Interface Demography

Vrije Universiteit Brussel

Brussels: young and healthy?!

Educational inequalities in health and mortality of young persons in the Brussels-Capital Region (BCR)

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Why mortality at a young age?

Everything ends at one point. You just have to accept it, but for her it is maybe even harder, because she is so young. We take it for granted that we will live at least until we're sixty or seventy…

William about his girlfriend suffering from cancer (uit 'De Dood is Gek' , R. Lips (1984))

Social inequalities in health

- Strong association in most industrialised countries
- Different views on health inequalities among the young
  - Equalisation in youth? (West, 1997; West & Sweeting, 2004)
  - Social origin and accumulated risks (Power et al. 1996; Kestilä et al, 2009)
    - Parental SEP
    - Own educational level
  - Complex interplay of social causation and health selection

Focus on education

- Education most apt indicator in this life stage
  - Precedes occupation and income
  - Stable over the life course
  - Works via other SEP measures but also directly into health
- Education stands for
  - Knowledge & cognitive development
  - Human capital: skills-set, problem solving, resourcefulness
  - Via healthy behaviours / better informed choices – help seeking

Focus on metropolitan context

- Health penalty
  - increased exposures to environment (social and physical risks)
  - concentration of deprivation
- Health advantage
  - local cohesive networks
  - proximity, accessibility and quality of care

Focus on metropolitan context

- Healthy Migrants?
  - initial good health (excl. refugees & asylum seekers)
  - But growing health problems over time and among offspring
    - Non-communicable diseases
    - Mental health problems
  - Protective culture vs conflicts
  - Structural deprivation
  - Discrimination
- Caveat
  - Differences within nationality group (migrant generations)
  - Differences between nationality groups

Objectives (1)

O1: Are there social inequalities in health and mortality among young adults in the BCR?

1a – education important differentiator?

1b – parental and personal education: contribution to inequalities?

1c – education mediator for health differences between nationality groups

Objectives (2)

O2: Is there a decline in young-adult mortality over time (between 1990s and the 2000s)?

2a – change in cause of death pattern?

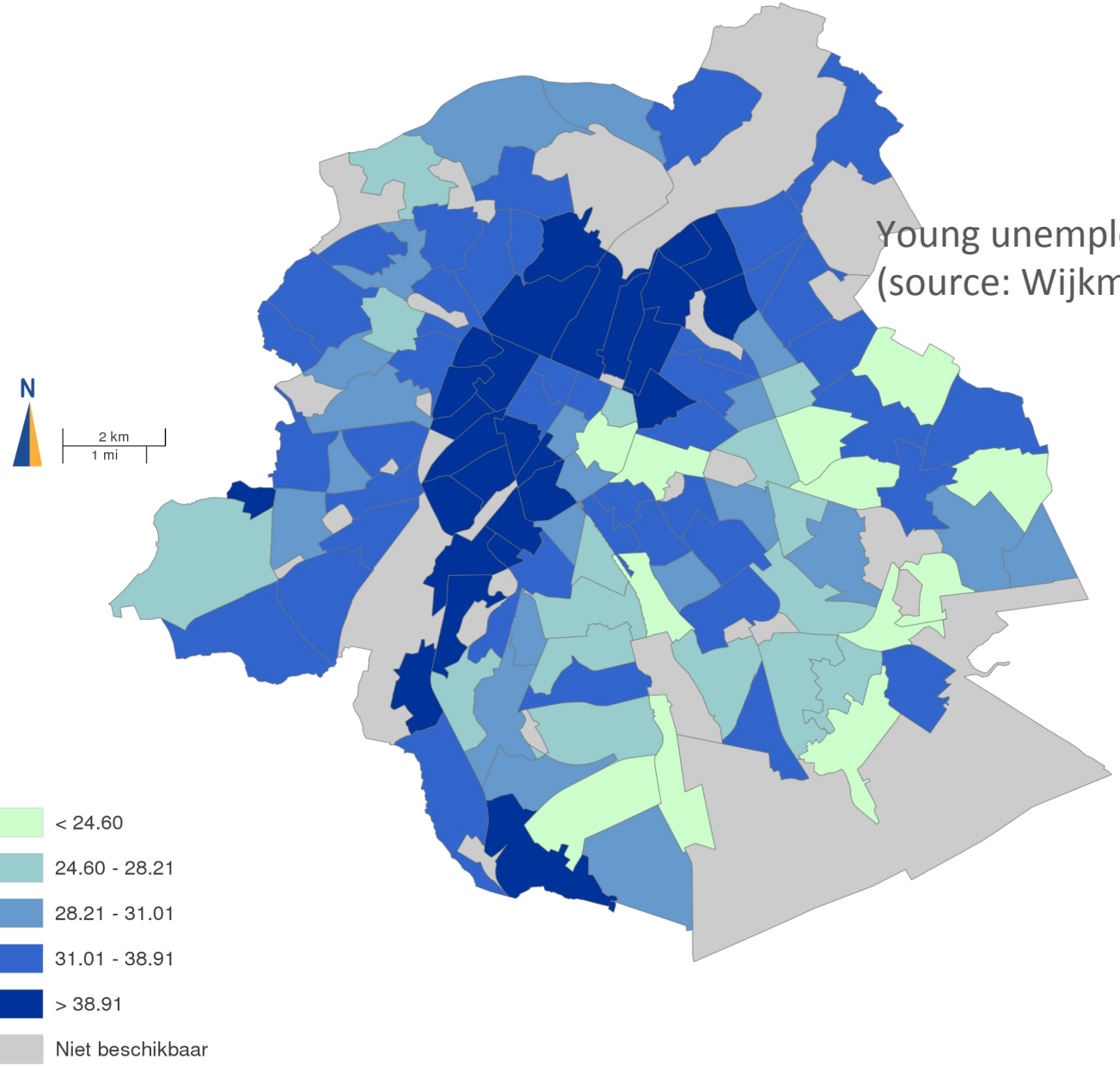
2b – typical urban phenomenon?

2c – changing educational distribution?

Focus on Brussels…at the crossroads of

Brussels at the crossroads

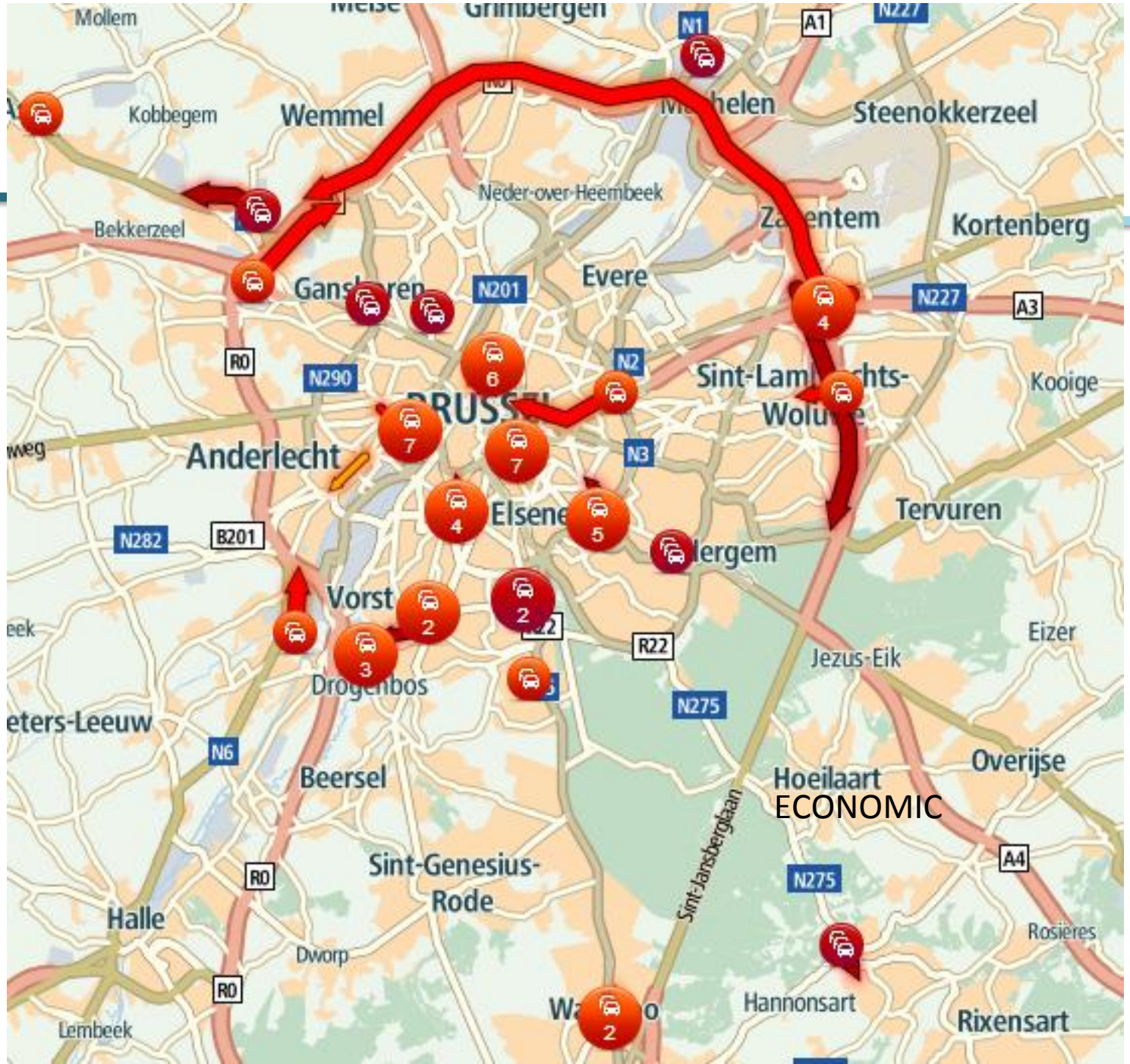
Werkloosheidsgraad bij jongeren 2011 (%)



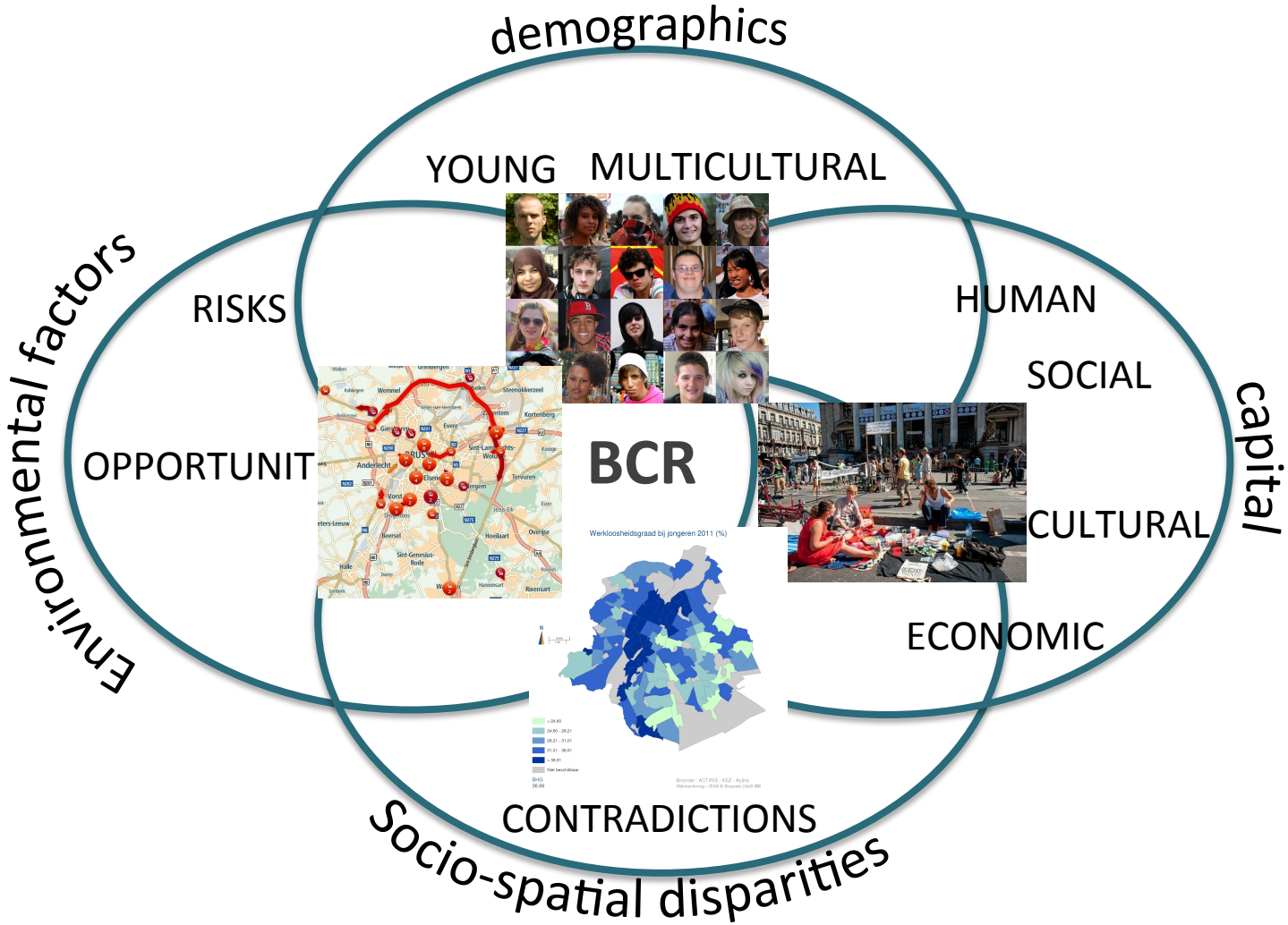
Young unemployment_2011
(source: Wijkmonitoring BISA)

BHG
36.99

Bronnen : ACTIRIS ; KSZ - Actiris
Wijkmonitoring – BISA © *Brussels UrbIS ®©*


Mollem
Grimbergen
N1
A1
N227
Kobbegem
Wemmel
Steenokkerzeel
Neder-over-Heembeek
Bekkerzeel
Kortenberg
Evere
N201
N227
A3
R0
N290
N2
Kooige
Anderlecht
N3
Tervuren
N282
B201
Vorst
Eizer
R22
Jezus-Eik
Drogenbos
N275
N6
Beersel
Overijse
Hoeilaart
ECONOMIC
Sint-Genesius-Rode
A4
N275
Halle
Rosières
Dworp
Hannonsart
Rixensart
Lembeek

Brussels at the crossroads



Data

1. Census data (1991/2001)
   - De jure population at two points in time
   - Health indicators
     - Self-rated health (SRH), longstanding illness/impairment
     - All-cause mortality – through link with National Register
     - Cause-specific mortality – through link with death certificates
   - Background information
     - Education, activity status, housing & tenure
     - Parental SEP
     - Nationality of origin / migration generation
   - Selection
     - Dependent on available data & research question

Data

2. Belgian Health Interview Survey (BHIS)
   - WIV-ISP, oversampling BCR
   - Broad set of health indicators:
     - Self-rated health (SRH)/ Illness/impairment
     - Mental health
     - Physical health
     - Health risk behaviour / Health knowledge
     - Medical consumption
   - Background characteristics
     - Education, activity status, postponement of medical expenses
     - Nationality of birth (!)
   - Selection
     - 2001-2004-2008
     - 18-30 year olds

Results

Objective 1:
Social inequalities in health and mortality

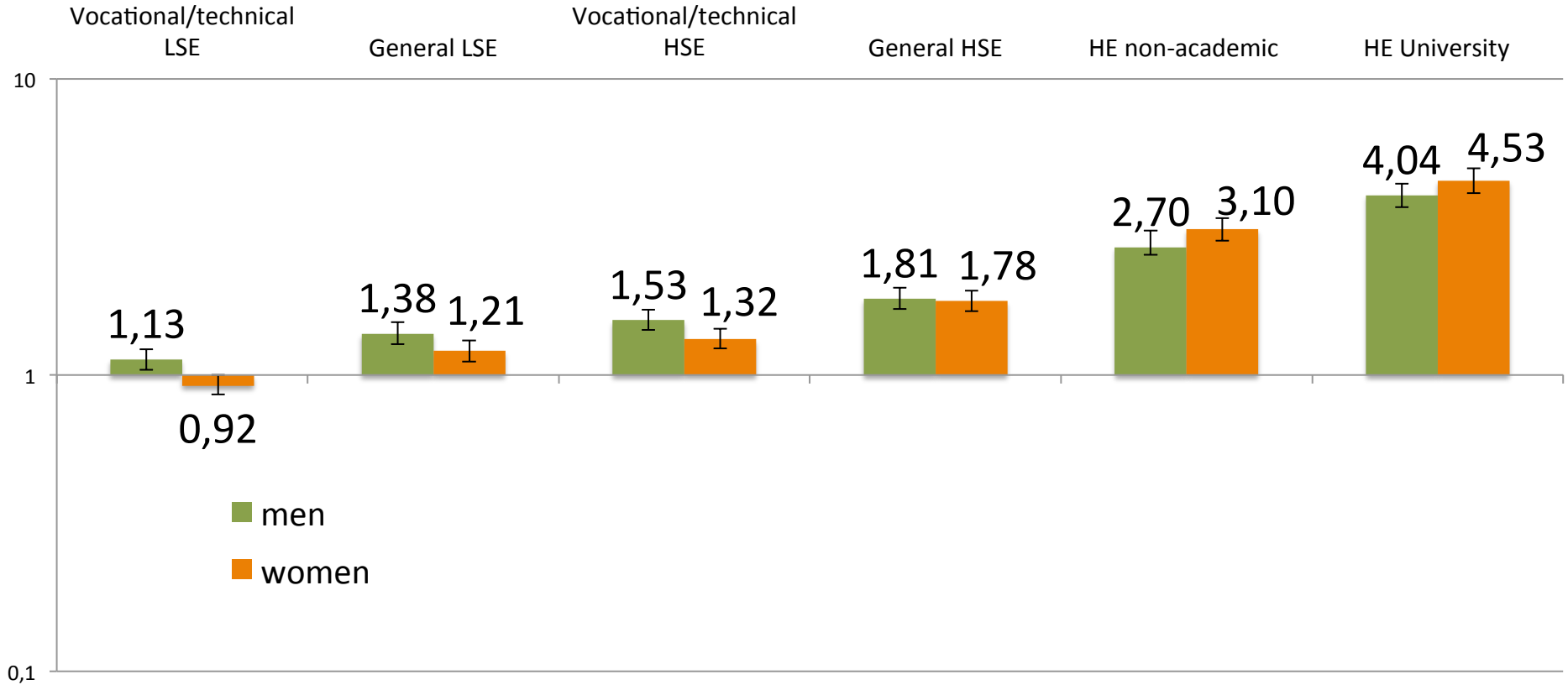
O1a: relation between education and health*/mortality

✧ Robustly found for most health indicators
✧ For mental health only few measures are significantly related: suicidal attempt, self-reported depression, somatisation and anxiety
✧ Some risk behaviours, alcohol consumption and cannabis use, are more common among the higher educated – but problematic use is more common among the lower educated
✧ Medical consumption, knowledge on HIV, physical health and activity are all positively related to education
✧ Of the other SEP indicators, especially household deprivation was significantly related to most health outcomes (mental health!)

* De Grande, H., Hercot, D. & Vandenheede,H. (2014). *The health profile of young persons in the Brussels-Capital Region: A focus on social inequalities in the transition to adulthood.* Working Paper ID 2014-1.

Education and self-rated health

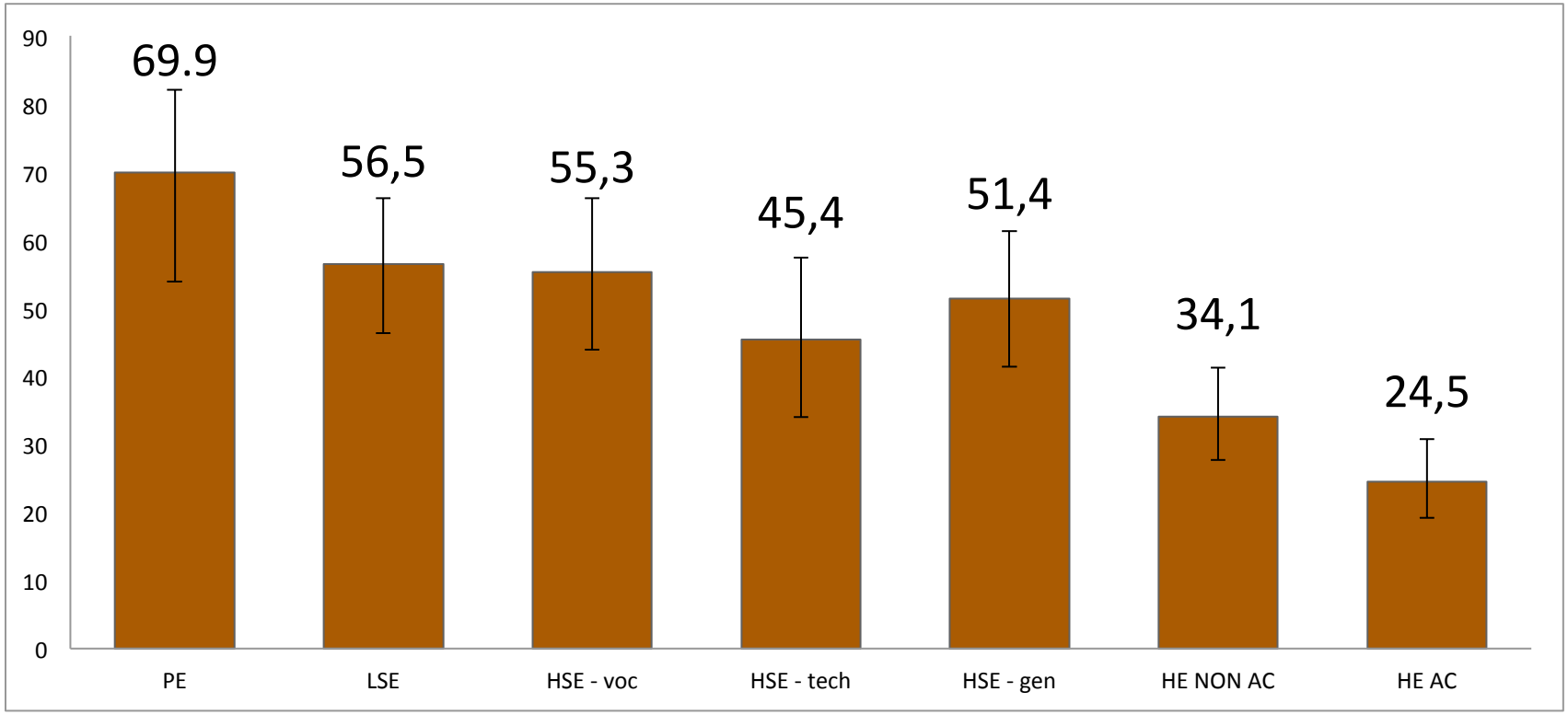
FIGURE: Odds ratios of **educational differences** in **good self-rated health** compared to the primary educated



Source: Census data

Education and self-rated health

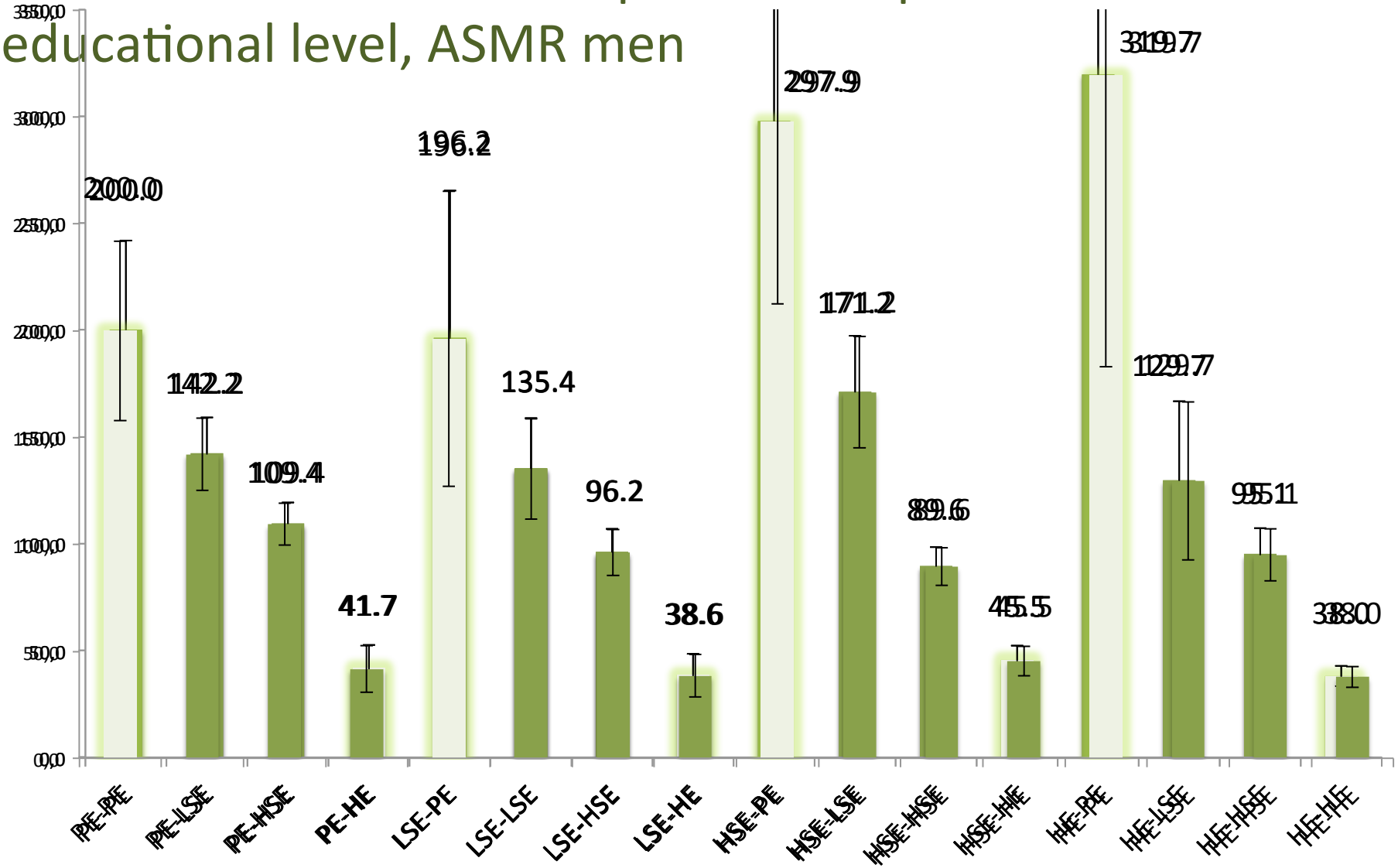
FIGURE: % of young persons having the **perception of hardship to pay medical expenses** according to educational level



Source: HIS, 2001, 2004, 2008, own calculations

O1b: Intergenerational mobility

FIGURE: Transition matrix parental → personal educational level, ASMR men



Intergenerational mobility

- Pattern similar for most causes of death: personal education most important contributor
- Parental education & wealth rather indirectly affecting mortality
- Confirms earlier studies in Nordic countries of importance of personal educational level
- Contrasts findings of morbidity research or mortality at older age
  → via risk exposures and behaviours in childhood

O1c: health among migrant groups

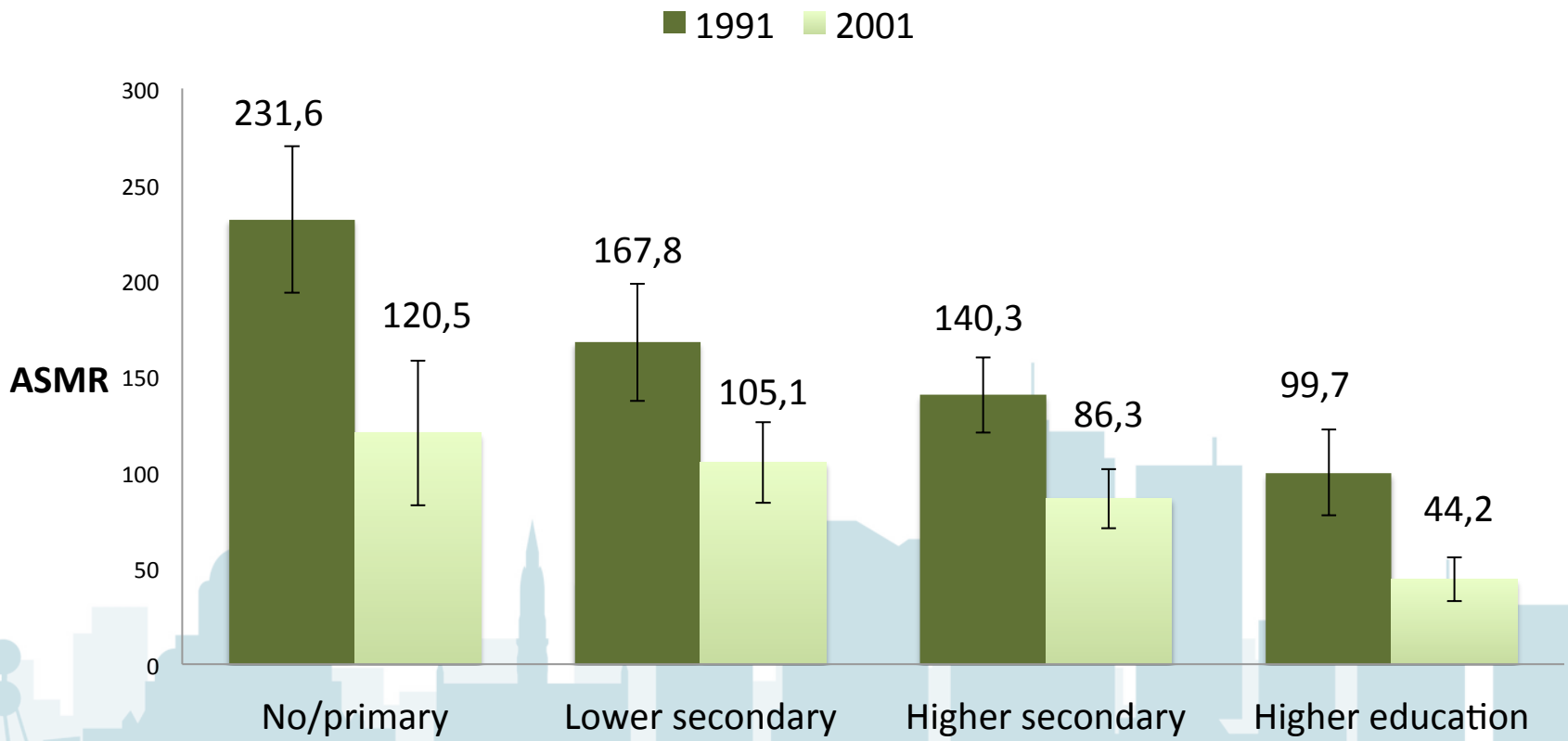
- ✧ Better self-rated health (SRH) among Sub-Saharan Africans (SSA) of 1st generation, similar health as Belgians among SSA 2nd generation
- ✧ Worse SRH among Turks & Maghrebins – worse health among 2nd generation compared to the first an to the Belgians
- ✧ Mortality: lower among 1st generation, higher among 2nd generation → but depends on specific causes:
  - ✧ lower mortality in suicide
  - ✧ higher mortality in homicide and substance related deaths
- ✧ Education mediates, but some of the differences remain

Results

Objective 2:
Evolutions over time

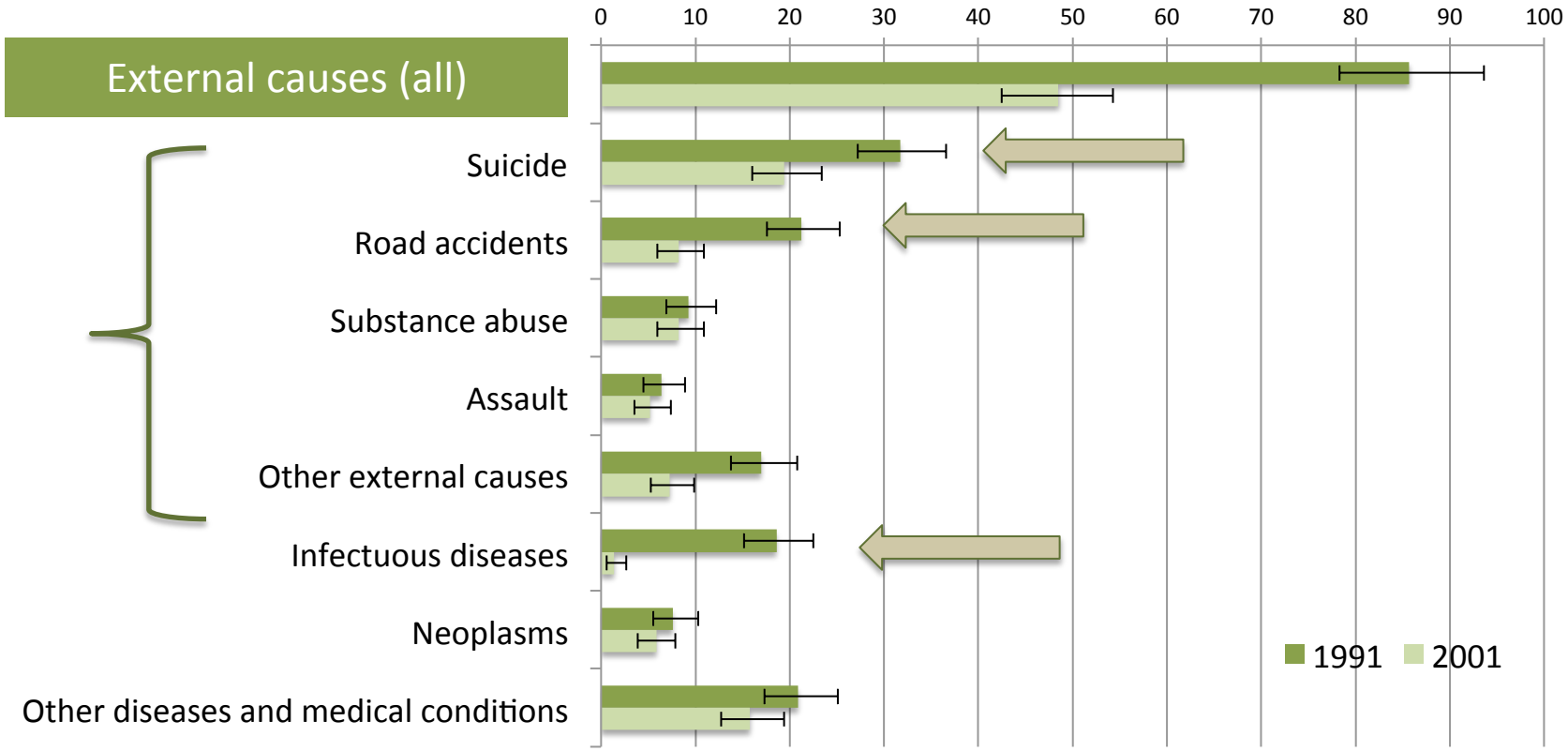
Results O2a: evolution over time & cause-specific mortality

- Strong declines over time, in all educational categories among men (directly standardised rates=ASMR)



Evolution over time & cause-specific mortality*

FIGURE: ISMR (indirect standardisation) per cause of death over time



* De Grande, H., Deboosere, P. & Vandenheede, H. (2013). Evolution of educational inequalities in mortality among young adults in an urban setting. *International Journal of Public Health*, 58, 6, pp 825-835

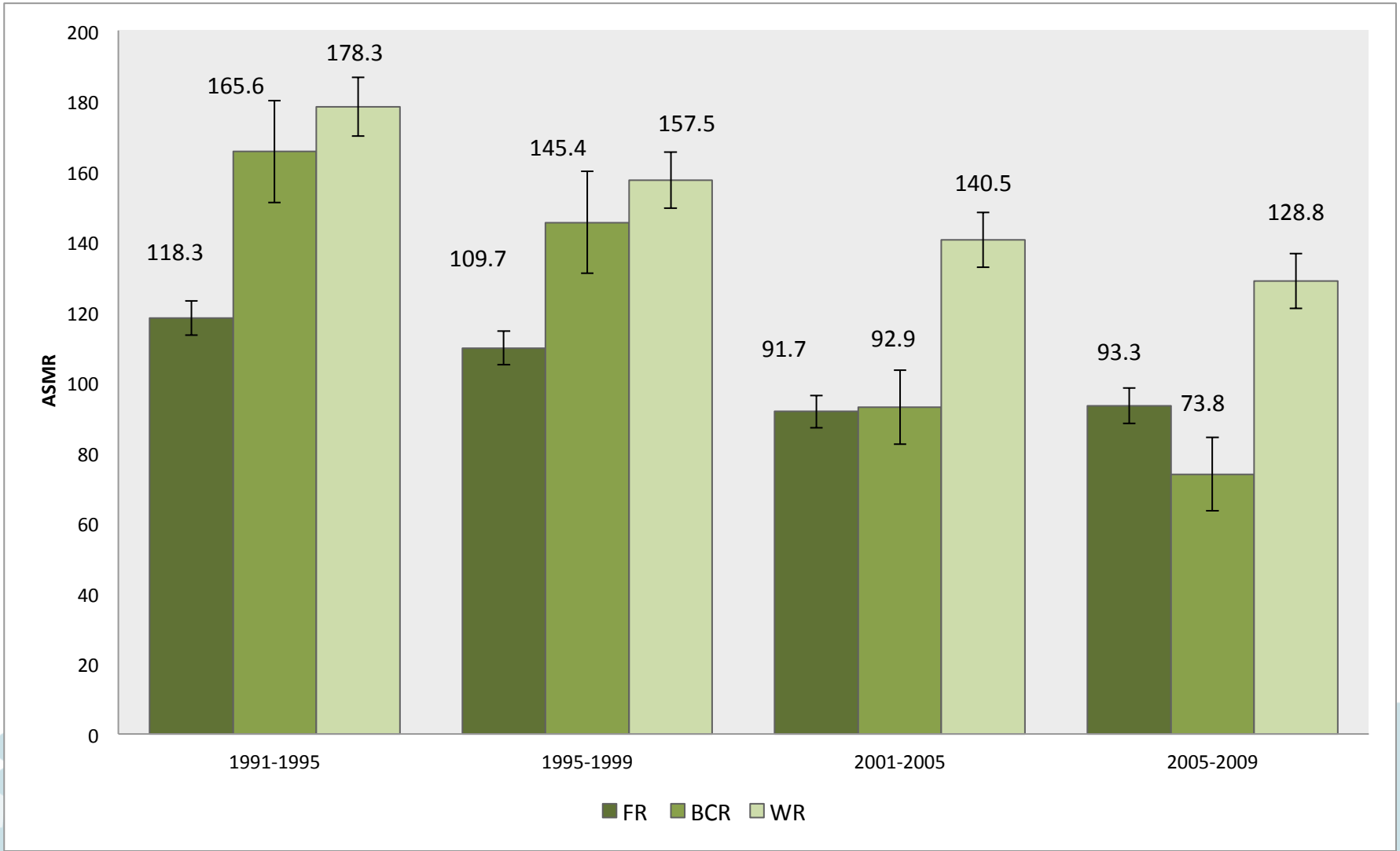
Results O2b: Regional differences*

- ✧ Mortality decline over time not only in the BCR but in all Belgian regions
- ✧ Decline most prominent in the BCR, the Walloon Region (WR) lags behind
- ✧ Educational gradient in all regions
- ✧ Differences remain after various controls, but large non-Belgian population in lowest educated groups is important contributor for this large drop

*De Grande,H., Vandenheede,H. & Deboosere,P. *(2015) Educational inequalities in young-adult mortality between the 1990s and the 2000s: regional differences in Belgium.* Archives of Public Health, 73,11.

Regional differences in all-cause mortality

Figure: ASMR 25-34-year olds over time, by region, MEN



Results O3b: urban differences*

- ✧ Positive evolution towards lower mortality among men and women in all urban/ non-urban areas
- ✧ Social gradient still exists BUT there are differences according to urbanicity
- ✧ In large urban areas everyone showed lower mortality rates, irrespective of educational level → composition of the population
- ✧ In non-urban areas, higher educated benefitted most over time, while lower educated stayed behind

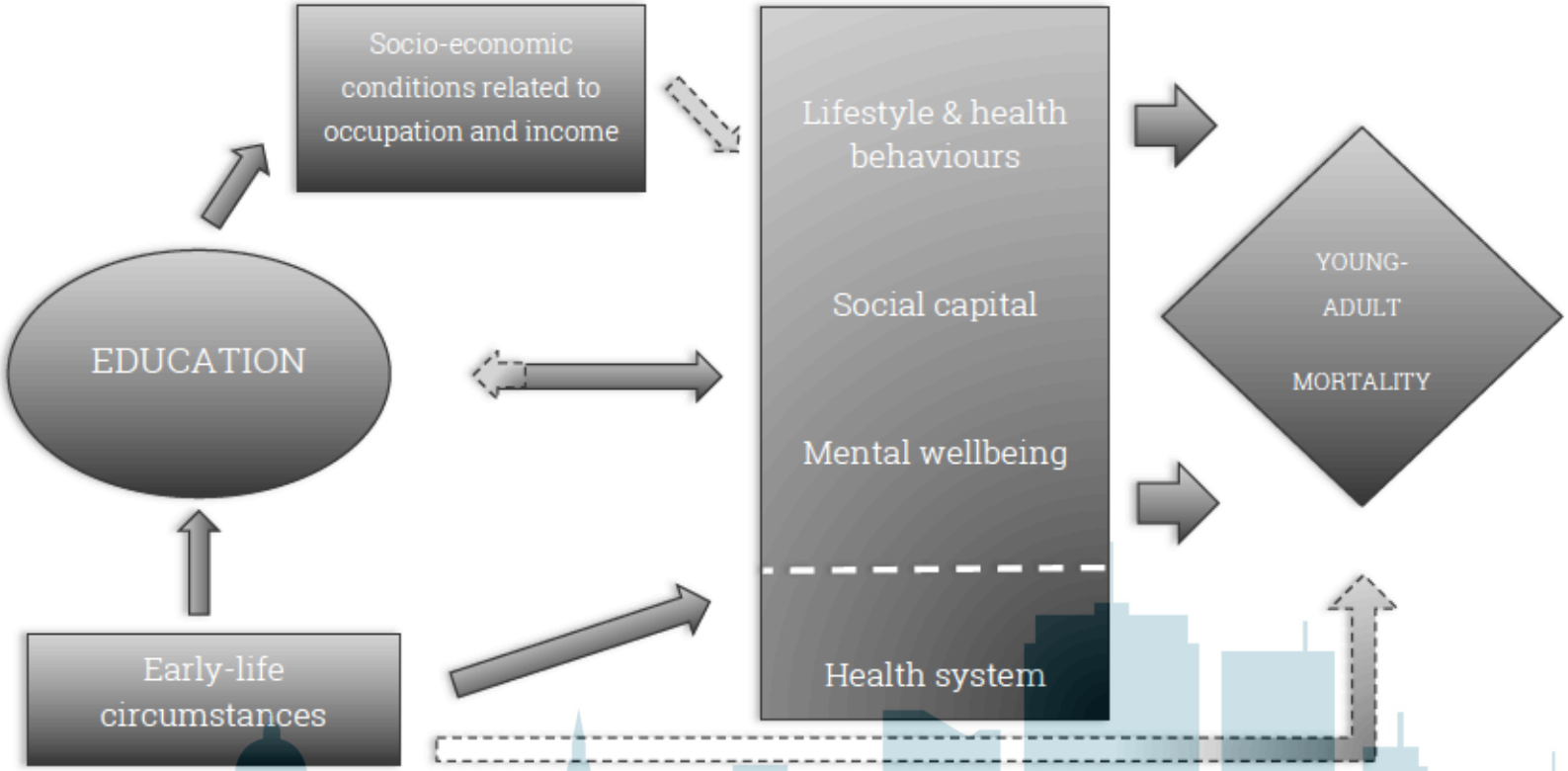
* De Grande, H., Vandenheede, H. & Deboosere, P. (2014). Trends in young-adult mortality between the 1990s and the 2000s in urban and non-urban areas in Belgium: a decomposition analysis. *Health & Place*, 3, 61-69.

Discussion

- Educational expansion contributed significantly to lowering mortality among the young
- 60% of mortality drop over time is due to shift towards higher educated young population
- Lowest educated: small and selective group
  - Health selection – Bednet
  - Early school leavers – empowerment through neighbourhood?
- Higher secondary educated – different school system?

Discussion

Education…good for your health



Source: Adaptation from CSDH Framework (2007); Pallas (2000); Mirowsky & Ross (2003) & Hayward (2015)
Dashed lines: mixed results on the association between these factors

Discussion & recommendations

Universal and integrated approach

- ✧ Both universal and tailored to specific subgroups?
  - ✧ Universal campaigns might miss out specific groups → two examples:
    - sexual education/HIV knowledge
    - road accidents/homicide
- ✧ Intersectoral approach beyond health and health care
  - ✧ Education: schools are ideal to reach all young persons
  - ✧ Employment
  - ✧ Poverty
  - ✧ Social participation / strenghtening neighbourhoods

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Thank you for your attention!

Questions?

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