

SafetyCube

# Serious road injuries

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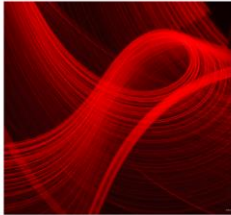
# Introduction



- Serious road injuries are increasingly being adopted as an additional road safety performance indicator
- EU definition (2013): non-fatal road traffic casualty with an injury severity level of **MAIS<sub>3+</sub>**
- All EU member states are asked to provide data from 2014 on, by:
  1. *Applying correction factors to police data*
  2. *Using hospital data*
  3. *Using linked police and hospital data*

# Serious injuries in SafetyCube

- Estimation of the number of MAIS<sub>3</sub>+ casualties
- **Consequences of serious road injuries**
- Costs related to serious road injuries
- Risk factors associated with serious road injuries



Practical guidelines for the registration and monitoring of serious traffic injuries

Deliverable 7.1



Physical and psychological consequences of serious road traffic injuries

Deliverable 7.2



Costs related to serious road injuries

Deliverable 7.3



Identification of Key Risk Factors Related to Serious Road Injuries and Their Health Impacts

Deliverable 7.4



# Serious injuries in the DSS



[Home](#) > Knowledge



## Knowledge

The knowledge synthesized during the SafetyCube project is listed here, regarding the effects of risks and measures, the causes and impacts of serious injuries, and the most common accident scenarios. Select the related box to view and download the SafetyCube knowledge documents.

[ROAD SAFETY SYNOPSES](#)

[SERIOUS INJURIES](#)

[ACCIDENT SCENARIOS](#)

## Estimating the number of serious road injuries

Serious road traffic injuries have recently been adopted as an additional road safety indicator. The EU High Level Group on Road Safety defined serious traffic injuries as road casualties with an injury level of MAIS3+. Within SafetyCube, practical guidelines have been developed to help countries in determining the number of MAIS3+ road casualties. A summary of these guidelines can be found [here](#).

## Impacts and costs of serious road injuries

# Consequences of serious road injuries



Physical and psychological  
consequences of serious road  
traffic injuries

Deliverable 7.2



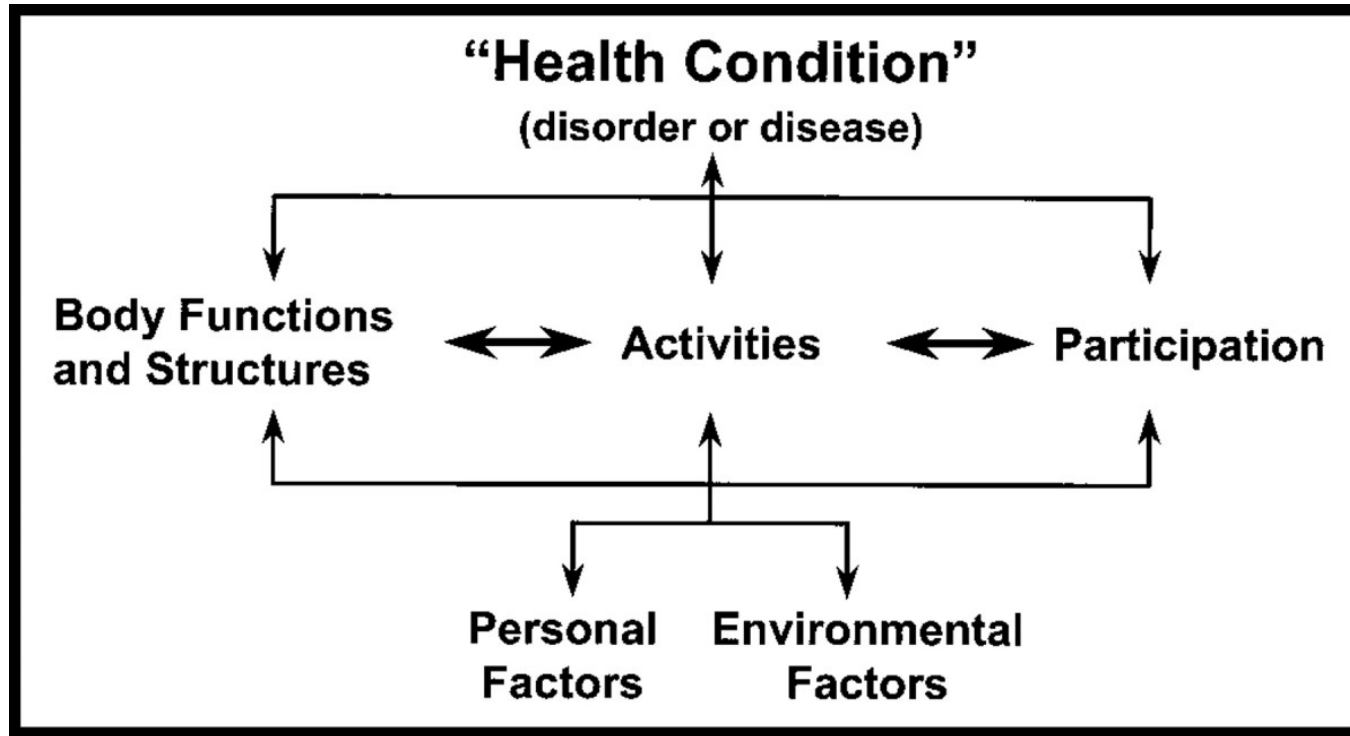
# Introduction & method



- Impacts of (serious) road injuries on lives of casualties
  - *Literature review*
  - *Analysis of additional studies and data*
- Burden of (serious) road injuries to society → YLD
  - *Literature review*
  - *Calculation of YLD for a number of countries*



# Impacts for individual casualties



# Results (1)



- Non-fatal road injuries can have a major impact on lives of casualties (and their families):
  - *Pain, fatigue, mobility problems, sick leaves*
  - *Psychological consequences, e.g. PTSD*
  - *Socio-economic consequences, e.g. financial problems*
- Reported prevalence of disabilities varies widely between studies (11% - 80%), depending on for example time period, types of disabilities and casualties taken into account





# Results (2)



- Consequences vary in time and between casualties:
  - *Age, gender, socio-economic status, comorbidity*
  - *Treatment in the hospital, compensation process*
  - *Injury (severity)*
- Injury (severity):
  - *In general more severe injuries have a higher impact, but also minor injuries can have high impacts*

# Burden of injury



- Health burden: Disability Adjusted Life years (DALYs)
  - *YLL: years of life lost*
  - *YLD: Years lived with Disability*
- YLDs are calculated for Austria, Belgium, England, Netherlands, Rhône region and Spain, applying the INTEGRIS method (Haagsma et al, 2012)

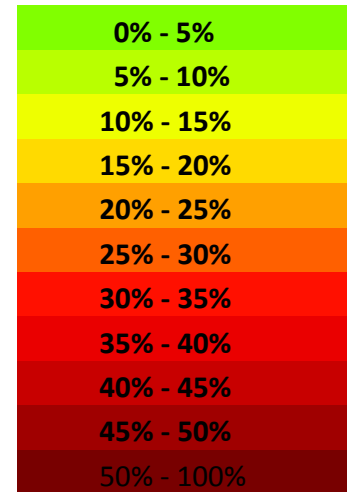
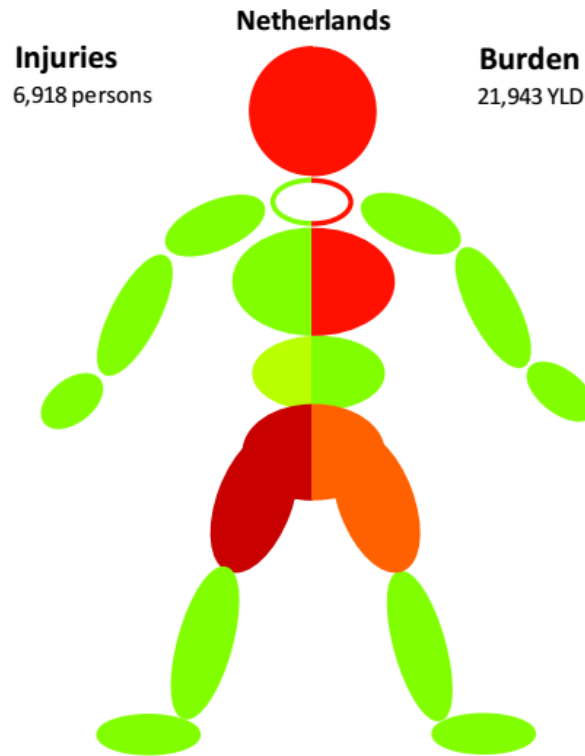
# Burden of injury – results (1)



- Average burden per casualty: 2.8 YLD (2.4 – 3.2)
- 90% of YLD due to lifelong disabilities that are encountered by 19% (Spain) to 33% (Netherlands) of MAIS<sub>3</sub>+ casualties
- Average burden per casualty differs between type of injury, transport mode, age and gender



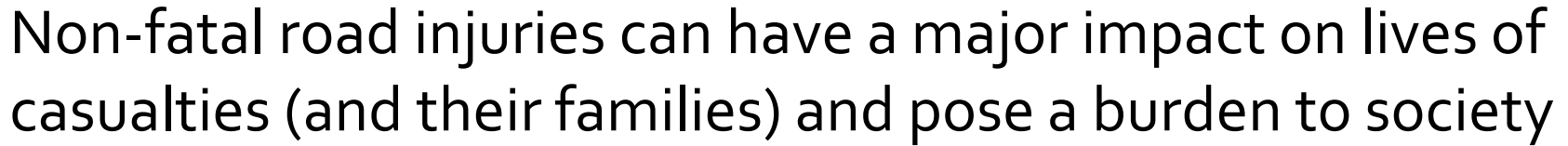
# Burden of injury – results (2)



# Burden of injury – results (3)



- Burden of injury differs between countries due to
  - *Differences in age distribution of casualties*
  - *Differences in distribution over EUROCOST injury groups*
- Be careful with translating results to other countries/ Europe in general
- MAIS<sub>3</sub>+ casualties are responsible for less than half of the total burden of non-fatal road traffic injury





# Thank you

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