



MAX-PLANCK-INSTITUT
FÜR DEMOGRAFISCHE
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RESEARCH

Bad behaviors and disabled ageing

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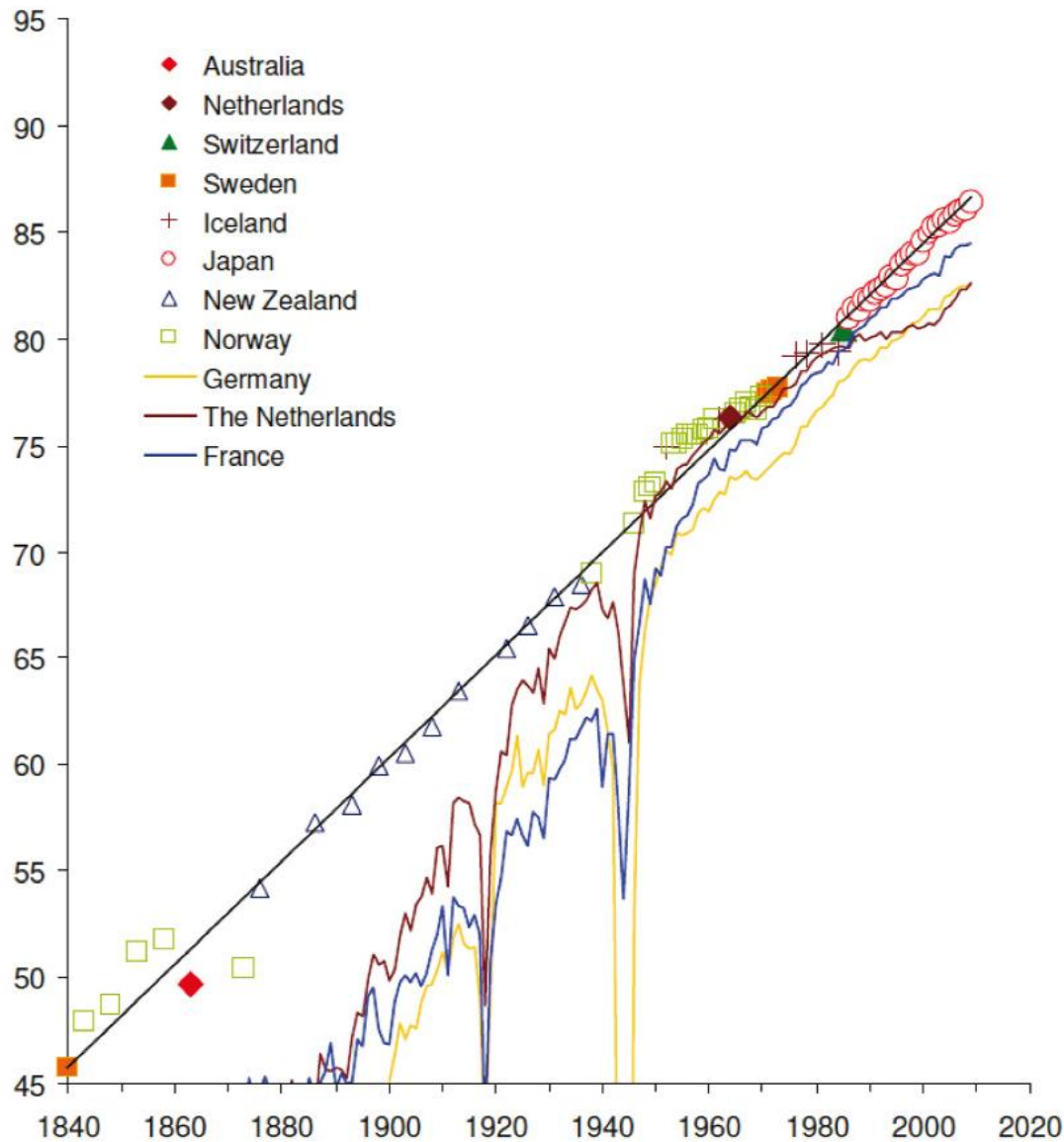


Take home messages

1. Behaviors define the future of health and mortality
2. Some behaviors are replaced by new ones
3. The emerging behaviors predict more disabled years, challenges for extending working life



Good news first: Surge in life expectancy, Women 1840-2015

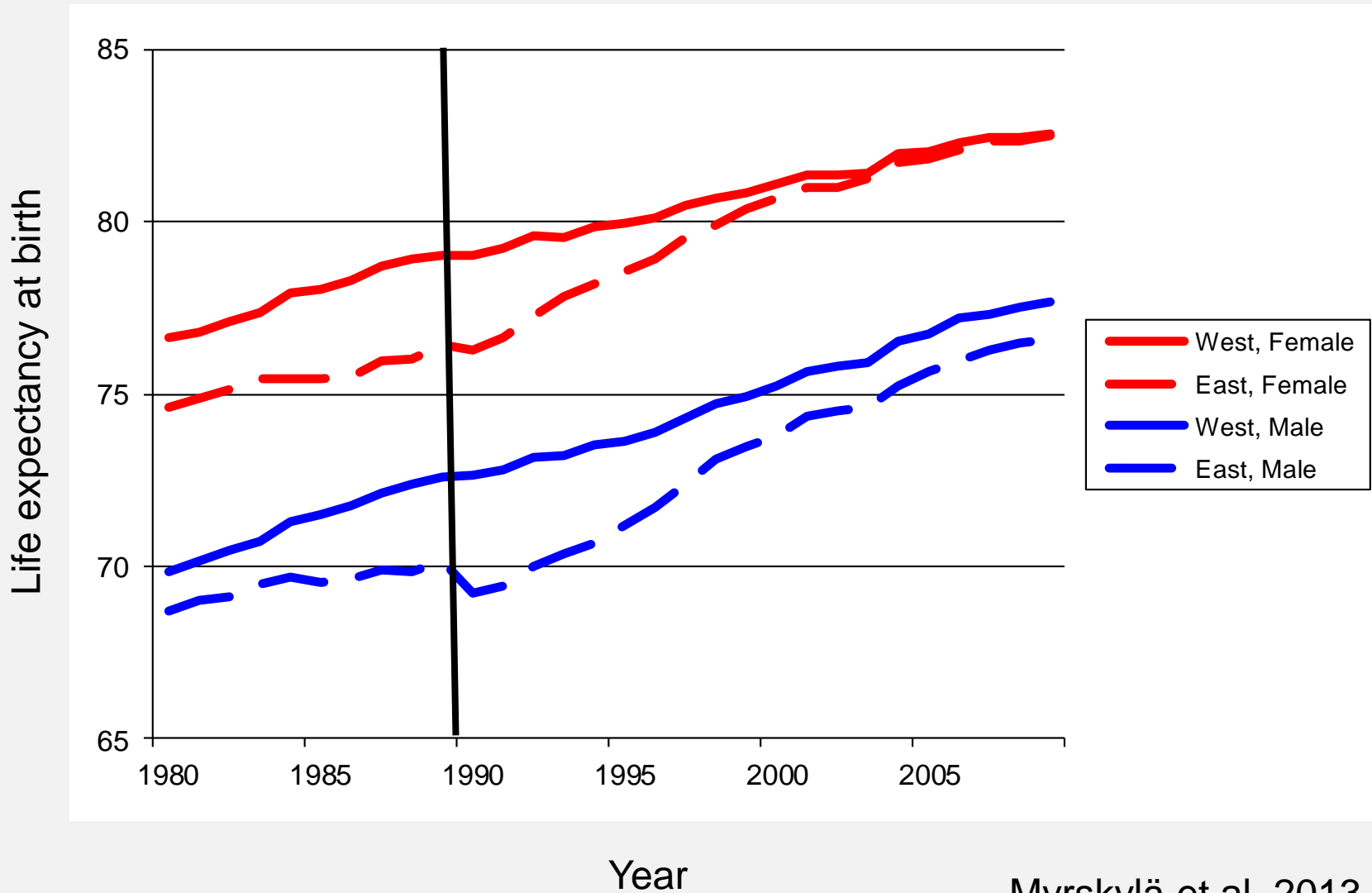


Linear line: "best practice" level,
slope
2.5y/decade

Oeppen and
Vaupel (2002),
updated data



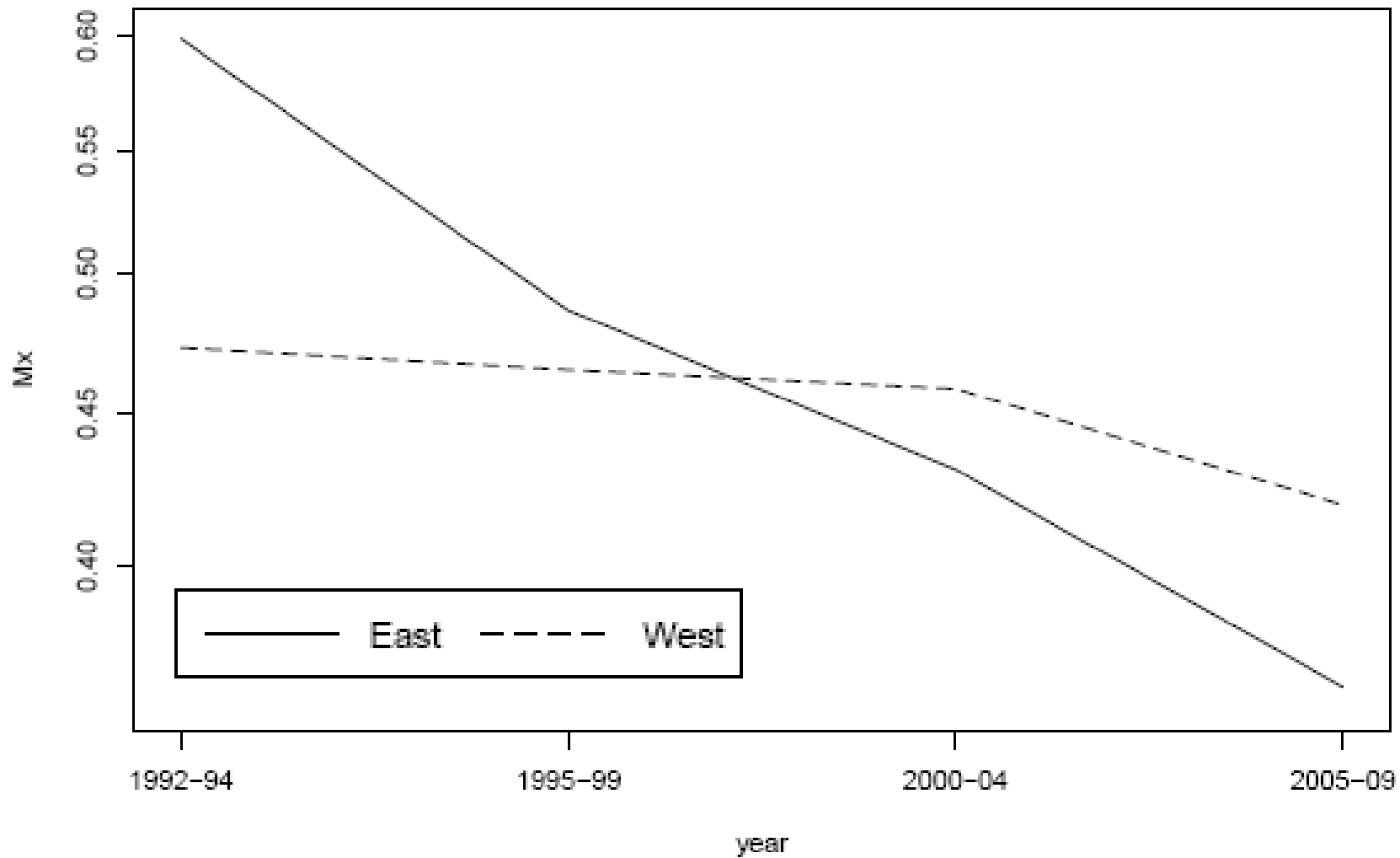
Also in Germany: After the reunification, rapid catch-up in life expectancy, in particular for women





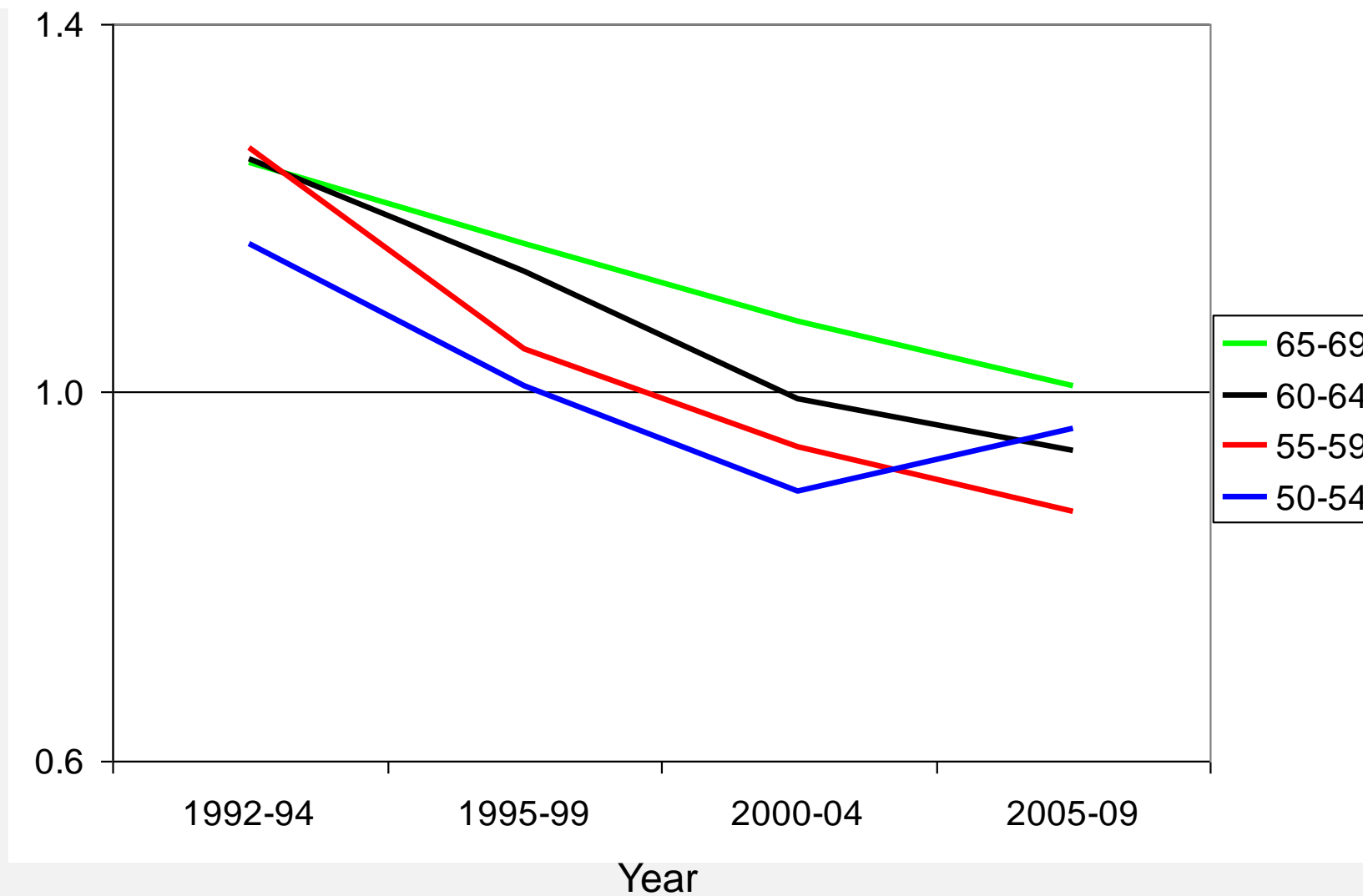
East overtook West!

Age 55-59





East-West Mortality Rate Ratio, German Women





Why lower mortality among East German women?

- (1) Improved health care: Important for the catch-up (Kibele and Scholz 2008; Nolte et al. 2002), unlikely to explain a cross-over
- (2) Increased standard of living: Important for the catch-up (Nolte and McKee 2000), unlikely to explain a cross-over
- (3) Decrease in psychosocial stress: Maybe a factor (Cockerham 1999; Diehl 2008; Dinkel 2000), unlikely to explain the cross-over
- (4) Health behaviors: Less smoking in the East in the 1960s-1980s – combined with the above could be the explanation

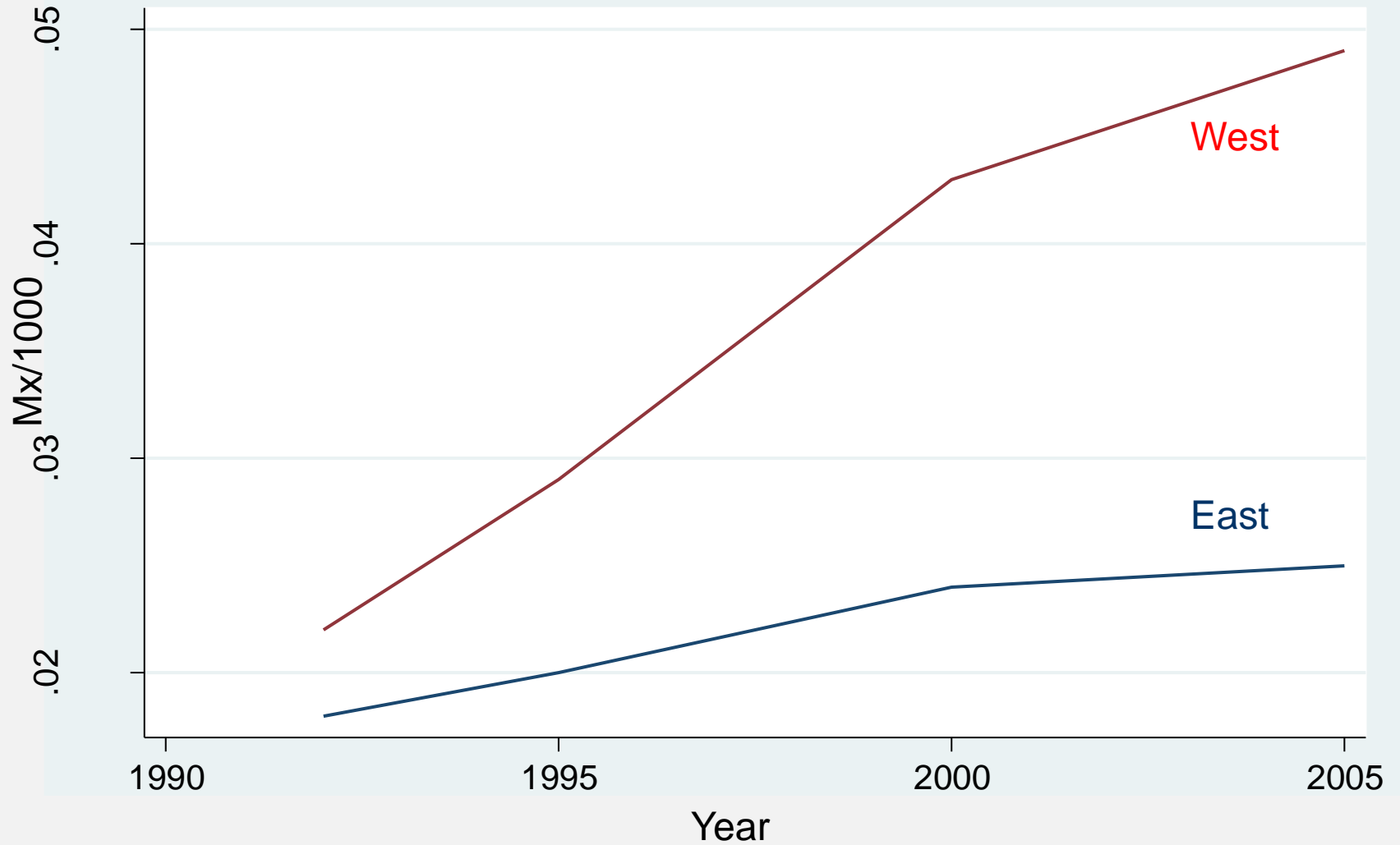


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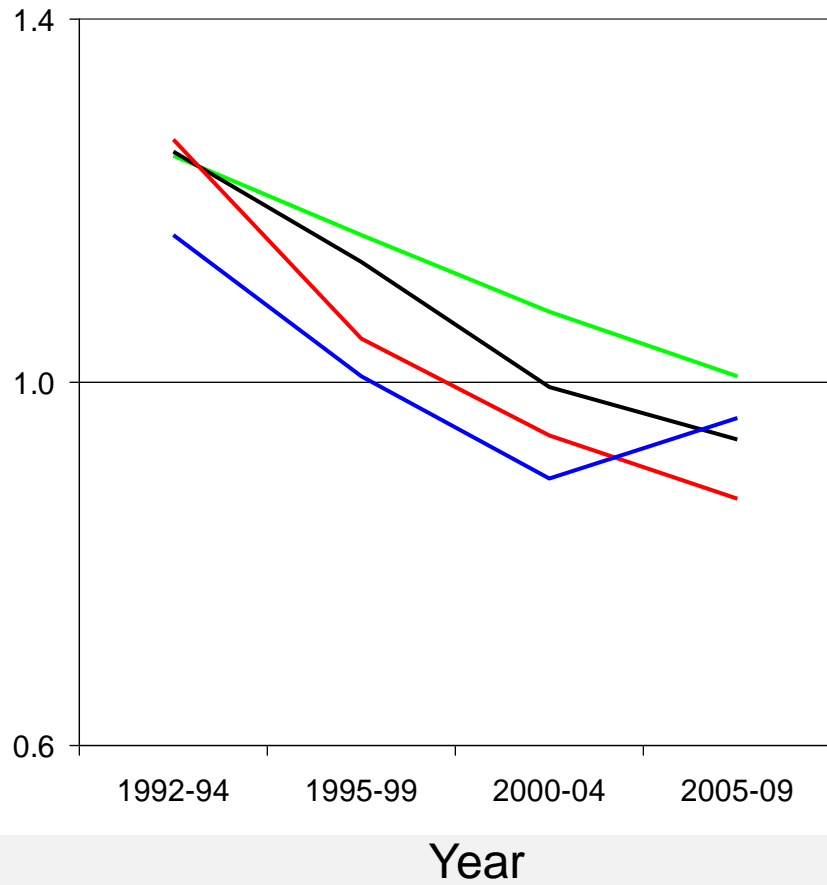
Lung cancer mortality: Women aged 55-59



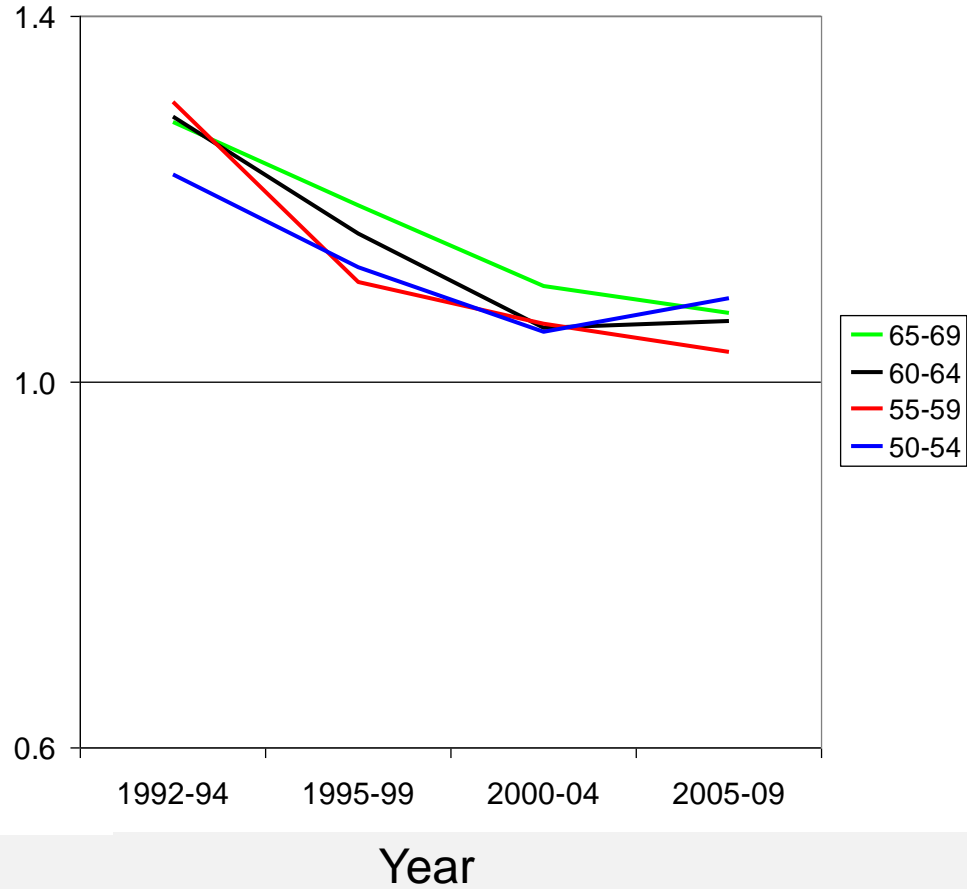


East-West mortality rate ratio and the impact of smoking

East Advantage: Total Mortality Rate Ratio



East Disadvantage: smoking related mortality removed





East German Mortality Miracle?

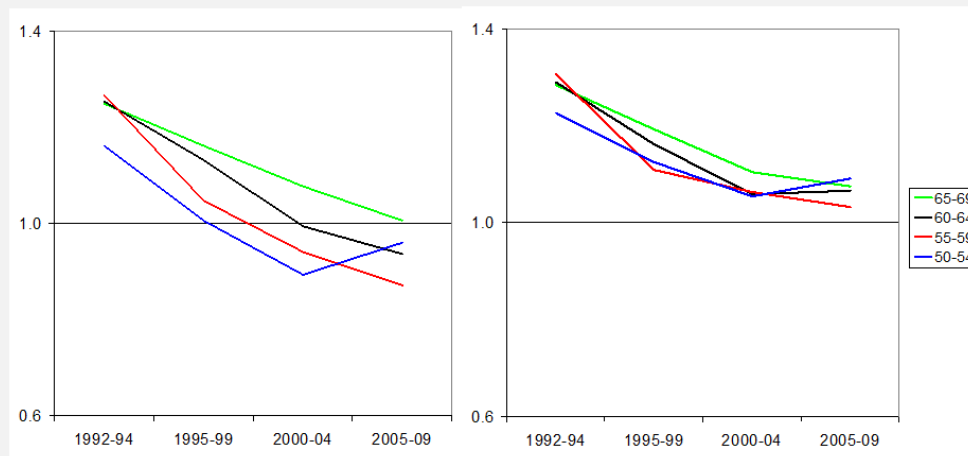
Mortality for East German women aged 50-70 not only caught up but declined below that of West

Not thanks to the reunification -- seeds of the cross-over planted in the 1960s-1980s when West German women took up smoking

The catch-up of East with the West more about West performing poorly, only partly about East doing well

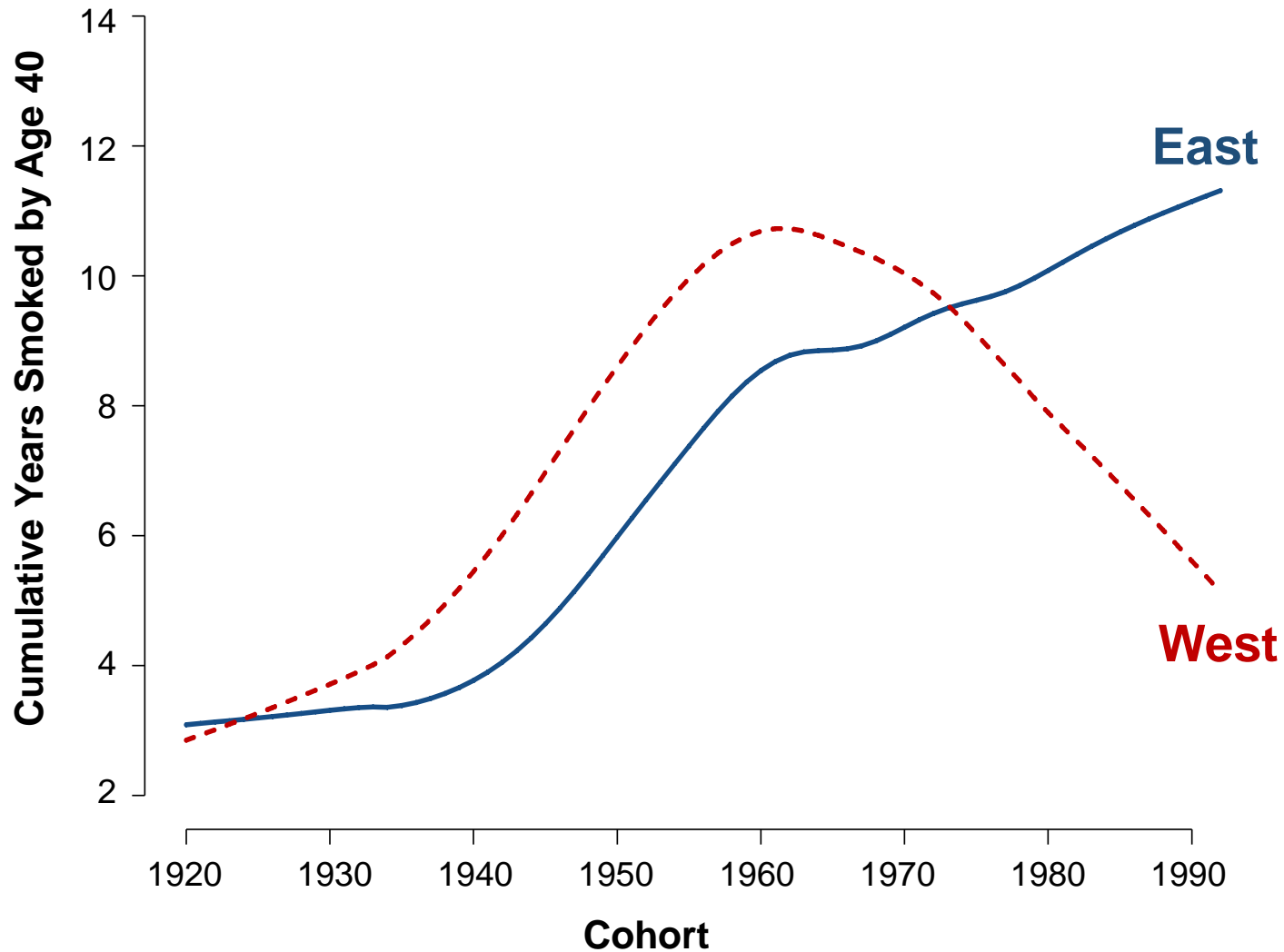
Women in the East now smoke more than their West German peers

Another cross-over in the making?



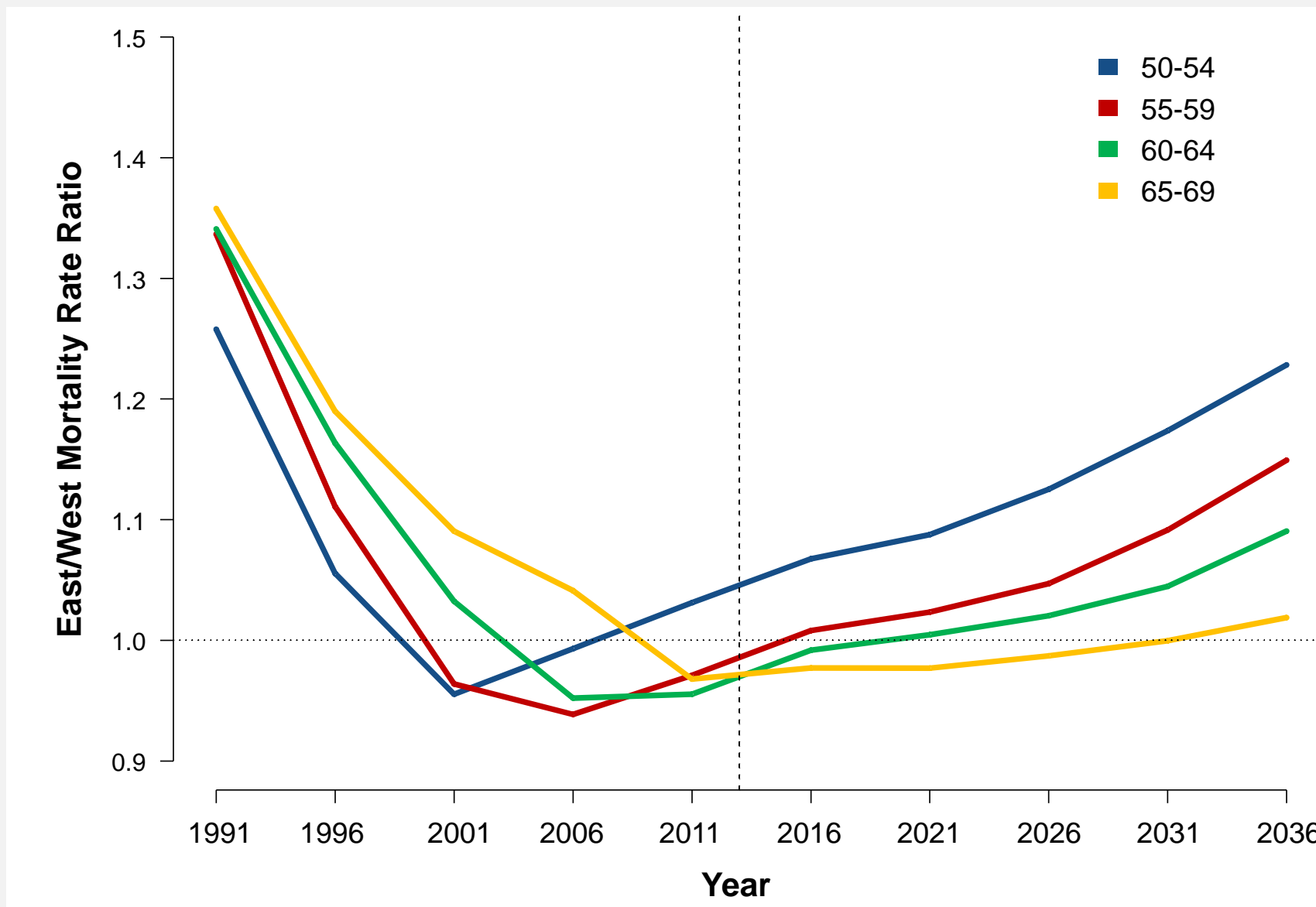


East German women started smoking later, now smoke more





East German women soon to lose their mortality advantage. Lee-Carter type models would miss this.





Conclusion #1

Despite all the medical advances, smoking continues to be a key factor influencing mortality now and for several decades into the future

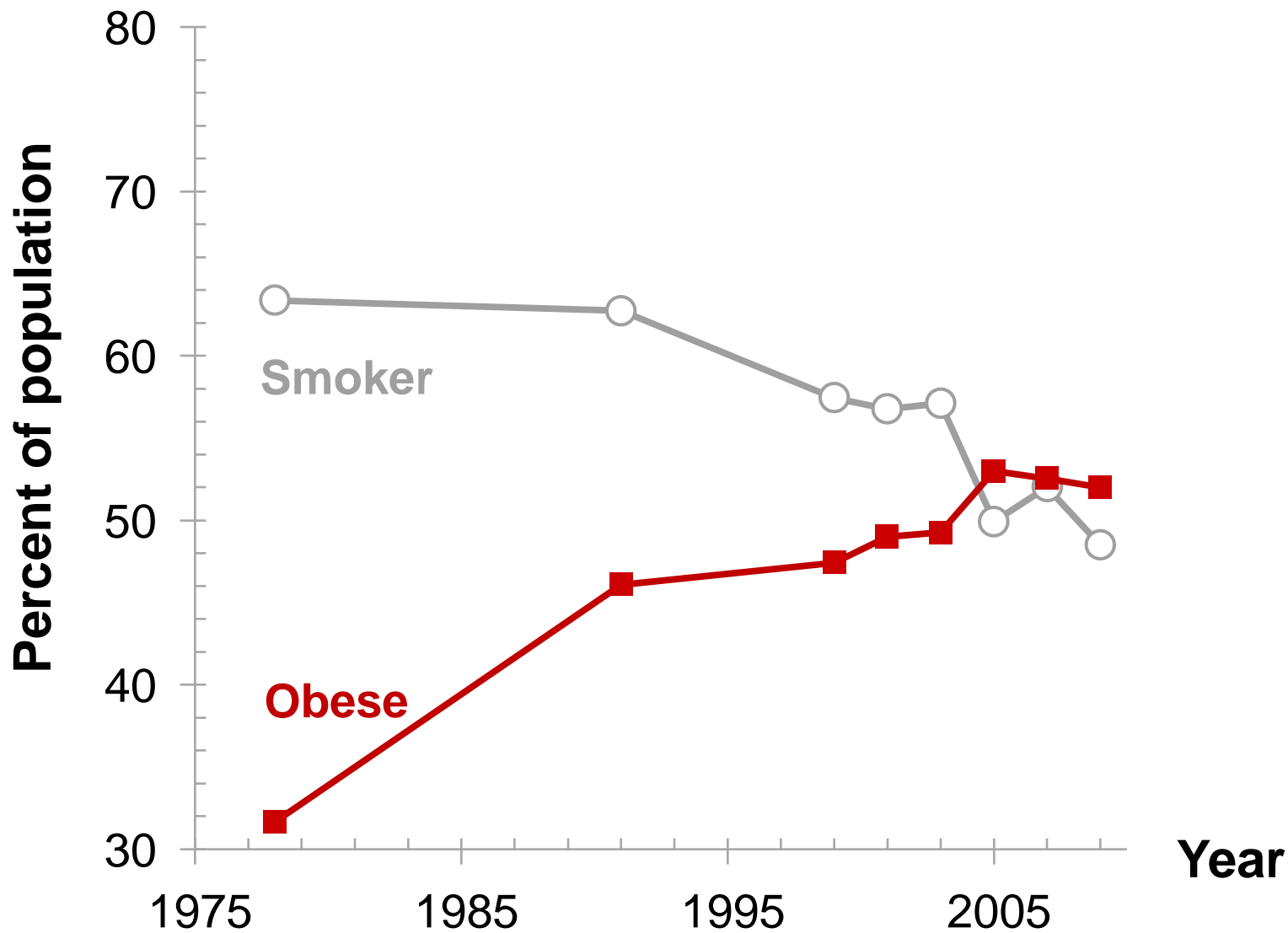
Extrapolation approaches miss the lagged, non-linear impact of smoking



What about other behaviors?

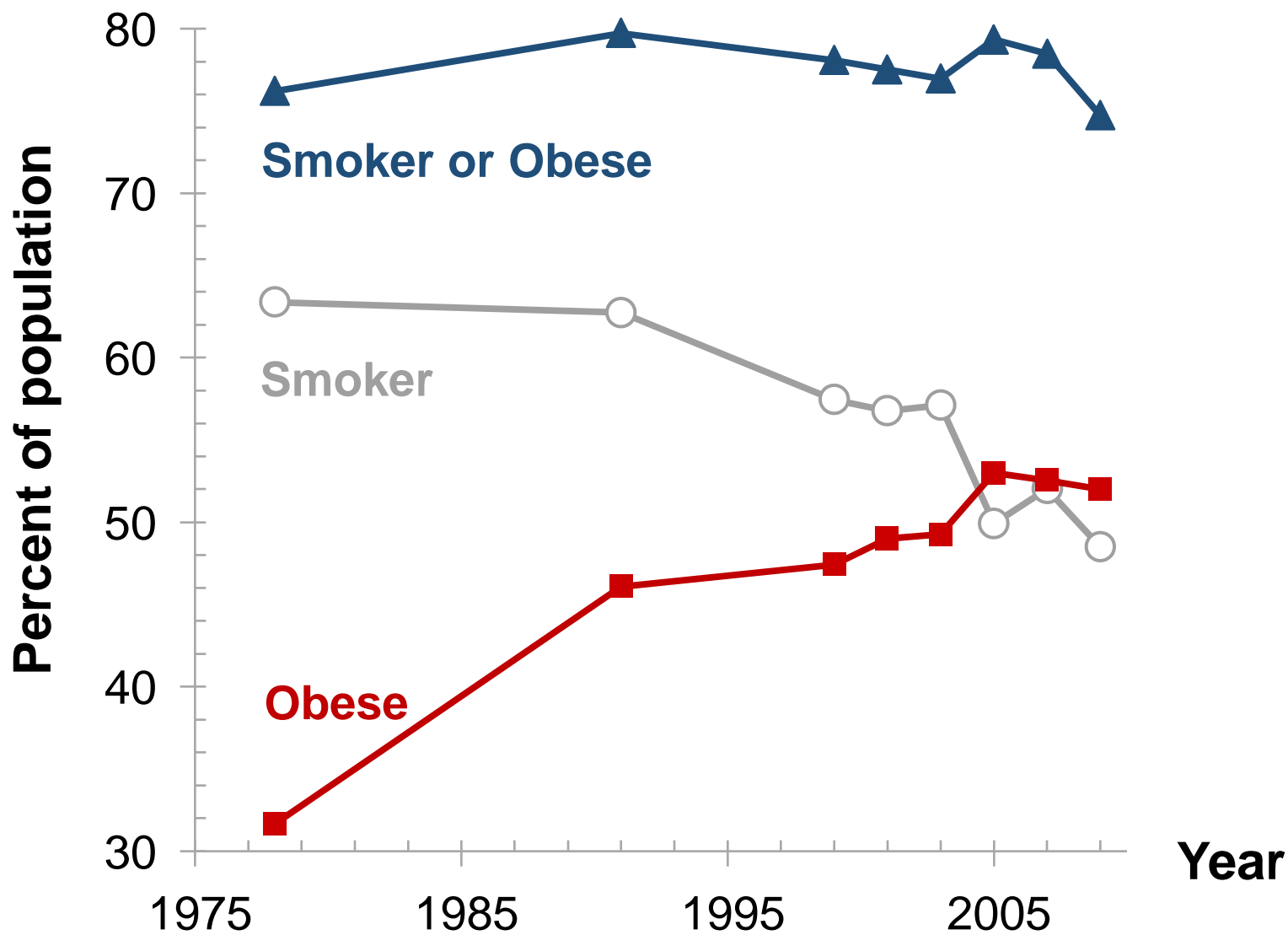


Replacement of bad behaviors: 50-59 year olds smoking or obese





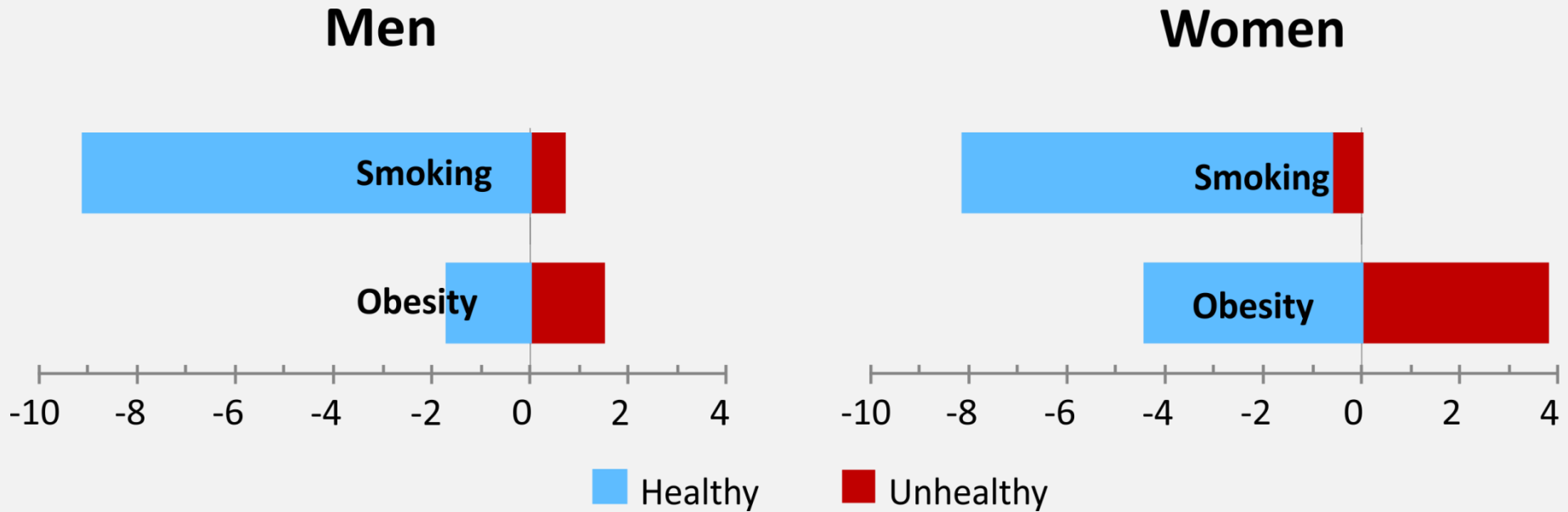
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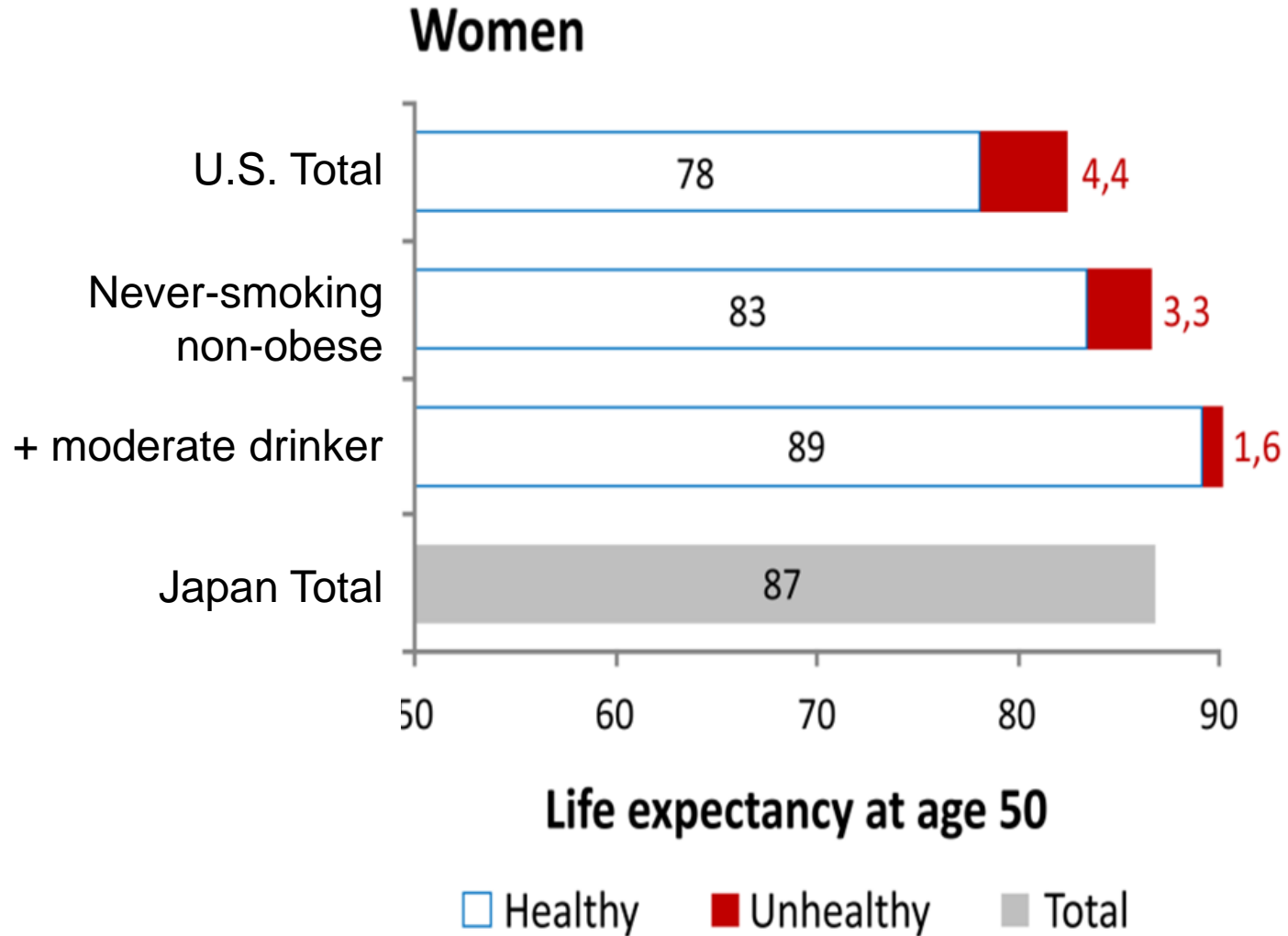


Smoking reduces healthy years

Obesity adds unhealthy years



Cumulative impact of behaviors





Conclusions #2, #3

Smoking = short but healthy lives

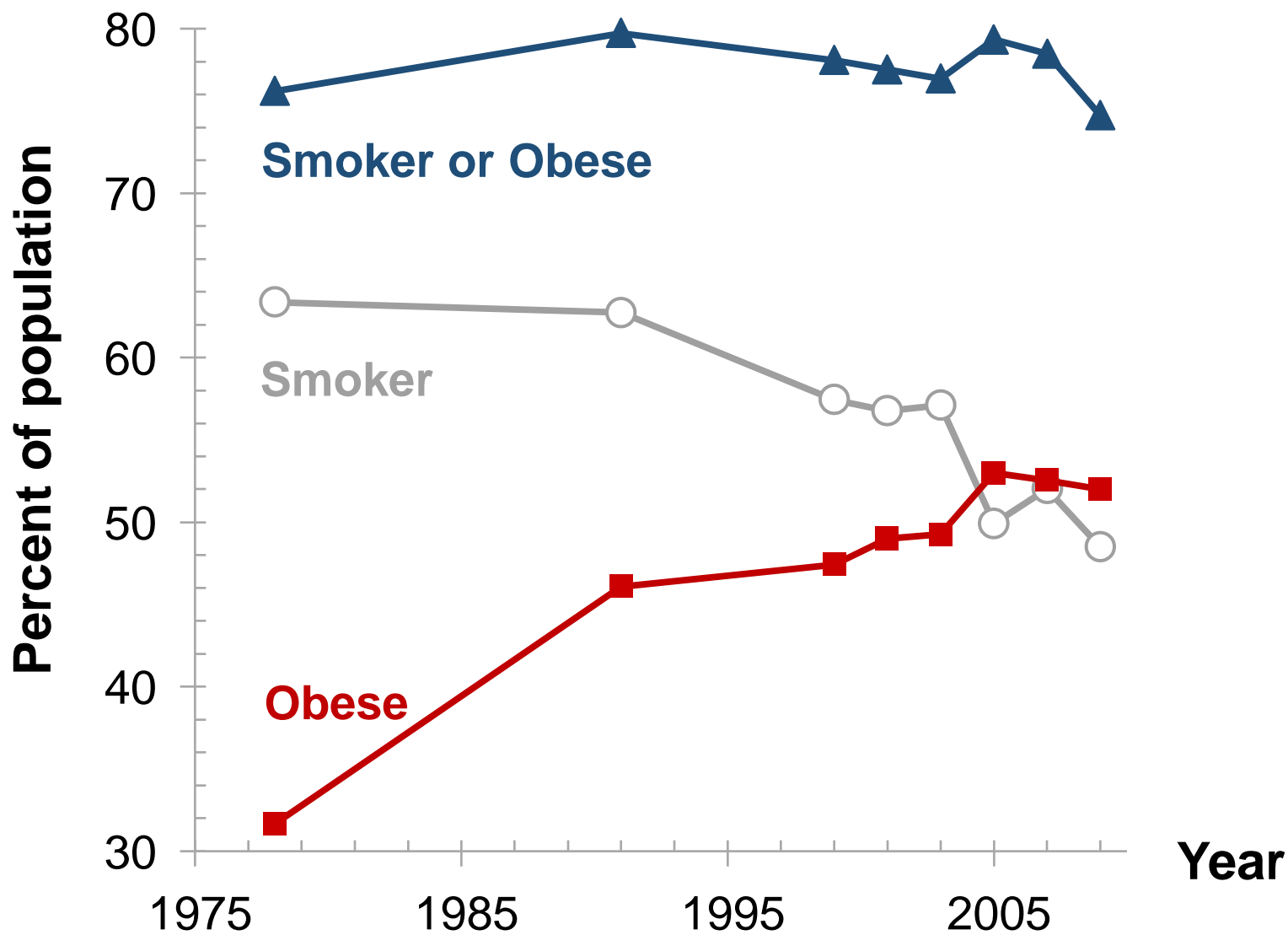
Obesity = long and disabled lives

Smoking is being replaced by obesity

How will the replacement of bad behaviors influence the future of ageing, attempts to increase retirement age?



Replacement of bad behaviors: 50-59 year olds smoking or obese





Health Behaviors Matter!

- What is the future course of key behaviors?
- How do social costs differ across behaviors?
- Behavioral dynamics and forecasts of health