

Cash or services - does it matter for equity in care for older people?

Ricardo Rodrigues & Andrea E. Schmidt

ILPN Conference
London, 6th – 8th September 2012



EUROPEAN CENTRE
FOR SOCIAL WELFARE POLICY AND RESEARCH
AFFILIATED TO THE UNITED NATIONS

• EUROPÄISCHES ZENTRUM •
FÜR WOHLFAHRTSPOLITIK UND SOZIALFORSCHUNG
IN ZUSAMMENARBEIT MIT DEN VEREINTEN NATIONEN

• CENTRE EUROPÉEN
DE RECHERCHE EN POLITIQUE SOCIALE
AFFILIÉ AUX NATIONS UNIES

Equality and equity



Horizontal equality in care use:

Two distinct groups of people receive the same treatment

Horizontal equity (Wagstaff et al, 1991):

Two distinct groups of people with similar care needs receive the same treatment → to equal need corresponds equal treatment

Equity in LTC – should it matter?



Health care – relatively homogeneous health care systems across the European Union...

... yet, important differences in health care use by socio-economic condition (SEC) between countries (Doorslaer et al, 2004, Doorslaer & Masseria, 2004)

What about long-term care (LTC):

- Highly differentiated systems

In-kind	Regulated cash benefits	De-regulated cash benefits
Eligible persons entitled to subsidised care services	Vouchers or earmarked cash that can be spent on designated care	Cash benefits without proof of spending
Less dependent on the family	Could be used to employ relatives	Could be used to buy services, employ relatives, etc.
Sweden, Denmark, Norway	France, Netherlands (PGB)	Austria, Germany, Italy

- Importance of informal care – the family can replace/supplement the state/market

Equity in LTC – apparently yes



Findings from other research:

- Sarasa & Billingsley (2008): differences in use of care by SEC
- Schmid et al (2011): gendered differences in provision of informal care
- Motel & Klingebiel (2005), Groenou et al (2006), Haberkern & Szydlik (2010): differences in use and provision of informal care
- Bolin et al (2008) and Ogg & Renaut (2005): more prevalent informal care in Nordic countries (in-kind services), more intense in Italy, Spain... (cash benefits)

Research questions:

- Are there income-related differences in:
 - Probability to use home care services
 - Number of hours of home care services
- De-regulated cash benefits tend to favour informal care take use: should we expect higher SEC differences in de-regulated countries?

A framework for analysing equity



Using Andersen (1995) Behavioral Model, care use is determined by:

- *Needs factors*
Self-assessed health, chronic conditions and activity limitations
- *Enabling factors*
Availability of services, informal care (possible endogeneity), household composition
- *Predisposing factors*
Age and gender, but also personal values (e.g. preference for informal care)
- *Socio-economic condition*
Income, education → variables of interest for equity analysis

Methods



- Sequential decision-making: (1) take-up of care services (e.g. care managers) and (2) number of hours (individual/household)
 - (1) Predicted probabilities of use – *Probit model*:

$$P(g_{ij} > 0 | X_i, h_i, D_i) = \Phi(\gamma_1 + X_i\gamma_X + \gamma_h \ln(1 + h) + D_i\gamma_D)$$

- (2) OLS model conditional on positive number of hours of care:

$$E[g_{ij} > 0, X_i, h_i, D_i] = \beta_1 + X_i\beta_X + \beta_h \ln(1 + h) + D_i\beta_{Dj}$$

- Accounting for possible endogeneity of informal care
- Countries clustered around regimes to increase explanatory power: in-kind (Sweden & Denmark), regulated cash (France & Netherlands), de-regulated cash (Italy, Austria and Germany)
- SEC= coefficients associated to lower income 65+ receiving home care services compared with other income quintiles.

Data



SHARE (Survey of Health, Ageing and Retirement in Europe) 2nd Wave, individuals aged 65+, N=3360.

- **Use of formal home care (dependent variable - Probit):** Use of professional or paid nursing or personal care and/or professional and/or paid home help for domestic in the previous 12 months
- **Hours of formal home care (dependent variable):** Weekly hours of home care services (any of the above)
- Independent variables:
 - Needs variables: self-assessed health condition; having ADLs.
 - Enabling variables: weekly hours of informal care received outside the household; having a living partner; living in a rural setting; availability of home care services (% 65+).
 - Predisposing factors: age and gender; personal values (drop-off questionnaire) 'responsibility for care: family/state'
- **SEC variable:** Dummy for belonging to the 1st quintile of income (equivalised income accounting for house ownership).
- Missing values for income: imputation in SHARE in order to maximise obs. (Christelis, 2011), missing randomly? Dummy for imputation.
- Informal care: distance to nearest child and number of adult children in the household

Data



Sample characteristics

	Mean	Std. Dev.
Weekly hours home care (all)	0.95	6.53
Weekly hours home care (if >0)	7.27	16.80
Weekly hours informal care (all)	1.72	9.63
Weekly hours informal care (if >0)	7.58	18.75
No ADLs	0.3	0.95
Age	74.12	6.90
Dummies	% not in reference category	
Miss_income (imputation=1)	57.8	
Self_health (Bad or fair=1)	41.6	
living_partner (with partner=1)	53.2	
gender (women=1)	58.7	
pro_fam (family values=1)	16.8	
rural (rural=1)	23.4	

Findings



Horizontal equality in use of home care services (percentages of sub-groups)

	Dereg_Cash cluster		Reg_Cash cluster		Service cluster	
	Other quintiles	1st quintile	Other quintiles	1st quintile	Other quintiles	1st quintile
Do not use	86.65	90.48	88.11	66.67	87.62	73.38
Use	13.35	9.52	11.89	33.33	12.38	26.62
	P-value=0.072		P-value=0.000		P-value=0.000	

Impact of SEC on horizontal equity in use of home care

	Probit	Probit IV	OLS	OLS IV
Lower_cash (1st quintile)	-0.4831 ***	-0.4751 ***	-2.0993	-1.7785
Lower_reg (1st quintile)	0.6228 ***	0.2896 *	-3.8947 **	-3.7950 **
Lower_ser (1st quintile)	0.2214 *	0.1841 *	-4.7728 ***	-4.5564 **
Miss_income (imputation)	0.2221 **	0.1525 **	-.4628	-0.5374
No_adls	0.2013 ***	-0.0359	2.9938 ***	3.3823 ***
Self_health (fair & bad)	0.5513 ***	0.1279	.1611	0.9521
Gender (female)	0.1970 **	0.0380	3.4231 **	3.8572 **
Age80 (80+)	0.6266 ***	0.0601	2.5727 **	2.9227 **
Log (1 + Weekly hours informal care)	0.1739 ***	1.3308 ***	.7209	1.1731
Living_partner (with someone)	-0.4591 ***	0.0705	-1.8691	-7.2194 ***
Pro_family (family)	-0.2679 **	-0.1999 **	-	-
No. Observations	3360	3360	762	762
Pseudo R2	0.2440		0.1218	

Other variables: no. of conditions. Instruments Probit: distance nearest adult child, no. adult child in household.
 Instruments OLS: supply care services, distance nearest adult child, no. adult child in household; ***p>0.01, **p>0.05,
 *p>0.1

Discussion and policy implications



First some caveats:

- High home care usage is scarce & institutional care is not covered with SHARE
- Regulated cash benefits – is my next of kin a formal care provider?
- No control for quality

Nevertheless:

- Evidence of income-based differences in use of LTC
- De-regulated cash benefits associated with higher SEC differences
- Different impact of SEC on prob. of use and intensity of home care services
- Further implications for equity in general?

“The cost or burden of social care rarely falls solely on the individuals in need of such care themselves” (Le Grand, 1992:122)



**Thank you very much for your
attention**

For further information:

rodrigues@euro.centre.org

schmidt@euro.centre.org