BoCO-19

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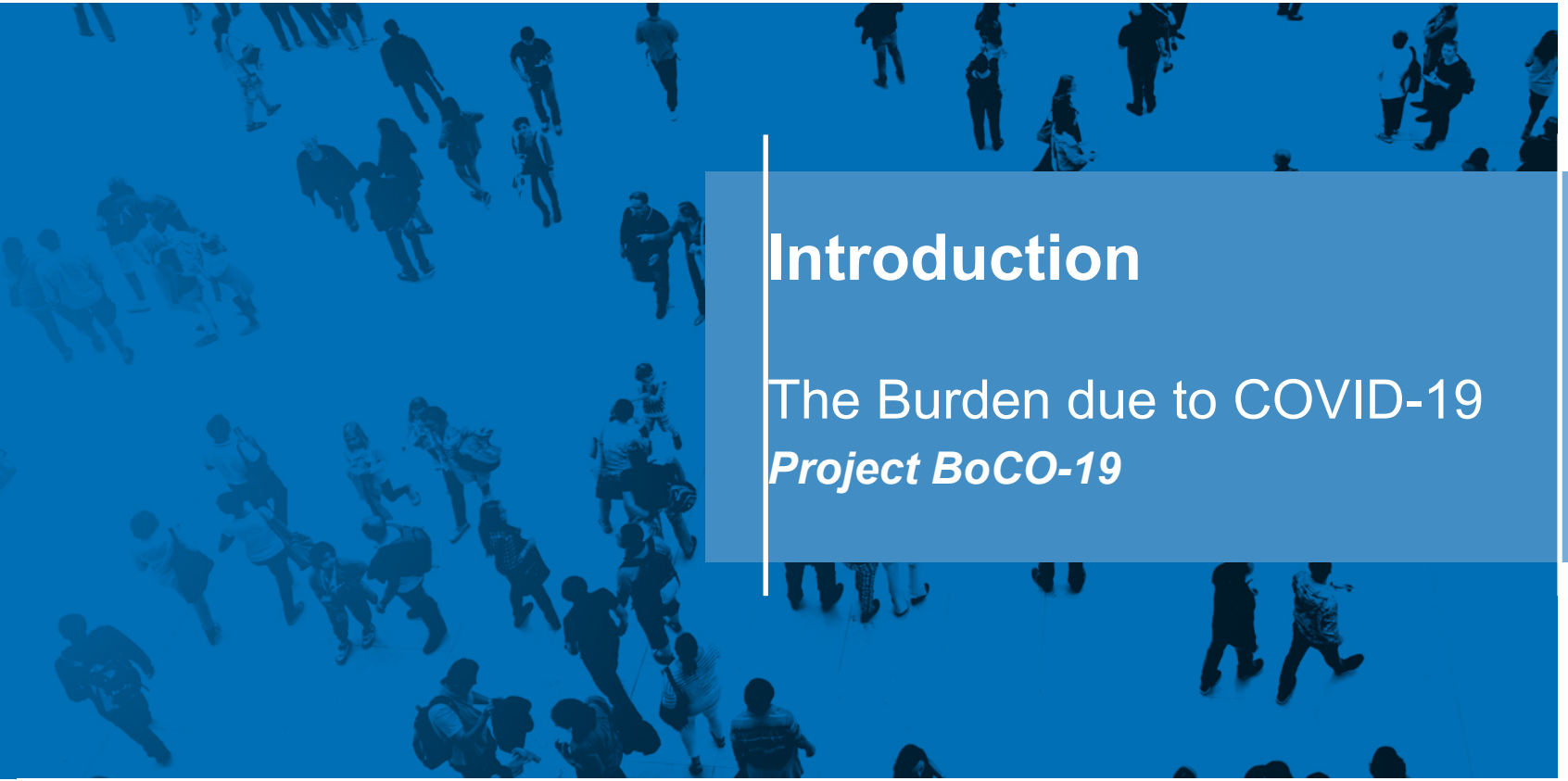


Introduction

The Burden due to COVID-19

Project BoCO-19

Benefits of calculating the burden of C-19

Comparability

(Sub)-national differences

Pandemic monitoring

Time trends

Informing Policy

Digitization of Information

- Making use of available data
- Combining information
- Comprehensible methodology
- Capacity building

Collaboration, Transparency,

Timeliness, Freedom of information

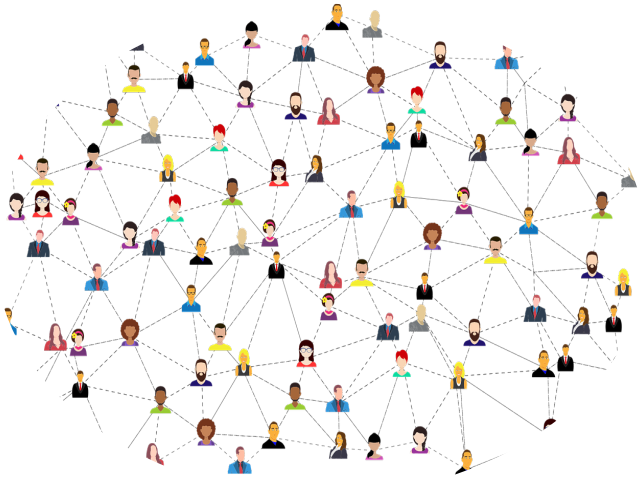
BoCO-19 Project

The Burden of Disease due to COVID-19:
Towards a harmonization of population health metrics for the surveillance of dynamic outbreaks.

Specific objectives

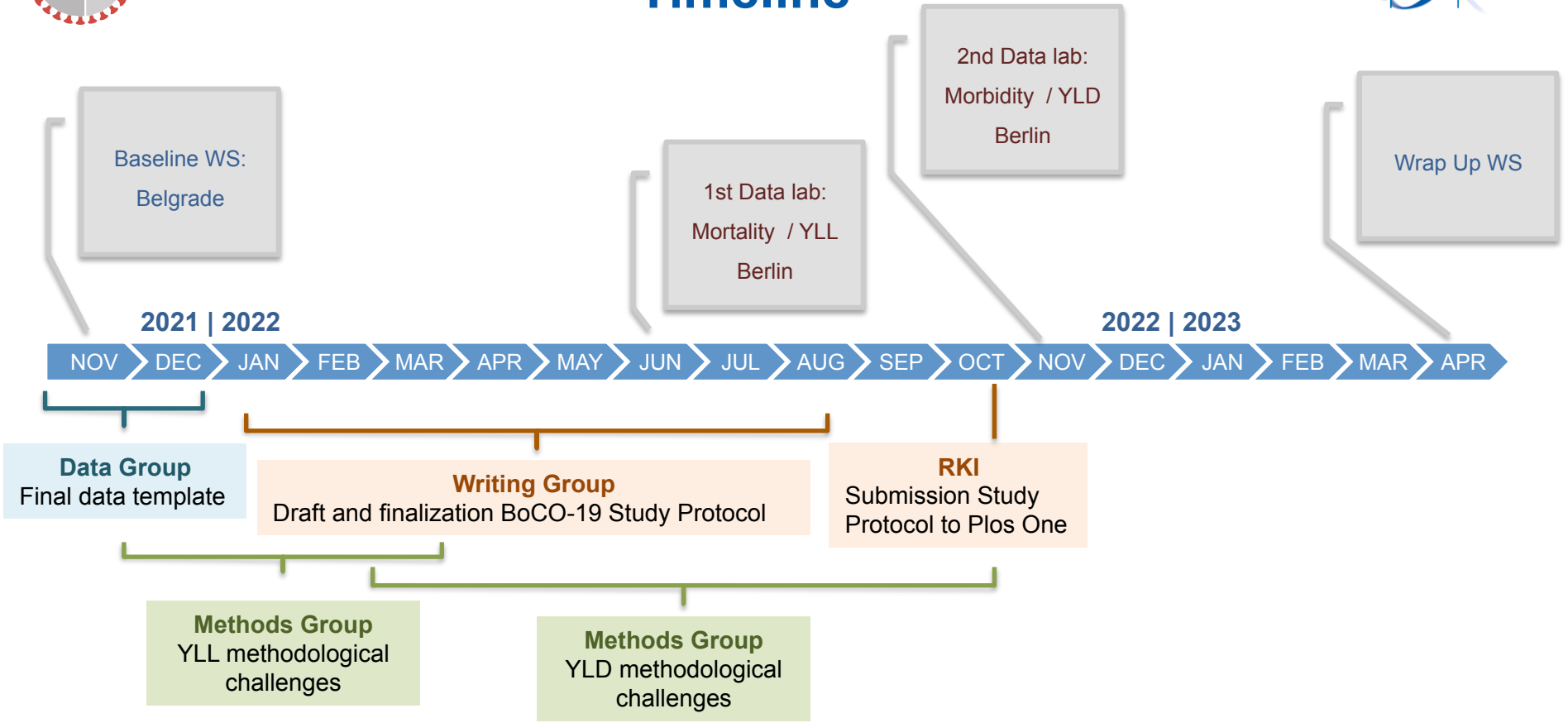
- Adapt and refine the existing methodology for calculating the burden of disease due to COVID-19 in a cross-country analysis
- Review, clean and collate existing time differentiated COVID-19 morbidity and mortality data in each of the partner countries
- Support and capacity building for calculation (YLL, YLD, DALY) and communication of the Burden of COVID-19
- Dissemination of methodology and results

Network of international project partners



Coordinator – RKI Germany	
Partners	
South-East Europe	Southern Caucasus / Cental Asia
1. Serbia 2. Albania 3. Bosnia and Herzegovina (2 partners) 4. Kosovo 5. Montenegro 6. Turkey	**1. Kazakhstan** 2. Azerbaijan 3. Georgia 4. Kyrgyzstan 5. Mongolia 6. Ukraine 7. Uzbekistan

Timeline


Baseline WS: Belgrade
1st Data lab: Mortality / YLL Berlin
2nd Data lab: Morbidity / YLD Berlin
Wrap Up WS
2021 | 2022
2022 | 2023
NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR
Data Group
Final data template
Writing Group
Draft and finalization BoCO-19 Study Protocol
RKI
Submission Study Protocol to Plos One
Methods Group
YLL methodological challenges
Methods Group
YLD methodological challenges

BoCO-19

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Благодарю́!

teşekkürler!

Рахмет!

faleminderit!

გმადლობ!

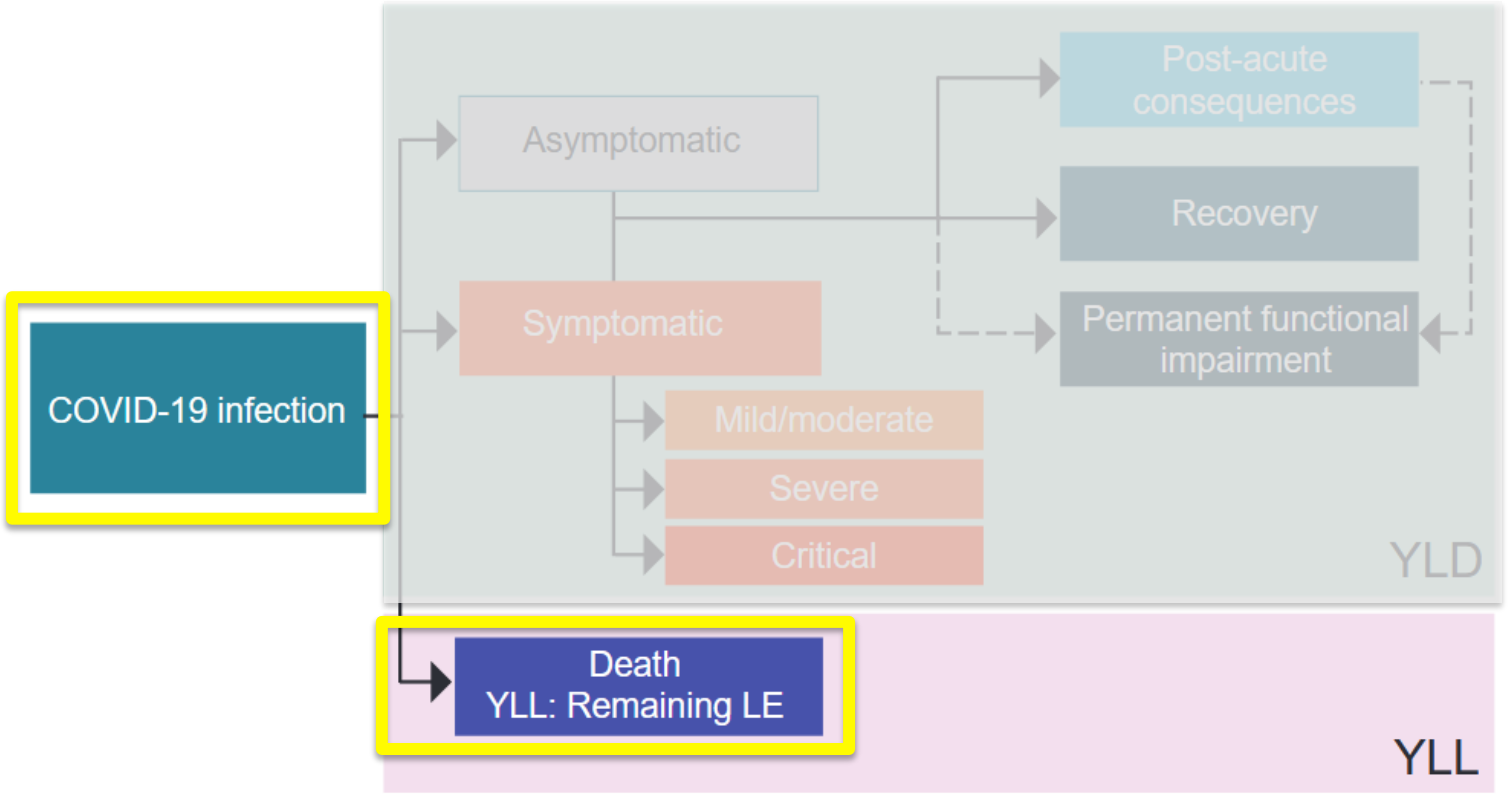
Дякую!

rahmat!

Hvala!

Баярлалаа!

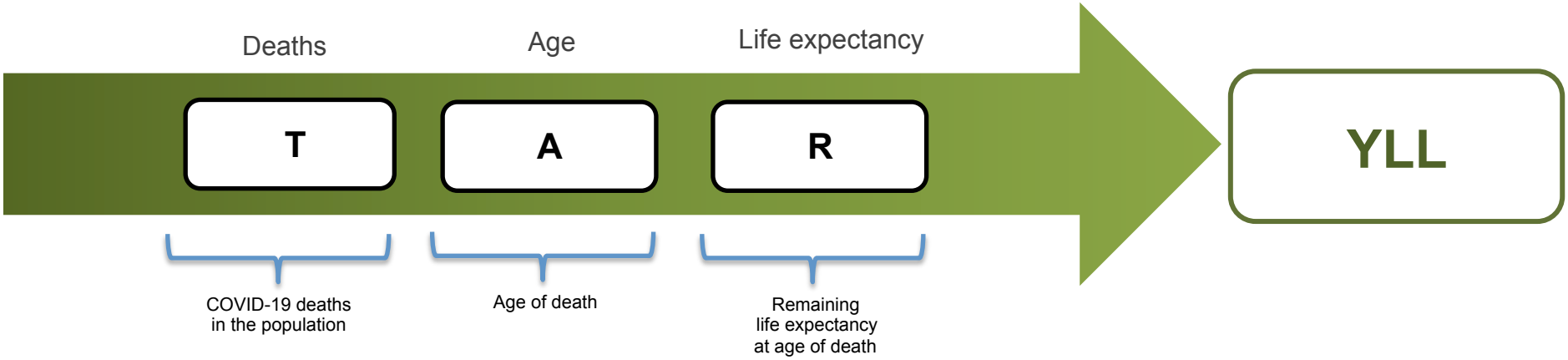
Disease model for COVID-19



burden-EU COST, adapted: https://www.aihw.gov.au/getmedia/a69ee08a-857f-412b-b617-a29acb66a475/aihw-phe-287.pdf.aspx?inline=true

Inputparameter

- for YLL -



$$YLL_{a,s,r,c} = \sum_{w=1}^{t} i_{w,s,r,c} * rle_w$$

a	age
s	sex
r	region
c	cause of death
t	age year
rle	remaining life expectancy

Use case „Basic“
with extensions

YLL
for a predefined time period (e.g. for 2020) by age and sex

Deaths
- # of **all-cause deaths** in population by age and sex (EXCESS MORTALITY)
- # of **C-19 deaths** by age and sex

⇒ *two alternatives to count deaths*

Population
- Total **population** by age and sex
- **Life expectancy** by age:
  - national (statistical office) or
  - global (e.g. taken from WHO)

⇒ *two alternatives to measure loss of life*

Extensions 1 & 2: Trends and region
Deaths additionally
- on a **daily/weekly/monthly/quarterly** basis
- and/or by **region**

Extensions 1 & 2: Trends and region
Total population additionally
- by **region**

Decisions

Life expectancy and standard population

Cross-country comparison

Life expectancy

- GBD LE table -> enables comparisons with other external studies

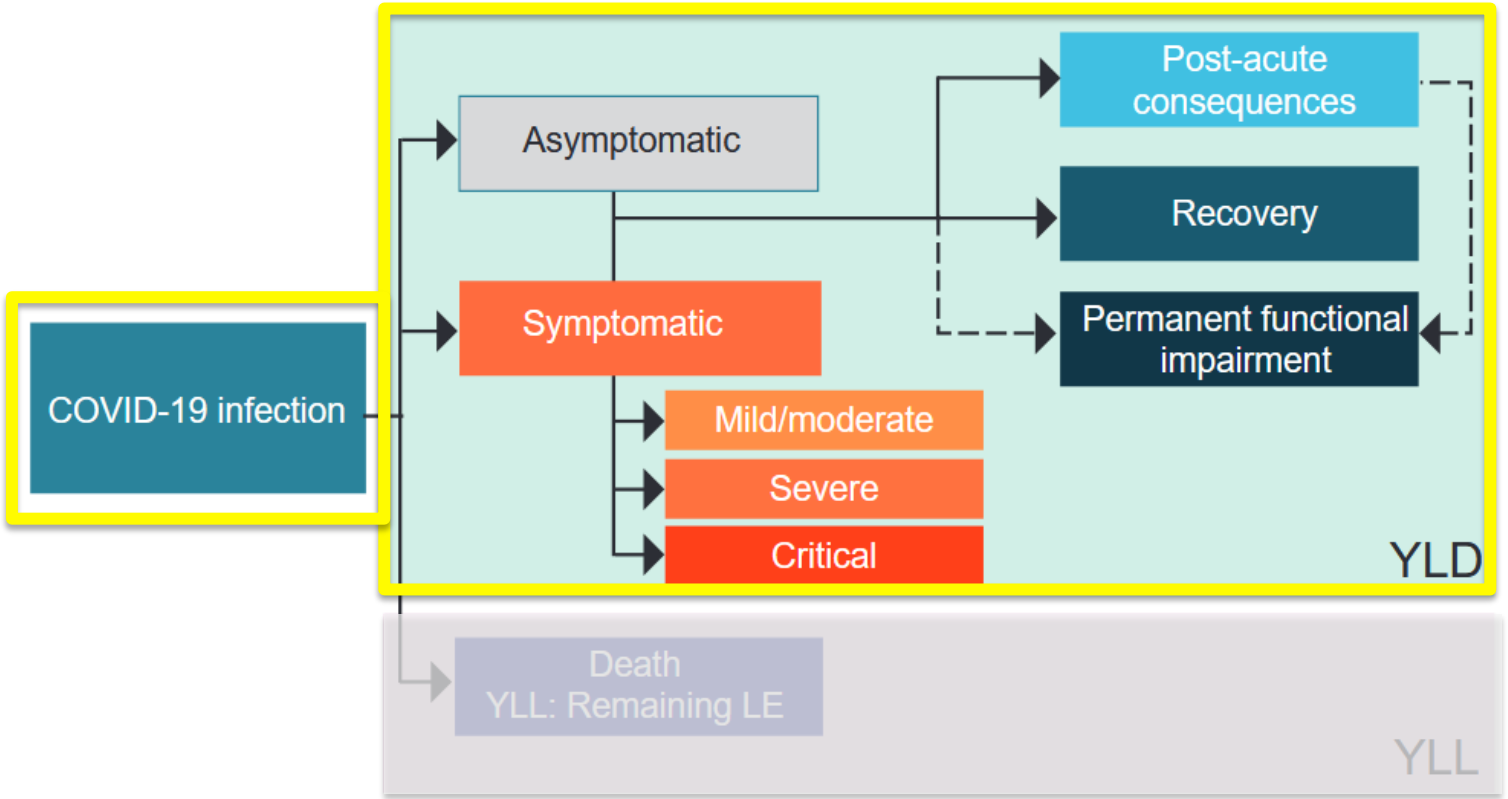
Standard population

- GBD World Standard Population

Other standards for other purposes (e.g. single country publications); e.g.

- national LE tables
- European Standard Population (ESP)

Disease model for COVID-19



burden-EU COST, adapted: https://www.aihw.gov.au/getmedia/a69ee08a-857f-412b-b617-a29acb66a475/aihw-phe-287.pdf.aspx?inline=true