





MAX PLANCK INSTITUTE  
FOR DEMOGRAPHIC  
RESEARCH

# Healthy lives: Delayed onset, improved recovery, or mortality change?

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## Objective

How much of the change in life expectancy at age 50  $e(50)$  is due to changes in mortality versus changes in disability transitions?

## Data & Methods

- HRS RAND version P.
- 3-state Markov matrix models centered on years 1996, 2006, and 2014.
- Trend decomposition using Horiuchi et. al. (2007) method.

### More details:

- States for 0 ADLs, 1 ADL, and 2+ ADLs,
- Collapsed to 0 and 1+ for this presentation.

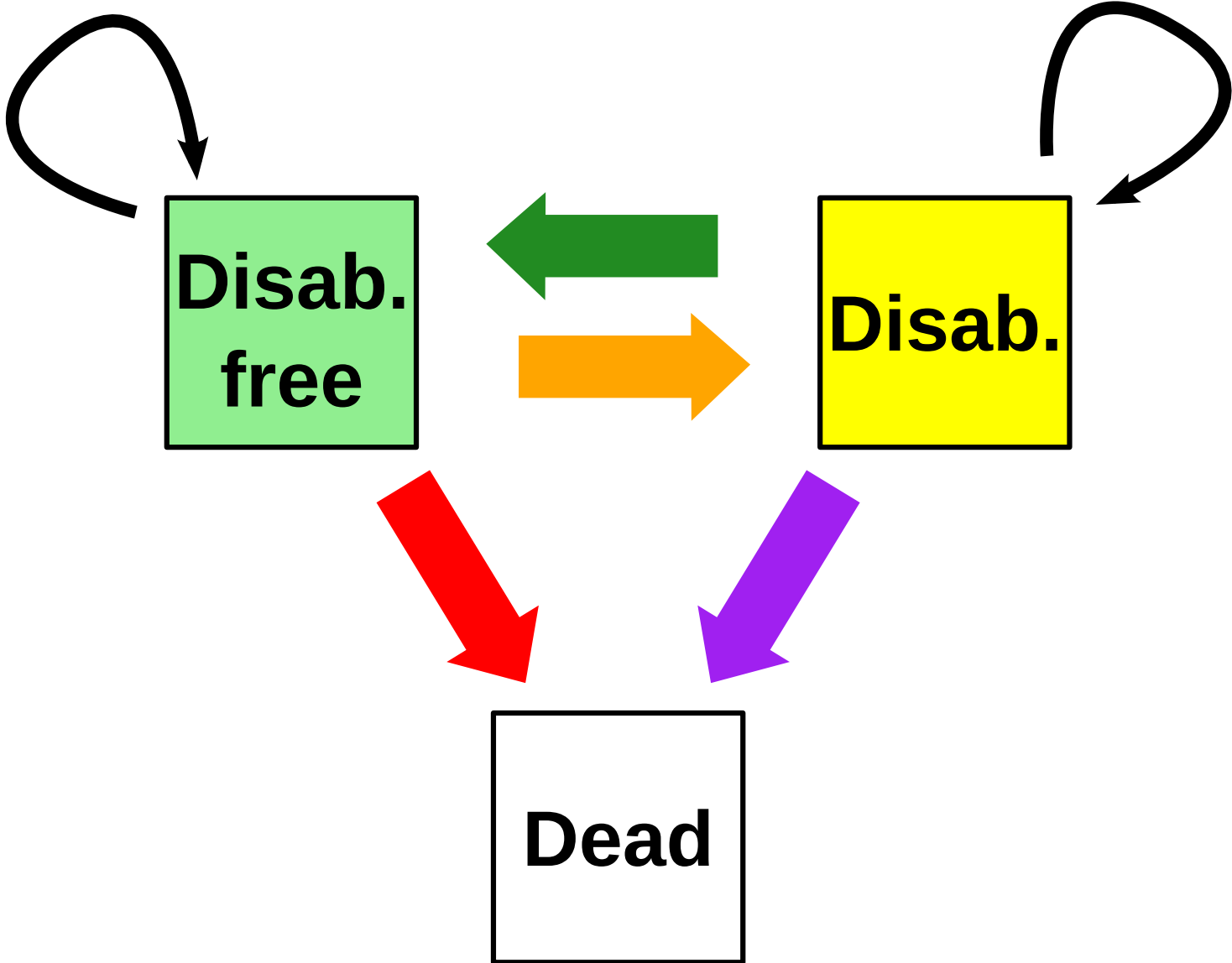
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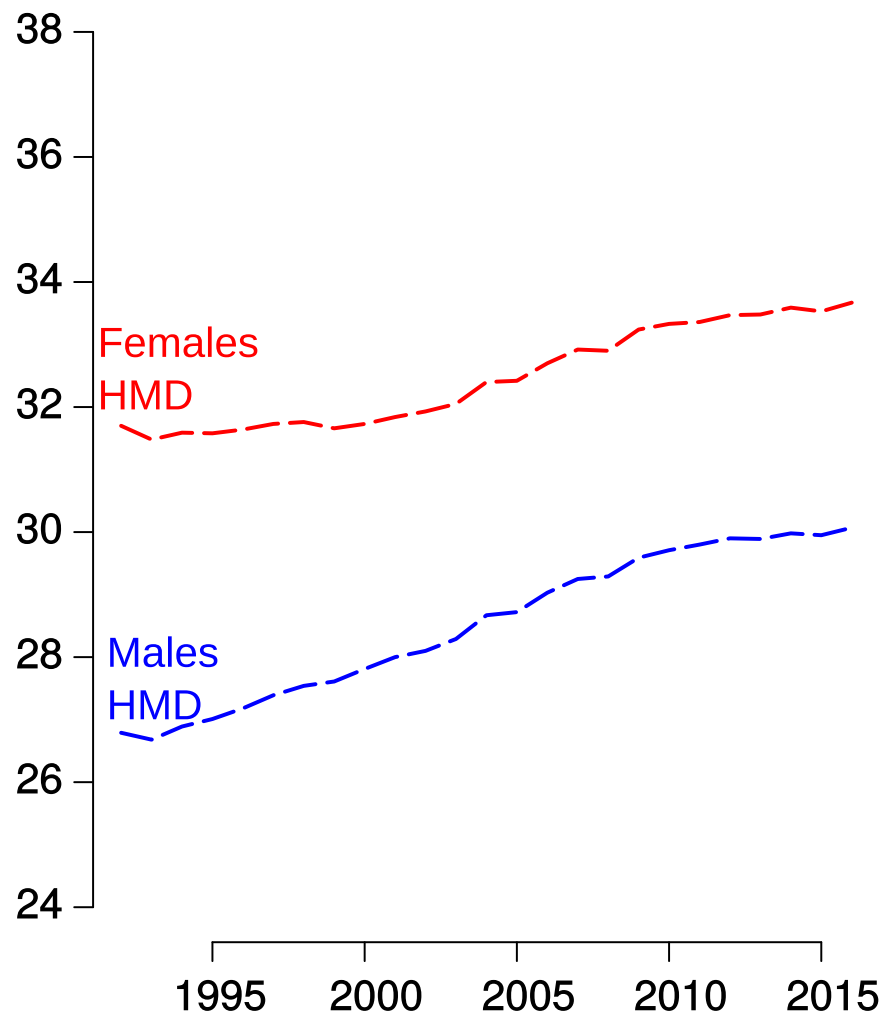
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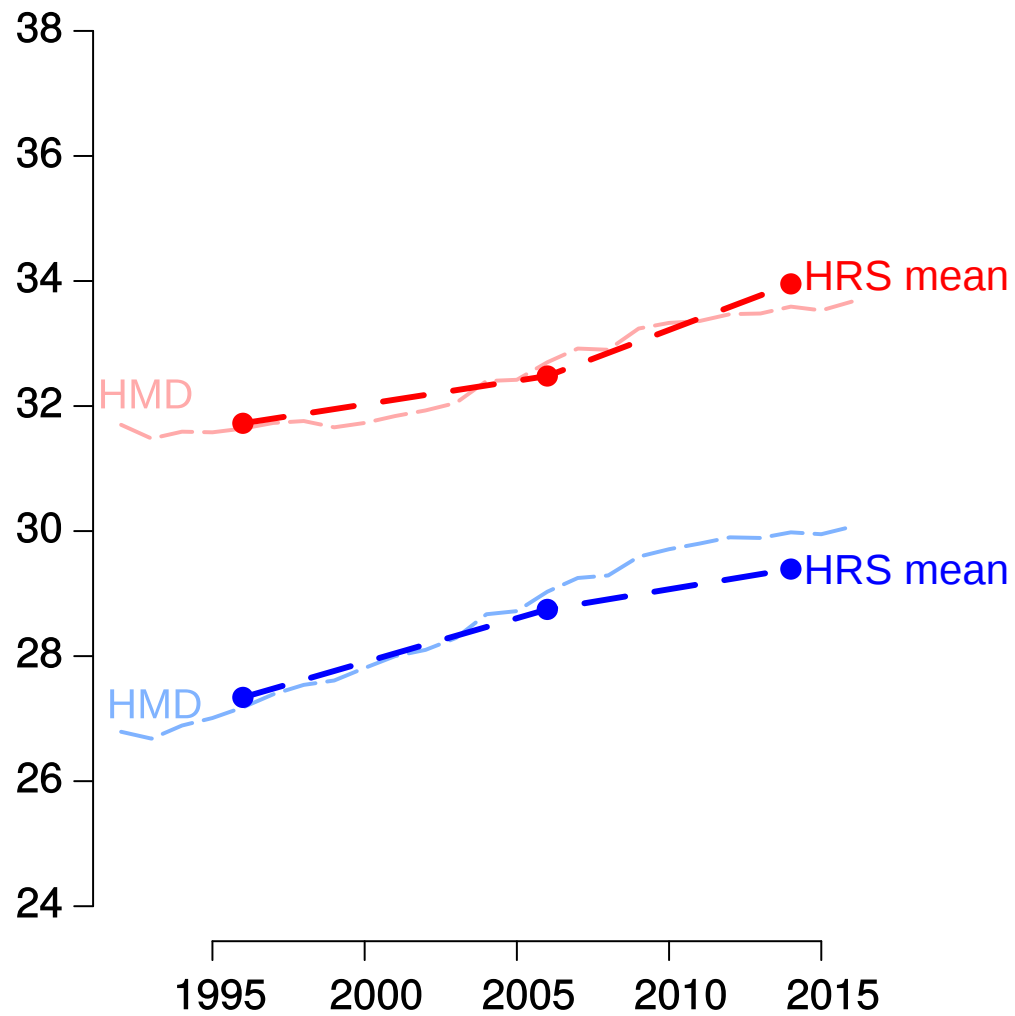
# State space



$e(50)$

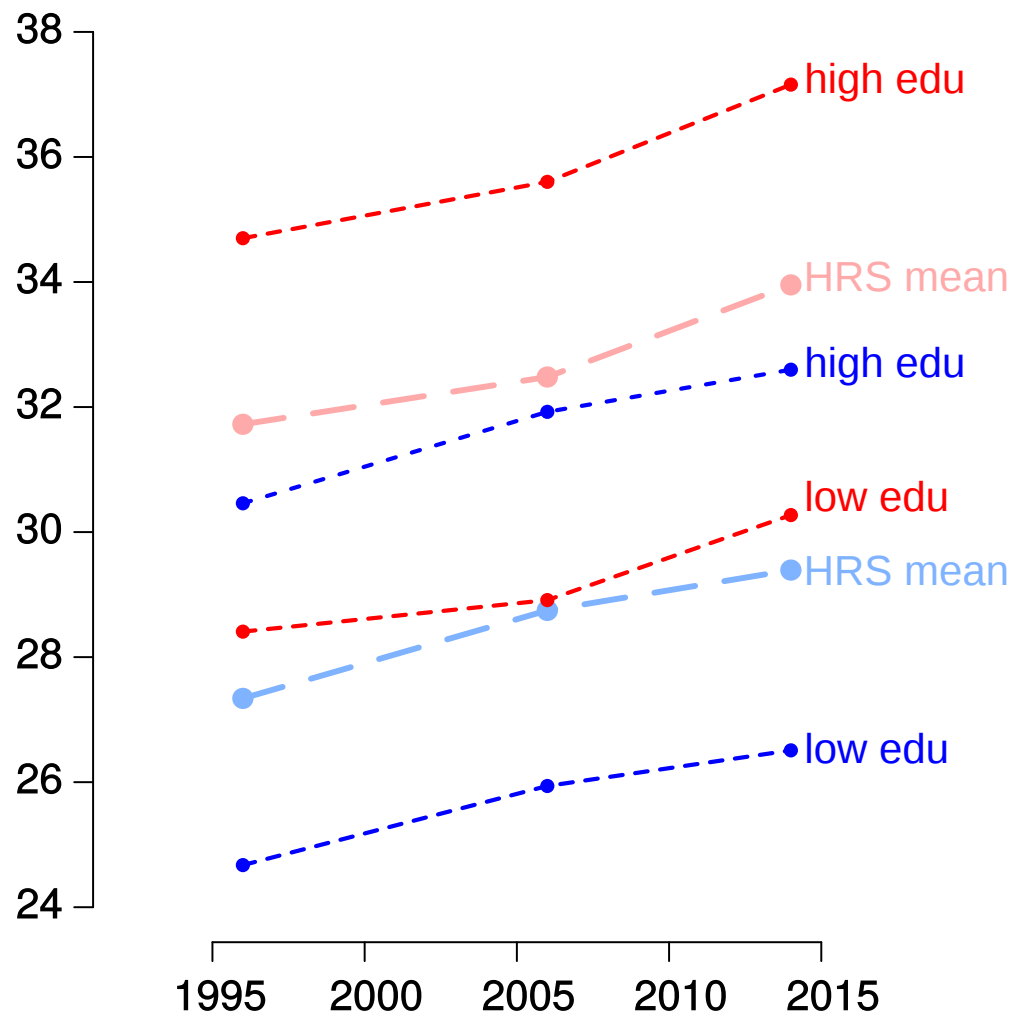


e(50)





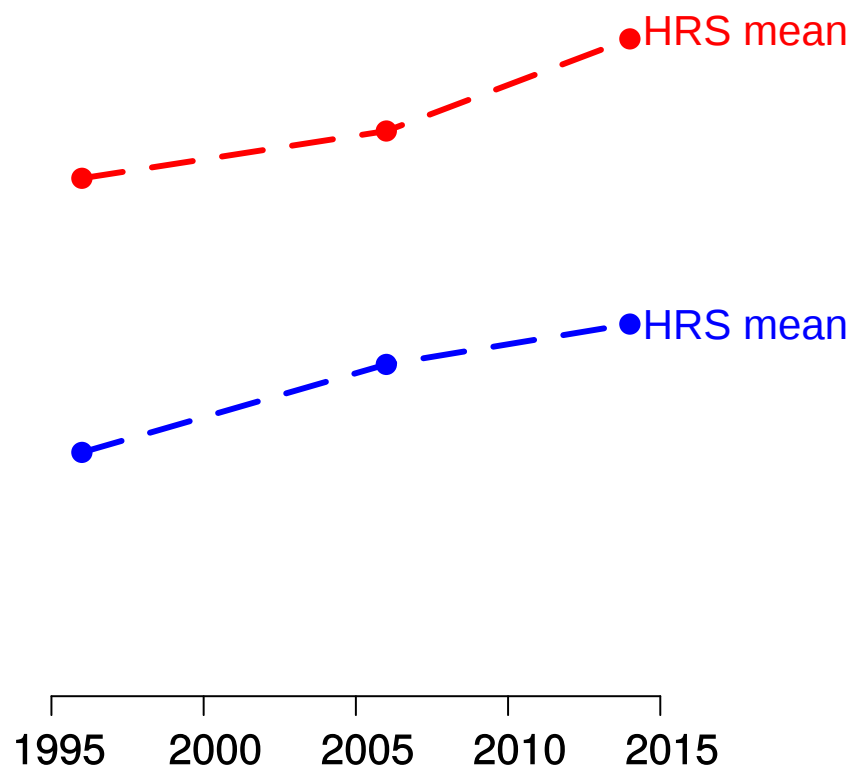
e(50)



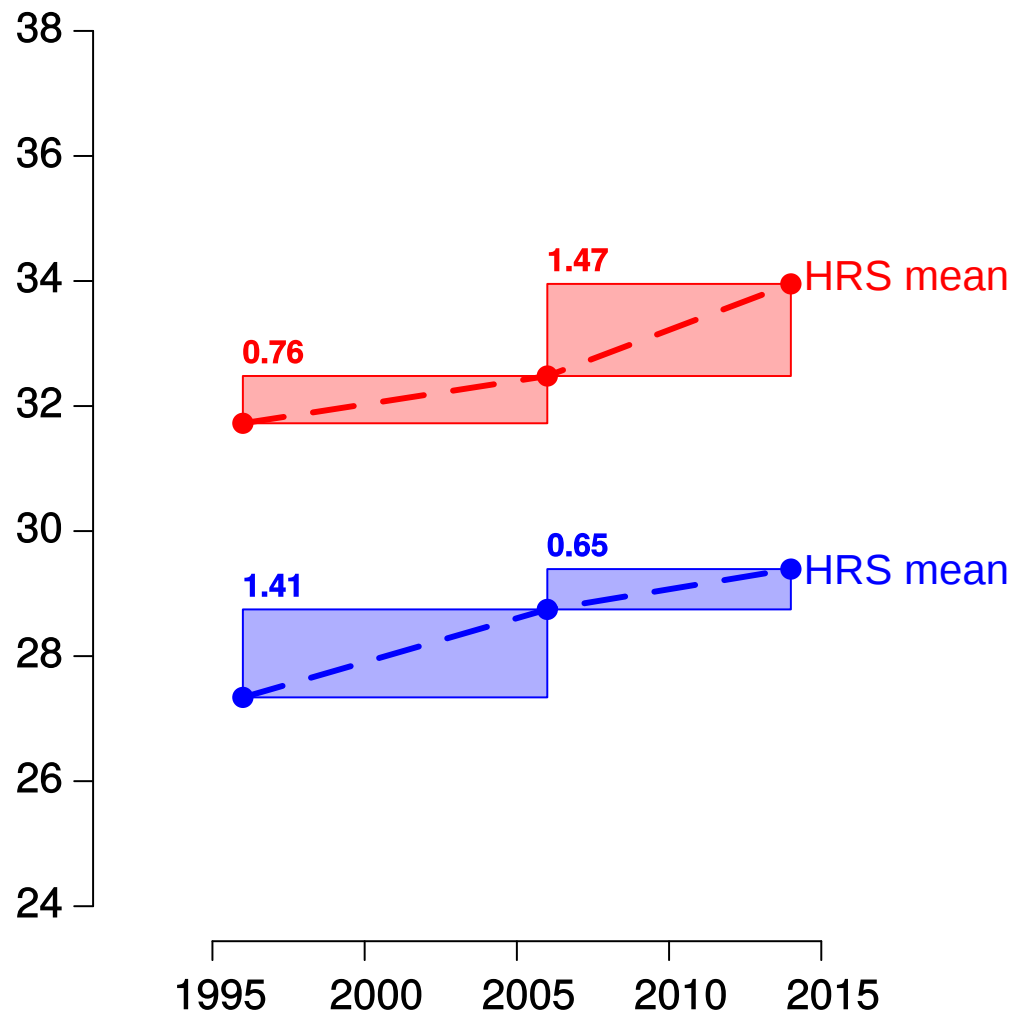
$e(50)$

38  
36  
34  
32  
30  
28  
26  
24

1995 2000 2005 2010 2015



$e(50)$



Graph of LE and HLE from a paper, then overlay  
ours

Difference is prevalence vs incidence

graph of state space, add circle around collapse  
for this talk. mention mlogit w age and time  
splines, not interacted for time being.

Transition rates 1-2-3. Highlighting major ones.  
Cut off at 100?