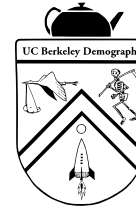


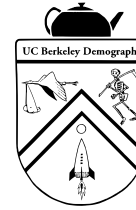


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# Morbidity and Mortality

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# A test title



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# The problem

**Projections** show population **ageing**.

**Robust** mortality data, good projections.

**Less reliable** data on health. Less comparable. Cross-sectional surveys, subjective responses. Excluded populations.

**Age-specific** morbidity estimates key for predicting consequences of population ageing— Social and health care demands.



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# Some morbidity scenarios

\* assume mortality declines gradually, or similar.

## Expansion

- 1) ASMR<sup>1</sup>↑ (or const) = morbidity vol. ↑
- 2) ASMR ↓ but insufficient to offset mortality decline = morbidity vol. ↑

## Compression

- 3) ASMR ↓ fully offsets increased surv = constant morbidity vol.
- 4) Fall in ASMRs outstrips mortality decline = morbidity vol. ↓

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<sup>1</sup>ASMR is age-specific morbidity here





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# Literature

## poor predictor

Current ASMR may be poor predictor of future ASMR

## Behaviours

Impact of health behaviours: smoking, obesity, education, ...

## Innovation

Tech innovation can change healthcare demand for given morbidity

## Pessimism

General Pessimism, esp. using scenario 1 (ASMR  $\uparrow$ , Surv  $\uparrow$ )



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## more problems

### Age standardization

Chronological age standardization of conditions that are related with death can degrade data rather than purge it of structure. Serious consequences.

### Assumptions

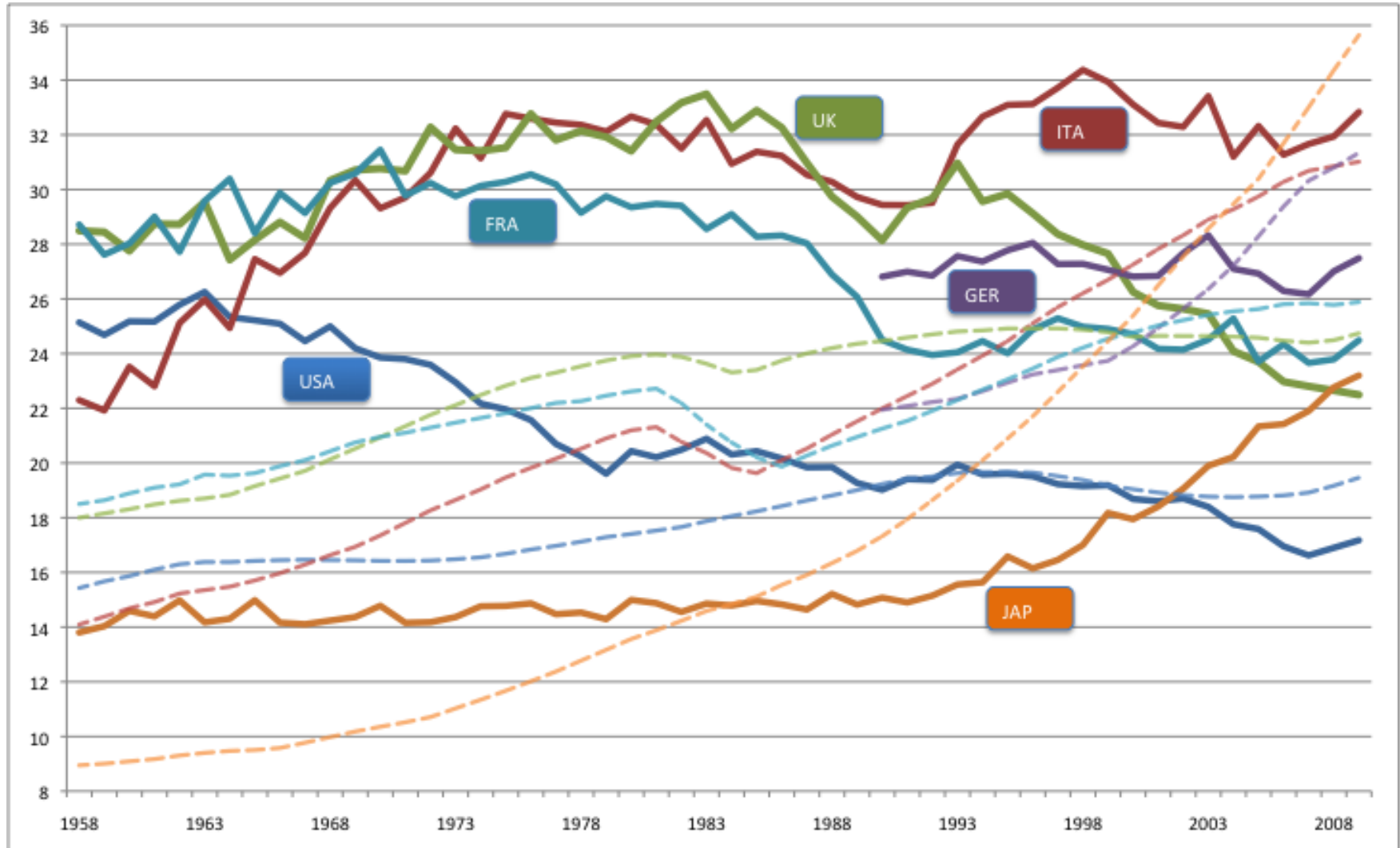
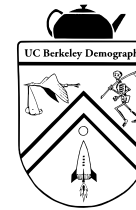
**Chronological** age standardization makes morbidity follow OADR  
**Thanatological** age standardization makes morbidity follow REDR, or similar.<sup>2</sup>

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<sup>2</sup>Remember that finding about populations growing younger and older at the same time? Morbidity measurement needs to follow that. . .

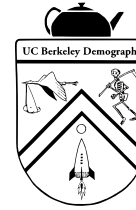


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# Comments or Questions?

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