

ASSESSING THE BURDEN DUE TO NON-COMMUNICABLE DISEASES AND INJURIES: COLLATION OF DATA INPUT SOURCES

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Background

- Over years, many independent **burden of disease (BoD)** studies have been conducted in Europe
- Assessment of the burden of non-communicable diseases (NCDs) and injuries requires **high-quality data**

Aim and objectives

- How many burden of disease assessments have been performed across Europe, and in which European countries?
- Which data sources have been used as input data for disease burden studies?

Methods

Data screening

- We searched multiple international databases, platforms, and search engines
- Grey literature was obtained from different sources/websites
- Additional sources (e.g, websites of public health agencies, personal contacts with the working group members part of the burden-eu COST Action)
- Handsearching

Methods

Data extraction

Study characteristics

- Title
- Author(s)
- Year of publication
- Study aim and objectives
- **Reference country**
- **Cause of disease**
(NCDs *versus* injuries)
- **Type of analysis**
(independent *versus* GBD-linked studies)

Data input sources

- **Mortality and morbidity data input sources**
- Data adjustments
- Internal consistency

DALY methods

- Choice of life table
- Usage of disability weights
- Severity distributions
- Social values

Uncertainty analysis

- Uncertainty analysis
(Parameter uncertainty and/or model uncertainty)
- Sensitivity analysis
- Scenario analysis

Results

Systematic review focusing on NCD BoD

163 studies were included

89 performed an **NCD-specific BoD assessment**

67 national BoD studies
in 22 European countries

Systematic review focusing on injuries BoD

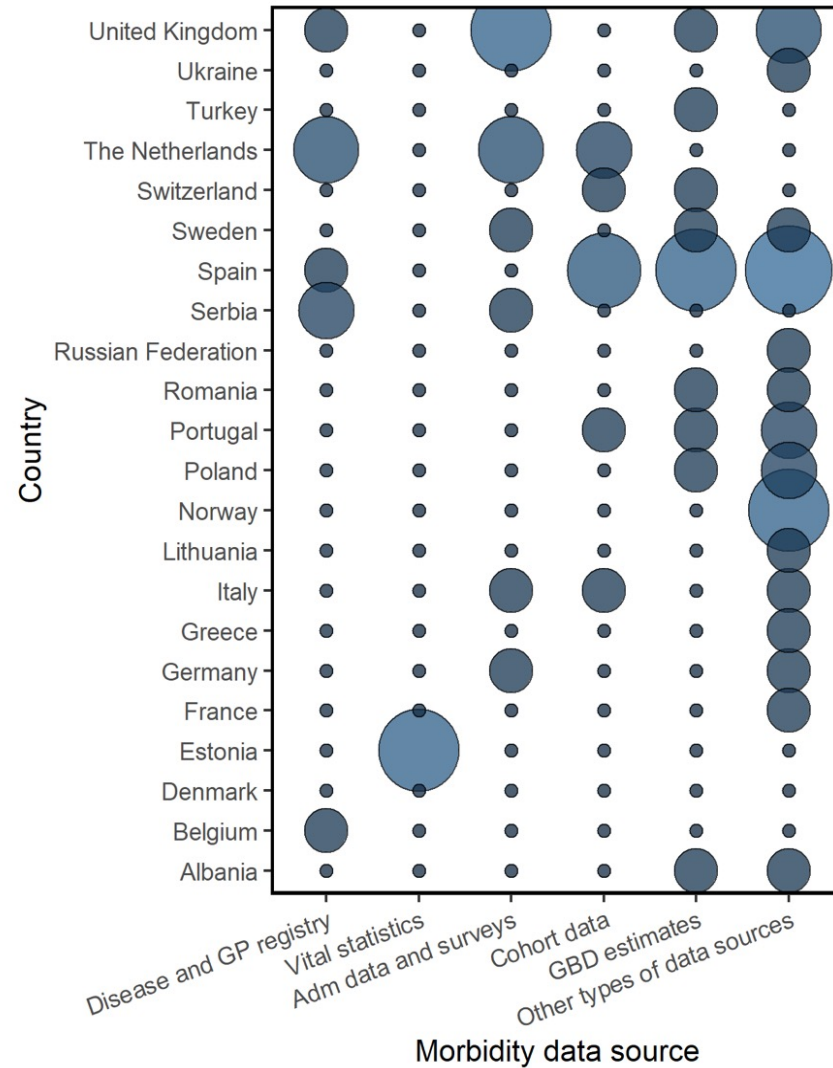
125 BoD studies were included

48 performed an **injury-specific BoD assessment**

23 national BoD studies
in 11 European countries

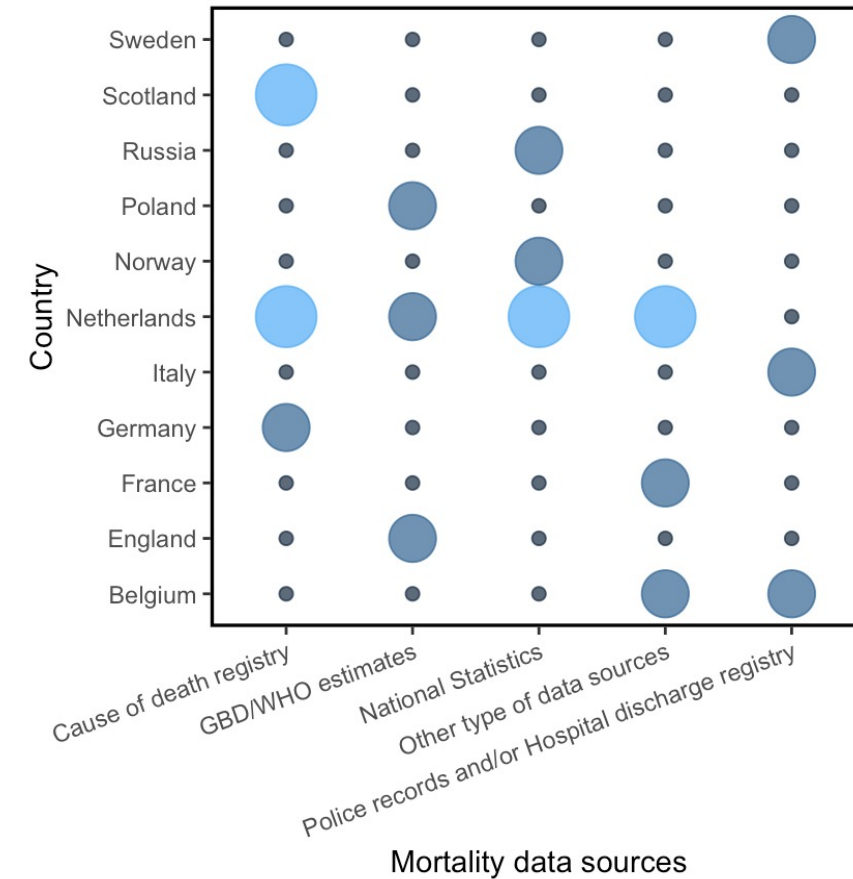
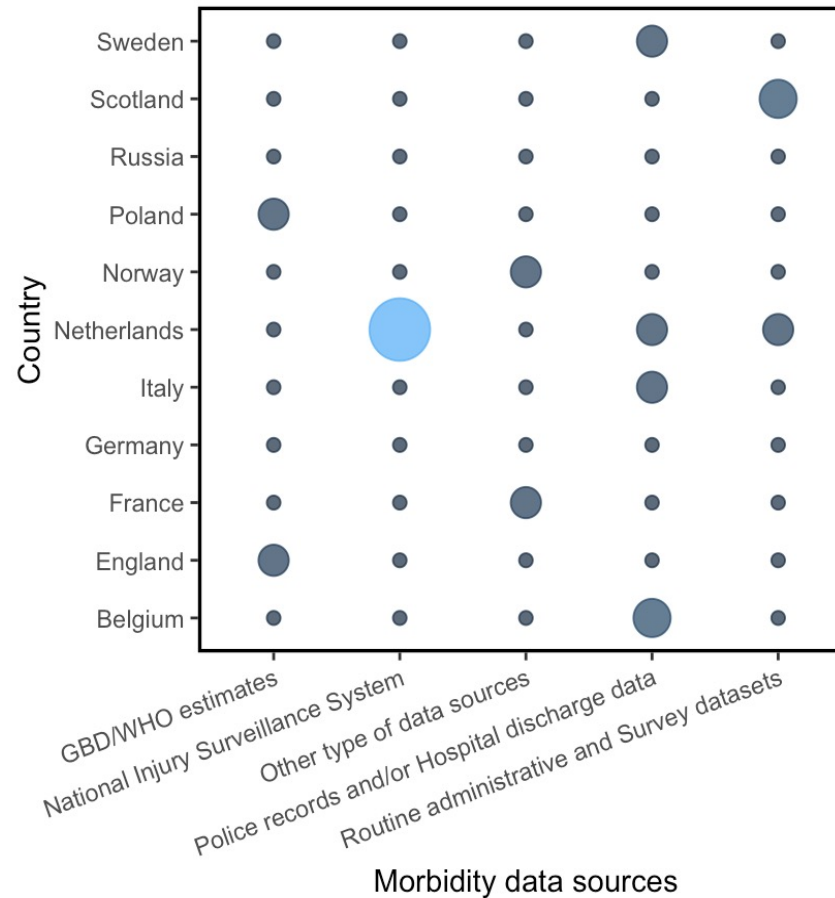
Results

- 52% of independent NCD BoD studies derived morbidity data from routine administrative and survey databases
- 53% of independent NCD BoD studies derived mortality data from cause-of-death registries
- Very few studies reported on the data quality



Results

- 61% of independent injury BoD studies derived morbidity data from injury surveillance systems
- 33% of independent injury BoD studies derived mortality data from cause-of-death registries or vital statistics
- Very few studies reported on the data quality



Discussion/Conclusions

- Assessment of **death registration systems**
 - level of completeness/coverage? accuracy of vital statistics?
 - coding system?
- **Administrative data and population surveys** would seem to be an ideal source of incidence/prevalence data, but:
 - they do not provide an unbiased estimate of (injury) incidence/prevalence
 - information bias? recall bias?
- **Reporting of the quality of data sources** can be improved with reporting **guidelines**
 - the development of a **checklist** may reduce the heterogeneity of applied BoD methods

Thank you for listening!

Special thanks

To more than 100 COST Action CA18218 collaborators
Please get in touch: info@burden-eu.net