

Frailty-Free Life Expectancy at age 70 between European Countries

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Plan

- Frailty models and the disablement process
 - deficits
 - phenotype
- Methods: Calculating LE in frailty and disability states
 - Data (SHARE)
 - Measures
- Results: LE in frailty and disability states
 - by age
 - at age 70 by country
- Conclusions

Frailty models and the disablement process

- Definition of frailty: the condition of being weak and delicate (*Oxford Dictionary*)
- Deficits model (Rockwood)
 - a cumulative index of health deficits which can include diseases, symptoms and signs, function tests and laboratory tests
 - **Disability included**
- Phenotypic model (Fried)
 - clinical syndrome, a cluster of specific symptoms and signs including weight loss, exhaustion, low physical activity, muscle weakness and slow walking speed
 - **Disability separate**



Methods

- SHARE wave 4 (2010-11)
 - Austria, Belgium, Czech Republic, Denmark, Estonia, France, Germany, Hungary, Italy, Netherlands, Poland, Portugal, Slovenia, Spain, Sweden
- Sullivan's method
 - life table for each country and sex from EHLEIS
- Combined SHARE Frailty Index (SHARE-FI) and Global Activity Limitation Indicator (GALI) to create 4 states
 - robust, pre-frail, frail, severely limited

SHARE Frailty Index (SHARE-FI)

- SHARE Frailty Index (SHARE-FI)*
 - *Exhaustion*: “In the last month, have you had too little energy to do the things you wanted to do?”
 - *Weight loss*: “Diminution in desire for food”/“eating less than usual”
 - *Weakness*: handgrip strength
 - *Slowness*: Difficulty in walking 100 metres or climbing stairs
 - *Low activity*
- Global Activity Limitation Indicator (GALI)**
 - For at least the past 6 months, to what extent have you been limited because of a health problem in activities people usually do? Would you say you have been 1. severely limited 2. limited but not severely, or 3. not limited at all?

*Romero-Ortuno R et al. *BMC Geriatrics* 2010;10:57

**Van Oyen H et al. *Soz Praventivmed* 2006;51:153–61.

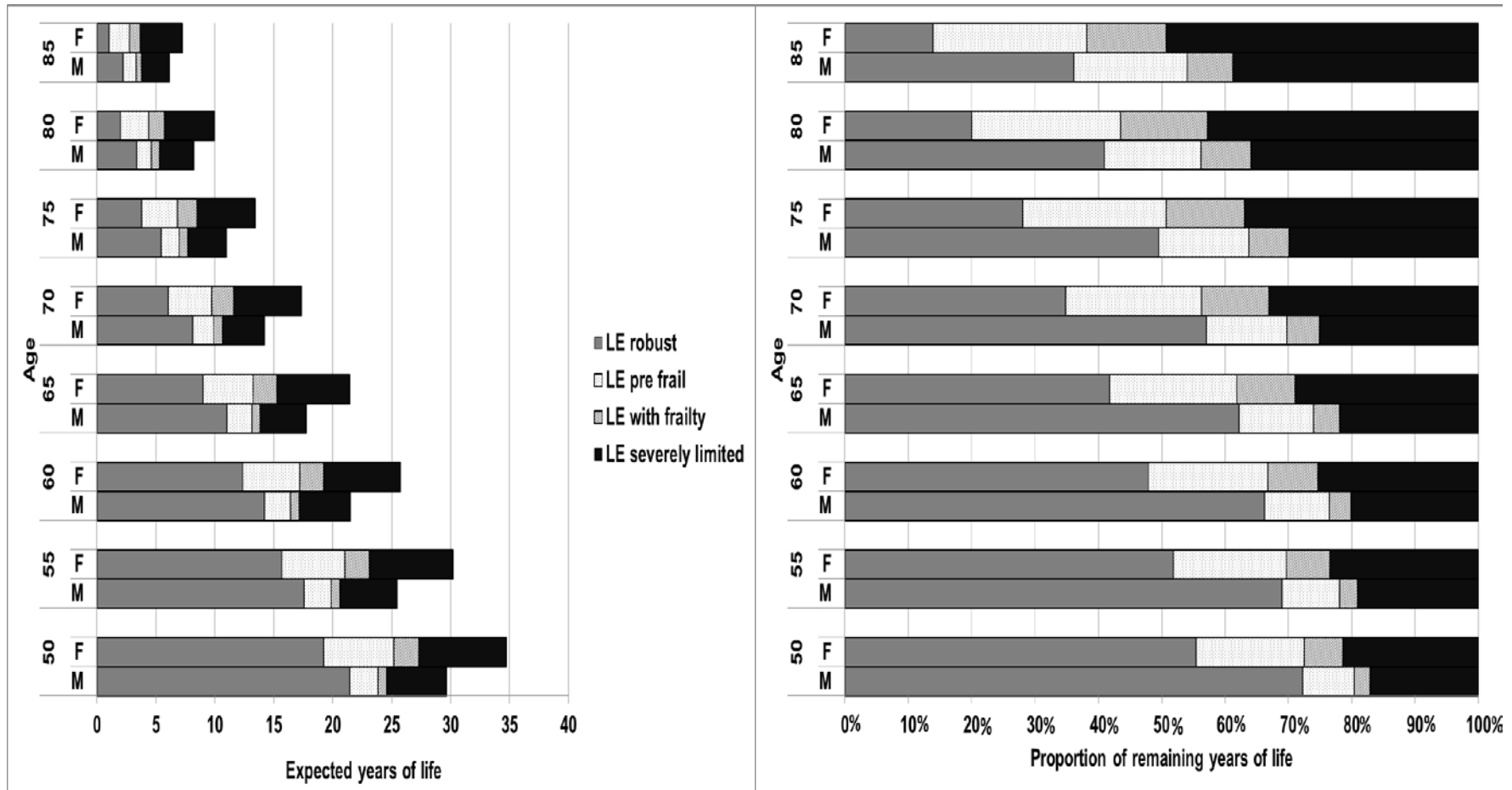


Frailty and disability states

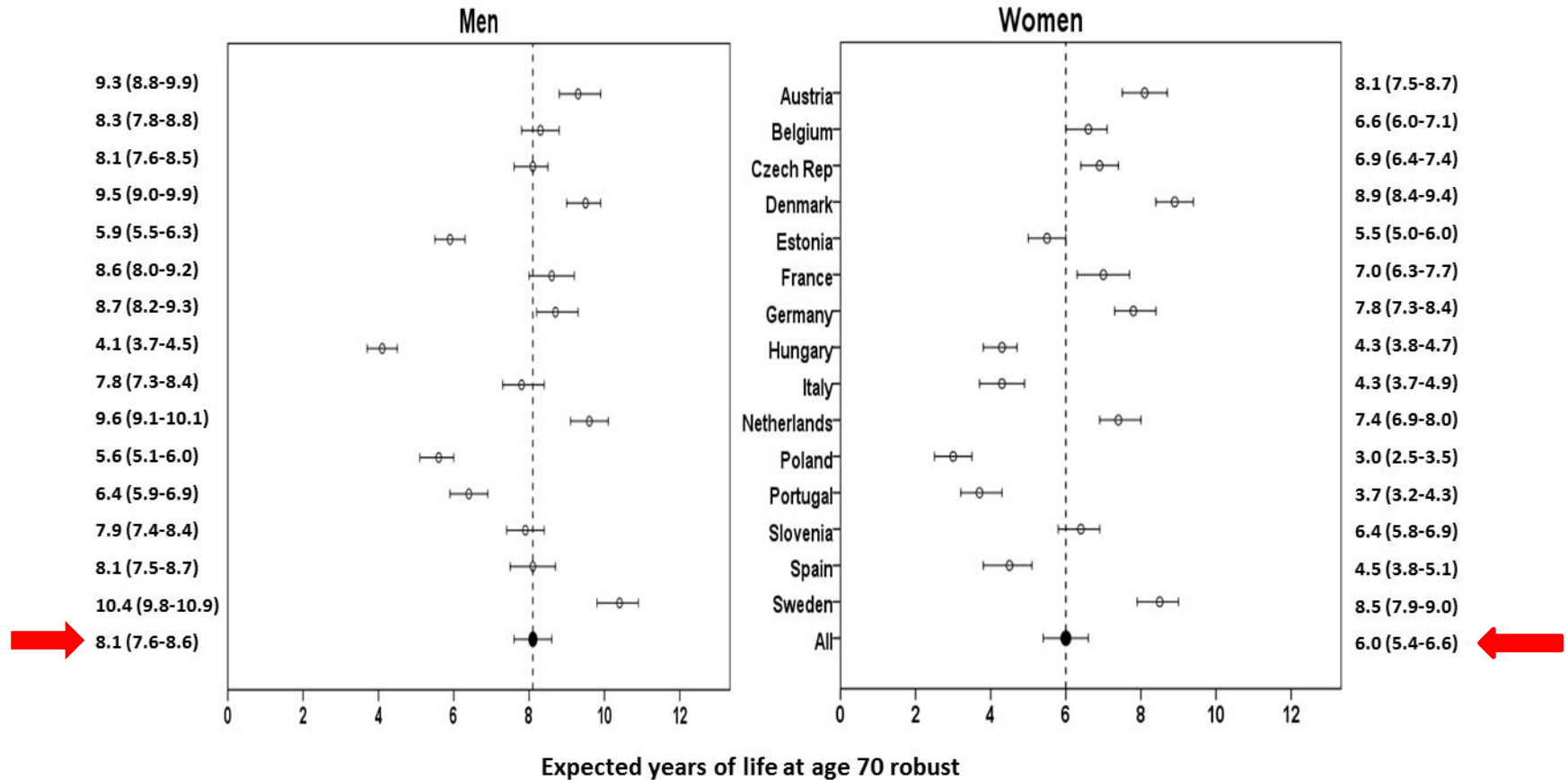
		GALI				
		Not limited	Limited not severe	Severely limited	<i>Missing</i>	Total
SHARE FI	Robust	22292	10985	2698	9	35984
	Pre-frail	2231	3608	2169	4	8012
	Frail	381	1520	2414	0	4315
	<i>Missing</i>	1390	1571	2053	270	5284
	Total	26294	17684	9334	283	53595



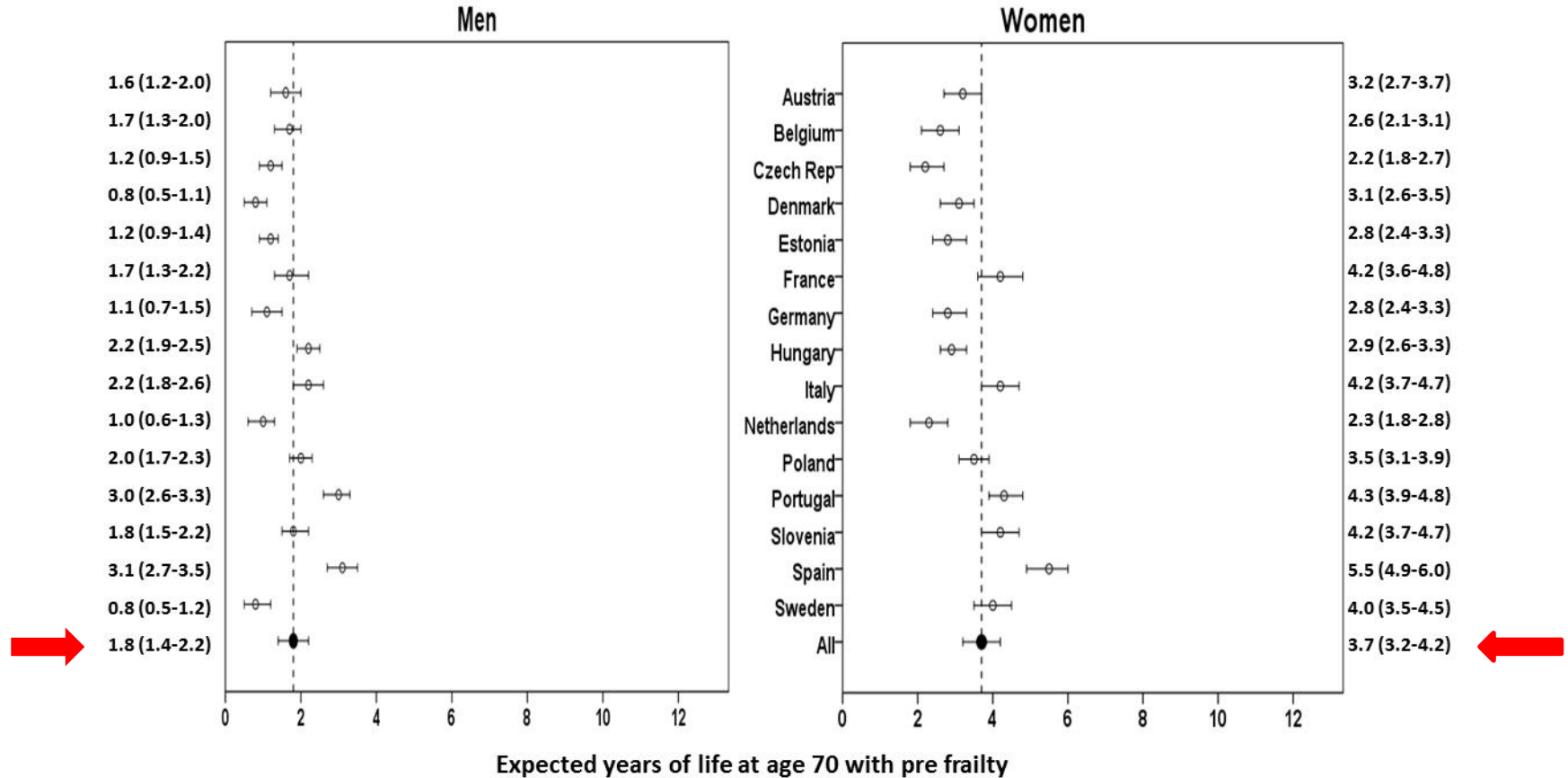
LE in each frailty state by sex and age (all countries)



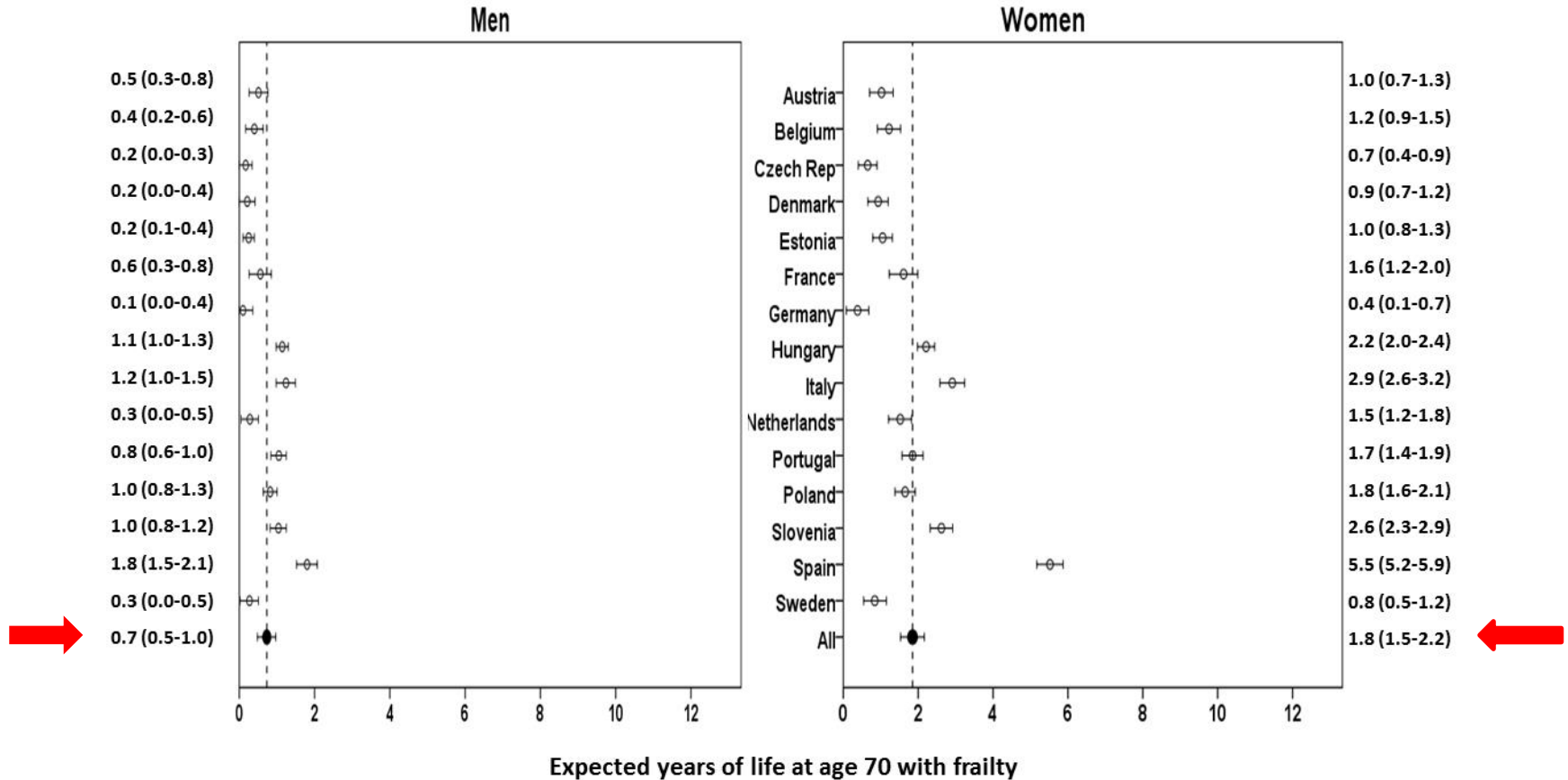
LE robust at age 70 (95%CI), by sex and country



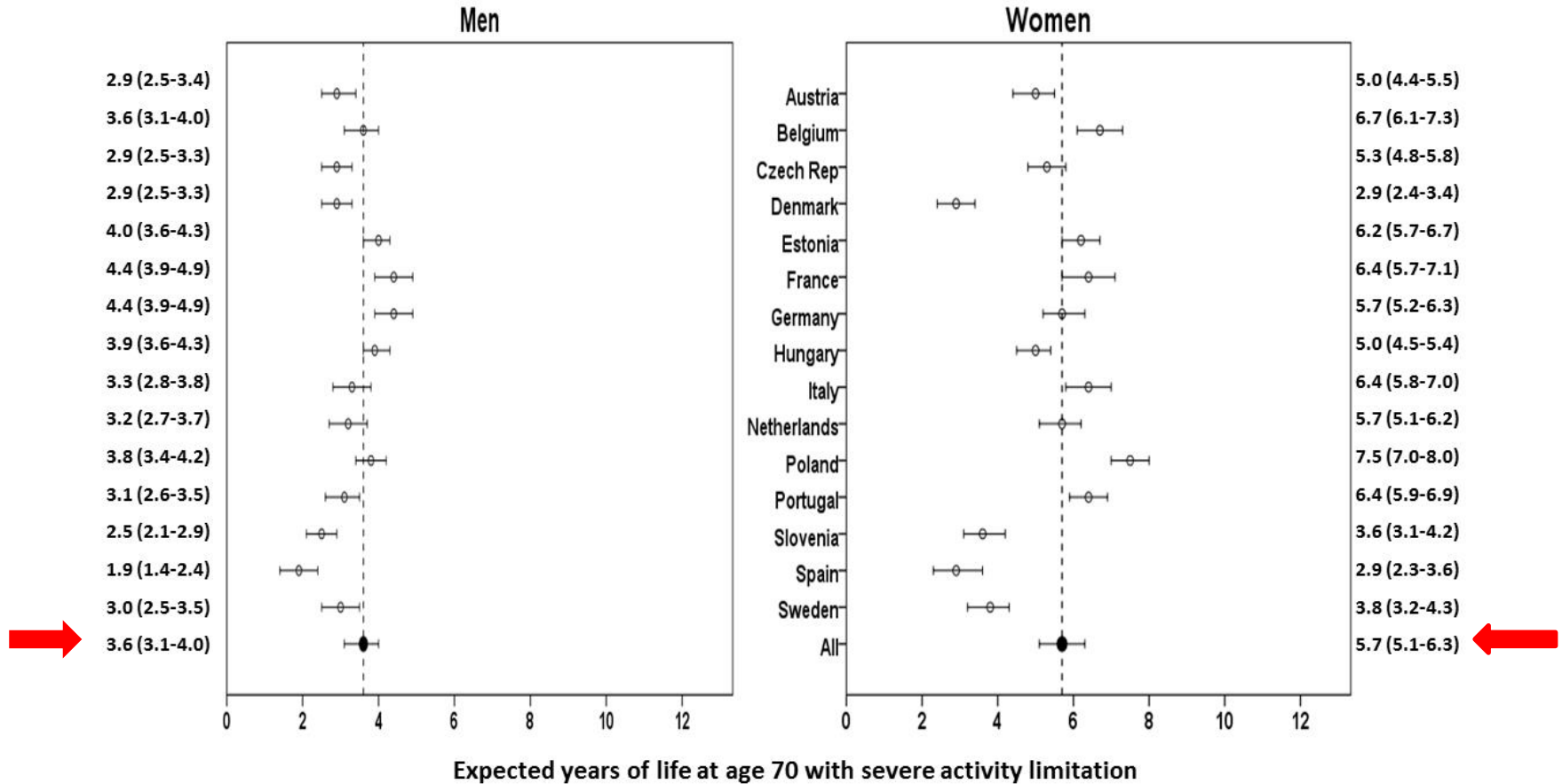
LE pre-frail at age 70 (95%CI), by sex and country



LE frail at age 70 (95%CI), by sex and country



LE severely limited at age 70 (95%CI), by sex and country



Strengths and limitations

- Limitations
 - institutions not included
 - not perfect Fried definition of frailty
 - cross-sectional
- Strengths
 - multi country including Eastern Europe
 - incorporates frailty and disability

Conclusions

- Women spend more time than men pre-frail, frail and with severe activity limitation
 - in all European countries and
 - at all ages
- Some evidence of North-South gradient with LE frail and pre-frail higher in Southern than Northern European countries
- Relatively short time spent frail (men: 0.7 years, women: 1.8 years)
- Years pre-frail (men: 1.8 years, women: 3.7 years) may provide short window of opportunity for interventions

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THANKS



Questions?



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