Study on Serious Road Traffic Injuries in the EU

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SWOV

Aim of the study

- Understanding factors that contribute to serious injury
  - Main accident circumstances
  - Injury factors
- Focus
  - Pedestrians
  - Cyclists
  - Motorcyclists
  - Car occupants
- Final aim: to help countries with effective measures

Consortium

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Approach

- Technical tasks:
  1. Gathering of data and information
  2. Identification of accident types and accident scenarios
  3. Assessment of factors influencing the severity of injuries

Task 1: Data and information

Macroscopic data

Countries	In-depth sources	Hospital discharges	Trauma register	Linked police-hospital data
Austria	Cases via IGLAD			
Czech Rep.	CzIDAS Cases via IGLAD			
France	Cases via IGLAD Cases via MAIDS (motorcyclists)		Rhône register	
Germany	GIDAS Cases via IGLAD Cases via MAIDS (motorcyclists)		DGU Trauma Register	
Italy	Cases via IGLAD Cases via MAIDS (motorcyclists)	Hospital register		
Netherlands	National in-depth studies (cyclists >50 years, run-off road accidents) Cases via MAIDS (motorcyclists)	LMR-traffic register		BRON-LMR Real numbers database
Poland		Hospital register		
Spain	Cases via IGLAD Cases via MAIDS (motorcyclists)	Hospital register		
Sweden	Cases via IGLAD			STRADA
UK	RAIDS			National data of Great-Britain

Task 1: Data and information

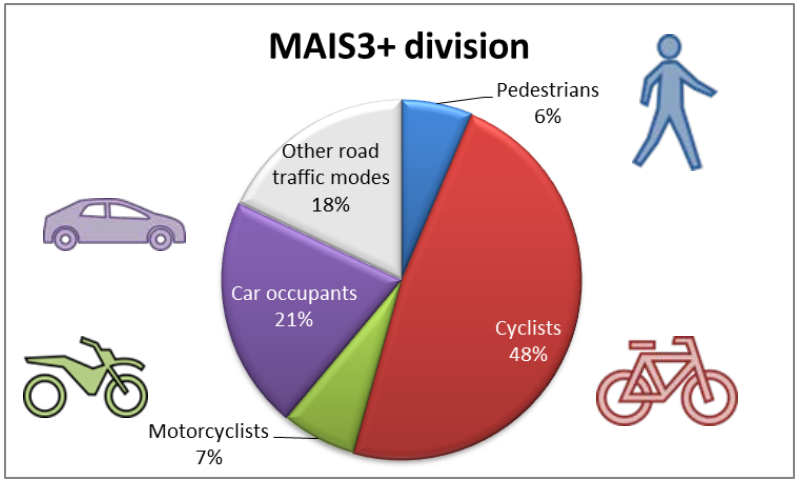
- Macroscopic data
  - Large number of cases
  - Low number of variables and missing data
- In-depth data:
  - Small number of cases
  - Large number of variables
- Relationships
  - Number of cases: level of confidence of results
  - Number of variables: explanatory value
- Meta-data

Task 1: Data and information

- Case inclusion criteria;
- Geographical scope;
- Purpose of data;
- Collection method;
- Level of under-reporting;
- Field specifications;
- Availability of CADAS variables;
- Date range of accidents;
- Injury details;
- Data completeness;
- Data accuracy;
- Validity of any data matching procedures;
- Suitability for specific analysis in Tasks 2 and 3;
- Impact on the reliability of the final results.

Task 2: Accident types and scenarios

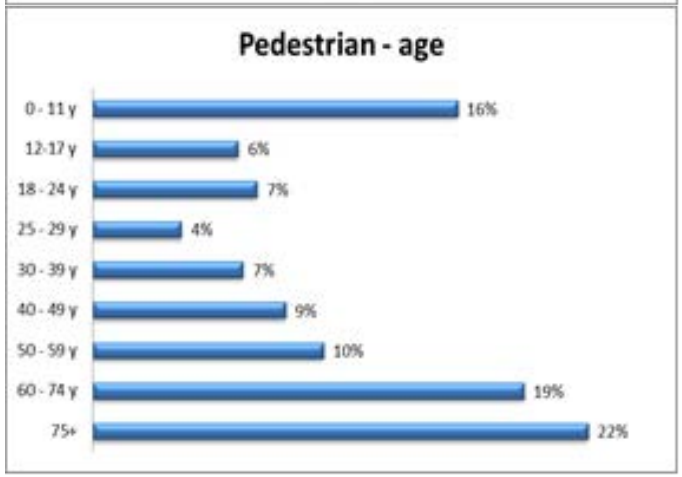
- Analysis of macroscopic and in-depth data
- Main accident types and scenarios for:
  - Pedestrians,
  - Cyclists,
  - Motorcyclist,
  - Car occupants.



- EU-extrapolation
  - Extrapolation of relationship between deaths and MAIS3+
  - Imputation based on country specific characteristics

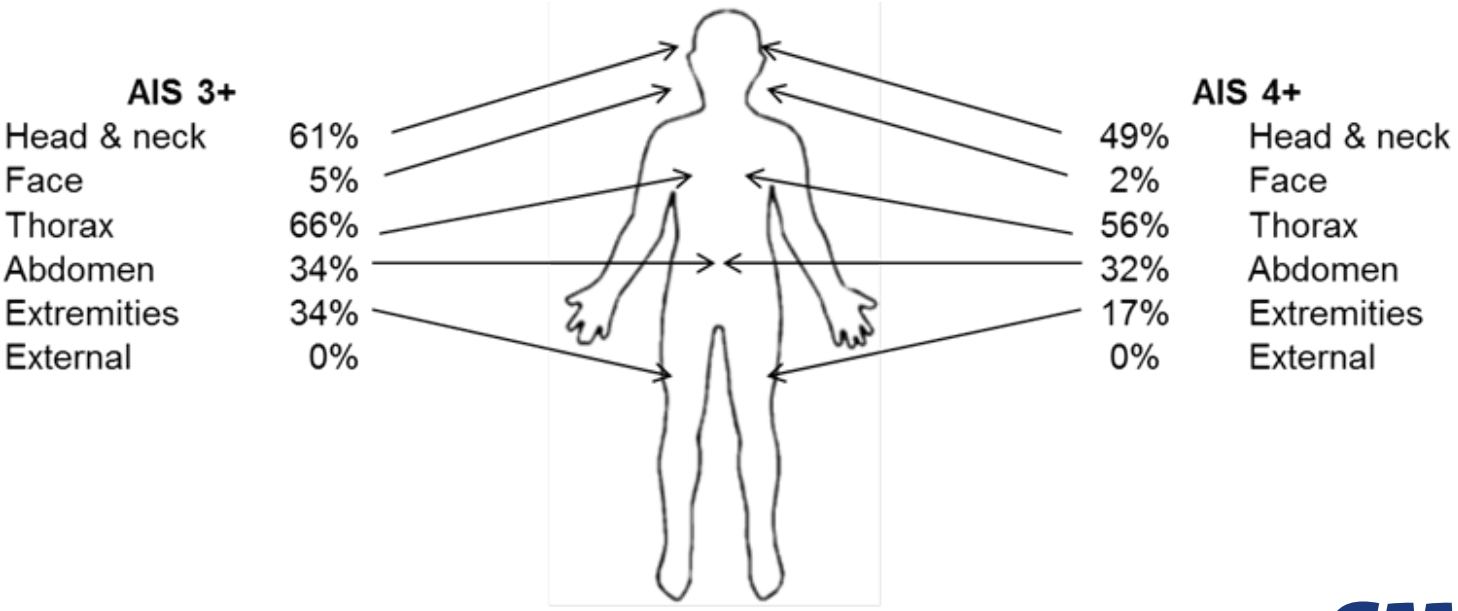
Task 2: Accident types and scenarios

- Factors that will be addressed:
  - Accident opponent(s)
  - Accident type
  - Demography
  - Road type
  - Location details
  - Contributing factors
  - Injury type
- Suppression of low numbers
- Statistical clustering of scenarios



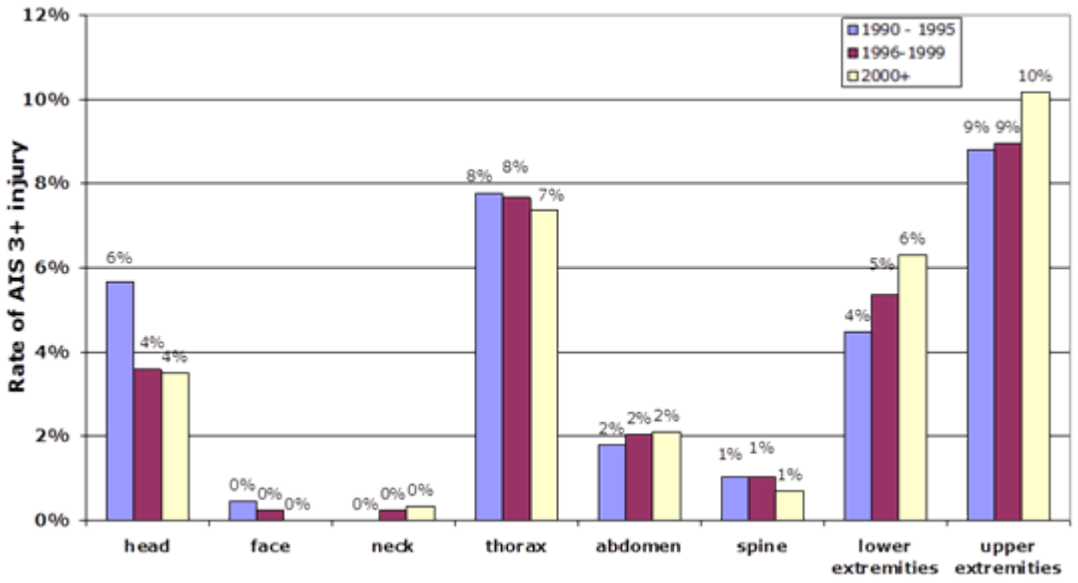
Task 3: Injury factors

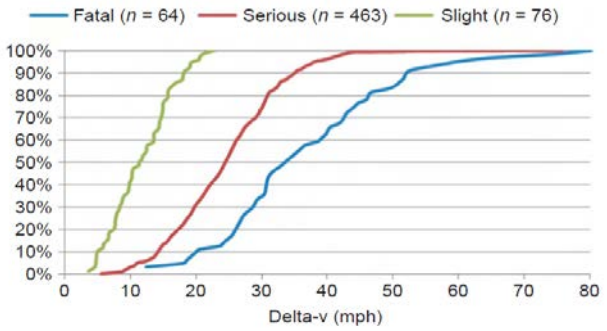
- Macroscopic data
  - Descriptive methods of contributing factors to injury levels
  - Multivariate methods to assess combinations of contributing factors



Task 3: Injury factors

- In-depth data
  - Detailed analyses on injury factors
  - Several methods (descriptive and multivariate)





Delivery of results

- Final report: Oktober 2016
- Interaction during project
  - EC
  - CARE-experts
- Contact
  - EC: Susanne Lindahl
  - Project team: Letty Aarts