

Understanding housing preferences and challenges of older adults in Kalisz, Poland

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Abstract: *Purpose:* This study aimed to identify the demographic, economic, and social factors that influence the housing demand of older adults in Kalisz, Poland, and assess their preferences and challenges in meeting their housing needs. *Methodology:* A quantitative survey was conducted among individuals aged 50 and above in Kalisz. The survey questionnaire covered various aspects, including current housing conditions, housing preferences, knowledge of senior housing options, and willingness to relocate to such housing. Data analysis involved descriptive statistics and correlation analysis. *Results:* The findings revealed that while most respondents were satisfied with their current housing situation, they acknowledged the need for housing options tailored to older adults. However, there was a lack of interest in relocating to designated senior housing due to concerns about affordability, accessibility, and amenities. Respondents expressed a preference for independent living arrangements with access to medical, care, and rehabilitation services. *Theoretical contribution:* The study contributes to the understanding of the housing needs and preferences of older adults in the context of a medium-sized city in Poland. It highlights the importance of considering demographic shifts and adapting housing policies and urban planning strategies to meet the diverse requirements of an aging population. *Practical implications:* The findings can inform policymakers, urban planners, and housing developers in designing and implementing housing solutions that cater to the specific needs of older adults, ensuring accessible, affordable, and supportive living environments. The study also emphasizes the need for public awareness and education regarding senior housing options.

Keywords: housing market, senior housing, population ageing, housing prices, housing affordability, market analysis, sustainability.

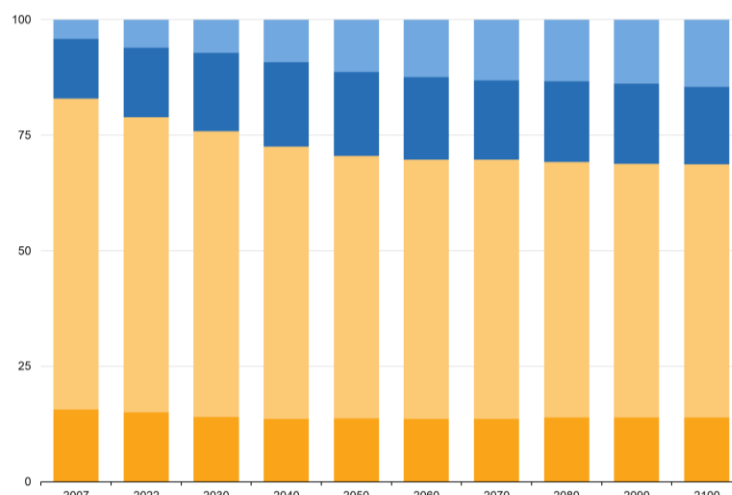
1. Introduction

In recent years, European countries have focused on sustainable development and climate protection. An essential component of real estate activities is, among other things, the construction of new buildings and the modernisation of existing buildings to the highest energy efficiency standards. Changes are also being made in transport – electric vehicles are being introduced, charging stations are being built, and new walking and cycling paths are being created.

Accelerating the energy transformation, modernisation of buildings by sustainable development standards, and green certification of buildings influence the greening of the real estate market and, ultimately, its decarbonisation. However, another trend is also visible worldwide, including in Europe, according to which the real estate market is supposed to provide social value. Due to the need for non-financial reporting by companies in the field of ESG, discussions are underway on the application of ESG in the real estate industry. The ecological aspect is clear, but social issues and governance are inadequately understood. Nevertheless, in Europe, investors are interested in the social value of real estate. Germany is seeing an increase in investment in affordable housing for students and seniors, as well as programs for the development of local communities, with particular support for diversity and integration.

Changes in the real estate market investors' approach are related to the increasingly visible share of older people in the world population structure, especially in Western Europe and North America. The population of the European Union Member States at the beginning of 2013 was 441.3 million. The youngest EU residents (0-14 years) constituted 15.4% of the total population, and the oldest people (over 65 years of age) 18.3%. At the beginning of 2023, there were 448.8 million citizens in EU countries. The share of the youngest group of citizens in the total population dropped to 14.9%, and the share of people of post-working age increased to 21.3%. (Eurostat, 2024a). Among the demographically oldest European countries, there are developed and highly developed countries, which include Italy, Portugal, Spain, France, Bulgaria, Greece, Czech Republic, Hungary, Latvia, Lithuania, Croatia, Germany, Estonia, Austria, Finland, Slovenia, Denmark, the Netherlands, Romania (Eurostat, 2024b). It is forecast that in 2050, 29.5% of the inhabitants of EU countries will reach the age of 65 (Eurostat, 2024c).

Figure 1: Population structure by major age groups in the European Union, 2007-2100 (% of the population)



Note: 2022: provisional/estimated. 2030–2100: projections (EUROPOP2019).

Source: Eurostat, 2024c.

The causes of society's ageing include, first of all, the extension of the human lifespan, the decline in the fertility rate and the negative balance of external migration – the emigration of young people. This process is indirectly supported by several other factors, including the level of society's wealth, the promoted family model, the increase in women's professional activity, the level of social care and health care, the population's education, state social policy, etc.

The longer duration of human life determines the stages of old age. The World Health Organization (WHO, 2002) assumed that early old age (young-old) is counted from 60 to 74 years of age. The next phase - mature old age - is from 75 to 89. The last phase is called longevity (oldest old or long life), and it includes people over 90. More and more often, the threshold of old age is set in the literature as the age of 65. It is most often identified with ageing in social terms – the cessation of an individual's professional activity (Central Statistical Office, 2023).

Old age is perceived – in a static approach – as a stage of life. At the same time, ageing is identified as a process in which a person gradually loses physical and mental activity (dynamic approach). The ageing process is not uniform and often depends on biological factors, i.e. possible deterioration of the elderly person's health. Depending on the phase of old age, seniors are often dependent in functional and economic terms (Leszniewski, 2022). Therefore, seniors often require appropriate health care and specific housing conditions.

The paper is structured under five sections. After this, section 2 presents the literature review; section 3 focuses on the research methods; section 4 presents the results; section 5 discusses the results and concludes the paper.

2. Literature review

Knowledge about the housing conditions of older people in Poland was collected thanks to the 2011 National Census and nationwide research (Statistics Poland, 2016) and local research (Benek, 2015; Kłobukowska, 2014). Most elderly people run independent households, do not declare any willingness to change their place of residence and are satisfied with their living conditions. However, they do not always approve of the architectural and technical solutions of the apartment and the building (the problem is, among others, the lack of an elevator, bathroom handles, and high thresholds in the apartment), as well as the housing estate infrastructure.

Current housing options for seniors, excluding independent households (ownership or municipal apartments, detached houses from 1945-1970), can be classified into three housing types: institutional, social and market. The conceptual systematisation of the indicated forms of housing for seniors in Poland was made in the REAS Report (Kirejczyk et al., 2015). Institutional construction includes several groups. The first group consists of Social Welfare Homes. There are 120 centres of this type in Poland, translating into 6,800 places of stay for seniors. This number also includes sheltered housing. The second group are nursing homes intended for seniors who are chronically ill or disabled. There are 200 such institutions in Poland, with approximately 6,000 locations (Kirejczyk et al., 2015). The third group comprises nursing homes for elderly people with chronic somatic diseases. There are 160 such facilities in Poland; they have approximately 16,000 places. Another type of nursing home, where a large percentage of people are seniors, are homes for mentally ill people and intellectually disabled adults. Care and Treatment Facilities constitute a separate type of institution. These are not places of permanent residence. Private entities often establish them based on contracts concluded with the National Health Fund. These services are used by nearly 22,000 seniors in Poland (Kirejczyk et al., 2015). The above-mentioned institutional forms of assistance to seniors provide housing for approximately 80,000 people.

Another form of housing for seniors is social housing. It is similar to renting independent housing premises with a moderate rent from the resources of Social Housing Societies. Few solutions of this type exist in Poland.

The market-oriented senior housing construction built after 1989 includes estates of single- or multi-family houses with residential premises on the outskirts of the city, multi-family housing buildings located in urbanised areas and multi-family buildings within a multi-generational housing estate (Kirejczyk et al., 2015). The types of construction presented above are offered to older people due to the facilities' architectural, technical, functional, service and location solutions. Investments of this type include senior houses without thresholds, with handrails, wide doors, non-slip floors, a nearby clinic, a

rehabilitation office, a pharmacy, a community centre, and recreational facilities. These kinds of apartments are intended mainly for sale, some for rent.

The market option, which excludes independent apartments unsuitable for the elderly, fits best into the idea of an increasingly prominent segment – senior housing. Senior housing is an independent housing structure, adapted – mainly in terms of technical and architectural solutions – to be inhabited by older people. These can be either houses or residential premises that have existed for years and have been adapted to the housing needs of older people (driveways, elevators, handles, low cabinets, etc.), as well as entirely new housing: groups of houses or even housing estates intended for seniors, with additional assistance, available health care and other amenities (including canteen, alarm system, nurse services, wellness zone).

The assumptions of this concept focus on the housing independence of older people (residential premises, house or apartment), guaranteeing appropriate technical infrastructure in and around the building, and choosing the layout of the premises according to their needs. All solutions offered in this type of home are intended to improve the quality of life of older people. A new segment of the real estate market, senior housing, appeared for the first time in the United States, where entire housing estates and towns dedicated to older people were built, e.g., Sun City. In Western European countries, including in Germany, another form of housing for seniors has been proposed: intergenerational houses (e.g. Heslach in Stuttgart) (Brecht, 2002; Labus, 2015).

Developing the segment, given the demographic changes discussed earlier, seems justified. Due to cultural barriers, however, it is necessary to survey the population's opinion in groups diversified in age, social status, etc. This article presents the results of a diagnostic survey conducted among seniors and people of pre-senior age.

3. Research method

The research aimed to identify the demographic, economic, and social conditions that determine the demand for housing for seniors, and assess their preferences and challenges in meeting their housing needs. The research method used was a survey—a complex quantitative study using a survey tool. The study aimed to collect data from a selected group of respondents. The study was conducted among people over 50 in Kalisz, the second-largest city in the Greater Poland Province.

The questionnaire contained mainly closed questions but was supplemented with additional open questions. The questionnaire consisted of the following parts:

- introduction, containing information about the purpose of the study and instructions for completing the questionnaire,
- 21 questions regarding 1) the current housing situation, 2) housing preferences, 3) identifying the respondents' knowledge in the field of housing for the elderly and their interest in this housing as a potential place of residence of the respondents,
- 10 demographic survey questions, enabling further characterisation of respondents in terms of demographics, social, economic and place of residence.

The study included people who represent the pre-senior age group (50-59 years) to check whether their answers differ from those of people of senior age. The literature studies proved that housing for seniors in highly developed countries was often offered to people over 50 years of age despite the constantly shifting upward threshold of old age. The decreasing migration tendency of ageing people often explains such action.

Quota sampling was used to select respondents for the sample (purposive, non-random sampling). The research sample reflected the structure of the inhabitants of the studied area in terms of gender and age. The selection of respondents to the sample and the lack of differences in structure allowed the research to be representative of the general population. The survey questionnaire was distributed on paper as a direct survey questionnaire (traditional questionnaire). The questionnaires were distributed to respondents during meetings of senior club classes at the University of the Third Age, and the questionnaires were directly delivered to the respondents' homes. In terms of confidentiality, the research conducted was anonymous. The respondents completed the questionnaire independently.

We checked whether the questionnaires were completed correctly (if not, the answers were not taken into account), and then the data were digitised. Data analysis made it possible to present them and draw conclusions.

A specialised program for developing statistical data, Statistica, was used to analyse the survey data, which enabled the use of statistical methods. This tool used a fundamental analysis, which involved combining respondents' answers to individual survey questions with personal data (gender, age, education, place of residence, presence of co-residents, use of help from other people in performing daily activities, financial situation). Correlation analysis of answers to various questions was also used. However, since most of the data obtained described qualitative features, the correlation between answers was examined using the Chi-square test of independence. In such an analysis, the strength of the relationship between unmeasurable variables can be determined using the adjusted contingency coefficient, Czaprow's coefficient or V-Cramer's convergence coefficient based on the Chi-square test of independence. These coefficients take values in the $<0; 1>$ range, where a value closer to 1 means the relationship is more robust, while a value closer to 0 indicates a weaker relationship.

4. Results and discussion

4.1 Characteristics of the research area

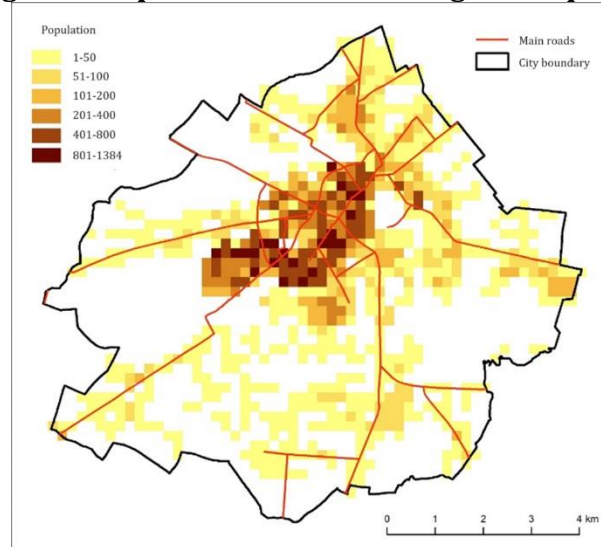
The spatial scope of the research included the city of Kalisz (Poland). It is the second-largest city in the Greater Poland Voivodeship. Together with Ostrów Wielkopolski and neighbouring communes, it forms the Kalisz-Ostrów agglomeration (SAKO, 2023).

Micro-enterprises (employing less than 10 people) dominate among business entities registered in Kalisz – as many as 95.8% of them. 12,403 business entities were registered in Kalisz at the end of 2022. Two large factories employ over 1,000 people in the city. The city's dominant type of business activity is services provided by over 80% of business entities. Nearly every fifth enterprise conducts industrial and construction activities (BDL, 2023).

The country's ongoing economic development results in a systematic increase in the average monthly gross salary. In Kalisz, such changes are also visible, but the average amount of remuneration of residents does not match the average earnings of people in cities of comparable size and larger ones. For example, in 2020, the average salary in Kalisz was PLN 4,718, and in 2021 - it was PLN 5,158, while the national average in these periods was PLN 5,226 and 5,663, respectively (BDL, 2023).

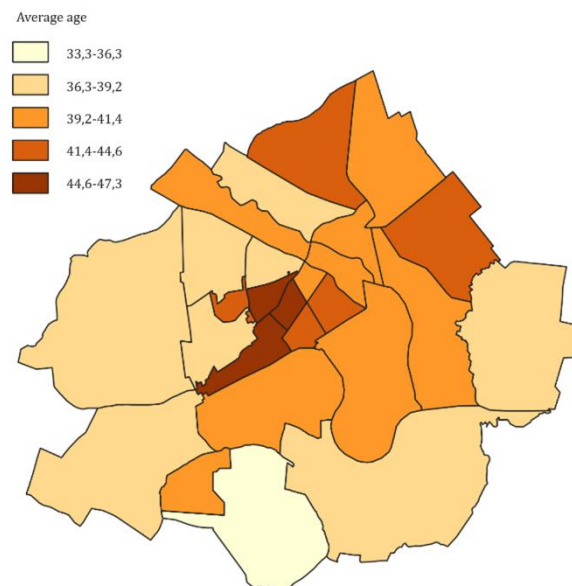
The unemployment rate in Kalisz is currently just over 3% and is lower than in the entire country (just over 5%). Unemployment in Kalisz has not exceeded the national unemployment rate for the last 20 years, and in the years 2012-2019, it was about half lower than the national rate.

At the end of 2022, Kalisz was inhabited by almost 94,000 people. Over 20 years, the city's population decreased by 14%. In neighbouring communes, the population has increased, and a similar trend is forecast until 2030, which is related to the phases of urban development and the current depopulation of medium-sized cities in Poland – in favour of rural areas and large cities. The analysis of the age structure of the population (at the end of 2022) indicates that 16% of residents were at pre-working age (0-17 years), 56% - at working age (17-64 for men and 17-59 for women), while the remaining 28% are residents of post-working age (65+ for men and 60+ for women). Comparison of these values to the average for Poland (18%, 60%, and 22%) indicates that the population of Kalisz, compared to the country, is characterised by a larger share of people of post-working age and a smaller share of the other two groups. The population of Kalisz's neighboring communes is characterised by a slightly smaller share of people of post-working age and a larger share of working and pre-working age people. These values are close to the average for the entire country's population (City of Kalisz, 2023).

Figure 2: Population of Kalisz – the grid of squares

Source: Own work.

Fig. 2 shows the city's population concentration in the centre and the southwestern part of the intermediate zone. The distribution of the population in Kalisz by age was also examined (Fig. 3). The highest average age of the population was recorded in the intermediate part of the city – in the Asnyka, Kaliniec, Sarbinów, Widok and Zagorzynek housing estates. They were built in the 1960s and 1970s. At that time, new apartments were purchased primarily by people of working age, currently classified as seniors. Due to the small size of these apartments (often two rooms), they are currently not inhabited by families with children, hence the high average age. The parts of the city with a higher average age also include the Czaszki, Dobrzec, Majków, and Tyniec housing estates (Trojanek & Rącka, 2018).

Figure 3: Average age of residents in Kalisz by district

Source: Own work.

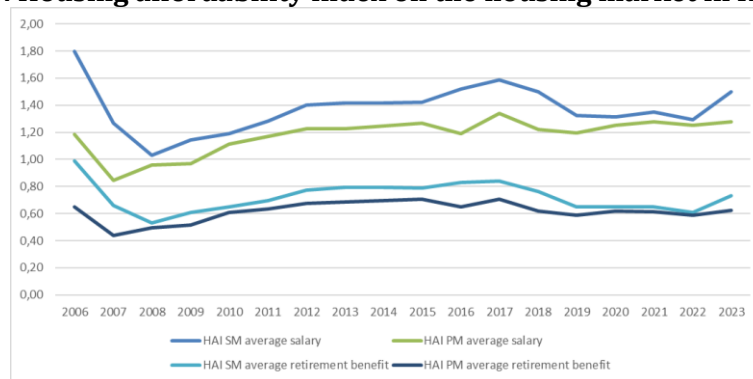
The concentration of the oldest population takes place in housing estates located in the intermediate zone of the city, close to the central zone. The housing estates have post-war, modernist architecture (prefabricated buildings in a deteriorated condition), characterised by high density and insufficient parking spaces and garages. The average age of the inhabitants of this area is nearly 50 years (Kisiała and Rącka, 2021). Like other areas with a large share of seniors among the inhabitants, this area is characterised by poverty (Świąder et al., 2016).

The decreasing population in the city makes access to health and social care more difficult. This is particularly important concerning the oldest part of society. An analysis of the spatial accessibility of hospital emergency departments in 2011 showed that over half of the Polish population (52%) lived within a radius of 10 km from the nearest hospital emergency department. 10 years later, due to the transformation of the network of hospital emergency departments in Poland, the spatial accessibility of medical services increased to 54%. In Kalisz, during the analysed period, no new facilities with hospital emergency departments appeared, and no changes were made in their distribution, but their availability - due to the outflow of the population outside the city limits - decreased (Kisiała et al., 2022). Additionally, the region in which Kalisz is located is characterised by low access to health care due to the dramatically small number of doctors (in Europe, there are 3.8 doctors per 1,000 inhabitants; in Poland - 2.4 doctors, and in the Kalisz-Ostrów Agglomeration this indicator is only 0.87).

At the end of 2023, 68 social welfare homes were registered in the Greater Poland Voivodeship, but only 3 have increased since 2002, which seems insufficient in relation to the increase in the number of older people. Only one such centre has been operating in Kalisz for 20 years, with only 180 places available, which does not meet the needs of the residents.

The possibilities of purchasing a flat for residents are limited by their earnings and creditworthiness. The analysis of apartment prices in Kalisz on the primary and secondary markets in 2006-2023 showed that assuming income at the level of the average national salary, the buyer could purchase about 1.4 m² of living space on the secondary market and about 1.2 m² of living space on the primary market. A retiree's purchasing power receiving an average national pension is approximately half that (Fig. 4).

Figure 4: Housing affordability index on the housing market in Kalisz (m²)



Note: HA – Housing Affordability Index; SM – secondary market, PM – primary market.

Source: Own work.

The purchasing abilities of people earning the lowest national wages are more than half lower than those earning the so-called National average. In the case of retirees receiving the minimum retirement benefit, these abilities are further reduced by more than half. It should be noted that the average level of pensions in the Greater Poland Voivodeship is approximately 5% lower than in the entire country; hence, retirees in Kalisz receive even lower benefits.

4.2. Respondents' characteristics

The questionnaire was completed by 225 people living in Kalisz. Ignoring incomplete data, the answers provided by 215 people were included in the final analysis. The study involved 158 women (73% of all respondents) and 57 men (27% of all respondents).

Respondents represent three age groups: pre-senior citizens (50-59 years old), young seniors (60-74 years old) and older seniors (75 years old and over). One in six people surveyed belongs to the age group of 50-59. The remaining respondents were people over 60 - 85% of all respondents. Most people indicated that they were in the age group 60-64 (46% of the surveyed sample). In turn, the fewest respondents were over 75 (5%).

Another feature declared by the respondents was education. Respondents most often indicated that they had higher education (56%). The least frequently declared education was primary (4%). A

relatively large percentage of respondents had secondary education (31%). Higher education was most typical for young seniors, especially those aged 60-64. Older seniors, in turn, most often had primary or basic vocational education.

The respondents were then described in terms of their declared professional status. The majority of respondents (82%) indicated that they were retired. Only 5% of respondents answered that they were professionally active. A slightly more significant proportion of respondents answered that they belonged to the pensioners group (7%). About 5% of respondents indicated that they were farmers.

Most respondents (83%) were members of a social organisation, such as a seniors' club, a religious association, or a University of the Third Age student.

The respondents were highly diverse in terms of family status. Most respondents answered they were single (46%), and every third respondent ran a two-person household. Only 17% of respondents revealed that they lived with at least two other people.

Respondents were also asked how many moves they made during their professional activity. Every seventh person indicated they spent their professional life in the same apartment. Nearly half of them moved to another apartment one or two times. One in three respondents changed their apartment 3-5 times. By far, the fewest people surveyed had moved six times or more.

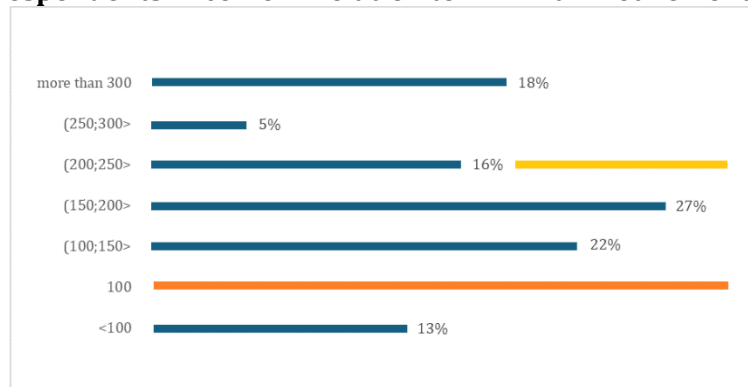
A summary of respondents' answers regarding demographic survey questions is presented in Table 1.

Table 1: Respondents answers – demographic survey questions

Sex					
		Women	men		
		73%	27%		
Age					
50-54	55-59	60-64	65-69	70-74	75&more
6%	10%	46%	19%	14%	5%
Education					
primary		vocational	secondary	higher	
4%		9%	31%	56%	
Professional status					
full-time employee	entrepreneur	pensioner	farmer	unemployed	pensioner
3%	2%	82%	5%	0%	7%
Number of people in the household					
1		2	3	4&more	
46%		37%	6%	11%	
Number of removals during the period of professional activity					
no removals		1-2	3-5	6&more	
15%		47%	33%	4%	
Membership in a senior club or other social organisation					
		yes	no		
		83%	17%		

Source: Own work.

The next question on the data sheet asked respondents to indicate the amount of their income in the form of monthly disposable income per person in the household – the respondents' answers related to the minimum pension in the country (Fig. 4).

Figure 4: Respondents' income in relation to minimum retirement benefit (%)

Note: ■ share of responses in a value range in total responses ■ the minimum retirement benefit level ■ the ratio of the average retirement benefit (RBa) in the country to the lowest retirement benefit (RBm), where $\frac{RBa}{RBm} \cdot 100\% = 225\%$.

Source: Own work.

About half of the respondents answered that their monthly disposable income per person in the household was higher than the minimum pension but did not exceed the average pension. Almost every fifth respondent answered that his monthly disposable income was more than three times the lowest pension in the country. Every eighth respondent had an income per person below the minimum retirement benefit. Entrepreneurs whose income exceeded the average national pension benefit reported the highest level of disposable income. The average monthly disposable income of retirees and disability pensioners was similar. The characteristics of the respondents allowed us to learn about the characteristics of the people participating in the study.

4.3. The research results

The current housing situation may influence interest in housing for seniors. Therefore, diagnosing it is essential. The current housing situation was characterised by the following features: period of residence in the current apartment, type of development, number of rooms, apartment area, right to the apartment, assessment of housing conditions, then an indication of whether the apartment is adapted for living by an elderly person and distinction of amenities for seniors that are missing in the apartment and building. The respondents were also asked to express their opinion on their possible willingness to change their place of residence.

The respondents most often indicated that they had lived in their current apartment for 21-50 years (55%), and every fifth respondent had lived there for more than 50 years or even since birth. Only 13% of respondents answered that they had moved to their current residence within the last ten years - these were people aged 55 to 75.

Table 2 presents a summary of respondents' answers regarding housing conditions.

Most respondents indicated that they lived in single-family or multi-family buildings - without an elevator (42% each). Only every twentieth person had access to the elevator in the building. The respondents usually lived in 3-room or larger apartments with an area of over 60 m².

Most respondents answered that they had ownership rights to the residential premises (91%). Renting an apartment was most often reported by young seniors.

The respondents' assessment of the housing conditions was quite optimistic. Only a few people were unsure of the answer or considered these conditions insufficient—these were young seniors with income at the level of the average retirement benefit with a tendency to move frequently. The results of the answers to this question were confirmed in the next question regarding the willingness to change the current apartment. Nearly three out of four respondents responded negatively. Only 16% of respondents consider this option.

Table 2: Respondents' living conditions

How long have you lived in your current apartment? (years)					
5&less	5-10	11-20	21-50	50&more	since I was born
4%	9%	12%	55%	4%	16%
Type of building					
	multi-family building with an elevator	multi-family building without an elevator	single-family house	other	
	5%	47%	47%	1%	
Number of rooms					
1	2	3	4	5	6&more
0%	22%	37%	11%	18%	12%
Area (m²)					
30&less	31-40	41-50	51-60	61-100	101&more
0%	8%	9%	19%	35%	29%
Type of right to the residential premises					
		tenancy	ownership		
		9%	91%		
Would you like to change your current apartment and move to another one?					
definitely yes	rather yes	hard to say	rather no	definitely no	
4%	12%	12%	34%	38%	
How do you rate your living conditions?					
very good	rather good	hard to say	rather bad	very bad	
61%	38%	0%	1%	0%	
In your opinion, is the current apartment suitable for the elderly?					
definitely yes	rather yes	hard to say	rather no	definitely no	
16%	44%	7%	29%	4%	

Source: Own work.

The next question asked whether respondents believed their apartment suited older people. More than half of the respondents believed the apartment was suitable for an elderly person (60%). However, every third respondent was of the opinion that the current apartment is not prepared for living by an elderly person - concerns about the lack of sufficient amenities in the apartment were mainly expressed by young seniors with higher education, with income not exceeding the average retirement benefit, living alone or with one other person.

The last question in the first part of the survey questionnaire concerned amenities necessary for older people, which he believes are missing in the apartment he currently occupies. 42% of respondents answered this question. Based on the answers provided by the respondents, five groups of restrictions on the use of the apartment by older people were identified. Belong to them:

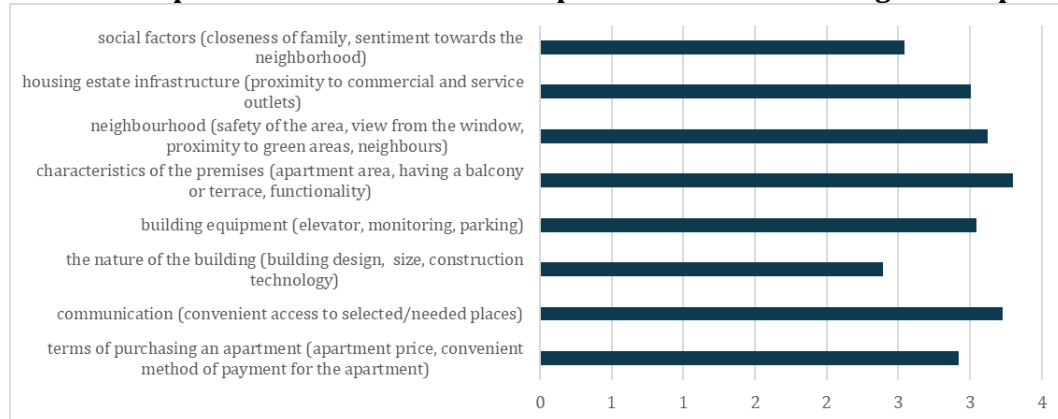
- technical infrastructure around the building (no driveways),
- building standard (no elevator, no central heating),
- standard of the residential premises (no handles in the bathroom, no shower cabin, architectural barriers),
- other inconveniences.

The most frequently reported problem was the lack of an elevator or wheelchair lift in the building (70% of respondents who answered this question).

Next, the respondents' housing expectations were identified in case of a possible housing change. For this purpose, six questions were asked. The first question concerned determining the importance of factors the respondent would pay attention to when moving. These included conditions of purchase of the apartment, communication, standard of the building, building equipment, characteristics of the residential premises, surroundings of the residential building, infrastructure of the estate, and social

factors. In the following questions, the respondent had to indicate the preferred size of the residential premises, number of rooms, type of development, and location of the residential building. The respondents were asked to assess the importance of individual factors from the point of view of their impact on the choice of a new apartment, with a choice of answers indicating the degree of importance of the factor, as well as the answer "I have no opinion". Analysing the results, a ranking of factors was created using a weighted average, where the weights included the numbers: 1 –not important, 2 – somewhat important, 3 – important, and 4 – very important. The results are shown in Fig. 5.

Figure 5: The importance of factors from the point of view of choosing a new apartment



Note: A maximum score is 4.0.

Source: Own work.

Among the distinguished factors, the most important for respondents were the characteristics of the premises (score 3.30). Communication (score of 3.23) and neighbourhood (score of 3.12) were also considered important.

In the following question, respondents were asked to indicate their preferred type of development, number of rooms and apartment area in case of a possible move. The respondents' answers in this regard are presented in Table 3.

Table 3: Respondents' preferred housing conditions

Type of building					
multi-family building up to 4 floors 54%	multi-family building 4&more floors 2%	tenement 4%	single-family house 22%	terraced house 5%	other 13%
Number of rooms					
	1 1%	2 38%	3 53%	4&more 8%	
Area (m ²)					
30&less 1%	31-40 14%	41-50 29%	51-60 30%	61-100 21%	101&more 5%
Location					
	city centre 32%	city outskirts 51%	suburbs 17%		

Source: Own work.

Regarding the preferred type of development, the most frequently chosen answers were multi-family buildings up to 4 floors. Only every fifth respondent would choose a single-family house as their new place of residence. Among the "other" answers, respondents indicated an apartment building with a reception, a multi-family building up to 2 floors, and a multi-family building up to 3 or 4 floors with an elevator.

The respondents most often would like to live in a three-room apartment with an area of 41-60 m². Half of the respondents indicated that the apartment should be in the city, outside its centre.

The third part of the survey questionnaire concerned finding out the respondents' opinions about senior housing. The respondents were asked about their knowledge of the term housing construction for seniors, the need to create senior housing and their possible willingness to move to apartments based on this idea. Then, they were asked to indicate their housing preferences in the context of housing construction for the elderly, the services accompanying this type of investment and the method of financing this type of housing construction. The respondents' answers in this regard are presented in Table 4.

The respondents' "senior housing" knowledge is complex and difficult to determine clearly. About every third of respondents replied that they had heard about this term many times, and as many as 38% of respondents had encountered this concept occasionally. Almost a third of the respondents were unsure whether they knew the concept of senior housing, and 7% had never heard of it.

Almost all respondents see the need to build housing for seniors (93%). Only 2% of respondents deny this need. However, respondents were not interested in moving to senior housing. Most respondents were unable to answer this question (31%). More than one in three people would be interested in a senior apartment if they were to change their apartment (38%), but at the same time, almost one in three would not want to live in this type of housing (31%).

Table 4: Respondents' opinion on senior housing

Have you ever heard of senior housing before?						
yes, many times	probably yes, I have heard/read about it	it's hard to say	probably not, although I'm not sure	no, I've never heard about it		
29%	38%	9%	17%	7%		
In your opinion, is there a need to build apartments for seniors?						
definitely yes	rather yes	hard to say	rather no	definitely no		
70%	23%	5%	1%	1%		
Would you be interested in moving into an apartment for seniors in the future?						
definitely yes	rather yes	hard to say	rather no	definitely no		
16%	22%	31%	24%	7%		
How would you be willing to finance an apartment for seniors?						
purchase for cash	purchase with a mortgage loan	exchange for an old apartment	long-term lease	other		
19%	12%	55%	12%	2%		
Which form of housing for seniors would suit you best?						
an existing apartment converted to meet the needs of an elderly person (architectural facilitations)	a new apartment from a developer in a multi-family building that meets the needs of an elderly person (architectural facilitations)	an apartment in a building with only apartments for the elderly without additional services	an apartment in a building with only apartments for the elderly with additional services	a terraced house or a single-family house adapted for living by an elderly person	a higher standard apartment (apartment) adapted for living by an elderly person	sharing a room in a nursing home
33%	28%	1%	32%	6%	4%	7%

Source: Own work.

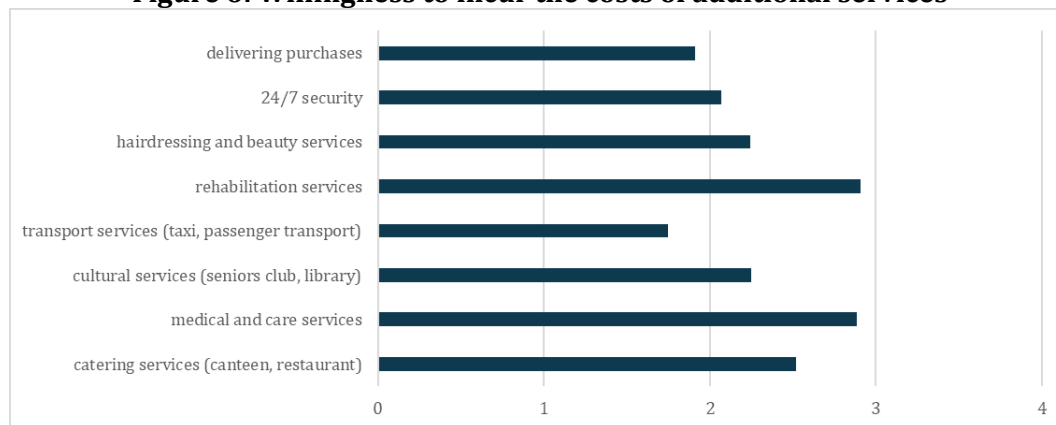
Regarding the source of financing for senior housing, if the respondents decided to change their place of residence, and it would be senior housing, 55% of respondents indicated that they would like to exchange their current apartment for an apartment for seniors. Nearly every fifth respondent would buy such an apartment for cash.

Among the currently available forms of housing for seniors, the most popular are those currently occupied by respondents but adapted to the needs of older people (33%). A similar number of people would choose an apartment in a building with apartments exclusively for seniors with additional

services (32%). Many would purchase a new apartment in a multi-family building with architectural improvements from a developer. Only 7% of people are allowed to share a room with another person in a nursing home.

The last question asked respondents to indicate the type of services that could complement the housing offer for seniors. Respondents were offered the following services: catering, medical and care, rehabilitation, culture, transport, hairdressing and beauty services, security, and assistance in making purchases. The respondents were asked to assess the importance of individual factors, choosing from answers indicating the degree of willingness to finance a given service and the answer "I don't know". Analysing the results, a ranking of factors was created using a weighted average, where the weights included the numbers: 1 – definitely not, 2 – probably not, 3 – rather yes, 4 – definitely yes. The results are shown in Fig. 6.

Figure 6: Willingness to incur the costs of additional services



Note: A maximum score is 4.0.

Source: Own work.

The respondents most often indicated that they would prefer the possibility of using medical and care services (score 2.88), catering services (score 2.52), and rehabilitation services (score 2.91) in housing construction for seniors.

5. Discussion of results and conclusions

Kalisz is an ageing city, so creating a senior policy, including housing, is essential. People in Kalisz earn less than the average in the country, which is why older people receive lower pension benefits. This affects their ability to meet their special housing and care independent needs in old age. Seniors are often single people or form a household with another senior who requires support. Although the study results indicate that seniors in Kalisz are relatively active and satisfied with their current economic and financial situation and living conditions, they also see the need to support older people. However, they do not necessarily relate this need to themselves.

The respondents assessed the current housing conditions positively. Similar conclusions were drawn by the authors of the Social Diagnosis in "Social Activity of Older People" (Czapiński & Błędowski, 2014). Older people are satisfied with their housing conditions (Jancz & Manasterska, 2023).

Some respondents are concerned about the lack of sufficient amenities for seniors in their apartments. In the Social Diagnosis (Czapiński & Błędowski, 2014), the authors pointed out that Poland is one of the countries where apartments are the worst-adapted architectural amenities for the elderly and disabled.

Regarding the desired features of apartments for seniors, the essential characteristics for respondents were the characteristics of the premises, communication and neighbourhood. Similar conclusions were provided by the research results of Trojanek (2009), which presented the most important factors that determined the purchase of apartments on the primary market. These included - apart from the price of the apartment - its location and additional space. In this respect, Krajewska and

Gaca (2007) and Jancz and Trojanek (2020) presented similar conclusions, indicating its location and communication as the most important feature of the premises.

The respondents most often would like to live in a three-room apartment with an area of 41-60 m². Half of the respondents indicated that the apartment should be in the city, outside its centre. This is confirmed by research on migration directions in the Poznań agglomeration (Tanaś, 2012), which indicated that seniors were the least likely group of people to leave Poznań.

The respondents were not likely to be willing to change their residential premises to another one. The research results are consistent with nationwide trends, which indicate that older people prefer to live independently for as long as possible, the so-called "ageing in place" (Kirejczyk et al., 2015). Andrews (2010) pointed out that assisted living services are provided to over a million older people in the USA, or 36,000. Establishments provide this type of service in the place of residence. It should also be noted that migration tendencies decrease with age (Kirejczyk et al., 2015). This tendency was also visible in the research results.

The sustainable development goals adopted in the 2030 Agenda for Sustainable Development in 2015 include goals related to the needs of older people – an important, heterogeneous and growing part of the world's population. Monitoring the degree of achievement of individual sustainable development goals should take into account information about this social group, which may help create policies and programs relating to health, work, education, housing, social care, transport and other areas of seniors' lives. These programs are essential because the purchasing power of seniors is usually much lower than that of the working-age population.

The research findings highlight the importance of understanding and addressing the housing needs and preferences of older adults in the context of demographic shifts and an aging population. While the respondents in Kalisz expressed satisfaction with their current housing situations, there is a clear need for housing options that cater specifically to the requirements of older adults, ensuring accessibility, affordability, and supportive living environments.

From a practical point of view, the study underscores the necessity for policymakers, urban planners, and housing developers to collaborate in designing and implementing housing solutions that incorporate features such as accessible infrastructure, medical and care services, and recreational amenities. Additionally, efforts should be made to raise public awareness and educate older adults about the available senior housing options, empowering them to make informed decisions.

From a scientific point of view, this research contributes to the existing literature by providing empirical evidence from a medium-sized city in Poland, highlighting the nuances and challenges faced by older adults in such contexts. Future research could explore cross-cultural comparisons or investigate the impact of specific housing policies and interventions on the well-being and quality of life of older adults.

Furthermore, longitudinal studies could offer valuable insights into the evolving housing needs and preferences of older adults as they transition through different life stages. Qualitative research approaches could also complement the quantitative findings by providing in-depth understanding of the lived experiences and decision-making processes of older adults regarding their housing choices.

Overall, this study serves as a valuable contribution to the ongoing discourse on sustainable and inclusive urban development, emphasizing the importance of considering the diverse needs of an aging population in shaping housing policies and urban environments.

The results of the conducted research indicate that the willingness of seniors to move to another apartment decreases with increasing age. The elderly see the need to create a senior housing policy, but as long as they function independently, they do not consider how to cope in the future. Unfortunately, when seniors lose their independence, it is too late to deal with arranging appropriate housing on their own. Most respondents notice the problem, but at the same time emphasize that it does not directly affect them. This is another argument for the national and local governments to take actions to ensure adequate quality of life for older people.

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Conflicts of interest

The authors declare no conflict of interest.

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