Later life health and well-being in ageing populations: European perspectives

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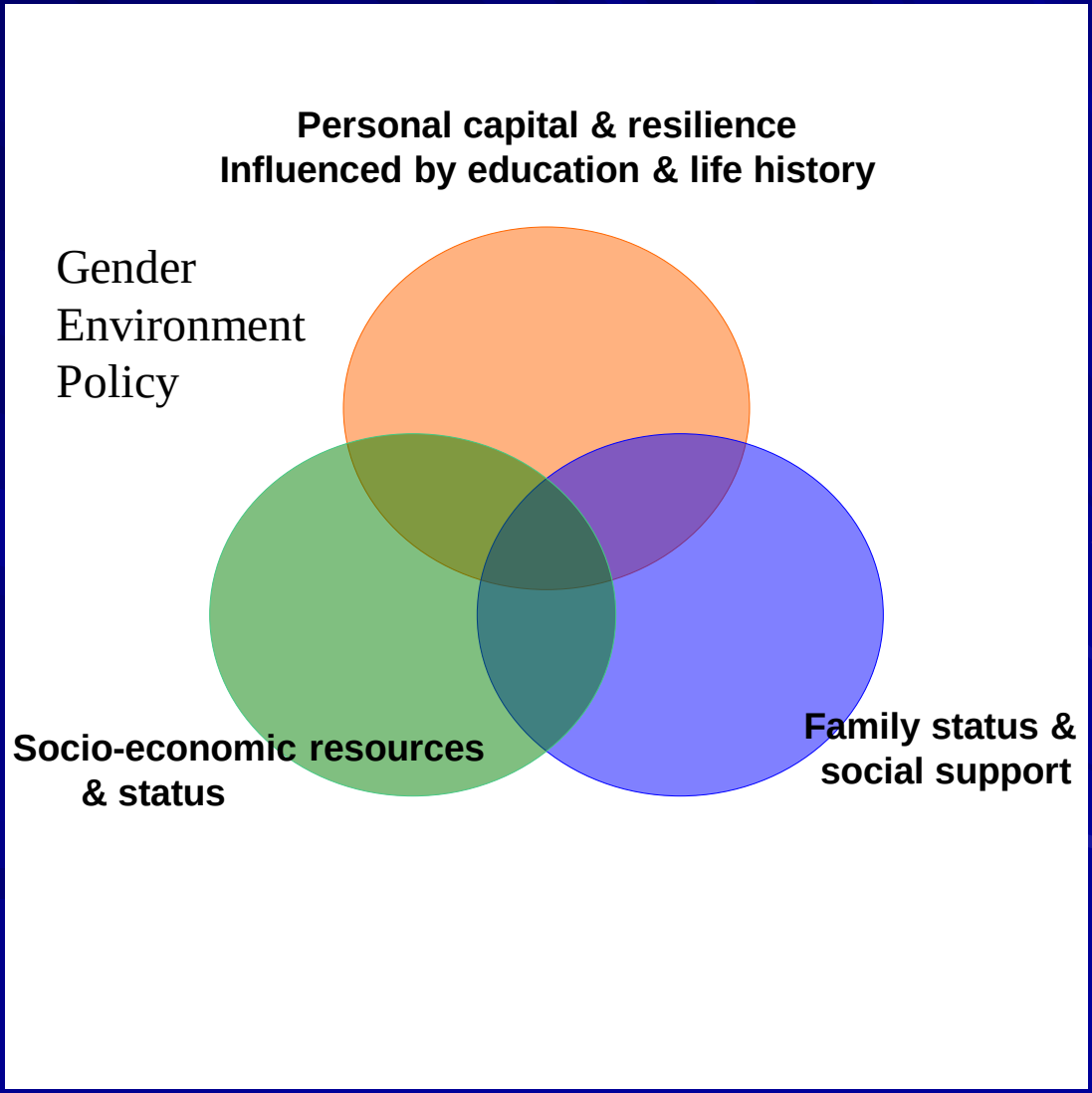
Overview of presentation

- Kin availability
- Households, families and intergenerational exchanges
- Family life courses and later life health and well-being
- Future prospects and policy dilemmas

Health & well-being in later life: macro and micro challenges and influences

Policy concerns in ageing societies

- Finance
- Family support for older people
- Fitness: Health and disability

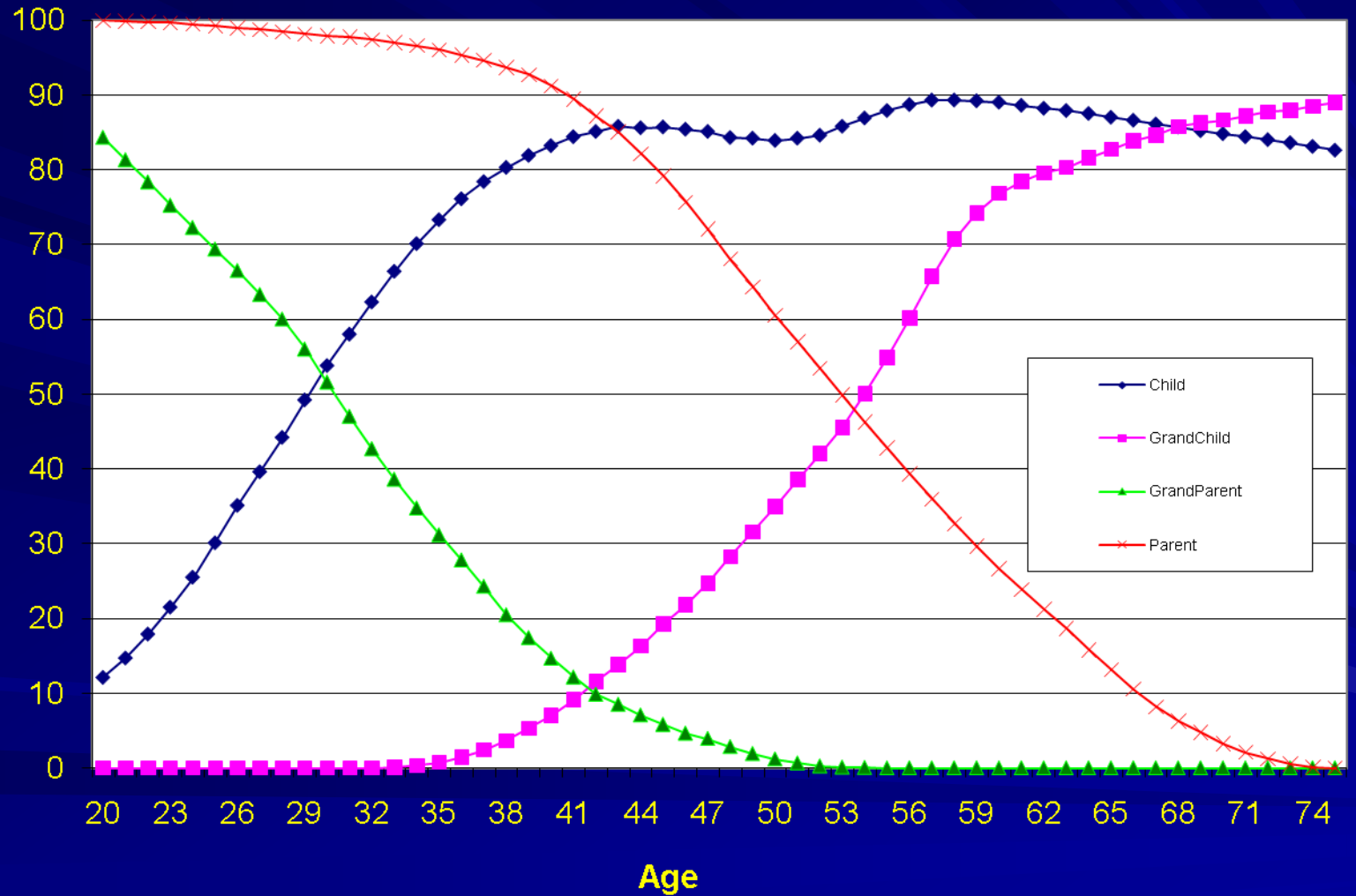


Family & social support

- Assumed to be in decline because of demographic & socio-economic/cultural change including:
  - Low fertility
  - Smaller households and reduced intergenerational co-residence
  - More divorce, cohabitation etc.
- "A family and social revolution…the very basis of the family has changed. The family, in the past an institution and means of social integration, has become a pact between two individuals looking for personal fulfilment"

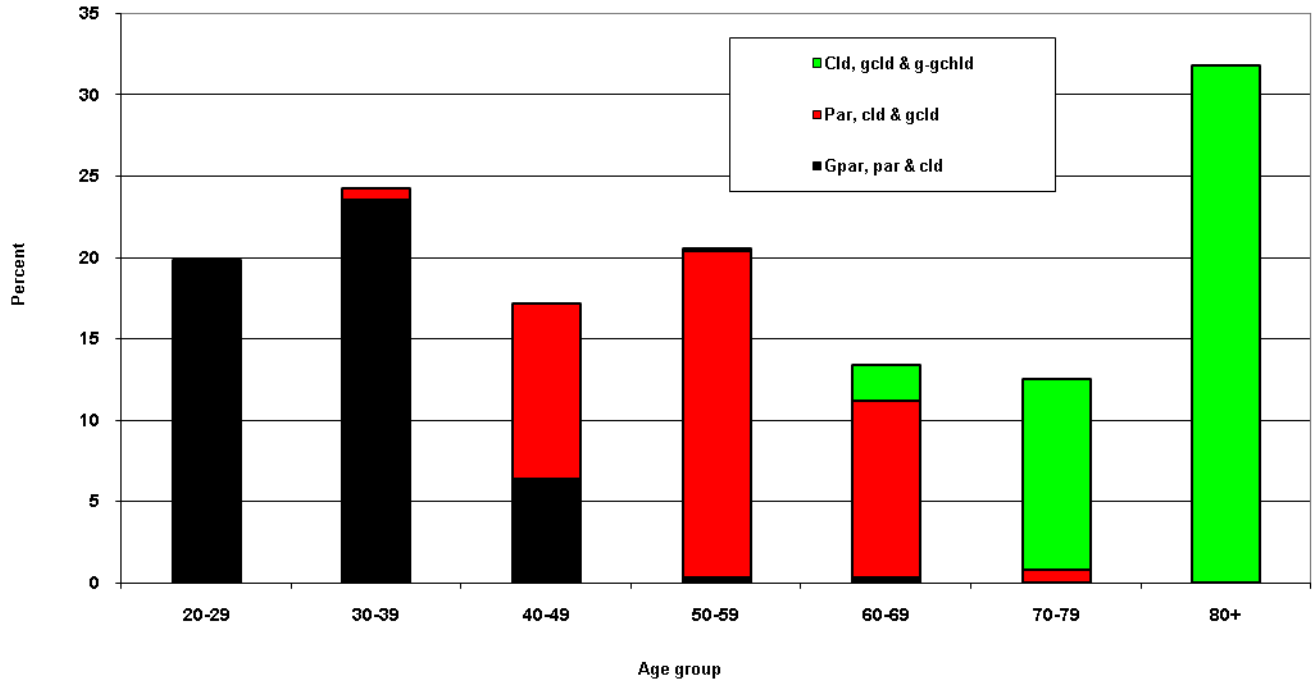
European Commission 1995

Proportions with different types of living kin by age, Britain 1999



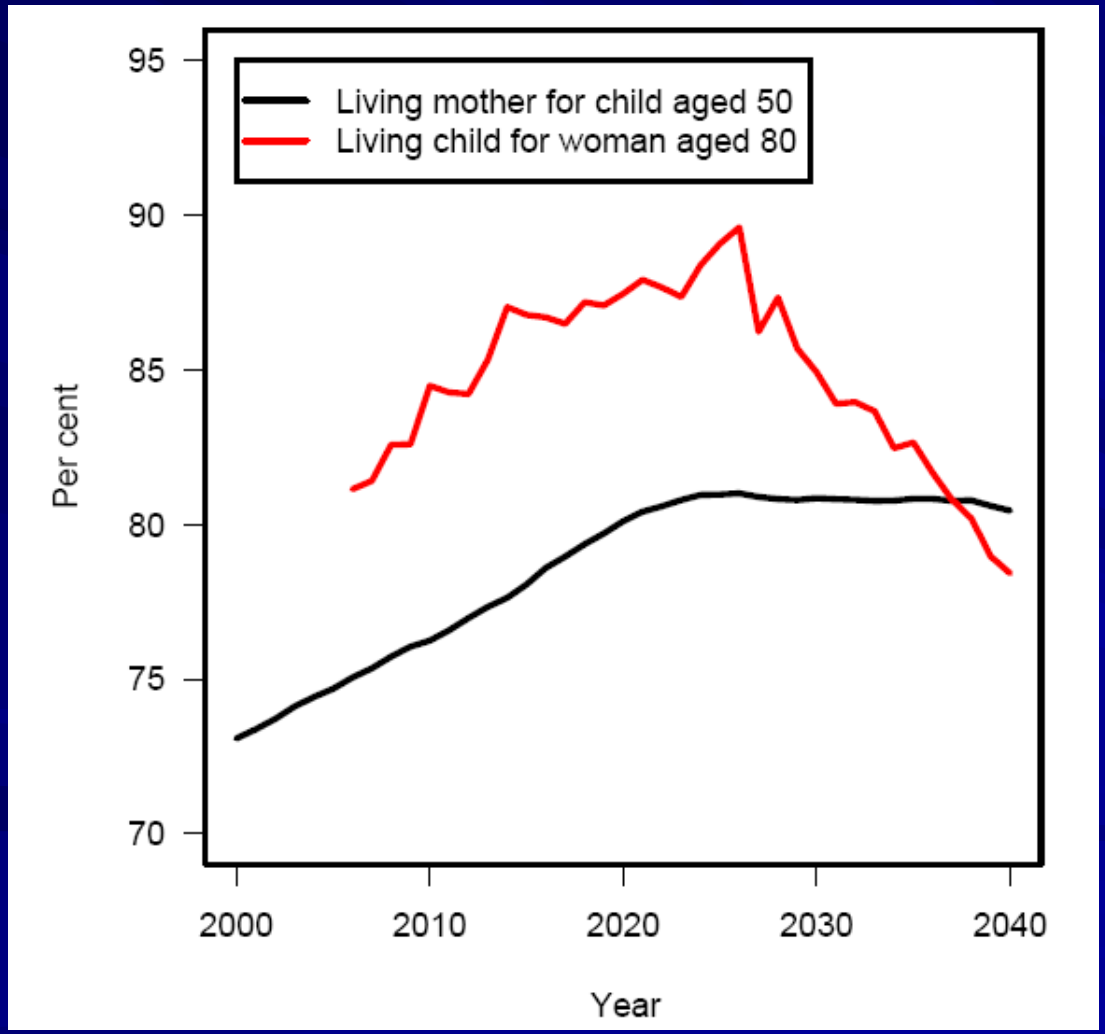
Source: Omnibus survey living kin module (Grundy et al 1999)

Adults in four generation families (%), by relationship to respondents, Britain 1999.



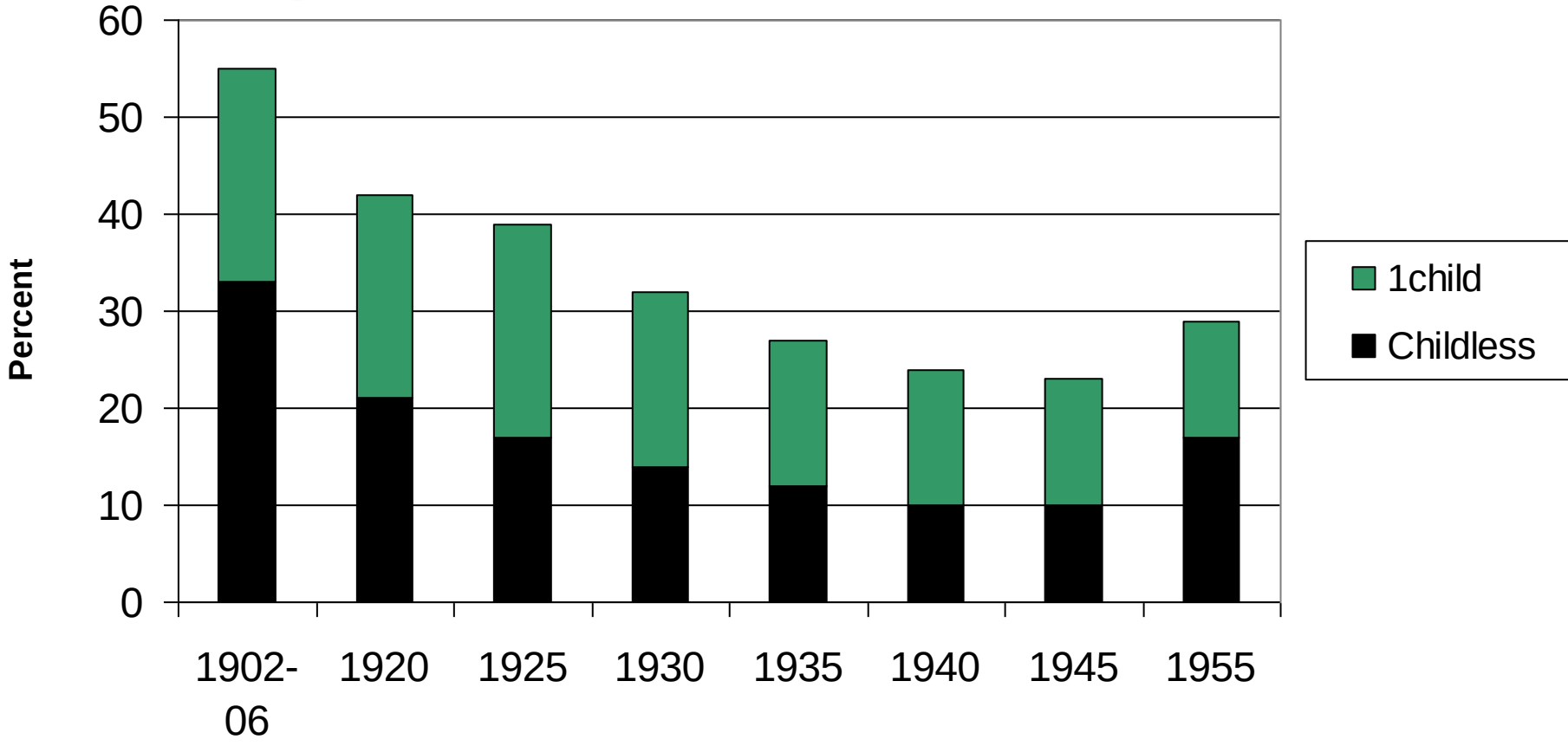
Source: Grundy, Murphy & Shelton 1999

The Next Four Decades: Proportions of 50−year−olds with living mothers and of 80−year−old women with living children, England & Wales



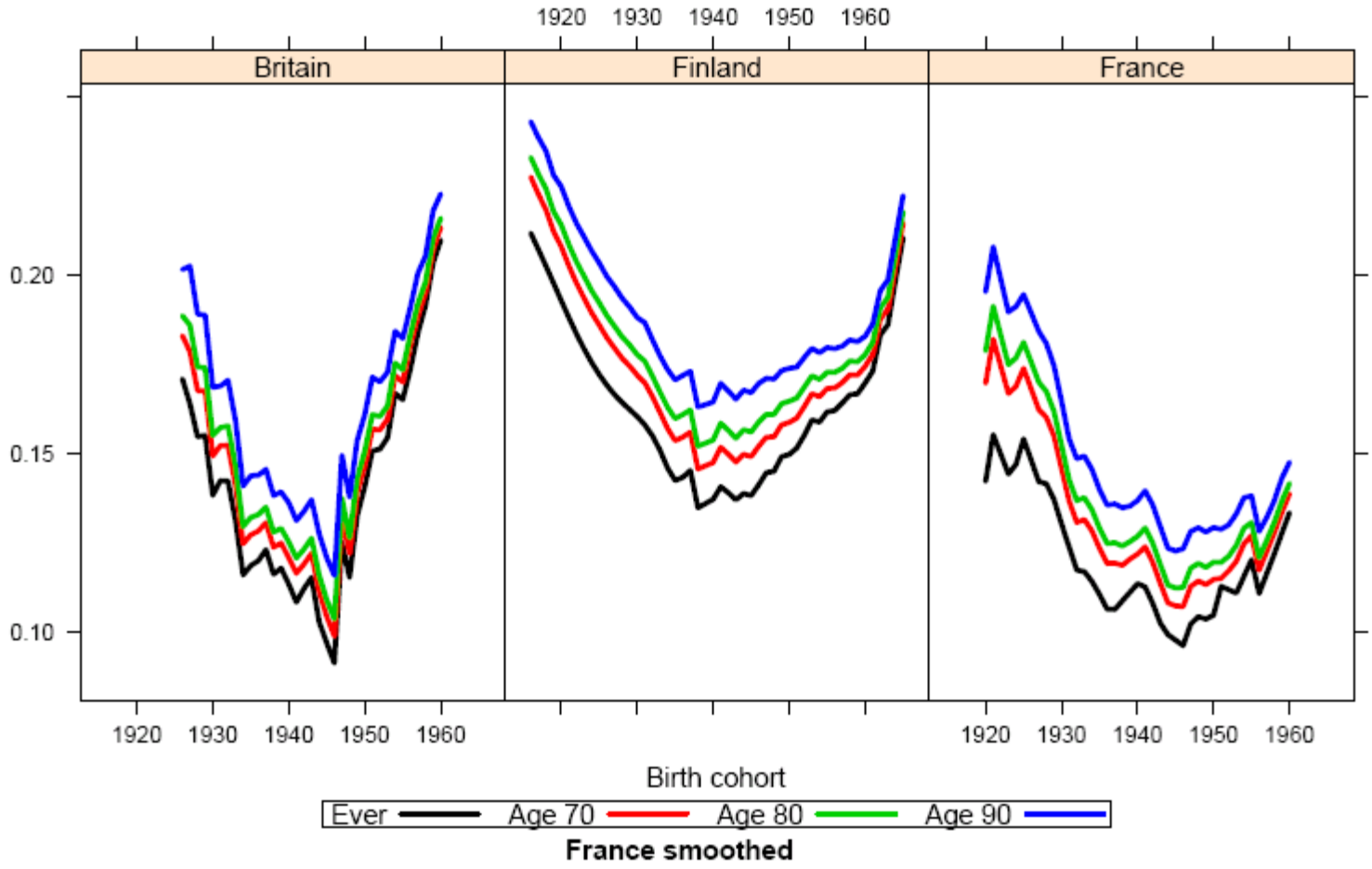
Murphy, M and E. Grundy (2003) Mothers with living children and children with living mothers: the role of fertility and mortality in the period 1911–2050. Pp 36-44 in *Population Trends 112* Summer 2003.

Women with no or only 1 child at age 45 by birth cohort, England and Wales



Grundy 1996

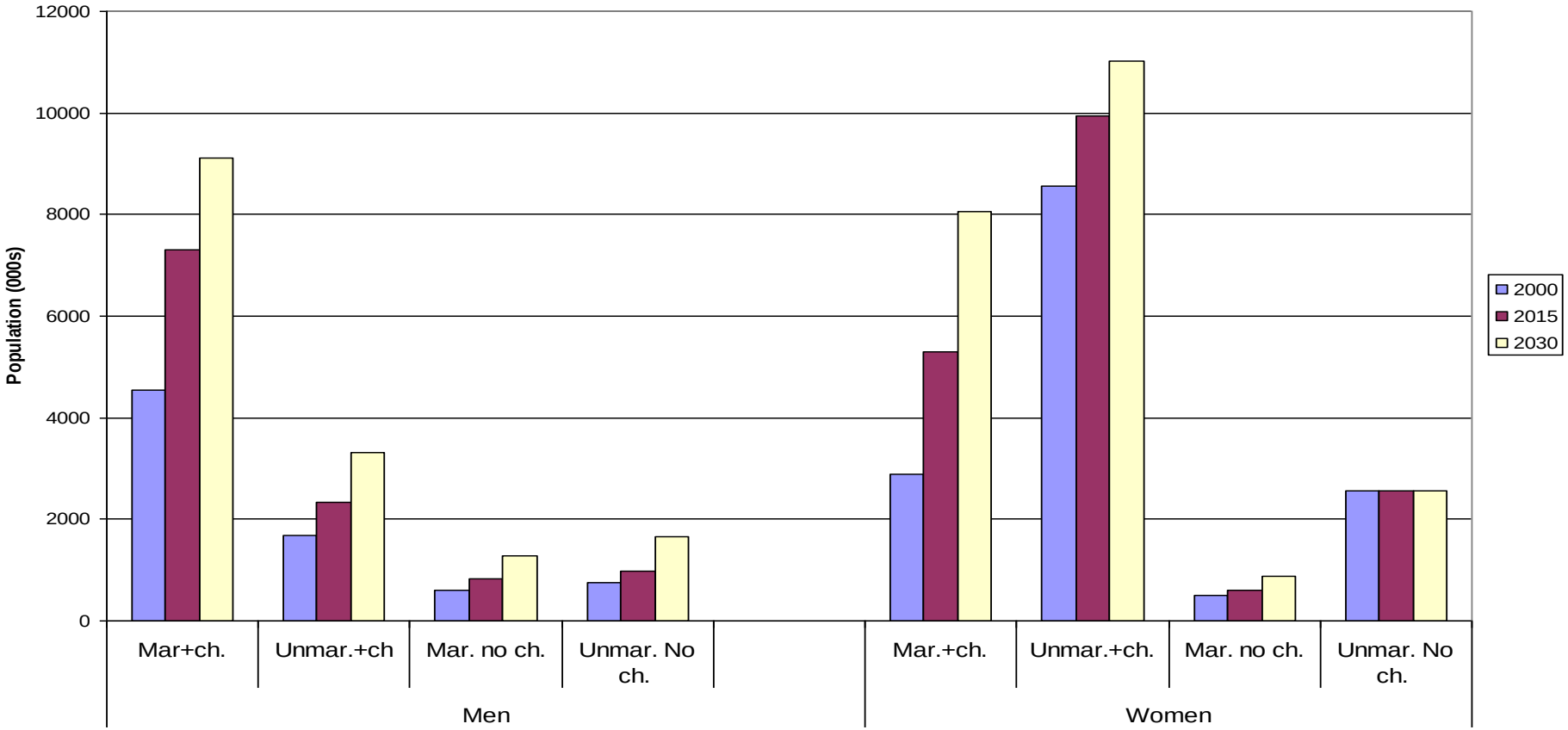
Proportion of women at selected ages with no living child



Source: Murphy et al Eur J Pop 2006

Numbers and projected numbers of men and women aged 75 and over by marital and parenthood status, 2000-2030, all FELICIE countries combined.

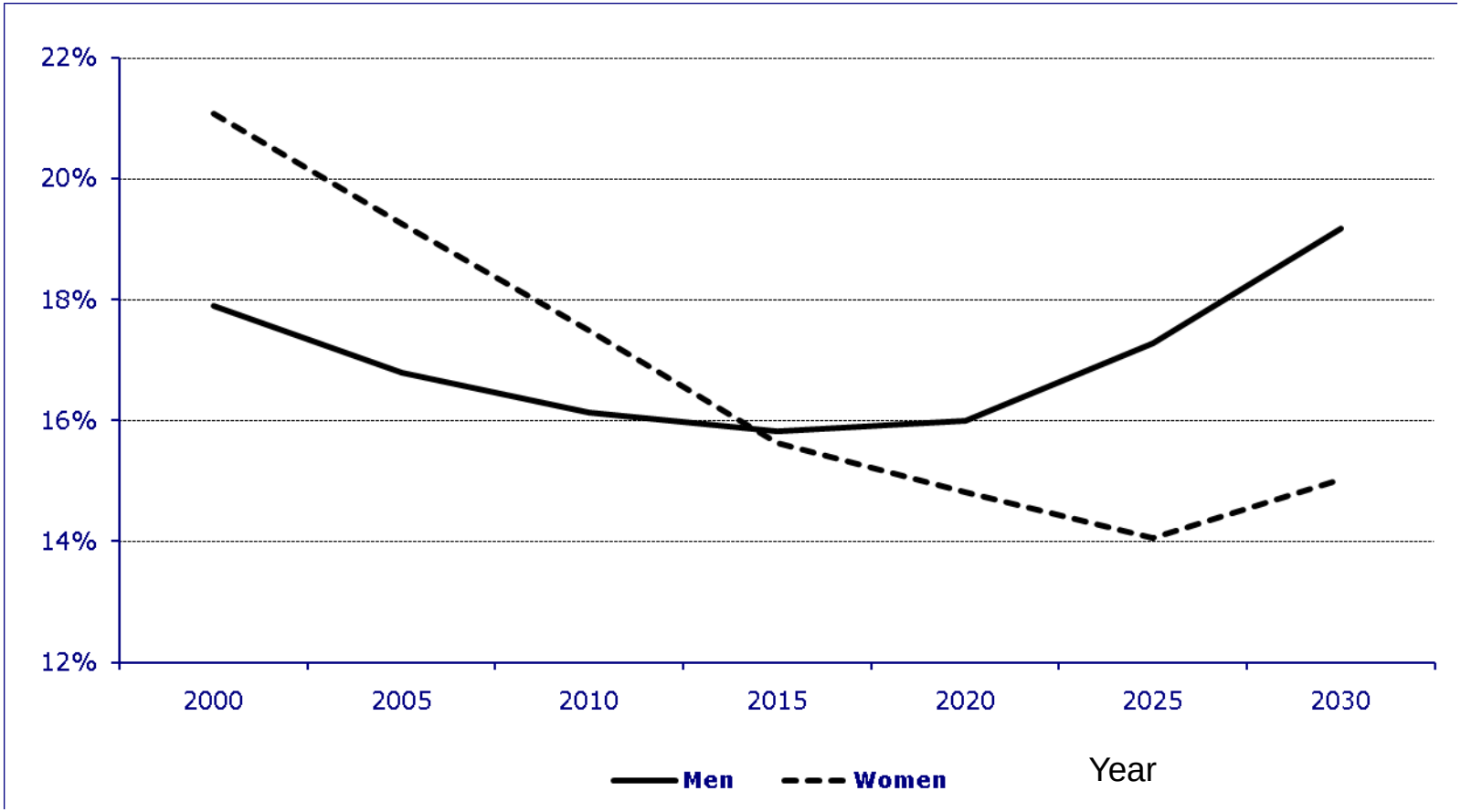
(Belgium, Czech Republic, Germany, Finland, France, Italy, Netherlands, Portugal, England & Wales)



Source: Analysis of FELICIE data in Tomassini, Grundy et al 2007.

Proportion of men and women aged 75+ without living children alive: all FELICIE countries combined.

(Belgium, Czech Republic, Germany, Finland, France, Italy, Netherlands, Portugal, England & Wales)

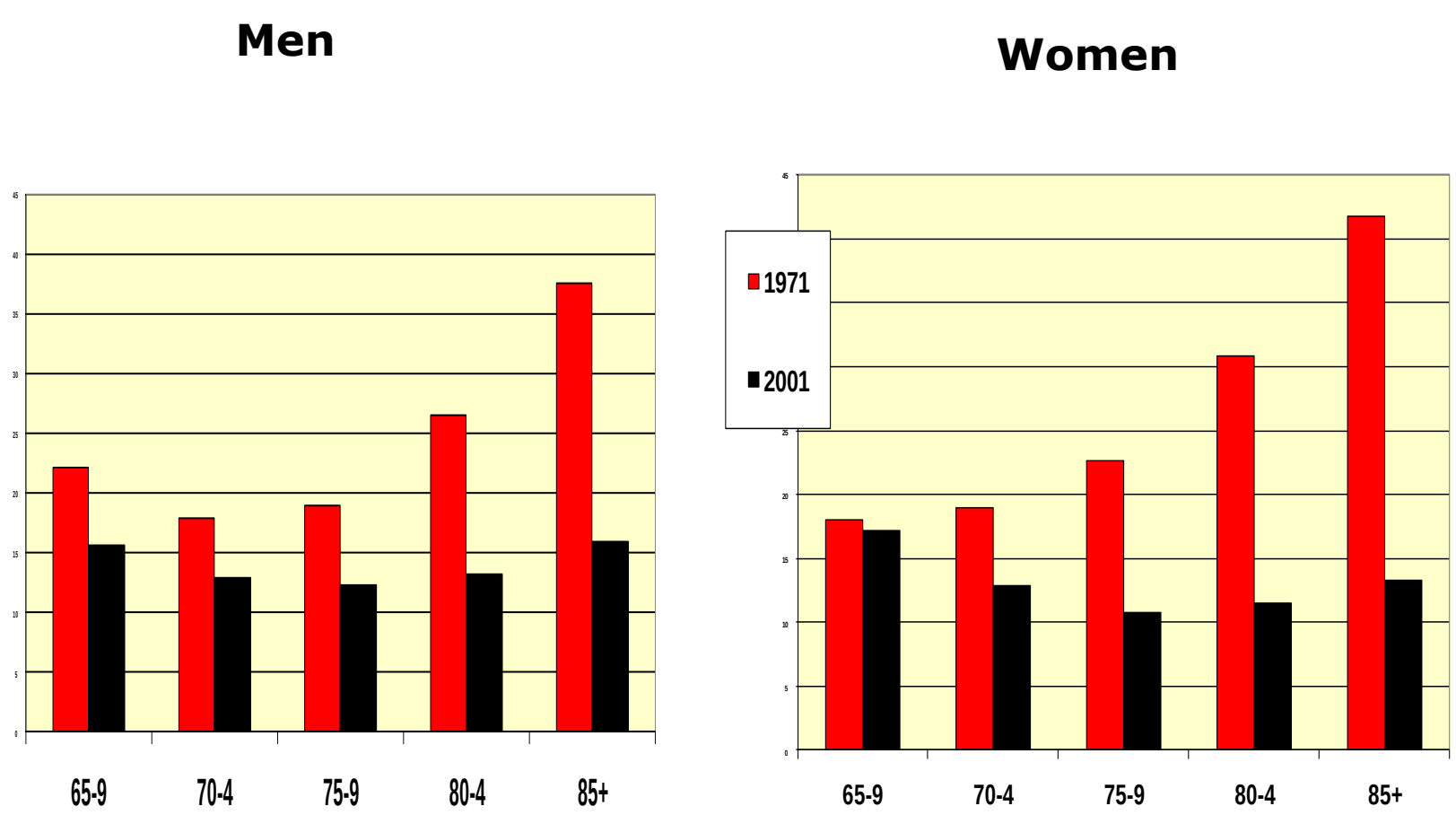


Source: Analysis of FELICIE data in Tomassini, Grundy et al 2007.

Summary: Kin availability

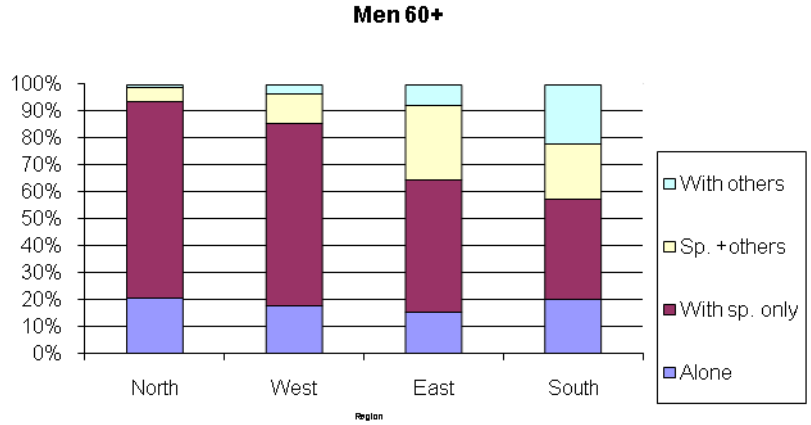
- Kin resources: proportions of older people with at least one child increasing (also proportion with a spouse) in most European countries, although will decrease post 2025
- Proportions in 3 or 4 generational families also increasing – but again differing trend when cohorts with two generations of later childbearing reach older ages.
- Increases in availability of grandparents for children

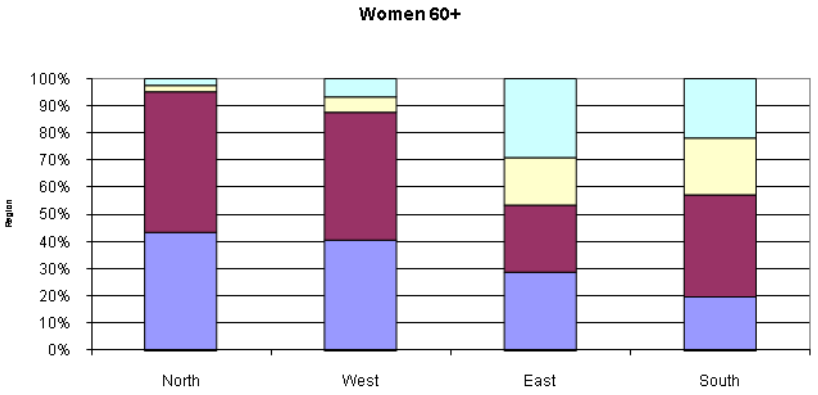
Proportion (%) of older men and women living in households with two or more generations, England & Wales, 1971 and 2001.

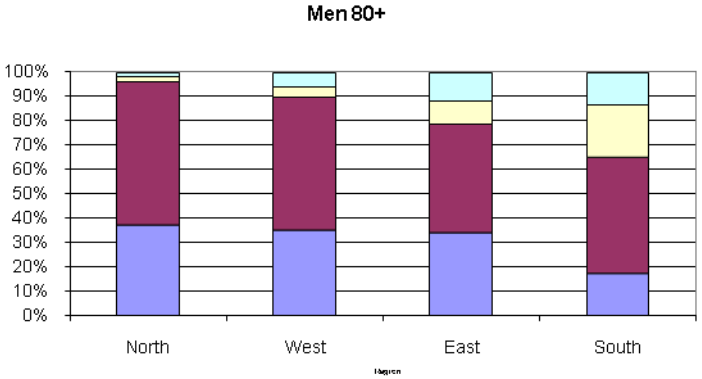


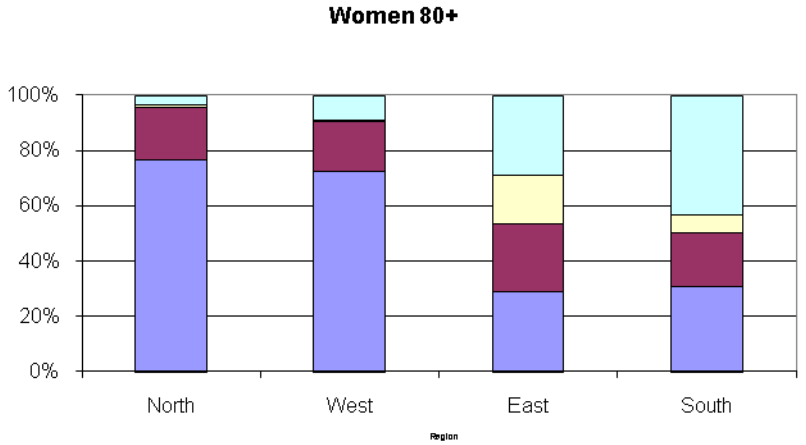
Source: Analysis of ONS LS data.

Living arrangements of Europeans aged 60+ and 80+ by region.



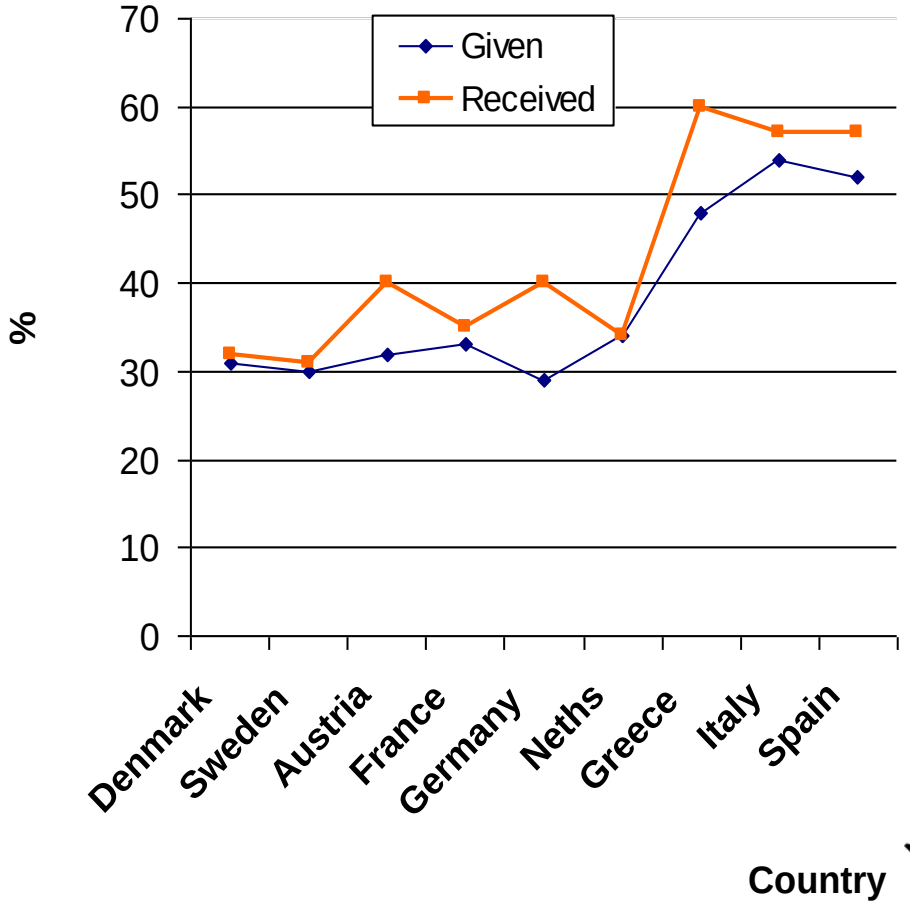






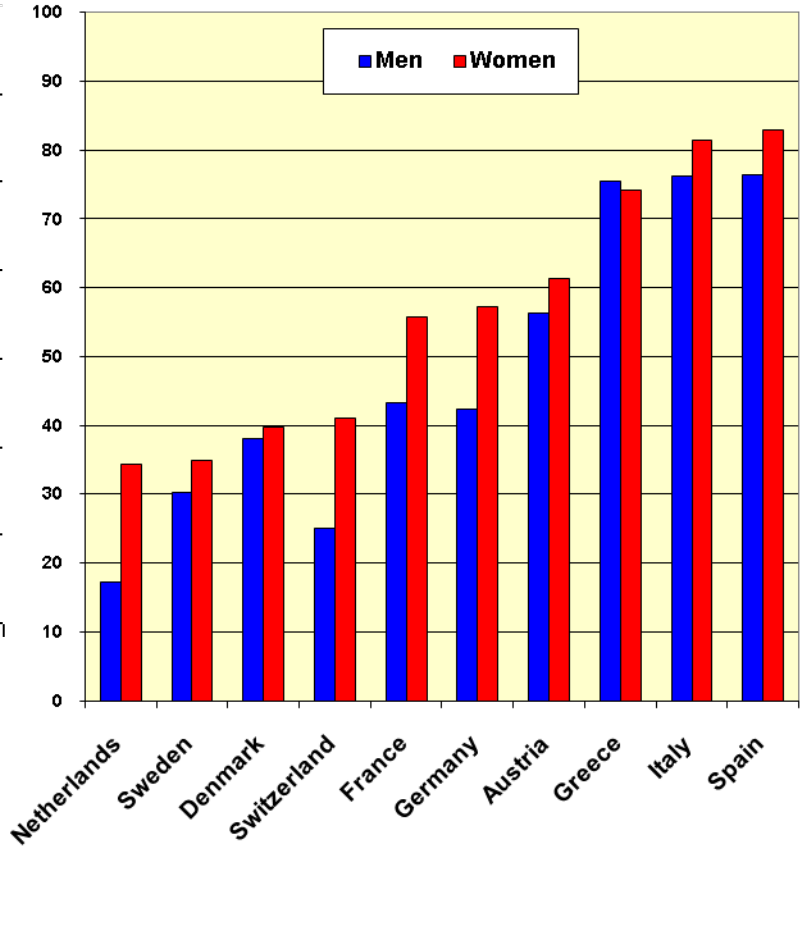
Source: Analysis of ESS 2002/4. **North**: DK, Fin, Norw, Swe; **West**: Aust, Belg, Ger, Neths, UK; **East**: CzR, Est, Hung, Pol, SlovK, Sloven, Ukr; **South**: Gre, Port, Esp.

Social support exchanges between older Europeans and children outside the household.



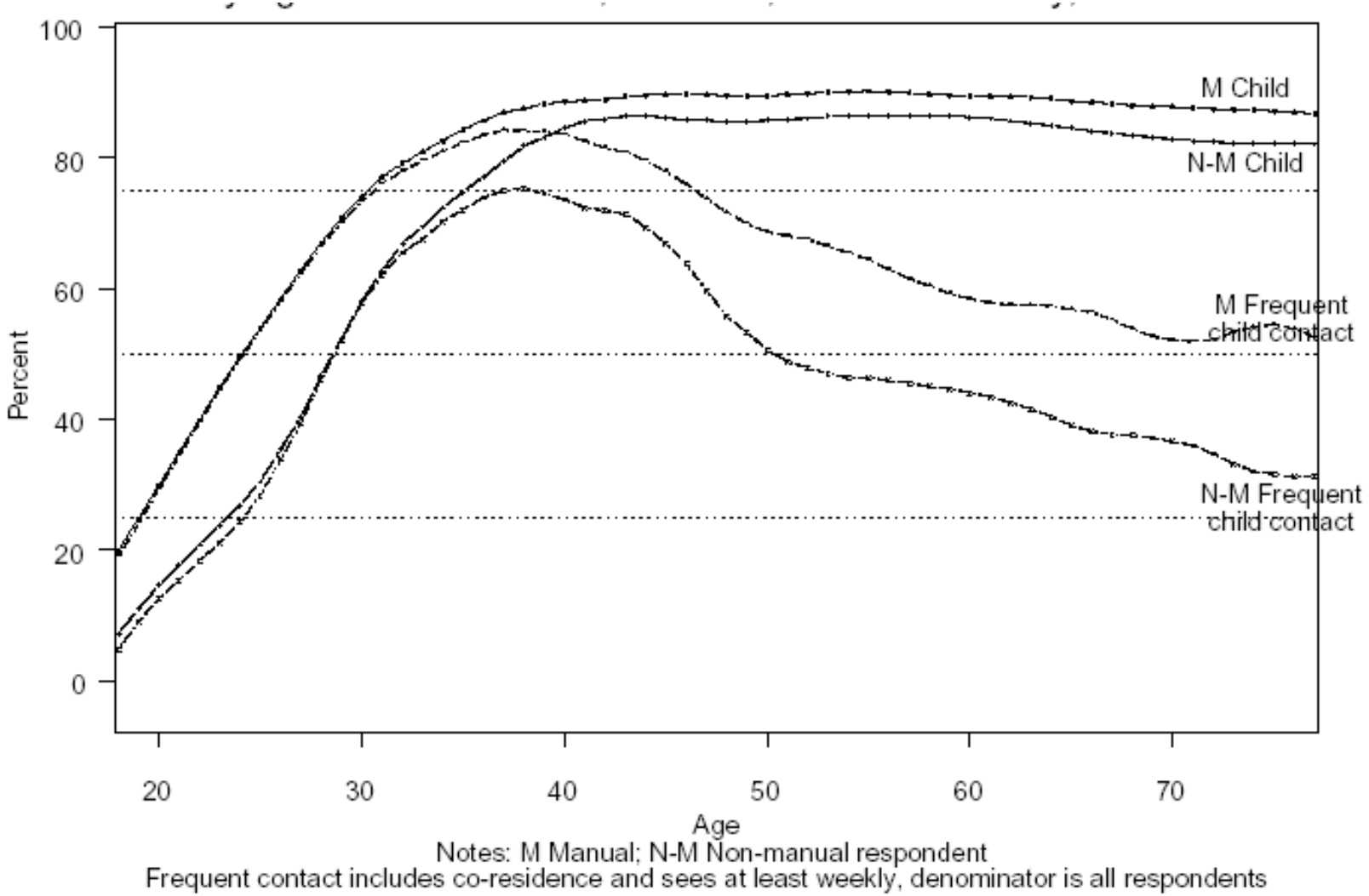
Source: Analysis of SHARE wave 1 data in Kohli and Albertini, 2006

% parents aged 80+ with daily contact with a child



Source: SHARE 2004, Release 0

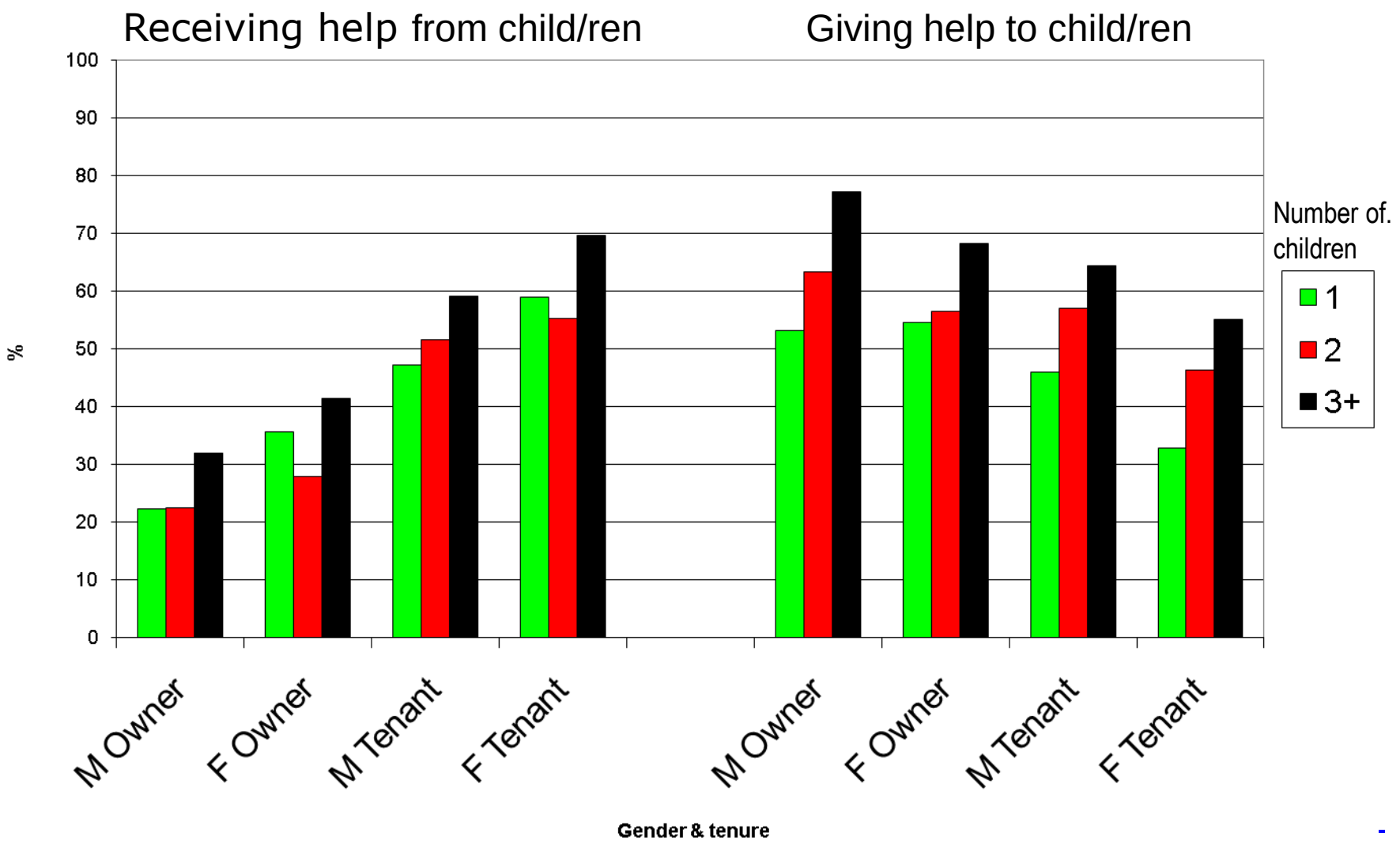
Proportions with living child(ren) and frequent contact by age and social class, Women, Britain,1999



Notes: M Manual; N-M Non-manual respondent
Frequent contact includes co-residence and sees at least weekly, denominator is all respondents

Grundy E, Murphy M (2006). Kin availability, contact and support exchanges between adult children and their parents in Great Britain In B Lindley et al (eds) *Kin Matters*, Hart Publishing.

Parents aged 60-75 receiving help from/ giving help to children, by tenure and number of children, GB 1994



Source: Grundy E. (2005). Reciprocity in relationships...
The British Journal of Sociology, 52,233-255 (analysis of ONS RS)

Wealth, at least weekly face-to-face contact with a child and loneliness: people aged 62 and over, England 2004

	Men		Women	
	Contact with a child	**Lonely**	**Contact with a child**	**Lonely**
Wealth quintile: 1 (richest) (ref.)	**1.00**	**1.00**	**1.00**	**1.00**
2	**1.22**	**1.23**	**0.96**	**1.36***
3	**1.35***	**1.13****	**1.57**	**1.34***
4	**1.74****	**1.64****	**1.46****	**1.67****
5 (poorest)	**1.25**	**2.07**	**1.40***	**1.54***
N	**1706**	**2032**	**2058**	**2460**

Source: Analysis of ELSA data wave 1 and 2; Read and Grundy.

Controlling for age, number of children, housing tenure, living arrangement, general health, IADL and ADL limitations. Models of contact with children exclude the childless.

Intergenerational support in Europe

- **From children:**
  - Low education +
  - Female gender +
  - Few siblings +
  - Parental disability +
  - Mother a widow +
  - Father divorced –
  - Living in Southern rather than Northern Europe +
  - Reciprocity +

:

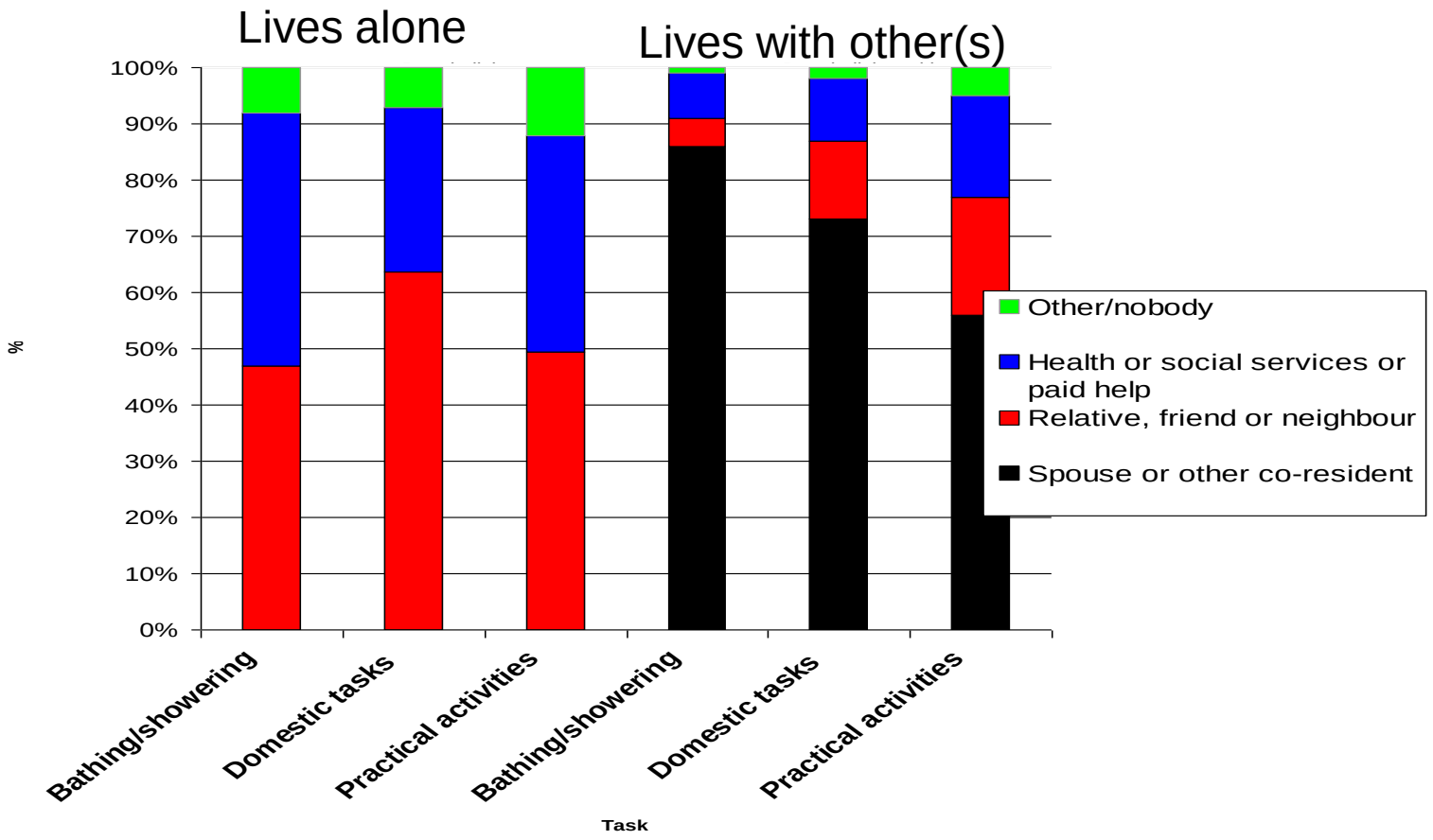
- **From parents:**
  - Higher income +
  - Home owner +
  - Low disability +
  - Being a divorced man –
  - Children's age and proximity
  - Reciprocity +
  - Living in Southern rather than Northern Europe +

Less variation between social groups in Southern than in Northern Europe

Does it matter? Family and household influences on health and well-being

- Family identified by older people as one of the most important domains of life (Bowling 1995)
- Better health and lower mortality among married people; Marital and fertility histories associated with health and mortality
- Beneficial effects of social ties on health and emotional well-being
- Reported associations between living alone/few social contacts and risk of cognitive decline.
- Unmarried/childless make greater use of formal health and social care – important for costs

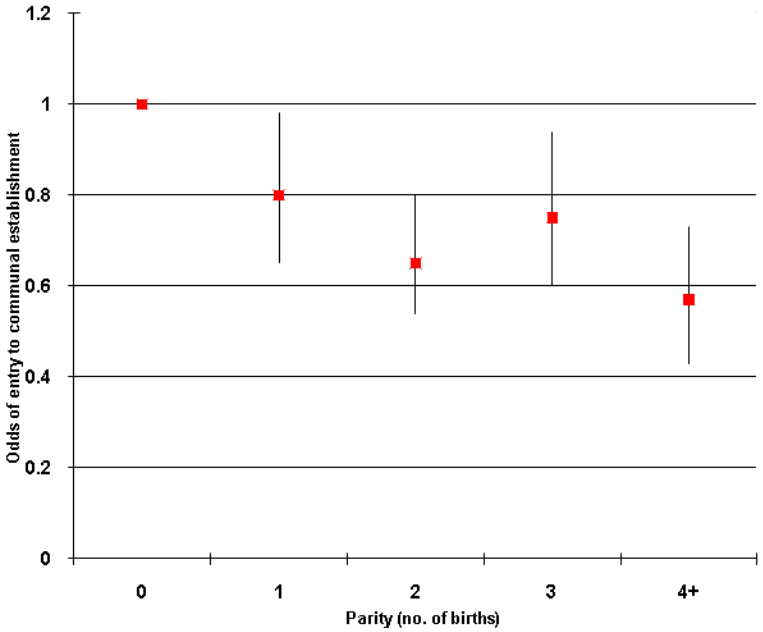
Usual source of help for people aged 65 and over unable to do various tasks unaided, Britain 2001



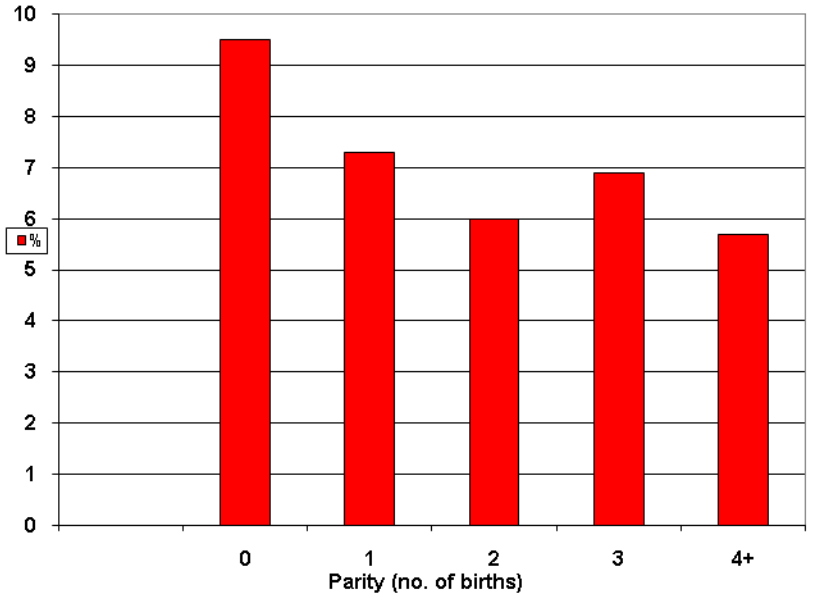
Source: General Household Survey

% of women aged 65+ in 1991 in a communal establishment by 2001 and odds of transition to a communal establishment by parity.

Odds ratios (95% CI)



% changing from private household in 1991 to communal establishment by 2001



Source: Analysis of ONS Longitudinal Study data; Grundy and Jitlal 2007

controlling for age, marital status, household type in 1991, health indicators and housing tenure.

Family life courses and health in mid and later life

- Life course influences are recognized to be important, but most attention paid to socio-economic (and early life) factors
- Largely separate literature has shown differences by marital and household status and social support, more recent attention to partnership and parenting histories
- This literature has examined associations between the fertility histories of women (and less usually men) and mortality or health measured at one point in time
- Several, but not all, studies show worse health/higher mortality for nulliparous and high parity women (and men).
- Early parenthood is associated with poorer later health/mortality (women) and poorer later mental health (women and men)
- Late fertility associated better health/lower mortality in both women and men (but some studies the reverse)

Childrearing and health:

Health promoting:

- Incentives towards healthy behaviours and risk avoidance
- More social participation and activity
- Role enhancement
- Social support - in childrearing phases and in later life

Health challenging:

- Physiological demands of pregnancy, childbirth and lactation (although reduced risk breast & some other hormonally related cancers)
- Potential role conflict/role overload
- Stress (and depression)
- Economic strain
- Increased exposure infections
- Disruption of careers/education – especially for young parents

Effects, and balance between positive and negative, likely to vary by gender, fertility pattern, and socio-economic & socio-demographic factors, including cultural and policy context.

Possible selection effects

- Poor health/health behaviours may restrict opportunities for marriage and reduce fertility (obesity, excessive alcohol and smoking all associated with fecundity of both women and men).
- Antecedent disadvantage associated both with early parenthood and with later poorer health
- Late fecundity and fertility may be marker of slower ageing/better health

Fertility history and later life mortality

Data sources and outcomes investigated:

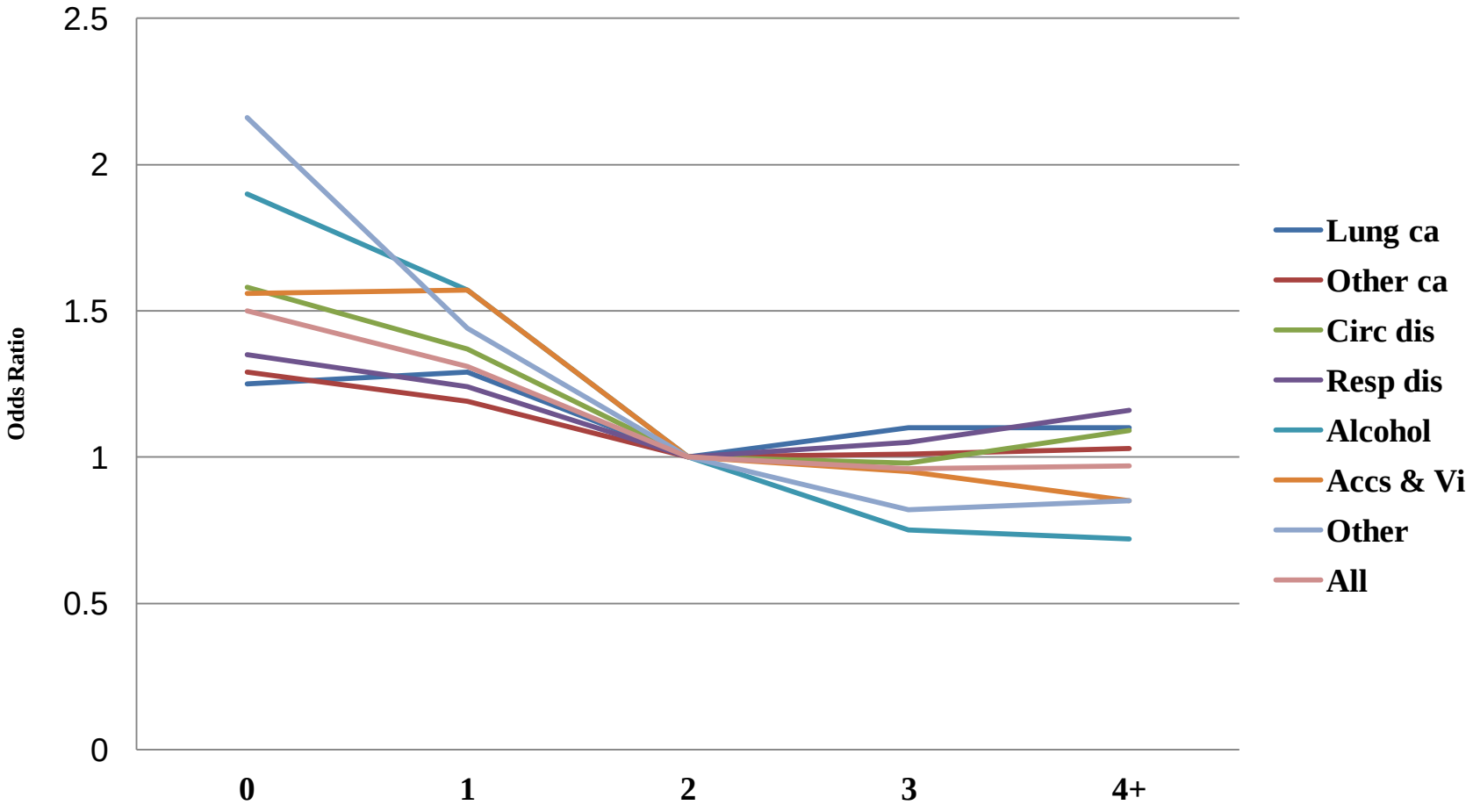
- **All cause mortality**: Norwegian population registers; ONS Longitudinal Study (E&W): USA Health and Retirement Survey linked to mortality
- **Cause specific mortality**: Norwegian population registers
- **Health, health trajectories, mental health**: USA HRS; UK British Household Panel Study; English Longitudinal Study of Ageing (allows consideration of mediating variables such as smoking and emotional support), 1946 birth cohort.
- **Quality of life, loneliness, social contacts, receipt of help from children**: ELSA

Fertility history and mortality ages ~45-69 comparing England & Wales, Norway & USA (controlling for age, marital & socio-economic status &, in USA, race/ethnicity).

	E&W deaths 1980-2000 at ages 50-69 Birth cohort 1931-40 **Women**	**Norway deaths 1980 2003 at ages 45-68 Birth cohort 1935-58** Women	Men	**USA deaths 1994-2000 at ages 53-69 Birth cohort 1931-41** Women	Men
ALL Women/Men:	*OR*	*OR*	*OR*	*OR*	*OR*
0	**1.28**	**1.50**	**1.35**	**1.47**	**1.37**
1	**1.10**	**1.31**	**1.20**	**1.34**	**1.02**
2 (ref)	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**
3	**1.01**	**0.95**	**0.99**	**1.21**	**0.94**
4	**1.11**	**0.95**	**1.00**	**1.41**	**1.17**
5+	**1.25**	**0.94**	**1.00**	**1.66**	**1.35**
PAROUS					
Birth before 20 (F)/23 (M)	**1.30**	**1.21**	**1.22**	**1.55**	**1.06**
Birth after 39	**0.94**	**0.86**	**0.85**	**0.74**	**0.96**
Number of deaths	***2,212***	***23,241***	***40,071***	***329***	

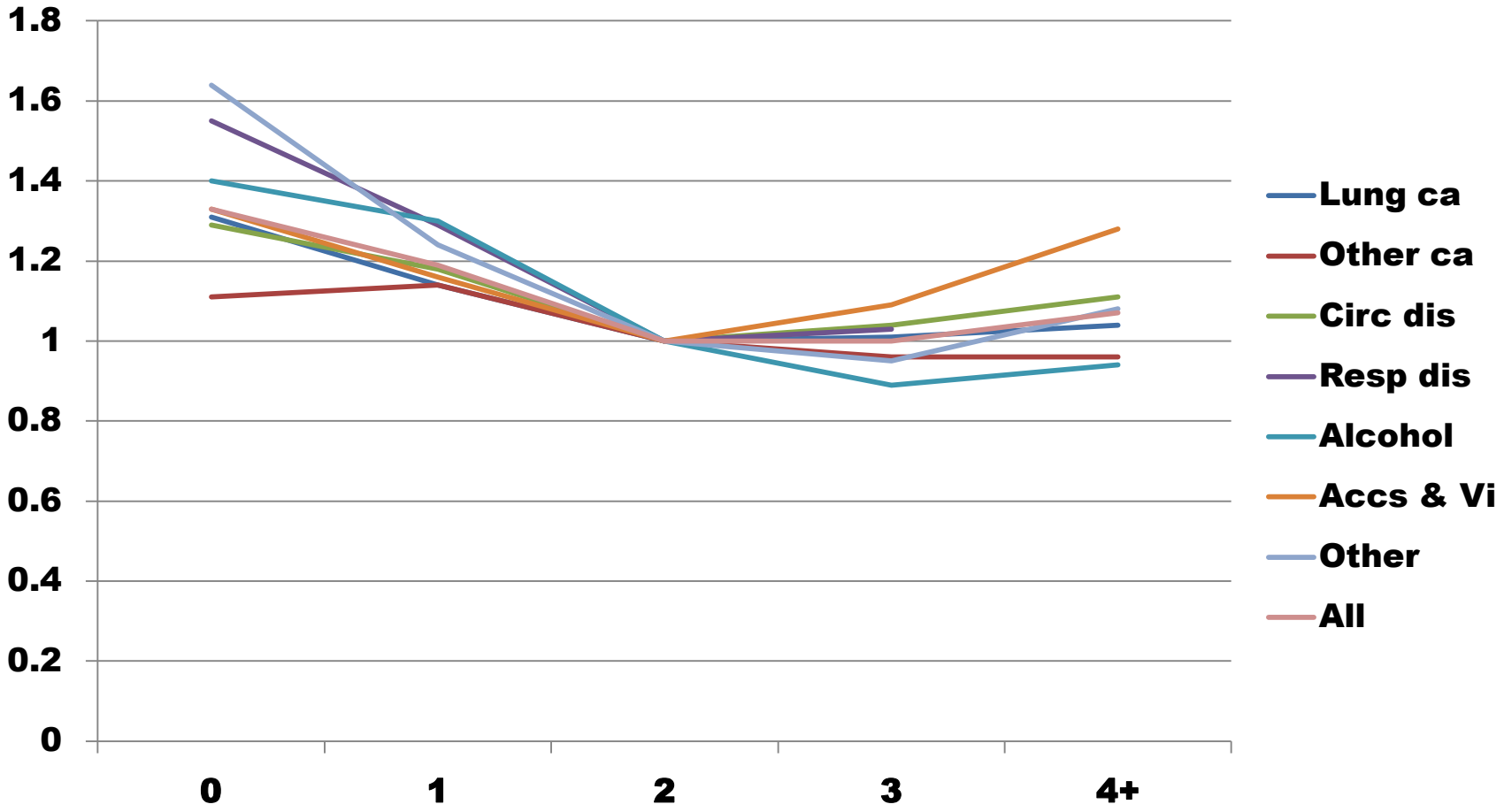
P<0.05; P<0.10 .Source: Grundy, American Journal of Human Biology, 2009

Associations between parity and mortality by cause group, Norwegian women aged 45-68



Controlling for age, year, education, marital status, region, log population size of municipality (Model 3)

Associations between parity and mortality by cause group, Norwegian men aged 45-68



Controlling for age, year, education, marital status, region, log population size of municipality (Model 3), Source: Grundy and Kravdal *Soc Sci Med* 2010

Fertility history and later life mortality: conclusions:

- E&W, USA and Norway women: higher mortality for nulliparous and (Norway, cohort born 1910-20 E&W) parity 1.
- Norway (and US) similar results men.
- E&W (and US) also higher mortality for high parity women and men – but no or negative association Norway
- All countries apparent lower risk old parents (selection?)
- All countries apparent higher risk for young parents- including in Norway when parental education controlled – other antecedent characteristics?

Fertility histories, health and well-being:

- Outcomes such as quality of life , loneliness and receipt of help when needed are also important, also *changes* in health
- Data from two UK longitudinal studies –the British Household Panel Study (BHPS) and the English Longitudinal Study of Ageing (ELSA) used to address these questions
- Includes information on hypothesised mediating variables (smoking, social support etc)

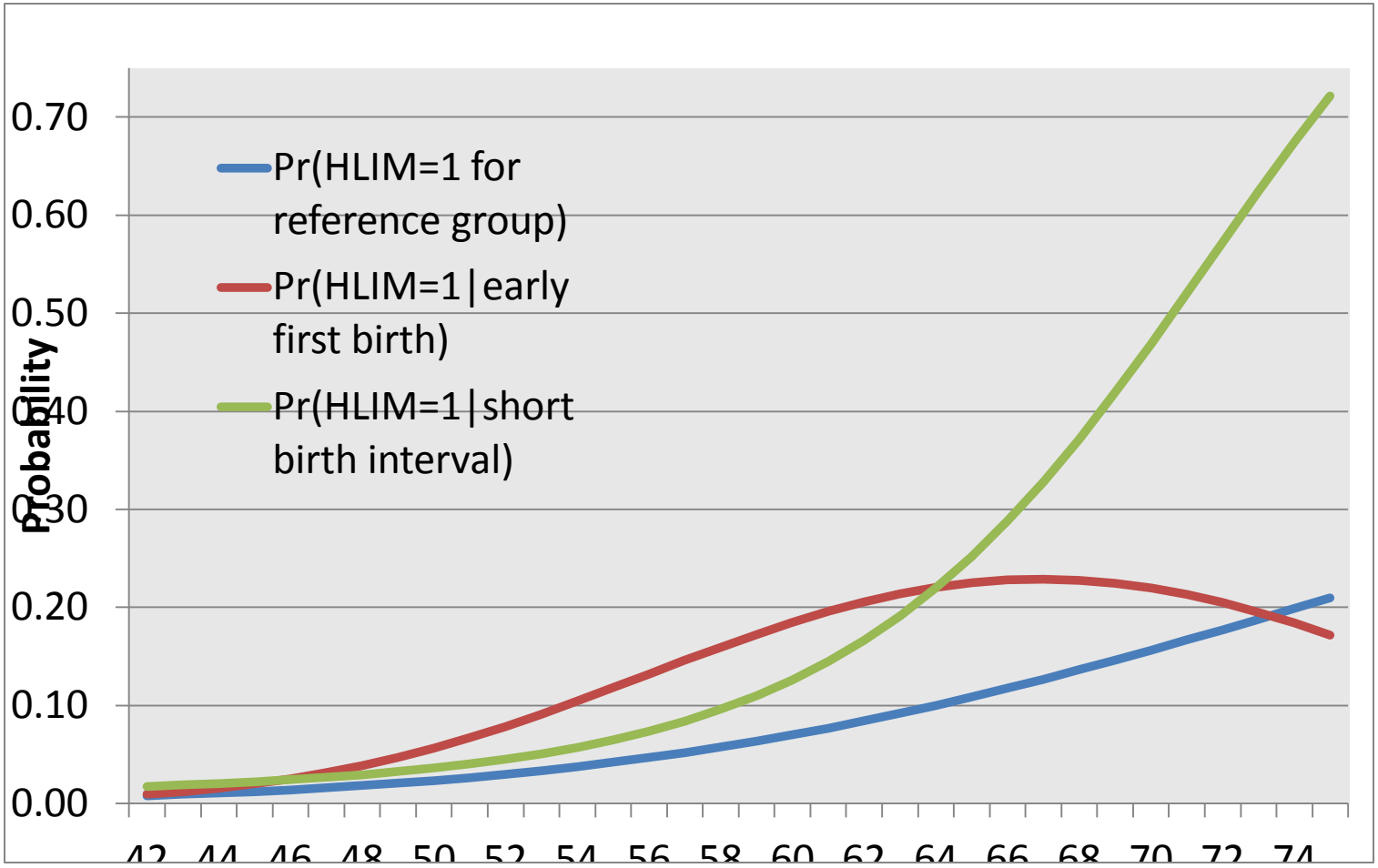
Fertility history, health status and health trajectories: Analysis of the BHPS. Data and Methods

- We investigate associations between fertility histories of women and men with both level and change in two indicators of health
- Sample drawn from British Household Panel Study; 3,450 women and men born 1923-1950 who responded to the 1992 wave, were followed up to 2003 and were then aged 53-80 (6% excluded due to missing data).
- Methods: Multiprocess modelling of retention in sample and health outcomes conditional on retention.

BHPS analysis: Results for a) parous men & women and b) parous with 2+ children

		Health limitations		Poor Self-rated health	
		Men	Women	Men	Women
a) Parous respondents:					
	Number of children:				
	1			+	
	3				
	4+	+++	+++	+++	+++
	Birth before 23/20	+++	+++	+++	++
	Birth after 39/35				
b) Parity 2+; spacing effects					
	Number of children:				
	3	+			
	4+	+++	+++	+++	
	Birth before 23/20	++	+++	+++	+++
	Birth after 39/35				
	Birth interval < 18 months	++	+++	+++	+++

Rate-of-change in health over 11 years: Predicted probability of health limitation by fertility history characteristics, British women born 1923-49
(reference group = women with 2 children born when mother 20-34)



BHPS analysis: key findings

- High parity (4+ children) associated with health limitation and worse self-rated health among women and men (health measured over 11 years)
- Slightly higher risk of health limitation for childless women
- Early parenthood for parous) and short birth intervals (among those with 2+ children) associated with higher risk of health limitation, worse self rated health and faster accumulation of health limitation

Data: The English Longitudinal Study of Ageing (ELSA)

- ELSA is a nationally representative longitudinal study of the older population of England
- Wave 1 was conducted in 2002-3 and included men and women aged 50 and over who had participated in the 1998, 1999 or 2001 rounds of the Health Survey for England
- 12,100 respondents were recruited to wave 1 (response rate 64%), of these 9,432 re-interviewed in wave 2 in 2004-5 (78%)
- Here we include those aged 60 and over in Wave 1 with complete information on number and gender of children and other variables used in the analysis
- Analysis of wave 2 items restricted to those still in the study

Associations between number of children and at least weekly contact with relatives; friends; & children, relatives or friends. ELSA wave 1.

No. of children (ref=0)	Relatives	Friends	Children/relatives or friends
Men			
1	1.3	1.0	1.7***
2	1.3	0.9	1.7***
3	1.7*	0.9	2.1***
4+	1.4	0.9	2.6***
N			3176
Women			
1	1.2	1.0	1.7**
2	1.2	0.9	1.7***
3	1.3*	0.8*	1.9***
4+	1.5*	0.9	1.9***
N			3835

Controls for age, education, wealth, housing tenure, marital status, health, ADL & IADL limitation. *p<0.05; **p,0.01, ***p<0.005

Associations between number of children, whether has daughter and 1)at least weekly contact with a child, ELSA wave 1 and 2) receipt of help from children, ELSA Wave 2

Weekly of contact	Fathers	Mothers
1 (ref)	1.0	1.0
2	1.0	1.2
3	1.4*	1.2
4+	1.0	1.2
Has a daughter	1.7***	1.8***
N	2683	3226

Receipt of help	Men	Women
No. Children (ref):1	1.0	1.0
2	2.0	1.2
3	3.8**	1.7
4+	3.6**	3.7***
Has daughter	1.0	1.7**
N	918	1430

Results from fully adjusted model also controlling for age; education; wealth; housing tenure; marital status (married v non married); health; ADL & IADL limitation. Receipt of help – for those with IADL or ADL limitation

*p<0.05; **p,0.01, ***p<0.005

Summary results from ELSA

- In the whole sample, including the childless, odds of contact with any of children/relatives or friends was positively associated with number of children
- For parents, having a daughter rather than number of children a more important predictor of weekly face-to-face contact with any child; number of children was positively associated with odds of receiving help from a child two years later
- Those with weekly face -to -face contact with children/relatives/friends at both time points the least likely to report loneliness at wave 2. Number of children was not associated with loneliness among mothers when marital status was controlled, but fathers with 2+ children less lonely than childless men.
- Contacts with friends/children/relatives positively associated with later receipt of help
- Large differentials by SES and health in contacts, loneliness and receipt of help.
- So some effects of number of children – and especially of having a daughter- on contacts and receipt of help, and for fathers also on loneliness.

So are children the key to a healthy and happy old age?

Yes

- More children and having a daughter increases social contacts
- More children associated with more help from children; parents have lower risks of entry to nursing homes
- Parents (of smallish families) have lower mortality and better health than the childless

No

- High parity associated with higher mortality and worse health – but not in Norway
- 'Intensive' family formation patterns – early parenthood and short birth intervals- associated with worse physical and mental health, faster decline in health, and raised mortality

BUT the context is very important –variations and interactions by gender, country, education etc AND we need to consider selection.

Aging in 21st century Europe: Prospects and challenges

- **Kin availability**: Short term prospects good, longer term less so.
- **Health of older people**: indications of some declines in serious disability, but insufficient to offset growth in numbers of older old, extent of any 'compression of morbidity' unclear
- **Will families still care ?** No evidence of collapse of family support – but may be changes in type of help, best balance between family, market and state not clear
- **Will 'friends be the new family'?** Evidence from US suggests not.
- **Growing diversity** – and growing inequality?
- **Older people a major resource –** guardians of family and social capital?

Policy Challenges

- Policies to extend length of working life may reduce help from older people to children and grandchildren – could weaken bonds of reciprocity
- Reducing state support for older people and requiring more of families coud lead to conflicts with other roles (e.g. raising children themselves)
- Targetting supports on elderly living alone/lacking family support could over burden and discourage family care; providing more support could 'crowd out' family care

Selected References

Grundy E, Murphy M, Shelton N (1999). Looking beyond the household: intergenerational perspectives on living kin and contacts with kin in Great Britain. *Population Trends* **97**: 33-41

Grundy E , Shelton N. (2001). Contact between adult children and their parents in Great Britain 1986-1999. *Environment and Planning A* **33**: 685-697.

Grundy E, Tomassini C.(2005). Fertility history and health in later life: a record linkage study in England and Wales. *Social Science & Medicine,* 61:217-228.

Grundy E. (2005). Reciprocity in relationships: socio-economic and health influences on intergenerational exchanges between Third Age parents and their adult children in Great Britain. *The British Journal of Sociology*, 52 (2): 233-255.

Grundy E (2006). Ageing and vulnerable elderly people: European perspectives. *Ageing & Society* **26:** 1-30**.**

Grundy, E; Jitlal M. (2007). Socio-demographic variations in moves to institutional care 1991-2001: a record linkage study from England and Wales. *Age and Ageing* 36: 1-7.

Grundy E, (2008). The challenges of ageing: Prospects for the family support of older people in 21st century Europe.In: *Demographic Challenges for the 21st Century: A state of the art in demography*, Surkyn J; Deboosere P; Van Bavel J (eds), Liber Amicorum Ron Lesthaeghe,VUBPRESS Brussels University Press, Brussels, 2008, pp224-246.

Grundy E, Kravdal O (2008). Reproductive history and mortality in late middle age among Norwegian men and women. *Am J Epidemiol* 167: 271-279.

Grundy E, Kravdal O (2010). Fertility history and cause specific mortality: A register based analysis of complete cohorts of Norwegian women and men. *Social Science & Medicine* 70:1847-1857.

Murphy M, Grundy E (2003) Mothers with living children and children with living mothers: the role of fertility and mortality in the period 1911-2050. *Population Trends*. 112: 36-45.

Read S, Grundy E, Wolf D (2011) Fertility history, health, and health changes in later life: A panel study of British women and men born 1923–49. *Population Studies* 65:201-215

Tomassini C, Kalogirou S, Grundy E, Fokkema T, Martikainen P, Broese van Groenou M, Karisto A. (2004). Contacts between elderly parents and their children in four European countries: current prospects and future patterns. *European Journal of Ageing,* 1:54-63.

Tomassini C, Grundy E, Kalogirou S (2008). Potential family support for older people 2000-2030. In: Gaymu J, Festy P, Poulain M and Beets G (eds), *Future elderly living conditions in Europe*, Institut National d'Etudes Demographiques, Paris, ISBS 978-7332-0163-3, pp 71-96.