Education and the democratization of health and mortality in the Belgian Health Transition

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Overview

- The background of our research
- The data (Statistics Belgium)
- Testing SAH: do we speak the same language?
- The survival curves by educational level

Background

- Start from the global approach that refers to social factors in what Robert Fogel called “the Escape from Hunger and Premature Death”.
- We do not enter into the discussion of which factors have been decisive. Depending of period and place the importance of different factors shifted and it was a complex interplay of nutrition, sanitation, medical knowledge, etc.
- But in essence all those social factors are rooted in knowledge and applied knowledge or technology driven productivity enhancement (Preston)
- Knowledge is not enough: it has to be spread, what refers to the crucial role of the democratization of education (or democratization of the access to ressources) as has been illustrated for different countries by Caldwell and colleagues

Some propositions

- There is no reason to assume that the role of knowledge has to be limited to the earliest periods of the health transition
- Knowledge is not something abstract, but is materialized in the population
- Formal educational level can be considered a proxy for SEP, but is also a measure of knowledge and skills although the latter cannot be reduced to formal education
- Knowledge =
  - Risk management
  - Choosing opportunities
  - Coping behaviour
  - Increasing self-control
- Higher educated = vanguard population in the health process

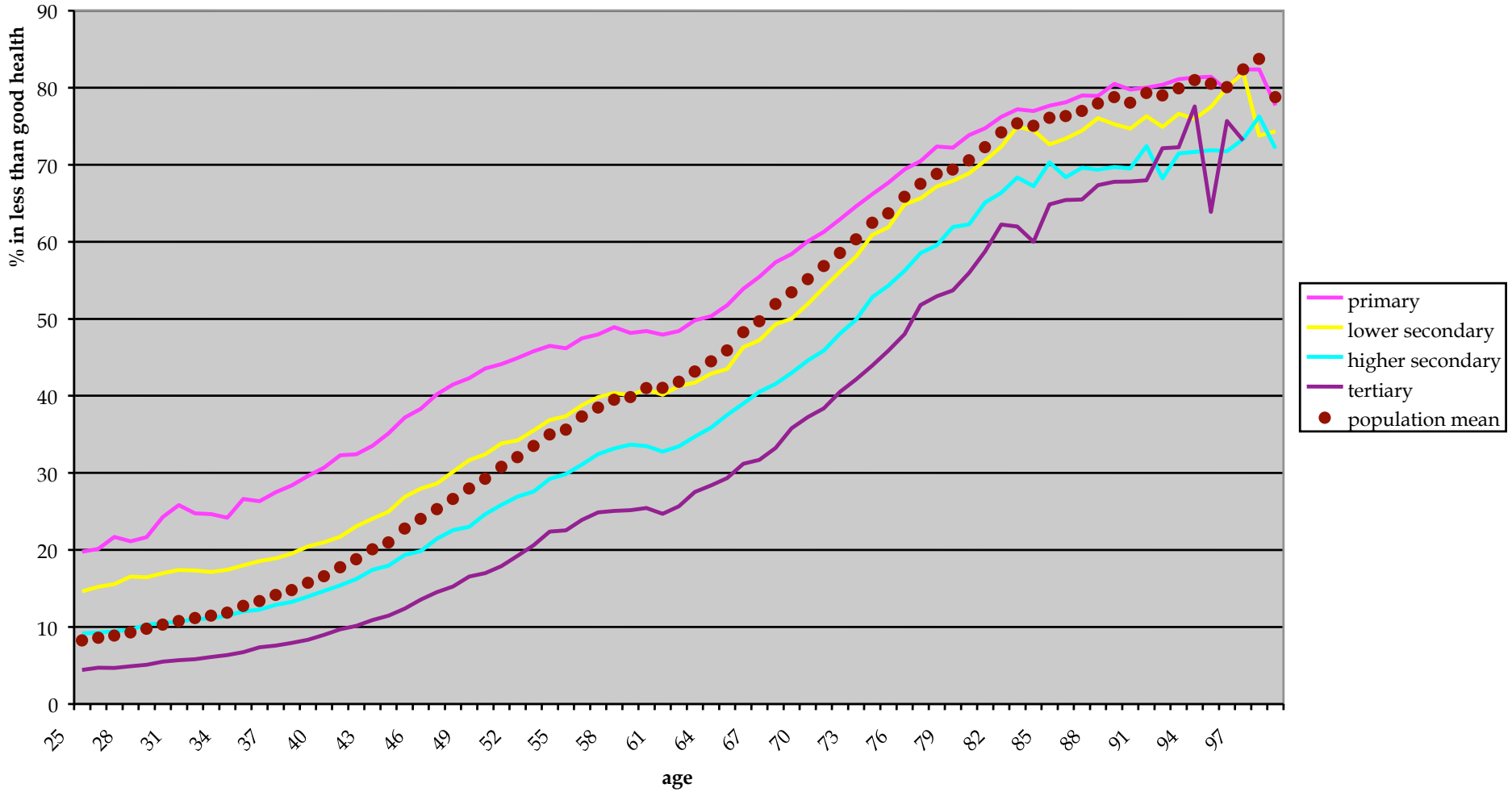
Data

- Census data of 2001: individual level data for the total population
- Linked to the National Population Register during a 3 year follow-up period for mortality and emigration
- Health questions in the census have been answered for all the persons aged 6 years and older
- The total response rate for the health questions was about 94% (9.012.295)

The census health questions

- In the Belgian 2001 census, health is measured by four health questions.
- i) a classic general self-reported health question (“How is your health in general?”, very good, good, fair, bad, very bad);
- ii) a question on chronic morbidity (“Are you suffering from one or several long-term illnesses, health problems or handicaps?”, yes/ no)
- iii) a question on disability for those suffering from chronic morbidity (“If you have answered yes, do they limit your daily activities?”, continuously, once in a while, seldom or never).
- Based on the last two questions a distinction can be made between moderate disability (those persons suffering limitations once in a while) and severe disability (those suffering limitations continuously)

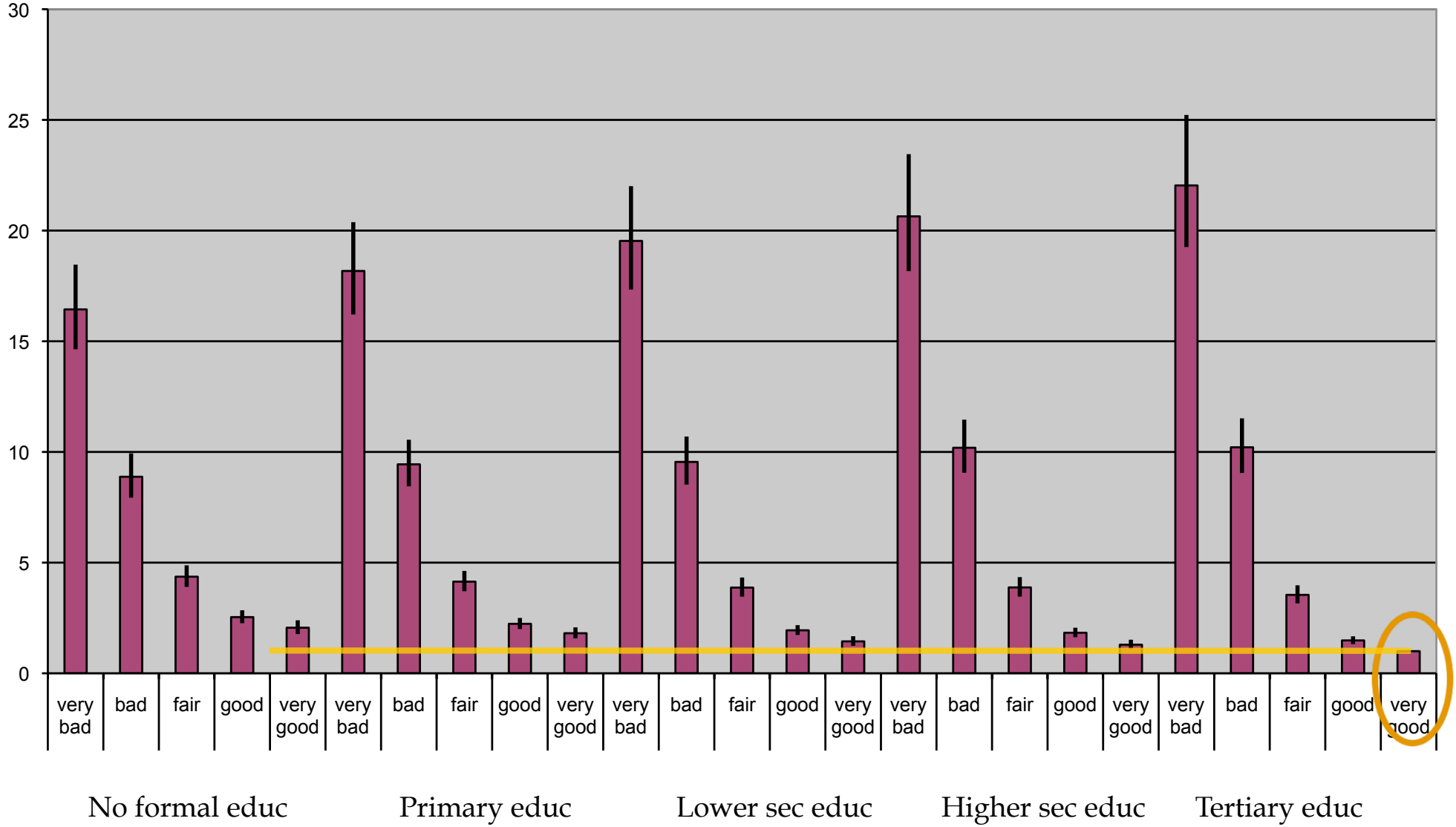
Self-assessed health in the 2001 census by educational level (men & women)



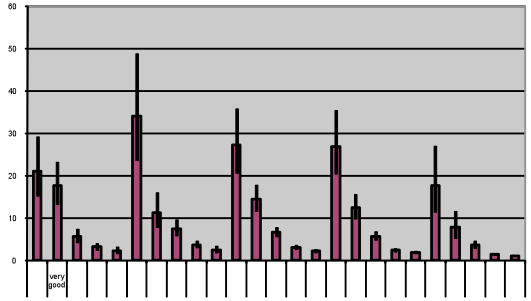
But do we speak the same language?

- Test the predictive force of SAH for mortality
- Cox regression for men aged 60-79 by educational level and health status combined: no education, primary, lower secondary, higher secondary and tertiary
- Reference group highest educated men with very good health

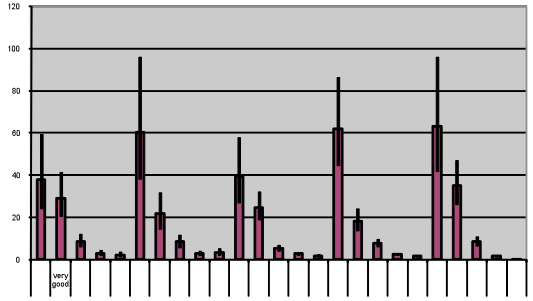
Relative Risk for mortality by highest educational level and SAH men 60-79



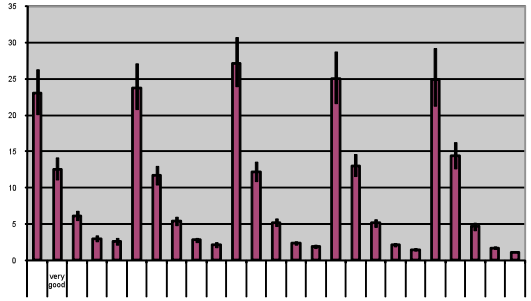
Relative Risk for mortality by highest educational level and SAH men 2539



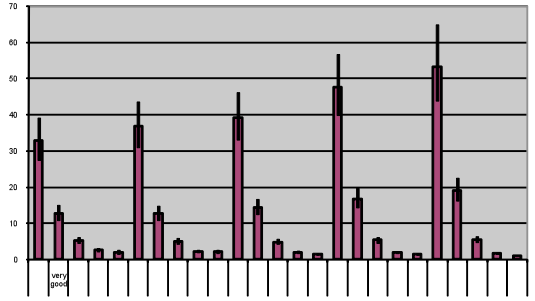
Relative Risk for mortality by highest educational level and SAH women 2539



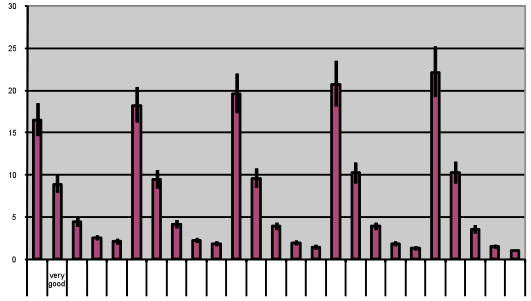
Relative Risk for mortality by highest educational level and SAH men 4059



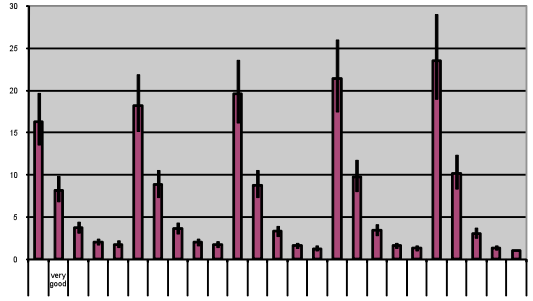
Relative Risk for mortality by highest educational level and SAH women 4059



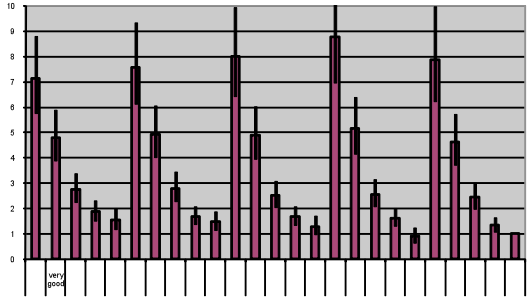
Relative Risk for mortality by highest educational level and SAH men 6079



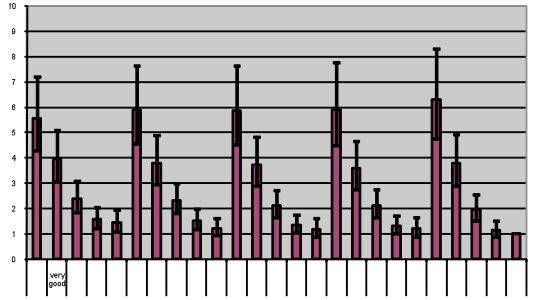
Relative Risk for mortality by highest educational level and SAH women 6079



Relative Risk for mortality by highest educational level and SAH men 8099



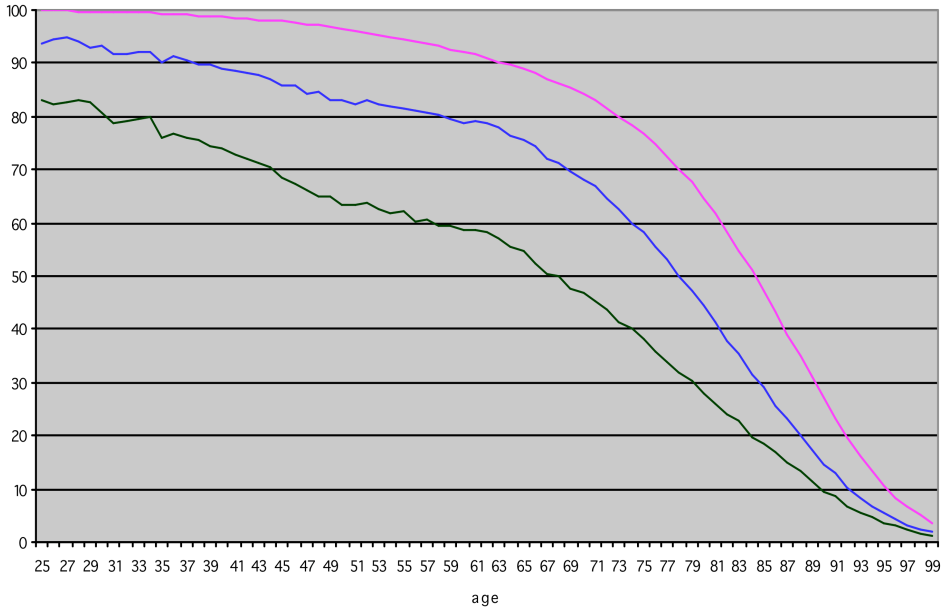
Relative Risk for mortality by highest educational level and SAH women 8099

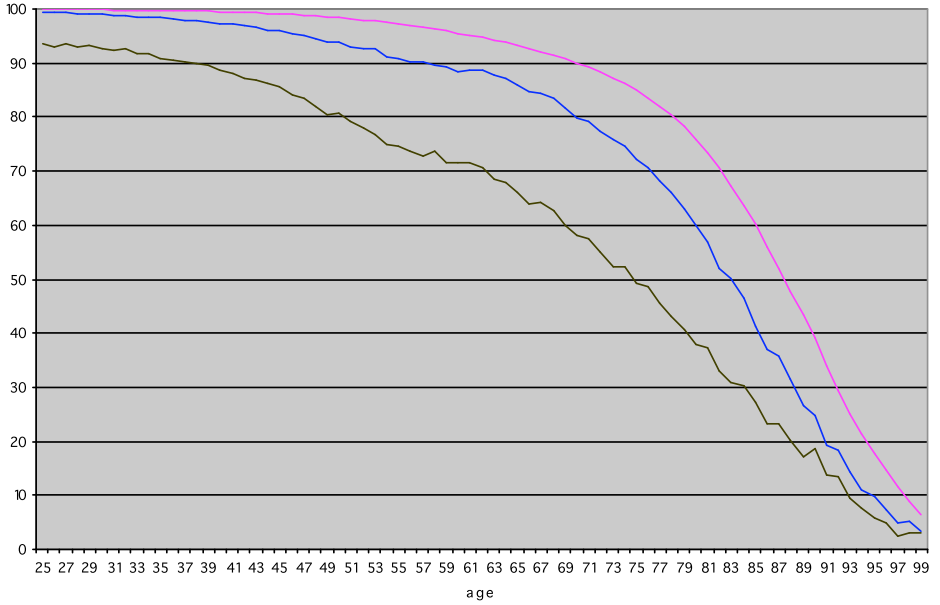


The changing survival curve

- Compairing two extreme groups: women with primary education and women with tertiary education
- The rectangularization of the survival curve
- What is happening with the surfaces of Healthy LE, Disability Free LE (with and without health problems) and LE with disability
- Applying the Sullivan method based on the observation of the prevalence of different health states in the total population

Women with primary and tertiary education
census 2001
Total Life Expectancy - Disability Free LE – Healthy LE





Conclusions

- Higher educated have a higher life expectancy with a shift to the right of the falling line of the survival curve and at the same time a more rapidly falling line.
- The total surface of life expecancy in less than good health is shrinking compared to lower educated
- The differences between educational levels show that there is a large reservoir left for further improvement in population health
- If higher educated can be considered a vanguard population related to health, than we can expect that life expectancy will still improve together with an ongoing compression of morbidity

- Thanks for your attention