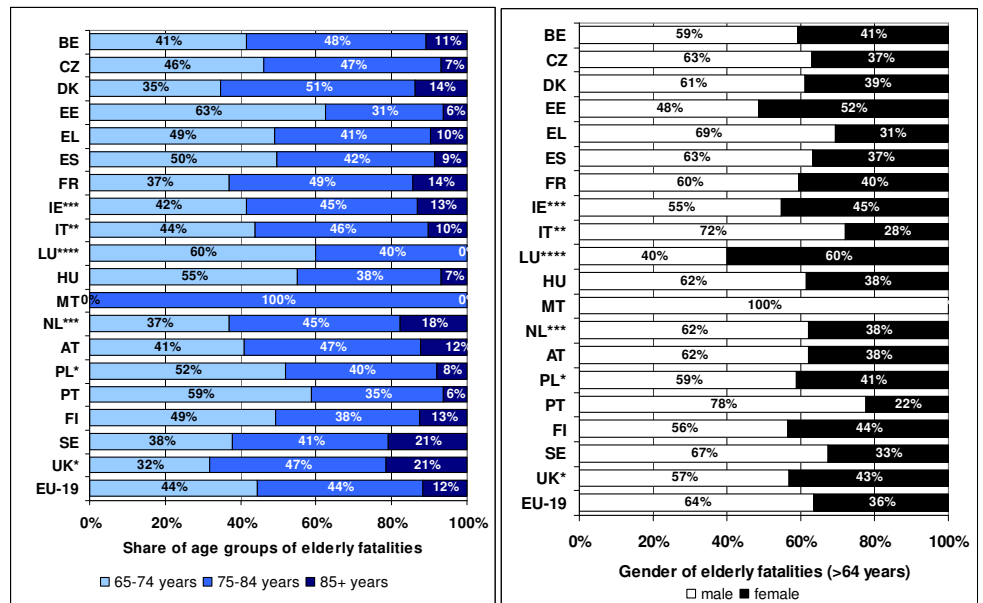
Table 3: Elderly fatalities by age group, by gender and by country, 2005

	65-74 years fatalities	75-84 years fatalities	85+ years fatalities	Elderly fatalities (>64 years)			Total fatalities
				total	male	female	
BE	80	92	21	193	114	79	1.069
CZ	80	81	12	173	109	64	1.063
DK	25	37	10	72	44	28	306
EE	20	10	2	32	15	16	204
EL	160	135	32	327	227	100	1.657
ES	331	279	57	667	422	245	4.104
FR	340	448	133	921	548	373	4.709
IE***	22	24	7	53	29	24	337
IT**	511	533	121	1.165	840	325	5.625
LU****	3	2	-	5	2	3	62
HU	119	82	15	216	133	83	1.303
MT	-	1	-	1	1	-	11
NL***	82	100	39	221	136	83	1.028
AT	64	73	19	156	97	59	730
PL*	482	375	74	931	547	381	5.444
PT	127	75	14	215	165	48	969
FI	35	27	9	71	40	31	336
SE	36	39	20	95	64	31	445
UK*	186	272	125	583	331	252	3.307
EU-19	2.703	2.685	710	6.097	3.864	2.225	32.709
Share	44%	44%	12%	100%	63%	37%	-

* Data from 2005 (UK = GB 2006 + NI 2005) ** Data from 2004
 *** Data from 2003 **** Data from 2002
 Source: CARE Database / EC Date of query: July 2008

Among the elderly, women are more likely to be killed in road accidents (37%) than within the whole population (23%). In Belgium, Estonia, France, Ireland, Poland, Finland and the UK, the proportion of women among elderly fatalities is greater than 40% (excluding Luxembourg due to small numbers).

Figure 3: Elderly fatalities by age group, by gender and by country, 2006



* Data from 2005 (UK = GB 2006 + NI 2005) ** Data from 2004
 *** Data from 2003 **** Data from 2002
 Source: CARE Database / EC Date of query: July 2008

88% of all elderly fatalities are aged between 65 and 84 years.

Almost two thirds of elderly people killed in road accidents are men.

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Elderly people between 75 and 84 years have the highest death risk of all elderly people.

Table 4: Fatality rates of the elderly by age group and by country, 2006

	Fatalities by million inhabitants			
	65-74 years	75-84 years	85+ years	total population
BE	85	135	112	101
CZ	98	149	112	104
DK	56	134	96	56
EE	151	128	124	152
EL	136	184	207	149
ES	87	103	67	93
FR	67	115	104	75
IE***	83	152	137	79
IT**	83	126	93	95
LU****	84	82	-	131
HU	132	145	116	129
MT	-	54	-	27
NL***	64	124	152	63
AT	87	146	130	88
PL*	165	206	202	143
PT	125	118	82	92
FI	77	88	99	64
SE	47	69	86	49
UK*	37	79	102	55
EU-19	109	157	143	89

* Data from 2005 (UK = GB 2006 + NI 2005) ** Data from 2004
 *** Data from 2003 **** Data from 2002 Source: CARE Database / EC
 Date of query: July 2008

The age group 75-84 years, compared to its proportion of the population, has the highest average fatality rate of all elderly people (157 fatalities by million inhabitants), followed by the oldest group aged 85+ (142). Also the fatality rate of people between 65 and 74 years (109) is higher than the fatality rate of the population as a whole (93). An explanation for the lower risk for people of 85 and more years might be the reduced mobility in this age group.

Road user type

Table 5 shows the distribution of elderly fatalities by road user type. About 37,7% of elderly fatalities were pedestrians. In Belgium, Finland, Sweden and The Netherlands the share of senior pedestrian fatalities is low (under 30%). The proportion of elderly fatalities who were car drivers ranged from almost 10% in Poland and Estonia up to nearly 40% in France, Sweden and Finland (except Luxembourg and Malta due to small numbers).

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More than one third of elderly fatalities were pedestrians (37,7%).

Table 5: Elderly fatalities by road user type, 2006

	Pedestrian	Moped rider	Motor-cyclist	Car driver	Car passenger	Others	Total
BE	52	4	2	57	18	60	193
CZ	67	2	3	41	27	33	173
DK	26	4	1	19	7	15	72
EE	15	-	-	7	3	7	32
EL	141	12	18	62	45	49	327
ES	254	34	4	166	135	74	667
FR	281	13	17	361	154	95	921
IE***	22	-	-	14	7	10	53
IT**	381	69	27	346	158	184	1.165
LU****	3	-	-	2	-	-	5
HU	93	5	-	35	25	58	216
MT	1	-	-	-	-	-	1
NL***	39	27	-	44	24	87	221
AT	53	9	3	40	19	32	156
PL*	512	12	4	96	94	213	931
PT	65	25	1	46	19	59	215
FI	19	4	-	26	7	15	71
SE	25	3	3	37	9	18	95
UK*	251	1	12	147	104	68	583
EU-19	2.300	224	95	1.546	855	1.077	6.097
Share	37,7%	3,7%	1,6%	25,3%	14,0%	17,7%	100,0%

* Data from 2005 (UK = GB 2006 + NI 2005)
** Data from 2004

*** Data from 2003
**** Data from 2002

Source: CARE Database / EC
Date of query: July 2008

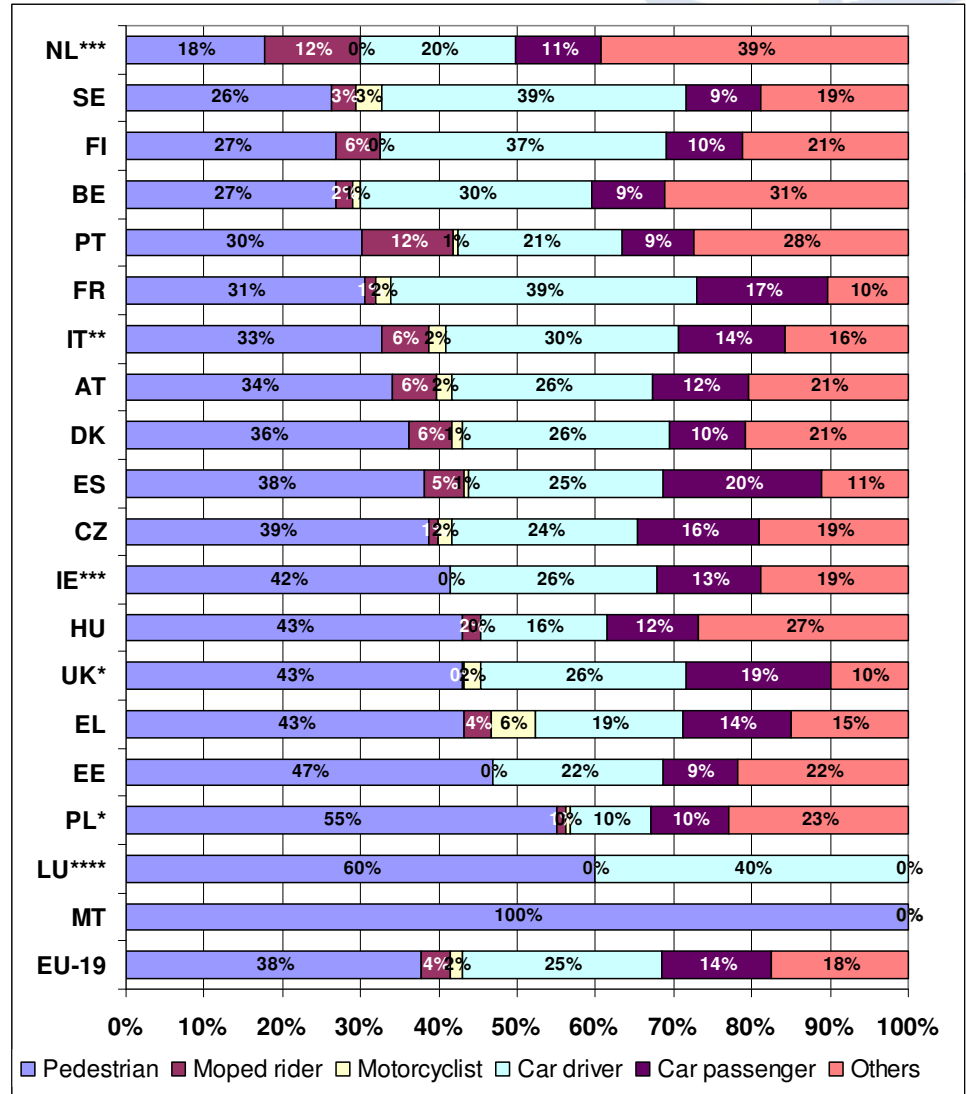
The results from Table 5 are illustrated in the following Figure 4 on the next page. The results are sorted by the share of killed senior pedestrians.

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Figure 4: Distribution of elderly fatalities by road user type, 2006



* Data from 2005 (UK = GB 2006 + NI 2005) ** Data from 2004 *** Data from 2003 **** Data from 2002 Source: CARE Database / EC Date of query: July 2008

Nearly 40% of elderly fatalities were car occupants.

Table 6 shows the percentage of elderly fatalities on the total fatalities by road user type. The percentages reflect the reduced mobility options and the greater frailty of elderly persons: while elderly fatalities account for 19% of all fatalities, nearly 40% of pedestrian fatalities were aged 65 or older. The percentage being lowest in Poland and Estonia (under 30%).





Table 6: Share of elderly fatalities on total fatalities by road user type by country, 2006

	Pedestrian	Moped rider	Motor-cyclist	Car driver	Car passenger	Others	Total
BE	43%	11%	2%	12%	15%	31%	18%
CZ	33%	67%	3%	11%	14%	19%	16%
DK	43%	17%	5%	19%	18%	24%	24%
EE	23%	0%	0%	10%	9%	26%	16%
EL	53%	21%	4%	12%	20%	29%	20%
ES	41%	11%	1%	12%	19%	12%	16%
FR	53%	4%	2%	19%	21%	22%	20%
IE***	34%	-	0%	13%	11%	23%	16%
IT**	54%	18%	3%	19%	17%	29%	21%
LU****	50%	-	-	5%	0%	0%	8%
HU	31%	12%	0%	9%	10%	24%	17%
MT	25%	-	0%	0%	-	-	9%
NL***	40%	29%	0%	13%	18%	33%	21%
AT	48%	23%	3%	14%	20%	31%	21%
PL*	29%	23%	3%	7%	9%	22%	17%
PT	42%	26%	1%	19%	14%	29%	22%
FI	39%	31%	0%	17%	14%	33%	21%
SE	45%	20%	5%	19%	14%	31%	22%
UK*	37%	3%	2%	14%	19%	23%	18%
EU-19	39%	15%	2%	14%	16%	24%	19%

* Data from 2005 (UK = GB 2006 + NI 2005)
** Data from 2004

*** Data from 2003
**** Data from 2002

Source: CARE Database / EC
Date of query: July 2008

About two out of five pedestrian fatalities were elderly people.

Type of road

Table 7 and Figure 5 show the distribution of elderly fatalities by type of road, and compare it with the distribution for the middle-aged. (Data for Greece and United Kingdom have a high share of "Unknown"). Compared to the overall population and to the middle-aged the elderly have a lower share of fatalities on motorways and on rural roads, but a higher share of fatalities on urban roads. This is a result of the lower mobility and higher emphasis on pedestrians in the modal split of the elderly. The distributions vary greatly between the EU-19 member states.

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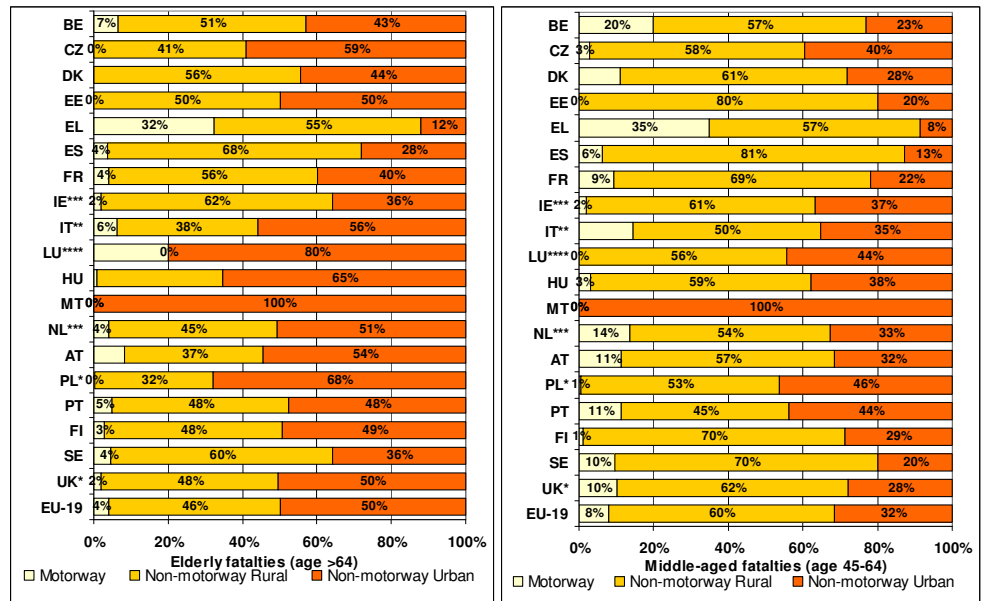


Table 7: Distribution of middle-aged and elderly fatalities by road type, 2006

	Elderly (age >64)				Middle-aged (age 45-64)			
	Motorway	Non-motorway		unknown	Motorway	Non-motorway		unknown
		Rural	Urban			Rural	Urban	
BE	12	93	79	9	46	131	53	5
CZ	-	71	102	-	8	166	114	-
DK	-	40	32	-	7	39	18	-
EE	-	16	16	-	-	48	12	-
EL	24	41	9	253	29	47	7	208
ES	24	456	187	-	53	698	111	-
FR	36	517	368	-	89	647	205	-
IE***	1	33	19	-	1	30	18	-
IT**	73	440	652	-	153	527	370	-
LU****	1	-	4	-	-	5	4	-
HU	2	73	141	-	13	251	160	-
MT	-	-	1	-	-	-	1	-
NL***	9	100	112	-	27	105	64	-
AT	13	58	85	-	20	101	56	-
PL*	3	296	632	-	8	793	690	-
PT	10	103	103	-	26	104	101	-
FI	2	34	35	-	1	64	26	-
SE	4	53	32	6	10	74	21	4
UK*	9	228	240	106	56	335	150	58
EU-19	223	2.652	2.849	374	547	4.165	2.181	275
Share	4%	43%	47%	6%	8%	58%	30%	4%

* Data from 2005 (UK = GB 2006 + NI 2005) ** Data from 2004 *** Data from 2003 **** Data from 2002 Source: CARE Database / EC Date of query: July 2008

Figure 5: Distribution of middle-aged and elderly fatalities by road type, 2006



* Data from 2005 (UK = GB 2006 + NI 2005) ** Data from 2004 *** Data from 2003 **** Data from 2002 Source: CARE Database / EC Date of query: July 2008

Elderly people are proportionately more likely than middle-aged people to be killed in an accident on a non-motorway urban road.

Day of week and time of day

More than 80% of elderly fatalities occurred between 8am and 8pm (see Table 8). While elderly fatalities generally decrease after 8pm, they stay high during evening hours in southern countries like Greece and Spain as well as in Estonia and Ireland.





Table 8: Elderly fatalities by time of day by country, 2006

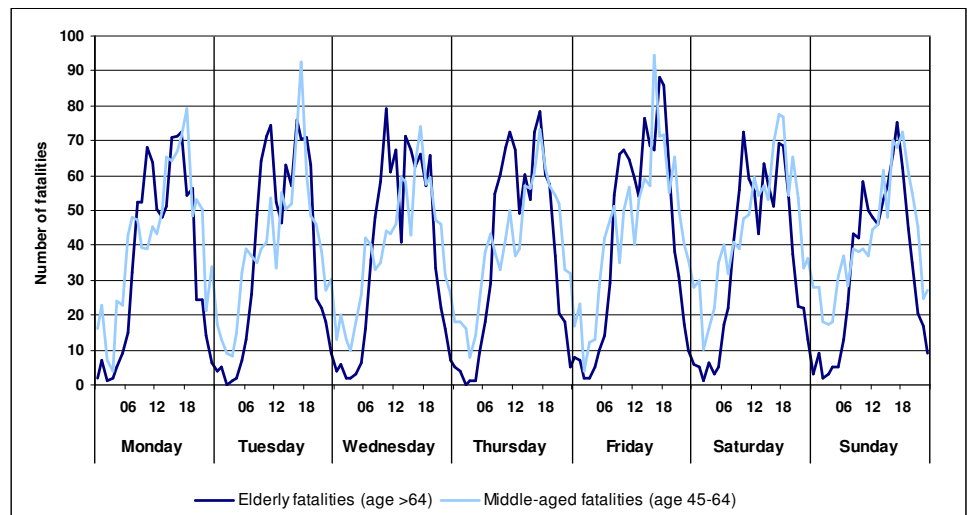
	00:00-04:00	04:00-08:00	08:00-12:00	12:00-16:00	16:00-20:00	20:00-00:00	Total
BE	1	9	53	50	65	15	193
CZ	5	18	49	52	39	9	173
DK	-	4	15	31	18	4	72
EE	1	4	6	11	7	3	32
EL	10	22	93	73	76	53	327
ES	14	38	167	167	191	90	667
FR	19	37	277	256	282	50	921
IE***	3	1	11	15	13	10	53
IT**	36	48	343	215	395	118	1.165
LU****	-	-	1	3	1	-	5
HU	2	30	61	55	52	16	216
MT	-	-	1	-	-	-	1
NL***	1	2	65	81	57	15	221
AT	2	13	41	46	42	12	156
PL*	18	74	222	225	301	91	931
PT	3	16	50	55	60	31	215
FI	3	2	18	28	19	1	71
SE	-	5	27	27	32	4	95
UK*	5	14	153	192	169	50	583
EU-19	123	337	1.653	1.582	1.819	572	6.097
Share	2%	6%	27%	26%	30%	9%	100%

* Data from 2005 (UK = GB 2006 + NI 2005)
** Data from 2004

*** Data from 2003
**** Data from 2002

Source: CARE Database / EC
Date of query: July 2008

Figure 6: Middle-aged (age 45-64) elderly (age >64) fatalities by day of week and time of day in EU-19, 2006³



Source: CARE Database / EC
Date of query: July 2008

Figure 6 illustrates the EU-19 distribution for day of week and hour, including data for middle-aged fatalities (45 to 64 years old) for comparison. Clear differences can be identified between middle-aged and elderly fatalities: The middle-aged have an obvious daily peak in the afternoon with higher fatality numbers on Tuesdays and

³ Using last data available, i.e. 2006 for all countries except LU (2002), IE and NL (2003), IT (2004), PL (2005) and UK (2006 for GB, 2005 for NI)

Nearly 85% of elderly fatalities occur between 08 a.m. and 08 p.m.

While middle-aged people are more often killed during evening and night hours than elderly, elderly are more often killed in the morning.





Fridays, whereas more elderly people are killed in road accidents from Monday to Friday, with a morning and an afternoon peak and have very low fatality numbers during the night hours.

The number of elderly people killed per day in road accidents is higher between Monday and Friday than on Saturday or Sunday.

Table 9: Elderly fatalities (age >64) by day of week by country, 2006

	Monday	Tuesday	Wednes- day	Thursday	Friday	Saturday	Sunday	Total
BE	26	30	24	30	34	24	25	193
CZ	25	19	33	28	34	20	14	173
DK	7	8	12	11	19	11	4	72
EE	4	1	4	8	6	8	1	32
EL	50	48	42	38	50	46	53	327
ES	85	89	97	93	117	88	98	667
FR	115	147	146	125	158	119	111	921
IE***	5	6	7	7	14	8	6	53
IT**	170	162	158	169	178	163	165	1.165
LU****	1	1	-	1	2	-	-	5
HU	31	30	34	34	33	30	24	216
MT	-	-	-	-	-	-	1	1
NL***	39	34	29	24	37	38	20	221
AT	22	25	20	20	30	27	12	156
PL*	139	135	122	138	176	116	105	931
PT	44	22	25	35	35	34	19	215
FI	12	15	13	11	8	6	6	71
SE	10	15	14	14	18	14	10	95
UK*	72	91	85	105	94	73	63	583
EU-19	857	878	865	891	1.043	825	737	6.097
Share	14,1%	14,4%	14,2%	14,6%	17,1%	13,5%	12,1%	100,0%

* Data from 2005 (UK = GB 2006 + NI 2005)
** Data from 2004

*** Data from 2003
**** Data from 2002

Source: CARE Database / EC
Date of query: July 2008

Three of four elderly fatalities occur between Monday and Friday.

Seasonality

Table 10 shows the number of elderly fatalities by quarter with the overall distribution. The number peaks in the winter months, with the highest fatality numbers in most countries in December, although the peak period varies between the different countries. In Greece the highest number of elderly fatalities occurs in the summer (July to September).





In general the peak season for senior fatalities is winter.

Table 10: Elderly fatalities by quarter of year by country, 2006

	January - March	April - June	July - September	October - December	Total
BE	53	34	40	66	193
CZ	39	43	35	56	173
DK	9	19	18	26	72
EE	7	7	12	6	32
EL	57	84	108	78	327
ES	166	166	166	169	667
FR	197	221	231	272	921
IE***	14	14	11	14	53
IT**	242	280	312	331	1.165
LU****	1	1	-	3	5
HU	25	48	59	84	216
MT	-	-	1	-	1
NL***	44	64	63	50	221
AT	29	34	52	41	156
PL*	210	206	252	263	931
PT	56	44	47	68	215
FI	13	13	25	20	71
SE	16	26	17	36	95
UK*	133	121	138	191	583
EU-19	1.311	1.425	1.587	1.774	6.097
Share	21,5%	23,4%	26,0%	29,1%	100,0%

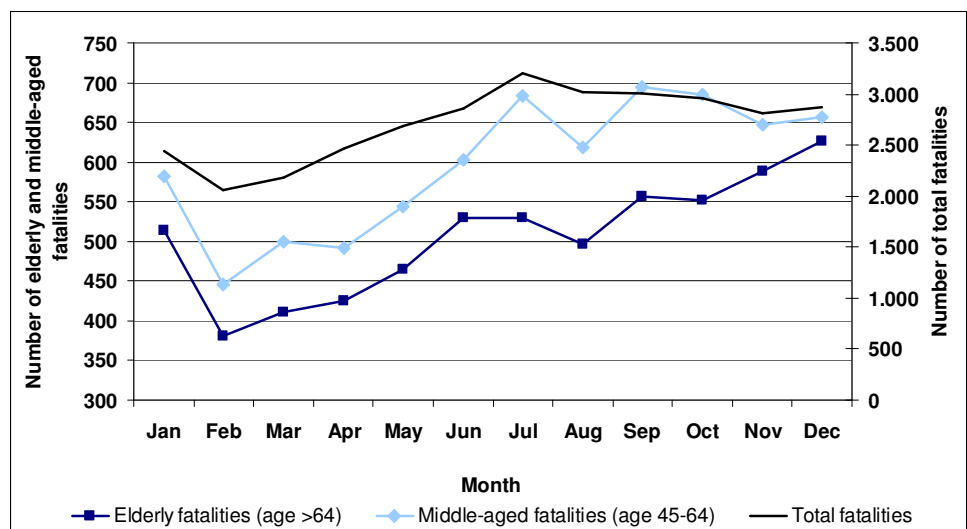
* Data from 2005 (UK = GB 2006 + NI 2005)
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*** Data from 2003
**** Data from 2002

Source: CARE Database / EC
Date of query: July 2008

Figure 7 compares the distribution of fatalities by month for the elderly and middle-aged with the overall distribution. For all three, the period from February to April has the lowest proportions. The peak for elderly fatalities is during winter, while for all fatalities the peak is during the summer (July and August).

Figure 7: Middle-aged, elderly, and total fatalities by month in EU-19, 2006³



Source: CARE Database / EC
Date of query: July 2008

The distribution of middle-aged fatalities, elderly fatalities and total fatalities through the year are different.





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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 (see ec.europa.eu/transport/roadsafety/road_safety_observatory/care_reports_en.htm).

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

- Main Figures
- Children (Aged <16)
- Young People (Aged 16-24)
- The Elderly (Aged >64)
- Pedestrians
- Bicycles
- Motorcycle and Mopeds
- Car-Occupants
- Heavy Goods Vehicles
- Motorways
- Junctions
- Urban Areas

Definition of EU-level and used Country abbreviations

EU-14

BE	Belgium
DK	Denmark
EL	Greece
ES	Spain
FR	France
IE	Ireland
IT	Italy
LU	Luxembourg
NL	Netherlands
AT	Austria
PT	Portugal
FI	Finland
SE	Sweden
UK	United Kingdom

EU-19 = EU-14 +

CZ	Czech Republic
EE	Estonia
HU	Hungary
MT	Malta
PL	Poland

EU-25 = EU-19 +

DE	Germany
CY	Cyprus
LV	Latvia
LT	Lithuania
SI	Slovenia
SK	Slovakia





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.

All these reports and more information on the Integrated Project SafetyNet, co-financed by the European Commission, Directorate-General Energy and Transport are also available at the SafetyNet Website: www.erso.eu/.

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