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Fret, Bram; Mondelaers, Britt; Donder, Liesbeth De; Switsers, Lise; Smetcoren, An-Sofie; Verté, Dominique; the D-SCOPE consortium

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**Exploring the cost of ‘ageing in place’: expenditures of community-dwelling older adults
in Belgium**

1. Bram Fret, Doctoral researcher, Department of Educational Sciences, Vrije Universiteit Brussel, Pleinlaan 2 – 1050 Brussels, Belgium; Staff collaborator Nursing Department, Wit-Gele Kruis van Vlaanderen vzw, Frontispiesstraat 8 box 1.2 – 1000 Brussels, Belgium
2. Britt Mondelaers, Master in Adult Educational Sciences, Belgium
3. Liesbeth De Donder, Professor, Department of Educational Sciences, Vrije Universiteit Brussel, Pleinlaan 2 – 1050 Brussels, Belgium
4. Lise Switsers, Doctoral researcher, Department of Educational Sciences, Vrije Universiteit Brussel, Pleinlaan 2 – 1050 Brussels, Belgium; Research Foundation Flanders (FWO), Brussels, Belgium
5. An-Sofie Smetcoren, Postdoctoral researcher, Department of Educational Sciences, Vrije Universiteit Brussel, Pleinlaan 2 – 1050 Brussels, Belgium
6. Dominique Verté, Professor, Department of Educational Sciences, Vrije Universiteit Brussel, Pleinlaan 2 – 1050 Brussels, Belgium
7. the D-SCOPE consortium, an international research consortium composed of researchers from Vrije Universiteit Brussel, Belgium (dr. An-Sofie Smetcoren, dr. Sarah Dury, prof. dr. Liesbeth De Donder, prof. dr. Nico De Witte, prof. dr. Eva Dierckx, Deborah Lambotte, Bram Fret, Daan Duppen, prof. dr. Martinus Kardol, prof. dr. Dominique Verté); College University Ghent, Belgium (Lieve Hoeyberghs, prof. dr. Nico De Witte); Universiteit Antwerpen, Belgium (Ellen De Roeck, prof. dr. Sebastiaan Engelborghs, prof. dr. Peter Paul De Deyn); Katholieke Universiteit Leuven, Belgium (Michaël Van der Elst, prof. dr. Jan De Lepeleire, prof. dr. Birgitte Schoenmakers) and Maastricht University, The Netherlands (Anne van der Vorst, prof. dr. Rixt Zijlstra, prof. dr. Gertrudis Kempen, prof. dr. Jos Schols)

Corresponding author

Bram Fret; ORCID ID: <https://orcid.org/0000-0001-8158-4164>

1. Vrije Universiteit Brussel, Department of Educational Sciences, Pleinlaan 2 – 1050 Brussels, Belgium, tel.: +32 2 629 25 31, e-mail: bram.fret@vub.be
2. Wit-Gele Kruis van Vlaanderen vzw, Staff collaborator Nursing Department, Frontispiesstraat 8 box 1.2 – 1000 Brussels, Belgium

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Abstract

This paper aims to give an overview of the different sources of income and the expenditures of community-dwelling older adults and to what extent they can make ends meet to explore the affordability of care and support at home. Despite research on the affordability of residential care, evidence on the cost of 'ageing in place' is still missing. 173 questionnaires were gathered within a non-random sample of community-dwelling older adults (60+). Both frequencies and bivariate tests (to explore whether there are certain risk groups with low incomes and high expenditures) were performed on the data. Results indicate the variety of income sources, the necessity of financial compensations to make ends meet and that especially older women and older tenants are at risk for facing financial difficulties. Also, this research indicates that 'ageing in place', especially for older adults with care needs, is not always affordable and can be a challenge within our ageing society.

Keywords

Ageing in place, income, expenditures, financial accessibility, older adults

Introduction

In recent research, growing attention is paid to the financial situation of older adults (Randel et al. 2010; Schöllgen et al. 2010; Oris et al. 2017). An updated version of the Europe 2020 indicators concerning poverty and social exclusion pointed out that 17.4% of the population aged 65 and over in EU countries is facing the risk of poverty (Eurostat 2017). Also, the income inequality among older adults is increasing: for example, in Belgium the median income for people older than 65 (€ 18021/year in 2016) is less than 80% of the median income for people younger than 65 (€ 23675/year in 2016) (Eurostat 2017; Eurostat 2018). Conversely, as people are ageing, they are generally confronted with rising costs and expenditures often facing multiple health related conditions (Lubitz et al. 2003; Lehnert et al. 2011). Although ‘ageing in place’ is preferred by older adults and it is often being posited as more cost-effective than residential care by policymakers, limited research has been conducted on the effective cost of ‘ageing in place’ for older adults and whether this is financially feasible with rising care costs (Chapell et al. 2004; Grabowski 2006; Means 2007). A lot of attention in research has been spent to solely care expenditures of older adults facing specific medical conditions (e.g. diabetes, depression, gout, etc.) (Balkrishnan et al. 2003; Katon et al. 2003; Wu et al. 2008), but neglecting other life costs such as housing, living (nourishment, clothes, etc.), leisure, etc. This paper aims to explore the expenditures of community-dwelling older adults ageing in place, and to identify whether and when older people make ends meet.

Research concludes that the old-age at risk of poverty rate in Belgium is among the highest in Europe (15.4% for people above 65 compared to 14.6% for the same age group in the 28 EU-countries in 2016) (Haitz 2015; Eurostat 2018). According to the most recent European Union Statistics on Income and Living Conditions (2016), € 1115 is the minimum monthly income in Belgium that a person, living alone, needs in order to avoid the risk of poverty (Statbel 2017). Older Belgians with limited working careers or insufficient financial resources can benefit from an arrangement in social security named the ‘Income Guarantee for Older people (IGO)’ (Berghman et al. 2016). However, data on IGO in 2017 learn that the maximum contribution for an older person living alone was € 1083.28 a month, which is beneath the above mentioned minimum income and remains insufficient to meet the minimum acceptable way of living in Belgium (Federale Pensioendienst 2018).

Although, universal access to care and support has been prioritised by the World Health Organisation (WHO), European countries show large differences in their social security systems with different types of coverage (Pacolet et al. 2010; Evans et al. 2016; Marziale 2016). As health insurance systems are very heterogeneous across countries, the proportion of out-of-pocket payments (e.g. non-refunded expenses for inpatient care, outpatient care,

prescribed drugs and day care) also vary widely (Holly et al. 2005; European Hospital and Healthcare Federation 2015). In Belgium, the average out-of-pocket spending is 18% of the total health spending which is higher compared with other western European countries such as Germany (14%) and France (7%) (OECD Health Statistics 2015). Research also indicates that the access to health and care services in Belgium is generally good, but there are important disparities in unmet care needs among income groups (mostly for financial reasons) (European Commission 2017).

In recent years, Belgium and other European countries have been confronted with a movement of ‘socialisation of care’; indicating that care has been brought into society (Degrave and Nyssens 2010; Dury 2018; Hassink et al. 2014). This goes together with a European wide movement of ‘de-institutionalisation’ in elderly care where older people are encouraged to age at home for as long as possible (Antonen and Karsio 2016; Kubalčíková and Havlíková 2016; Van Durme et al. 2015). Corresponding with the wish of most older people to age in place, several projects have been set up by Belgian governmental institutions to make this also possible for frail older adults (Wiles et al. 2012; De Almeida Mello et al. 2016; Smetcoren et al. 2018). A great deal of research has been conducted concerning the costs of residential care both for older people and for society (Johri et al. 2003; Chapell et al. 2004; Kok et al. 2015). These studies point towards the high costs of nursing homes and the difficulties older adults experience to pay for this residential care. For instance, recent research indicates that the mean price per month for a stay nursing home in Flanders was €1665 in 2017, which is far above the average Belgian pension (about €1.225/month) (Socialistische Mutualiteiten 2017; De Witte 2018; Pacolet et al. 2018).

On the other side, research about the cost of living at home for older adults with care needs is still very limited. A recent survey of Elchardus (2016) pointed out that 24% of older respondents from low income categories experience difficulties in paying for homecare. Although there are several studies on the price of homecare, to our knowledge there is at present no existing study that takes into account all costs older adults with care needs have when living at home (Addae-Dapaeh and Wong 2001; Davey 2006; Costa-Font et al. 2009). A report about ageing in place in the European Union by Dr. Elizabeth Mestheneos (2011) is clearly mentioning the economic challenges for older adults that should be looked at broader than merely care expenditures: not only the increasing costs of care and support services, but also for example costs of energy-efficiency measures for older houses and housing adaptations should be taken into account.

Responding to the aforementioned research gaps, this paper aims to explore the extent to which ageing in place is affordable for older adults with care needs. Therefore, we used the following research questions:

1. What is the income of community-dwelling older adults with care needs?
2. What are the expenditures of community-dwelling older adults with care needs?
3. To what extent can community-dwelling older adults with care needs make ends meet and which profiles are at risk of having insufficient financial resources?

This paper/study explores all incomes and expenditures of older adults with care needs living at home in order to evaluate the affordability of care and support for community-dwelling older adults.

Methods

Data collection

The purpose of our research was to get a comprehensive view on all costs and expenditures that community-dwelling older adults with care needs are having. We conducted a quantitative research in which all sources of income and expenditures for the whole household during one month were monitored. A steering committee was established which consisted of professionals from an insurance company (as a provider of the Flemish Care Insurance), a large public healthcare organisation in Antwerp, an expertise center on elderly care in Brussels and occasionally representatives from the project partners, e.g. a social developmental organisation in Schaerbeek and a local service center for older people in Etterbeek were asked to join. This committee was responsible for all strategic choices concerning the research design and discussed the process of the research on a regular base.

The questionnaire for the respondents consisted of 16 pages containing four main parts: 1) socio-demographic characteristics, 2) data on care dependency, 3) the sources of income of the household and 4) the expenses of the household.

The purpose of the questionnaire was to monitor all actual costs during the period of one month. Before the beginning of the month, trained interviewers visited the older adults, gave information about the research and asked if they were willing to participate. People that agreed to participate in the research were asked to sign an informed consent. Finally, the interviewer went through the questionnaire together with the older adult and explained which sheets and bills they had to collect during this month. After one month, the interviewer visited the older participant a second time to fill in the questionnaire based on the collected sheets and bills. Clients of the insurance company that were willing to participate received the questionnaire by post with a clear description of the procedure to fill in, and if needed an explanation by phone. In 2014, the questionnaire and the research procedure were tested with four older adults and adapted according to the feedback/evaluation resulting from these tests. The data collection took place in 2015-2016.

The purpose is to give an insight in different income sources of older adults with care needs. Sources of income were defined broader than only pension incomes; all sources of income of the household were taken into account. For example, when there were children still living at home, their sources of income were added. Also,

reimbursements from the health insurance fund for medical treatments were calculated as an income. This is because medical consultations were calculated as full expenditures in the research.

Respondents

To examine the care costs and expenditures of community-dwelling older adults, structured questionnaires were conducted with community-dwelling older adults with care needs. Older adults were defined in this research as 60 years or older (WHO 2015). Our study population were community-dwelling older adults living in Flanders and Brussels Capital Region where a non-random sample was taken. The participants were selected in three ways:

1. an insurance company recruited participants within their members receiving a compensation from the Flemish Care Insurance (The Flemish Care Insurance is a **monthly** budget of €130 for care dependent Flemish citizens facing specific conditions. Every Flemish citizen starting from the age of 26 is asked to pay a contribution (obliged in Flanders, voluntary in Brussels) of €50 to finance this insurance) (N= 25)
2. within the ‘Active Caring Community’ project, inhabitants with care needs in the project regions (Antwerp, the Brabant district in Brussels and Etterbeek) were questioned by professionals (N=54). (The ‘Active Caring Community’ project was one of the six ‘Care Innovation’ living labs that were set up by the Flemish Government between 2013 and 2016 in order to search for innovative solutions to tackle the challenges in elderly care. These challenges include a sharply rising demand for care, personnel shortages and budgetary restrictions (Smetcoren et al. 2018))
3. 3rd bachelor university students ‘Adult Educational Sciences’ gathered questionnaires of older adults **within their close network of family and friends, people from which they objectively knew they faced care needs** (N=94)

A total of 173 usable questionnaires **were** gathered.

Variables

As dependent variables, we used the different sources of income (subjective income, objective income within a household), expenditures (housing expenditures, living expenditures (nourishment, clothes, etc.), leisure expenditures, expenditures on medical material, medical care expenditures, welfare expenditures, expenditures on informal care) (see appendix 1), the financial shortage within the household and the wish to spend more on informal care and groceries.

As independent variables, we used socio-demographic characteristics in our analyses, such as gender, nationality (Belgian / other nationality) and age (60-69, 70-79, 80+). As for socio-economic characteristics, we measured: marital status (married / cohabitating, never married/ living alone, divorced, widowed), home ownership status (home owner, tenant private market, tenant social housing), number of members of the household (living alone, household of two people, household of more than two people). Concerning health related characteristics, we added three variables in our analyses: number of chronic conditions (0, 1, 2, >3), hospital admissions in the last six months (yes, no), health insurance status (normally insured, having a higher reimbursement status (=people in Belgium that are facing specific conditions (being widowed, unemployed, handicapped and having a low income) can benefit from a higher reimbursement of healthcare expenditures within the Belgian national healthcare and indemnity insurance)).

Data analyses

Data were analysed using SPSS, version 24.0, (IBM). We performed data cleaning to remove all mistakes in typing or coding. We used frequency tables to give an insight in how frequent a variable or category appeared by percentage, mean or median. Furthermore, we performed different bivariate tests in SPSS (chi square tests, [Mann Whithney tests](#), [Kruskall-Wallis tests](#), t-tests and ANOVA) to explore whether there are certain risk groups with low incomes and high expenditures which exceed their income sources (Baarda et al, 2012).

Within the cross-tables, we explored whether there are differences between groups of respondents, e.g. is there a difference between men and women concerning expenditures?

Results

Description of the study sample

About 81.5% of participants indicated they suffered from at least one chronic condition (based on a list of chronic conditions included in the questionnaire) and 32.7% of the participants had been hospitalised the last six months before the questionnaire was conducted.

Concerning socio-demographic characteristics, 48.3% of the participants were 80 years or older and 6.9% didn't have the Belgian nationality. More than 50% of the participants were divorced or widowed (17.9% were divorced and 37.6% were widowed). Almost 50% of the participants were tenants (not owning a house).

Table 1 gives an overview of the socio-demographic, socio-economic characteristics and health related characteristics.

[Table 1 here.](#)

Income sources: big diversity among older adults

The median income was € 1461.1, with a range between €130, an older adult only benefiting from the Flemish Care Insurance (this concerned an outlier, the second minimum income was €530) and a maximum of €7900, a household with high rental incomes.

About 88.8% of the participants benefited from a pension, 4% indicated that they still received an income out of a job and 16.8% (almost 1 out of 5) received sickness benefits. Almost 3 out of 10 participants received a compensation out of the Flemish Care Insurance, which means they were objectively categorised as 'frail' by a care professional (i.e. a score of 35 or more on the BEL-profile scale (which is an ADL-scale) or a score of 15 or more on the medical-social scale giving access to an 'allowance for assistance to older adults'). About 15% of the participants received reimbursements from a health insurance fund (up to €487 a month; mean €60.5 a month), which means they were having medical care costs in a short period before. Also 5.2% and 4.6% of older adults received financial contributions, respectively 'chronical illness benefits' (=benefit within the national health insurance for people facing severe chronic illness) or 'allowance of assistance to older adults' (=allowance for people older than 65 that have a low income and a certain level of dependency).

Table 2 presents an overview of the different sources of income within a household in one month.

[Table 2 here.](#)

Table 3 presents the subjective income, 31.4% of the respondents declared to have financial difficulties at the end of the month, while only 18.6% of the respondents declared to have no financial difficulties.

[Table 3 here.](#)

Expenditures: living at home with care needs is expensive

Housing appeared to be a substantial cost with a median of €450, as well as living expenditures (median €397.1). Welfare expenditures (i.e. family caregiving, household support (providing assistance with cooking, groceries, cleaning, some ADL and IADL tasks, keeping the older adult company) as well as meals on wheels, chores, cleaning aids, etc.) (median €141.7) and also expenditures on medical material (median €72.6) exceeded medical care expenses (median €69)

The participants in this study were asked to estimate their costs for informal care. Most of the informal caregivers had to make extra travel expenditures (median €40 in a month), expenditures for the washing of clothes and linen of the older adults (median €40 in a month), expenditures for professional help in the household (median €144 in a month) Some older adults had to reduce their professional activities which resulted in a loss of income (median loss of €225 in a month).

The median for all the expenditures within a household in one month was €1382.0.

Table 4 presents an overview of the expenditures within a household in one month.

[Table 4 here.](#)

Care expenditures are more than medical care expenditures

The proportion of welfare expenditures (family caregiving, cleaning and household support, etc.) was high within the care and support expenditures of older adults. Welfare expenditures (11%) were after housing expenditures (36%) and living expenditures (32%) the **largest expenses** for the older adults.

Figure 1 presents an overview of the expenditure pattern of older adults within the sample.

Figure 1 here.

Risk profiles

Looking at the households on an individual level within the sample, the largest shortage to pay for all expenses in one month was €3651.7 followed by €2986. **About** 34.4% of the respondents did not have enough income to pay for all expenditures.

We explored whether there are significant differences concerning expenditures between groups of respondents (between men and women; between Belgian respondents and respondents from other nationalities; between respondents of 60-69 years old, 70-79 years old and > 80 years old, etc.).

Women experienced more difficulties to make the ends meet than men; respectively 44.4% and 30.9% of the respondents had a negative balance at the end of the month. The older the respondent, the more financial **difficulties**, although this effect was limited. Older adults living alone or that were never married faced the biggest risk to experience financial difficulties: **Consequently**, 57.1% had a negative balance at the end of the month.

In the field of housing, especially tenants of the private market experienced financial difficulties. But also, owners or couples in a social housing didn't have a lot of monetary reserves. **About** 44.8% of the older tenants on the private market didn't have enough resources, for 27.9% of the older tenants on the social housing market this was also the case **and** 35.4% of the older home owners were in this situation.

Households with more members (>3) also seemed **to be** at risk for experiencing financial difficulties, 50.0% of older adults living in a household with more **than** two people experienced financial difficulties in comparison with 32.2% of older adults living alone.

Table 5 gives an overview of differences in expenditures by individual characteristics.

[Table 5 here.](#)

Discussion

This paper reports whether living at home with care needs is affordable for older adults. Within a sample of community-dwelling older adults with care needs we explored their household incomes, all their expenditures, to what extent they can make ends meet and which profiles are at risk of having insufficient financial resources.

In response to the first research question, the results show a large diversity in income sources among older adults with care needs. The monthly median income of older adults within our sample was €1461.1, which is beneath the monthly median income (€1557) of Belgian older adults (60 years or older) in 2016 (Eurostat 2018). It means that the study sample was a bit more financially deprived than the Belgian average. Not only the amount of income varies widely, the total income of older adults is composed out of a large range of different sources (pensions, Flemish Care Insurance and other informal care benefits, sickness benefits, reimbursements of the healthcare fund, etc.). Excluding the pensions, different sorts of health-related benefits and compensations paid by the government or the health insurance fund are the most frequent source of income: compensations from Flemish Care Insurance and other informal care benefits, sickness benefits, reimbursements of the healthcare fund. This could be explained by the higher level of vulnerability among the study participants. In comparison with the average of Flemish older adults, this study reached a relatively high percentage of older adults with a migration background (7% in the study population vs. 1.7% in Flanders), contained a high number of divorced and widowed older participants (17.9% divorced and 37.6% widowed in the study population vs. 4.1% divorced and 33.5% widowed in Flanders) and had a high percentage of older adults suffering from multiple chronic conditions (46.8% vs. 42.7% high frail older adults in Flanders) (Dury et al. 2016; Fret et al. 2017). In addition, 34.5% of the people in our sample benefit from a 'higher reimbursement status', while this is 18% for the whole Belgian population (all ages) in 2016 (Goedemé et al. 2017). Research states that the knowledge and attribution of the different financial compensations and contributions given by the government and healthcare funds remains a challenge for people with a low-income status in Belgium (Hernanz et al. 2004; Eeman and Van Regenmortel 2014). Moreover, the sixth State Reform of 2014 which transferred a lot of competences within health- and social care from the Federal State to the Regional authorities has made the already complex Belgian financing system even more unclear both for professionals and

for users (Dumont 2015; Koning Boudewijnstichting 2017). For example, concerning the 'higher reimbursement status' research indicates that in the last years 500.000 older adults meeting the criteria didn't benefit from it (Goedemé et al. 2017).

Concerning the second research question on expenditures, this study made an overview of all expenditures within a household: housing expenditures, living expenditures (e.g. nourishment, clothes), leisure expenditures, expenditures on medical material, medical care expenditures, welfare expenditures (e.g. family caregiving), and expenditures on informal care. Housing and living expenditures showed to be biggest expenditures followed by leisure expenditures, welfare expenditures, expenditures on medical material and medical care expenditures. It is generally demonstrated that residential care facilities for older adults are very expensive (on average €56.30/day in 2017) (Van den Bosch 2016, Vlaams Agentschap Zorg & Gezondheid 2018), but this study highlights that living at home with care needs also costs a lot of money. Although 50.6% of the participants were home owners, 98.8% were facing considerable housing expenditures (median €460). In an international context, many researchers came to the conclusion that a majority of older adults are 'housing-asset rich, but income poor' and home-ownership is promoted as a method to maintain welfare (Bradbury 2010; Smetcoren 2016). Nevertheless, several authors are putting questions to the poverty-reducing strategy of home-ownership pointing at different unavoidable costs (renovation, adaptation, real estate taxes) (Dewilde and Raeymaeckers 2008; Doling and Ronald 2009), definitely for older adults who often reside in older and unsuitable housing which can pose a substantial risk for their health, independence and wellbeing. (Smetcoren et al. 2016)

A second conclusion points out that welfare expenditures (e.g. domestic aid, meals on wheels, etc.) take a proportion in the expenditures of older adults, because in Belgium these are coordinated by the Regional authorities but not reimbursed by the national health insurance (in contrast with for example home nursing); they need to be paid for on an hourly basis or per prestation according to the income (Claessens et al. 2011; Van der Gucht 2016; Woonzorgdecreet 13 maart 2009). Consequently, welfare services have another status than medical care services in Belgium and are regarded financially less accessible (Cès et al. 2016). In addition, although a big part of medical care interventions in Belgium is reimbursed, the cost of medical material is often not included in this reimbursement and has to be provided by the client itself which resulted in high expenditures on medical material (median €72.6) (Royal Decree nr. 78 of 10 November 1967). Also, the informal caregivers face different expenditures considering the respondents (travel expenditures, less income because of the reduction of working

time, etc.). This is in line with recent research about the economic impact of informal caregiving that the average spending of an informal caregiver in a month is about €84.39 on direct costs related to his task (Desmedt et al. 2016).

Answering the third research question, almost one out of three participants (31.4%) declared to experience difficulties to make ends meet (to have financial difficulties to pay for all costs) at the end of the month. This is a large percentage compared to the percentage of Belgian older adults being at risk of poverty (17.4%) (Statbel 2017). Financial compensations and contributions are often a necessary part of the regular income to make the ends meet. In Flanders, some compensations (f.e. the Flemish Care Insurance), although also designed to support and validate the informal caregiver, are paid directly to the person with care needs and used as a necessary supplementary income (Bronseleer et al. 2016). Also concerning the IGO, a recent modification in the Belgian law changed the conditions to benefit from it; only people that have been living in Belgium for at least ten years (including five consecutive years) can apply for it, which can exclude some older people with a migration background (Law of 22 January 2017).

Concerning risk profiles, women, older respondents and respondents living alone are more at risk of experiencing financial difficulties. This is in line with previous research on risk of poverty among older people (Berghman et al. 2016). Considering the housing state, tenants of the private market seem to face the biggest risk of not meeting the ends. For older adults with a limited income, the high rental prices on the private housing market can form a risk for financial problems and poverty because these prices are not related to income conditions. Heylen and Winters (2009) found out that 41.3% tenants of 65 and older consider their housing cost as a problem, while this is 27.4% within the total population.

Limitations and future research

Our findings should be considered in the light of the following limitations. The sample in this research is not representative to make conclusions about the financial capacity of all older adults in Flanders and Brussels. In the study design, we have used a non-random sample with specific focus on older adults with care needs or health problems. We wanted to give an insight in their costs and expenditures and point at certain risks concerning affordability. To get a bigger picture on the financial situation of all older adults, further research needs to be conducted within a broader sample.

Furthermore, the participants were asked to collect and register their costs for one month. Yet it would be interesting to collect and register costs during a longer period to make an evaluation of the incomes and expenditures of older adults during a year. After all, not every month is the same; some months more expenditures are needed or have unforeseen costs than other months. Longitudinal research would make it possible to investigate big costs (Verpoorten 2015).

Conclusion and policy implications

Overall, we can conclude that ageing in place with care needs is expensive and **includes** some risks concerning affordability. Especially welfare expenditures seem to take a relatively big share in the budget of older adults. In this frame, it could be advised that Governments investigate the possibility of a ‘maximal invoice’ for **social care** (which already exists in hospital care). This has already been suggested by previous researchers (Eeman and Van Regenmortel 2013; Elchardus 2017; Lei et al. 2016). Considering the fact that in the frame of the Sixth State Reform of 2014, the competences on elderly care from the Federal State are transferred to the Regional Governments and that this transfer is still ongoing, it would be a good momentum for all responsible governmental entities to make agreements about automatic entitlements for all financial compensations and contributions. For the ‘higher reimbursement status’, the automatic entitlement has already partly been introduced, but not for all categories of entitled persons (Goedemé et al. 2017). The Flemish Government has already made a good start with the introduction of the ‘Flemish Social Protection’ providing a ‘care budget’ for older and dependent people, but it remains unclear which implications the future person-centered financing system in elderly care shall have on the financial situation of older adults with care needs (Conceptnota Vlaamse Sociale Bescherming 2016; Woolham et al. 2017). Some additional attention **could be paid** to older tenants on the private renting market being especially at risk of payment problems, especially after the recent elevation of the rent guarantee that has to be paid in Flanders from two to three months (Voorontwerp Vlaams Huurdecreet 2017).

Conflict(s) of interest

None

References

- Addae-Dapaah, K., & Wong, G. K. M. (2001). Housing and the elderly in Singapore—financial and quality of life implications of ageing in place. *Journal of Housing and the Built Environment*, 16(2), 153-178.
- Anttonen, A., & Karsio, O. (2016). Eldercare service redesign in Finland: deinstitutionalization of long-term care. *Journal of Social Service Research*, 42(2), 151-166.
- Balkrishnan, R., Rajagopalan, R., Camacho, F. T., Huston, S. A., Murray, F. T., & Anderson, R. T. (2003). Predictors of medication adherence and associated health care costs in an older population with type 2 diabetes mellitus: a longitudinal cohort study. *Clinical therapeutics*, 25(11), 2958-2971.
- Baarda, B., Bakker, E., Van der Hulst, M., Fischer, T., Julsing, M., & van Vianen, R. (2012). *Basisboek methoden en technieken: kwantitatief praktijkgericht onderzoek op wetenschappelijke basis*. Groningen [etc.]: Noordhoff Uitgevers.
- Belgisch Staatsblad. Wet tot wijziging van de wet van 22 maart 2001 tot instelling van een inkomensgarantie voor ouderen.
http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=nl&la=N&table_name=wet&cn=2017012706.
Accessed 8 April 2018.
- Berghman, D.M., Donvil, N., & Peeters, E.H. (2016). Sociale bijstand als indicator van armoede bij ouderen. *Belgisch Tijdschrift voor Sociale Zekerheid* 16(2), 189-215.
- Bradbury, B. (2010). Asset rich, but income poor: Australian housing wealth and retirement in an international context. http://library.bsl.org.au/jspui/bitstream/1/2180/1/Asset_rich_but_income_poor.pdf. Accessed 7 juni 2018.
- Bronselaer, J., Vandezande, V., Vanden Boer, L., & Demeyer, B. (2016). Sporen naar duurzame mantelzorg. Hoe perspectief bieden aan mantelzorgers. Brussel: Departement Welzijn, Volksgezondheid en Gezin, 1-405.
- Cès, S., Flusin, D., Schmitz, O., Lambert, A.S., Pauwen, N., & Macq, J. (2016). Mantelzorgers van thuiswonende ouderen in België: een cruciale en complexe rol. Brussel: Koning Boudewijnstichting, 1-146.

- Chappell, N. L., Dlott, B. H., Hollander, M. J., Miller, J. A., & McWilliam, C. (2004). Comparative costs of home care and residential care. *The Gerontologist*, 44(3), 389-400.
- Costa-Font, J., Elvira, D., & Mascarilla-Miró, O. (2009). 'Ageing in place'? Exploring elderly people's housing preferences in Spain. *Urban studies*, 46(2), 295-316.
- Conceptnota Vlaamse Sociale Bescherming (2016). Brussel: Vlaamse Gemeenschap, 1-26.
- Claessens, E., Vertriest, S., Vandijck, D. & Petrovic, M. (2011). Gezondheidseconomische evaluatie van mantelzorg bij (zwaar) zorgafhankelijke ouderen in de thuiszorg. Gent: Universiteit Gent.
- Davey, J. (2006). "Ageing in place": the views of older homeowners On maintenance, renovation and adaptation. *Social Policy Journal of New Zealand*, 27, 128.
- De Almeida Mello J., Declercq A., Cès S., Van Durme T., Van Audenhove C., Macq J. (2016). Exploring Home Care Interventions for Frail Older People in Belgium: A Comparative Effectiveness Study. *Journal of the American Geriatrics Society*, 64 (11), art.nr. 10.1111/jgs.14410, 2251-2256.
- De Decker, P. and Dewilde, C. (2010). Home-ownership and asset-based welfare: the case of Belgium. *Journal of Housing and the Built Environment*, 25(2), 243-262.
- Degavre, F., & Nyssens, M. (2010). Care as a social construct. The case of home care workers in contemporary Belgium.
- Desmedt, M., Bergs, J., Vertriest, S., Hellings, J., Petrovic, M., & Vandijck, D. (2016). De economische waarde van mantelzorg en de financiële impact ervan op de ziekteverzekering, Hasselt: University Press.
- Dewilde, C., & Raeymaeckers, P. (2008). The trade-off between home-ownership and pensions: individual and institutional determinants of old-age poverty. *Ageing & Society*, 28(6), 805-830
- De Witte, K. (2018). *De Grote pensioenroof. En het plan om ons pensioen terug te winnen*. Berchem: EPO, 1-296.
- Doling, J., & Ronald, R. (2010). Home ownership and asset-based welfare. *Journal of housing and the built environment*, 25(2), 165-173.

Dumont, D. (2015). De sociale zekerheid en de zesde staatshervorming: voorgeschiedenis en algemene beschouwingen. *Belgisch Tijdschrift voor Sociale Zekerheid* 15(2), 175-228.

Dury, S., De Roeck, E., Duppen, D., Fret, B., Hoeyberghs, L., Lambotte, D., Van der Elst, M., van der Vorst, A., Schols, J., Kempen, G., Zijlstra, G.A.R., De Lepeleire, J., Schoenmakers, B., Kardol, T., De Witte, N., Verté, D., De Donder, L., De Deyn, P.P., Engelborghs, S., Smetcoren, A., & Dierckx, E. (2016). Identifying frailty risk profiles home of dwelling older people: focus on sociodemographic and socio-economic characteristics. *Aging & Mental Health*, 7: 1–9.

Dury, S. (2018). Dynamics in motivations and reasons to quit in a Care Bank: a qualitative study in Belgium. *European Journal of Ageing*, 1-10.

Eeman, L., & Van Regenmortel, T. (2013). Automatische rechtentoekenning en proactief handelen. Een verkenning op lokaal niveau met bijzondere aandacht voor mensen met een laag inkomen. *VLAS-Studies* 4, 1-45.

Elchardus, M. (2017). Thuiszorg. Onderzoek in opdracht van de socialistische mutualiteit. VUB: TOR, 1-34.

European Commission (2017). State of Health in the EU Belgium. Country Health Profile 2017. https://ec.europa.eu/health/sites/health/files/state/docs/chp_be_english.pdf. Accessed 6 April 2018.

European Hospital and Healthcare Federation (2015). Out-of-pocket payments in healthcare systems in the European Union. http://www.hope.be/wp-content/uploads/2015/11/99_2015_HOPE-REPORT_Out-of-pocket-payments-in-healthcare-systems-in-the-European-Union.pdf. Accessed 7 June 2018.

Eurostat (2017). Income distribution statistics. http://ec.europa.eu/eurostat/statistics-explained/index.php/Income_distribution_statistics#Income_inequalities. Accessed 26 February 2018.

Eurostat (2018). At-risk-of-poverty rate of older people by detailed age group - EU-SILC survey. <http://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tespn050&language=en>. Accessed 7 June 2018.

Eurostat (2018). Mean and median income by age and sex - EU-SILC survey.

<http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>. Accessed 28 May 2018.

Evans, D., Hsu, J. and Boerma, T. (2013). Universal health coverage and universal access. *Bulletin of the World Health Organisation*, 91(8), 546-546A.

Federale Pensioendienst (2018). De IGO.

<http://www.onprvp.fgov.be/NL/futur/IGO/amounts/paginas/default.aspx>. Accessed 8 April 2018.

Fret, B., Lambotte, D., Van Regenmortel, S., Dury, S., De Witte, N., Dierckx, E., De Donder, L., & Verté, D. (2017). Socio-demographic, socio-economic and health need differences between types of care use in community-dwelling older adults. *International Journal of Care and Caring*, 1(3): 351–66

Goedemé, T., Van Gestel, R., Janssens, J., Lefevere, E., Lemkens, R., & De Spiegeleer, T. (2017). De proactieve flux: een succesvolle manier om de opname van de verhoogde tegemoetkoming te verbeteren. *CM-Informatie*, (270), 19-25.

Grabowski, D. C. (2006). The cost-effectiveness of noninstitutional long-term care services: Review and synthesis of the most recent evidence. *Medical care research and review*, 63(1), 3-28.

Haitz, N. (2015). Old-age Poverty in OECD Countries and the Issue of Gender Pension Gaps. *DICE Report*, 13(2), 73.

Hassink, J., Hulsink, W., & Grin, J. (2014). Farming with care: the evolution of care farming in the Netherlands. *NJAS-Wageningen Journal of Life Sciences*, 68, 1-11.

Heylen, K., & Winters, S. (2009). Betaalbaarheid van wonen in Vlaanderen: De budgetbenadering. Steunpunt Ruimte en Wonen: Heverlee.

Hernanz, V., Malherbet, F., & Pellizzari, M. (2004). *Take-up of welfare benefits in OECD countries: A review of the evidence*. Social, Employment and Migration Working Papers 17. Paris: OECD.

Holly A, Lamiraud K, Chevrou-Severac H, & Yalcin T. (2005). Out-of-pocket payments for health care expenditures. In: Börsch-Supan A, Brugiavini A, Jürges H *et al.* eds. *Health, Ageing and Retirement in Europe. First Results from the Survey of Health, Ageing and Retirement in Europe*. Mannheim: Mannheim Research Institute for the Economics of Aging (MEA), 126–132.

Johri, M., Beland, F., & Bergman, H. (2003). International experiments in integrated care for the elderly: a synthesis of the evidence. *International journal of geriatric psychiatry*, 18(3), 222-235.

Katon, W. J., Lin, E., Russo, J., & Unützer, J. (2003). Increased medical costs of a population-based sample of depressed elderly patients. *Archives of general psychiatry*, 60(9), 897-903.

Koning Boudewijnstichting (2017). Kwetsbare ouderen thuis ondersteunen. Lokale krachten bundelen.

<https://www.kbs-frb.be/nl/Activities/Publications/2017/20170305pp>. Accessed 8 April 2018.

Kok, L., Berden, C., & Sadiraj, K. (2015). Costs and benefits of home care for the elderly versus residential care: a comparison using propensity scores. *The European journal of health economics*, 16(2), 119-131.

Kubalčíková, K., & Havlíková, J. (2016). Current developments in social care services for older adults in the Czech Republic: Trends towards deinstitutionalization and marketization. *Journal of Social Service Research*, 42(2), 180-198.

Lehnert, T., Heider, D., Leicht, H., Heinrich, S., Corrieri, S., Lippa, M., Riedel-Heller, S., & König, H. H. (2011). Health care utilization and costs of elderly persons with multiple chronic conditions. *Medical Care Research and Review*, 68(4), 387-420.

Lei, P., Feng, Z., & Wu, Z. (2016). The availability and affordability of long-term care for disabled older people in China: the issues related to inequalities in social security benefits. *Archives of gerontology and geriatrics*, 67, 21-27.

Lubitz, J., Cai, L., Kramarow, E., & Lentzner, H. (2003). Health, life expectancy, and health care spending among the elderly. *New England Journal of Medicine*, 349(11), 1048-1055.

Marziale, M. (2016). Universal Access to Health and Universal Health Coverage: Nursing contributions. *Revista Latino-Americana de Enfermagem*, 24(0), e2667.

Means, R. (2007). Safe as houses? Ageing in place and vulnerable older people in the UK. *Social Policy & Administration*, 41(1), 65-85.

Mestheneos, E. (2011). Ageing in place in the European Union. *Global Ageing*, 7(2), 17-24.

OECD (2015). Country Note: How does health spending in Belgium compare?

<https://www.oecd.org/belgium/Country-Note-BELGIUM-OECD-Health-Statistics-2015.pdf>. Accessed 8 April 2018.

Oris, M., Gabriel, R., Ritschard, G., & Kliegel, M. (2017). Long Lives and Old Age Poverty: Social Stratification and Life-Course Institutionalization in Switzerland. *Research in Human Development*, 14(1), 68-87.

Pacolet, J. , Bouten, R. , Lanoye, H. and Versieck, K. (2000). *Social Protection for Dependency in Old Age. A Study of the Fifteen EU Member States and Norway*. Aldershot: Ashgate

Pacolet, J., Luyten, J., Op de Beeck, L., De Wispelaere, F., De Coninck, A., & Kuppens, S. (2018). Noodzaak en modaliteiten van een duurzaam systeem van prijscontrole voor de residentiële ouderenvoorzieningen in Vlaanderen. HIVA en LIGB: Leuven.

Randel, J., German, T., Ewing, D. (2000). *The Ageing and Development Report*. London: Routledge.

Royal Decree nr. 78 of 10 November 1967 considering the execution of care professions, Federal Government: Brussels.

Schöllgen, I., Huxhold, O., & Tesch-Römer, C. (2010). Socioeconomic status and health in the second half of life: findings from the German Ageing Survey. *European Journal of Ageing*, 7(1), 17-28.

Smetcoren, A. . S., De Donder, L., Van Regenmortel, S., Dury, S., De Witte, N., Kardol, M. J. M., & Verte, D. (2015). Woonsituatie van ouderen in Vlaanderen: detecteren van kwetsbare groepen. In P. De Decker, B. Meeus, I. Pannecoucke, E. Schillebeeckx, J. Verstraete, & E.

Smetcoren, A. . S., Dury, S., De Donder, L., De Witte, N., Van Regenmortel, S., Kardol, M. J. M., & Verte, D. (2014). Denken over later? Attitudes van ouderen ten opzichte van verschillende woonvormen in Vlaanderen. *Ruimte & Maatschappij*, 6(12), 14-38.

Smetcoren, A. (2016). *I'm not leaving!?! Critical perspectives on 'ageing in place'*. (Published doctoral dissertation Vrije Universiteit Brussel). Brussels: University Press.

Smetcoren, A., De Donder, L., Duppen, D., De Witte, N., Vanmechelen, O. and Verté, D. (2018). Towards an 'active caring community' in Brussels. In: T. Buffel, ed. *Age-friendly cities and communities: A global perspective*, 1st ed. Bristol: Policy Press at the University of Bristol, 97-118.

Socialistische Mutualiteiten (2017). Rusthuisbarometer.

https://www.bondmoyson.be/SiteCollectionDocuments/Pers%20en%20studiedienst/300/Rusthuisbarometer_december2017.pdf. Accessed 8 April 2018.

Statbel (2017). Armoede-indicatoren in België in 2016 (EU-SILC).

<https://statbel.fgov.be/nl/themas/huishoudens/armoede-en-levensomstandigheden/armoederisico#news>. Accessed 6 April 2018.

Van den Bosch, K. (2016). Measuring social protection for older people with long-term care needs in Belgium. A report on the completion of an OECD data collection questionnaire.

https://www.plan.be/admin/uploaded/201609011418490.REP_LTCOECD062016_11305.pdf. Accessed 1 Juni 2018.

Van der Gucht, A. (2016). Wat betekent goede zorg in Vlaanderen anno 2016?. *Geron*, 18(4), 12-16.

Van Durme, T., Schmitz, O., Cès, S., Anthierens, S., Maggi, P., Delye, S., Mello De Almeida, J., Declercq, A., Macq, J., Remmen, R., & Aujoulat, I. (2015). A comprehensive grid to evaluate case management's expected effectiveness for community-dwelling frail older people: results from a multiple, embedded case study. *BMC geriatrics*, 15(1), 67.

Verpoorten, R. (2015). *The packaging puzzle: An investigation into the Income and Care Packages of the Belgian Elderly Population*. (Published doctoral dissertation Katholieke Universiteit Leuven). Leuven: KULeuven.

Vlaams Agentschap Zorg & Gezondheid (2018). Hoeveel bedraagt de gemiddelde dagprijs in uw woonzorgcentrum? Meting 2017. <https://www.zorg-en-gezondheid.be/dagprijzen>. Accessed 7 June 2018.

Voorontwerp van decreet houdende bepalingen betreffende de huur van voor bewoning bestemde goederen of delen ervan 14 juli 2017. Vlaamse Gemeenschap: Brussel.

WHO (2015). *World report on ageing and health*. Geneva: WHO press.

Wiles, J. L., Leibing, A., Guberman, N., Reeve, J., & Allen, R. E. (2012) The meaning of "aging in place" to older people. *The gerontologist*, 52(3), 357-366.

Woolham, J., Daly, G., Sparks, T., Ritters, K., & Steils, N. (2017). Do direct payments improve outcomes for older people who receive social care? Differences in outcome between people aged 75+ who have a managed personal budget or a direct payment. *Ageing & Society*, 37(5), 961-984.

Woonzorgdecreet 13 maart 2009, Besluit van de Vlaamse Regering tot vaststelling van de regels voor het verlenen van de voorafgaande vergunning voor sommige woonzorgvoorzieningen. Vlaamse Gemeenschap: Brussel.

Wu, E. Q., Patel, P. A., Yu, A. P., Mody, R. R., Cahill, K. E., Tang, J., & Krishnan, E. (2008). Disease-related and all-cause health care costs of elderly patients with gout. *Journal of Managed Care Pharmacy*, 14(2), 164-175.

Appendix 1: questionnaire on expenditures

1. What were the housing expenditures within your household during the last month?

	Amount (fill in please)
1. Rent or mortgage payment	€
2. Stay in a residential care facility (e.g. nursing home, home for disabled people, etc.)	€
3. Utilities (e.g. water, electricity, heating, etc.)	€
4. Common costs in an apartment building	€

2. What were the living expenditures within your household during the last month?

	Amount (fill in please)
1. Shopping bills (e.g. Aldi, Carrefour, local grocery store, Lidl, etc.)	€
2. Telephone– Mobile phone	€
3. Television	€
4. Internet	€
5. Newspapers – journals	€
6. Garbage (e.g. trash bags, recycling center)	€
7. Own transport (e.g. fuel maintenance, garage, ...)	€
8. Public transport	€
9. Taxi	€
10. Adapted or social transport	€
11. Hairdresser	€

12. Buying or restoring clothes	€
13. Washing salon	€
14. Paying off debts	€
15. Alimony	€

3. What were the leisure expenditures within your household during the last month?

	Frequency in a month (fill in please)	Amount (fill in please)
1. Restaurants and bars		€
2. Meals in the local service center		€
3. Travelling and excursions		€
4. Activities local service center, sport activities		€
5. Watching sport or cultural events		€
6. Presents		€

4. What were the expenditures on medical material within your household during the last month?

	Frequency in a month (fill in please)	Amount (fill in please)
1. Medication		€
2. Bandages, disinfection material, ointments, droplets, etc.		€
3. Injection needles		€
4. Incontinence material		€
5. Sondage and stoma material		€

6. Mats		€
7. Dietetic nutrition on prescription		€
8. Other : (fill in)		€

5. What were the expenditures on professional care within your household during the last month?

	Frequency in a month (fill in please)	Amount (fill in please)
1. General Practitioner	..... visits	€
2. Specialist doctor (e.g. eye doctor, cardiologist)	..... visits	€
3. Home nursing	..... visits	€
4. Family caregiving	..... hours	€
5. Cleaning help	..... hours	€
6. Service vouchers	..... hours	€
7. Grocery service (=specific service to help with groceries)	..... times	€
8. Chores service	..... hours	€
9. Meals on wheels	..... meals	€
10. Physiotherapist	..... times	€
11. Osteopath, acupuncturist	..... times	€
12. Guarding help	..... hours	€
13. Day care / short care	..... days	€
14. Night care	..... nights	€

15. Pedicure or podiatrist	..... times	€
16. Dietist	..... times	€
17. Occupational therapist	..... times	€
18. Speech therapist	..... times	€
19. Psychologist	..... times	€
20. Personal assistant	..... hours	€
21. Personal alarm or other home automation systems		€

6. What were the expenditures on informal care within your household during the last month?

E.g.. Your grandson goes shopping with you and you give him a tip of €2

	How many hours a <u>week</u> do you receive help from.... (fill in please)	Amount (fill in please)
1. Partner		€
2. Children		€
3. Grandchildren		€
4. Other family members		€
5. Friends and acquaintances		€
6. Neighbours		€

7. Volunteers		€
8. Other: (fill in)		€

7. Which other big costs your household faced last year?

	Amount (fill in please)
1. Medical aids (f.e. wheelchair, walking frame, hearing aids, etc.)	€
2. Bike	€
3. Car – moped – motor cycle	€
4. Subscription public transport	€
5. Washing machine – drying machine	€
6. Computer – laptop - tablet	€
7. Mobile phone	€
8. Hospital admission	€
9. Insurance (e.g. fire insurance, building insurance, hospitalization insurance, family insurance, etc.)	€
10. Renovation	€
11. Home adaptations	€
12. Travelling	€
13. Membership fees	€

14. Subscriptions journals	€
15. Study expenses	€
16. Other: (fill in)	€