

# Discussion of “Compression of morbidity: a promising approach to alleviate the societal consequences of population ageing?”

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# Summary

- Rise in life expectancy → societal consequences
- Compression of morbidity/dynamic equilibrium/expansion of morbidity
- Developments in literature:
  - Measurement
  - Methods: model transitions between states
  - Findings:
    - ‘Maximum age’ might be increasing
    - Compression of morbidity: inconsistent evidence

# Summary (cont.)

- Empirical exercise on CVD and lifestyle
  - All risk factors increase likelihood of getting CVD
  - Compress morbidity: obesity and hypertension
  - Dynamic equilibrium: Smoking and exercise
- Conclusions
  - Compression of morbidity is not obvious...but helpful in reducing societal consequences

# Comment 1: necessary vs sufficient

- Compression of morbidity: a necessary or sufficient condition for alleviating societal consequences of ageing?
- health care costs:
  - Age vs morbidity/disability/mortality matters, but also technology, medical price inflation, ...
  - Cost-effectiveness of interventions matters
    - Empirical exercise: reduce hypertension and obesity
    - Cost effectiveness of smoking reduction and more exercise is more favorable (e.g. Russel 1998)

# Comment 1: necessary vs sufficient (cont.)

- Increasing labour supply & pension providers:
  - Implicitly assumed individuals will work longer, but during last 50 years old age mortality has reduced substantially (and probably an increase of life expectancy without morbidity)...nevertheless, actual retirement age has not increased.
  - retirement incentives etc.

## Comment 2: heterogeneity?

- Differences across socioeconomic groups?
- Heterogeneity in time preference
  - Uncertainty in modelling
- Framework of compression of morbidity is mechanical
  - Limited room for individual behavior → making morbidity, disability and mortality the ‘outcome’ of a choice process?

## Comment 3: less successful?

- Gains of compression of morbidity might be overestimated
- Working longer might affect mortality and years without disability
  - Is working unhealthy?
  - Consider relation working/occupation/disability

# Minor comment: why compression?

- Focus on compression of morbidity, although authors write:
  - “... the main challenge for health policy is... not only age at death is postponed, but years of life without morbidity are increased at least with the same absolute number, and hopefully more”
  - Unlikely case: mortality increase > disability reduction
- Focus on life expectancy without disability?
- Trade off life expectancy vs. years with disability

# Miscellaneous

- Disability and morbidity are often interchangeably used in the paper
- Empirical analysis uses only age, sex, comorbidities & risk factors as confounders
  - Socio-economic variables?
- Standard deviation in the age distribution of deaths remained constant since 1990 in NL.
  - Stand dev (also coef of var) of a bounded variable (such as mortality) depends upon the mean