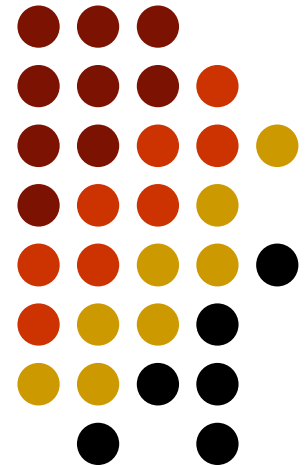




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Social Security and Labour Policy  
Discussion Forum  
International mortality developments  
18 Sept 2013

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# International mortality developments

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Key factors today:

- Relevance to social security and labour policy

Two parts

- Update on developments
- Discussion on areas of common interest



# Update on developments

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- Global Burden of Diseases Study
- Healthy Life Expectancy
- Social Inequalities and Mortality in Europe
- Comparative Mortality Improvements using the HMD
- Mortality at Advanced Ages
- OECD project on Mortality and Annuity Products
- IAA MWG outputs



# Global Burden of Diseases Study

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- **Largest ever survey**
  - Since 1970:
    - Reduced: infectious diseases, mother/child mortality, malnutrition
    - Life expectancy up by 10 years +
  - Remaining: non-communicable diseases s/a cancer, heart disease



# Healthy Life Expectancy

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- **Healthy life Expectancy for 187 countries. Salomon et al**
- As life expectancy has increased, Healthy years lost to disability has also increased in most countries
  
- **Healthy life expectancy: Jagger et al**
- Longevity Bulletin
- Good overall introduction to the subject



# Social Inequalities and Mortality in Europe

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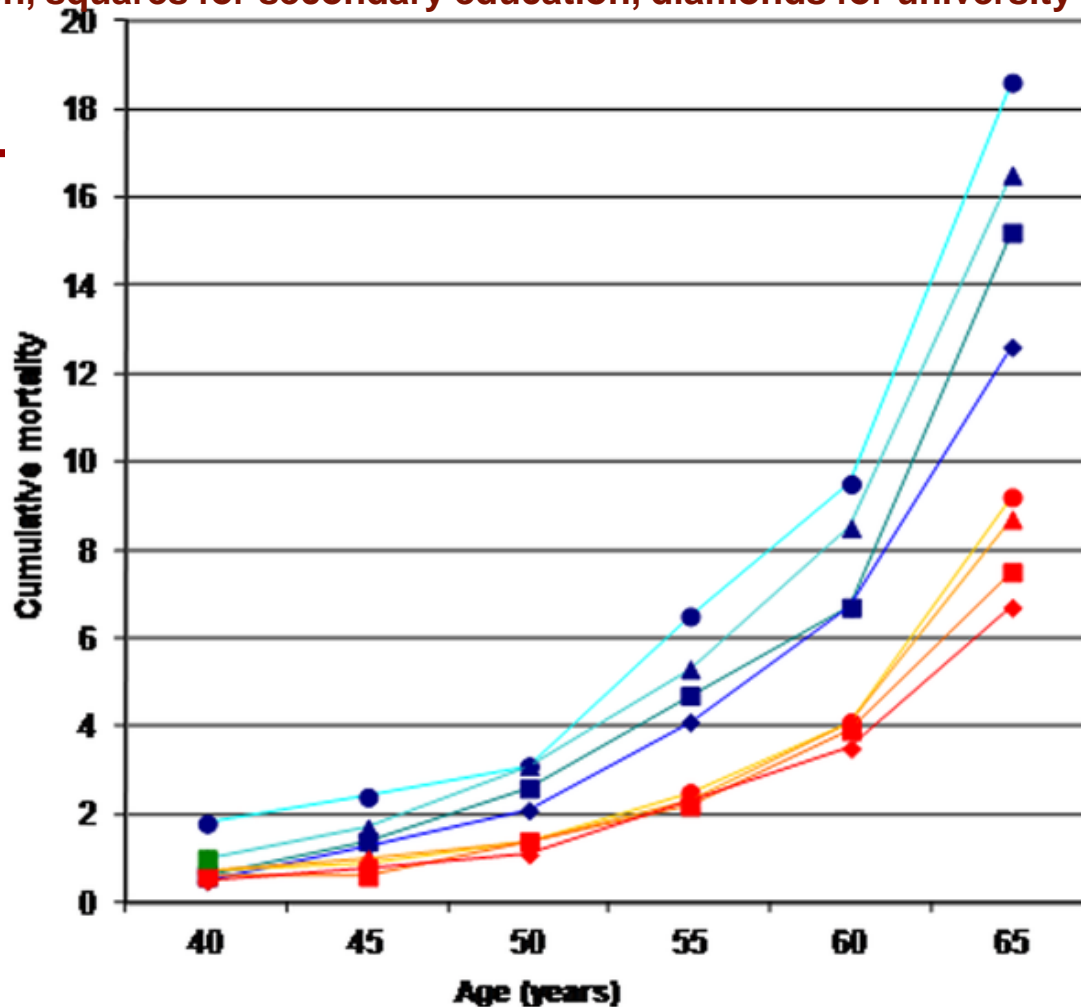


## Social Inequalities and Mortality in Europe, Gallo et al

- Analyses differences in cause-specific mortality by education level
  - Male: lightest mortality is 57% of heaviest
  - Female: lightest is 79% of heaviest
  - All causes examined - but some deaths still unaccounted for
- 



Figure 1. Cumulative mortality at different ages by education level and sex (blue lines for men, orange/red lines for women; circles for none-primary education, triangles for technical education, squares for secondary education, diamonds for university degree).



Gallo V, Mackenbach JP, Ezzati M, Menvielle G, et al. (2012) Social Inequalities and Mortality in Europe – Results from a Large Multi-National Cohort. PLoS ONE 7(7): e39013. doi:10.1371/journal.pone.0039013  
<http://www.plosone.org/article/info:doi/10.1371/journal.pone.0039013>

# Social Inequalities and Mortality in Europe

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- **The uneven health of Europeans, Mackenbach et al**
  - West v East - reasons for differences





# Social Inequalities and Mortality in Europe

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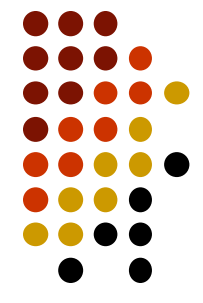
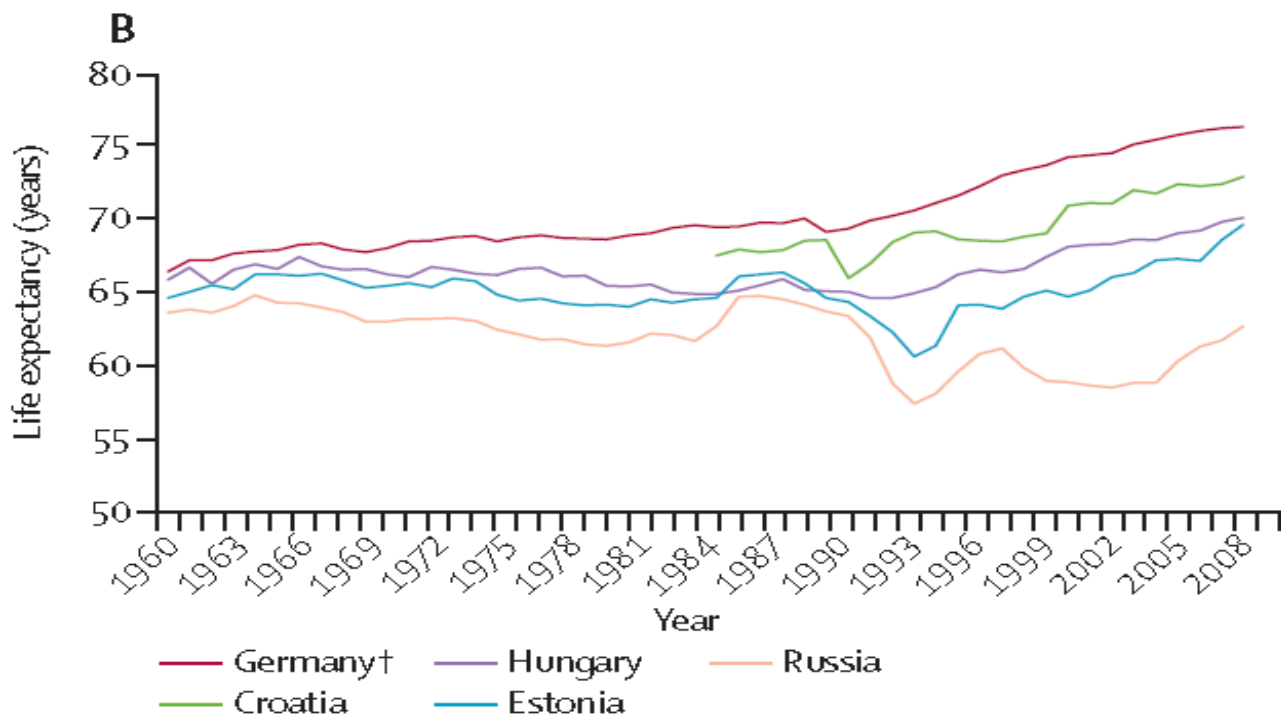
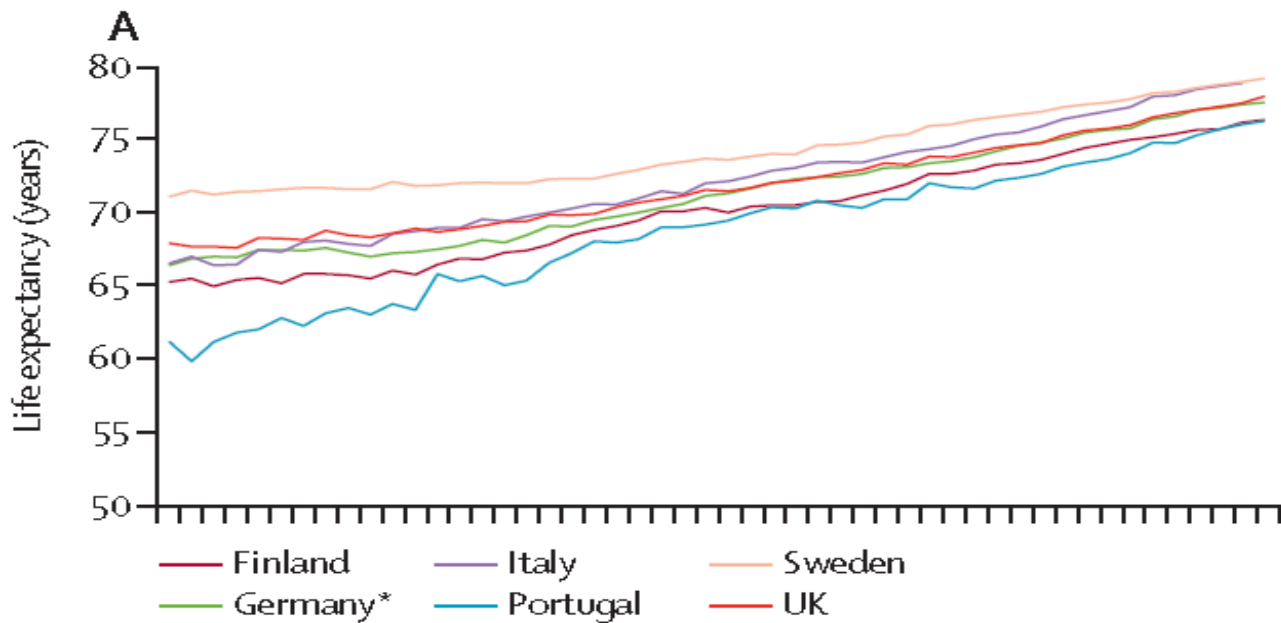


- **The uneven health of Europeans, Mackenbach et al**
  - West v East - reasons for differences
  - Following slide

*Figure 1: Trends in life expectancy at birth in men in selected countries in western Europe (A) and central and eastern Europe (B), 1960–2010*

Source: Human Lifetable Database. \*Federal Republic of Germany until 1990, western Länder subsequently. †German Democratic Republic until 1990, eastern Länder subsequently.





# Comparative Mortality Improvements using the HMD

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- **Comparative Mortality Improvements, Browne - in progress**
  - Compares life expectancy at birth, 40 and 65 for 37 countries
  - Will analyse changes by country, gender, age, cohort and period
  - Will provide tools to allow analysis of the available data by other users



# Other recent developments

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- **Mortality at advanced ages in UK**
    - Likely that age 90+ mortality projections are optimistic by 15%
  - **OECD project on reserving bases for pensions and annuities, Pablo Antonin**
    - to come
  - **International Handbook of Mortality, Rogers et al**
    - Helpful articles on a variety of subjects
- 



# IAA Mortality Working Group outputs

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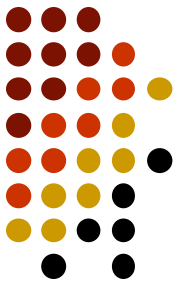


- Biannual report
  - Information Base:
    - [www.actuaries.org/mortalityinfo](http://www.actuaries.org/mortalityinfo)
  - Local mortality events at IAA meetings
    - An inexpensive way to use expertise of members
- 



# Discussion

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