Traffic Safety Basic Facts 2005

The Elderly

The elderly are defined in this Basic Fact Sheet as people who are at least 65 years old. Due to their greater frailty, the elderly are more likely to be seriously injured in any given accident than younger people.

In 1998, the latest year for which CARE data are available for all of the 14 European countries included in these Tables, 7.065 elderly people were killed in traffic accidents. Table 1 presents the annual data by country that are available from CARE since 1994, with the totals presented in Figure 1[1].

In 2003[1], 20% of people killed in traffic accidents in 14 European countries were elderly, i.e. at least 65 years old

Table 1: Elderly fatalities (age at least 65) per country, 1994-2003

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
BE	300	251	276	247	272	237	251	272	-	-
DK	145	159	129	132	122	117	134	102	103	99
EL	411	464	459	428	475	443	455	416	359	342
ES	923	989	975	1.035	997	1.038	1.026	1.020	983	980
FR	1.629	1.531	1.588	1.505	1.595	1.498	1.510	1.480	1.451	1.207
IE	86	101	101	110	91	86	61	56	82	61
IT	1.896	1.794	1.730	1.815	1.676	-	-	-	-	-
LU	6	12	8	12	8	7	11	7	5	-
NL	289	309	273	266	227	242	235	222	214	221
AT	232	213	196	212	208	225	190	186	211	198
PT	471	462	511	471	369	359	361	364	328	327
FI	116	119	102	123	104	96	106	96	99	96
SE	198	177	181	171	148	173	154	147	139	-
UK	903	911	805	788	773	777	686	684	686	-
EU-14	7.605	7.492	7.334	7.315	7.065	6.974	6.856	6.728	6.608	6.309

Source: CARE Database / EC
Date of query: September 2005

[1] Where the data for a particular country was not available for a particular year (ie. after 1998), the data for the most recent year for which it was available was used for calculating totals, averages etc.: IT (1998), BE (2001), LU, SE and UK (2002).

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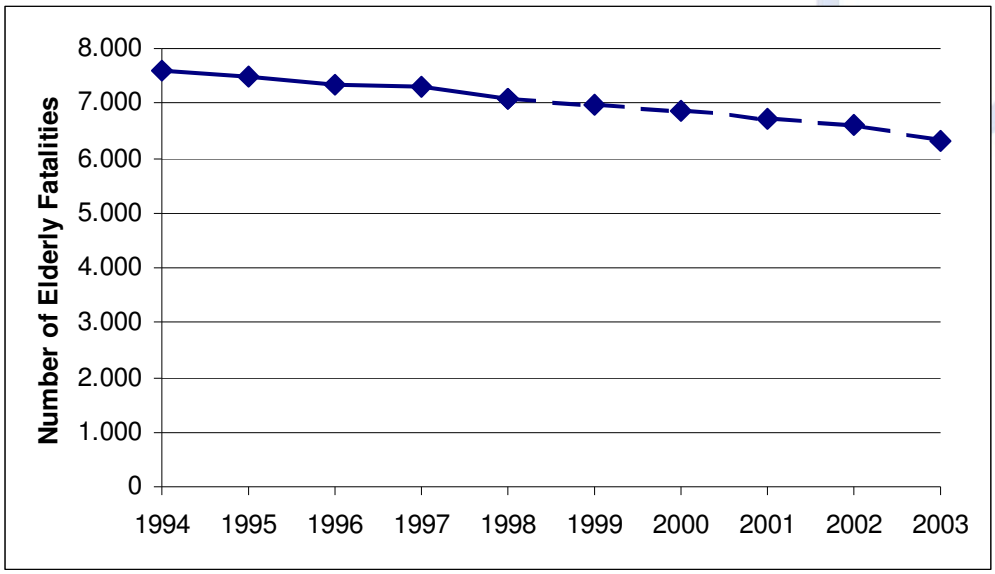
Figure 1: The number of elderly fatalities in the EU-14, 1994-2003[1]



22% fewer people at least 65 years old were killed in 2003[1] than in 1994

Table 2 shows the percentage of the national fatality totals accounted for by the elderly, also the percentage of each nation's population who are elderly. Where the fatality percentage is higher than the population percentage, the elderly are at greater risk than the overall population, and *vice versa*. This comparison is made more precisely by:

$$\text{relative rate} = \frac{\dfrac{\text{fatalities aged 65 or over}}{\text{million population aged 65 or over}}}{\dfrac{\text{fatalities of all ages}}{\text{million population of all ages}}}$$

$$= \frac{\text{percentage of fatalities aged 65 or over}}{\text{percentage of population aged 65 or over}}$$

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Table 2: Elderly fatality proportions per country, 2003[1]

	% of fatalities	% of population	relative rate
BE**	18%	17%	1,06
DK	23%	15%	1,55
EL	20%	17%	1,17
ES	16%	17%	0,93
FR	19%	16%	1,15
IE	16%	11%	1,45
IT***	23%	19%	1,20
LU*	8%	14%	0,57
NL	21%	14%	1,57
AT	21%	15%	1,37
PT	20%	17%	1,19
FI	25%	15%	1,65
SE*	25%	17%	1,45
UK*	18%	16%	1,16
EU-14	20%	17%	1,17

* Data from 2002
** Data from 2001
*** Data from 1998

Source: CARE Database / EC
Date of query: September 2005
Source of population data: IRTAD

In most European countries, the elderly are at greater risk per person than the overall population

The relative rate compares the fatality rate of the elderly to the rate for the full population. A comparison with the rate of the middle-aged (taken for this Basic Fact Sheet to be those aged 45-64) is more relevant and this is presented in Table 3. The fatality rates for the middle-aged and the elderly are illustrated in Figure 2, countries being sorted by the fatality rate for the elderly.

The rate of elderly fatalities per million population ranged from 69 in the UK to 176 in Greece

Table 3: Fatality rates of the middle-aged and the elderly per country, 2003[1]

	Rate of fatalities per million population		(2)
	middle-aged (1)	elderly (2)	(1)
BE**	111	153	1.37
DK	59	124	2,09
EL	119	176	1,48
ES	112	115	1,03
FR	80	115	1,44
IE	57	120	2,09
IT***	86	126	1,46
LU*	85	79	0,93
NL	48	100	2,08
AT	110	157	1,42
PT	136	173	1,27
FI	65	120	1,84
SE*	56	91	1,61
UK*	43	69	1,60
EU-14	80	114	1,43

* Data from 2002
** Data from 2001
*** Data from 1998

Source: CARE Database / EC
Date of query: September 2005
Source of population database: IRTAD

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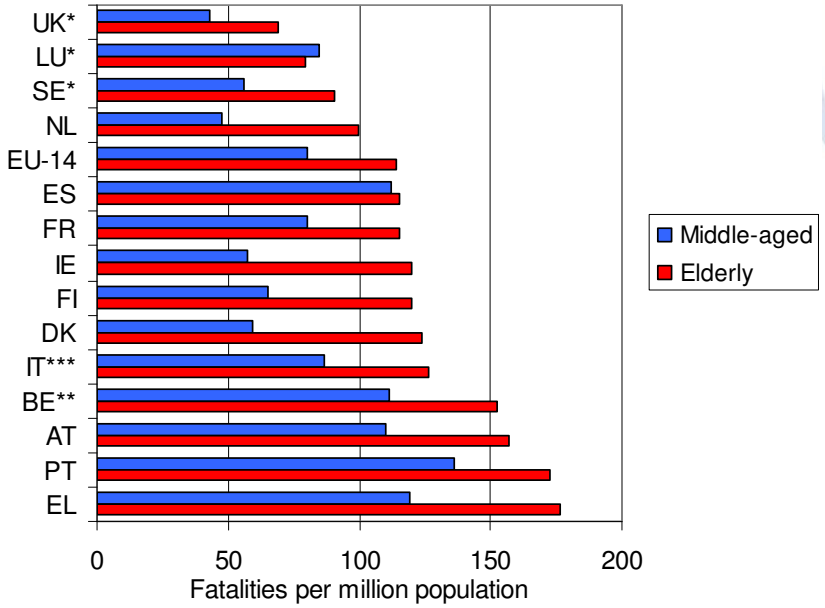
Figure 2: Middle-aged and elderly fatality rates, 2003[1]



* Data from 2002
** Data from 2001
*** Data from 1998

Source: CARE Database / EC
Date of query: September 2005
Source of population database: IRTAD

The proportion of elderly fatalities who were men ranged from 54% in the UK and Ireland to 73% in Greece

Age and gender of fatalities

Table 4 gives more details of the elderly fatalities. It shows the distribution of fatalities by age in each country, using three age ranges (100%=national total of fatalities of known age). The Table also shows the percentage of elderly fatalities who were men. Figure 3 illustrates these figures.

Table 4: Elderly fatalities by age and gender per country, 2003[1]

	65-74 years	75-84 years	at least 85 years	percentage who were men
BE**	9%	8%	1%	63%
DK	8%	11%	4%	67%
EL	11%	8%	2%	73%
ES	8%	6%	1%	65%
FR	8%	8%	2%	62%
IE	7%	7%	2%	55%
IT***	12%	8%	3%	71%
LU*	5%	3%	0%	40%
NL	8%	10%	4%	62%
AT	10%	9%	2%	61%
PT	11%	8%	1%	70%
FI	10%	12%	3%	56%
SE*	8%	13%	5%	65%
UK*	7%	8%	3%	54%
EU-14	9%	8%	2%	65%

* Data from 2002
** Data from 2001
*** Data from 1998

Source: CARE Database / EC
Date of query: September 2005

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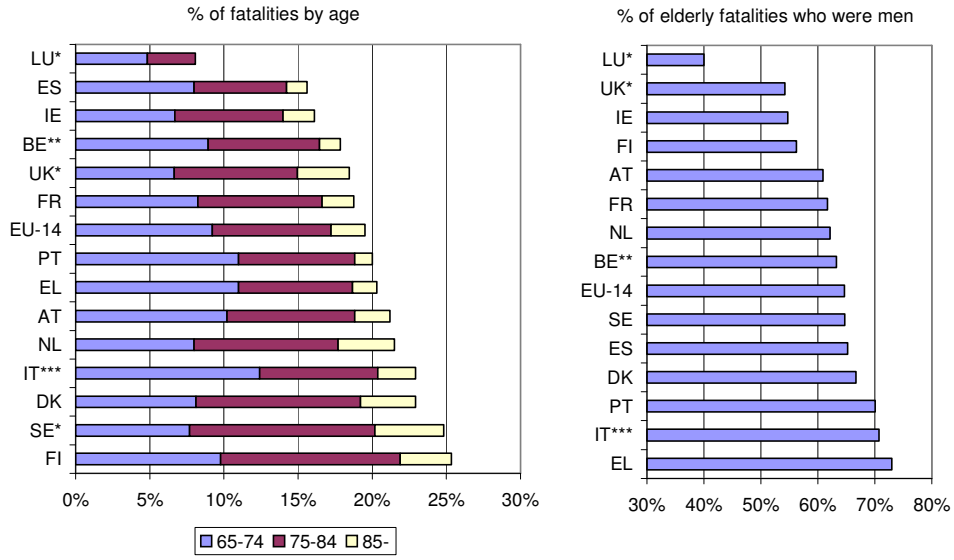
Figure 3: Details of elderly fatalities, 2003[1]



* Data from 2002
** Data from 2001
*** Data from 1998

Source: CARE Database / EC
Date of query: September 2005

Across the 14 countries, almost one third of elderly fatalities were pedestrians and another third were car drivers

Road user type

Table 5 shows the distribution of elderly fatalities by road user type. Nearly half of elderly fatalities were pedestrians in Greece, the UK and Portugal, while over one tenth were riding mopeds in Italy, the Netherlands and Portugal. Very few of the elderly were riding motorcycles in any country.

Table 5: Distribution of elderly fatalities by road user type, 2003[1]

	Pedestrian	Moped rider	Motorcyclist	Car driver	Car passenger	Others‡
BE**	25%	2%	0%	36%	14%	22%
DK	20%	6%	0%	37%	9%	27%
EL	46%	4%	4%	15%	13%	17%
ES	37%	4%	0%	26%	22%	10%
FR	27%	3%	2%	40%	21%	8%
IE	42%	0%	0%	26%	13%	19%
IT***	34%	10%	1%	25%	12%	18%
LU*	60%	0%	0%	40%	0%	0%
NL	18%	12%	0%	20%	11%	39%
AT	37%	5%	3%	28%	12%	16%
PT	45%	15%	0%	18%	11%	11%
FI	25%	3%	0%	30%	17%	25%
SE*	22%	1%	1%	43%	17%	17%
UK*	45%	0%	1%	29%	18%	7%
EU-14	31%	6%	1%	32%	17%	14%

* Data from 2002
** Data from 2001
*** Data from 1998
‡ includes road user type not known

Source: CARE Database / EC
Date of query: September 2005

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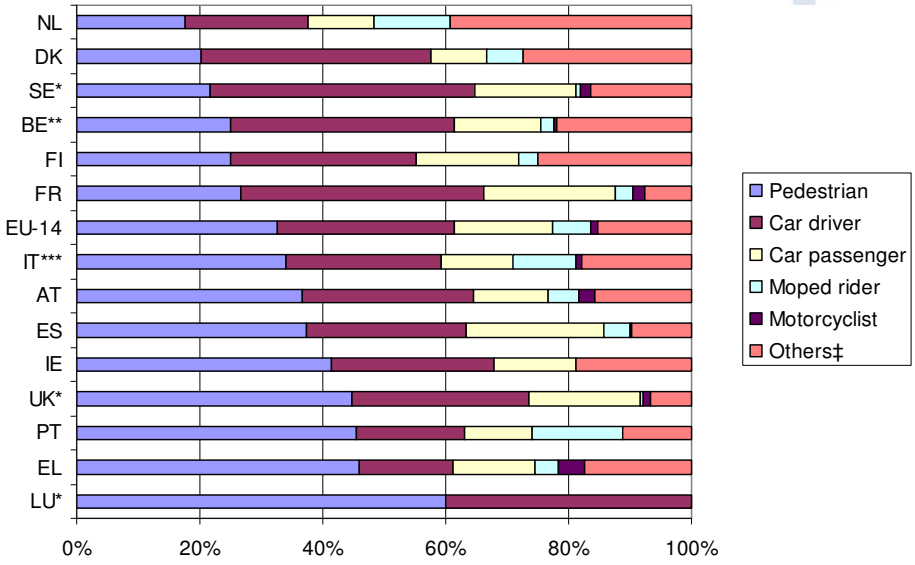
The results from Table 5 are illustrated in Figure 4.

Figure 4: Distribution of elderly fatalities by road user type, 2003[1]



* Data from 2002
** Data from 2001
*** Data from 1998
‡ includes road user type not known

Source: CARE Database / EC
Date of query: September 2005

Across the 14 countries, almost one half of pedestrian fatalities were elderly

Table 6 now examines these national figures in a different way, and shows the percentage of each group of fatalities who were elderly. Almost half of pedestrian fatalities were elderly across the 14 countries, the percentage being lowest in Ireland and the UK and highest in Greece. The percentages are substantially lower for the remaining road user types, which probably reflect the reduced mobility options available to the elderly.

Table 6: Proportion of fatalities who were elderly, by road user type, 2003[1]

	Pedestrian	Moped rider	Motorcyclist	Car driver	Car passenger	Others‡
BE**	42%	10%	1%	15%	16%	27%
DK	41%	14%	0%	22%	13%	34%
EL	59%	24%	5%	9%	18%	25%
ES	42%	9%	1%	11%	16%	13%
FR	48%	8%	3%	17%	23%	20%
IE	35%	0%	0%	13%	11%	23%
IT***	57%	22%	3%	15%	16%	36%
LU*	50%	0%	0%	5%	0%	0%
NL	40%	29%	0%	13%	18%	33%
AT	55%	21%	5%	15%	16%	26%
PT	50%	28%	0%	13%	14%	13%
FI	41%	25%	0%	19%	24%	35%
SE*	52%	8%	5%	22%	21%	31%
UK*	37%	14%	2%	16%	19%	14%
EU-14	49%	15%	2%	15%	19%	24%

* Data from 2002
** Data from 2001
*** Data from 1998
‡ includes road user type not known

Source: CARE Database / EC
Date of query: September 2005

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Type of road

The CARE data show whether accidents occurred on motorways and, for non-motorway accidents, whether on urban or rural roads. Table 7 shows the distribution of elderly fatalities for each country, and compares it with the distribution for the middle-aged. (It should be noted that the data are only 93% complete for the UK and 39% complete for Greece.)

Table 7: Distribution of middle-aged and elderly fatalities by road type, 2003[1]

	Elderly (age >65)			Middle-Aged (age 45-64)		
	motorway	non-motorway		motorway	non-motorway	
		rural	urban		rural	urban
BE**	5%	51%	44%	15%	54%	31%
DK	1%	62%	37%	2%	67%	31%
EL	9%	73%	18%	20%	76%	4%
ES	3%	71%	25%	8%	81%	11%
FR	7%	56%	38%	10%	68%	23%
IE	2%	62%	36%	2%	61%	37%
IT***	6%	33%	60%	14%	47%	40%
LU*	20%	0%	80%	0%	56%	44%
NL	4%	45%	51%	14%	54%	33%
AT	3%	55%	43%	19%	57%	25%
PT	3%	44%	53%	12%	50%	38%
FI	0%	53%	47%	0%	82%	18%
SE*	1%	56%	42%	5%	69%	25%
UK*	4%	46%	50%	12%	62%	27%
EU-14	5%	50%	45%	11%	62%	26%

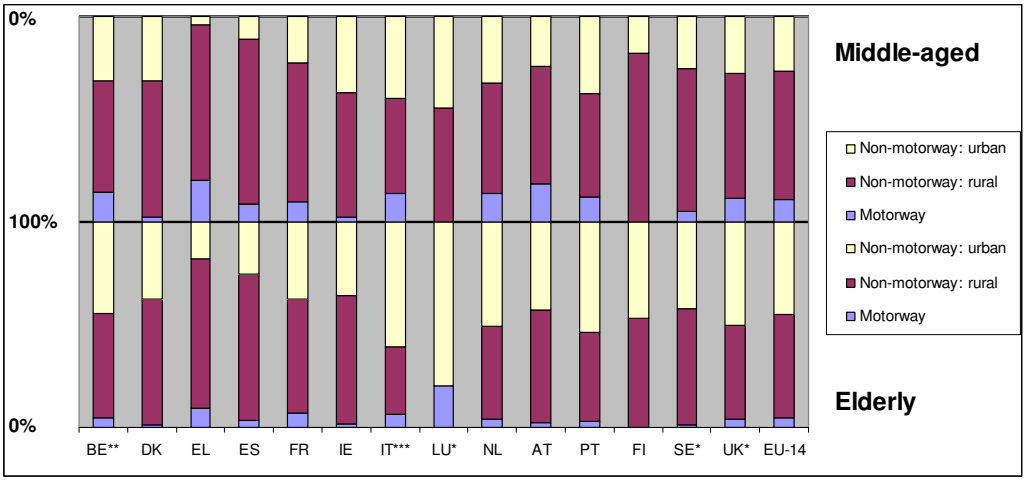
* Data from 2002
** Data from 2001
*** Data from 1998

Source: CARE Database / EC
Date of query: September 2005

The percentage of fatalities on motorways is much lower among the elderly than the middle-aged; the reverse is true on urban roads

These data are illustrated in Figure 5. Two bars are shown for each country; the upper bar shows the data for middle-aged fatalities and the lower the data for elderly fatalities.

Figure 5: Distribution of middle-aged and elderly fatalities by road type, 2003[1]



* Data from 2002
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Source: CARE Database / EC
Date of query: September 2005

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Time of day

In order to examine the distribution of elderly fatalities by time of day, the day has been divided into six 4-hour periods beginning at midnight. Table 8 shows that the hourly rate is relatively high between 8am and 8pm in all countries, but in Ireland is almost as high between 8pm and midnight. Figure 6 illustrates the EU-14 distribution, including data for middle-aged fatalities (45-64 years old) for comparison.

By comparison with the middle-aged, relatively many of the elderly are killed between 8am and 8pm and relatively few between 8pm and 8am

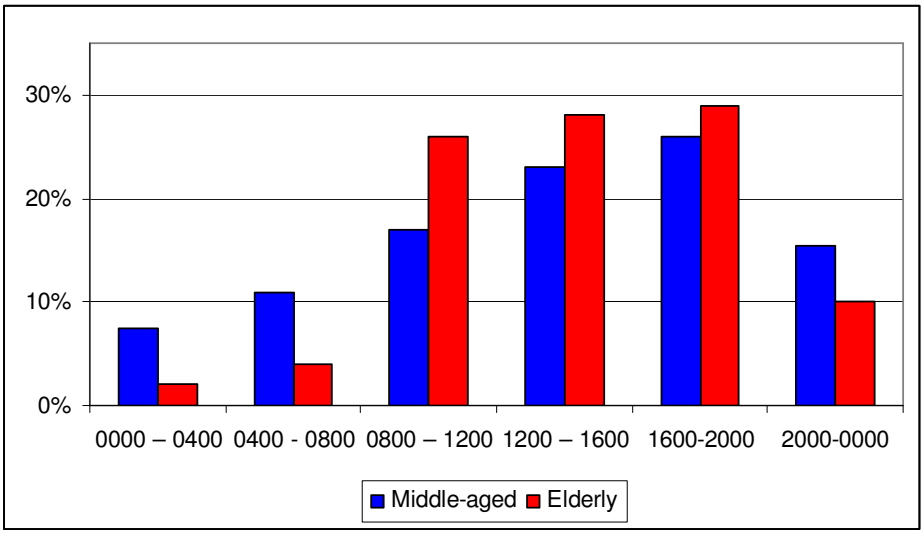
Table 8: Distribution of elderly fatalities by time of day, 2003[1]

	0000 – 0400	0400 - 0800	0800 – 1200	1200 – 1600	1600-2000	2000-0000
BE**	2%	3%	28%	27%	29%	11%
DK	2%	2%	34%	32%	24%	5%
EL	4%	9%	25%	22%	25%	14%
ES	3%	3%	24%	26%	27%	16%
FR	2%	5%	27%	28%	34%	5%
IE	6%	2%	21%	28%	25%	19%
IT***	3%	6%	27%	22%	31%	12%
LU*	0%	0%	20%	60%	20%	0%
NL	0%	1%	30%	36%	26%	7%
AT	2%	6%	25%	29%	29%	10%
PT	3%	5%	25%	24%	33%	10%
FI	1%	4%	28%	35%	24%	7%
SE*	1%	4%	25%	39%	29%	1%
UK*	1%	3%	25%	35%	28%	7%
EU-14	2%	4%	26%	28%	29%	10%

* Data from 2002
** Data from 2001
*** Data from 1998

Source: CARE Database / EC
Date of query: September 2005

Figure 6: Distribution of middle-aged and elderly fatalities by time of day, EU-14, 2003[1]



Source: CARE Database / EC
Date of query: September 2005

Day of week

Table 9 shows the distribution of elderly fatalities by day of week. The daily rate tends to be relatively high between Tuesday and Friday and lower at the weekend. Figure 7 illustrates the EU-14 distribution and compares it with the distribution of middle-aged fatalities.

Table 9: Distribution of elderly fatalities by day of week, 2003[1]

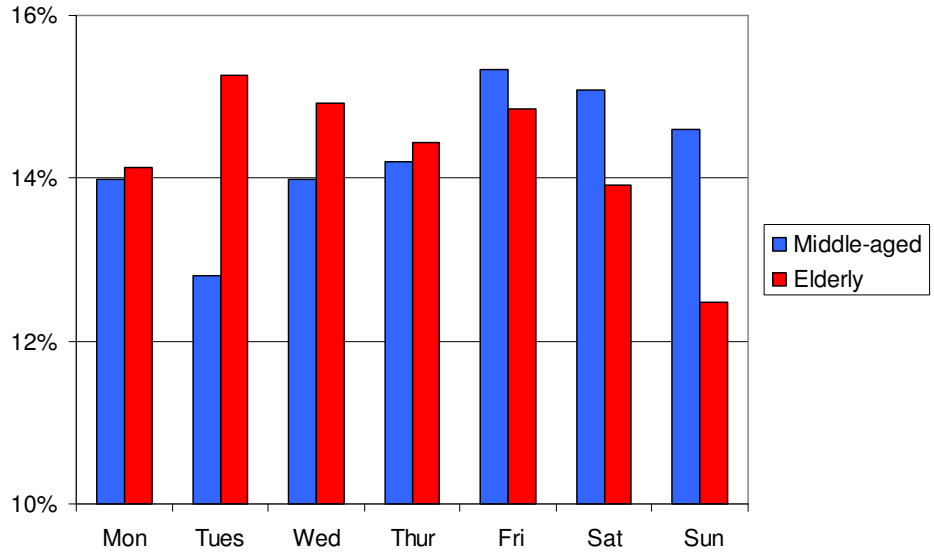
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
BE**	14%	17%	15%	13%	17%	17%	7%
DK	15%	11%	16%	14%	16%	12%	15%
EL	15%	14%	14%	15%	16%	9%	17%
ES	15%	15%	12%	17%	13%	15%	12%
FR	14%	14%	15%	14%	15%	15%	14%
IE	9%	11%	13%	13%	26%	15%	11%
IT***	13%	15%	16%	14%	14%	15%	14%
LU*	20%	20%	0%	20%	40%	0%	0%
NL	18%	15%	13%	11%	17%	17%	9%
AT	15%	20%	18%	13%	14%	9%	11%
PT	16%	14%	14%	16%	13%	13%	15%
FI	13%	27%	16%	15%	15%	8%	7%
SE*	12%	16%	16%	16%	17%	14%	9%
UK*	13%	17%	17%	14%	17%	12%	11%
EU-14	14%	15%	15%	14%	15%	14%	12%

* Data from 2002
** Data from 2001
*** Data from 1998

Source: CARE Database / EC
Date of query: September 2005

By comparison with the middle-aged, relatively many of the elderly are killed on Tuesdays and Wednesdays and relatively few at the weekend

Figure 7: Distribution of middle-aged and elderly fatalities by day of week, EU-14, 2003[1]



Source: CARE Database / EC
Date of query: September 2005

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Seasonality

Table 10 shows the distribution of elderly fatalities through the year, using pairs of months. The peak period varies between countries, the most common being November/December. In Spain, Denmark and Sweden, however, the peak is in July/August. Figure 8 illustrates the EU-14 distribution and compares it with the distribution of middle-aged fatalities.

The peak period for elderly fatalities in most countries is November/ December

By comparison with the middle-aged, relatively many of the elderly are killed between September and December

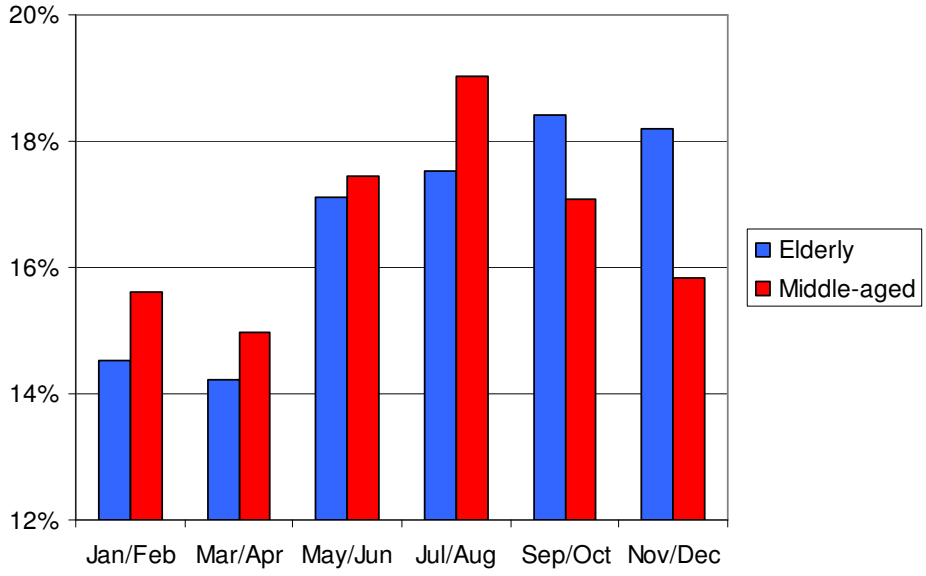
Table 10: Distribution of elderly fatalities by day of month, 2003[1]

	January/ February	March/ April	May/ June	July/ August	September/ October	November/ December
BE**	12%	10%	17%	21%	22%	18%
DK	17%	7%	11%	25%	22%	17%
EL	11%	16%	16%	16%	20%	20%
ES	15%	16%	15%	20%	17%	16%
FR	12%	14%	18%	18%	20%	19%
IE	17%	17%	19%	17%	9%	21%
IT***	16%	15%	20%	16%	19%	14%
LU*	20%	0%	20%	0%	0%	60%
NL	12%	20%	17%	19%	18%	14%
AT	11%	11%	19%	19%	18%	22%
PT	17%	14%	15%	16%	18%	18%
FI	11%	11%	13%	19%	18%	28%
SE*	14%	10%	16%	25%	14%	21%
UK*	17%	13%	14%	14%	17%	25%
EU-14	15%	14%	17%	18%	18%	18%

* Data from 2002
** Data from 2001
*** Data from 1998

Source: CARE Database / EC
Date of query: September 2005

Figure 8: Distribution of middle-aged and elderly fatalities by part of year, EU-14, 2003[1]



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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:

- Children (Aged <16)
- Young People (Aged 16-24)
- The Elderly
- Pedestrians
- Motorcycle and Mopeds
- Car-Occupants
- Motorways

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 SafetyNet Integrated Project, co-financed by the European Commission, Directorate-General Energy and Transport is available at the SafetyNet Website: http://safetynet.swov.nl/.

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