Update of activities in health information of Belgium

Expert Group on Health Information (EGHI) 6/12/2016

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Overview

- the national burden of disease project;

- the analysis of inequalities in cause specific premature mortality; and

- Impact of Chronic Conditions and Multimorbidity on the Disability Burden in the Older Population in Belgium

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Burden of disease in Belgium

Public health policy requires comparable estimates of the past, present and future "burden" of diseases and risk factors
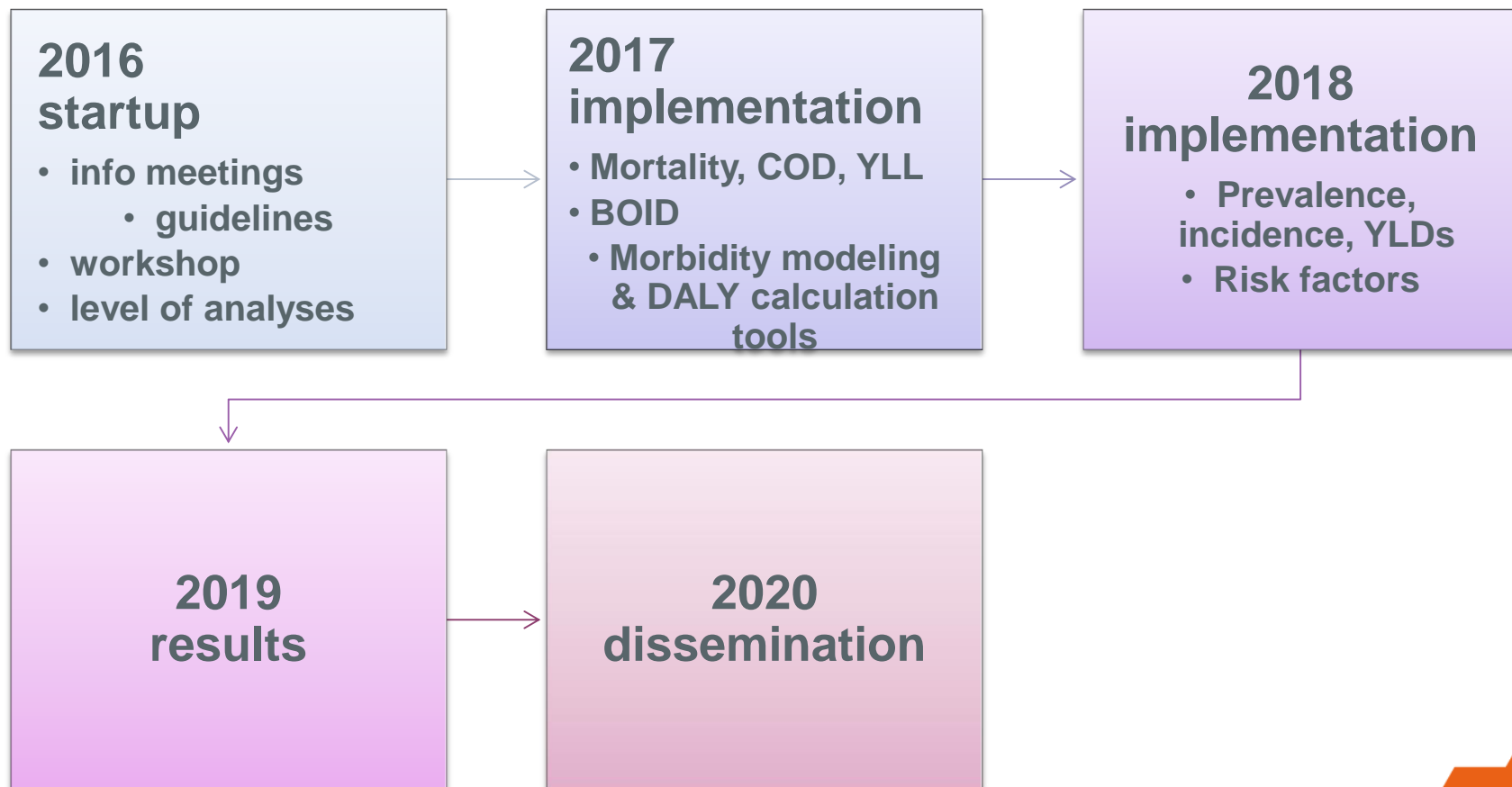
Need for a systematic approach, generating comparable estimates rooted in recent, local data

Belgian National Burden of Disease study

- Ownership and sustainability
- Local context
- Methodological flexibility
- Process as such

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BeBOD timeline
stepwise implementation & scale-up

2016 startup
- info meetings
  - guidelines
- workshop
- level of analyses

2017 implementation
- Mortality, COD, YLL
- BOID
  - Morbidity modeling & DALY calculation tools

2018 implementation
- Prevalence, incidence, YLDs
- Risk factors

2019 results

2020 dissemination

Study of trends in inequalities in premature mortality in Belgium

Data:

- 1991 and 2001 Census
- All residents aged 25-64 at entry
- With individual linked data for 5 years of mortality follow-up
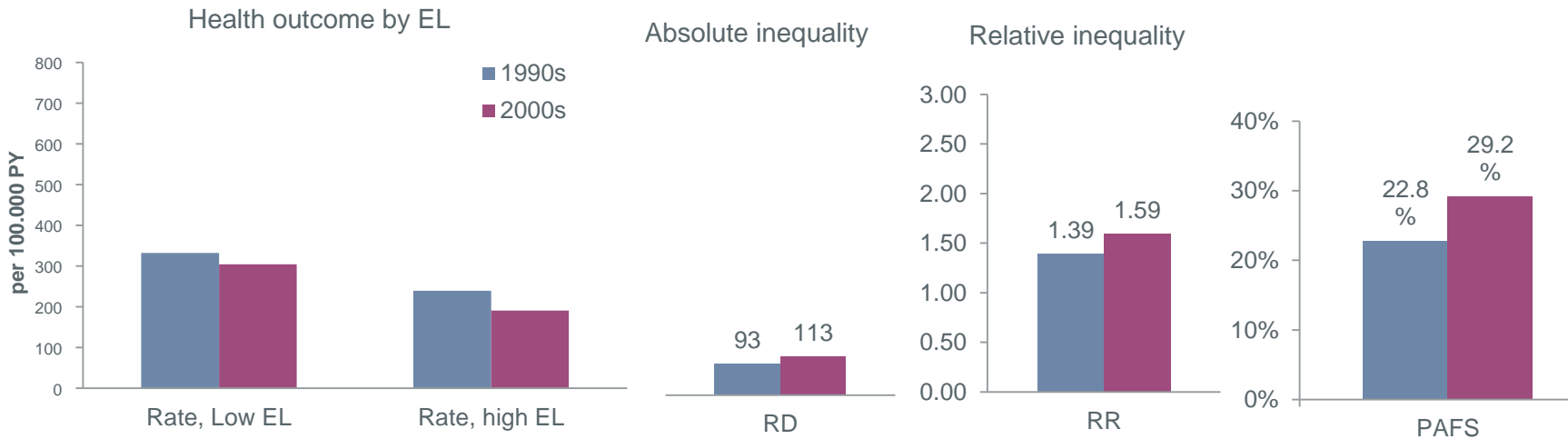- Educational level (EL) as socio-economic indicator

Analysis :

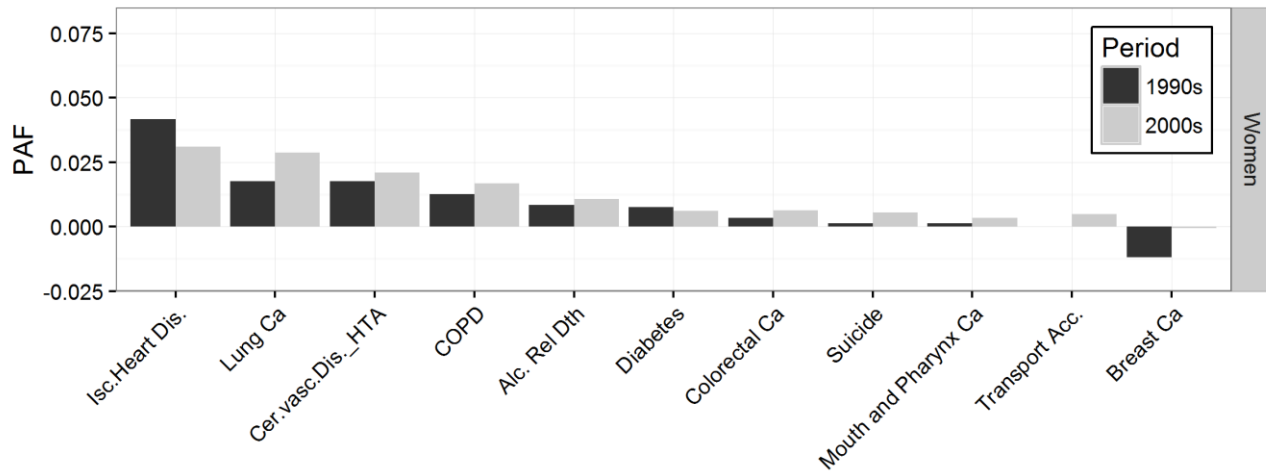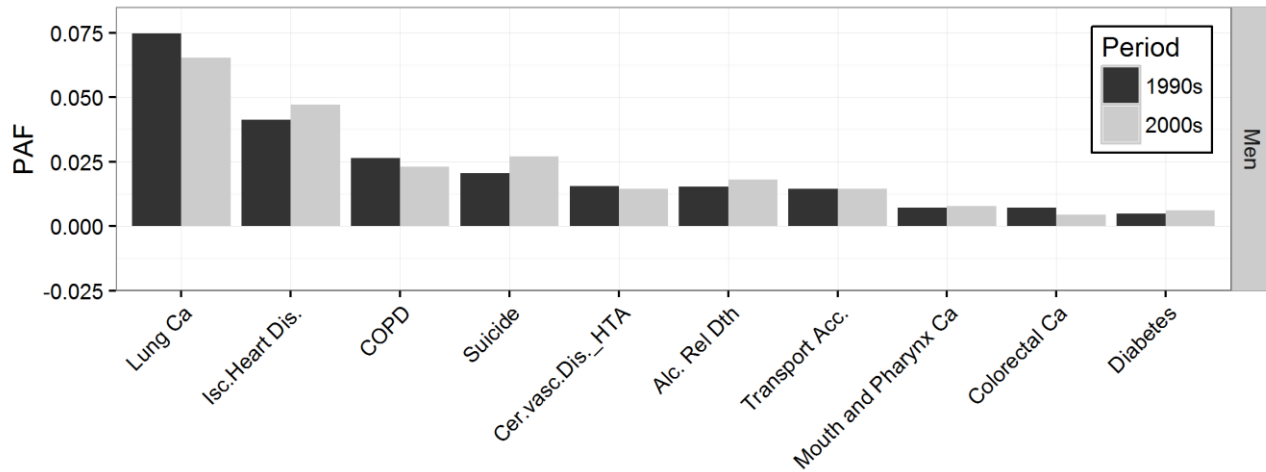In 1990s, in 2000s and measure of the change

- **EL distribution**
- **Health outcomes** : All-causes and cause-specific age-adjusted premature mortality rates (ASMR) by EL
- **Inequality indices** :   Absolute Rate Difference *(ASMR low EL - ASMR high EL)*

     Rate Ratio *(ASMR low EL / ASMR high EL)*

     Population-Attributable Fraction *(impact of inequalities at population level: how much of the mortality could be avoided if all the population had the mortality of highest EL)*

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Evolution of health outcomes (1990s-2000s)
Evolution of inequalities

Population attributable fraction by main cause of premature deaths

Impact of Chronic Conditions and Multimorbidity on the Disability Burden in the Older Population in Belgium

Multimorbidity

Co-occurrence of more than one disease in the same individual

Common in advanced ages

Increases disability

Data

Pooled data of the 2001, 2004, and 2008 Health Interview Surveys in Belgium

Individuals aged ≥ 55 years (N = 9,482)

7 Self-reported chronic conditions: chronic respiratory diseases, diabetes, cancer, depression, cardiovascular diseases, musculoskeletal conditions, neurological diseases

Disability: Global Activity Limitation Indicator (GALI)

Statistical analysis

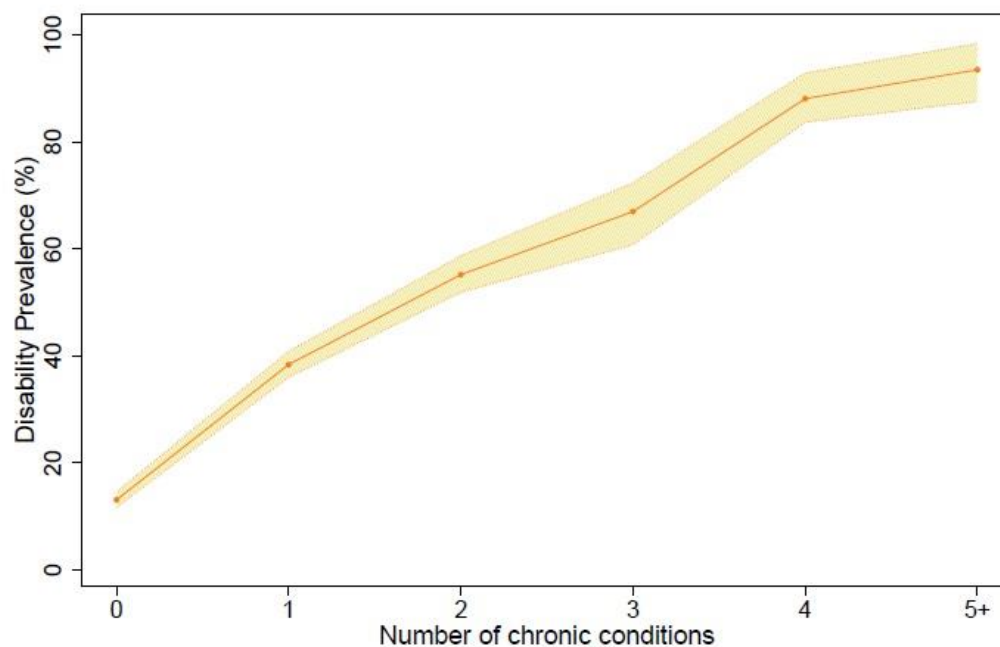Attribution method (Nusselder and Looman, 2004)

- Contribution of chronic conditions and disease pairs to the disability burden

Disease prevalence

Conditions	Respiratory	Diabetes	Cancer	Depression	Cardiovascular	Musculoskeletal	Neurological
Respiratory	**11.8**						
Diabetes	1.6	8.4					
Cancer	0.7	0.3	3.5				
Depression	1.3	0.9	0.4	6.5			
Cardiovascular	2.5	1.5	0.6	1.0	**10.2**		
Musculoskeletal	7.0	4.2	1.9	4.6	5.6	45.3	
Neurological	0.3	0.3	0.1	0.2	0.2	0.7	1.3

Disability prevalence according to the number of chronic conditions

Yokota RTC, Van der Heyden J, Nusselder WJ, Robine JM, Tafforeau J, Deboosere P, Van Oyen H. **Impact of chronic conditions and multimorbidity on the disability burden in the older population in Belgium. J Gerontol A Biol Sci Med Sci, 2016: 71(7): 903-9**

Disability rate and contribution to the disability prevalence

Yokota RTC, Van der Heyden J, Nusselder WJ, Robine JM, Tafforeau J, Deboosere P, Van Oyen H. **Impact of chronic conditions and multimorbidity on the disability burden in the older population in Belgium. J Gerontol A Biol Sci Med Sci, 2016: 71(7): 903-9**