



CPB Netherlands Bureau for Economic
Policy Analysis

The ability to pay for long-term care in the Netherlands: a life-cycle perspective

Arjen Hussem, PGGM/CPB

Joint work with:

Casper van Ewijk, UvA

Harry ter Rele, CPB

Albert Wong, RIVM

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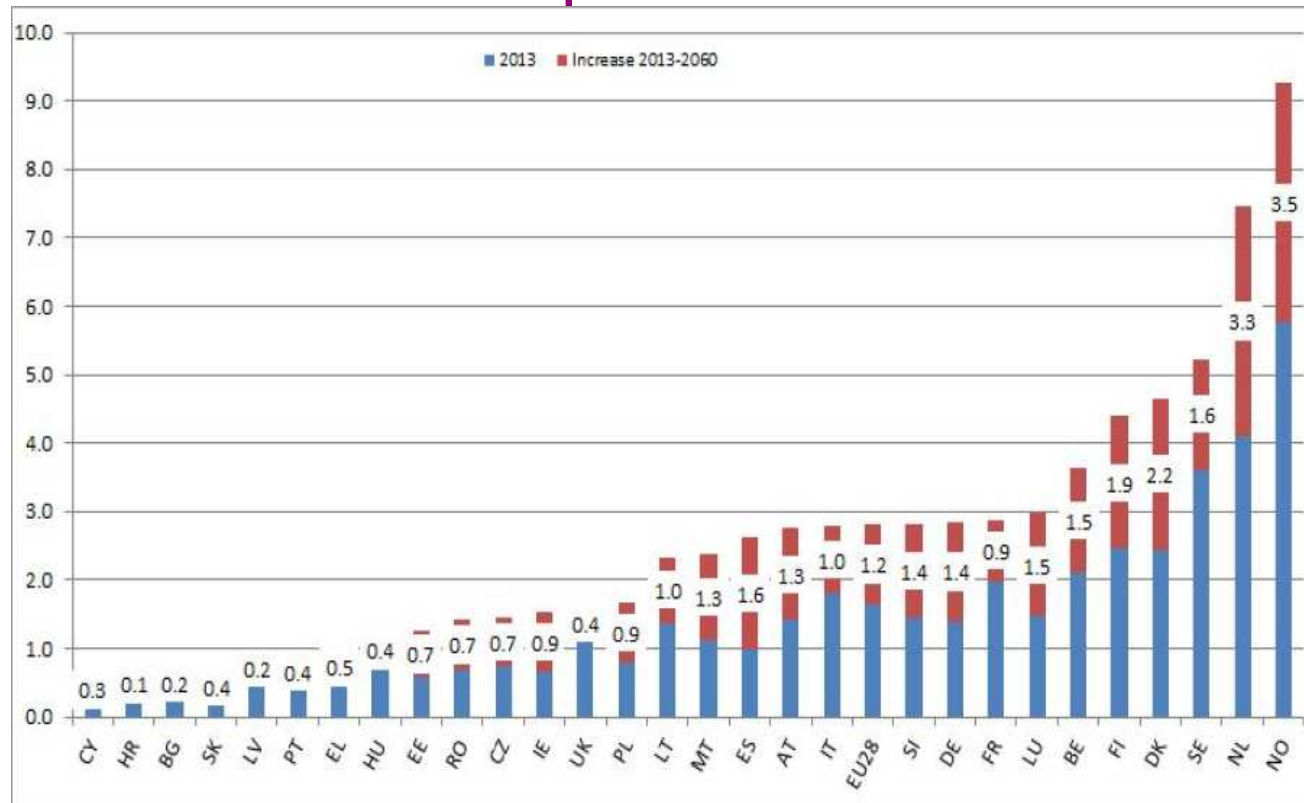


Content

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LTC costs are expected to rise



- High level in NL
- Expected rise despite of recent changes
- NL lowest private insurance in OECD (Francesca, 2011)

Graph II.3.9: Demographic scenario, current and projected levels of public expenditure on LTC as % of GDP; 2013-2060 (source: European Commission (2015) The 2015 Ageing Report)



Could self-insurance help to finance LTC?

- Current own payments in NL approximately 10%
- “Self-insurance” means smoothing over the life-cycle
- This impacts the whole life-cycle, we abstract from behavior change
- Lifetime panel data is only limited
- We need to view the whole life-cycle
 - We developed a simulation using the non-parametric nearest neighbor resampling approach (NNRA) (e.g. Farmer and Sidorowich, 1987; Hsieh, 1991)
 - Applied earlier by Wong et al. (2015) on health care, now extended to include LTC costs, income and family composition.



Source data used 2004-2006

- Administrative data
 - Income data (RIO, sample)
 - LTC use (covered by AWBZ, CAK)

Household type	Number	Average age	Average Standardized Income	LTC user	Average LTC costs	Average Mortality in 2006
A. Single	411,020	51.3	17	14%	1.2	1.6%
B. Single + child/other	350,204	32.4	19	3%	0.2	0.6%
C. Couple	1,181,899	56.1	25	4%	0.3	1.2%
D. Couple + child/other	2,961,640	29.5	23	0%	0.1	0.2%
E. Institutionalized	39,107	70.7	14	63%	27.0	13.0%
Total	4,943,870	38.2	23	3%	0.2	0.0%

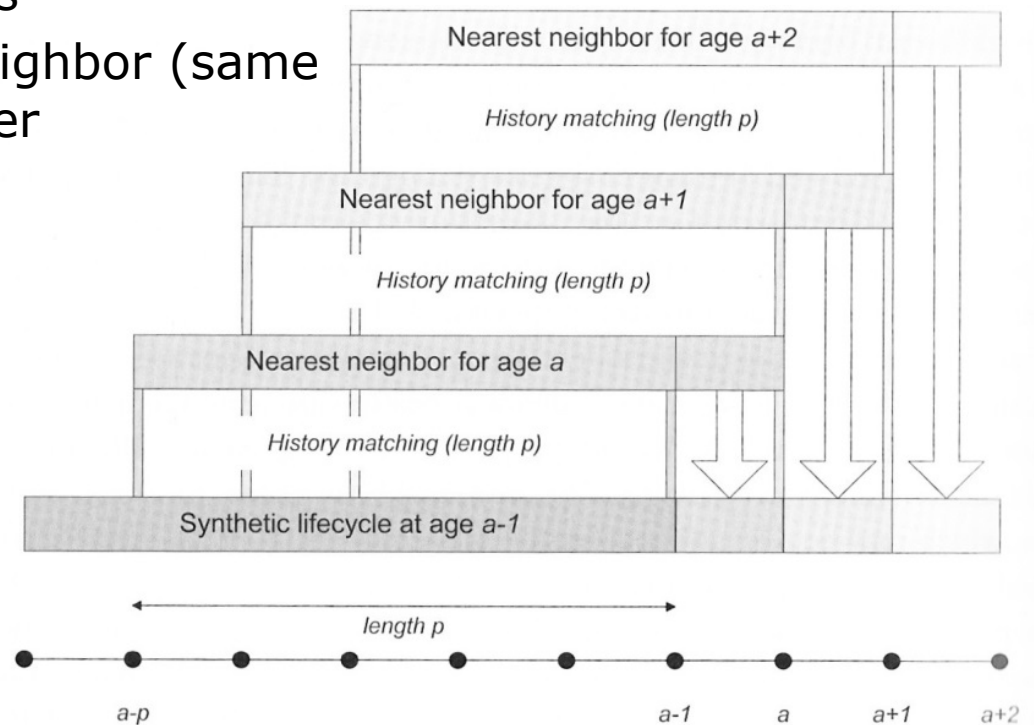
Individuals 2006

Standardized income is net household income divided by the equivalence factor



Construction of life-cycle paths

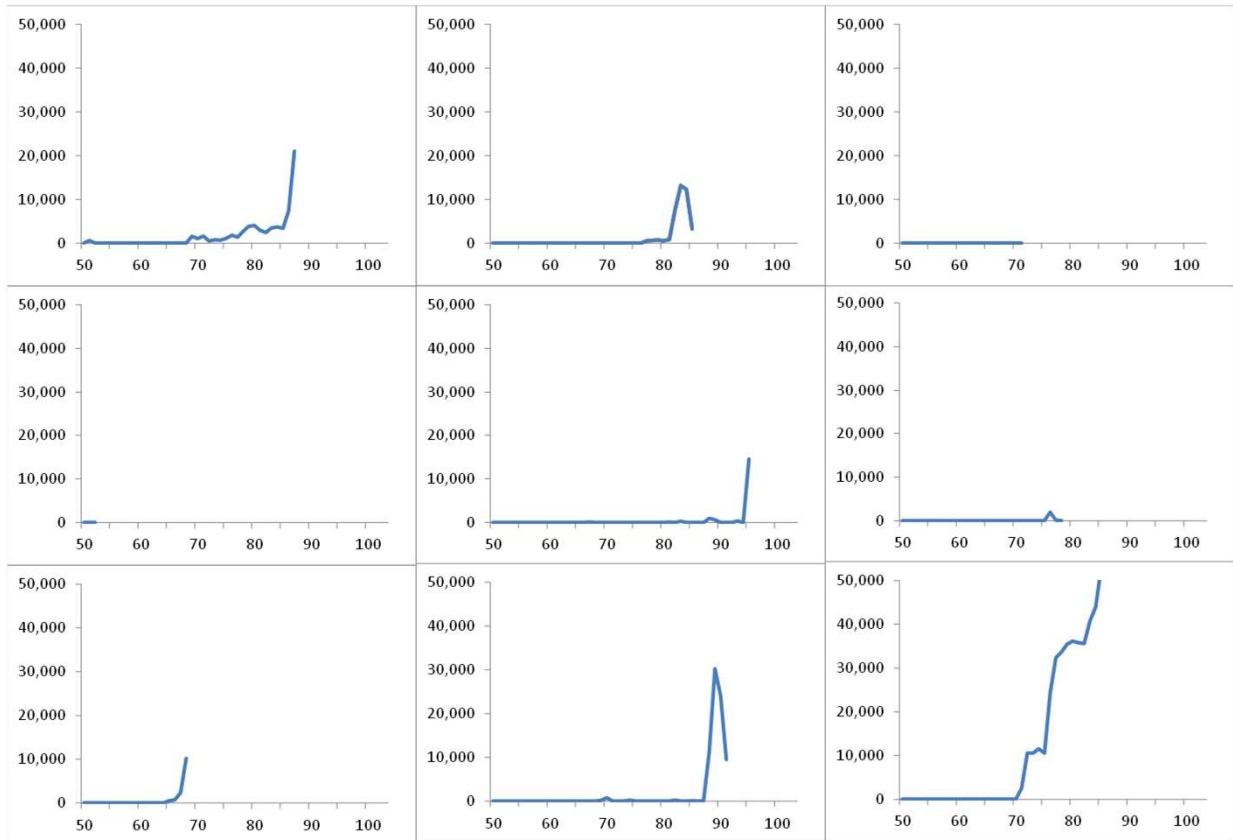
- Nearest Neighbor Resampling Method (Wong, 2015)
 - 2004-2006 panel data on (household) income and LTC
 - Start with 20,000 0-year-olds
 - Match with best matching neighbor (same characterizations) 1 year older
 - Repeat until end of life





20,000 individual life-cycle paths

- 10,000 males and 10,000 females include income, householdtype and LTC-costs

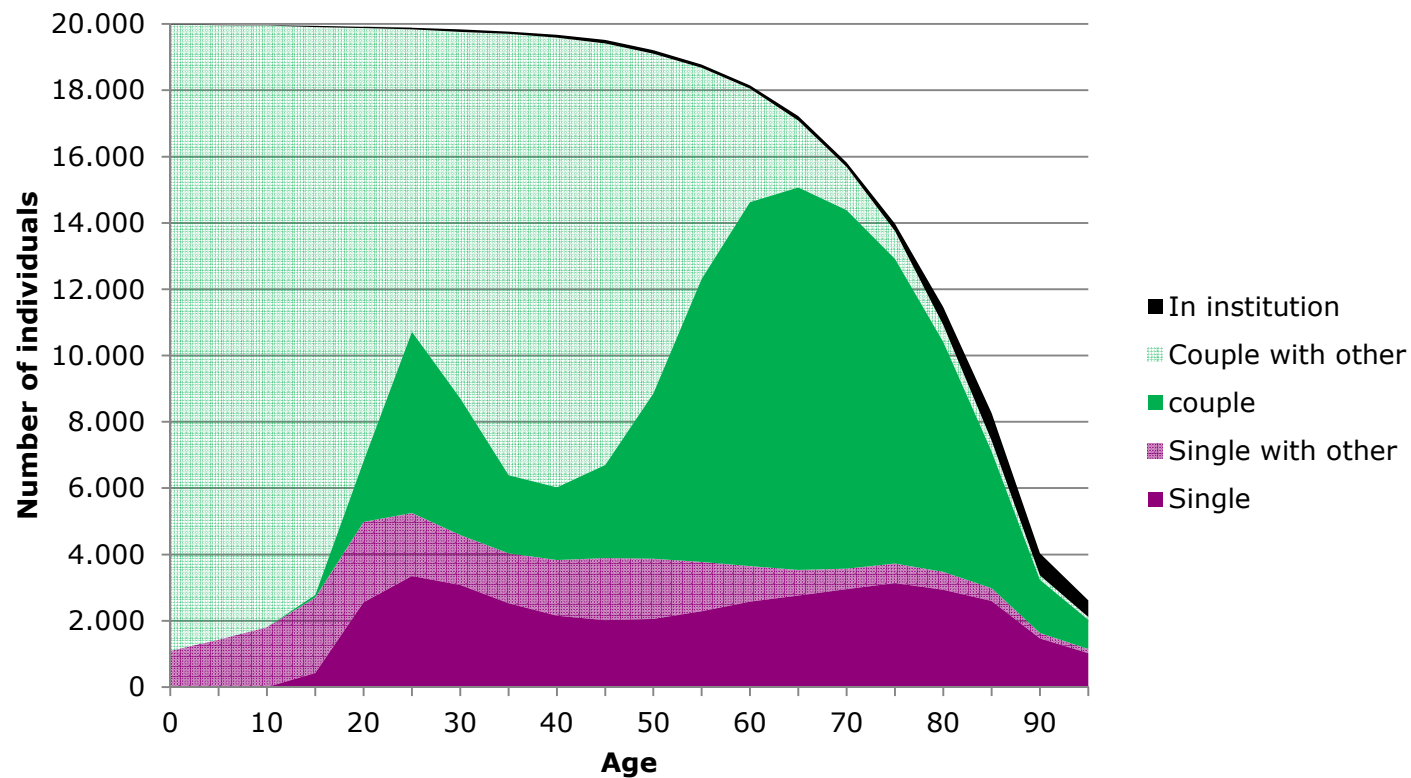


LTC costs per year by age per individual



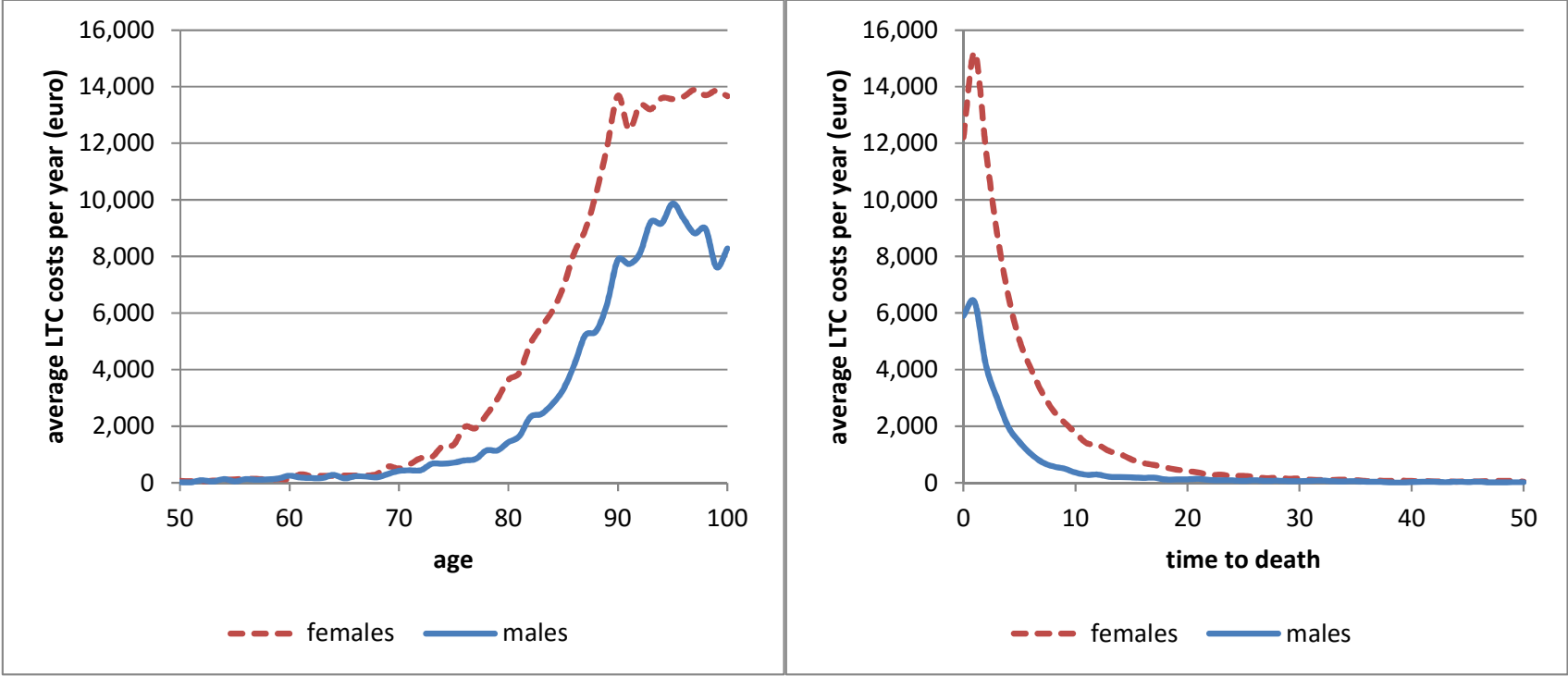
Life-cycle paths result in a stationary population

- Implicit assumption: “no cohort effects”



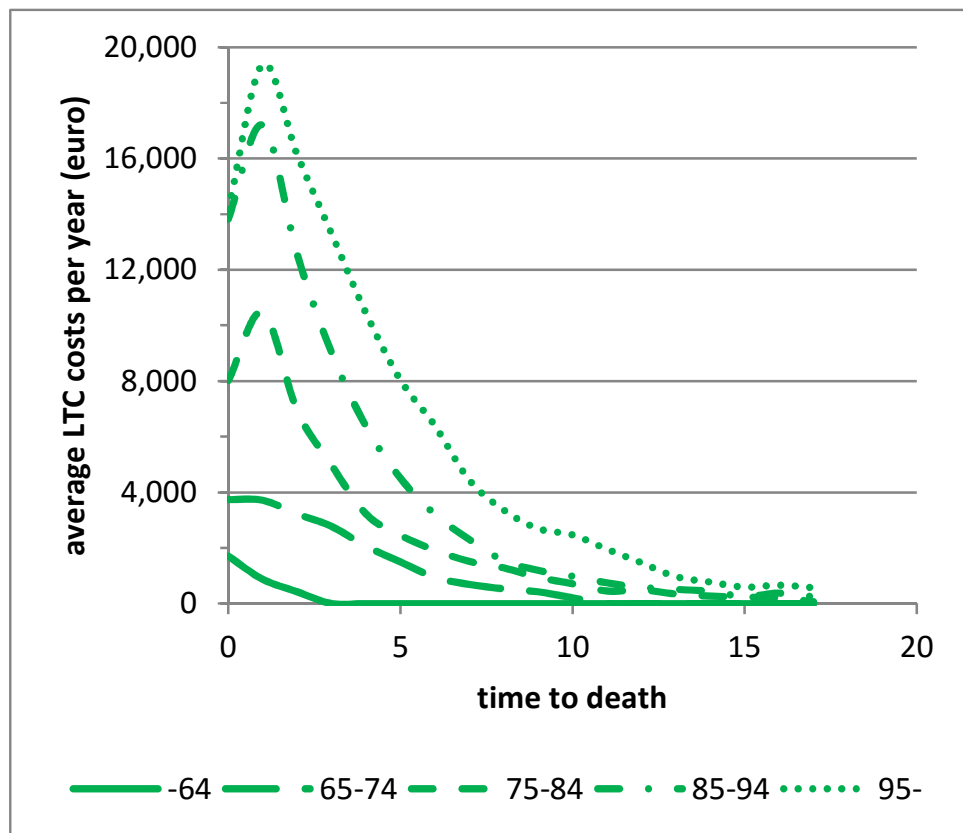


LTC costs rise with age and time to death





Both age and time to death matter for LTC costs



Intramural costs (institutional care)

Higher LTC costs when:

- closer to end of life, and
- at higher age.

Same (but less steep) pattern for extramural care (home care).



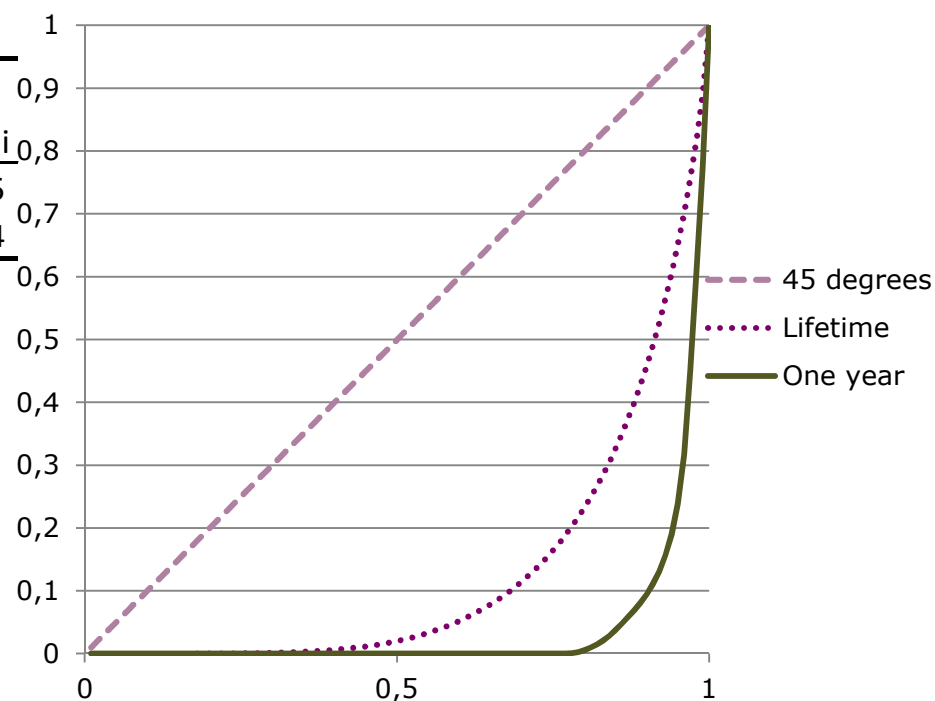
Heterogeneity smaller with life-cycle perspective

- LTC costs in euro; average amounts and Gini coefficient

Total LTC	Per year		Life-time	
	Average amount	Gini	Average amount	Gini
Whole life	729	0.98	59,742	0.75
65+	3,075	0.92	64,091	0.74

- Heterogeneity in LTC use decreases if measured on life-time basis instead of per year (Gini coefficient lower)
- Most costs after 65, 65+ amount is higher after 65

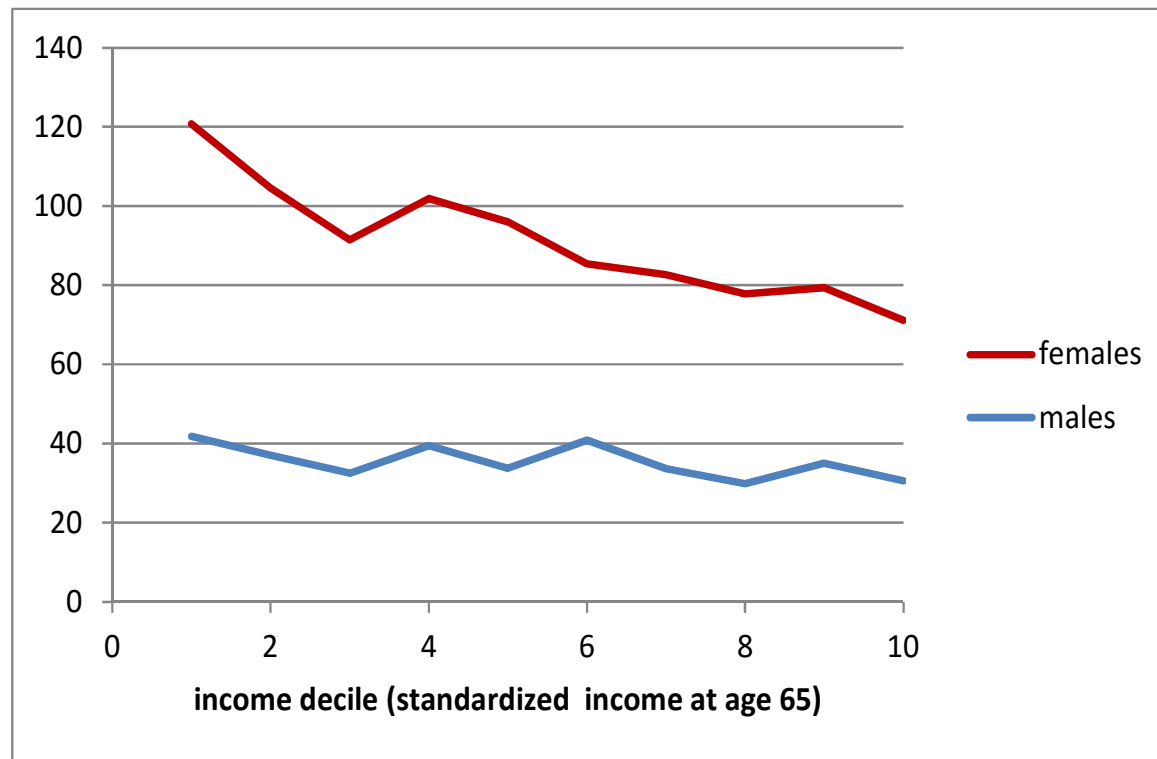
Lorentz curve LTC costs





Income dependency LTC

- Income deciles at age 65 correlate negatively with lifetime LTC use, despite of longer life expectancy

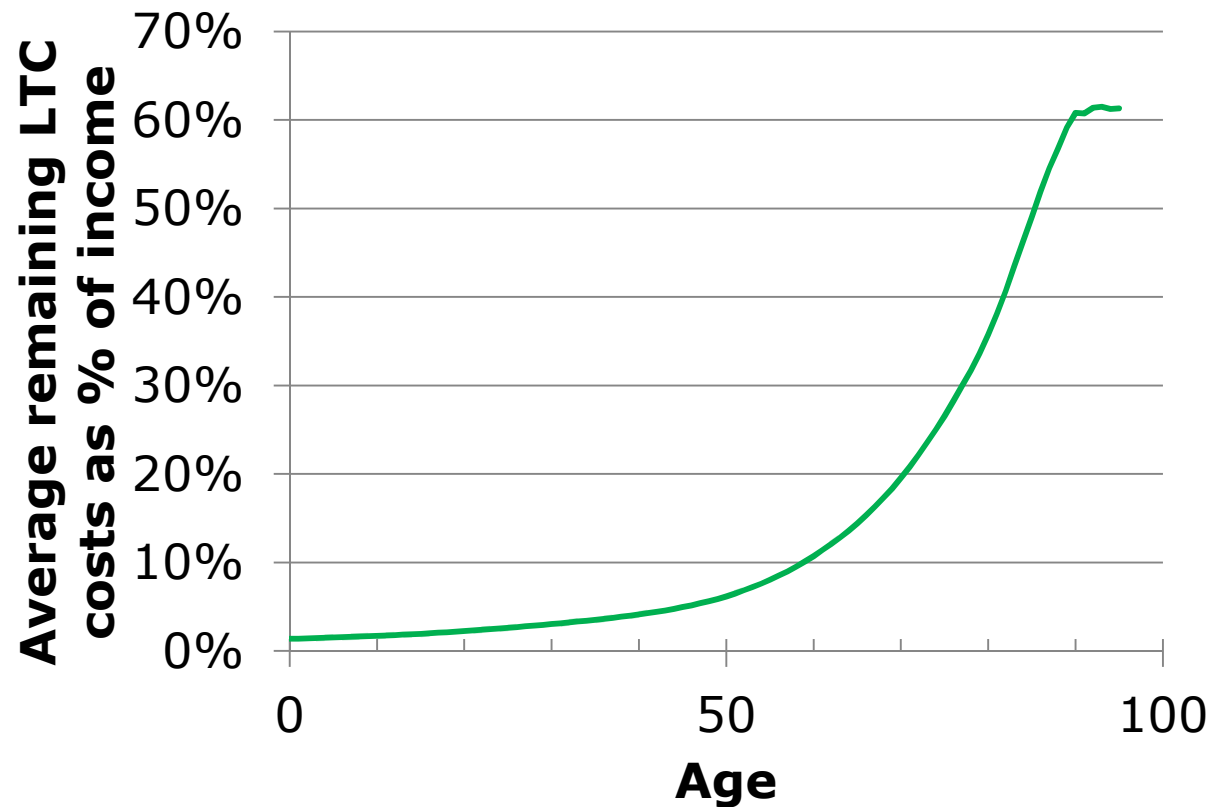




LTC costs as % income rise with age

- At age 65: 16%
- At age 70: 25%
- At age 80: 40%

The earlier you start to save/insure, the lower the premium.





Can self-insurance help to finance LTC?

Yes, but

- No saving: 47% of LTC costs can be paid from income
 - Saving as from moment after shock: 64%
 - Saving as from age 65: 93%
-
- These are maxima as the whole income is included, disregarding subsistence



Conclusions and further research

- Scope for self-insurance therefore limited, higher own payments than 10% seem possible, especially for extramural care
- Higher LTC use for singles and women
- Different view with life-cycle/household analysis
 - Distribution of LTC costs highly skewed, less on life-cycle basis
 - Distribution of LTC is far more unequal than distribution of income
 - Lifetime LTC expenditures higher for low income households
 - LTC is concentrated late in life
- Further research:
 - More data after 2006, future developments?
 - Life-cycle behavior
 - More financing options
 - Welfare analysis