REMV
REAL ESTATE MANAGEMENT AND VALUATION

HOUSING COST BURDEN IN ELDERLY HOUSEHOLDS - WHEN DOES THE PROBLEM START?

Anna Matel[1*]

[1] *Department of Economic and Social Development, University of Bialystok, ul. Warszawska 63, 15-062 Białystok, Poland, e-mail: a.matel@uwb.edu.pl, ORCID: 0000-0002-4239-914X*

* *Corresponding author*

ARTICLE INFO

Keywords:
housing cost, elderly, cost burden, single household

JEL Classification:
D14, J14, R31

ABSTRACT

The paper – based on individual-level EU-SILC data – examines the extent of housing cost overburden among older adults (65+) in Poland and identifies the key risk factors associated with this phenomenon in this age group. The findings indicate a clear disparity between the housing cost burden of older people and that of the general population, with living in a single-person household emerging as the primary risk factor. In most cases, the onset of housing cost overburden coincides with the death of a spouse. The risk is higher among residents of larger cities as well as those living in detached or terraced houses. Women are also more likely to experience difficulties with housing costs. Given the anticipated deterioration in the financial situation of older adults (declining replacement rates and the growing prevalence of single-person households), there is an urgent need to develop a long-term housing policy strategy that explicitly addresses the needs of older people - needs that have so far remained largely marginalized.

Citation: Matel, A. (2026). Housing cost burden in elderly households - When does the problem start? *Real Estate Management and Valuation*, *34*(2), 114-125. https://doi.org/10.2478/remav-2026-0018

1. Introduction

In recent years, several economic trends in Poland have signaled a growing challenge of housing cost burdens among older adults. First, the expected replacement rate in the economy has been declining. The ratio of the average gross pension from the non-agricultural social insurance system to the average national wage fell from 62.2% in 2010 to 53.7% in 2022 (*Emerytury i renty*, 2024, p. 78), and according to *Social Insurance Institution (ZUS)* projections, this downward trend is expected to continue. The decrease in income is not offset by a corresponding reduction in living costs, particularly in the area of housing. On the contrary, the share of single-person households among older adults has increased (from 31.9% in 2010 to 39.4% in 2022), thereby amplifying the housing cost burden (Bojanowska, 2023). An additional challenge arises from the ageing of the housing stock: maintenance costs - including renovation funds and heating expenses - tend to increase with the age of dwellings and are typically higher than in new constructions. At the same time, Polish seniors exhibit a strong preference for ageing in place; they are generally reluctant to relocate or downsize to housing better aligned with their current needs. This contrasts with the United States, where housing cost burden constitutes one of the main drivers of downsizing (see: Weijing & Durst, 2023). Moreover, Poland faces the phenomenon of the feminization of old age, meaning that women predominate among older adults - a result of one of the largest gender gaps in life expectancy in Europe (Eurostat, 2025).

In recent years, the issue has gained increasing significance due to inflationary pressures and rising energy costs. Given the high share of current expenditures in disposable income, older adults are particularly vulnerable to the consequences of these economic processes (Tian et al., 2024; Alcantara & Vogel, 2023; Uścińska, 2023). In 2022, the ratio of average monthly net expenditures per capita to the average monthly disposable income in pensioner households reached 69.9%. Between 2018 and 2022, monthly spending on housing and energy per capita in pensioner households increased from 21.7% to 23.3%. In comparison, the increase in all households was considerably smaller, rising only from 18.5% to 19.1% (Emerytury i renty, 2024, p. 21). Pensioner households are therefore disproportionately affected by the energy crisis and rising prices of basic goods, which may exacerbate difficulties in managing housing costs alongside other essential consumption needs, such as medication expenses (see Jenkinset al., 2020, for the USA).

According to Eurostat (2025), the share of older adults experiencing housing cost overburden is slightly higher than in the general population. However, this raises the question of whether there are specific subgroups of older adults who are particularly vulnerable to housing cost overburden. When does the problem typically begin in senior households? Is it primarily at the moment of retirement, or is the key factor living alone - most often as a result of the death of a spouse? It can be expected that the prevalence of housing cost difficulties in single-person senior households is considerably higher than among older adults overall. This, in turn, leads to the question of how household income interacts with living alone. The present study also aims to identify the risk factors for housing cost overburden among older adults, including whether the risk is higher in urban or rural areas, and whether older women in Poland are more vulnerable to housing cost overburden than older men.

2. Literature review

The term "housing costs" refers to the expenditures that households incur in relation to residing in a given dwelling. Housing costs include rent for tenant households or the equivalent mortgage and interest payments for homeowners, as well as additional expenses such as heating, electricity, water, and waste disposal (Lozano Alcántara & Vogel, 2023; Methodological Guidelines and Description of EU-SILC, 2022). Traditionally, the housing cost overburden of a household is measured as the ratio of housing expenditures to total disposable income (see Eurostat, 2025; Acolin & Reina, 2022), although the literature also proposes alternative approaches, such as relating housing costs to so-called residual income (Stone et al., 2021; Airgood-Obrycki et al., 2023). When expenditures exceed a certain threshold, a household is considered to experience housing cost overburden. This issue has been widely discussed in the literature (see e.g., Dustmann et al., 2018; Travares et al., 2024; Zajacova et al., 2023; Shamsuddin & Campbell, 2022). Some studies have focused on specific social groups: Colburn et al. (2025) analyzed differences between homeowners and tenants in the United States, while Hess et al. (2022) examined the situation of ethnic minorities (similarly Allen, 2022; Witte, 2024). Other research has concentrated on older adults (Jenkins et al., 2020 for the US; Park & Seo, 2022 for South Korea; Lozano Alcántara & Vogel, 2023 for Germany).

The primary indicator used to measure household housing cost burden is the housing cost overburden rate, developed by Eurostat, which is defined as the percentage of the population living in households where total housing costs (net of housing allowances) exceed 40% of disposable income (net of housing allowances). However, this is not the only approach. Park and Seo (2022) define a household as not overburdened when housing costs account for less than 30% of disposable income. They define a moderate housing cost burden as ranging between 30% and 50%, and a severe burden as exceeding 50%. Similarly, Jenkins et al. (2020) define housing cost burden as spending more than 30% of household income on housing.

Some studies examining housing cost difficulties also consider other dimensions of so-called housing cost stress, such as household liquidity, measured by the ability to cover unforeseen expenses, the presence of arrears in rent or utility payments, or the subjective perception of housing cost overburden (e.g., Waldron & Redmond, 2017 for Ireland; Olszewski & Matel, 2022 for Poland).

The level of housing cost overburden in European Union countries can be assessed using Eurostat data from the EU-SILC survey, according to the definition provided by Eurostat. In Poland, 5.6% of households were considered overburdened by housing costs in 2022. This rate was slightly higher among households of older adults (65+), reaching 7.2%. The higher housing cost overburden among older adults is largely driven by the decline in income following retirement.

Similar differences can be observed in several other European Union countries. The share of households experiencing housing cost overburden is higher among adults aged 65 and over than in the general population in Bulgaria (difference of 9.6 percentage points), Belgium (4.7 pp.), Denmark (3.4 pp.), Germany (3.3 pp.), and Sweden (4.5 pp.). In a significant number of EU countries, however, the levels are broadly similar. There are also countries, such as Spain, Luxembourg, and Portugal, where housing cost overburden affects older adults to a lesser extent. This is primarily associated with the increasing share of homeowners with age (similarly, Park & Seo, 2022, for South Korea).

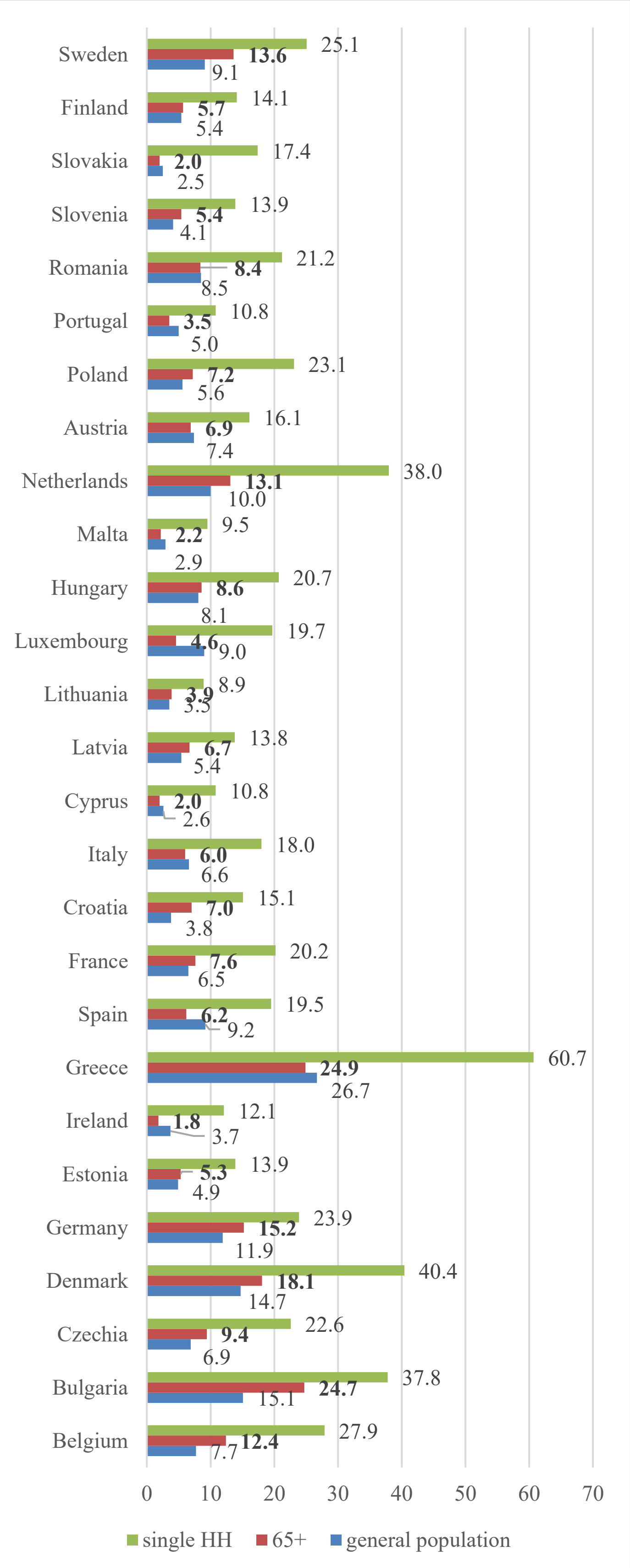

Fig. 1. Housing cost overburden rate in European Union Countries.
Source: own study.

The differences observed in Poland between the share of households overburdened by housing costs in the general population and among older adults are not dramatic (1.6 percentage points). In the general population, tenure status is a stronger predictor of housing cost overburden (see Olszewski & Matel, 2022). The overburden rate is significantly higher among renters than among homeowners. These differences diminish in older age groups due to the predominance of homeowners in this cohort - the share of homeowners among adults aged 65 and over is the highest and shows an increasing trend (see Matel, 2021). The ownership structure among older adults reflects not only wealth accumulation over the life course and strong homeownership aspirations observed in Polish society, but also historical transformations in housing tenure in Poland, including privatization processes (e.g., Marcinkiewicz & Chybalski, 2022; Foryś, 2017).

In terms of housing cost overburden, single-person households stand out both in Poland and in other European countries. In Poland, in 2022, nearly one in four of these households was overburdened by housing costs (23.1%). This pattern is characteristic of almost all European Union countries. It is particularly pronounced in Greece, where over 60% of single-person households experience housing cost overburden. The housing cost overburden rate among single-person households is between two times higher (Luxembourg, Spain, Germany) and up to seven times higher (Slovakia) than in the general population. In Poland, this difference is approximately fourfold.

Analysis of data from the Central Statistical Office of Poland (Główny Urząd Statystyczny, GUS) report *Emerytury i renty* shows that the share of single-person households among pensioner households has been steadily increasing. In 2010, it amounted to 31.9%, rising to 39.4% in 2022 (Statistical Yearbook, 2022, p. 307). The situation of this social group is further aggravated by the fact that the ratio of the average gross pension from the non-agricultural social insurance system (Social Insurance Institution, ZUS) to the average national wage in Poland has been steadily declining: from 62.2% in 2010 to 53.7% in 2022 (Emerytury i renty, 2023, p. 78). This suggests that the situation of single-person pensioner households warrants particular monitoring.

This conclusion is supported by other studies on the financial situation of older adults in Poland. In 2022, 7.2% of pensioners reported being unable to meet their needs adequately due to financial constraints. Only 16.4% assessed their material situation as good, the majority (53.9%) as average, and 7.9% as poor or rather poor, compared with 5.9% in the general population (Emerytury i renty, 2023). Additionally, the literature highlights that financial difficulties among pensioners may be underestimated due to the suppression of certain needs, particularly recreational ones. As noted in the CBOS report Sytuacja społeczno-ekonomiczna seniorów, "focusing on the most basic, current household needs is one of the possible strategies for managing its budget" (Błędowski, 2021). The issue of needs deprivation among older adults is also emphasized by Trafiałek (2016).

The issue of housing cost overburden among older adults has been addressed by Górska (2022), who demonstrated that housing expenses in pensioner and retiree households represent a substantial burden on their budgets. In analyzing the structure of these costs, she noted not only that their value has been increasing over time, but also that they have become more diverse due to the ageing of the housing stock. Older adults often reside in dwellings requiring renovation, which raises maintenance expenses (Iwański, Rataj & Cieśla, 2019). The growth in expenditures is also linked to the gradual deterioration of material resources, rising unit costs of utilities, and the absence of thermal modernization.

On the other hand, older adults' dwellings are often characterized by relatively larger floor space, which is associated with household size reduction over the life cycle (e.g., children leaving home, the death of a spouse). Jednaszewski (2024) highlights the particularly difficult financial situation of older women. This is partly due to lower pension benefits and partly to the fact that Poland has one of the largest gender gaps in life expectancy in Europe. As a result, women are more likely than men to live in single-person households (see also: Jednaszewski, 2024; Iwański, et al., 2019).

3. Data and methods

To analyze housing cost overburden among older adults in Poland, nationally representative household panel survey data based on annual interviews with large samples of individuals were used. The study is individual-level. The data were drawn from the EU-SILC, with the analysis focusing on the year 2022. The sample was restricted to individuals aged 65 and above, hereafter referred to as older adults or seniors. The aim was to illustrate the situation of elderly people in Poland. The study was not limited to seniorial households (households consisting only of people aged 65+). Older people living in all types of households were included in the study.

According to Eurostat housing costs „refer to the monthly expenses associated with the right to live in a dwelling. This includes the cost of utilities such as water, electricity, gas, and heating. Only the housing costs that are paid are taken into account, regardless of who covers them. This includes expenses such as structural insurance, mandatory services and charges (e.g., sewage and refuse removal), regular maintenance and repairs, taxes, and the cost of utilities (water, electricity, gas, and heating). For homeowners, the housing cost calculation includes mortgage interest payments net of any tax relief, and gross of housing benefits (i.e., housing benefits should not be subtracted from the total housing cost). For tenants, the calculation includes rental payments gross of housing benefits (i.e., housing benefits should not be subtracted from the total housing cost)" (Eurostat, 2025).

The study employs two key indicators to illustrate the burden of housing costs on household budgets:

- average housing burden rate (HB) - measures the share (in %) of disposable household income (net of housing allowances) that is allocated to total housing costs (also net of housing allowances); it can take values ranging from 0 to 100%,
- housing overburden rate (HOB) –percentage of the population living in households where total housing costs (net of housing allowances) account for more than 40% of disposable income (net of housing allowances),
- outcome variable in the logistic regression model.

Additionally, housing cost stress indicators among general population and elderly Poles were compared, specifying persons living in single households. The following variables were used in this part of the analysis:

% of households with arrears in utility and housing payments, % unable to cover an unexpected expense, % unable to heat their home adequate to the needs, % severely materially deprived.

To explore housing cost burden of elderly households, descriptive statistics were used. Then a logit model were presented to examine predictors of the housing cost overburden. Formally, model can be expressed as (Agresti, 2010):

$$\pi_i = \frac{\exp(\alpha+\beta_1 X_{1i}+\beta_2 X_{2i}+ \ldots + +\beta_p X_{pi})}{1+\exp\,(\alpha+\beta_1 X_{1i}+\beta_2 X_{2i}+ \ldots + +\beta_p X_{pi}} \quad (1)$$

where π_i is the probability of housing cost overburden for the individual i and X_i $(X_{1i}, X_{2i}, X_{3i} \ldots)$ is the vector of individual level covariates.

eISSN: 2300-5289 | Received 2025-10-22 | Revised 2026-02-27 | Accepted 2026-04-07

Models included coefficients, standard errors, and average marginal effects (AMEs). AMEs indicate the average change in the probability of the dependent variable with respect to a one-unit change in an independent variable, while all other variables are held constant. Consequently, AMEs - unlike odds ratios - are easy to interpret, as they express effect sizes on a probability scale. This makes them directly comparable across groups and between models (Howell-Moroney, 2024). Next, predictive margins were calculated for selected variables. They show the average predicted probability of an outcome variable for different levels of the explanatory variable.

The primary explanatory variable in the model was living in a single-person household. The reference category was defined as living in a household with two or more members, given the relatively small differences in housing cost overburden levels across two-, three-, four-, and five-person households. The study also incorporated a set of control variables which, according to the literature, may influence the level of household housing cost overburden. The selection of variables was constrained by the availability of data collected within the EU-SILC, which is a typical limitation of analyses based on household panel surveys.

The variables included were: gender, health status, nationality, education level, income, building type of the dwelling, tenure status, and degree of urbanization. Correlation levels among variables were examined, and multicollinearity was assessed using the Variance Inflation Factor (VIF). This led to the exclusion of the age variable from the analysis. For the variables retained, the VIF values were below the conventional threshold of 10, with the mean VIF equal to 1.28, indicating no presence of multicollinearity in the model.

Table 1

Description of variables

Symbol of indicator	Description of indicator
Female	1-women 0-men
Household size	1 if a person lives in a single household 0 – if a person lives in other household (2 or more person in a household)
Being in bad health	1 – if the respondent assesses their health status as poor or very poor 0 – other
Nationality	1 – if a person was born in Poland 0 - foreign-born
education	1 - if the person has any kind of tertiary education 0 - other
income	total disposable income of the household per one member of the household (thou € per year)
Dwelling type	1 – if a person lives in a house (detached house , semi-detached or a terraced house) 0 – if a person lives in an apartment or a flat in a multifamily building
Tenure	1 – if a person is a homeowner 0 – if a person is a tenant
Urbanization level	1 – cities (densely-populated areas where at least 50% of the population lives in an urban centre.) 2 - towns and suburbs (intermediate density areas where at least 50% of the population live in urban clusters, but which are not 'cities'.) 3 - rural areas (thinly populated areas where more than 50% of the population live in rural grid cells.)

Source: own elaboration: Methodological guidelines and description of EU-SILC target variables, European Commission, Eurostat 2022.

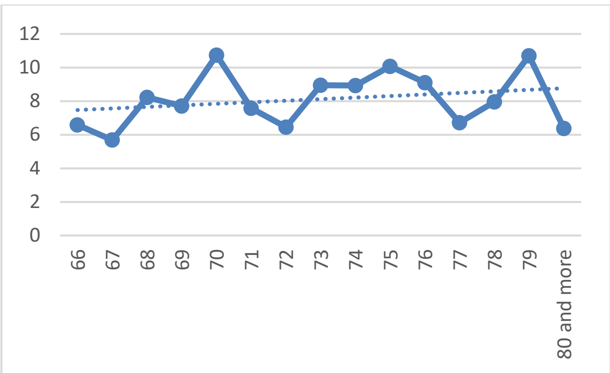

Fig. 2. Housing cost overburden rate by age. Source: own calculations basing on micorodata EU-SILC Poland, 2022. *Source*: own calculations basing on micorodata EU-SILC Poland, 2022.

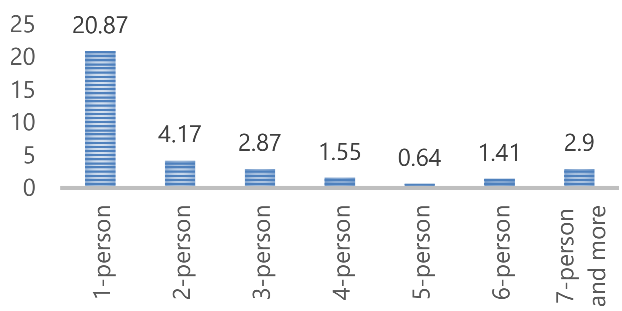

Fig. 3. Housing cost overburden rate among elderly (>65) by household size. *Source*: own calculations basing on micorodata EU-SILC Poland, 2022.

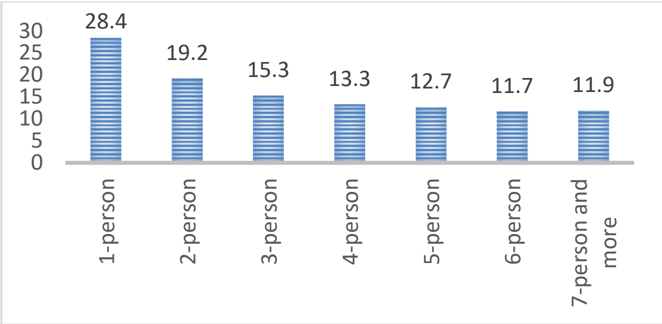

Fig. 4. Average housing burden rate among elderly (>65) by household size. *Source*: own calculations basing on micorodata EU-SILC Poland, 2022.

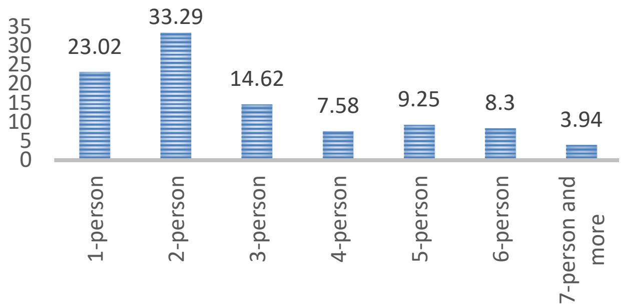

Fig. 5. Elderly by number of household members. *Source*: own calculations basing on micorodata EU-SILC Poland, 2022.

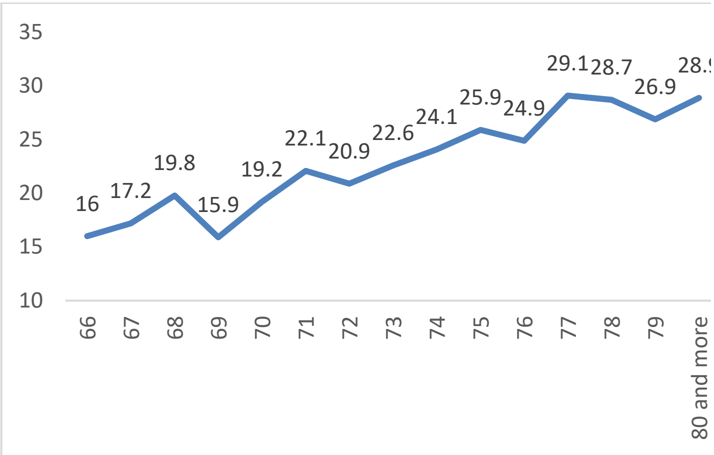

Fig. 6. Percentage of elderly individuals (65+) living in single-person households by age. *Source*: own calculations basing on micorodata EU-SILC Poland, 2022.

4. Research results

According to the results obtained, 8.65% of older people were classified as living in households overburdened by housing costs. The study indicates that while the relationship between the housing cost overburden rate and age is not strong (Fig. 2), it is strongly associated with the number of people in the household (Fig. 3). The housing overburden rate fluctuates across different age groups, showing only a slight upward trend with numerous deviations from the main pattern (Fig. 2).

The pattern of the relationship between housing cost overburden and the number of household members is different in households with an elderly resident. According to Fig. 3 The housing cost overburden rate is just under 21% in single-person households, around 4% in two-person households, and even lower in larger households. This means that one in five single-person households with an elderly resident is overburdened by housing costs. There are also clear differences in the average housing cost burden. On average, a single-person household with an elderly resident allocates 28.4% of its disposable income to housing costs, whereas this share amounts to 19.2% in two-person households (Fig. 4). Housing cost burden decreases with household size; however, clear differences emerge between single- and two-person households. In Poland, one in four individuals aged 65 and over (23.02%) lives alone, while approximately one in three resides in a two-person household (33.29%). Just under 15% of elderly individuals live in three-person households (Fig. 5).

The share of individuals living in single-person households increases with age (Fig. 6). Among those aged 66, it amounts to only 16%, whereas among individuals aged 80 and over it reaches 28.9%. This is a natural phenomenon, as living alone is often the result of the death of a spouse. The proportion of widowed individuals in single-person households among the elderly was 67.27%, compared to only 12.18% in other elderly households.

A high level of housing cost burden translates into other indicators associated with the broader notion of housing cost stress (Table 2).

Table 2

Measures of financial liquidity in elderly households

Housing cost stress indicator	General population	Elderly		
		general	Living in single household	Other
% of households with arrears in utility and housing payments	4.87	3.78	4.75	3.49
% unable to cover an unexpected expense	25.87	32.57	50.45	27.21
% unable to heat their home adequate to the needs	4.85	6.2	9.4	5.24
% severely materially deprived	2.12	2.96	5.7	2.14

Source: own calculations basing on micorodata EU-SILC Poland, 2022.

4.75% of elderly individuals living alone and 3.49% of those living with others reported arrears in bill payments. A particularly pronounced difference emerged in the financial liquidity of households. Among single elderly households, more than half declared that they would not be able to cover an unexpected expense of 1,700 PLN (about €400). In contrast, among elderly individuals residing in larger households, this share was nearly half as low (27.21%). Similarly, single elderly households reported almost twice the rate of individuals unable to adequately heat their dwelling (9.4% compared to 5.24% in other households). Differences are also visible in the indicator of severe housing deprivation: 5.7% of elderly persons in single-person households experienced this problem, while the corresponding share among those not living alone was only 2.14%.

To investigate how living alone increases the risk of housing cost overburden, a logistic regression model was constructed. The analysis produced satisfactory parameters of the econometric model. With a sample size of 10,900 units, the pseudo R^2 was 0.3178, which can be considered satisfactory for logistic regression models. In addition, the AUC coefficient reached 0.8895, indicating a strong predictive power of the model. The percentage of correctly classified cases amounted to 91.46%. The Hosmer–Lemeshow goodness-of-fit test for the logistic model was not statistically significant, which indicates that observed and predicted values are sufficiently close. Inference from the model was based on average marginal effects (AMEs).

Table 3

Logit models predicting housing cost overburden among elderly people in Poland in 2022

	Odds ratio	SE	p	AME
Female	1.185*	.107	.061	.011*
Living in single household	1.645***	.187	.000	.032***
Being in bad health	0.734***	.065	.000	-.020***
Nationality	0,850	.221	.533	-.010
Tertiary education	1.619	.191	.600	.031
Income	0,581***	.013	.000	-.034***
Dwelling type	1.831***	.171	.000	.038***
Tenure	0.950	.095	.607	-.003
Urbanisation:				
Cities (ref.)				
Towns and suburbs	.871	.082	.141	-.010
Rural areas	0.426***	.049	.000	-.051***
Constant	5.108***	1.599	.000	
N		10 908		
pseudo-R^2		.3178		
Area under ROC Curve		.8895		

Source: own calculations basing on micorodata EU-SILC Poland, 2022.

Based on the presented model, the factors determining the probability of housing cost overburden included gender, living in a single-person household, health status, income level, type of building, and urbanization level. Living in a single-person household increased the probability of housing cost overburden by 3.2% compared to individuals residing in two- or multi-person households. Women were more likely than men to be overburdened by housing costs. Each additional €1,000 of annual disposable income reduced this probability by 3.4%. Individuals living in houses had a 3.8% higher likelihood of housing cost overburden, most likely due to higher maintenance costs associated with larger floor area or

eISSN: 2300-5289

the age of the housing stock. Interestingly, tenure status did not show a significant effect in the analyzed group. This can be explained by the fact that elderly people are a relatively homogenous group in terms of housing ownership, with homeowners strongly prevailing due to historical circumstances.

Another noteworthy finding is that being in poor health reduced the risk of housing cost overburden. This relationship is counterintuitive, given that illness is usually associated with additional costs, especially among the elderly. However, it may be explained by the fact that people in poor health are less likely to live alone and often require care. Finally, differences were observed with respect to settlement size. Elderly people living in rural areas had a 5.1% lower probability of housing cost overburden than those living in urban areas. No significant differences were found, however, between large and small cities. The very construction of the modelled indicator implies the key importance of income level for the probability of housing cost overburden. However, the effect of income is evident only up to a certain threshold. Figures 7–8 present the predicted probabilities (predictive margins) of housing cost overburden for single-person and multi-person households (Fig. 7), as well as for individuals living in cities, towns and suburbs, and rural areas (Fig. 8), depending on income level. Fig. 7. Predictive margins of household size in logit model.

As can be observed, differences are evident up to an annual income level of €10,000. Above this threshold, the differences begin to diminish. From approximately €15,000 per year, they disappear entirely, and the probability of housing cost overburden approaches zero. The largest differences in the probability of housing cost overburden are observed among individuals living in rural areas and cities within income groups ranging from €0 to €8,000 per year. Similarly, differences between elderly individuals living alone and those living with others vanish above the €10,000–€12,000 annual income range. This indicates that the higher probability of housing cost overburden among single-person households does not apply to those with annual incomes exceeding €10,000. The greatest disparities are observed in the €2,000–€6,000 income groups.

5. Discussion

Eurostat statistics show that elderly people in Poland are slightly more exposed to the problem of housing cost overburden than the general population. The conducted study demonstrates that, for this group of households, the problem of bearing housing costs arises not so much at the point of retirement itself, but rather when remaining alone, most often as a result of the death of a spouse. This relation is associated with a higher risk of housing cost overburden among women. The average life expectancy of men in Poland is significantly lower than that of women. As a result, women are more likely to be single-person households of older people.

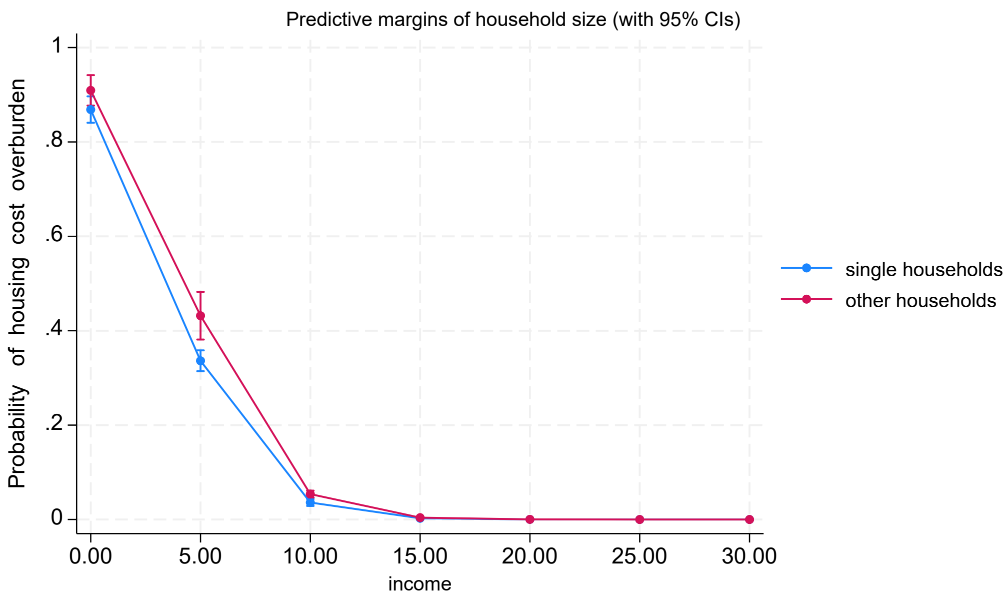

Fig. 8. Predictive margins of household size in logit model. *Source*: own study.

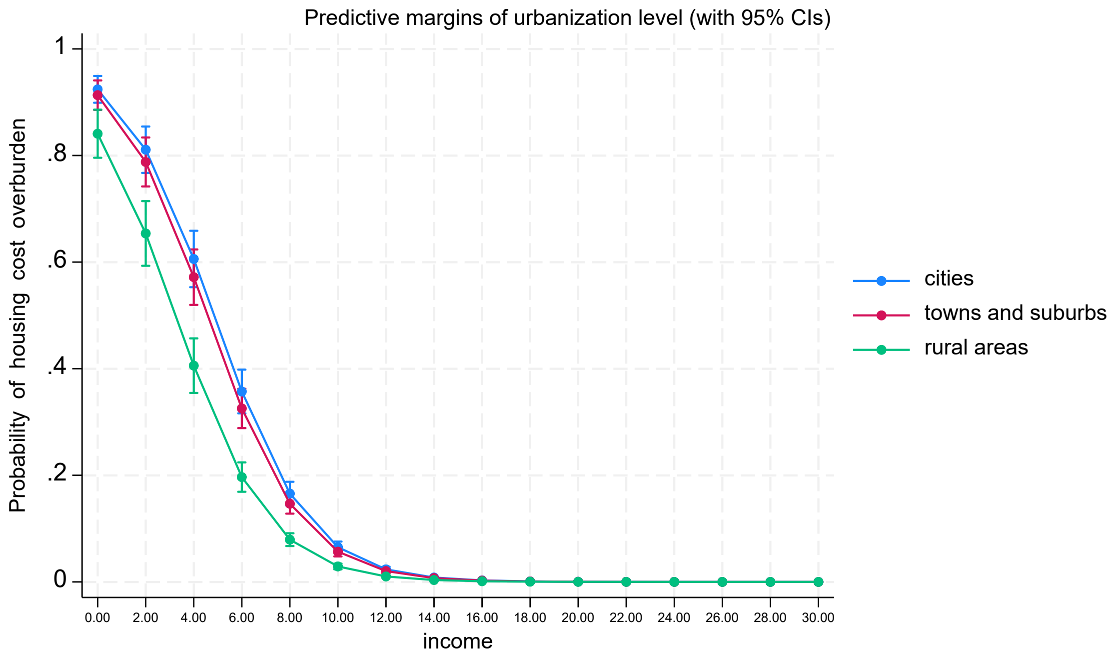

Fig. 9. Predictive margins of urbanization level by income in logit model. *Source*: own study.

Living in a single household translates directly into other manifestations of housing cost stress. Particularly striking disparities are observed in relation to financial liquidity. Single elderly households have greater problems with the ability to heat their dwelling adequately to their needs and are also more frequently affected by housing deprivation. Interestingly, no significant differences were found in the ability to keep up with regular bill payments. As A. Jancz (2025) indicates, seniors often employ various compensatory strategies in order to maintain their housing, including "seeking financial support from family, drawing on personal savings, buying cheaper food products, and even economizing on the purchase of medicines."

An obviously protective factor against housing cost overburden is a sufficiently high level of income (similar: Jenkins, Morales & Robert, 2020). The conducted study demonstrated that once the threshold of €12,000 disposable income is exceeded, the examined households - regardless of whether they were single- or two-person households - were no longer exposed to the problem of housing cost overburden. Thus, the risk group consists of single elderly households with low and medium incomes. Both elderly couple households and elderly individuals living in multi-person households experience housing cost difficulties to a much lesser extent (similarly to the situation observed in Germany et al., 2023). Every fifth elderly person living alone allocates at least 40% of their disposable income to housing expenses, while in the case of those living with another person, this share amounts to only 4.17%.

Such significant differences are reinforced by the reluctance of elderly people to relocate in later life, as indicated, among others, by the studies of Bojanowska (2021), Jancz (2025), and Groeger (2024). In Poland, an institutional support system for older people is also underdeveloped. This results both from a lack of interest on the part of seniors, the absence of adequate market and public offers, as well as financial constraints (Jancz, 2016). Consequently, elderly people remain in their homes, either under the care of family members or, in the absence of such support, on their own (Jednaszewski, 2024).

Elderly people in Poland constitute a relatively homogeneous group in terms of tenure status. The vast majority of them (see: Matel, 2021) are homeowners. This results from historical factors (including privatization and property transformation processes), strong aspirations toward ownership (Marcinkiewicz & Chybalski, 2022; Foryś, 2017), reluctance to relocate (Bojanowska, 2021; Jancz, 2025; Groeger, 2024), as well as the underdeveloped rental market, which makes renting perceived as a temporary form of meeting housing needs. As a result, tenure status is not observed to be a significant risk factor for housing cost overburden (in contrast to Germany: Alcantara et al., 2025; Alcantara & Vogel, 2023; or the U.S.: Jenkins et al., 2020). Similarly, studies on the general population of Poles have shown that tenure status played a crucial

eISSN: 2300-5289

role in shaping housing stress (Olszewski & Matel, 2022). Nevertheless, we currently observe that renting is becoming an increasingly popular form of meeting housing needs among young people, which may potentially contribute to financial instability in later life (Matel, 2024). What is more, in other European countries, there is a growing trend toward mobility among older people. For example, according to Abramson and Andersson (2012), in Sweden, older people today are more willing to change their place of residence then in previous generations. Although Poles currently show little willingness to relocate, it is worth monitoring changes in their preferences. Moving away from the concept of "aging in place" would create a number of opportunities for public intervention. However, these should be consistent not only with economic considerations, but also with the preferences of older people.

In the study conducted among Polish seniors, no nationality-related disparities were observed, which are noticeable, for example, in the United States. M. J. Morales and S. A. Robert (2020) indicated that non-Hispanic white elderly renters were less likely to experience moderate or severe housing cost overburden than other ethnic groups. In Poland, this factor was not significant. In the current study, a higher risk of housing cost overburden was observed in cities than in rural areas. Similarly, Alcantara and Vogel (2023) point out that urbanization is one of the factors leading to housing cost overburden in Germany.

The particularly high housing cost burden among single-person elderly households in Poland may entail significant consequences. Previous research has demonstrated a relationship between housing cost burden and both the physical and mental health of the elderly. Park and Seo (2022) identified an association with symptoms of depression, feelings of anxiety and fear, uncertainty about the future, as well as a decline in social trust, whereas Morales and Robert (2020) pointed to a link with deteriorating health among low- and moderate-income elderly tenants in the United States.

6. Conclusions

Adequate material conditions, including the ability to bear housing costs, are crucial both for shaping the quality of life, health, and the capacity for independent functioning within the community, as well as for the mental well-being of the elderly. The conducted study demonstrated that, while in Poland the elderly struggle more with the burden of housing costs than the general population, the real problem begins when they become single. One in five single elderly households allocates more than 40% of its disposable income to housing expenses. This situation may deteriorate further due to the fact that precisely these households are more heavily affected by the consequences of inflation and the energy crisis. With age, their opportunities for additional income decrease, while demographic forecasts point to a deepening of the problem in the future.

Nevertheless, the housing needs of the elderly remain marginalized in Polish housing policy, which should be treated as a challenge for the future. The set of instruments supporting young people in accessing their first home (such as Rodzina na Swoim, Mieszkanie dla Młodych, Bezpieczny Kredyt 2%, or Mieszkanie bez wkładu własnego) should be complemented with tools dedicated to older adults, especially those living alone and with low or moderate incomes. Strategies of "ageing in place," aligned with current preferences of Polish seniors, cannot overlook the issue of housing cost overburden. To prevent the deepening of deprivation of needs within this social group, it is worth promoting solutions focused on adapting housing to the needs of the elderly, including in terms of dwelling size standards. This should also involve developing mechanisms that support the introduction of a greater number of small apartments tailored to the needs of older adults onto the market. Similar challenges are currently faced by many economies (see: Stone, 2020 for the U.S.; Alcantara & Vogel, 2023 for Germany). The tools that can be introduced to housing policy in Poland include: monitoring the preferences of older people in terms of aging in place, supporting developers' initiatives focused on building smaller apartments (including the identification of legal barriers in this area), without architectural barriers, and facilitating the process of relocation to apartments adapted to the needs of older people. Above all, according to the Author's opinion, this process should be carried out with full respect for the preferences of older people, and policy instruments should focus on facilitating relocation rather than hindering "aging in place".

Presented study has some limitations. First of all, when conducting research in presented area, a choice must be made between a household-level and an individual-level study. The second approach was chosen in this paper. This means that it includes all older people from the EU-SILC survey, rather than limiting itself to households consisting exclusively of seniors. On the other hand, the sample contained multi-person households, including multi-generational ones. Furthermore, the disparities in the structure of the variable modelled in the logistic regression was observed. Another limitation is taking into account only objective data. The study, in accordance with Eurostat methodology, is based on an analysis of the relationship between housing costs and household income, and does not take into account the subjective assessment of housing costs, i.e., whether, in the opinion of the elderly person, housing costs are actually burdensome. This variable was not available in the 2022 EU-SILC survey.

Funding source

Financially supported by the Minister of Science under the "Regional Initiative of Excellence" (RID) program.

Ministry of Science and Higher Education
Republic of Poland

Regionalna
Inicjatywa
Doskonałości

References

Abramsson, M., & Andersson, E. K. (2012). Residential mobility patterns of elderly - Leaving the house for an apartment. *Housing Studies, 27*(5), 582–604. https://doi.org/10.1080/02673037.2012.697553

Acolin, A., & Reina, V. (2022). Housing cost burden and life satisfaction. *Journal of Housing and the Built Environment, 37*(4), 1789–1815. https://doi.org/10.1007/s10901-021-09921-1 PMID:36776144

Agresti, A. (2010). *Analysis of ordinal categorical data.* John Wiley & Sons. https://doi.org/10.1002/9780470594001

Airgood-Obrycki, W., Hermann, A., & Wedeen, S. (2023). The rent eats first: Rental housing unaffordability in the United States. *Housing Policy Debate, 33*(6), 1272–1292. https://doi.org/10.1080/10511482.2021.2020866

Allen, R. (2022). The relationship between legal status and housing cost burden for immigrants in the United States. *Housing Policy Debate, 32*(3), 433–455. https://doi.org/10.1080/10511482.2020.1848898

Błędowski, P. (2021). Sytuacja materialna. In P. Błędowski, T. Grodzicki, M. Mossakowska, & T. Zdrojewski (Eds.), *PolSenior-2. Badanie poszczególnych obszarów stanu zdrowia osób starszych, w tym jakości życia związanej ze zdrowiem (PolSenior-2. Study of specific areas of health among older people, including health-related quality of life)* (pp. 851–864). Gdański Uniwersytet Medyczny.

Bojanowska, E. (2021). Environment and living place for elderly people. *Polityka Społeczna, 572,* 10–16. https://doi.org/10.5604/01.3001.0015.5996

Bojanowska, E. (2023). Sytuacja ekonomiczna osób starszych – stabilizacja czy niepewność? (The economic situation of older people – stability or uncertainty?). In E. Bojanowska & R. Czekalski (Eds.), *Pandemia a seniorzy. Wyzwania – działania – rozwiązania (The pandemic and seniors. Challenges – actions – solutions)* (pp. 73–91). Uniwersytet Kardynała Stefana Wyszyńskiego w Warszawie.

Cesarski, M. (2021). Przeciążenie kosztami mieszkaniowymi gospodarstw domowych seniorów w Polsce i liczebniejszych państwach UE (2007–2019) (Senior households housing costs overburden in Poland and other EU countries (2007–2019). *Journal of the Humanities and Social Sciences, 21*(4), 49–64. https://doi.org/10.15584/johass.2021.4.4

Colburn, G., Hess, C., Allen, R., & Crowder, K. (2025). The dynamics of housing cost burden among renters in the United States. *Journal of Urban Affairs, 47*(7), 2403–2422. https://doi.org/10.1080/07352166.2023.2288587 PMID:40786934 https://doi.org/10.1080/07352166.2024.2314445

Dustmann, C., Fitzenberger, B., & Zimmermann, M. (2018). *Housing expenditures and income inequality.* Centre for Research and Analysis of Migration, University College London.

European Commission, Eurostat (2022). *Methodological guidelines and description of EU-SILC target variables*.

Eurostat, https://data.europa.eu/euodp/pl/data/publisher/estat, accessed 2 April 2024

Foryś, I. (2017). Housing cooperatives in Poland after the economic transformation. *Studia i Prace WNEiZ US, 50*(1), 31–41. https://doi.org/10.18276/sip.2017.50/1-03

Górska, A. (2019). Koszty utrzymania mieszkań przez emerytów i rencistów na tle innych gospodarstw domowych w latach 1993-2019 (Housing costs for pensioners compared to other households in 1993–2019). In P. Bartkowiak (Ed.), *Tendencje rozwoju współczesnego rynku nieruchomości mieszkaniowych (Trends in the development of the contemporary residential real estate market)* (pp. 82–95). Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu.

Groeger, L. (2024). Senior housing policy in Poland: Determinants and desiderata. *European Spatial Research and Policy, 31*(2), 187–212. https://doi.org/10.18778/1231-1952.31.2.07

Hess, C., Colburn, G., Crowder, K., & Allen, R. (2022). Racial disparity in exposure to housing cost burden in the United States: 1980-2017. *Housing Studies, 37*(10), 1821–1841. https://doi.org/10.1080/02673037.2020.1807473 PMID:36353679

Howell-Moroney, M. (2024). Inconvenient truths about logistic regression and the remedy of marginal effects. *Public Administration Review, 84*(6), 1218–1236. https://doi.org/10.1111/puar.13786

Iwański, R., Rataj, Z., & Cieśla, A. (2019). Housing needs of older people in Poland as exemplified by the Warsaw, Poznań and Szczecin urban areas. *Real Estate Management and Valuation, 27*(2), 126–137. https://doi.org/10.2478/remav-2019-0020

Jancz, A. (2016). Housing needs of the seniors and their opinions about the senior. *Studia i Prace WNEiZ, 45*(1), 305–316. https://doi.org/10.18276/sip.2016.45/1-24

Jancz, A. (2025). *Potrzeby mieszkaniowe seniorów w polsce diagnoza i kierunki działań (Housing needs of seniors in Poland: diagnosis and directions for action).* Centre of Sociological Research.

Jednaszewski, P. (2024). The situation of senior citizens in the UK and Poland. *Polityka Społeczna, 607*(2 tematyczny), 14–18. https://doi.org/10.5604/01.3001.0054.8608

Jenkins Morales, M., & Robert, S. A. (2020). The effects of housing cost burden and housing tenure on moves to a nursing home among low-and moderate-income older adults. *The Gerontologist, 60*(8), 1485–1494. https://doi.org/10.1093/geront/gnaa052 PMID:32542373

Lozano Alcántara, A., & Vogel, C. (2023). Rising housing costs and income poverty among the elderly in Germany. *Housing Studies,*

eISSN: 2300-5289

38(7), 1220–1238. https://doi.org/10.1080/02673037.2021.1935759
Lozano Alcántara, A., Gordo, L. R., Engstler, H., & Vogel, C. (2025). The retirement impact on housing cost burden: Are homeowners better off than tenants after retirement? *Ageing and Society, 45*(1), 1–30. https://doi.org/10.1017/S0144686X23000119
Marcinkiewicz, E., & Chybalski, F. (2022). Mass homeownership policy and economic well-being of the elderly: Empirical evidence from the Polish household survey. *The International Journal of Sociology and Social Policy, 42*(11-12), 1129–1144. https://doi.org/10.1108/IJSSP-09-2021-0232
Matel, A. (2021). Tenure status in life cycle cohorts in Poland. *Real Estate Management and Valuation, 29*(3), 01-12. https://doi.org/10.2478/remav-2021-0017.
Olszewski, K., & Matel, A. (2022). Housing cost stress of mortgagers and tenants in Poland. *Real Estate Management and Valuation, 30*(2), 61–72. https://doi.org/10.2478/remav-2022-0014
Park, G. R., & Seo, B. K. (2022). Housing cost burden and material hardship among older adults: How do they influence psychological health? *International Journal of Geriatric Psychiatry, 37*(8), gps.5790. Advance online publication. https://doi.org/10.1002/gps.5790 PMID:35861287
Shamsuddin, Sh., & Campbell, C. (2022). Housing cost burden, material hardship, and well-being. *Housing Policy Debate, 32*(3), 413–432. https://doi.org/10.1080/10511482.2021.1882532
Statistics Poland (2023). *Statistical Yearbook, 2022, Rocznik Statystyczny RP, 2022*, Warszawa.
Statistics Poland. (2024). *Emerytury i renty w 2023 r. (Pensions and disability benefits in 2023),* Warszawa.
Stone, M. E., Burke, T., & Ralston, L. (2011). *The residual income approach to housing affordability: The theory and the practice.* Australian Housing and Urban Research Institute.
Stone, R. I. (2020). The housing challenges of low-income older adults and the role of federal policy. *Journal of Aging & Social Policy, 30,* 227–243. https://doi.org/10.1080/08959420.2018.1462679 PMID:29634457
Tavares, A. I., Costa, E., & Albuquerque, P. (2024). Housing cost overburden and population health: Cross-country evidence from Europe before the pandemic. *International Review of Applied Economics, 40*, 90-106. https://doi.org/10.1080/02692171.2024.2439361
Tian, P., Feng, K., Sun, L., Hubacek, K., Malerba, D., Zhong, H., Zheng, H., Li, D., Zhang, N., & Li, J. (2024). Higher total energy costs strain the elderly, especially low-income, across 31 developed countries. *Proceedings of the National Academy of Sciences of the United States of America, 121*(12), e2306771121. https://doi.org/10.1073/pnas.2306771121 PMID:38466846
Trafiałek, E. (2016). *Innowacyjna polityka senioralna XXI wieku. Między ageizmem, bezpieczeństwem socjalnym i active ageing (Innovative senior policy for the 21st century. Between ageism, social security, and active aging).* Wydawnictwo Adam Marszałek.
Uścińska, G. (2023). *Sytuacja materialna seniorów w Polsce (The financial situation of seniors in Poland).* Uniwersytet Kardynała Stefana Wyszyńskiego w Warszawie.
Waldron, R., & Redmond, D. (2017). We're just existing, not living!" Mortgage stress and the concealed costs of coping with crisis. *Housing Studies, 32*(5), 584–612. https://doi.org/10.1080/02673037.2016.1224323
Wang, W., & Durst, N. J. (2023). Planning for active aging: Exploring housing preferences of elderly populations in the United States. *Journal of Housing and the Built Environment, 38*(2), 795–809. https://doi.org/10.1007/s10901-022-09962-0
Witte, N. (2024). Visualizing the Housing Cost Burden of Migrants and Natives across the Income Distribution. *Socius: Sociological Research for a Dynamic World, 10*, 23780231241298806. Advance online publication. https://doi.org/10.1177/23780231241298806
Zajacova, J., Zubkova, M., & Stehlikova, B. (2023). Housing expenditure and overburden of households in EU countries. *Journal of Economics Studies and Research*, 1-16. https://doi.org/10.5171/2023.770696.