Is there a social gradient in unmet care needs in Europe?

Preliminary results from a comparative analysis of care provision levels in 11 countries

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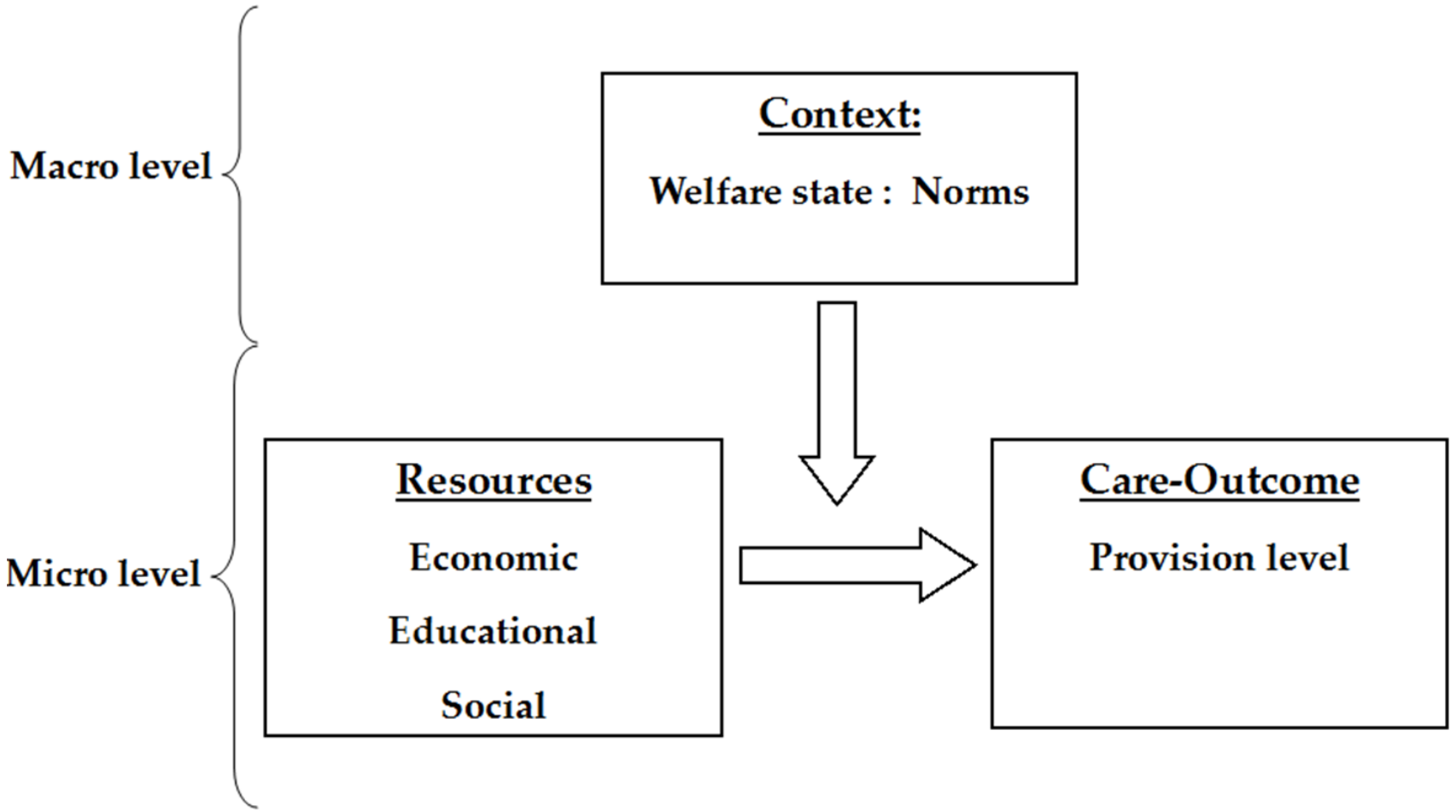
Definitions

- LTC: Services for elderly experiencing functional limitations (WHO 2005)
  - basic activities of daily living (ADL): bathing, dressing, eating, etc.
  - instrumental activities of daily living (IADL): cooking, shopping, letc.
- Long-term care provision level:
  - Met care need: receive care, which meets their needs
  - Under-met care needs: receive care, which does not meet needs
  - Unmet care needs: receive no care
- Social gradient:
  - Inequalities in specific social outcome (e.g. care reception or health status) are related to inequalities in social status. Social status is associated with unequally distributed social resources (e.g. education, income, wealth, social network), lifestyles and social norms.

State of research

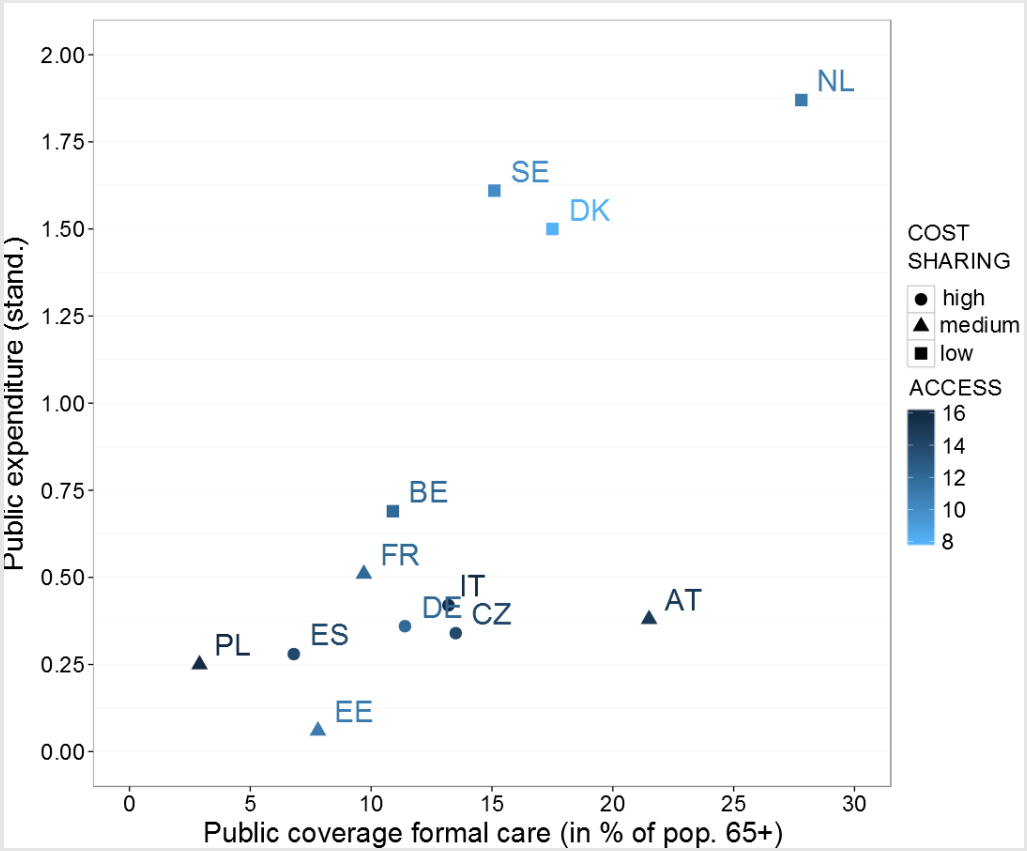
- Prevalence of unmet needs (in dep. population): 10% to 30% LaPlante et al. (2004); Wiliams et al. (1997)
- Low income $\rightarrow$ higher un-/undermet care needs Desai et al. (2001); Kennedy (2001)
- Living alone $\rightarrow$ higher un-/undermet care needs Desai et al. 2001; Kennedy (2001); La Plante et. al (2004); Williams et. al (1997);
- Higher number of ADL $\rightarrow$ higher un-/undermet care needs La Plante (2004); Desai et al. (2001); Kennedy (2001); Allen & Mor (1997); Williams et al. (1997); Tennstedt et al. (1994)
- Deficits:
  - no cross-national studies yet
  - no connection with public welfare structures established yet
  - no formal inclusion of macro-level indicators

Research Question

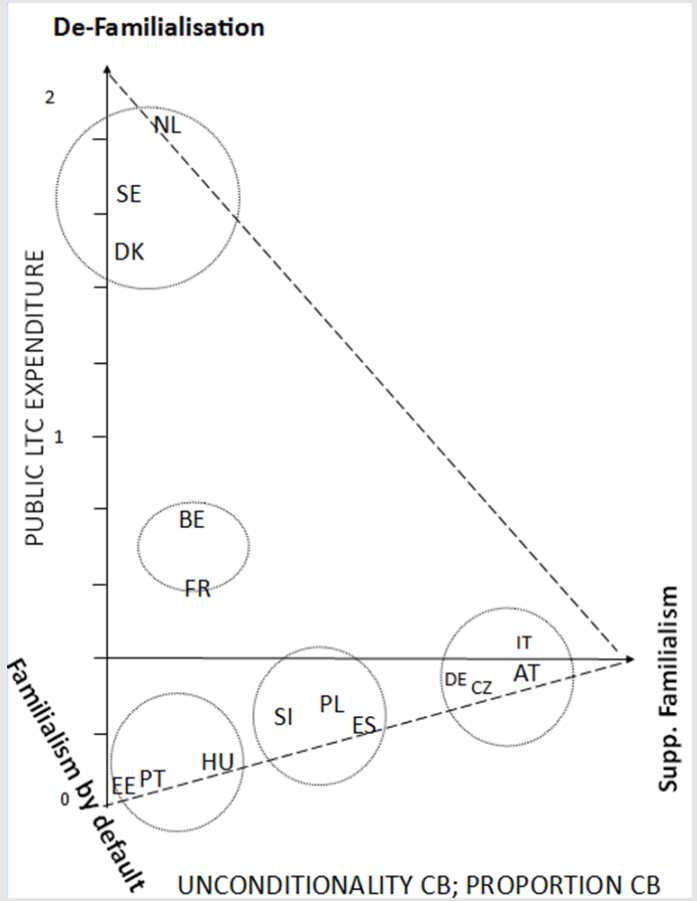


European welfare states: LTC

Welfare state characteristics LTC

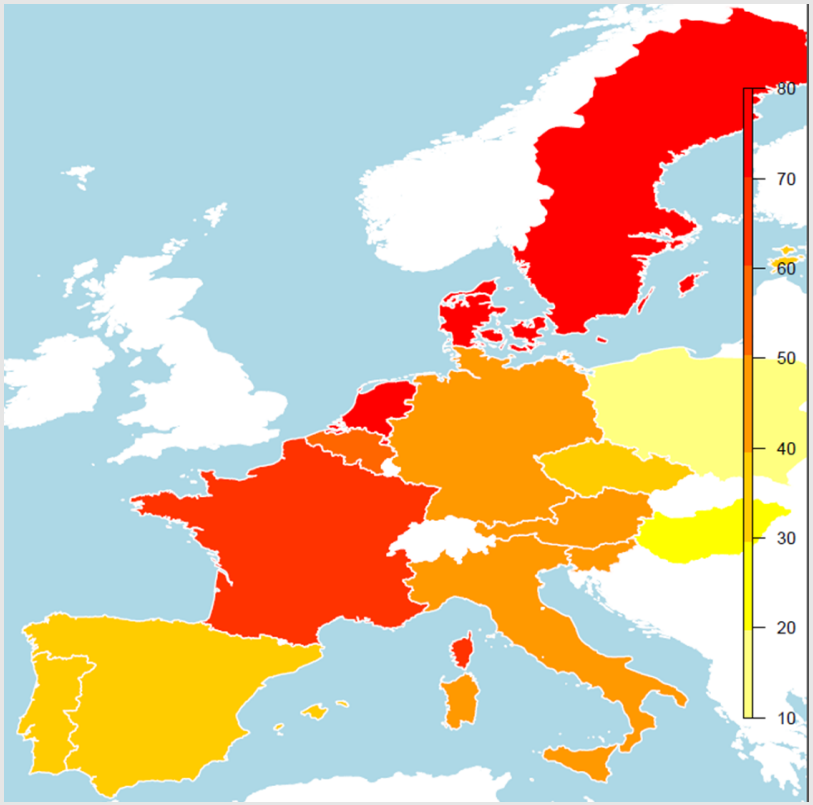


Familialism



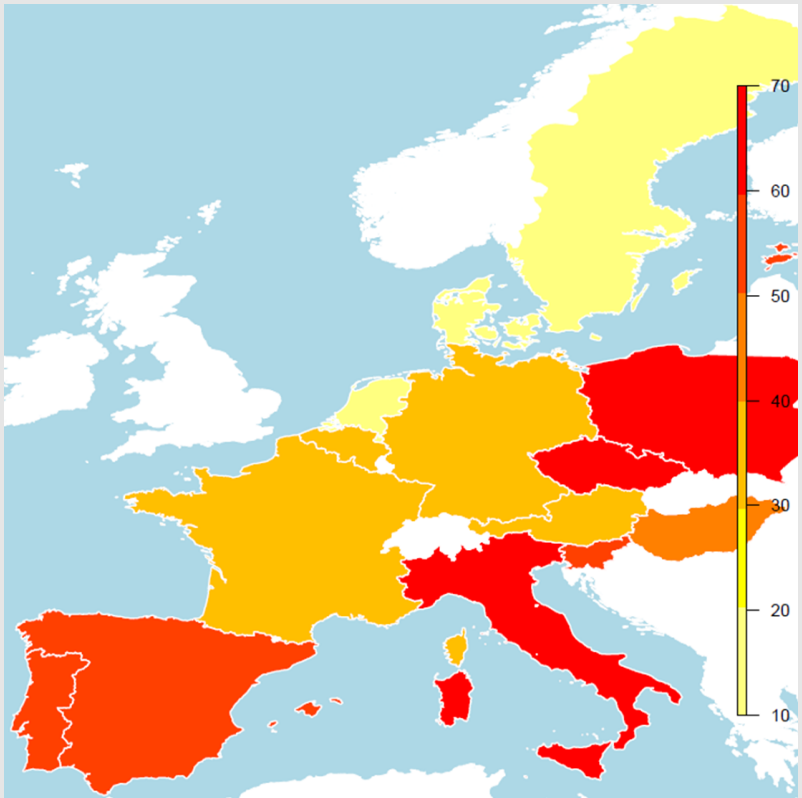
Care culture: norm and expectations

"Good care" = formal care (in %)



Eurobarometer 2007

Care responsibility = family (in %)



Eurobarometer 2007

Theoretical Expectations

1. Individual level:
   - Low econ. resources $\rightarrow$ higher un-/undermet needs
   - Low familial resources $\rightarrow$ higher un-/undermet needs
2. Country level:
   - Clear alignment between support structure and expectations $\rightarrow$ lower un-/undermet needs
   - Mixed and contradictory cases $\rightarrow$ higher un-/undermet needs

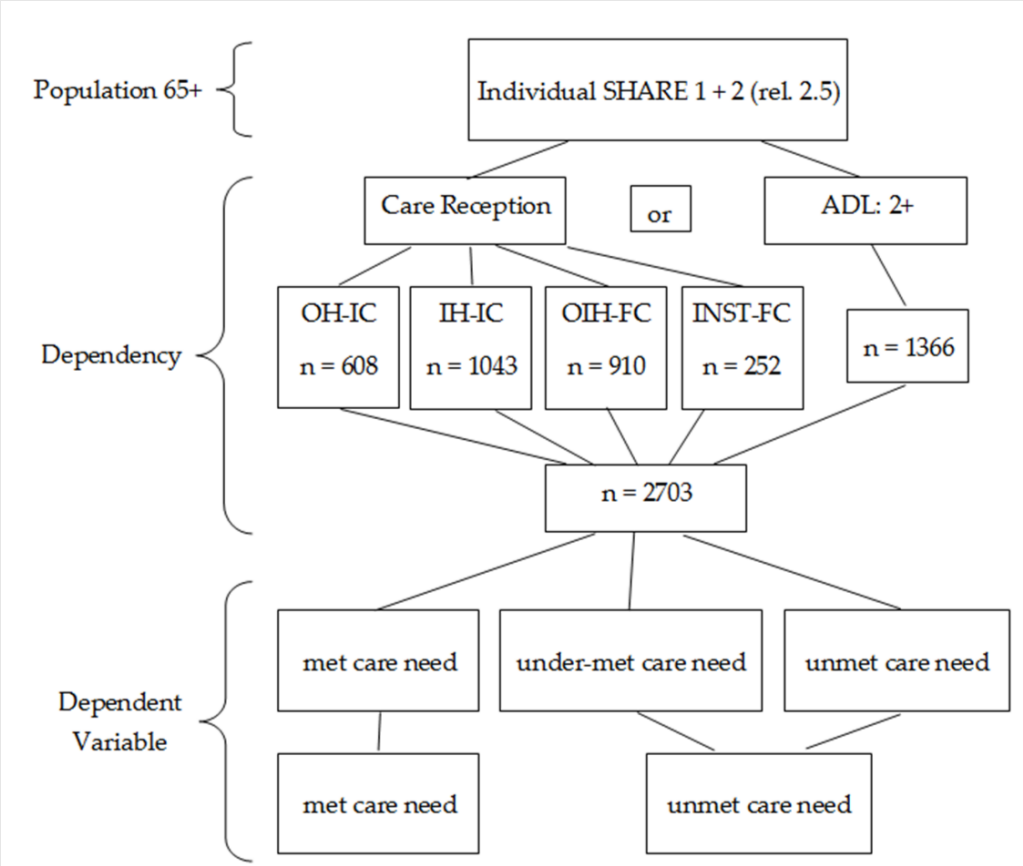
   - Economic resources should matter most in mixed systems
   - Family resources should matter most in familialistic countries

Operationalisation: Unmet/undermet/met care needs

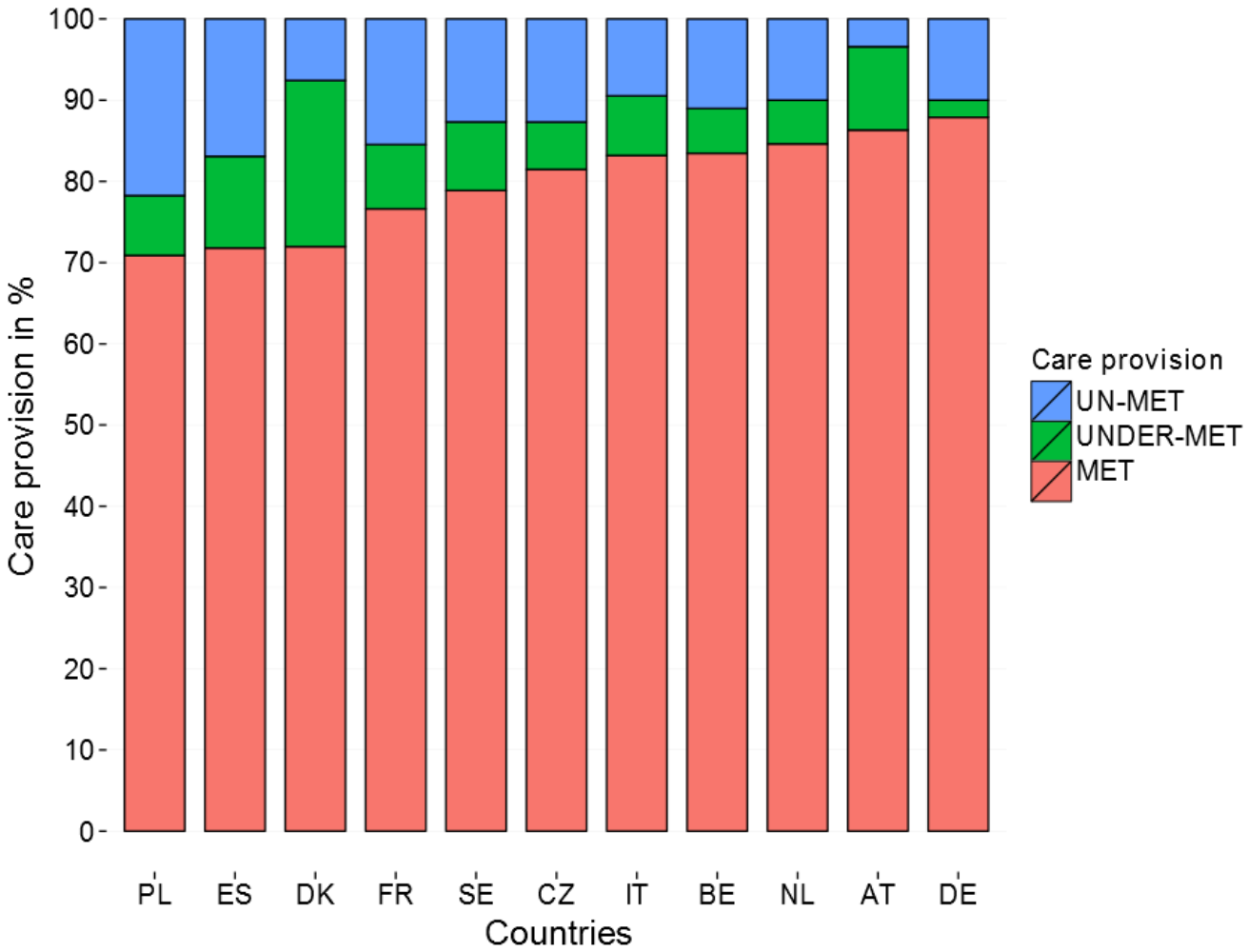
Problems:

- Problematic ADL/IADL items in SHARE
- Missing item for actual need
- → Too broad reference group (for items ph050-51)
- → Implausible high rates of unmet needs (PL: 76 %!)
- → Not usable for comparative research

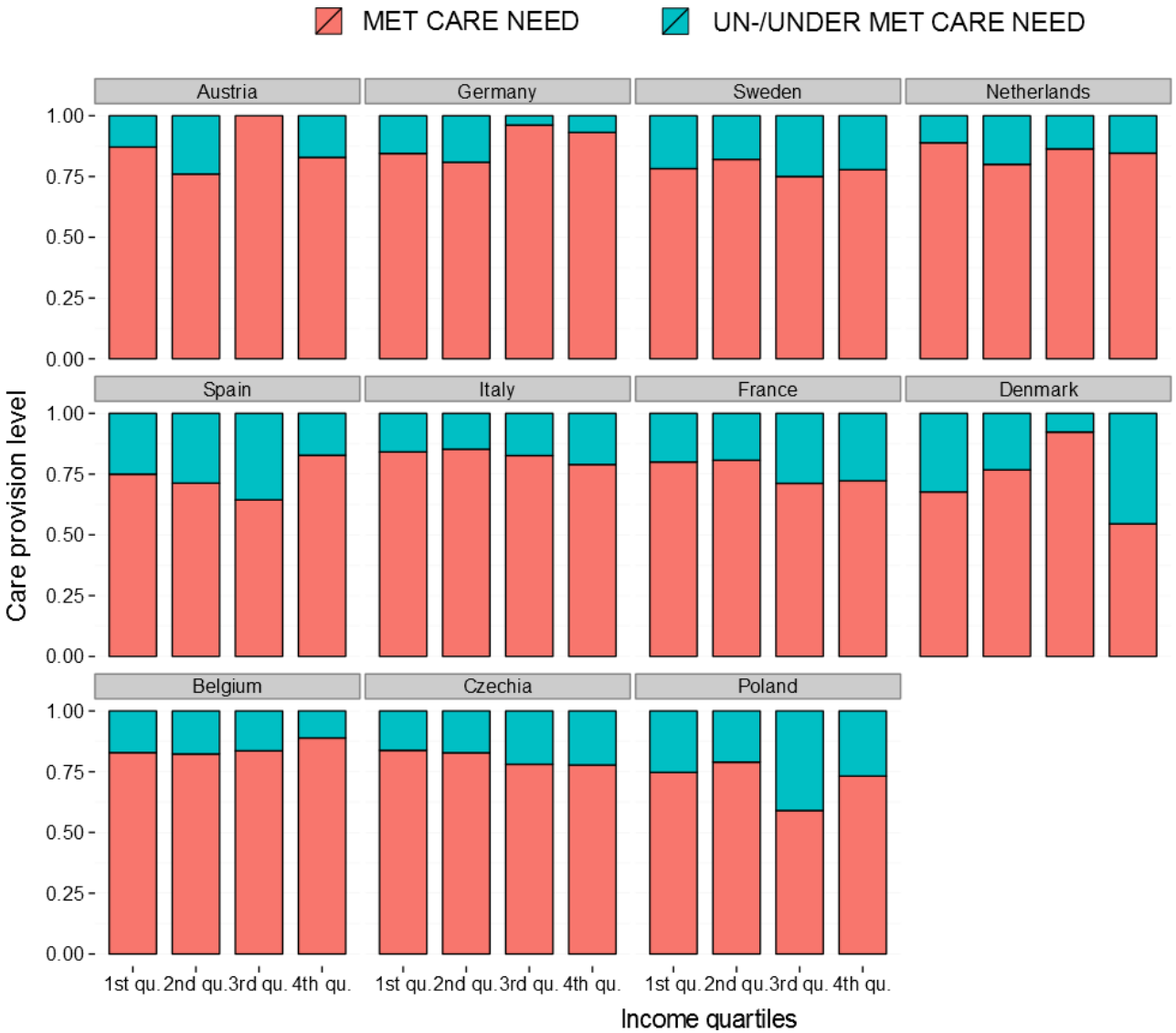
Solution?



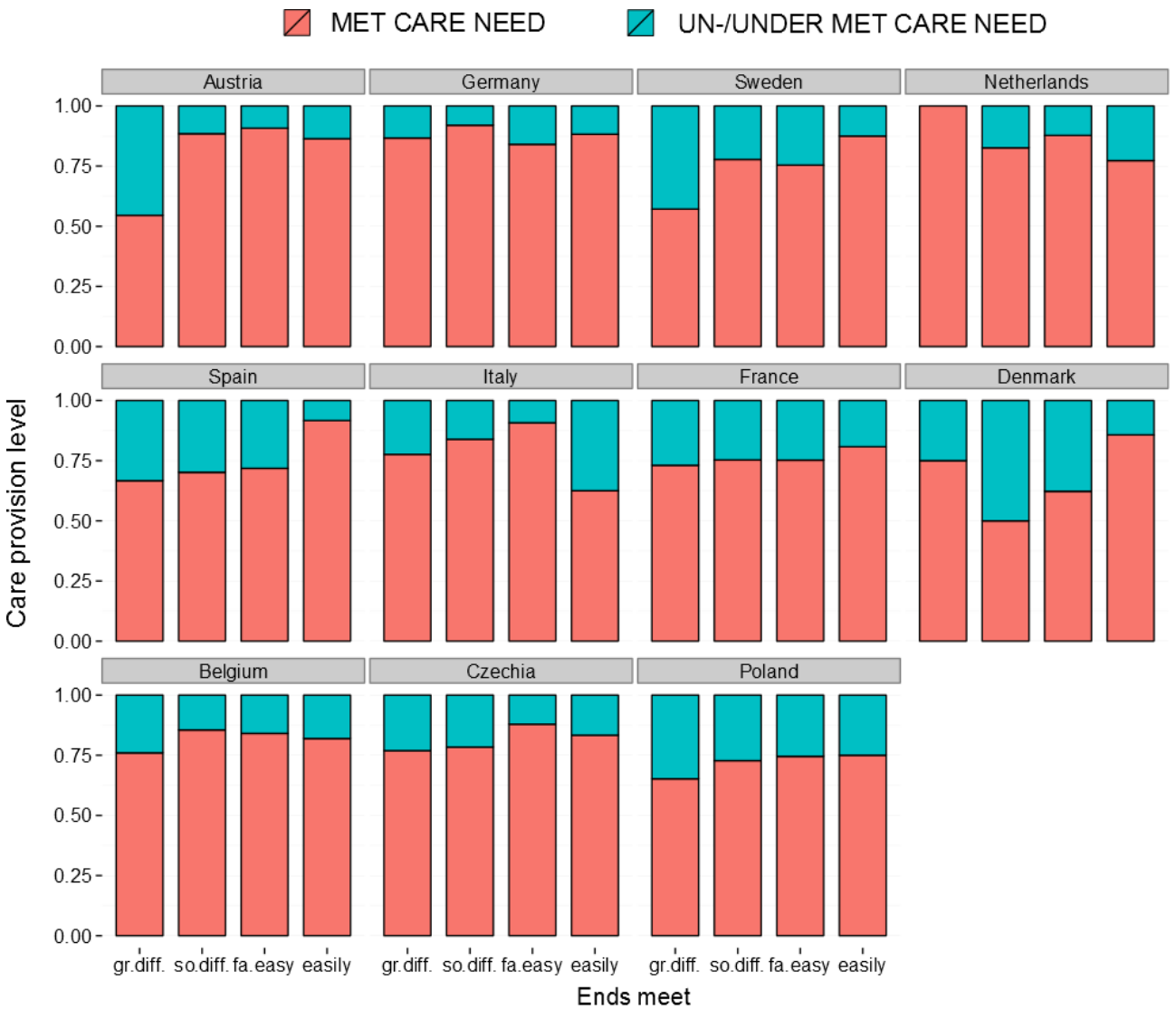
Care provision level: Unlikely neighbours?



Care provision level: Income



Care provision level: Ends meet



Predictors

- Predictor variables (individual level)
  - Familial capital: Partner (yes/no), children (yes/no), children in household (yes/no), siblings (yes/no)
  - Educational capital: Low (ISCED 0-2), medium (ISCED 3-4), high (ISCED 5-6)
  - Economic capital: Net income quartiles, net wealth quartiles, subj. financial distress (severe/some/fairly easy/easily)
  - Care-type received (formal only/informal only/mixed)
- Control variables (individual level)
  - Sex: Male vs. female
  - Area of building: City vs. town vs. village/rural
  - Limitation status: Number of ADL
  - Age
- Predictor variables (country level)
  - Public LTC expenditure (std.)
  - Access
  - Cost-sharing (low/medium/high)
  - Familialism-type (strong-defam./weak defam./supp.fam./fam.default)

Method: Logistic hierarchical regression analysis

- Data: SHARE wave 1 (2004/05) and wave 2 (2006/07)
- Level 1: 1675 respondents, 65 years and older
- Level 2: 11 countries: AT, BE, CZ, DE, DK, ES, FR, IT, NL, PL, SE
- Mode: Random intercept; random intercept + random slope
- Estimation procedure: Restricted maximum likelihood; Full Bayesian Monte-Carlo-Markov-Chain (not shown)

Logit coefficients (un-/undermet = ref.): Random intercept

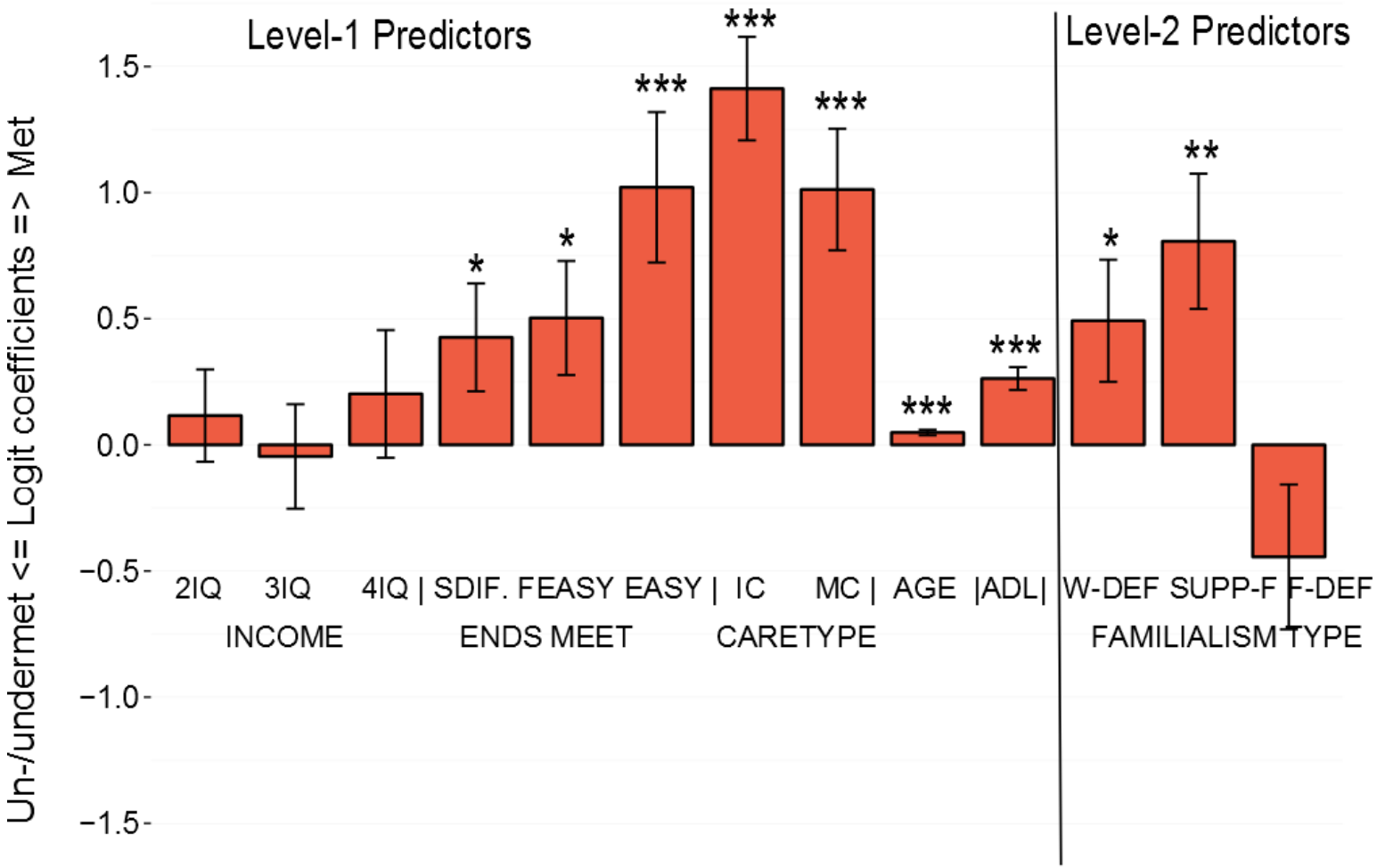


Figure: SHARE wave 1 and 2, unweighted data, own calculations, n = 1675, AIC: 2112, other, non-significant level-1 predictors include: education, wealth, siblings, partner, area of living, gender. Included level-2 predictors: Public LTC expenditure, access, complexity, cost-sharing. ICC: 0.3 % (ICC empty model: 2.9 %)

Random intercept + random slope (ends meet): country residuals

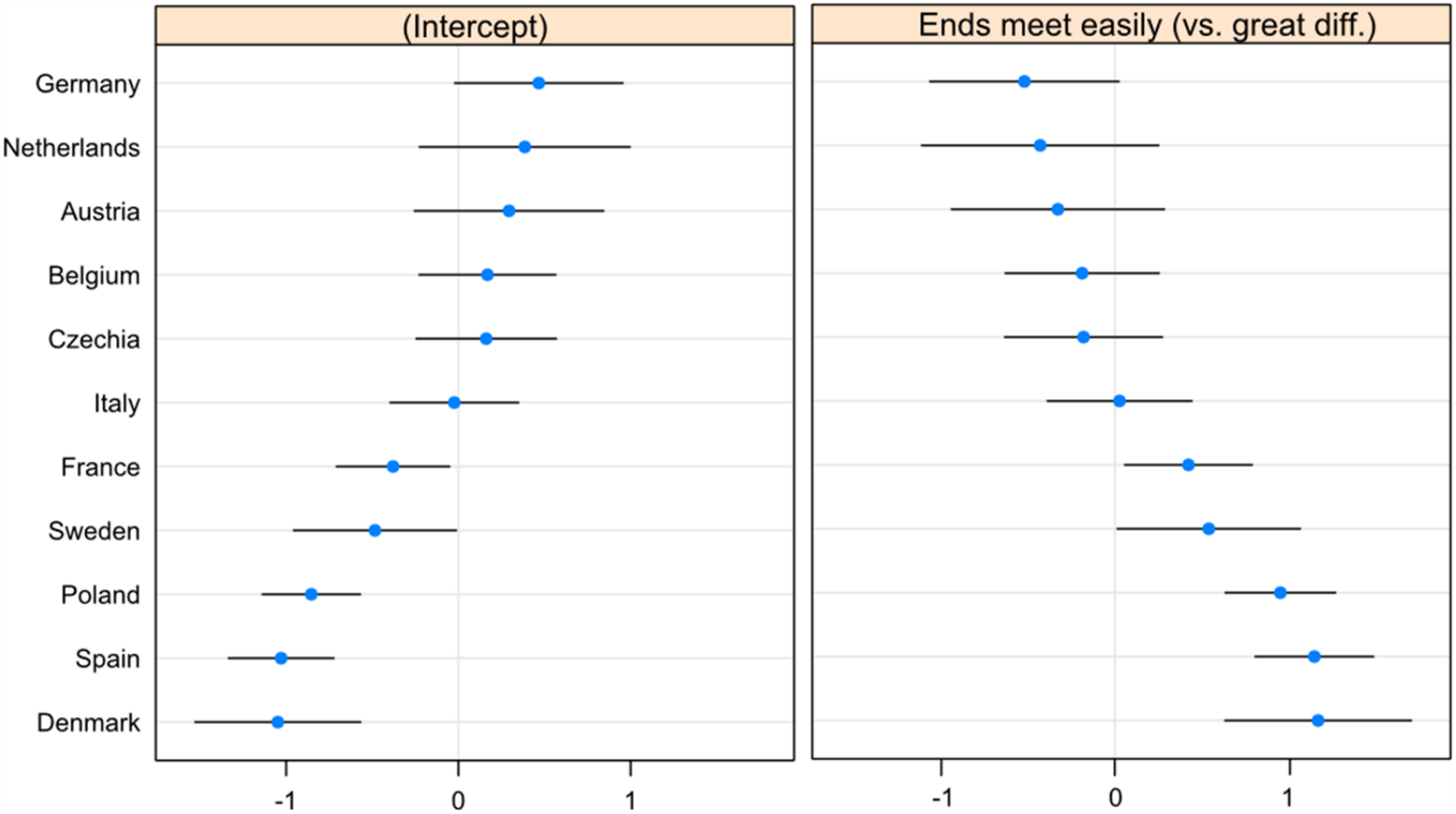


Figure: SHARE wave 1 and 2, unweighted data, own calculations, n = 1675, AIC: 1350, fixed variables included: education,income, wealth, siblings, partner, children in household, area of living, gender, age, number of ADL-limitations and care-type received.

Conclusion/Limitations

- Prevalence of un- or under-met care needs is highest in countries with strong public LTC programs (e.g. DK, FR, SE) and in countries with strong reliance on the family (e.g. PL, ES). It is least prevalent in countries featuring welfare programs, which strongly support familialistic care solutions (e.g. DE, AT, IT, CZ).
- Overall effect of economic resources: People having difficulties making ends meet have a higher probability for un- or under-met care needs. No impact of income (quartiles).
- People receiving formal care only, have a higher probability for un- or under-met care needs compared to those who receive informal (only) or mixed care
- The social gradient (financial distress) of care provision level seems stronger in de-familialising welfare states (DK, FR, SE) and in familialist by default-countries (PL, ES).

- Under-representation of institutional care in SHARE
- Proper operationalisation of care provision level?

Random intercept + random slope (care type): country residuals

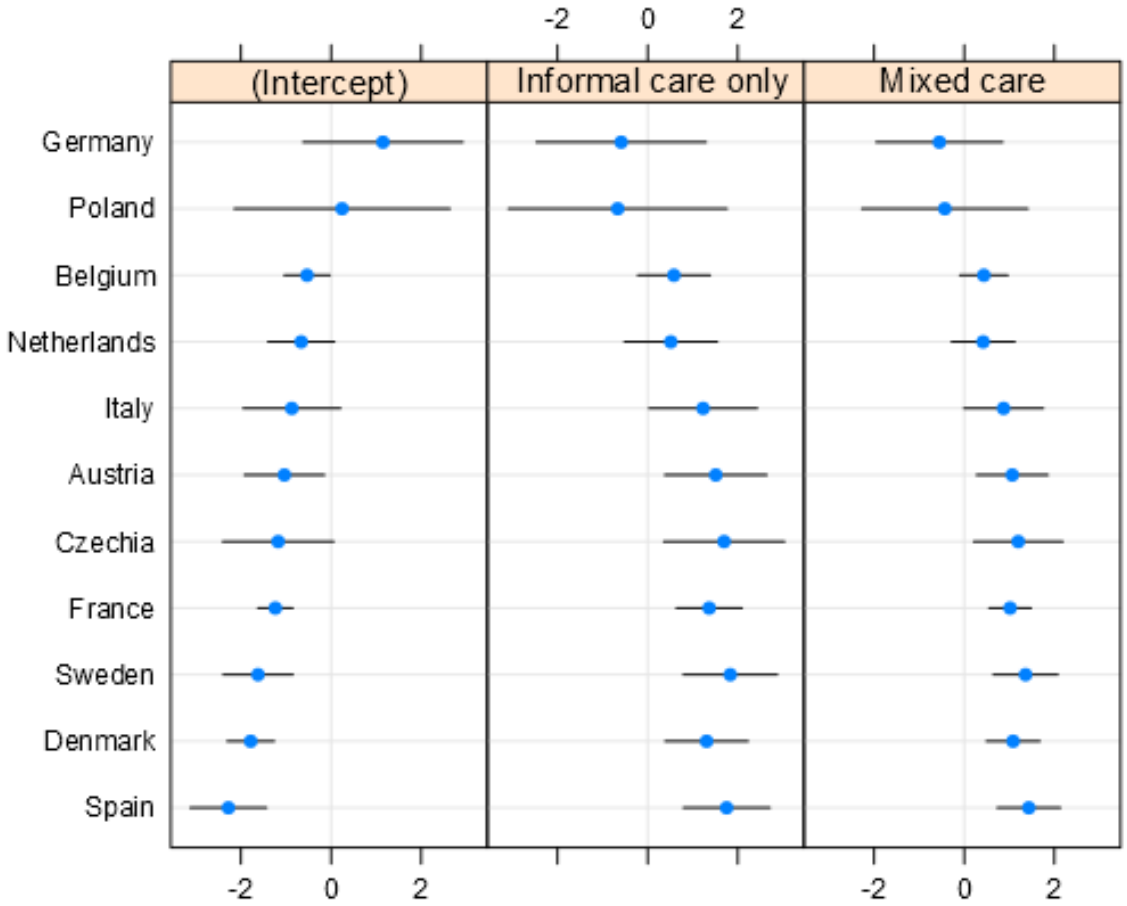


Figure: SHARE wave 1 and 2, unweighted data, own calculations, n = 1675, AIC: 1354, fixed variables included: education,income, wealth, financial distress, siblings, partner, children in household, area of living, gender, age, number of ADL-limitations.

Table

	Dependent variable:				
	dv1.subj2				dv1.undermet
	(1)	(2)	(3)	(4)	(5)
edu3.fmid		0.18	0.18	0.18	−0.09
		(0.21)	(0.21)	(0.22)	(0.25)
edu3.fhigh		0.06	0.06	0.06	−0.34
		(0.33)	(0.32)	(0.33)	(0.34)
incomequart.f2nd qu.		0.11	0.12	0.09	−0.09
		(0.18)	(0.18)	(0.18)	(0.22)
incomequart.f3rd qu.		−0.05	−0.05	−0.05	−0.23
		(0.21)	(0.21)	(0.21)	(0.24)
incomequart.f4th qu.		0.22	0.20	0.17	0.07
		(0.25)	(0.25)	(0.25)	(0.29)
wealthquart.f2nd qu.		−0.01	−0.02	−0.01	0.11
		(0.19)	(0.19)	(0.19)	(0.21)
wealthquart.f3rd qu.		−0.35*	−0.35*	−0.33	0.13
		(0.20)	(0.20)	(0.20)	(0.24)
wealthquart.f4th qu.		−0.32	−0.34	−0.28	0.49
		(0.23)	(0.23)	(0.23)	(0.32)
ends.meet.fsome diff.		0.42*	0.43**	0.42*	
		(0.21)	(0.21)	(0.21)	
ends.meet.ff. easily		0.50**	0.50**	0.52**	
		(0.23)	(0.23)	(0.23)	
ends.meet.feasily		1.02***	1.02***	1.02***	
		(0.30)	(0.30)	(0.30)	
siblings.fyes		0.16	0.18	0.13	0.04
		(0.16)	(0.16)	(0.16)	(0.18)
partner.fyes		−0.12	−0.12	−0.08	0.38*
		(0.19)	(0.18)	(0.19)	(0.23)
child.cat.fyes		−0.25	−0.25	−0.24	0.17
		(0.22)	(0.22)	(0.22)	(0.22)
ch.in.hh.fyes		0.15	0.17	0.17	0.32
		(0.22)	(0.23)	(0.22)	(0.31)
hhsize					0.16
					(0.12)
area.flarge/small town		−0.02	−0.04	−0.05	0.001
		(0.19)	(0.18)	(0.19)	(0.22)
area.finner city/city suburbs		−0.14	−0.11	−0.17	−0.05
		(0.22)	(0.21)	(0.22)	(0.25)
age		0.05***	0.05***	0.05***	0.02
		(0.01)	(0.01)	(0.01)	(0.01)
genderfemale		0.14	0.16	0.13	−0.31
		(0.16)	(0.16)	(0.16)	(0.20)
adlnew		0.25***	0.26***	0.26***	0.01
		(0.05)	(0.05)	(0.04)	(0.05)
caretype.finformal only		1.37***	1.41***		
		(0.20)	(0.20)		
caretype.fmixed		1.00***	1.01***		
		(0.24)	(0.24)		
familialism.typeSTRONG_SUPP			0.81***		
			(0.27)		
familialism.typeWEAK_DEFAM			0.49**		
			(0.24)		
familialism.typeWEAK_SUPP			−0.44		
			(0.29)		
Constant	1.39***	−3.69***	−4.06***	−2.47**	0.77
	(0.11)	(1.01)	(1.01)	(1.01)	(1.16)
Observations	2,215	1,675	1,675	1,675	1,826
Log likelihood	−1,128.12	−643.16	−635.65	−649.96	−543.56
Akaike Inf. Crit.	2,260.24	1,334.33	1,325.31	1,353.92	1,145.12
Bayesian Inf. Crit.	2,271.65	1,464.49	1,471.74	1,500.35	1,304.90
Note:					*p<0.1; **p<0.05; ***p<0.01