

Subject Area: Demography

Part I.

Title: “Institutional Long-Term Care and Government Regulation”

Author: Elena Stancanelli¹

Teaser: “How to Reduce the Costs of Institutional Long-Term Care while Monitoring its Quality? Focus on Family and Portable Allowances”

Keywords: Demography, Family, Long-Term Care

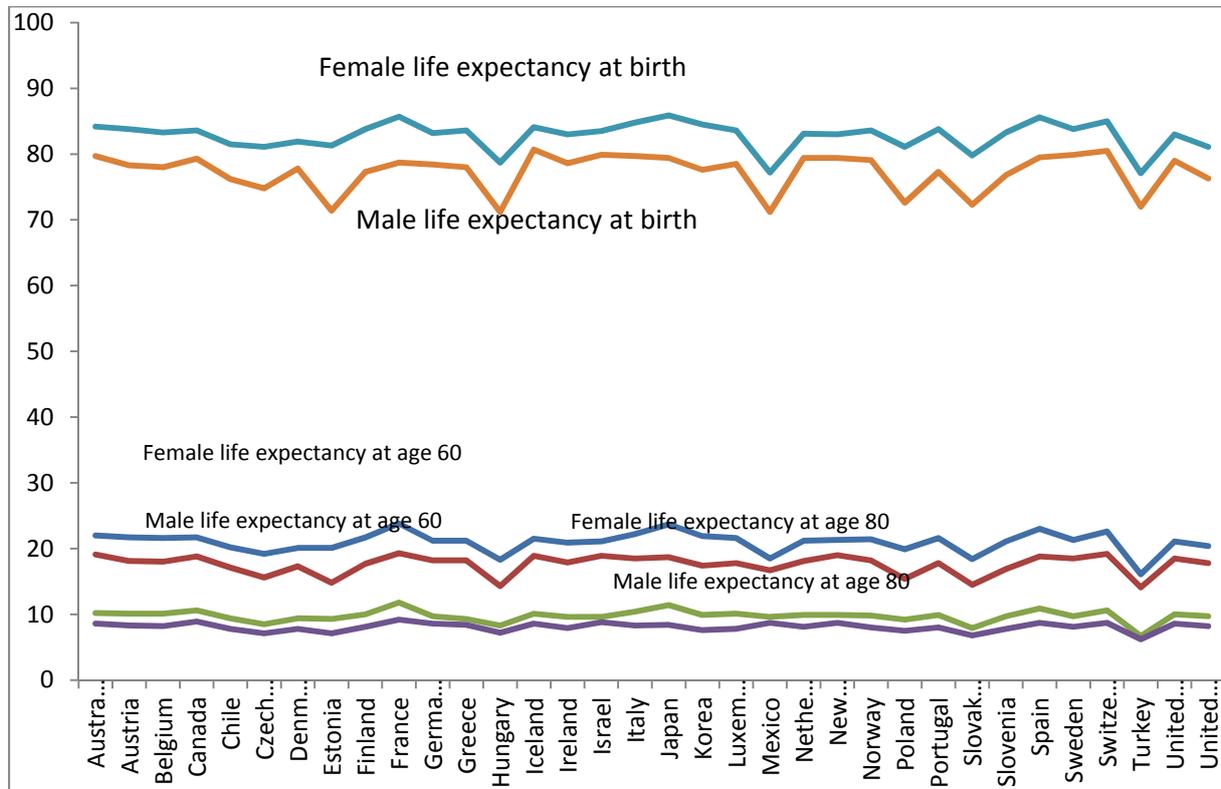
Elevator Pitch

The demand for institutional Long-Term Care is likely to remain high in the future in OECD countries, due to increases in individual life expectancy and falling cohabitation rates of the aged with their next of kin. Shortages of qualified nurses put a cap on the supply of beds at nursing homes. Under excess demand not only there is upward pressure on prices but also the prices may not reflect the quality of the services provided. Monitoring the quality of nursing home services is high on the agenda of OECD governments. We argue here that family visitors and ‘portable’ benefits may serve this purpose at little extra cost.

¹ Paris School of Economics, CNRS and IZA.

The author thanks two anonymous referees and the IZA World of Labor Editor, Konstantinos Tatsiramos for many helpful suggestions on earlier drafts. Previous work of the author has been used intensively in all major parts of this article. The IZA World of Labor project is committed to the IZA Guiding Principles of Research Integrity. The author declares to have observed these principles.

Figure 1. Life expectancy by Gender in the OECD, 2011.



Source: Source: OECD Health Statistics Data, 2015, latest available year for all countries.

Key findings

Pros (max 5)

- _ ‘Portable’ old-age benefits empower the aged and thus, may also serve as to improve the quality of LTC services.
- _ Many old-people residents at LTC institutions receive regular visits from family and this can be exploited to help monitoring the services provided by LTCs.
- _ Systems of “ombudsman” and adult guardianship to monitor institutional LTC services could also be implemented more widely.
- _ New forms of nursing home architecture in which each resident has a home of her own and is thus allowed more privacy might also contribute to improve the quality of services and the standard of life of residents.

Cons (max 5)

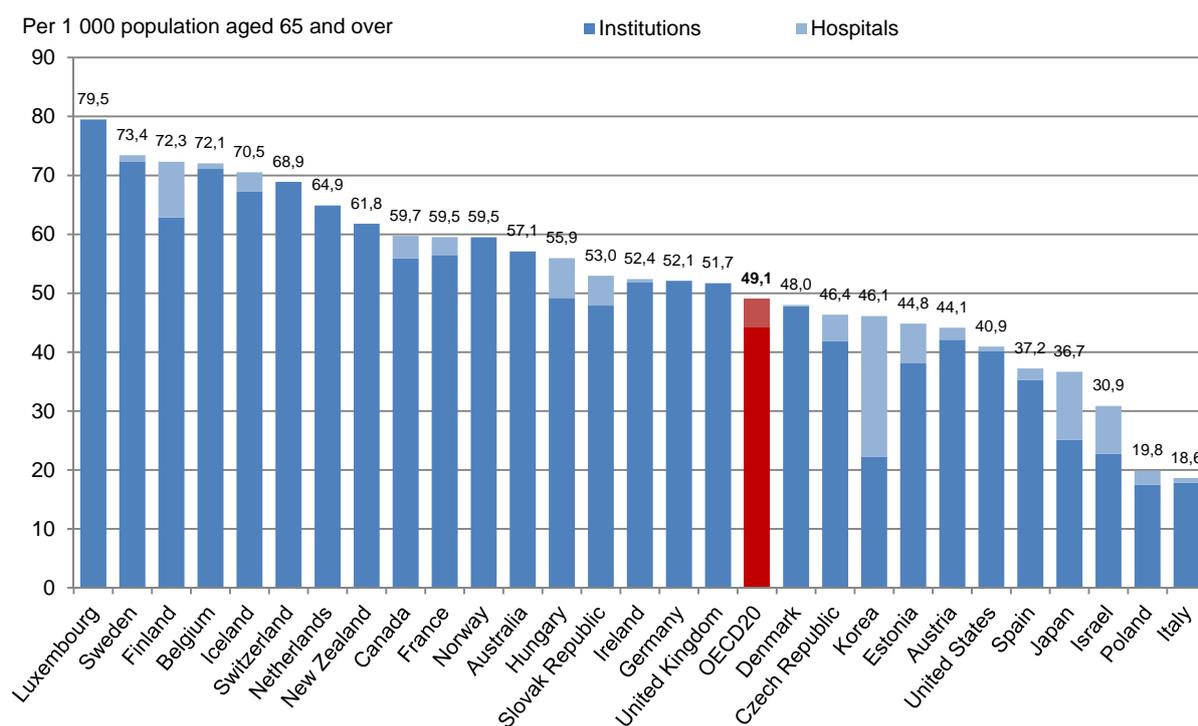
- _ The excess demand for nursing homes is likely to widen in the future due to shortages of skilled nurses, more than regulation bottlenecks.

- _Excess demand keeps prices high with little scope for quality improvement.
- _Portable cash allowances may be appropriated by the relatives of the aged.
- _ New forms of nursing home architecture in which each resident has a home of her own can be very expensive too.

Author's main message

While the demand for nursing home beds is expected to stay high in the future, the quality of institutional care is especially hard to monitor. Empowerment of the aged is essential to this end and can be, at least partly, achieved by means of providing the dependent aged with a 'portable' Long-Term Care allowance that they can flexibly spend. Family could also be exploited to help monitoring institutional LTC services at no extra costs as many of them visit regularly the residents. New forms of nursing homes in which residents have more independent living arrangements may help improving the quality of services.

Figure 2. Long-term care beds in institutions and hospitals, 2011 (or nearest year).



Source: *OECD Health Statistics 2013*, <http://dx.doi.org/10.1787/health-data-en>.

Motivation

“While the number of elderly people in need of care is projected to at least double, governments are struggling to deliver high-quality care to people facing reduced functional and cognitive capabilities”, ([1]). The vast majority of beneficiaries of Long Term care are individuals of retirement age ([2]). OECD countries spend about 1.6% of GDP on public spending on Long Term care and the latter has been growing by 9 per cent per year, on average, in the past decade, against a 4% annual growth rate for public health expenditure ([1]). Longer life expectancy and trends towards reduced cohabitation rates of the aged with their next of kins are such that the excess demand for nursing homes is likely to persist in the future in most OECD countries (also due to shortages of skilled nurses). Under excess demand, nursing home services providers have little incentive to improve the quality of the services provided. Better monitoring of the quality of institutional LTC services becomes a must.

Discussion of Pros and Cons

The demand for institutional care

The dependent elderly are confronted with at least three residential choices (ignoring the possibility of temporary hospitalization): living with family; living on their own and getting home assistance; entering a nursing home (either full-time or part of the time, for longer or shorter stays). The demand for nursing homes is greater the less capable are the aged to provide their own care, the better the job opportunities for women and the greater the household income ([3]). There is some limited evidence that the wealthier (and often also healthier due to strong positive correlation of health and wealth) may prefer to receive home assistance than entering a nursing home, which often stands out as a choice of last resort ([3]).

Aside from income and the availability of (flexible) public health subsidies (many OECD governments only cover part of the costs of institutional LTC) also culture determines the extent of family involvement in the provision of old age care. Early in the last century, it was common for elderly women to live with their adult children. This often served also the interests of adult children as older women (mothers or grand-mothers) provided unpaid household work and childcare ([4]). However, due to increasing income, and changing cultural norms, co-residence rates of elderly women with their adult children have fallen dramatically ([4]). This has gone hand in hand with increased labor force participation of women. OECD governments have also gone a long way towards enabling better financial resources for elderly women by means of guaranteeing women earlier on in the lifecycle, more equal access to jobs and pay, as well as reforming survivor pensions ([4]) and expanding old-age benefits. Although due to the recent recession there has been an increase in multigenerational households [5], the demand for independent home assistance and nursing homes is not expected to fall in the coming years.

Demographic trends and the demand for institutional care

Projections of the number of physically impaired elderly (who cannot perform activities of daily living due to physical limitations) allow one to assess the extent to which increases in lifespan entail a higher demand of long term care services. According to data from the Survey of Health Ageing and Retirement in Europe (SHARE) roughly 20 per cent of the over 65 are physically impaired ([2]). Assuming a continuing increasing trend in life expectancy, the rate of physical impairment may remain constant or fall slightly if health outcomes improve ([6]).

Longer life expectancy weights to a non-decreasing size of elderly in need of institutional long term care in the future years ([1], [2]).

In spite of the narrowing gap in life expectancy by gender at older ages, most users of nursing homes are single (often widowed) women ([4], and Table 1). This is partly due to better health outcomes for women than men and to the age difference between spouses. Although the age gap between spouses has fallen over time, the husband is still about two years older than the wife, on average, in most OECD countries and over eighty per cent of older people live in a couple. Therefore, women typically provide informal care for their husband until he dies and then later on, when independent living is not an option anymore, enter a nursing home. It follows that most users of nursing homes are older widowed women (Table 1).

Table 1 drawn from a representative sample of residents at French nursing homes in 2007 indicates that the average age of residents was 84 years and 75% of residents were women while 66% were widows. Moreover, 73% of the residents had children or grand-children. The average number of children per resident was almost two (including in the count also residents that did not have any children). About 87 per cent of the residents reported to receive visits from family and/or friends (author's calculations).

Table 1. Descriptive statistics of the residents of nursing homes, France, 2007.

	Mean	St deviation
Age	84.59	9.10
Woman	.75	.43
Widow	.66	.47
Has (grand-) children	.73	.44
Children number	1.94	1.89
Duration of stay, months	64.56	72.41
Home week before entry	.69	.46
Has tutor	.20	.40
Tutor is a family person	.06	.24
Receives some visitor	0.87	0.34
Observations number	3464	

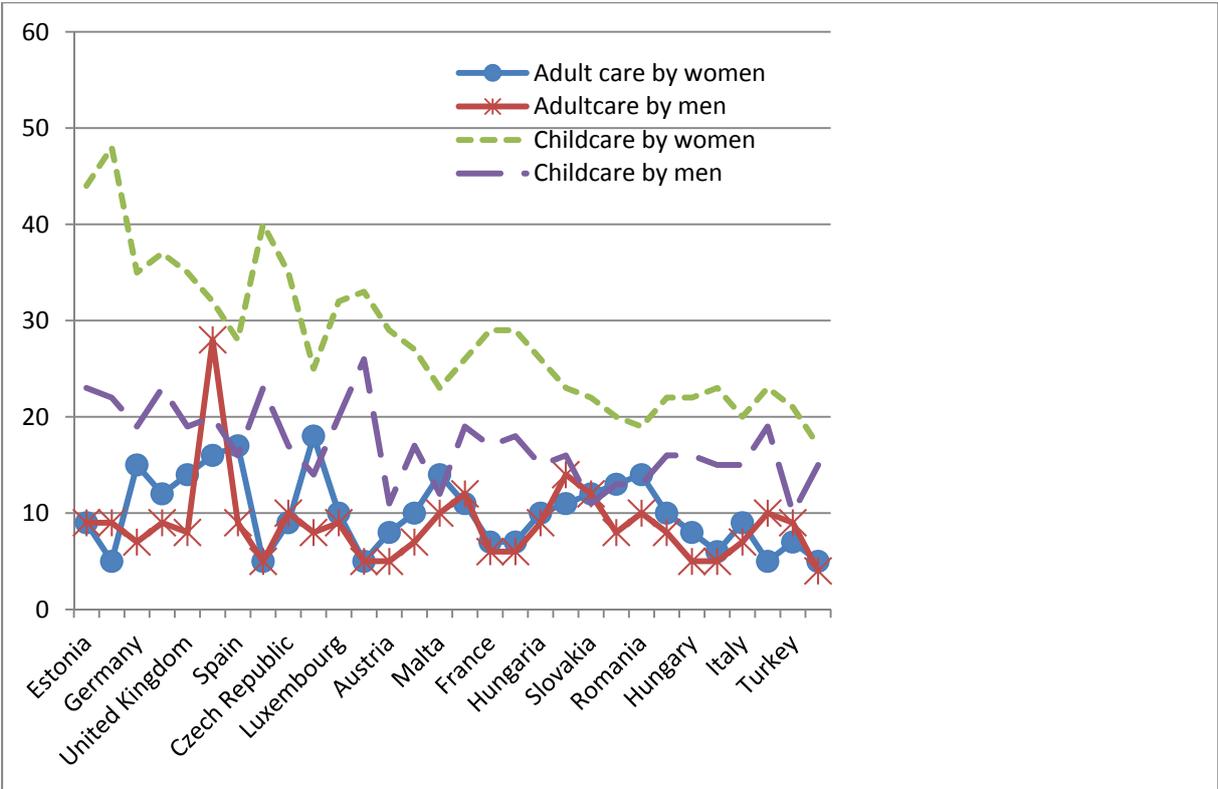
Source: Author's calculations.

Informal care and institutional care: complements or substitutes?

Generally, women provide the bulk of unpaid care (see Figure 3), although the difference between the hours of unpaid care provided by men and women narrows down when considering adult care as opposite to child care of which women are by far the main providers.

The time spent caring for parents by adult children and the costs in terms of employment and wages foregone have been estimated to be very high ([7]). While there is some substitution between informal care by family and paid assistance at home, informal care is likely to be a more limited substitute for nursing home residence, as many residents of nursing home require intensive medical care. There is evidence drawn from SHARE (a European multidisciplinary survey including more than 30, 000 individuals aged 50 and over from many different countries) that informal care complements only weakly nursing home care ([8]).

Figure 3. Average weekly hours allocated to unpaid care activities by adults aged 18 and over.



Source: OECD, Family Database and Second European Quality of Life Survey, 2007.

Regulating the supply of institutional care while reducing its costs

It has been pointed out that “the long-term convalescent health-care industry faces three well-documented problems: (1) many indigent patients cannot gain access to nursing homes; (2)

the quality of nursing home care is often suspect; and (3) the cost of this care is considerable and continues to increase at a worrisome pace” ([9] and [10]).

The supply of nursing homes includes public, private and non-profit institutions. Most OECD countries have a national licensing system of nursing homes. The main constraint to the expansion of nursing home beds though appears to be the limited supply of qualified nurses rather than excess regulation ([1]). The excess demand also puts a cap on the scope for cost reduction. The main cost faced by nursing homes is the cost of employing (qualified) nurses ([9], [10]). Therefore, to enable more supply of nursing home beds and more competition between nursing home providers, the supply of qualified nurses needs to be increased. This could be achieved at current times of high unemployment (without having to offer higher pay to nurses) by encouraging youth that opt for technical and professional careers studies to take up nursing education, also promoting entry of boys into nursing education ([11]). Career perspectives in the nursing sector should also be improved to attract more youth into the profession. Ways to valorize more the services provided by nurses to the aged should also be sought, such as for example, awarding prizes to the best performing nurses. This might also imply valorizing more the wealth of cultural heritage that the aged can transmit. In parallel, social workers could be qualified and trained to also provide care to the aged.

Monitoring the quality of institutional care

To overcome poor incentives or failure of providers to self-regulate, many governments impose on nursing home external regulatory controls, which are usually focused on controlling inputs (labor, infrastructure) by setting minimum acceptable standards and enforcing compliance ([1]). Reports of abuses of residents of nursing homes are not uncommon ([2]). While the quality of home services is much less regulated, measuring the quality of nursing home services appears challenging. While standardization of quality measures is possible thanks to the considerable advances in computerization and the development of standard clinical measure of user outcomes, this entails extra costs for providers in terms of staff skills and hours of work.

The main instruments to regulate the quality of institutional LTC are licensure, accreditation and standard settings ([2]). National accreditation bodies are often public, sometimes private. Variation in accreditation and inspection practices and frequency is huge among OECD countries. Common findings of audits and inspections are the lack of safety and suitability of premises, inadequate staff and inadequate training of staff, lack of regular re-assessment of

users' needs and autonomy level. In some countries public reporting of audits is mandatory. Some countries use standardized assessment results (RAI); administrative data including audits and inspections. For a given institution, the maximum bedding capacity and the skills of the staff are also often regulated. The monitoring of the quality of nursing homes is often decentralized to the local authorities.

The ratio of (qualified) nurses to residents is one of the most widespread indicators of institutional LTC quality and obviously this is a limited indicator of the wellbeing of residents. More precise quality measures rely on clinical conditions of patients, and typically focus on the prevalence of depression, falls and fall-related fractures, use of physical restraints, overmedication, and unplanned weight loss ([1]), and also dehydration often signal mistreatment of residents. However, the risk of enforcing clinical regulation is to induce nursing home providers to select the applicants with the best health conditions among the applicants ([12]), to improve their clinical scores (and thanks to excess demand this is not hard to do). Another disadvantage of setting quality indicators based on clinical criteria is that providers may focus on meeting those criteria, while neglecting other aspects of the services provided (such as illnesses not directly monitored or recreational activities and so forth). Moreover, the average value of a series of clinical indicators is often considered rather than each indicator separately, and this may also conceal considerable heterogeneity, as providers may do very well on some items and very bad on another one and still obtain a reasonable average score.

Because the users of nursing homes do not always have full cognitive capabilities, relying on their subjective evaluations is often not a viable option either, though it has been argued that residents' voice should be paid more attention ([13]). The quality of services provided is hard to monitor as many residents suffer from severe illnesses, which may render subjective reports unreliable while at the same time, the use of clinical reports for monitoring may induce providers to select the healthiest applicants (especially under excess demand). However, many residents have family that visits them regularly. Family and friends visitors could be exploited to provide regular evaluation of the services received by the residents.

Preliminary evidence using data drawn from a representative survey of the population of nursing home residents in France (author's calculations) indicates that a large number of residents (about 87% of the sample) receive visits from family and/or friends. Moreover, individual subjective well-being measures correlate positively with receiving visits and

having an external tutor, though it should be acknowledged that causation may run either way with those that have external contacts being in better health condition and suffering less likely from social exclusion. There is also evidence drawn from SHARE (a European multidisciplinary survey including more than 30, 000 individuals aged 50 and over from many different countries) that informal care complements weakly nursing home care ([8]). The author find that adult children provide on average five hours per month of informal care to elderly parents, with Italian and Spanish children providing about 12 hours per month and Swedish children about three hours.

Visitors could systematically be given a short one-page questionnaire with a pre-stamped envelope addressed to the local or national authority in charge of evaluating the quality of the institutional care. They could be asked to report on a number of items that have emerged in the literature as indicators of quality of the nursing home services, such as overall cleanliness, safety, restraints of movements of residents, improvement or deterioration of the health of the person visited (falls and fractures due to falls, any loss of weight, depression, dehydration, sleeping problems, any sign of under treatment or over medication). Systems of “ombudsman” and adult guardianship to monitor LTC services -that have already been implemented in some OECD countries [1] - go in a similar direction. Therefore, family links can help monitoring the quality of nursing homes, along the same lines as guardianships.

Cash benefits have also been singled out as a means to empower the aged and enable them to impact the quality of the LTC services ([2]). Older person can choose flexibly how to spend the cash allowance, either entering a nursing home and pay the fee or getting assistance at home. This may affect LTCs quality as the old person can better control the quality and switch for example from one form of care to the other in response to quality differences. Example of cash benefits, are the German Cash Allowance for Care which is received by about one fifth of Old Age dependents in Germany or the French Old-Age benefit, which is universal but varies in amount with the aged physical and financial resources. Some cash benefits have also been targeted at paying family people for providing informal care (eg the Swedish Care Provider’s salary). Portable cash old-age benefits not only serve as to “empowering” the elderly and their family but can also be used to regulate the quality of LTCS ([11]). The main drawback of portable cash benefits though is that they can easily be appropriated by family and used for different means that those they were meant to serve. Moreover, there is limited evidence that cash benefits were employed to hire illegal emigrant

as care workers to provide home assistance in Germany. New forms of 'portable' benefits that are flexible enough to allow the dependent aged to use them easily but that are not necessarily cash benefits may have to be designed.

Finally, modern nursing home sites in which residents have somewhat independent living facilities, resembling a home of their own, have also been suggested as a means to improve the life standard and well-being of the long-term residents, preserving their right to privacy and to a life of their own ([13]). Such projects have received considerable attention in the Netherlands, where the Dutch 'buurtzorg' (neighborhood care) model has been very successful at providing home care relying on nurses to work directly with the aged, their family and the local community. In particular, the Dutch 'buurtzorg' (neighborhood care) model relies on entrusting the nurses with considerable autonomy and responsibility and thereby, reducing some of the administrative time burden as well as the administrative cost of care. The same principles could perhaps be applied to new nursing home complexes in which residents have a home of their own and nurses work together with the resident and the medical staff. The Dutch 'buurtzorg' model works well for home assisted care and it could perhaps be extended to a complex nursing home setting. It may also be possible to substitute at least to a certain extent nurses with qualified care workers to counterbalance the shortage of qualified nurses and reduce the extra costs of this new type of modern nursing home.

Hindrances and limitations to suggested avenues for quality improvements

Family may be reluctant though to report honestly on the quality of LTCs if they feel that there are no other feasible alternatives to care for their dependent elderly or that LTC quality cannot be improved without increasing further its cost. Therefore, increasing the supply of nursing home beds is of utmost importance and efforts in this direction should be continued and reinforced.

Portable benefits enable the aged to screen among providers of LTC services - though under excess of demand for LTC services (see Figure 2 on number of beds available per 1000 aged 65 and over), this might have little impact on the standard of services provided. Moreover, it has been argued that fully flexible cash allowances may be either appropriated by the relatives of the aged or encourage hiring of illegal workers for home assistance, and especially so under shortages of qualified workers. On the other hand, restricting the use of the cash allowance is likely to reduce the beneficial effect of such schemes by burdening the use of the allowances with administrative regulations that may make it more complicated for the aged

and their family to use such schemes in a flexible way to select the best care option available. Therefore, new forms of 'portable' and flexible LTC benefits that are not cash should be designed. Other policies should be targeted at regulating illegal immigration and promoting the supply of qualified nurses.

Limitations and Gaps

The focus is here on institutional LTC. This study is by no means comprehensive. We do not attempt to model the determinants of the LTC choices faced by the dependent aged. We do not investigate the possible scope for substitution between LTC received at home or at a nursing home. Whether institutional care or home care or semi-residential services are chosen for, also depends on the medical conditions of the dependent aged which may however, not be an exogenous variable here, as independent living correlates often with better health outcomes [13]. Home care services are often deemed to be less expensive which is also partly due to the fact that residents of nursing home may often need more intensive assistance and costly medical care. Improving and monitoring the quality of nursing homes appears to be more pressing than measuring home care quality or informal care provided by relatives, as more severe abuses and bad treatment of residents of nursing homes are reported than for other forms of LTC [2]. Whether this is due to selection into nursing homes of the most dependent of the aged in terms of their medical needs, and challenged physical and mental conditions, it is hard to judge based on the limited evidence available to date. Most surveys available do not survey the aged or focus on one category only of dependent elderly, either nursing home residents or home residents. The evidence to date on the effectiveness of portable benefits and systems of guardianship to improve the quality of nursing home care is also scant. More evaluation studies are needed in this area.

Finally, there may be large differences in the quality of public or private versus non-profit providers of nursing home beds. Although there is evidence for the U.S. that the demand for nursing home services is quite inelastic to changes in the rules of the public health insurance system for the aged (Medicaid), it has also been found that under capacity constraints and unobserved components of quality, a 1% increase in quality would crowd out 3.2% of Medicaid patients in nursing homes ([14]). However, once admitted, there seem to be no evidence of differential treatment of users with different medical coverage (Medicaid recipients are not treated differently than private payer, according to [15]).

Table 2. Long-term care workers as share of population aged 65 and over, 2011 (or nearest year)

	Institutions		Home		Total
Sweden ¹		12,2			12,2
Norway	6,5		5,6		12,1
United States	9,6		2,3		11,9
Netherlands	6,5		4,4		10,9
Israel	0,7		9,3		10,0
Denmark	6,4	2008	2,9	2009	9,3
Switzerland	5,7		2,5		8,2
Australia	4,5		2,8		7,3
OECD15	3,6		3,2		6,8
Estonia	0,6		5,9		6,5
Japan	1,5		4		5,5
Canada	3,9	2006	1,4	2006	5,3
New Zealand	4,4	2009			4,4
Spain ¹		4,3			4,3
Germany	2,7		1,3		4,0
Ireland	1,5		1,7		3,2
Korea	0,9		2,2		3,1
Finland	3,0	2005			3,0
Austria	2,8	2006			2,8
Slovenia	2,5				2,5
Czech Republic	1,6	2009	0,8	2009	2,4
Hungary	1,4		1,0		2,4
France	1,6	2007			1,6
Slovak Republic ¹		1,6			1,6
Italy	1,1	2005			1,1
OECD15	3,6		3,2		6,8

1. In Sweden, Spain and the Slovak Republic, it is not possible to distinguish LTC workers in institutions and at home.

Source: *OECD Health Statistics 2013*, <http://dx.doi.org/10.1787/health-data-en>.

Summary and Policy Advice

Monitoring and improving the quality of institutional LTC is challenging. Nevertheless, we have discussed the key issues at stake, based on a broad but by all means non-exhaustive selection of the economic literature in this area, and we have drawn some tentative policy recommendations to improve monitoring the quality of LTCs at little extra costs.

We argue that portable old-age benefits, which some OECD countries have introduced, empower the aged and may also serve as to improve the quality of LTC services. These portable allowances should be fully flexible without though been paid in cash.

It is a fact that many old-people residents at LTC institutions receive regular visits from family and friends and this can help monitoring the services provided by LTCs. The systems of “ombudsman” and adult guardianship that some countries have implemented to monitor LTCs works in the same direction and should also be fostered.

Nursing home complexes in which residents have a home of their own may also help improving the quality of services provided, though keeping costs low may be more challenging in this set up. The Dutch ‘Burtzoorg’ (neighborhood care) model under which nurses are given more autonomy and work together with family and local community to reduce administrative costs of home care, could perhaps serve as an example of good practices and be extended to more complex settings of nursing homes in which residents have somewhat independent living.

Key References

- [1] OECD/European Commission (2013), “A Good Life in Old Age? Monitoring and Improving the Quality in Long-Term Care”, OECD Health Policy Studies, OECD publishing.
- [2] European Social Network (2008), “Services for Older People in Europe”: facts and figures about long term care services in Europe.
- [3] Chiswick, Barry R. (1976), “The demand for nursing home care: an analysis of the substitution between institutional and non-institutional care”, *Journal of Human Resources*, 11 (3), 295-316.
- [4] Costa, Dora (1999), “A House of Her Own: Old Age Assistance and the Living Arrangements of Older Non-Married Women”, *Journal of Public Economics*, 72(1): 39-59.
- [5] Hotz, Joseph V, Kathleen McGarry, Vladislav Slanchev and Emily Wiemers (2014), “Living Arrangements of Mothers and Their Adult Children over the Life Course”, Duke University, manuscript.

[6] David Cutler and David Wise (2009). *Health at Older Ages: The Causes and Consequences of Declining Disability Among the Elderly*, Chicago: University of Chicago Press.

[7] Bolin, K., B. Lindgreen, P. Lundborg (2008), "Your next of kin or your own career? Caring and working among the 50+ of Europe", *Journal of Health Economics*, 27, 718-738.

[8] Bonsang, Eric (2009), "Does informal care from children to their elderly parents substitute for formal care in Europe?", *Journal of Health Economics*, 28, 143-154.

[9] Gertler, Paul J. (1989), "Subsidies, Quality, and the Regulation of Nursing Homes," *Journal of Public Economics*, Vol. 38, 1989, pp. 33-52.

[10] Gertler, Paul J. and Donald M. Waldman (1992), "Quality-Adjusted Cost Functions and Policy Evaluation in the Nursing Home Industry," *Journal of Political Economy*, Vol. 100, No. 6, pp. 1232-1256.

[11] Bettio, Francesca and Alina Verashchagina (2010), "Long-Term Care for the Elderly. Provisions and Providers in 33 European countries", Fondazione Brodolini, Roma.

[12] Konetzka, R. Tamara, Polski D. and Werner R.M. (2013), "Shipping Out instead of Shaping Up: Rehospitalization from Nursing Homes as an Unintended Effect of Public Reporting", *Journal of Health Economics*, 32, 341-352.

[13] Kane, Rosalie (2003), "Definition, Measurement and Correlates of Quality of Life in Nursing Homes: Towards a Reasonable Practice, Research and Policy Agenda", *The Gerontologist*, 43 (II), 28-36.

Further Reading

[14] Grabowski, David C., Jonathan Gruber and Joseph J. Angelelli (2008), "Nursing Home Quality as a Common Good", *The Review of Economics and Statistics*, 90(4), 754-764.

[15] Ching, Andrew T., Fumiko Hayashi and Hui Wang (2015), "Quantifying the Impacts of Limited Supply: The case of Nursing Homes", *International Economic Review*, forthcoming.

Additional Reading

Boone, Jan and Christophe Schottmuller (2015), "Health provider networks, quality and costs", CentER Discussion Paper No. 2015-005.

Daifeng He and Konetzka, R. Tamara (2015), "Public Reporting and Demand Rationing: Evidence from the Nursing Home Industry", *Health Economics*, forthcoming.

De Nardi, Mariacristina, French, Eric, and John Bailey Jones (2009), Life Expectancy and Old Age Savings, *American Economic Review, Papers and Proceedings*, 99(2), 110-115.

Eshbaugh, Elaine (2008). Perceptions of living alone among older adult women. *Journal of Community Health Nursing*, 25, 125-137.

Hurd, Michael, Michaud Pierre-Carl, and Susan Rohwedder, (2014), “The Lifetime Risk of Nursing Home Use”, in Discoveries in the Economics of Aging, David A. Wise editor, 81-109.

Pezzin, Liliana, Pollak, Robert and Barbara Schone, 2009, Long-term care of the disabled elderly: do children increase caregiving by spouses?, *Review of Economics of the Household*, 7(3), 323-339.

Simoens, Steven, Mike Villeneuve, and Jeremy Hurst (2005), “Tackling Nurse Shortages in OECD countries”, OECD Health Working Papers.

Sojourner, Aaron J., Brigham R. Frandsen, Robert J. Town, David C. Grabowski, Michelle M. Chen (2014), “Impacts of Unionization on Quality and Productivity: Regression Discontinuity Evidence from Nursing Homes”, IZA DP No. 8240.