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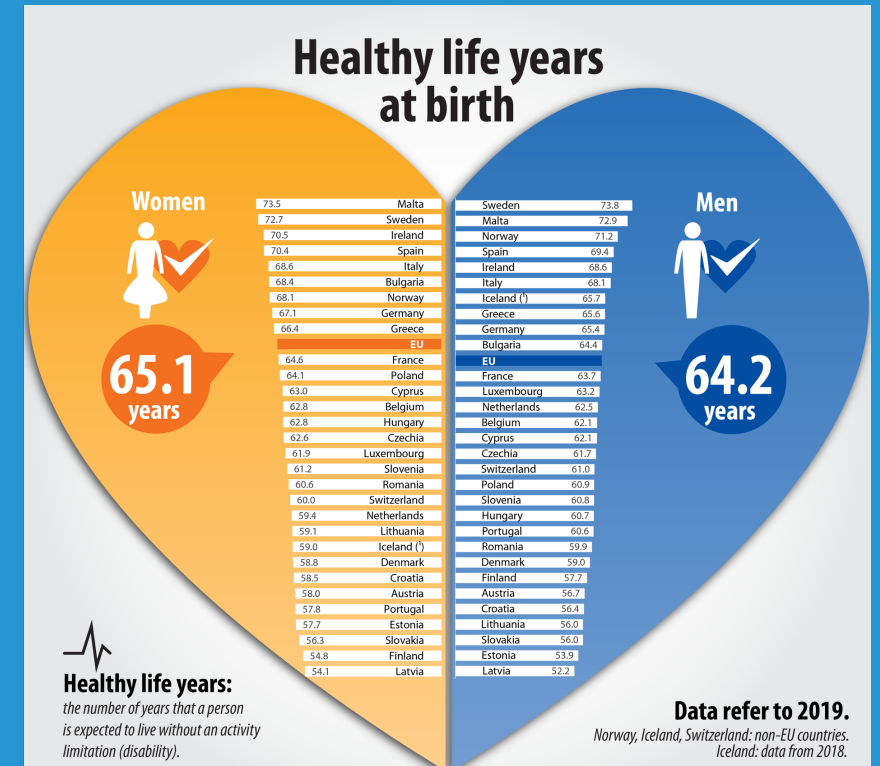
Impact of interpersonal reporting heterogeneity on cross-country differences in Healthy Life Years

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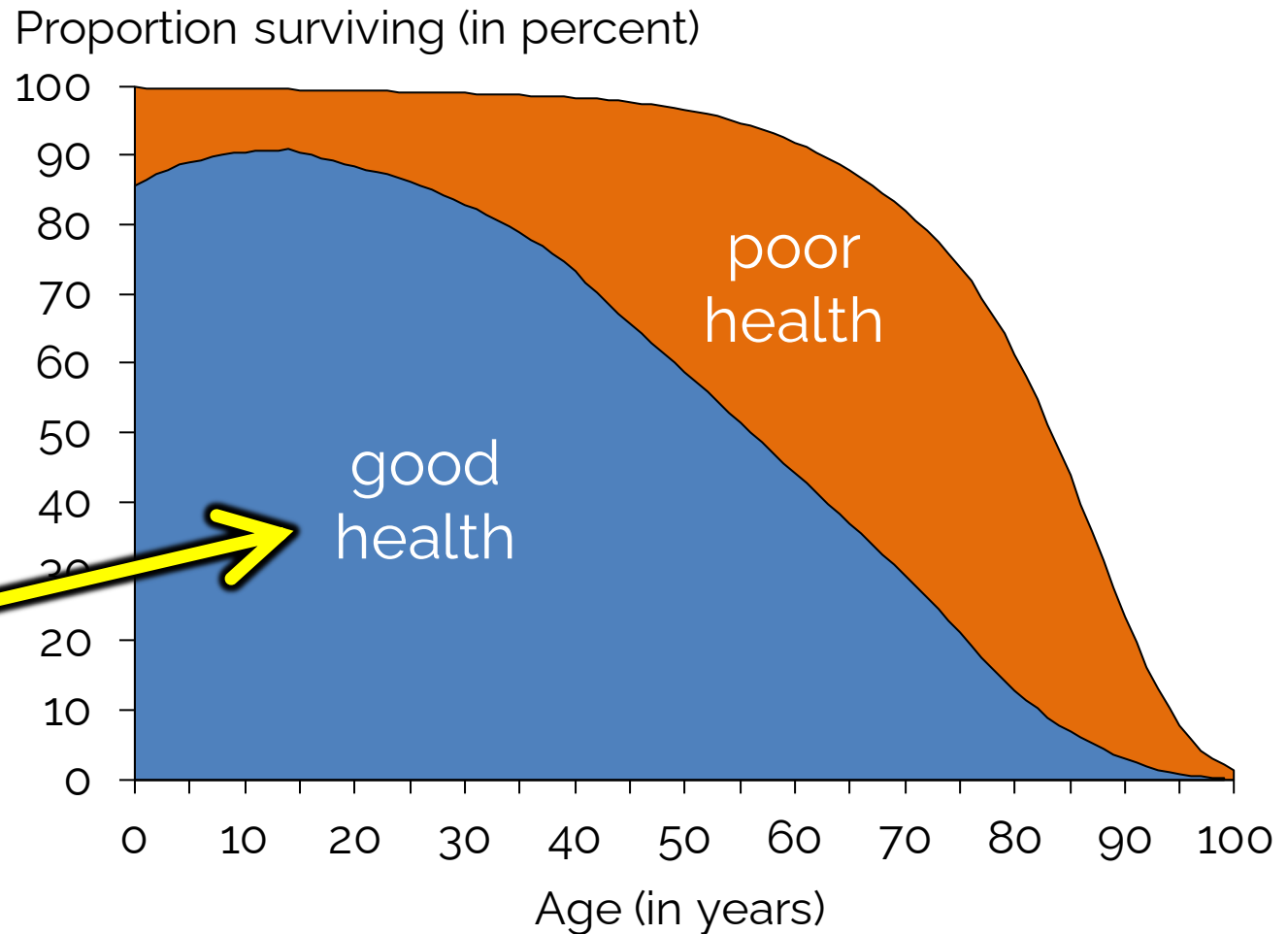


The Healthy Life Years indicator of the European Union is based on the “Global Activity Limitation Indicator” (GALI)

GALI Question (Standard):

“For at least the past six months, to what extent have you been limited because of a health problem in activities people usually do?”

- (1) Strongly limited
- (2) Limited, but not strong
- (3) Not limited



The aim of this study is to adjust HLY for different item functioning (DIF) with the help of anchoring vignettes from SHARE 2004

Men, EU-SILC 2005

Rank	Country	HLY(50)
1	Italy	20.9
2	Netherlands	20.1
3	Greece	20.1
4	Sweden	20.0
5	Spain	19.3
6	Belgium	18.9
7	France	18.3
8	Germany	13.6

Women, EU-SILC 2005

Rank	Country	HLY(50)
1	Greece	21.4
2	Italy	21.3
3	Sweden	20.4
4	France	20.2
5	Netherlands	20.1
6	Belgium	19.0
7	Spain	18.8
8	Germany	13.9



Anchoring vignettes are brief descriptions of fictional characters who manifest certain health problems to a lesser or greater degree

8. Paul has a headache once a month that is relieved after taking a
During the headache he can carry on with his day-to-day affairs.

Overall in the last 30 days, how much of bodily aches or pains did F
have?

None Mild Moderate Severe Extreme
₁ ₂ ₃ ₄ ₅

10. Henri has pain that radiates down his right arm and wrist during his
at work. This is slightly relieved in the evenings when he is no longer
working on his computer.

Overall in the last 30 days, how much of bodily aches or pains did H
have?

None Mild Moderate Severe Extreme
₁ ₂ ₃ ₄ ₅

Health Traits

Bodily aches or pains

Difficulty with sleeping

Problem with moving around

Difficulty with remembering

Shortness of breath

Feeling sad or depressed

Limitation in amount of work

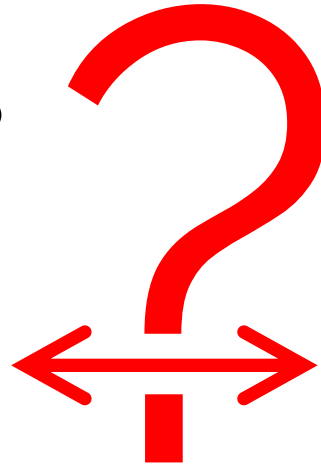


The major challenge was to link the vignettes for specific health traits to the GALI indicator

GALI Question (Standard):

“For at least the past six months, to what extent have you been limited because of a health problem in activities people usually do?”

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Bodily aches or pains
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Difficulty with remembering
Shortness of breath
Feeling sad or depressed
Limitation in amount of work



The major challenge was to link the vignettes for specific health traits to the GALI indicator

Questions about respondents themselves

1. Overall in the last 30 days, how much of bodily aches or pains did you have?

None

₁

Mild

₂

Moderate

₃

Severe

₄

Extreme

₅

Health Traits

Bodily aches or pains

Difficulty with sleeping

Difficulty with moving around

Difficulty with remembering

Shortness of breath

Feeling sad or depressed

Limitation in amount of work



We selected the health traits associated with GALI by lasso logistic regression modelling for gender and age groups



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- (2) Limited, but not strong
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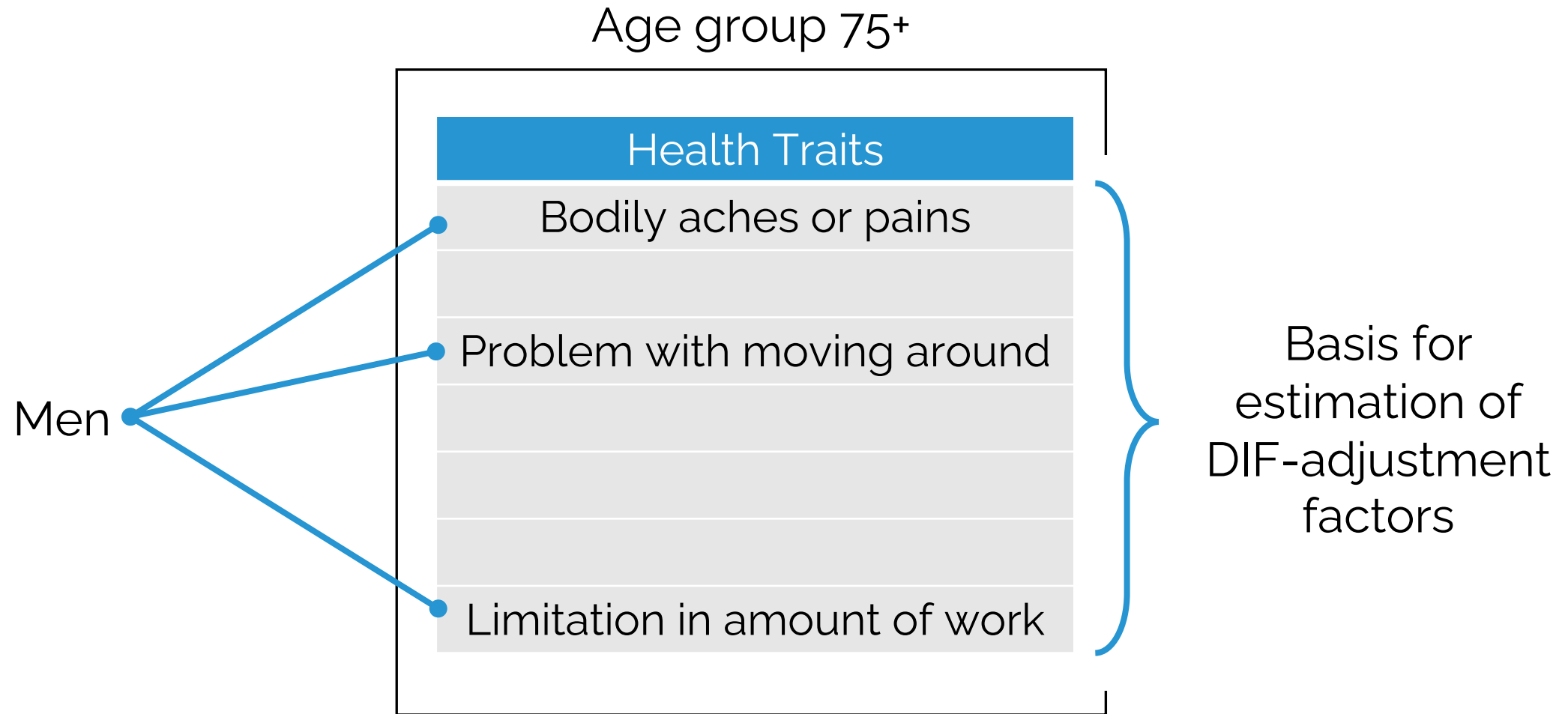
Health Traits
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Determination of health traits for the best prediction of limitations

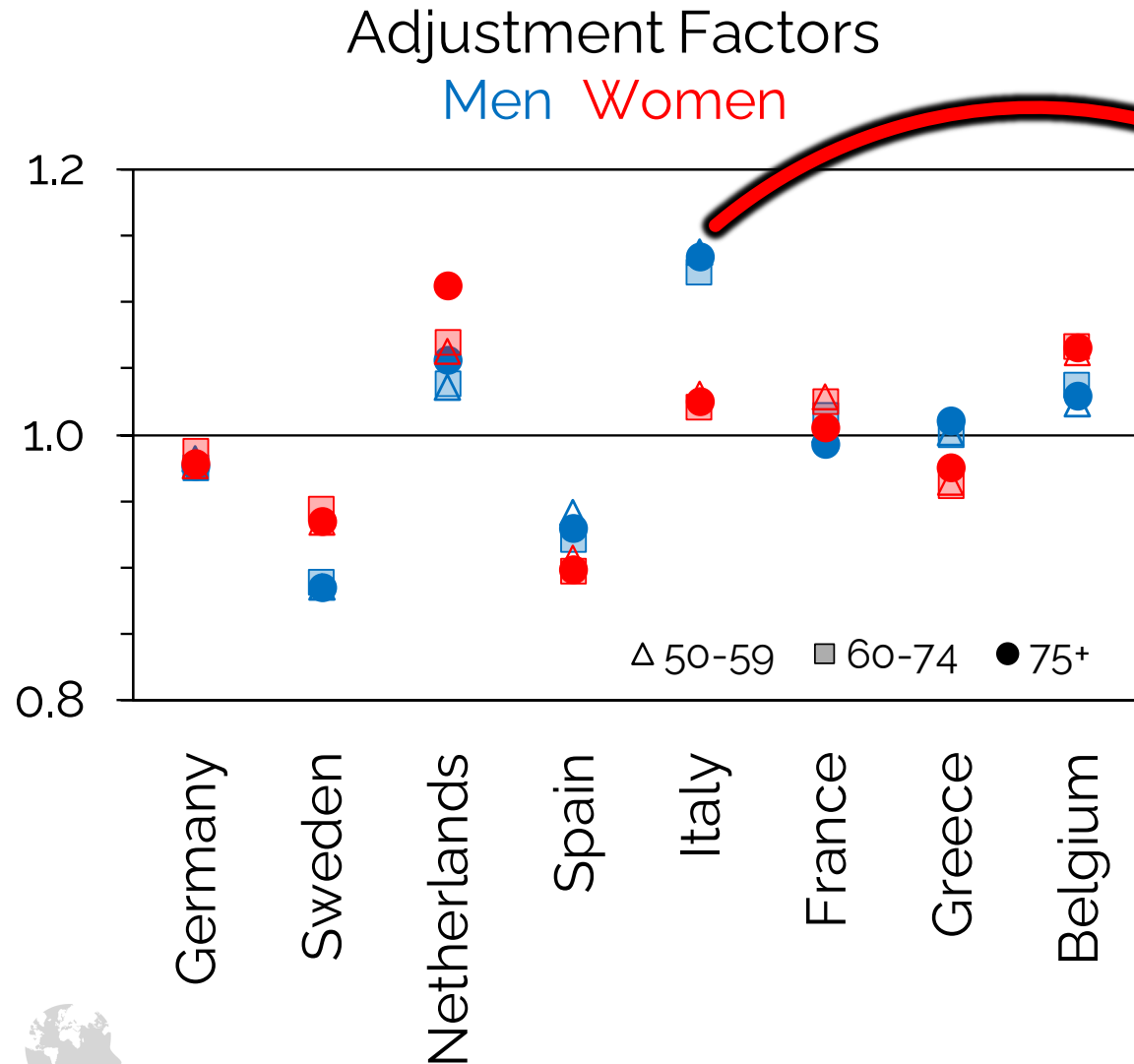
Note: lasso = least absolute shrinkage and selection operator



For the estimation of the DIF-adjustment factors, we used only the vignettes with the health traits relevant for GALI



DIF-adjustment factors were estimated by relating the proportion of vignettes assigned to health problems in a country to the total



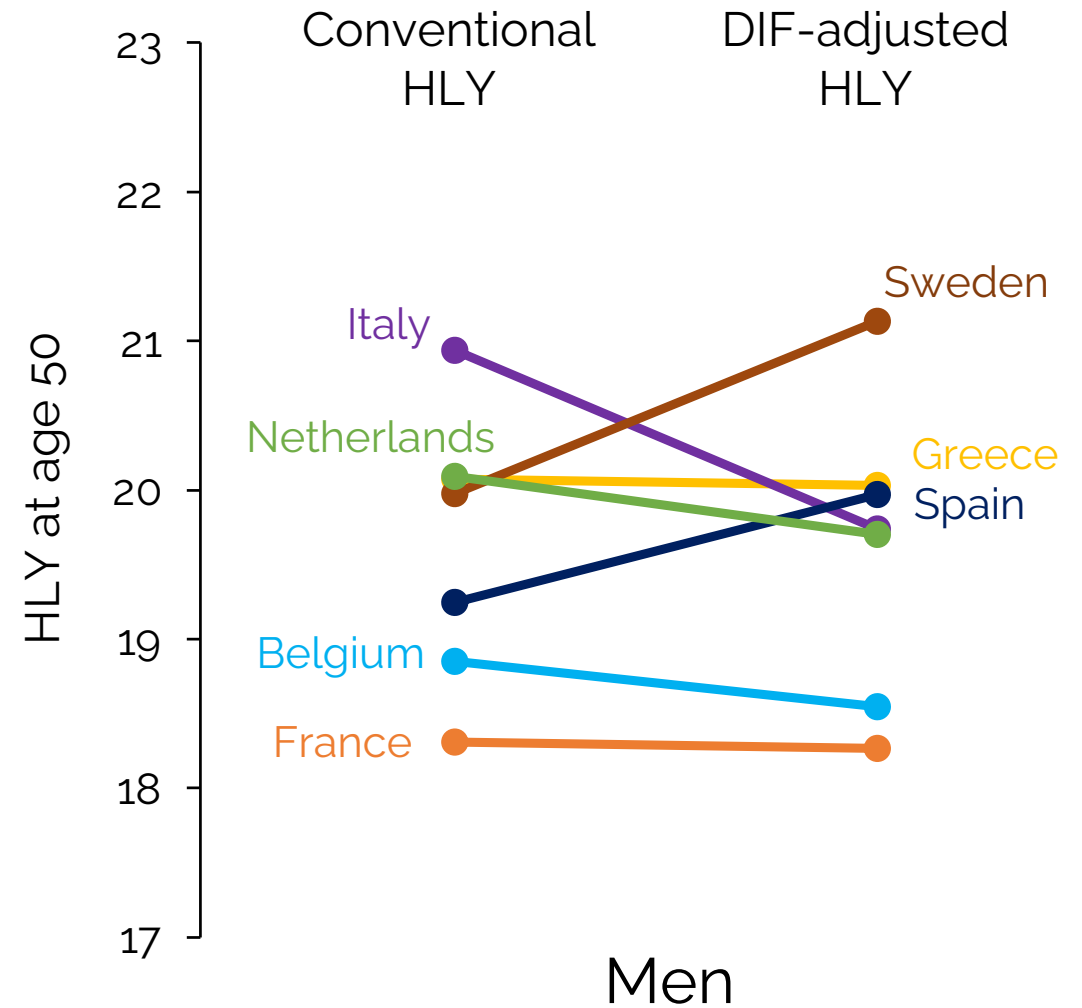
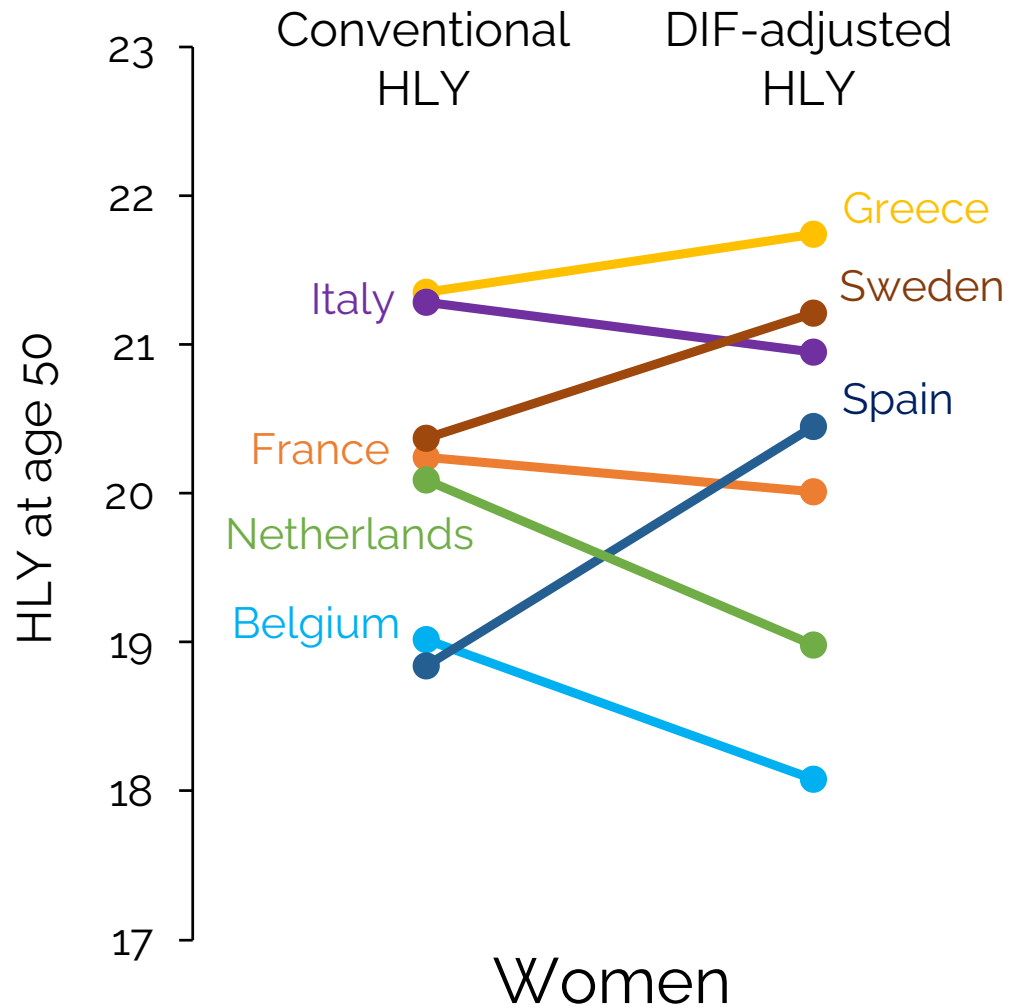
GALI
Prevalence
gender, country,
age, SILC 2005

Life tables
gender, country
HMD 2005

DIF-adjusted
HLY
(Sullivan method)



The results suggest that DIF may indeed have a non-ignorable impact on the country ranking and differences in Healthy Life Years



Source: own calculations with data from SHARE 2004, EU-SILC 2005 and HMD 2005



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The impact of interpersonal reporting heterogeneity on cross-country differences in Healthy Life Years in Europe

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We estimated the impact of DIF on HLY using anchoring vignettes and found evidence of possible bias

Limited according to GALI



Identification of

Health Traits

- Bodily aches or pains
- Difficulty with sleeping
- Problem with moving around
- Difficulty with remembering
- Shortness of breath
- Feeling sad or depressed
- Limitation in amount of work

Use of vignettes

DIF-adjusted HLY

