HEC LIÈGE
Management School - Liège Université

Caring in Europe: facts, theory and empirical evidence

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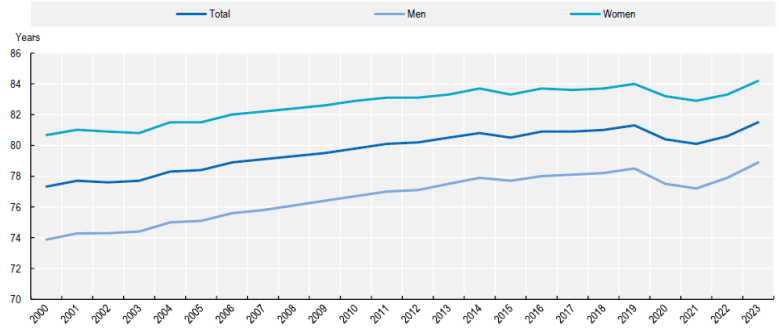
Life expectancy

Figure 2.2. Life expectancy at birth in the EU increased by over four years between 2000 and 2023, despite the temporary reduction during the pandemic



Note: The EU average is weighted.
Source: Eurostat (demo_mlexpec), and OECD calculations for 2000 and 2001.

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Figure 1: Increase of life expectancy (by gender)

Life expectancy

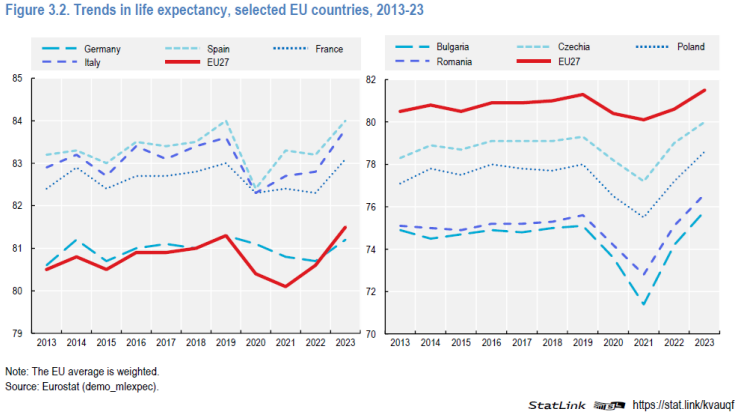
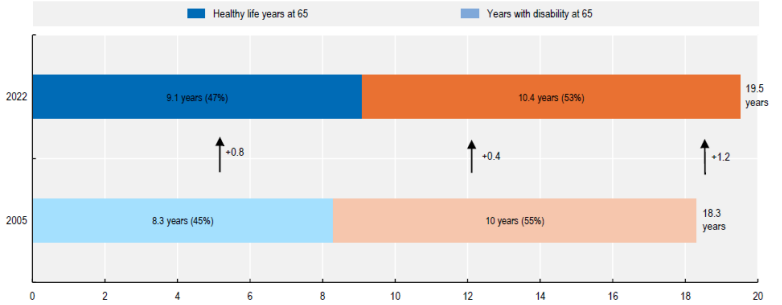


Figure 2: Trends in life expectancy (by country)

Life expectancy

Figure 2.5. About two-thirds of life expectancy gains at age 65 in the EU between 2005 and 2022 have been healthy life years (based on Eurostat data)



Note: Healthy life years is defined as years free of disability. The EU average is weighted. Caution is needed when interpreting these data because of breaks in time series in most EU countries during that period.
Source: Eurostat (lth_hlye).

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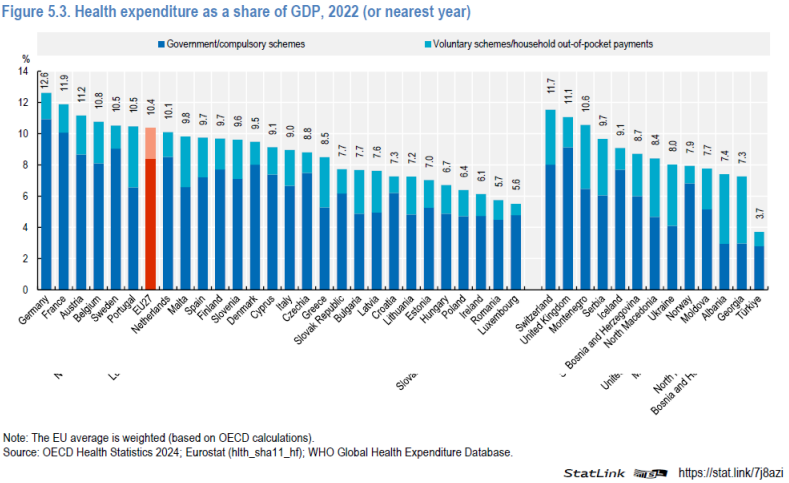
Figure 3: Life expectancy in good health

Costs of care



Note: The EU average is weighted (based on OECD calculations).
Source: OECD Health Statistics 2024; Eurostat (hlth_sha11_hf); WHO Global Health Expenditure Database.

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Figure 4: Costs of care: share of GDP

Costs of care

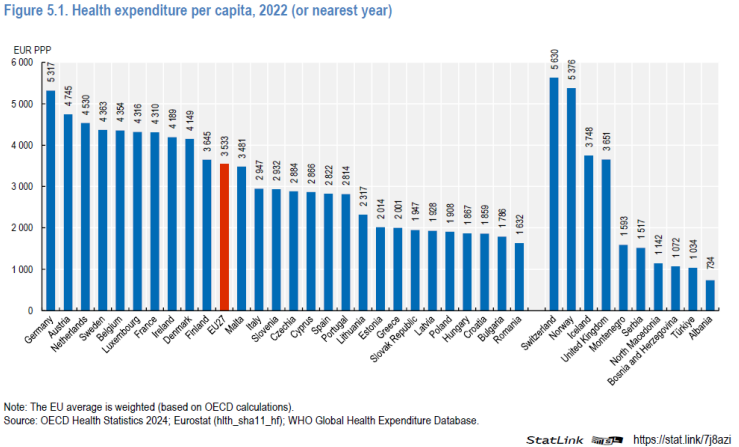


Figure 5: Health expenditure per capita (by country)

Costs of care

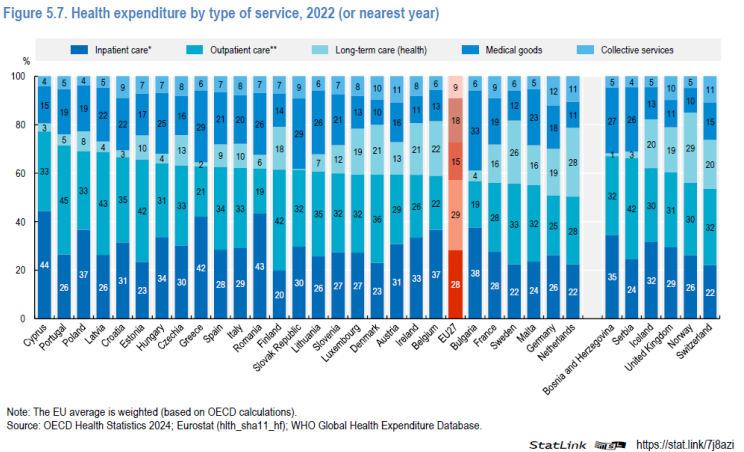


Figure 6: Distribution of health expenditure by type of service (by country)

Costs of care

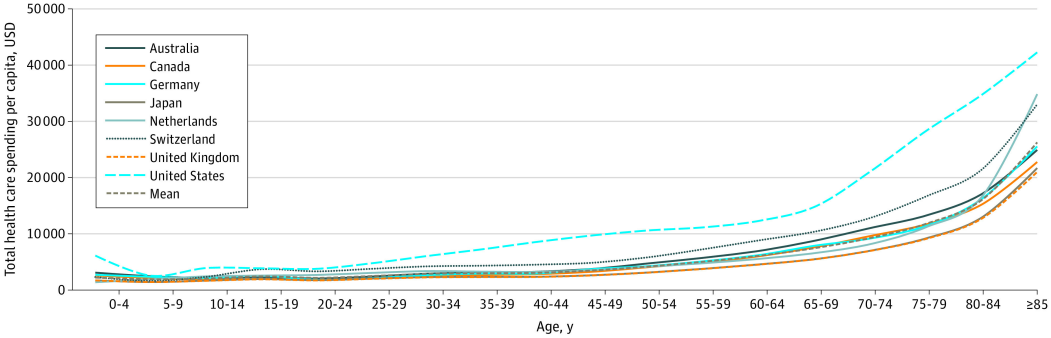


Figure 7: Health expenditure increases with age

Ageing population and inequalities

Figure 2.1. Nearly three in ten people in the EU will be over age 65 in 2050, up from two in ten in 2023

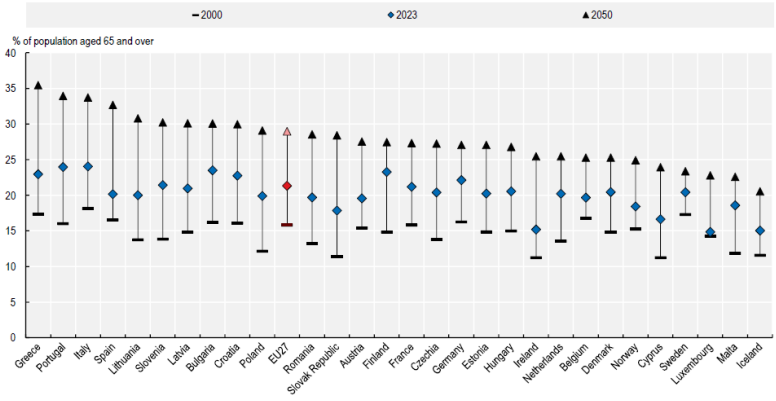


Figure 8: Ageing population

Ageing population and inequalities

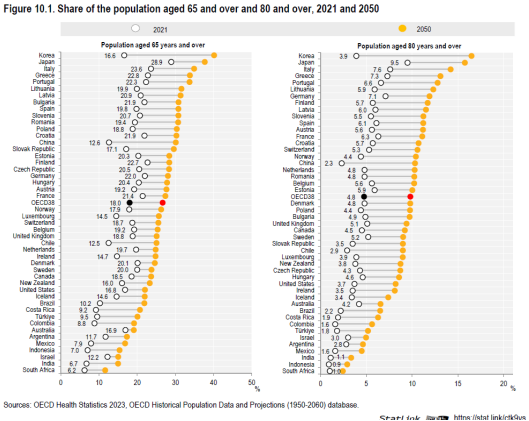


Figure 9: Ageing population: focus on the 80+

Ageing population and inequalities

Table 2.1. Health inequalities among older people by education level are large in the EU

	Low education	All people over age 65	High education
Indicators from EU-SILC (2023)			
Self-reported health (% in poor health)	23%	19%	11%
Long-standing illness or health problem	64%	60%	54%
Activity limitations due to health problem	59%	52%	41%
Indicators from SHARE (2021-22)			
Depression symptoms	38%	30%	23%
People with at least two chronic diseases	48%	44%	38%
People bothered by falls (aged 75+)	16%	16%	14%

Note: Low education is defined as people who have not completed secondary education, while high education refers to people who have completed tertiary education (a university degree or the equivalent).
Source: Eurostat based on EU-SILC (hlth_silc_02, hlth_silc_05, hlth_silc_07) and SHARE wave 9 (2021-22 data, weighted observations).

Figure 10: Inequalities in health issues

Ageing population and inequalities

Indicator	Age	North		Center		South		East		All	
		M	F	M	F	M	F	M	F	M	F
GALI	50–64	9.1	12.5	12.2	11.5	5.9	6.0	16.5	14.1	11.6	11.2
	65–74	10.2	12.0	13.4	14.4	8.9	10.2	20.7	19.4	13.8	14.6
	75–84	18.3	21.2	21.6	25.2	16.3	19.9	33.1	35.6	22.7	26.7
	85–94	26.6	31.9	33.7	40.9	27.7	37.0	44.1	49.2	33.1	40.8
ADL	50–64	1.6	2.3	2.7	2.6	2.0	2.4	4.0	3.4	2.7	2.7
	65–74	2.5	2.6	3.8	3.6	4.0	5.6	6.6	5.8	4.4	4.5
	75–84	5.5	6.1	8.6	10.5	9.9	15.4	12.6	14.3	9.5	12.3
	85–94	14.0	17.1	19.9	27.6	25.9	38.0	21.9	26.6	21.1	28.5
CASP	50–64	2.9	3.4	7.7	8.7	16.0	22.0	14.5	14.4	10.4	12.3
	65–74	2.7	3.3	6.4	8.5	20.6	30.4	15.4	18.4	11.3	15.3
	75–84	6.4	7.3	9.4	12.7	32.1	43.8	24.9	31.4	18.6	24.8
	85–94	13.6	14.2	15.1	22.3	43.6	55.2	32.6	40.3	25.9	33.1

Table 1: Indicators of dependency and quality of life by age group, gender and region (SHARE data; *Flawinne, Perelman & Schoenmaeckers, 2024*).

North = Denmark, Netherlands, Sweden; Centre = Germany, Austria, Belgium, France, Luxembourg, Switzerland; South = Spain, Greece, Italy, Portugal; East = Estonia, Poland, Slovenia, Czech Republic.

Ageing population and inequalities

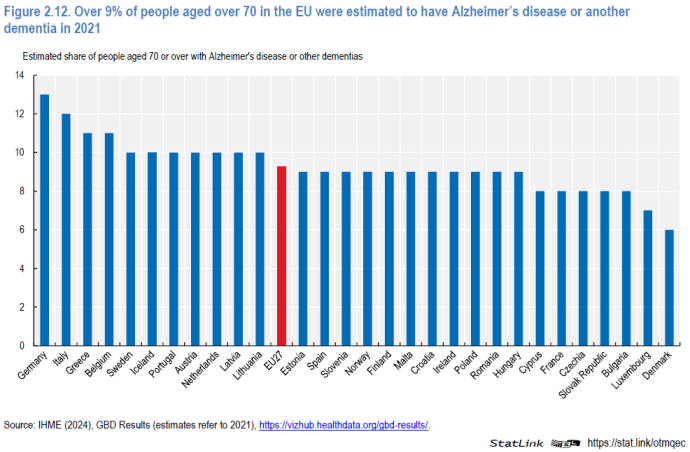


Figure 11: Alzheimer issue

Ageing population and inequalities

Summary of the different figures

- Heterogeneity of increase in life expectancy in good health
- Increase of the ageing population
- Link between ageing and health care costs
- Socio-economic inequalities of health

–> Focus on Long Term Care issue

- Space to find innovative solutions (CARE vs. CURE)
- Different roles for family, the private sector and the State in terms of risk management and rethinking urban/housing arrangements

Definition of Long Term Care and financing issue

- Long-term care (LTC) concerns people who depend on help to carry out daily activities such as eating, bathing, dressing, going to bed, getting up or using the toilet. (*Access to Medicaid or to public fundings in Belgium: at least 2 limitations*)
- Baumol's cost disease and LTC
  - LTC is highly labor-intensive and productivity cannot easily increase (e.g. bathing or feeding an elder takes the same time today as decades ago).
  - Wages must still rise in line with the rest of the economy, even without productivity gains.
  - Result: LTC costs rise faster than productivity, a classic case of Baumol's cost disease.

Rising demand and workforce needs

- **Greater LTC demand** as populations age: dementia, arthritis, mobility limitations.
- Services needed across *home care* and *residential facilities*.
- **Workforce pressures**: more nurses, caregivers, and geriatric support staff.
- Risk of **shortages** as fewer younger workers replace retirees.

Technology and financing pressures

- **Tech enablers**: telemedicine, remote monitoring, assistive technologies to boost efficiency and access.
- **Financing strain**: higher spending for public/private systems; mix of insurance, taxes, out-of-pocket.

The three pillars of LTC provision

State

- Funding (e.g., Medicaid/NHS), direct provision.
- Standards, regulation, safeguarding against abuse.
- Policies for caregiver support.

Family

- Primary source of hands-on care.
- Daily ADL support; emotional and social wellbeing.
- Coordination/ supervision of services.

Market

- **Insurance to cover residual costs.**
- Providers: nursing homes, assisted living, home health.
- Innovation in tech and care models.

Outline of the presentation

- Figures and graphs (done)
- Why is the insurance market not taking off / remain small? –> "theoretical" reasons
- How to build a social (public) policy? Need information on some key concepts –> empirical results
- Discussion
- Questions

Overview

- In most OECD countries, aging and social changes increase demand for long-term care (LTC).
- Yet private LTC insurance coverage remains strikingly low — the **LTC insurance puzzle**.
- The next slides summarize the leading explanations discussed by Cremer, Pestieau & Ponthiere (2012).

Defining the Puzzle

- **Puzzle**: Few people purchase private LTC insurance despite sizable risk of dependence and high potential costs.

	% with LTC Need	*Average Years of High LTC Need*	*Average Years with Paid LTC*	*Distribution of need (% of cohort)*				
				None	*< 1 Year*	*1-1.99 Years*	*2-4.99 Years*	*>= 5 Years*
Gender								
Men	46.7	1.5	0.7	53.3	18.4	7.4	11.1	9.8
Women	57.5	2.5	1.3	42.5	19.4	8.1	12.3	17.8
Income Quintiles								
Lowest	55.3	2.7	1.2	44.7	17.6	7.1	11.7	18.9
Second	53.2	2.3	1.2	46.8	16.8	7.0	12.7	16.7
Middle	53.9	2.2	1.1	46.1	18.7	8.1	12.4	14.7
Fourth	49.7	1.8	0.9	50.3	19.5	7.4	10.6	12.2
Highest	51.1	1.5	0.8	48.9	20.7	8.7	11.6	10.1
Total	52.3	2.0	1.0	47.7	18.9	7.8	11.7	13.9

Figure 12: Distribution of risk of dependence

Defining the Puzzle

- Five families of explanations:
  1. Excessive costs / loadings
  2. Social assistance crowd-out
  3. Trust in family solidarity
  4. Myopia or ignorance
  5. Denial of heavy dependence

Excessive Costs and High Loadings

- LTC insurance often perceived as expensive; many households delay purchase until older ages.
- Empirical estimates point to substantial load factors (e.g., typical policies with positive loadings).
- Potential drivers: administrative costs, imperfect competition, asymmetric information, aggregate risk.
- Result: low coverage and limited benefit comprehensiveness (policies cover only a fraction of expected LTC spending) can appear unattractive to buyers.

Excessive Costs and High Loadings

Policy Characteristics	*Average for 2015*	*Average for 2010*	*Average for 2005*	*Average for 2000*	*Average for 1995*	*Average for 1990*
Policy Type						
Nursing Home Only	<1%	1%	3%	14%	33%	63%
Nursing Home & Home Care	99%	95%	90%	77%	61%	37%
Home Care Only	<1%	4%	7%	9%	6%	---
Daily Benefit Amount for NH Care	$159	$153	$142	$109	$85	$72
Daily Benefit Amount for Home Care	$152	$152	$135	$106	$78	$36
Policy Deductible Period	93 days	90 days	81 days	47 days	46 days	20 days
Nursing Home Benefit Duration	3.8 years	4.8 years	5.4 years	5.5 years	5.1 years	5.6 years
Inflation Protection	75%	74%	76%	41%	33%	40%
Annual Premium	$2,772	$2,283	$1,918	$1,677	$1,505	$1,071

Figure 13: Costs of private insurance and benefits

Adverse Selection and Private Information

- Older adults may hold private information about disability risk.
- Buyers of LTC insurance found to have higher probability of future disability; discontinuers have lower risk.
- Evidence of positive correlation between perceived nursing-home entry risk and purchase of insurance.
- Implication: adverse selection raises prices and further depresses demand.

Social Assistance as a "Good Samaritan"

- Means-tested public programs (e.g., Medicaid/APA) can *crowd out* private coverage.
- For median-asset households, a sizeable share of private benefits may overlap with public payments.
- Strategic behavior: spend down assets or transfer wealth inter vivos to qualify for assistance.
- Nevertheless, crowding-out alone does not fully explain the small market — other mechanisms matter.

Family Solidarity and Strategic Motives

- LTC insurance reduces the cost of institutionalization; some elders prefer family care to nursing homes.
- **Altruistic** parents may insure to avoid burdening spouse/children.
- **Non-altruistic/strategic** parents may withhold insurance to elicit informal care or transfers.
- Empirical findings on family effects are mixed across countries (later in the presentation).

Behavioral Frictions I: Myopia and Ignorance

- Decisions reflect *subjective* rather than objective probabilities of dependence.
- Many older adults substantially underestimate institutionalization risk or are unaware of care cost exposure.
- Information gaps and limited risk processing dampen willingness to pay for coverage.

Behavioral Frictions II: Denial of Heavy Dependence

- Dependence is a rare, anxiety-provoking life event; individuals may avoid or suppress related information.
- Denial can generate time-inconsistent choices and underinsurance among the "unsophisticated".
- Forward-sophisticated individuals may seek commitment (potentially over-insure) to offset future denial.

Some Policy Implications

- **Refine means-testing**: enforce eligibility rules; consider family wealth; limit unintended crowd-out.
- **Support family care without coercion**: design benefits that complement, not replace, informal care.
- **Product redesign**: clearer triggers, partial reimbursement options, inflation protection.
- **Address behavioral barriers**: information campaigns; defaults; nudges; or mandatory programs when needed.

Key References

- Cremer, H.; Ponthiere, G. & Pestieau (2012). *The economics of long-term care: a survey.* In: Nordic Economic Policy Review, Vol. 2, p. 107-148 (2012). Permanent URL, http://hdl.handle.net/2078.1/127408

Takeaway: Multiple rational and behavioral forces jointly sustain a thin LTC insurance market; policy solutions must be multi-pronged.

Need evidence

- Ageing population in Europe: risks (and costs) of loss of autonomy increase
- Decrease in the availability of informal care: more divorces, less children (more mobile and more working)
- LTC insurance market almost absent
- Social LTC insurance ? Need evidence to determine optimal policy

SHARE and Stylized facts

- Use of SHARE data to establish relationships about
  - Loss of autonomy and socio-economic status (SES)
  - Substitution or complementarity between formal and informal care
  - Impact of housing (at home or in nursing home) choices in case of loss of autonomy
  - Motive(s) behind this intergenerational help
- SHARE: Survey of Health, Ageing and Retirement in Europe
  - Goal: to study the living conditions of people aged 50 and above
  - Same people are interviewed every 2 years to study changes over time
  - Long standing research on older adults in Europe; first wave was in 2004
  - Currently 9 waves of data available for research, free of charge, 10th wave now ending, 27 countries with the same questionnaire

SHARE and Stylized facts

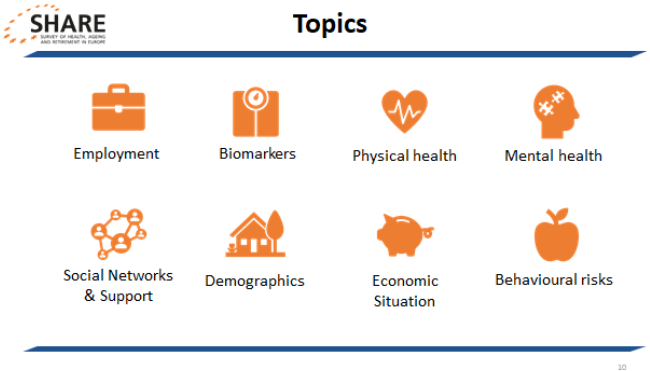
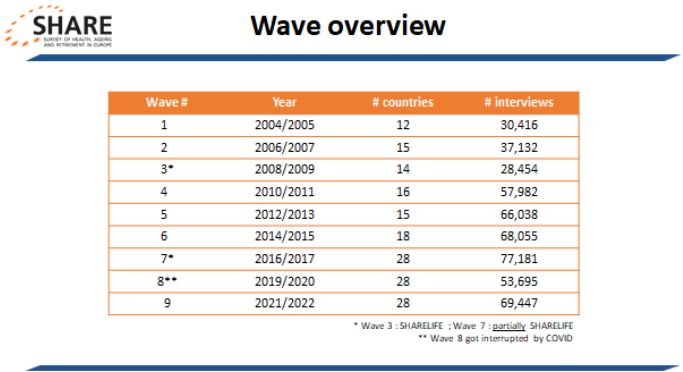


Figure 14: SHARE Topics

SHARE and Stylized facts



Wave #	Year	# countries	# interviews
1	2004/2005	12	30,416
2	2006/2007	15	37,132
3*	2008/2009	14	28,454
4	2010/2011	16	57,982
5	2012/2013	15	66,038
6	2014/2015	18	68,055
7*	2016/2017	28	77,181
8**	2019/2020	28	53,695
9	2021/2022	28	69,447

* Wave 3 : SHARELIFE ; Wave 7 : partially SHARELIFE
** Wave 8 got interrupted by COVID

Figure 15: Wave Overview

SHARE and Stylized facts: Loss of autonomy and socio-economic status

M. Lefebvre, S. Perelman, and J. Schoenmaeckers (2018). "Inégalités face à la mort et au risque de dépendance". In: *Revue française d'économie* 33.2, pp. 75–111

- Goal: relationships between loss of autonomy and SES
- Method: Two-stage model (2SLS) with wealth instrumentalised by
  - having received an inheritance
  - being owner
- Results: Triple penalty
  - Thanks to the longitudinal nature of the SHARE data (we observe health statutes of respondents in W2, W4 and W6):
  - The poorest die sooner, are more likely to become dependent, and when they do, they remain dependent for longer.
- But, a posteriori, doubts about the instruments (potential link between receiving inheritance and health of the respondent (genetics, inherited health behaviors), etc.)

SHARE and Stylized facts: Loss of autonomy and socio-economic status

M. Lefebvre L. Heymans and J. Schoenmaeckers (2025). "Impact of socio-economic status on loss of autonomy in the old age". Mimeo

- Addition of HRS (American "parent" survey)
- Restriction on the instrument: inheritance not from close relatives + wealth from period 1
- Addition of number of waves (from 3 to 5 periods)
- **CRE + IV** (Joshi and Wooldridge, 2019)

→ Double penalty confirmed (higher probabilities of death and loss of autonomy for the poorest) but not the length...
Why? One possible explanation: the type of dependency (physical vs. neurodegenerative (such as Alzheimer)) varies according to SES → research in progress (Survival analyses, etc.)

SHARE and Stylized facts: Substitution or complementarity between formal and informal care

E. Bonsang (2009). "Does informal care from children to their elderly parents substitute for formal care in Europe?" In: *Journal of Health Economics* 28, pp. 143–154, 898 citations → $H_{12}(a,m) \lesseqgtr 0$.

- Goal: look at the potential causal effect of informal care provided by adult children on the utilization of formal home care by their parents
- A two-part model:
  - $P(m_i > 0 \mid a_i, D_i, X_i)$, a Probit model for the extensive margin, and
  - $\mathbb{E}[\ln(m_i) \mid m_i > 0, a_i, D_i, X_i]$, a conditional regression model for the intensive margin.

SHARE and Stylized facts: Substitution or complementarity between formal and informal care

- The partial effect of a_i on m_i, or in other words, the elasticity of formal care with respect to informal care, is of particular interest
- But informal care is potentially endogeneous → IV methodology with specific sibling' characteristics, gender composition and distance from parents, as instruments for informal care.
- Results:
  - Informal care provides an alternative (substitute) for formal care as long as the burden and complexity of dependency is limited
  - Once the disability level increases, and requires more skilled support, children and the formal services tend to be complementary

SHARE and Stylized facts: Substitution or complementarity between formal and informal care

Table 2
Two-part model of paid domestic help utilization and the first-stage equation of informal care receipt.

Dependent variable	Informal care	Paid domestic help			
	OLS	Probit	IV Probit	OLS	2SLS
Intercept	−1.945*** (0.177)	−6.643*** (0.350)	−7.894*** (0.517)	0.662 (0.566)	0.808 (0.609)
Informal care	–	0.050*** (0.018)	−0.594*** (0.185)	0.121*** (0.025)	0.184* (0.106)
Woman	0.091*** (0.028)	0.259*** (0.058)	0.314*** (0.063)	−0.105 (0.094)	−0.112 (0.093)
Age	0.032*** (0.002)	0.058*** (0.004)	0.078*** (0.007)	0.010 (0.006)	0.008 (0.008)
Years of education	−0.019*** (0.004)	0.009 (0.008)	−0.006 (0.009)	0.027** (0.013)	0.029** (0.013)
Single household	0.378*** (0.036)	0.503*** (0.065)	0.743*** (0.098)	0.057 (0.101)	0.049 (0.100)
Income quartile					
1st	–	–	–	–	–
2nd	0.070* (0.036)	0.107 (0.070)	0.145* (0.074)	0.057 (0.107)	0.064 (0.106)
3rd	0.043 (0.041)	0.017 (0.087)	0.038 (0.092)	0.359** (0.145)	0.356** (0.143)
4th	0.121*** (0.043)	0.180** (0.087)	0.246*** (0.093)	0.305** (0.139)	0.334** (0.145)
Wealth quartile					
1st	–	–	–	–	–
2nd	−0.011 (0.036)	−0.026 (0.068)	−0.035 (0.072)	0.017 (0.105)	0.025 (0.104)
3rd	−0.031 (0.038)	−0.108 (0.077)	−0.143* (0.082)	−0.094 (0.127)	−0.102 (0.126)
4th	−0.009 (0.041)	−0.023 (0.087)	−0.040 (0.091)	−0.261* (0.147)	−0.277* (0.147)
Disability index	0.218*** (0.019)	0.525*** (0.041)	0.671*** (0.060)	0.069 (0.069)	0.047 (0.078)
(Disability index)^2	0.039*** (0.010)	−0.046*** (0.017)	−0.022 (0.020)	0.060** (0.025)	0.063** (0.025)
Instrumental variables					
Proportion of daughters	0.086** (0.035)				
Distance to the nearest child	−0.310*** (0.045)				
(Distance to the nearest child)^2	0.045*** (0.010)				
Country dummies	Yes	Yes	Yes	Yes	Yes
(Pseudo-) R^2	0.178	0.336	–	0.213	0.232
Number of observations	7,329	7,329	7,329	635	635

Notes: SHARE 2004. Sample includes all individuals being 65 year old or over having at least one child and not living with them. Asterisks (*), (**), (***) means that the coefficient estimate is significantly different from zero at the 10%, 5%, 1% level, respectively. Standard errors are in parentheses. Informal care corresponds to the logarithm of the number of hours of informal care provided to the parents (plus one).

SHARE and Stylized facts: Substitution or complementarity between formal and informal care

And now? At the European level, once monetary valuation of informal care is imputed → S. Perelman and P. Pestieau (2025). *The economic value of informal LTC*.

- **Informal LTC** (% GDP): SHARE estimates based on the SHARE Time-Use questionnaire (Wave 9, 2022)
- **Formal LTC** (% GDP): Value of formal LTC (European Commission, 2021).

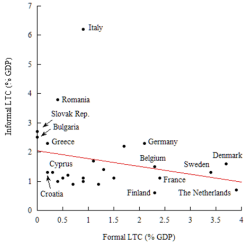


Figure 17: Informal vs Formal Care (%)

SHARE and Stylized facts: Impact of housing (at home or in nursing home) choices in case of loss of autonomy

X.Flawinne et al. (2022). "Nursing homes and mortality in Europe: Uncertain causality". In: *Health Economics*

A.Lafferère and J. Schoenmaeckers (2025). "Do Europeans really feel better at home than in a nursing home?" In: *American Journal of Epidemiology*

- Goal: impact of housing choices (and therefore type of care) on mortality and well-being
- Methods: Matching (PSM and PSM-DID) → ATTs
- Results:
  - "Positive impact" on mortality in some countries but not in all
  - "Negative impact" on life satisfaction in some countries but not in all but observation of a phenomenon of satisfaction catch-up for those observed more than once (panel FE analysis)

SHARE and Stylized facts: Impact of housing (at home or in nursing home) choices in case of loss of autonomy

Figure 18: Mortality

TABLE 4 Average Treatment of the Treated (ATT) estimation with the Propensity-Score Kernel Matching (exact matching with replacement)

Groups of countries/Countries	# treated	# control	ATT	S.E.
All	803	6301	0.107***	0.023
North	172	746	0.113**	0.052
Denmark	87	309	0.056	0.077
Netherlands	14	37	0.133	0.186
Sweden	70	406	0.145*	0.082
Central	434	2822	0.105***	0.032
Austria	66	634	0.062	0.079
Belgium	190	1011	0.092*	0.049
France	76	495	0.039	0.084
Germany	47	326	0.277***	0.080
Luxembourg	26	35	0.205	0.126
Switzerland	37	226	0.270***	0.099
South	91	1113	0.001	0.062
Italy	20	343	–0.084	0.110
Spain	74	785	0.001	0.991
East	106	1558	0.146***	0.052
Czech Rep.	67	779	0.165**	0.070
Estonia	39	336	0.147*	0.088

Note: ***, ** and * stand for statistically significant at the 1%, 5% and 10% levels respectively.
Abbreviation: ATT, Average Treatment of the Treated.

Figure 19: Satisfaction

Groups of countries/Countries	# treated (#used)	# control (#used)	ATT 65+	S.E.	ATT 75+
All	1095 (1019)	18993 (13889)	-0.300***	0.095	-0.280***
North	226 (221)	2144 (1910)	-0.353*	0.185	-0.330*
Denmark	95 (91)	718 (517)	-0.044	0.356	0.102
Netherlands	45 (45)	384 (219)	-0.727**	0.323	-0.669*
Sweden	86 (84)	1042 (975)	-0.432	0.306	-0.618*
Central	552 (518)	7210 (5361)	-0.220*	0.130	-0.230*
Austria	85 (81)	1267 (1102)	0.129	0.310	0.030
Belgium	201 (197)	2219 (1950)	-0.488**	0.214	-0.446**
France	86 (81)	1663 (890)	-0.181	0.328	-0.202
Germany	76 (73)	1320 (795)	-0.456	0.323	-0.533
Luxembourg	36 (34)	256 (158)	0.022	0.419	0.154
Switzerland	68 (67)	585 (518)	-0.227	0.308	-0.118
South	109 (101)	3867 (2630)	-0.815***	0.297	-0.707**
Italy	32 (30)	1454 (467)	-1.044	0.857	-1.139
Spain	60 (56)	1842 (1529)	-0.176	0.316	-0.497
Portugal	16 (16)	571 (205)	-1.339*	0.718	-1.711
East	209 (200)	5772 (4072)	-0.084	0.240	-0.200
Czech Rep.	106 (100)	1944 (1551)	0.002	0.347	-0.233
Estonia	68 (65)	2849 (1715)	-0.253	0.418	0.129
Slovenia	35 (35)	979 (347)	-0.441	0.468	-0.513

SHARE and Stylized facts: Impact of housing (at home or in nursing home) choices in case of loss of autonomy

- Sensitivity analysis suggested by Ichino et al. (2008) to test whether our results are robust to the violation of the CIA
- Indeed, one may think of one unobserved variable that would simultaneously influence the decision to go into a nursing home (selection effect) and the probability to die (outcome effect)
- For example, actual informal care may influence simultaneously the decision to enter a nursing home and the health of the elderly. The former would be related to a selection effect and the later would have an outcome effect.

The results hold (see next slide for life satisfaction) → useful to anticipate comments from potential referees (routine in STATA)

SHARE and Stylized facts: Impact of housing (at home or in nursing home) choices in case of loss of autonomy

		Confounder-like		
		Being a female	Being in bad health	Having at least one child
All	ATT Radius matching	-0.264*** (0.079)		
	Outcome Effect Γ	0.816	0.149	1.270
	Selection Effect Λ	1.401	0.715	0.383
	ATT (S.E.)	-0.267*** (0.079)	-0.262*** (0.079)	-0.265*** (0.079)
North	ATT Radius matching	-0.449*** (0.156)		
	Outcome Effect Γ	1.118	0.121	2.167
	Selection Effect Λ	1.096	2.211	0.609
	ATT (S.E.)	-0.444*** (0.157)	-0.420*** (0.158)	-0.446*** (0.157)
Center	ATT Radius matching	-0.367*** (0.103)		
	Outcome Effect Γ	0.844	0.123	1.175
	Selection Effect Λ	1.767	0.817	0.432
	ATT (S.E.)	-0.361*** (0.104)	-0.368***(0.103)	-0.365*** (0.103)
South	ATT Radius matching	-1.236*** (0.274)		
	Outcome Effect Γ	0.807	0.323	1.198
	Selection Effect Λ	1.706	0.413	0.210
	ATT (S.E.)	-1.215*** (0.276)	-1.233*** (0.274)	-1.224*** (0.274)
East	ATT Radius matching	-0.212 (0.206)		
	Outcome Effect Γ	0.929	0.191	1.556
	Selection Effect Λ	1.169	0.856	0.354
	ATT (S.E.)	-0.229 (0.205)	-0.210 (0.205)	-0.227 (0.205)

Figure 20: Ichino (2008) method on life satisfaction

SHARE and Stylized facts: Motive(s) of intergenerational help

J. Klimaviciute et al. (2017). "Caring for dependent parents: altruism, exchange or family norm?" In: *Journal of Population Economics* 30, pp. 835–873. $\beta > 0$.

- Goal: Identify motives of intergenerational help
- Methods:
  - Theoretical models → comparative statics (relationships between ascending informal care and descending financial transfers)
  - Empirical results (Tobits + Mundlak (1978) correction)
- Comparing the empirical results to the theoretical models developed, it appears that, depending on the regions analyzed, long-term caring is driven by moderate altruism or by family norm, not by exchange

SHARE and Stylized facts: Motive(s) of intergenerational help

Figure 21: Theoretical models

Table 1 Summary of theoretical models

	Child's help side		Parent's transfer side	
	da/dy	da/dw	db/dy	db/dw
Altruism	> 0 if comp		>0 if $\alpha = 1$	<0 if $\alpha = 1$
	< 0 if subs	$\gtrless 0$	$\gtrless 0$ if $0 < \alpha < 1$	$\gtrless 0$ if $0 < \alpha < 1$
	0 if indep			
Exchange	> 0 if comp or indep	< 0 if comp or indep	> 0 if comp or indep	
	$\gtrless 0$ if subs (but same as db/dy)	$\gtrless 0$ if subs	$\gtrless 0$ if subs (but same as da/dy)	$\gtrless 0$
Family norm	0	0	> 0 (P altruist)	< 0 (P altruist)
			0 (P not altruist)	0 (P not altruist)

Figure 22: Empirical results

Table 7 Summary of empirical findings (All HHs sample, $n = 28{,}780$)

Countries	Child's help		Parent's transfer	
	da/dy	*da/dw*	*db/dy*	*db/dw*
SHARE	< 0	$= 0$	> 0	> 0
North	< 0	$= 0$	> 0	$= 0$
Center	< 0	$= 0$	> 0	$= 0$
South	< 0	$= 0$	> 0	$= 0$
East	$= 0$	$= 0$	$= 0$	$= 0$

SHARE and Stylized facts: Motive(s) of intergenerational help

P. Pestieau M. Lefebvre and J. Schoenmaeckers (2025). "Grandchild care and eldercare. A quid pro quo arrangement". In: *Economic Modelling* 146.

- Examining a novel motive for grandchild care: reciprocity in case of LTC need
- We design a two-period model for grandparents' anticipation of reciprocity
- Using SHARE data, we confirm reciprocity of care when dependence arises (CRE models)
- The more care grandparents provide, the more support they receive when in need

SHARE and Stylized facts: key points to take home

- SHARE is a free outstanding database (international, longitudinal and topic coverage)
- We can test theoretical models
- Different empirical approaches (OLS, 2SLS, PSM, PSM-DID, FE, CRE, etc.)
- Do not hesitate to use SHARE in your master theses (even if some entry costs)

- Based on the different information presented...
  - Altruism or norms in caregiving situations (role of family)
  - Substituability for low level of care then complementarity in case of high level of care
  - Ambiguous impact of nursing homes on mortality and satisfaction
  - No or low level of private insurance

... which could be the policy responses in order to deal with the (almost) certain decrease in public funding possibilities?

- Housing and *age-friendly* communities? (what about rural areas?) ;
- Support to family caregivers ? (*tax relief?, paid leave?*);
- ...

Questions?