

Erasmus MC

University Medical Center Rotterdam



Quantification of injury burden and barriers in maintaining quality data

Juanita Haagsma

Department of Public Health

Erasmus MC, University Medical Center Rotterdam

The Netherlands

j.haagsma@erasmusmc.nl

Impact of COVID-19 on injury and outcome

- The direct and indirect effects of COVID-19 caused a shift in injury incidence and mortality.
- May also have affected health status of people living with long-term consequences of injury (e.g. reduced access to health care)
- These effects can be captured in common indicators:
 - Mortality
 - Incidence
 - Prevalence
 - Health-related quality of life

Disability adjusted life years

- Disability adjusted life years (DALYs) combine information on mortality and non-fatal health outcomes (incidence, health-related quality of life) to represent the health of a particular population as a single number.
- Allows comparisons of distinct health outcomes across subgroups of a population and over time.

$$DALY = YLL + YLD$$

Years of life lost due to mortality

$$= \sum (d \times e)$$

d – sum of all fatal cases
e – remaining life expectancy at age of death

Years of healthy life lost due to disability

$$= \sum (n \times t \times dw)$$

n – number of cases
t – duration of illness
dw – disability weight

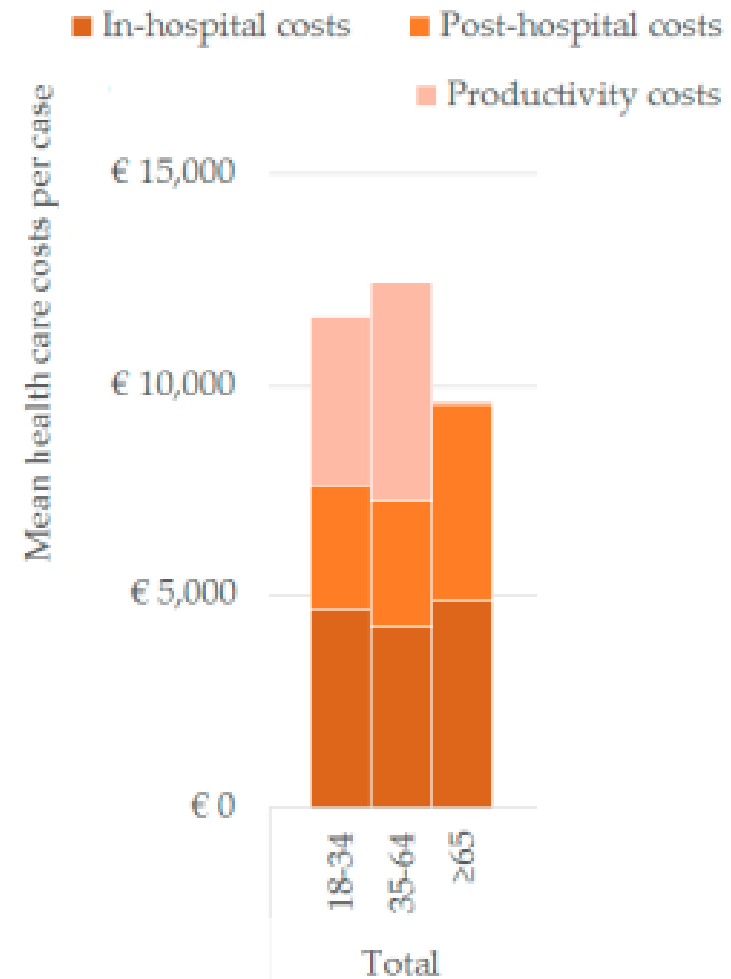
Cost-of-injury

Assessment of societal burden of injury from an economical perspective.

- Direct health care costs
- Productivity costs

Data input needs:

- Stay at health care facilities, procedures
- Unit costs
- Return to work rates, days absence
- At multiple time points after injury!



COVID-19 effect on data quality

- For injury DALYs and Cost of illness (Col) assessments high quality data on injuries and consequences are needed.
- However, each phase of the pandemic posed different barriers maintaining collection of quality data.
- Jeopardizes accurate injury DALY and Col calculations
- Assessment of impact of COVID-19 on DALYs and Col



*Thank you for your attention
j.haagsma@erasmusmc.nl*

