

**Prevalence of bad self-rated health and healthy life expectancy in Russian Federation and EU countries: dynamics, cross-country and cross-survey comparison**

# SURVEY DESIGN

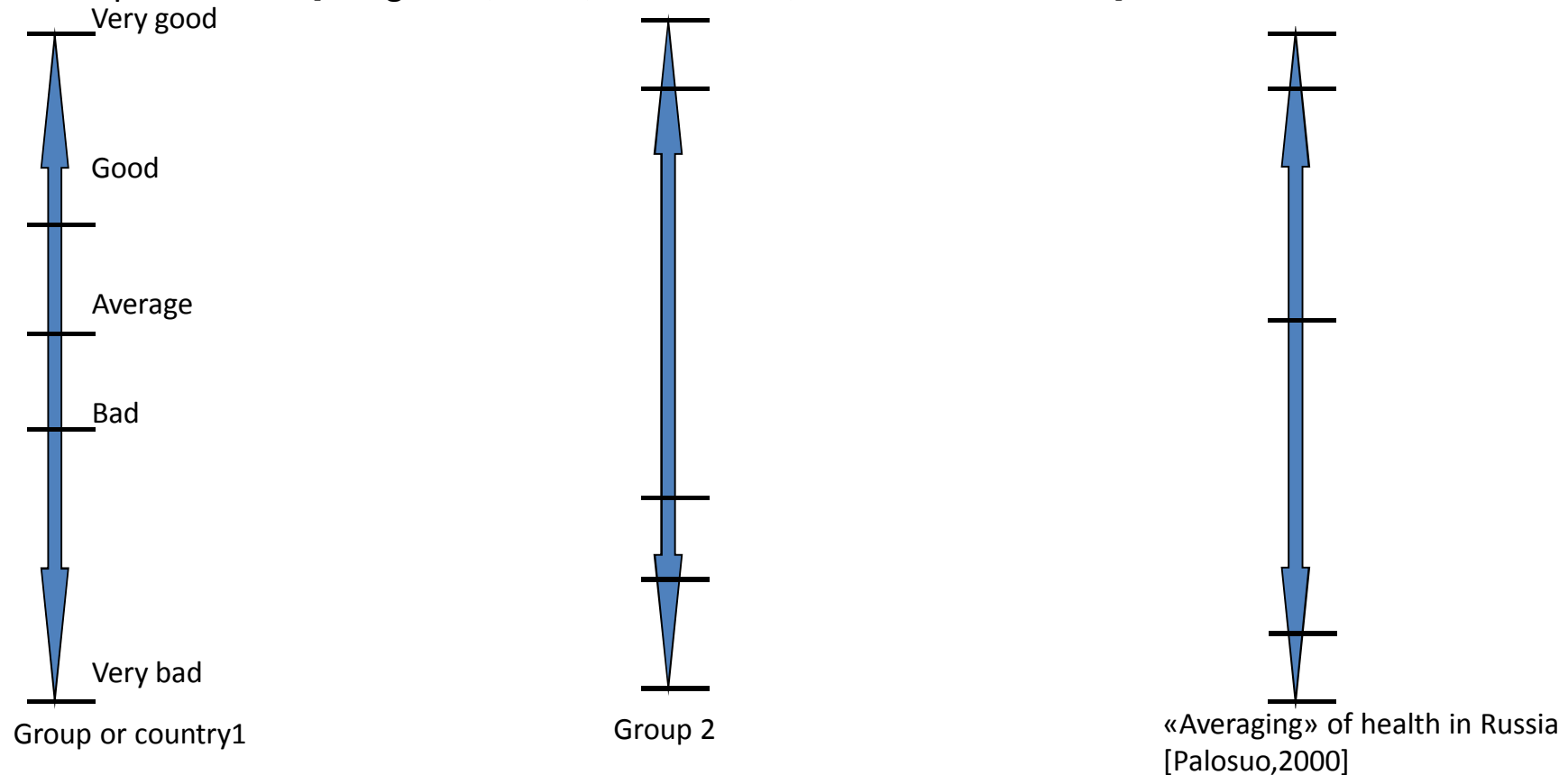
1. Examine properties of self-rated health indicator (5-point category scale) in cross national research (cross-sectional)
2. Give hypothetic explanations of variation in different scale categories (true health (disability) vs response styles and cultural differences)
3. Estimate prevalence of bad self-rated health (“bad”+“very bad”) among males and females (40+) in 1994-2012
4. Estimate time series and compare healthy life expectancy (HLE) by age and sex

Data: mortality registration data, surveys - RLMS HSE (1994-2012), ESS (2002-2012), ECHP (1994-2001), EU-SILC (2005-2012)

# SRH SCALE PROPERTIES

## 1. *How is your health in general?* (Very good, good, average, bad, very bad)

- Cut-points shifts [Iburg et al, 2001; Lindeboom , Van Doorslaer 2004]:



### Key hypotheses:

- Variance in categories «bad», «very bad» is less sensitive to response styles these categories indicate serious health problems and disability
- Variance in categories «average», «good» and «very good» show more variance attribute to cultural ways of response

# SRH SCALE PROPERTIES

## Methods:

- relation to other more objective indicators (mortality statistical indicators, disability survey instruments)
- + comparison of variance (by category point): cross-country and individual
  - Cross-country variance (StD)
  - Inter-individual variance
  - Correlations

40+ respondents chosen for the analysis - from this age threshold prevalence of bad health becomes significant

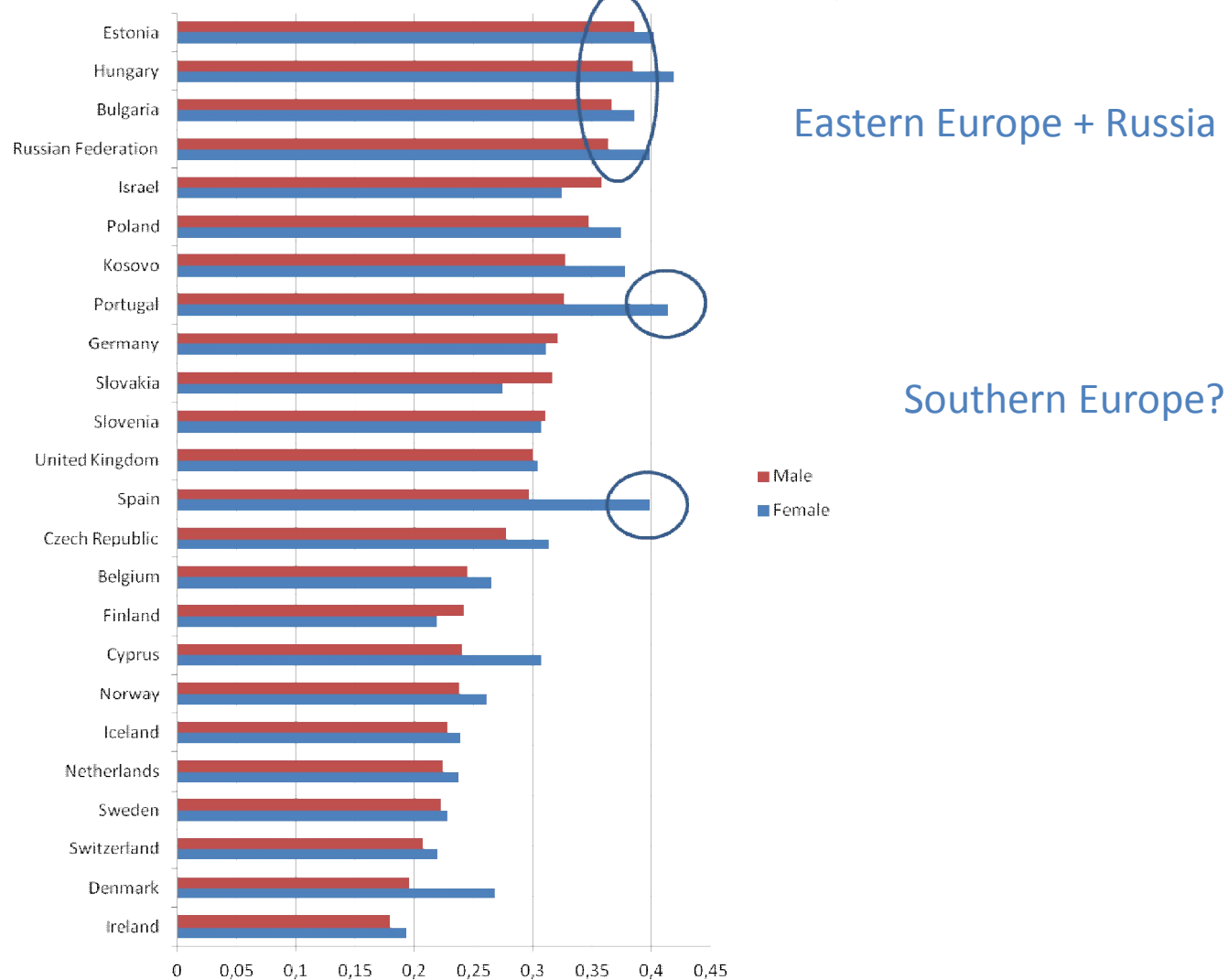
! sensitivity to survey design checked – weighted vs unweighted, between surveys

# INDIVIDUAL VARIANCE

Eastern European countries –

In average health is worse, than in Western European, prevalence of bad self rated health is significantly higher []

ESS, 2012-2013, all countries, % “bad”+“very bad”, STD



Also – higher level of inter individual variance, both males and females

# VARIANCE BY CATEGORY

## Cut-points

- 7 countries with similar inter individual variance combined (model - Western Europe).

Belgium

Germany

Denmark

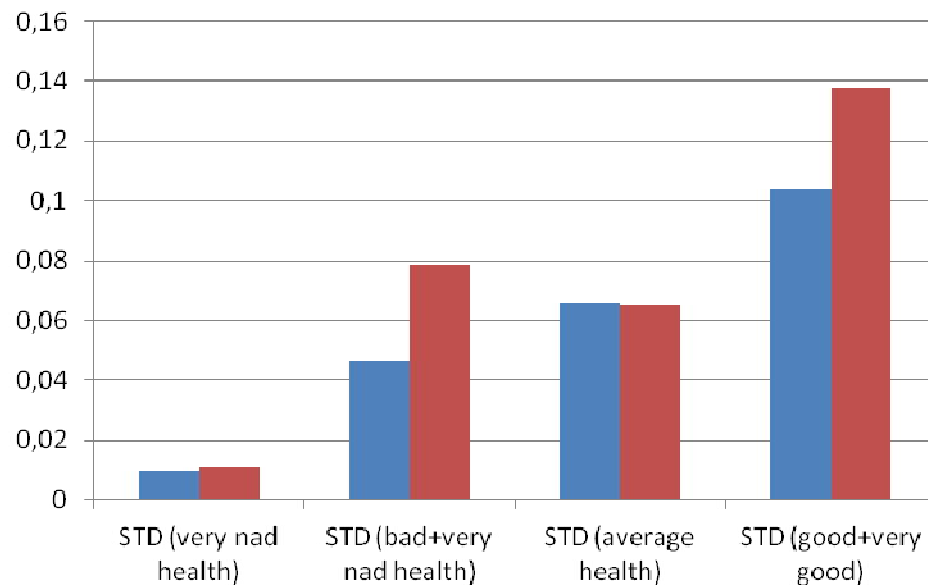
Spain

United Kingdom

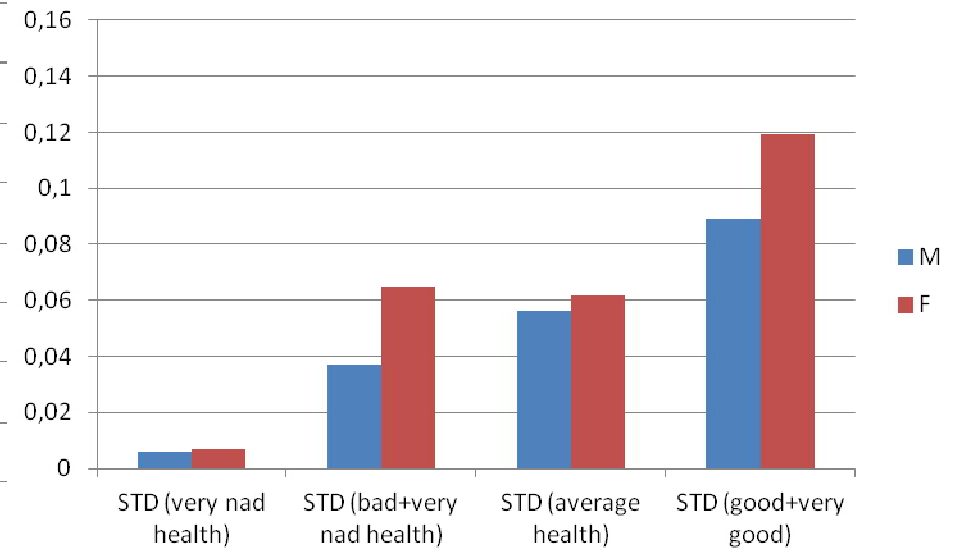
Netherlands

Portugal

## ESS, w1



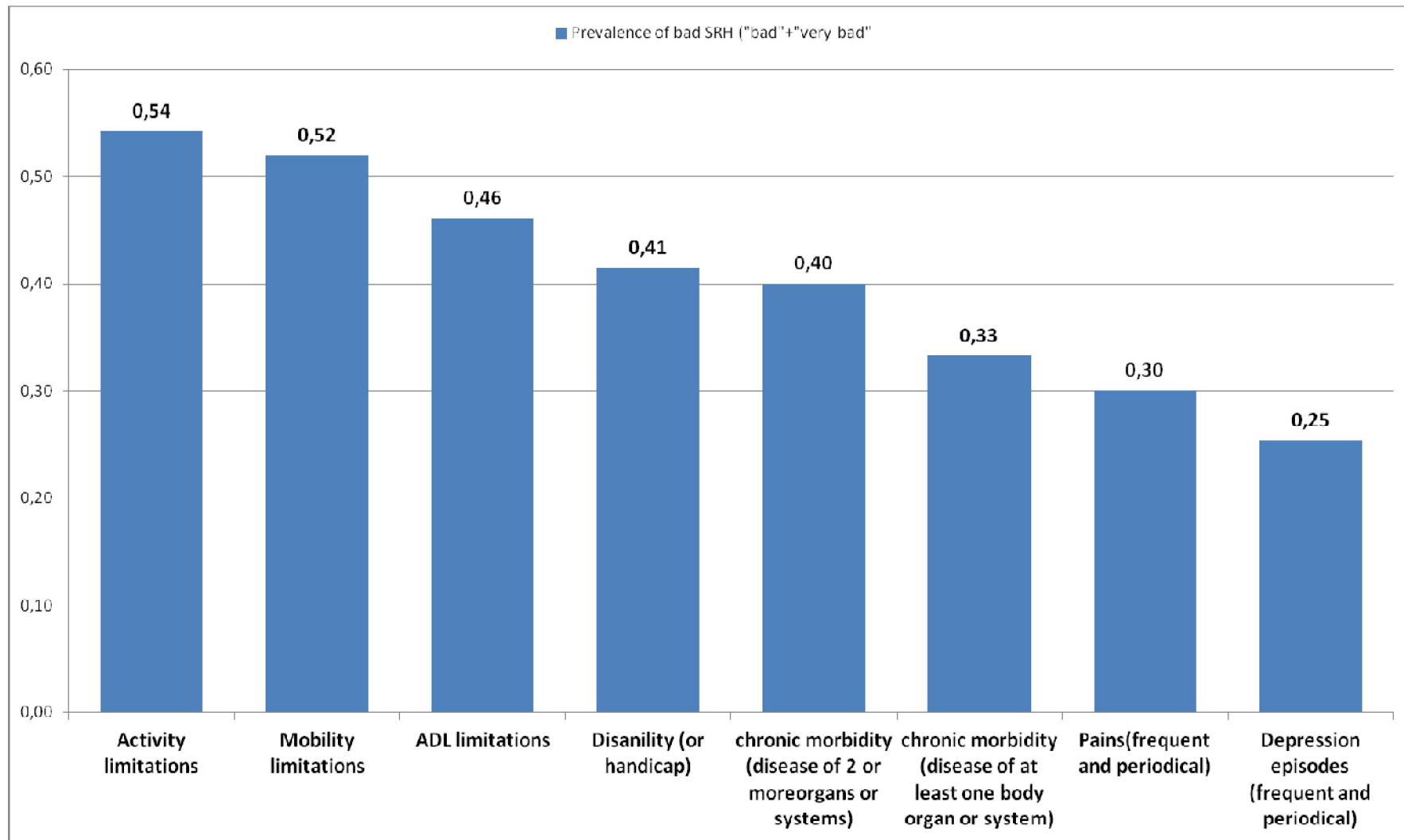
## ESS, w5



# SRH SCALE PROPERTIES

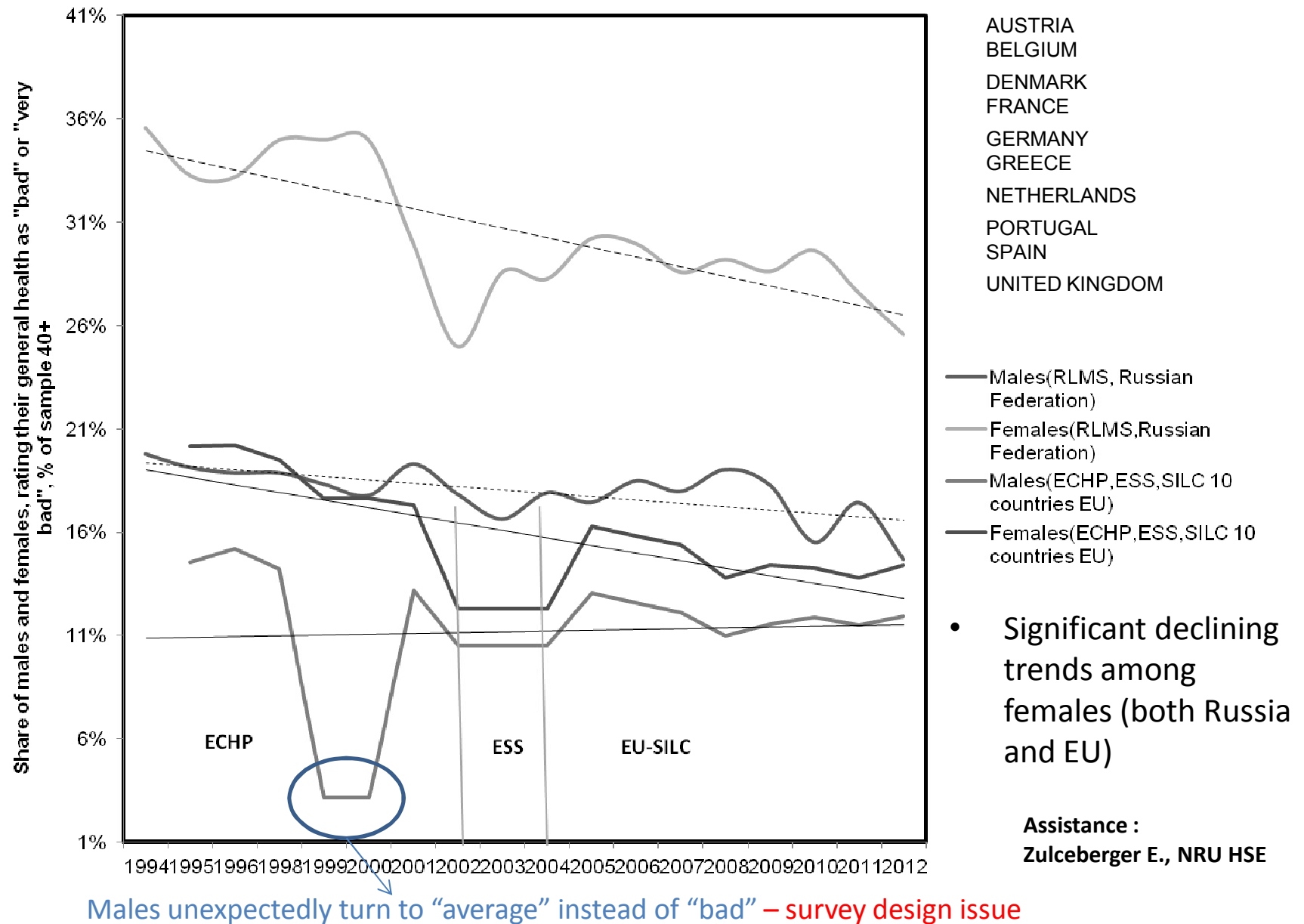
## Relation to other scales

- RLMS HSE, r14, 2005



While prevalence of “average” health gives information on cultural ways of response  
“Bad”+“very bad” tell about real health problems and disability

# BAD SRH IN RUSSIA AND EU





# BAD SRH IN RUSSIA AND EU

7 countries EU existent in each wave of ESS and EU SILC

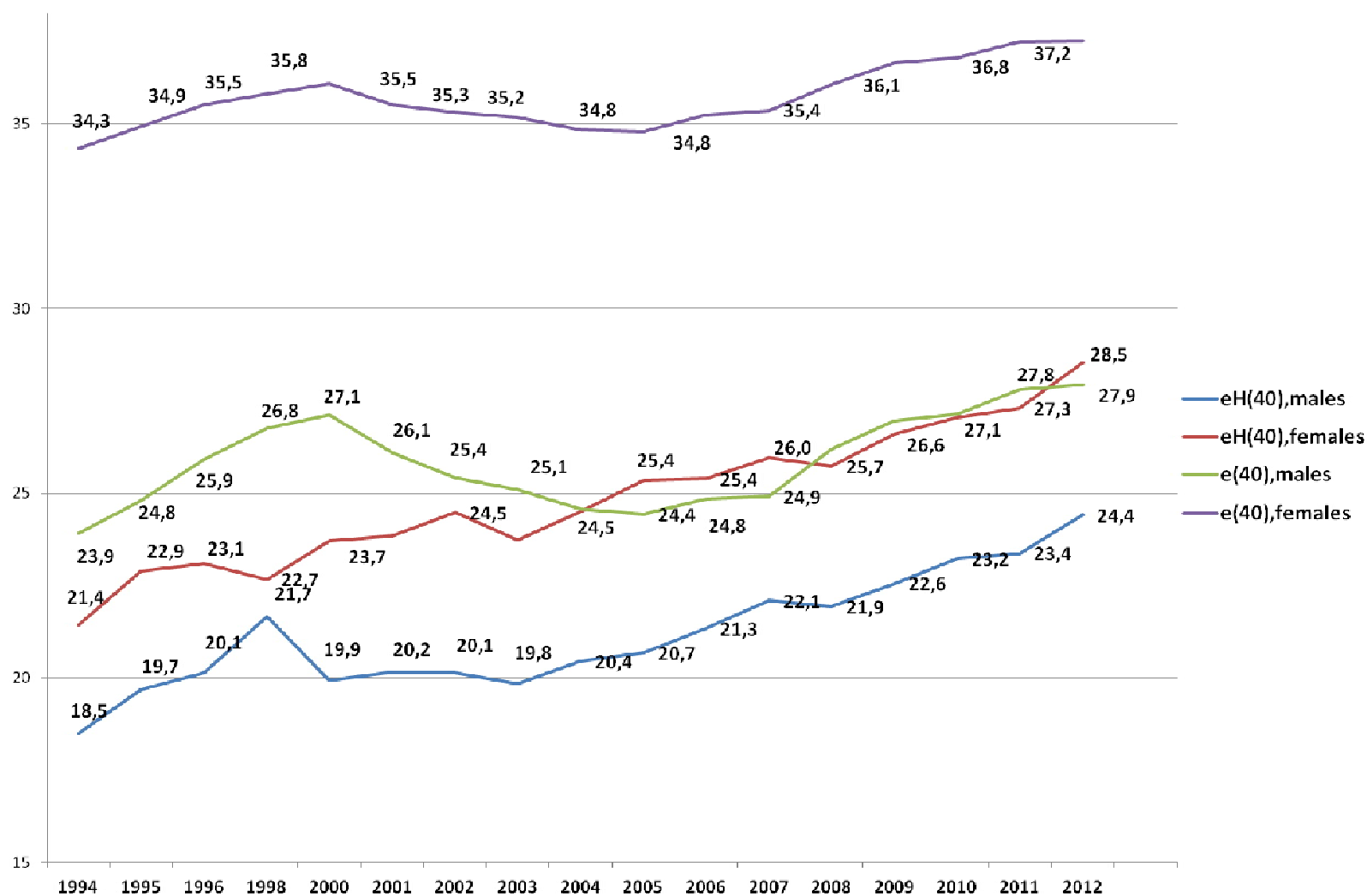


- Among males difference systematically higher (cross survey: EU-SILC - ESS)
  - Weights do not influence final estimates
- Belgium  
Germany  
Denmark  
Spain  
United Kingdom  
Netherlands  
Portugal

## HEALTHY LIFE EXPECTANCY

- Summary measure of population health combining life table mortality indicators with information on prevalence of different health outcomes [Sanders,1964; Sullivan, 1971].
- Period indicator
- Free of age structure effect (comparable across subgroups and populations)
- Combined with bad self-rated health prevalence gives average number of years lived in a population starting from certain age threshold in «bad» or «very bad» health.
- Therefore, healthy life expectancy - average number of years lived in a population starting from certain age threshold in «good» or «average» health.
- Another indicator – share of LE, lived in certain health states, in average, %

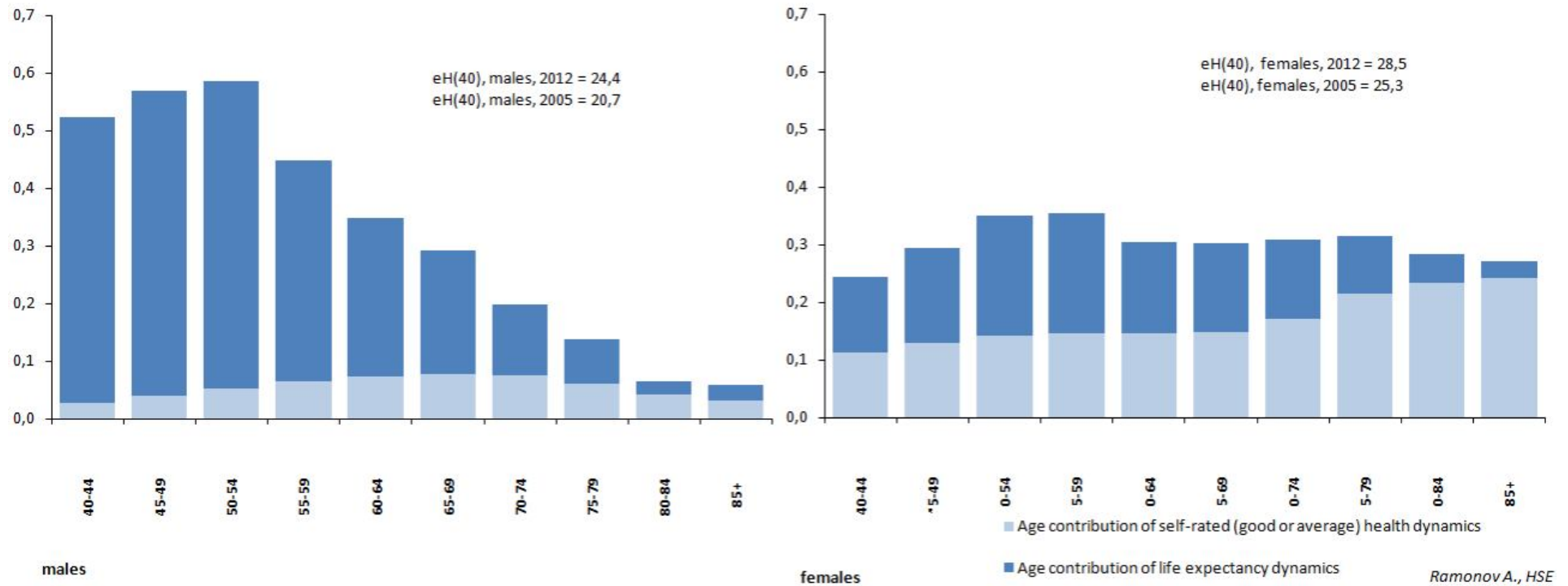
# HLE IN RUSSIA



- eH(40) – healthy life expectancy starting from age 40
- e(40) – total life expectancy from age 40

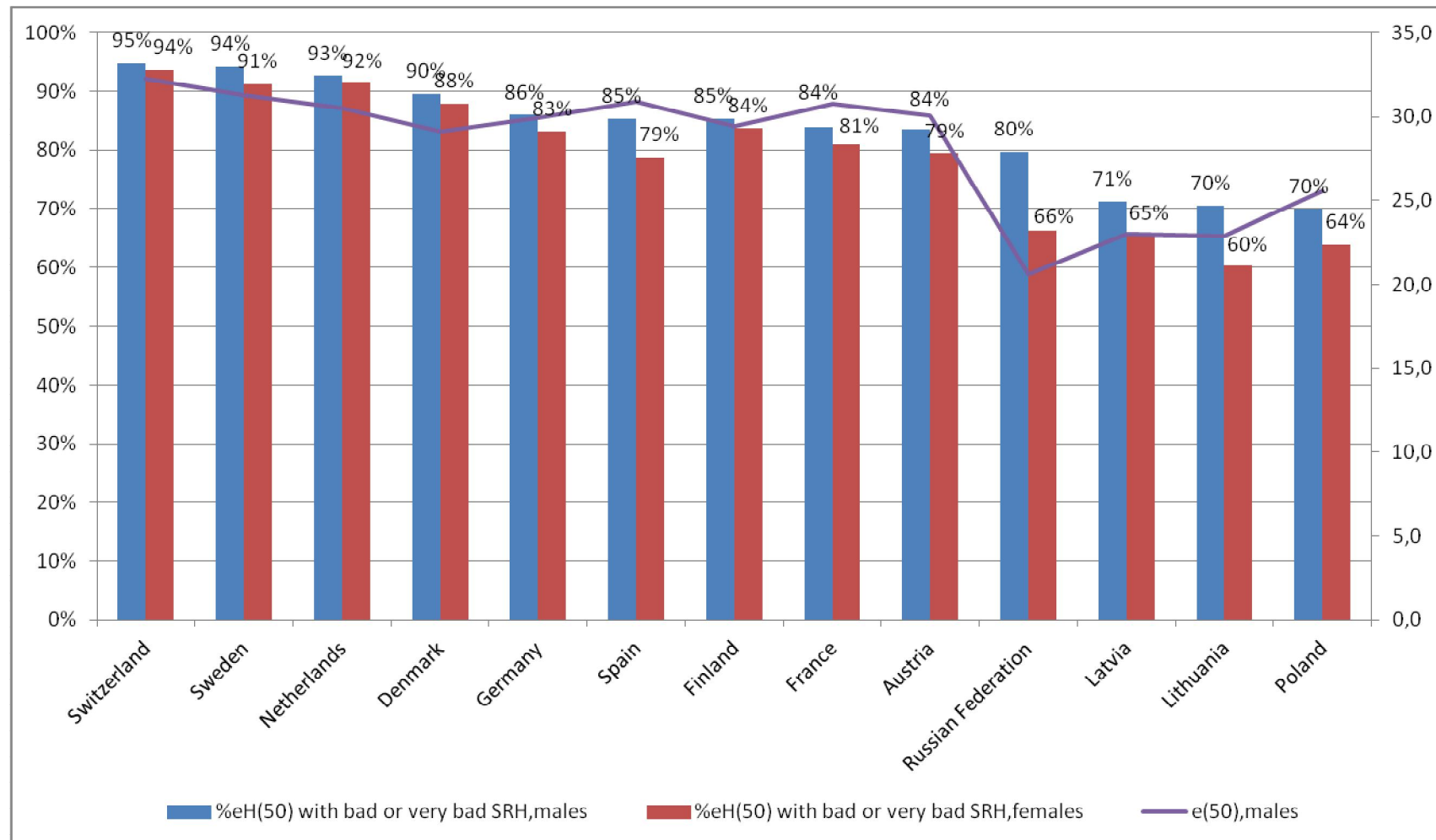
# HLE DECOMPOSITION

10-years (2004-2013) increase in LE in Russia. Is it followed by health improvement?



- For males – due to mortality decrease (working ages)
- For females – due to health improvement (elderly)

# HLE IN RUSSIA AND EU



Cross-country variance in share of **female** respondents rating their health as “bad” or “very bad” correlates with variance in mortality among **males** (Eastern Europe and Russian Federation – higher male mortality and worse health among females – compared to Western Europe).

**THANK YOU FOR ATTENTION!**

