THE ECONOMICS OF LONG-TERM CARE (LTC)

Pierre Pestieau

CORE, UCL and HEC, ULg

The economics of long-term care (LTC)

Long-term care 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. It deals with nursing care rather than with health care.

Over the last years, improving longevity and medical progress (e.g., cancers) has led to an increase in chronical diseases and thus to dependence requiring both nursing and health care.

Overview of economics work on LTC. Most work is empirical or based on calibrated simulations. Here we focus on theoretical contributions that are based on that work.

Outline

- Background evidence
- The family: aid motives and collateral effects
- The market : LTC insurance puzzle and rules of reimbursement
- The State
  - *Optimal policy given family aid and insurance market.*
  - *Political economy models*

1. Background

- Long term care needs are increasing rapidly.
- Main providers: family, state and market
- Financing sources: out of pocket and family support and (public or private) insurance compensations. Back-of-the-envelope estimates:

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Contribution of the State, the market and the family to health care, retirement income and long term care

	State	Family	Market, including self insurance
Old age income	70%		30%
Long term care	20%	60%	20%
Health care	80%		20%

1. Background

Expected evolution:

- Demand side: More than two out of five people aged 65 or older report having some type of functional limitation (sensory, physical, mental, self-care disability, or difficulty leaving home). The relative importance of people aged 65+ (80+) will more than double (triple) by 2050.

- Supply side: Main provider: the family. Yet, with the drastic change in family values, the growing number of childless households, the increasing rate of participation of women in the labor market, and the mobility of children, the number of dependent elderly who cannot count on the assistance of anyone is increasing.
  Costs are increasing: no technological change but labor intensive (Baumol disease).

2. The family

- Main helpers:
  - *Spouses and children*
  - *Blood and gender bias*
    Canta et al. (2021) test such a bias.

- Aid motives
  - *Altruism*
  - *Exchange*
  - *Family norm.*
    Klimaviciute et al. (2017) show the role of norms in informal care.

2. The family

Problems with the family

First, as shown by Schulz and Sherwood (2008) as well as Van Houtven et al. (2013), family care giving has a number of negative effects on the health and the career of helpers.

Second, the choice between staying home with family help and going to a nursing home is not trivial, particularly in case of pandemic such as COVID-19. See Flawinne et al. (2022).

3. The market

LTC insurance puzzle: why such a thin market for a risk that concerns everyone and is measurable?

- High prices
  - *adverse selection (Sloan and Norton,1997)*
  - *excessive loading costs (Brown and Finkelstein, 2007,2008)*
- Families as substitutes: intra-family moral hazard (Pauly, 1990)
- Social assistance as Good Samaritan (failure of means tests; strategic impoverishment): 20% of Medicaid expenses
- Unattractive rule of reimbursement: see below.
- State-dependent utility: (De Donder and Leroux, 2021)
- Myopia or ignorance (Cremer and Roeder, 2013)
- Denial of severe dependence (Kopczuk and Slemrod, 2005)

3. The market

Rules of reimbursement:

- Reimbursement long-term care insurance policies pay for the actual cost of care. It comprises a ceiling in the amount of the benefits and in the length of reimbursement.
  No coverage for a too long period of dependence.
- Cash indemnity long-term care insurance policies pay your selected daily benefit as soon as you qualify for benefits. It pays cash benefit regardless of your actual expenses. Limited in time or not.

For the insurer, it limits the uncertainty of long run risks.

For the insuree, no protection against a too long and costly period of dependence.

3. The market

Length of heavy dependence (USA)

		Average length	None	< 2 years	2-5 years	> 5 years
Men	46.7	1.5	53.3	25.8	11.1	9.8
Women	57.5	2.5	42.5	27.5	12.3	17.8

- Limited period of coverage leads to rapid spending down for a fraction of dependents.

Dreze et al. (2016) and Klimaviciute and Pestieau (2018 a&b) show the efficiency of the deductible principle

Cremer et al. (2016) provide theoretical grounds to justify the lump-sum formula.

4. The State

Cost of Aging (% of GDP)

	Long Term Care		Pensions, Health and LTC	
	2019	2045	2019	2045
Germany	1.6	1,9	19.3	21,9
Spain	0.7	1,1	18.7	21,1
France	1.9	2,5	25.1	26,5

Source: OECD, 2020.

4. The State

Why do we need public intervention?

- Redistributive reasons (when individuals differ in wages but also in survival and dependence probabilities, an optimal income tax does not suffice.
- Reasons related to both market and family failures.

Number of models that look at the optimal design of public policy for different settings as to the behavior of families or of the market. In all cases, the government behaves as a Stackelberg leader that takes into account the responses of both the market and the family.

Normative models

1. Uncertain family aid
2. High loading cost of LTC insurance
3. Strategic exchange
4. Family norm
5. Gender issue
6. Opportunity cost of labor
7. Variable altruism
8. Dependence risk vs survival risk.

In those models, one has to distinguish between two settings, one with individuals that are ex ante identical and another with individuals starting with different endowments.

With identical individuals the choice between private and social insurance depends on the respective loading costs or on the reimbursement rule. It hinges also on the reactive behavior of the family. For example, when family aid is uncertain and opting out is enforced, there are cases where the market cannot outbest social insurance. When the market reimbursement rule is limited, a social insurance with deductible is efficient.

With different individuals, social insurance aims at some redistribution and its role will depend on the correlation between dependence risk and income. Given that this correlation is generally negative whereas the correlation between survival probability and income is clearly positive, the case for a LTC social insurance is strong, much stronger that that of public pensions.

Positive models:

- The reasons for allowing part of the middle class to apply to LTC social assistance
- The conditions for a social LTC insurance supported by majority voting with private LTC insurance

Upshot

Need to build a bridge between those theoretical studies and the rich empirical work.

This presentation is based on *The economics of long-term care. An overview*

by Justina KLIMAVICIUTE and Pierre PESTIEAU