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Mobility and Transport of Elderly and Disabled Persons
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ROAD TRAFFIC CASUALTIES IN THE ELDERLY IN EUROPE: ANALYSIS OF MICROSCOPIC AND IN DEPTH DATA

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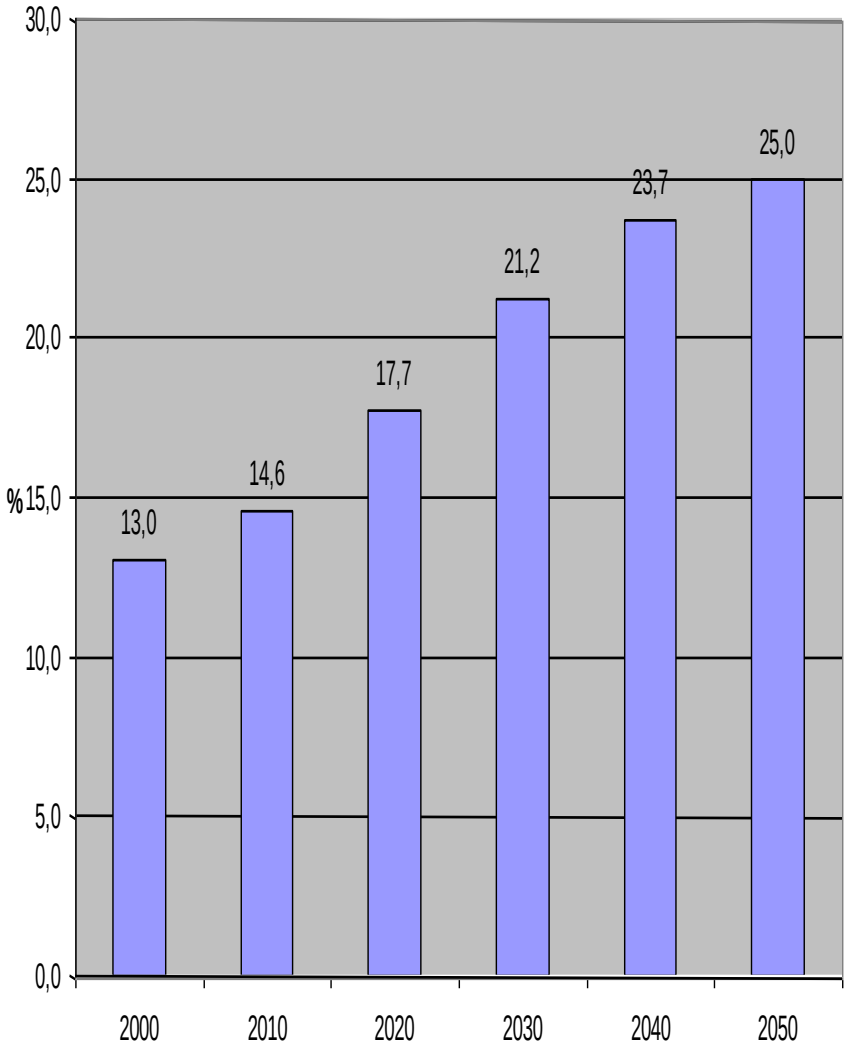
Background

- Elderly people (> 64 years old) are vulnerable road users
- In 2013, over 6.400 elderly people died in road traffic accidents in European Union countries
- The number of elderly people who died in the EU countries fell by 26% between 2004 and 2013
- Elderly fatalities constitute 24% of fatalities of all ages in 2013
- The number of elderly people is expected to almost double by 2050 in OECD countries



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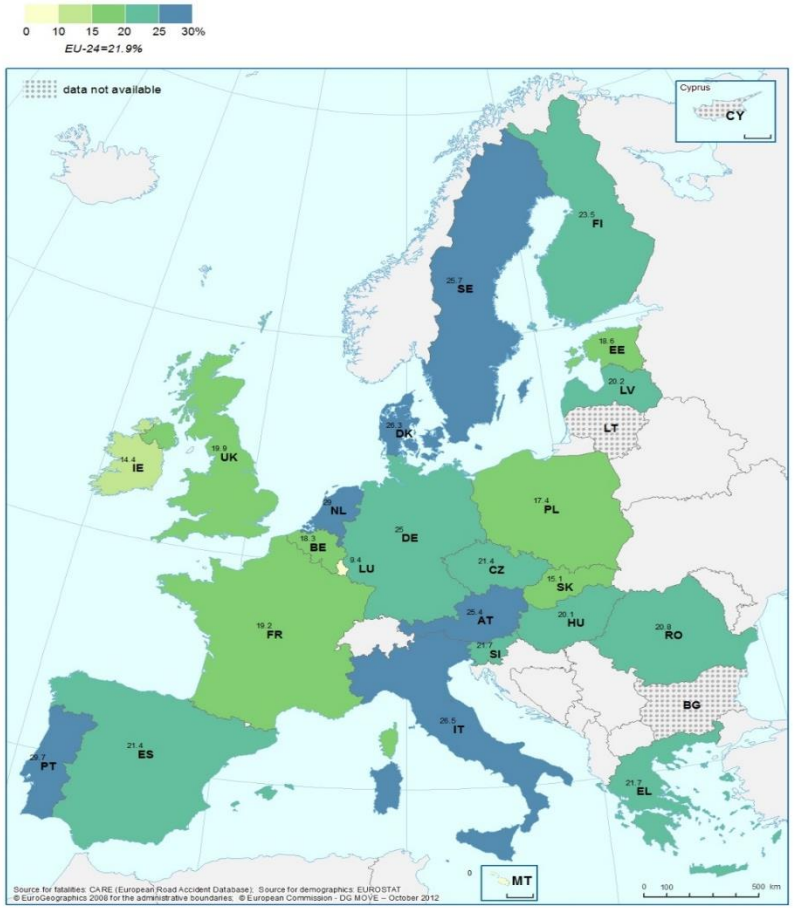
Objectives

- Macroscopic analysis of basic road safety parameters related to elderly people, using data from the EU CARE database with disaggregate data on road accidents, together with data from other international data files

- Comparative analysis among countries will allow for drawing an overall picture of the safety level of elderly people in Europe

- Provide useful support to all decision makers working for the improvement of safety in the European road network



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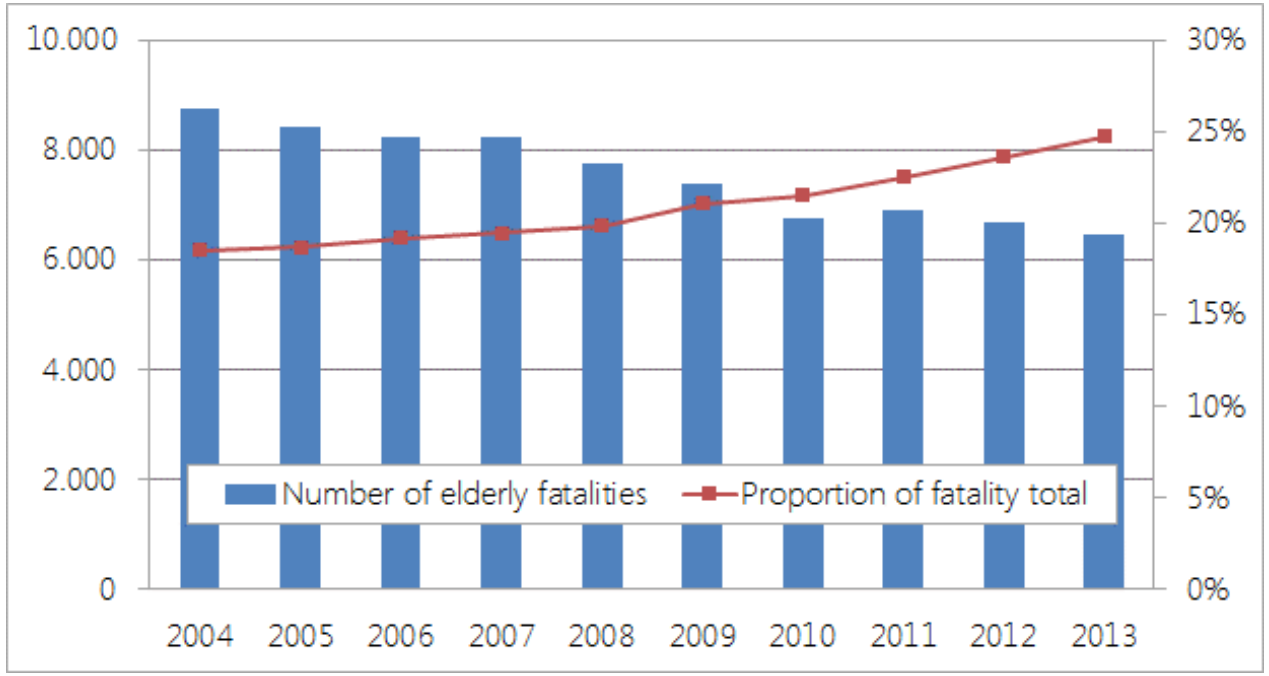
Proportion of fatalities



- The number of elderly people who died in the EU countries fell by 26% between 2004 and 2013
- Although the number of elderly fatalities has decreased over the last decade, the total number has fallen faster and the proportion of all fatalities who were elderly has tended to rise

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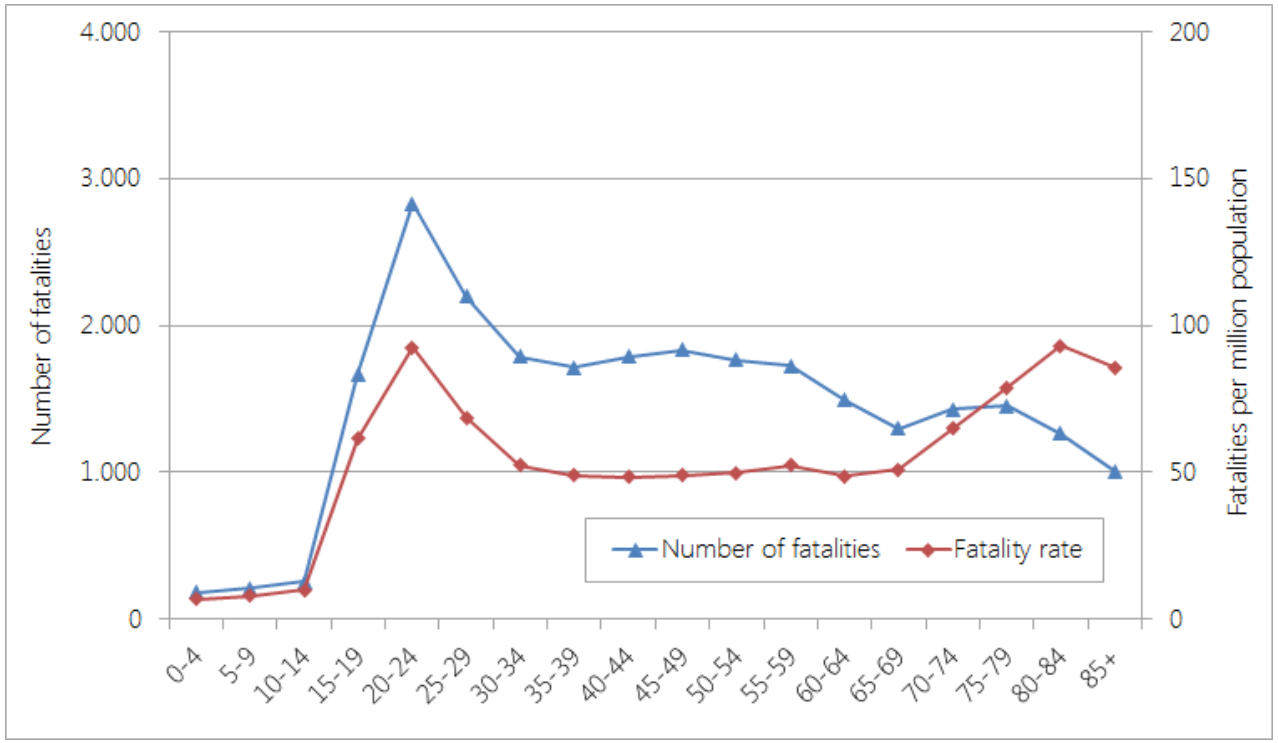
Number of elderly fatalities and share of fatality total



- The elderly suffered fewer fatalities than the younger adult groups, but their fatality rates were amongst the highest
- The rate of road traffic fatalities per million population begins to rise about the age of 65

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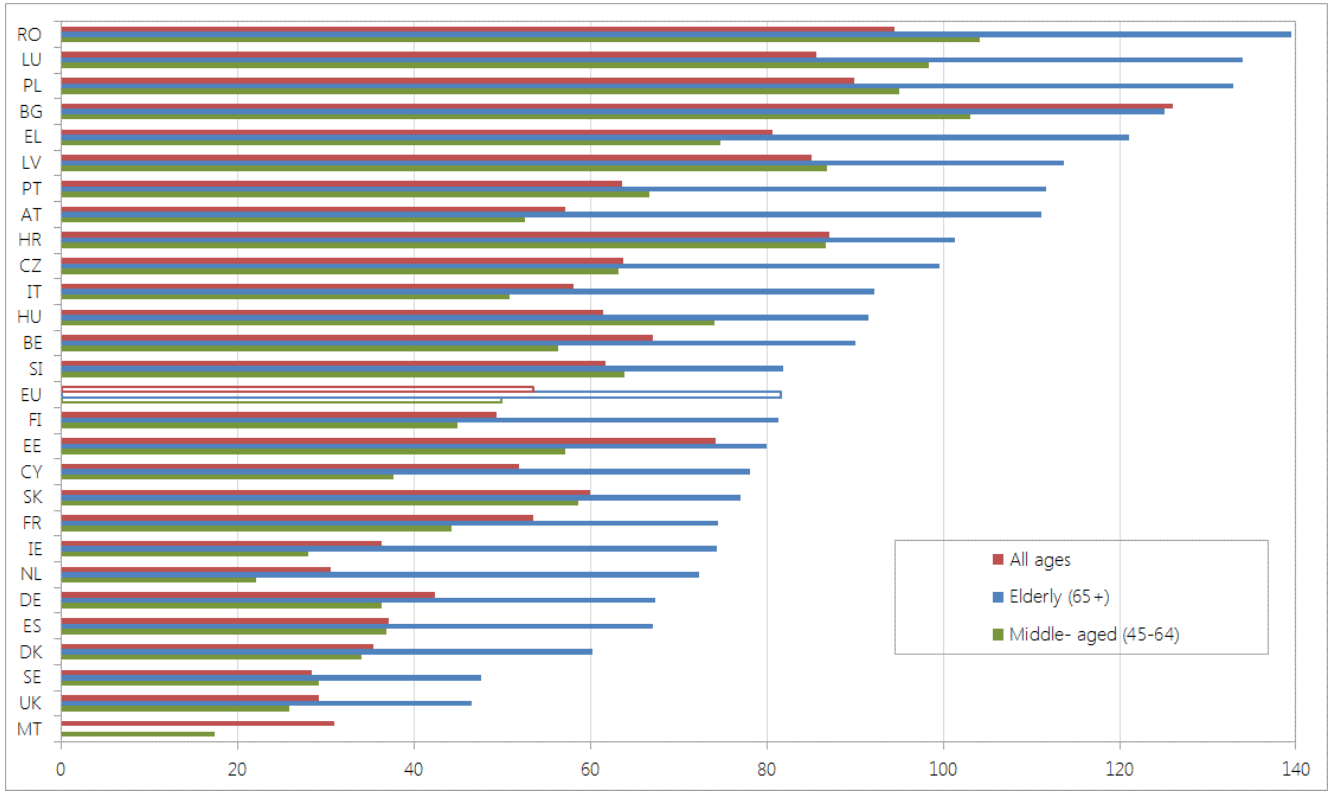
Fatalities per million population



- In most EU countries, the elderly are at greater risk of being killed in a road accident than the overall population
- The highest elderly fatalities were recorded in Bulgaria, Romania, and Poland
- Middle- aged people are at a lower risk of being killed than the elderly.

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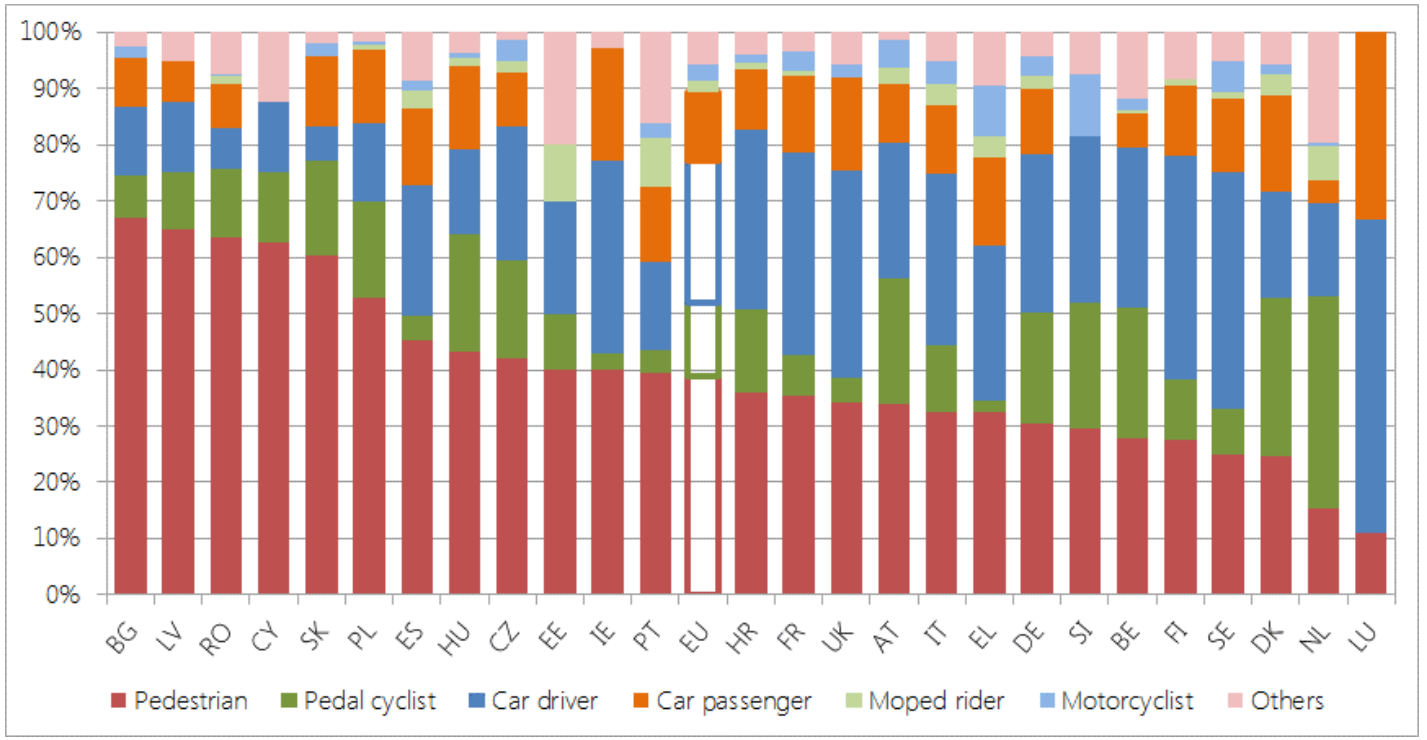
Elderly fatalities by road user type



- 39% of elderly fatalities were pedestrians in the EU countries
- Among the larger countries, the percentage of elderly fatalities who were pedestrians is greatest in Bulgaria (67%) and least in the Netherlands (15%)
- The proportion of elderly fatalities who were car drivers ranged between 6% in Slovakia and 42% in Sweden

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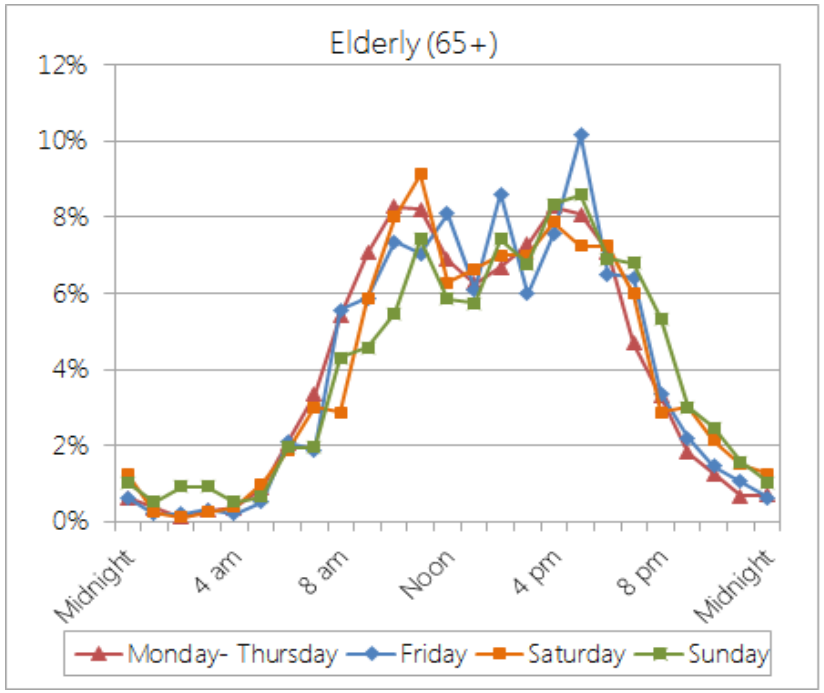
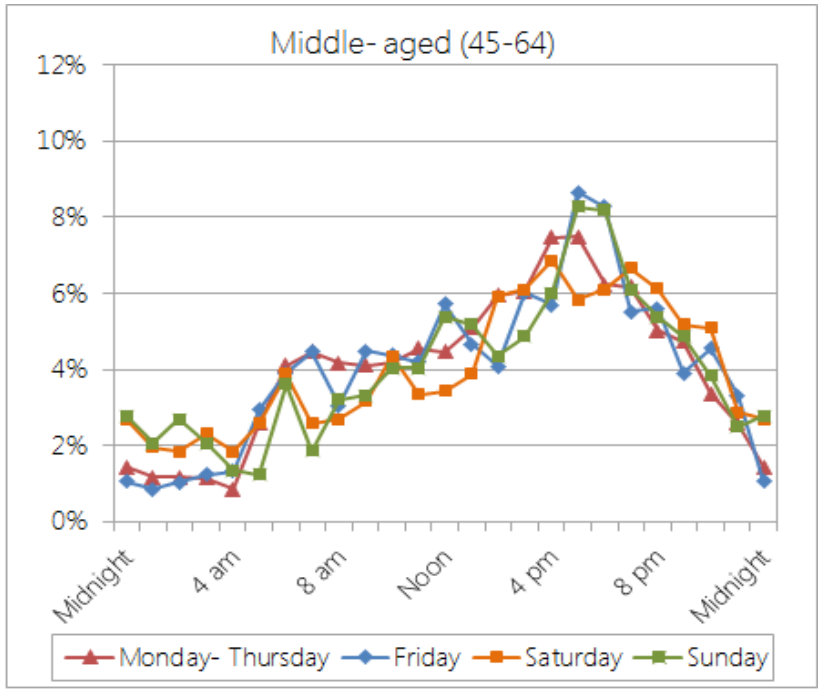
Fatalities by day of week and time of day





- More than 80% of all elderly fatalities occur between 8am and 8pm
- The greatest number of elderly fatalities occurs on Thursdays, and the lowest in weekends
- The peak of the fatality distribution occurs earlier in the afternoon for the elderly than for middle-aged, with a secondary peak before noon

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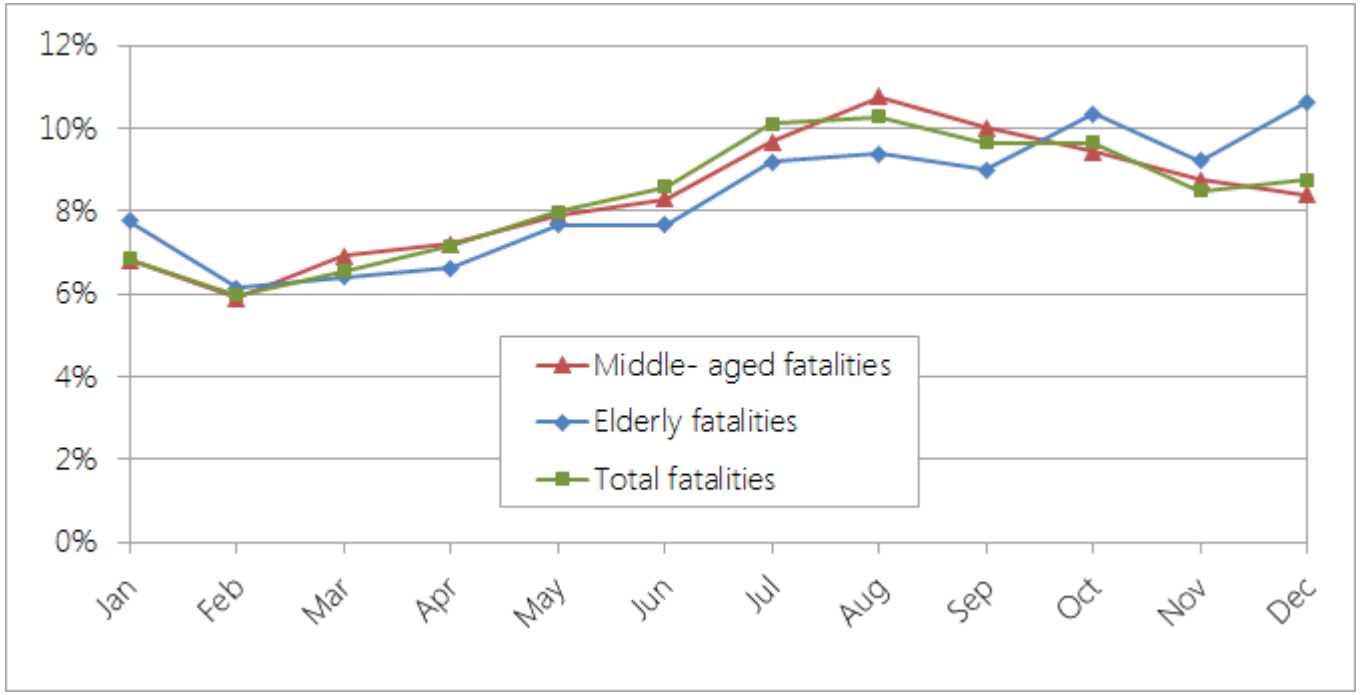
Distribution of fatalities by month



- There are relatively few elderly fatalities between April and September, and relatively many between October and January
- The lowest number of fatalities in 2013 occurred in February
- The number of elderly fatalities rose to a peak in October and then again in December

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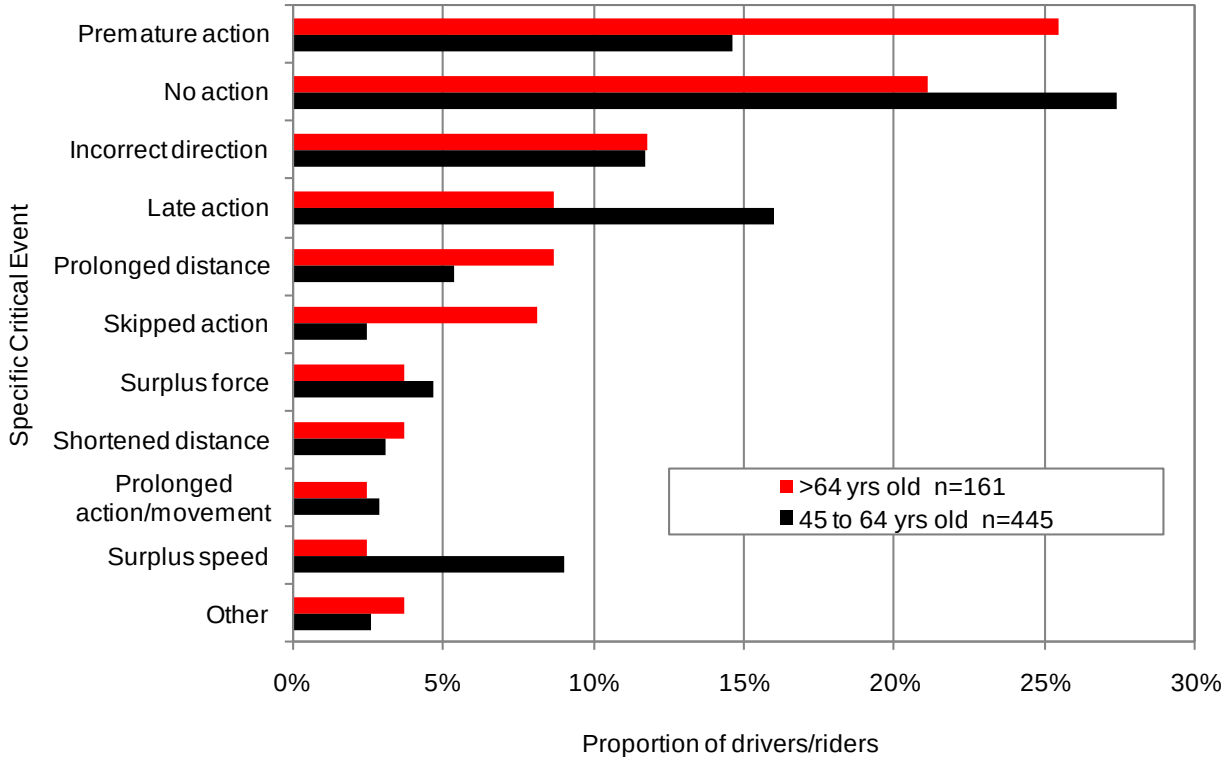
Distribution of specific critical events



- Specific critical events under the general category of 'timing', no action, premature action and late action, are important for both the elderly and middle-aged groups
- Specific critical events relating to 'timing' are recorded for 55% of elderly drivers and riders in the sample

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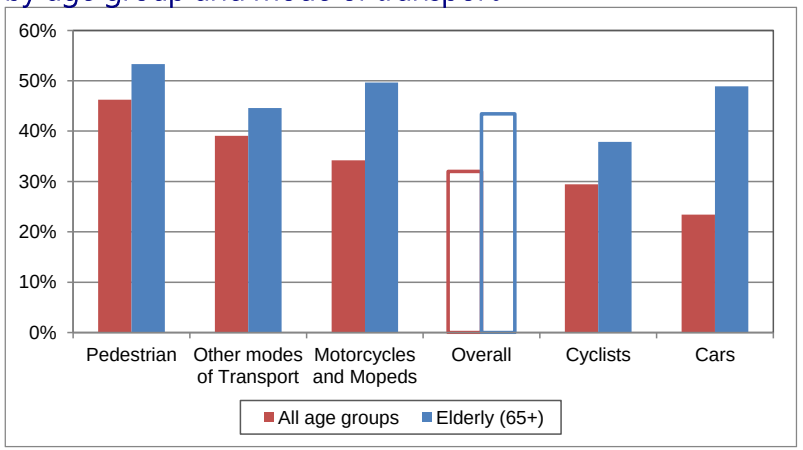
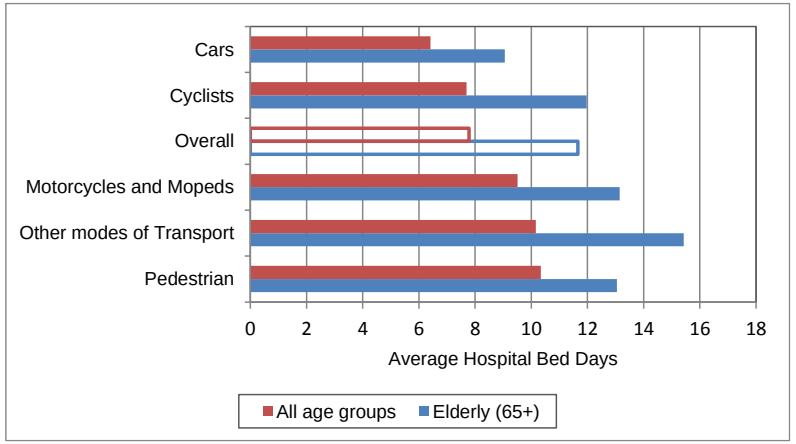
Road accident health indicators

- By 2012, thirteen member states routinely collected data in a sample of hospitals and contributed them to the EU injury Database (EU IDB)
- According to estimates based on the EU IDB more than four million people are injured annually in road traffic accidents, one million of whom have to be admitted to hospital
- 32% of road accident casualties recorded in the IDB were admitted to the hospital overall, and 43% for older people
- The average length of stay was eight days overall, and twelve for older people

Proportion of casualties who were admitted to hospital, by age group and mode of transport



Average length of stay (hospital bed days), by age group and mode of transport



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Conclusions

- The results of the analysis allow for an overall picture of the safety level of elderly people in Europe, providing thus useful support to all decision makers working for the improvement of safety in the European road network
- The elderly road fatalities patterns reflect also their exposure patterns. Exposure data are needed for a more complete picture.
- Significant decrease in elderly fatalities in 2013 compared to 2004, but less than in other ages.
- Elderly people between 80 and 84 years old are at greater risk of being killed than the average person.
- 39% of elderly fatalities were pedestrians and elderly people are proportionately more likely than middle-aged people to be killed in an accident in urban roads

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