



Well-Being of Older People in Poland on the Basis of the CSO Surveys

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1. Introduction

Population ageing forms an intrinsic part of the contemporary demographic development process and concerns all developed societies. It involves transitions taking place within the population age structure which result in the growing share of older people in the population. The principal factors contributing to such changes include the increasing life expectancy, as a result of which more people reach the demographic old-age, and low fertility – below the generation replacement level – and, in consequence, the decreasing number of births and the increasing share of older generations in the population structure.

Demographic projections reveal that this process will continue within the projectable time frame. Both the current situation and the situation presented in the projections should inspire us to reflect on and undertake measures oriented towards the needs of older people, and towards using their social potential. The needs emerging within this population group, including in the field of health, education, recreation and professional activity, differ from those which characterise younger population members. They also appear diversified within the old-age group. The activity programmes addressed to older people should therefore be preceded with thorough analyses based on survey results, and in particular on reliable and objective statistical data.

The results of the surveys conducted by the CSO provide a number of information indispensable for characterising the elderly population, their activity level, health condition, material situation, social relations and related needs. They also enable a multi-faceted assessment of the quality of life of older people. The aim of this study is to present the statistical work carried out by the CSO in the research area.

2. The concept of measuring the quality of life adopted by the CSO

The concept of measuring the quality of life adopted by the CSO (often referred to as well-being) relates to both the Polish survey traditions prevailing in this area and international recommendations. This concept takes into account the multi-faceted character of this notion and the increasing significance of its subjective measures. It is assumed that the statistical measurement of the quality of life should comprise not only the entire set of objective conditions, but also the subjective quality of life assessed by each person, which is referred to as subjective well-being.

As part of the objective conditions, the following domains should be considered: material living conditions, health, education, economic activity, leisure activities and social relations, individual safety, the quality of the State and fundamental rights, as well as the quality of natural environment in the place of residence. While measuring the subjective well-being, the perceived quality of life should be taken into consideration, i.e. satisfaction derived by people from their life in general, and from its various aspects, along with the elements concerning emotional experiences, the system of values, and the sense of meaning in life.

The integration of knowledge from various spheres of life is the underlying condition enabling multi-dimensional assessments of the quality of life. This objective can be attained in two ways, i.e. by combining information originating from multiple data sources (e.g. various questionnaire surveys, census data, statistical reporting and administrative sources) and by implementing multi-faceted questionnaire surveys regarding the quality of life. In practical terms, these two approaches are applied concurrently. The key role in this area is played by sample surveys of the population and households.

A significant function, from the point of view of conducting comprehensive analyses of the quality of life in Poland, within the surveys system of the CSO, is played by the *Social Cohesion Survey (BSS)*, which was conducted for the first time in 2011. The innovative character of the survey mainly entails the ability to integrate individual data concerning the most significant aspects of the quality of life in its broad sense, as recommended by the ESS. The publication entitled “*Quality of life, social capital, poverty and social exclusion in Poland*”¹, available on the CSO website, both in the Polish and English language version,

¹ The publication is available on: <http://stat.gov.pl/en/topics/living-conditions/living-conditions/quality-of-life-social-capital-poverty-and-social-exclusion-in-poland,4,1.html>

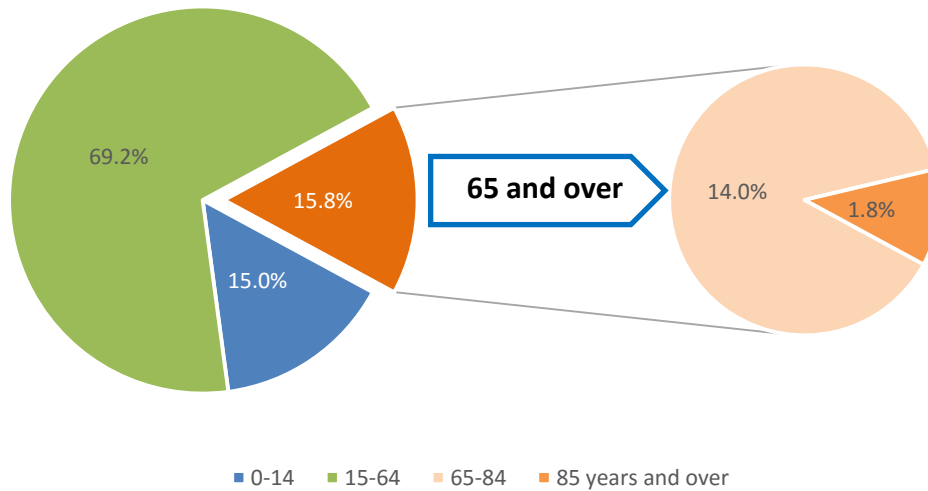
features a detailed methodological and analytical report regarding the first Social Cohesion Survey. It contains, among other things, the results of the analysis of the impact of various factors on the subjective well-being based on the level of life satisfaction, along with information regarding the territorial diversification of the quality of life in Poland. In the first half of 2015, the survey was conducted in Poland for the second time. As compared to the 2011 survey, its scope was extended by including questions on the subjective well-being. Along with the questions concerning life satisfaction and positive and negative emotional states (e.g. the sense of happiness or dejection), the second survey edition also comprised questions regarding values and opinions on social attitudes, optimism and the sense of meaning in life. The scope of information gathered on religious life was also extended. Among other things, based on the results of the 2015 Social Cohesion Survey, the analysis of the subjective well-being of elderly people in Poland was drawn up, constituting the principal object of this publication.

3. Changes in the number and structure of the population aged 65 years and over

A slowdown in demographic development and significant changes in the population structure have been observed in Poland for over 25 years. The progressing increase in life expectancy, along with the dropping number of births and increased emigration of young Poles have led to distorted inter-generation relations, while also accelerating the population ageing process. Although Poland has remained a relatively young country in demographic terms, as compared to other European societies, the observation of changes progressing for a number of years, coupled with prognostic simulations, lead to the conclusion that in the foreseeable future it will have one of the oldest European populations.

Since the beginning of the 1990s, the median age of an average Poland's inhabitants has increased by 7.5 years, reaching nearly 40 in 2015. In the period in question, considerable decreases have been recorded in the groups of children and youth, and the highest population rise concerned the elderly group. At the end of 2015, the population of Poland amounted to 38.4 mln, including over 6 mln persons aged 65 years and over.

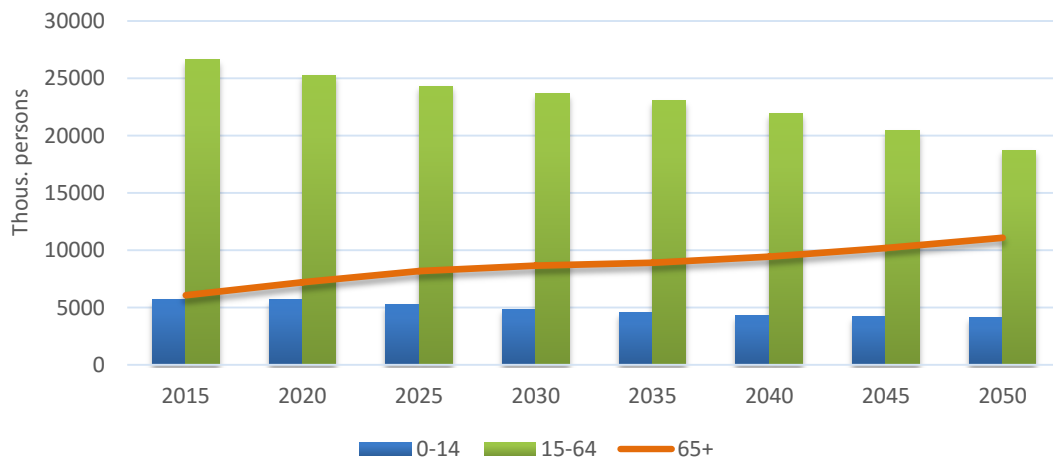
POLAND'S POPULATION BY AGE GROUPS IN 2015



In 1990-2015, the number of elderly people grew by 2.2 mln, with its share in the total population increasing from 10.2% to 15.8%. The highest growth dynamics concerns the oldest group, i.e. persons aged 85 years and over. This group, which for many years was characterised with a relative stability, has been on the rise since the first decade of the present century, and its number and share in the total population are now over 2.5 times higher as compared to 1990.

Women constitute the majority of the old-age population, with 157 women per each 100 men. This results from the excess male mortality and diversified life expectancy parameters for both sexes. Women attaining the age of 65 live by an average of 4.5 years more than men. The numerical superiority of women increases with age – women aged 65-84 account for slightly less than 60% of this population group, with 147 women per each 100 men, whereas the group aged 85 years and over comprises 73% of women, with the femininity ratio amounting to 267.

PROJECTION OF POLAND'S POPULATION BY AGE GROUPS



The course of the demographic processes reveals that the elderly population is likely to increase, both in absolute terms and in relation to the total population of Poland. In line with the assumptions to the population projection for 2014-2050, the elderly population will increase by 5.4 mln, to exceed 11 mln in 2050, which implies a nearly twofold growth in relation to the baseline. A considerable growth in the number of elderly people concerns the initial projected period – in 2015 the age of 65 was attained by persons born in 1950. In subsequent years, the 1950s baby-boom generation will join the elderly population.

The results of the demographic projection indicate that Poland will be among the European populations facing the fastest ageing. In 2013, there were 21 persons aged 65 years and over per each 100 persons aged 15-64 years, and by the end of the projected period this number will have grown to over 59. In line with the projection assumptions, in 2050 an average inhabitant of Poland will be 52 years old. The share of persons aged 65 years and over in the total population of Poland will rise from nearly 15% in the base year 2013 to approx. 33%, which implies that every third inhabitant of the country will belong to the elderly people group.

4. Socio-demographic characteristics of the elderly population

A number of studies have revealed that the life situation and fitness of older people depend on their family status, as well as on the occupational and social activities. Older people are usually widowed or married. Given the higher male mortality, a considerable diversification has been observed among the older women and men groups in terms of their structure by marital status. Over three-fourths of men aged 65 years and over are married, whereas the majority of women in this age group (58%) are widows². The percentage of widows is 3.5-times higher than the percentage of widowers in the age group in question. This phenomenon intensifies as we focus on the oldest age group, with married men accounting for over 51% of the entire population aged 85 and over, whereas the percentage of widowed women at this age reaches nearly 86%. It can therefore be concluded that for men old age usually stands for living with their spouse, and for women it means living alone.

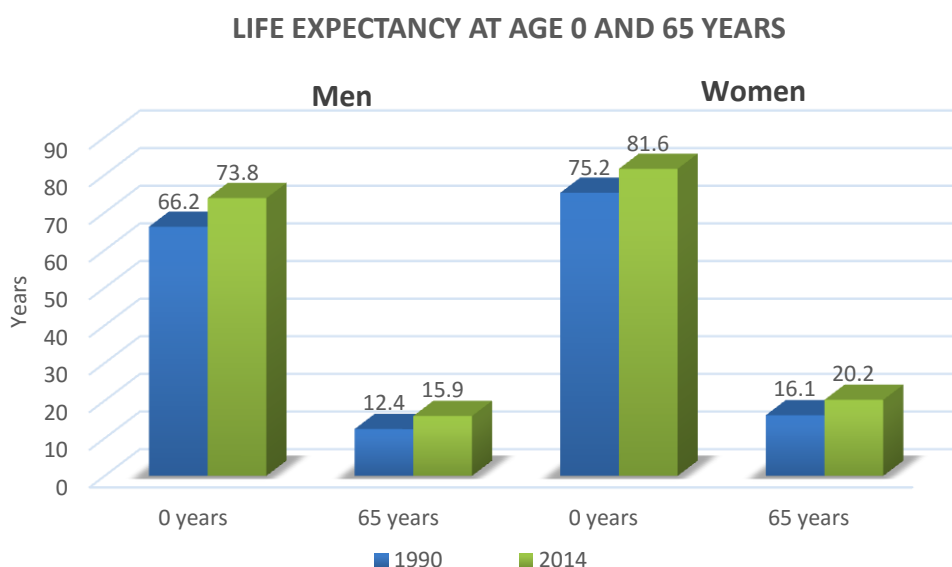
Occupational and social activities contribute to a better quality of life of older people, and the opportunity to remain active depends on the actual level of qualifications and health status. In general, older people are characterised with a lower educational level than younger generations. People having primary education constitute the most numerous group, followed by people with secondary and basic vocational education. In the recent National Census of

² Based on the results of the National Census of Population and Housing 2011.

Population and Housing 2011, a significant improvement in the educational level of the inhabitants of Poland was recorded, as compared to the 2002 results, which also concerned the group of persons aged 65 years and over. The percentage of older people with higher education increased from 6.2% to 9.5%, and those with secondary or basic vocational – from 28.5% to 37.5%.

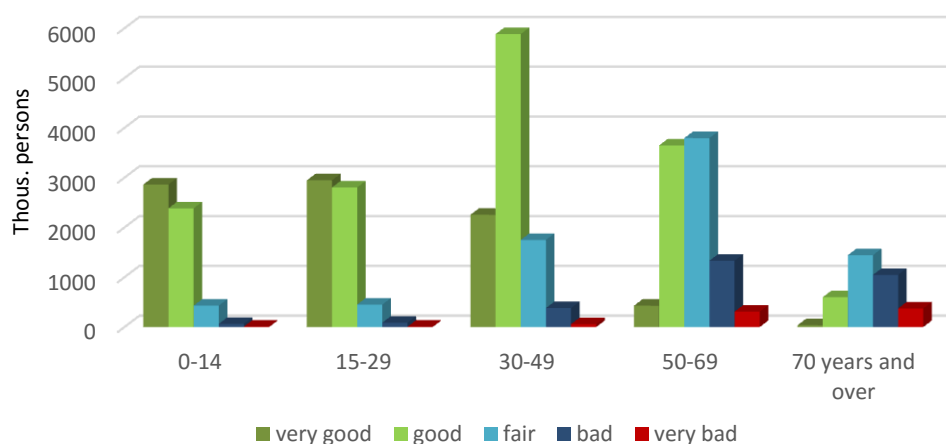
Occupational activity among the old-age population is not high. The population aged 65 years and over mainly comprises people who have ended their occupational activity and live off non-earned sources of maintenance. Data obtained in both the 2002 Census and the 2011 Census confirmed that for 95% of the population in question non-earned sources of maintenance constituted the only source of income. Only 5% of older people declared that occupational activity provided their major or auxiliary source of maintenance. Less than 2% of older people lived only off work, which was slightly more than in 2002 and concerned mainly men.

Health is another factor determining the quality of life of older people. The results of the questionnaire surveys conducted by the CSO in which respondents assess their own health condition indicate a certain improvement in this area, recorded mainly in terms of the dropping number of poor and very poor assessments. This is likely to result from positive lifestyle changes, increased awareness of health-improving factors and more attention being paid to the quality of life. The health improvement tendency is reflected in the falling mortality rate and the increasing life expectancy, with a considerable improvement being achieved in reducing the number of deaths due to circulatory system diseases which account for over every second death among persons aged 65 years and over.



The life expectancy of 65-year-olds in Poland, as compared to 1990, increased by 3.5 years for men and by over 4 years for women. Based on the currently available life expectancy tables (data for 2014), a 65-year-old man stands a chance of living for nearly 16 years more, and a woman of the same age – for over 20 years more. The health situation of older people in Poland has nevertheless remained difficult, which is confirmed by the relatively high number of negative assessments of their own health condition, as well as by the values of the average healthy life years parameter. In accordance with the Eurostat data, healthy life years (i.e. disability-free life expectancy) of Polish male inhabitants aged 65 accounts for approx. 46% of their remaining life expectancy (i.e. slightly over 7 years), and of Polish female inhabitants – for 39% (approx. 8 years).

SELF-PERCEIVED HEALTH BY AGE GROUPS



Age strongly determines the actual health condition and possibility to remain active in the occupational and social sphere. It is obvious that both health and activity of the elderly population change with age. Considering the objective determinants and individual life situations, this group appears considerably diversified, displaying varying social potential and differing needs. While some older people remain occupationally and socially active, others are no longer self-sufficient and require the assistance or round-the-clock care of other people. Such conditions exert a direct impact on the level and quality of life of older people, including their material situation.

As mentioned before, the percentage of people living off their occupational activity is insignificant in the discussed population, and it mainly concerns people in the younger age groups under analysis. At the same time, although income earned from work usually improves their financial situation, it is the permanent source of maintenance, i.e. retirement pay (or less frequently pension), that determines the average good budget situation of the

households run by older people. It is nevertheless worth noting that this standing gets considerably worse in the households composed of a disable person or a person without his/her own source of income, e.g. an unemployed person.

5. Selected aspects of the quality of life of older people – the subjective well-being

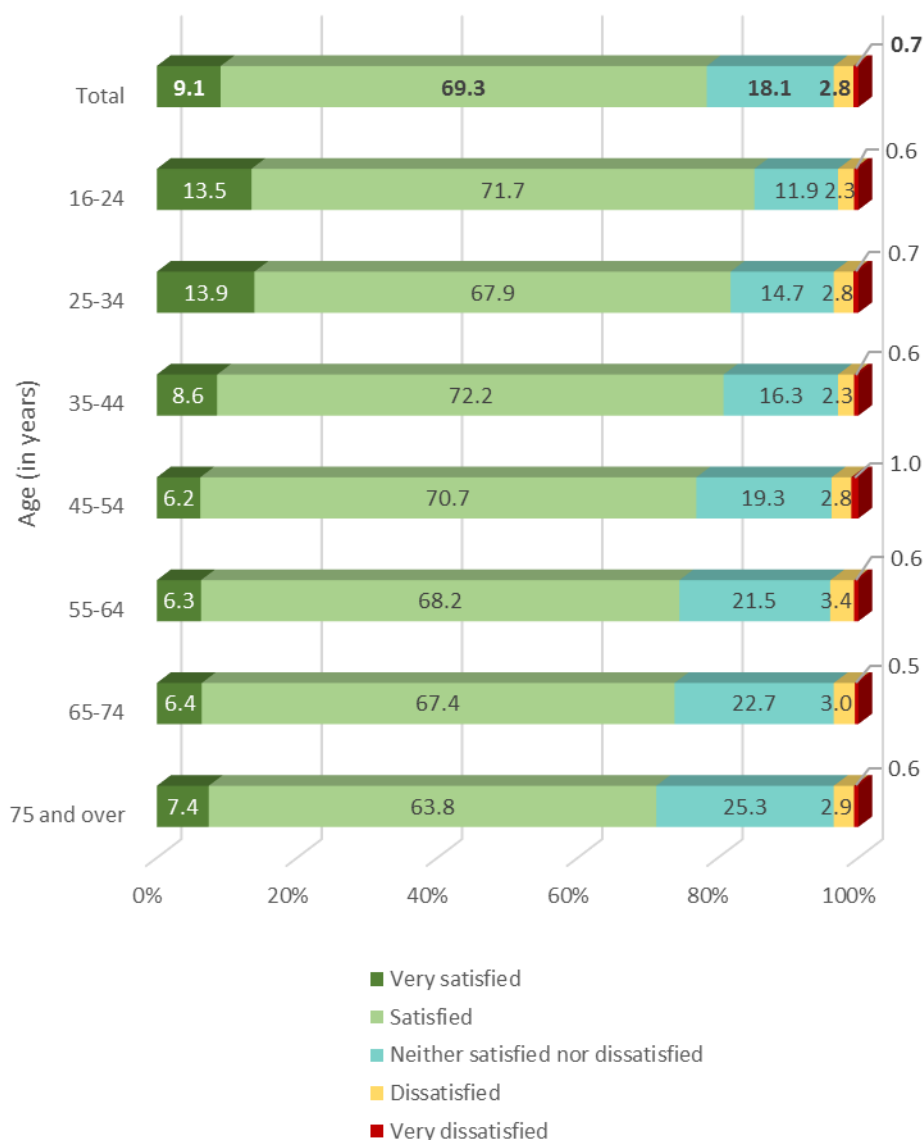
The quality of life is a very complex and multi-dimensional phenomenon. Therefore, it is analysed by the CSO taking into account the complexity and multi-faceted nature of the problem in question, as described in the section focused on the measurement concept. This publication deals mainly with presenting the subjective assessment of the quality of life of older people in Poland. According to the authors, these aspects seem the most interesting and less recognised than, for instance, the material aspect, thereby increasing the cognitive value of the results presented. A description of the situation in terms of the subjective assessment of the quality of life of older people is shown below. The attempt to clarify the impact of various factors (including especially age and separating the elderly group) on the subjective well-being, measured through life satisfaction, is presented in point 6 below. Containing very brief information on the material situation, point 7 serves as an auxiliary description that goes beyond the subjective aspect of the quality of life.

While describing the subjective well-being, an approach defining its three major components, i.e. overall life satisfaction, the sense of meaning in life and emotional well-being, was adopted. Use was made of the data obtained from the Social Cohesion Survey carried out in 2015. As the subjective well-being is surveyed for persons aged 16 years and over, the total figures presented concern the population defined in such a way.

5.1. Overall life satisfaction

In general, the level of overall life satisfaction is one of the most common measures employed to analyse the subjective quality of life. It is assumed that when assessing the level of their own life satisfaction people take into account all the aspects of the overall quality of life which are considered significant. Therefore, this measure provides information on the degree of satisfaction with respect to individual needs and expectations.

**OVERALL LIFE SATISFACTION
AMONG POLAND'S INHABITANTS IN 2015 BY AGE**
PERCENTAGE OF PERSONS IN A GIVEN AGE GROUP

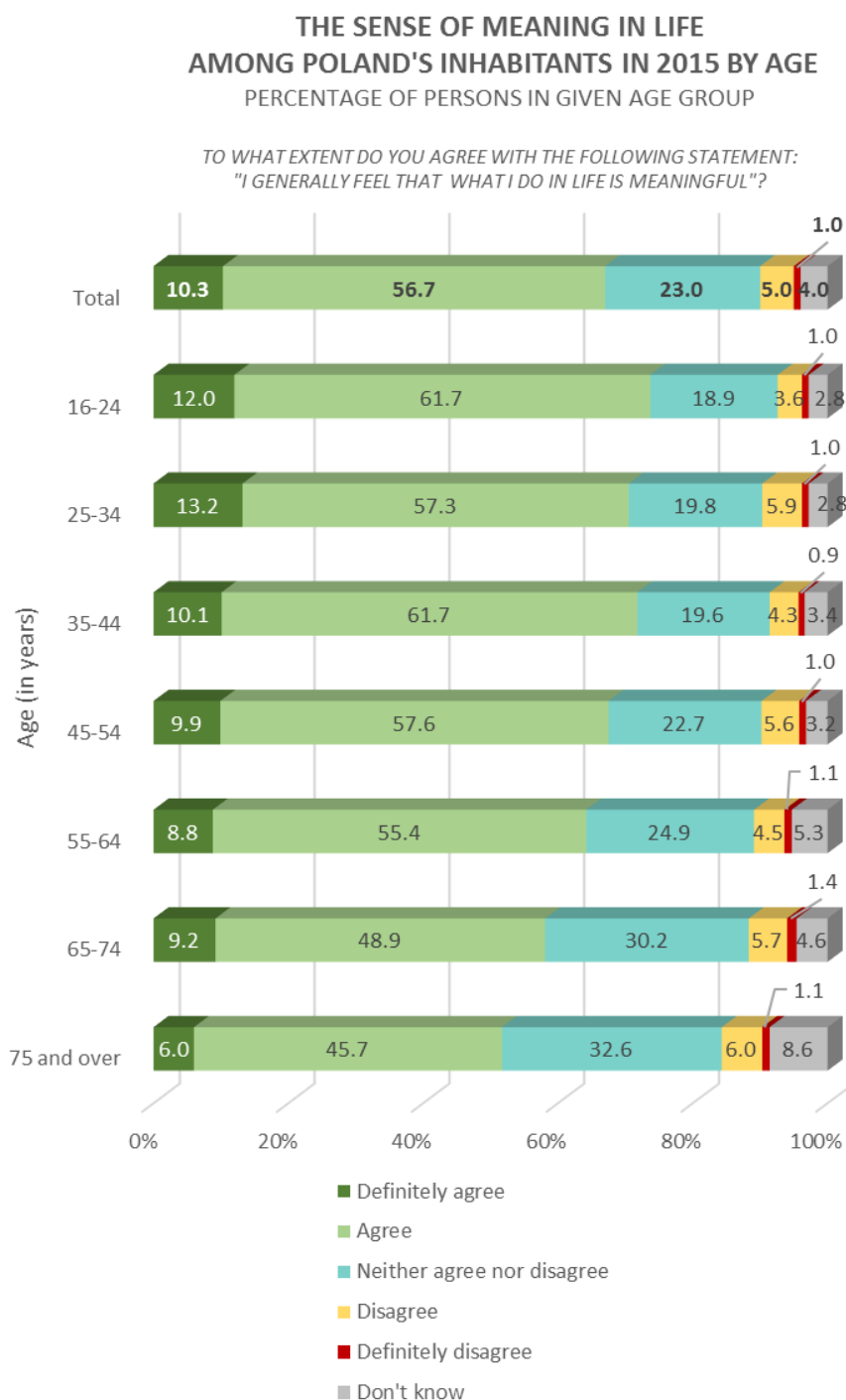


Source: The CSO, the Social Cohesion Survey 2015

Generally speaking, younger people are much more frequently satisfied (or very satisfied) with their lives than the older ones. In the youngest age group (16-24), approx. 85% of persons were satisfied with their lives. In the consecutive age groups, the level of life satisfaction was lower. In the first half of 2015, nearly 80% of all persons aged less than 65 were satisfied or very satisfied with their lives, whereas in the group aged 65 years and over life overall life satisfaction was declared by approx. 73%. Among persons aged 65-74, the rate of life satisfaction amounted to approx. 74%, and in the oldest age group (75 years and over) – to approx. 71%.

5.2. The sense of meaning in life

In order to assess the sense of meaning in live of Poland's inhabitants, the Social Cohesion Survey included the following question: "Please assess to what extent you agree or disagree with the following statement: I generally feel that what I do in life is meaningful". The sense of meaning in life indicator, calculated on the basis of the responses given, provides information on the percentage of people who claim to agree or definitely agree with the statement.



Source: The CSO, the Social Cohesion Survey 2015

The sense of meaning in life indicator differs in various age groups, with the values exceeding the population average being recorded for all age groups below the age of 55. In older age groups, the percentage of people declaring that the things they do in their lives are meaningful gradually decreases. In the age group of 65 years and over, the sense of meaning in life was declared by approx. 56% of persons, of which approx. 58% of persons aged 65-74, and 52% of persons aged 75 years and over. To compare, in the population of persons aged 16-64, the sense of meaning in life was declared by over 69%.

5.3. Emotional well-being

Emotional well-being constitutes (along with life satisfaction and the sense of meaning in life) a significant dimension of the subjective well-being assessment.

The well-being was assessed on the basis of nine questions concerning the frequency of certain emotional states, both positive and negative, experienced within the last month preceding the survey. Assuming that the occurrence of one symptom (especially for a relatively short period) constitutes merely a premise, but not the firm basis, to draw an inference on “generally good” or “generally bad” well-being, two aggregate indicators were calculated, i.e. “the indicator of good well-being” and “the indicator of bad well-being”.

The aggregated indicator of good well-being is defined as the percentage of people who did not experience any symptoms of poor well-being within the month preceding the survey, and in whom at least 5 out of 9 symptoms of good well-being were observed³.

The aggregated indicator of bad well-being, on the other hand, reflects the percentage of people who experienced at least 6 out of 9 symptoms of poor well-being within the month preceding the survey.

The results of the Social Cohesion Survey indicate that in 2015 approx. 38% persons aged 65 years and over displayed good well-being, whereas the accumulation of negative emotional states was observed in approx. 6% of persons in this age group. To compare, among persons aged 16-64, the indicator of good well-being amounted to approx. 53% and the indicator of bad well-being – to approx. 4%). Persons aged 75 years and over displayed poor well-being relatively the most frequently (approx. 7% against approx. 5% among persons aged 65-74). At the same time, the percentage of people displaying good emotional

³ The symptoms of good and poor well-being considered are shown in Table 1.

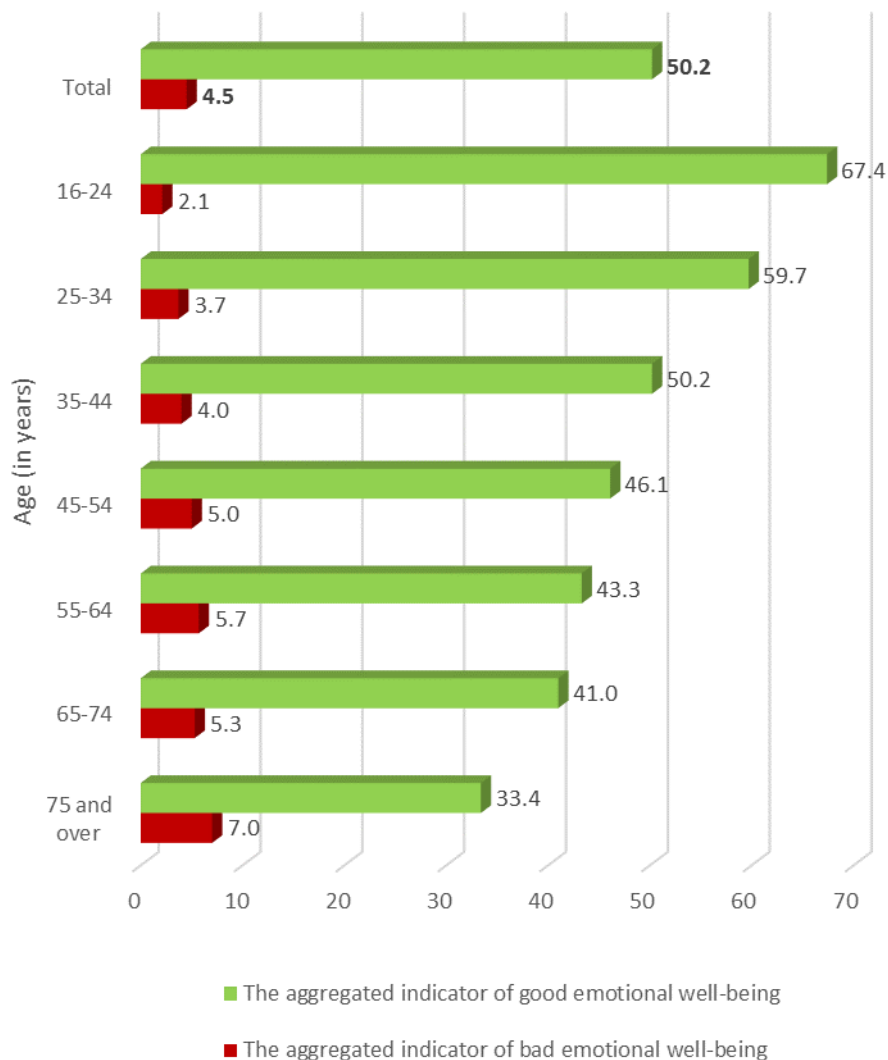
well-being, based on the adopted criteria, was the lowest in the age group of 75 years and over (approx. 33%). To compare, among persons aged 65-74, the corresponding figure was approx. 41%.

Table 1. Emotional states experienced – indications of well-being

% of persons aged 65 and over

The surveyed persons felt*:	All the time	Most of the time	For a few days	Very rarely	Never
Full of life	5.3	33.0	33.1	24.9	3.7
Calm and composed	8.8	58.4	23.9	8.0	0.8
Full of power and energy	2.7	26.5	37.3	28.6	4.9
Happy	7.6	43.4	32.0	14.8	2.2
Very nervous	1.3	7.2	31.7	48.1	11.8
So dispirited that nothing could raise their spirits	0.9	5.8	20.0	44.9	28.5
Sad, dispirited or downcast	1.2	8.3	27.5	47.8	15.2
Exhausted	1.5	9.1	31.4	42.9	15.1
Tired	2.3	16.3	47.8	30.1	3.5
*Based on the responses provided to the question: <i>“Please specify how often in the last month you felt...”</i> <i>Source: The CSO, the Social Cohesion Survey 2015</i>					
Indications of good well-being include: - the occurrence of positive emotions all the time or most of the time - the occurrence of negative emotions very rarely or never					
Indications of bad well-being include: - the occurrence of positive emotions very rarely or never - the occurrence of negative emotions all the time or most of the time					

**EMOTIONAL WELL-BEING
AMONG POLAND'S INHABITANTS IN 2015 BY AGE**
PERCENTAGE OF PERSONS IN A GIVEN AGE GROUP

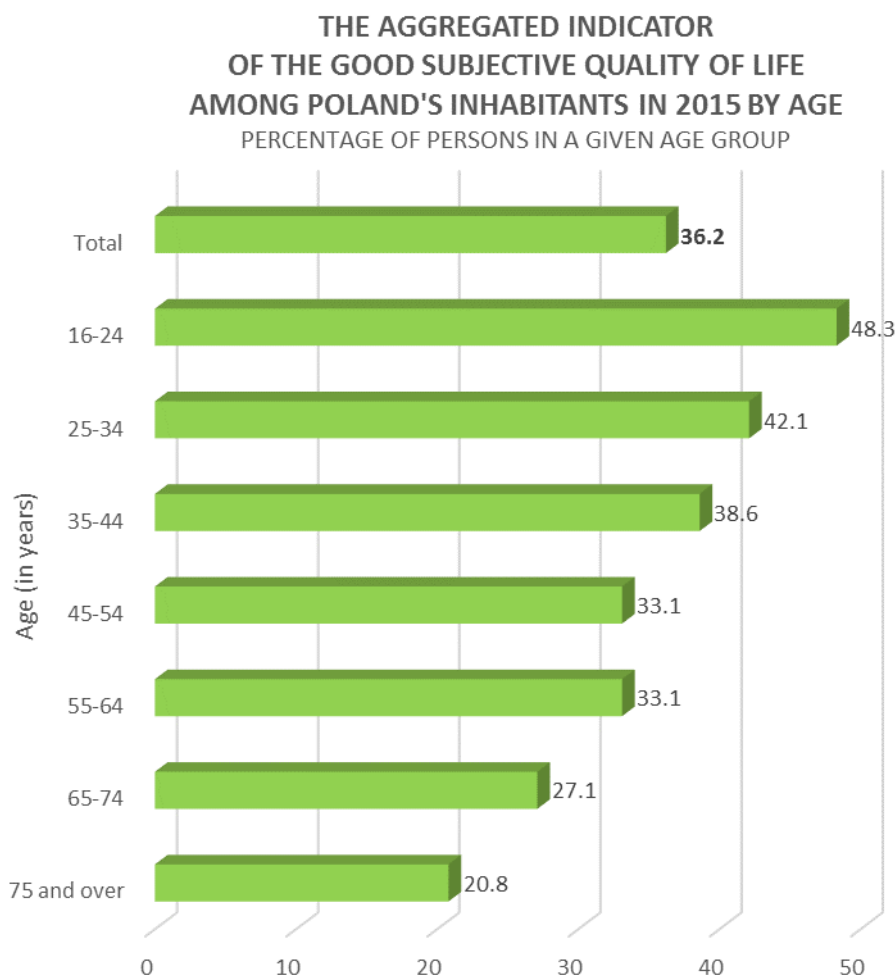


Source: The CSO, the Social Cohesion Survey 2015

5.4. The accumulation of the positive symptoms of subjective well-being – the indicator of the good subjective quality of life

It was assumed that the indicator of the good subjective quality of life would be defined as the percentage of people who were satisfied with their lives (claiming to be generally satisfied or very satisfied with their lives), declared the sense of meaning in life (i.e. agreed or definitely agreed with the statement: *“I generally feel that what I do in life is meaningful”*), and displayed good emotional well-being (based on the definition of the

aggregated indicator of good emotional well-being). These population members can be considered to display relatively the best subjective quality of life.



Source: The CSO, the Social Cohesion Survey 2015

Among all the age groups under analysis, the highest values of the aggregated indicator of the good subjective quality of life were recorded among the youngest persons, i.e. aged 16-24. In this age group, almost every second person (i.e. approx. 48%) reported a good subjective quality of life, whereas among persons aged 65-75 the accumulation of all three positive symptoms of the subjective well-being occurred, in average terms, only in the case of every fourth person (approx. 27%), and among the oldest persons, i.e. aged 75 and over – in every fifth person (approx. 21%).

6. Determinants of the subjective well-being

A description of the situation of older people in terms of various aspects of the subjective well-being is included in point 5. The analyses presented in point 6 serve the purpose of identifying the quality of life determinants among older people, and the assessment of significance of age as one of such determinants. The analysis focuses on the explanation of the overall life satisfaction. It is the aspect of the subjective quality of life which, according to the authors, describes the entire phenomenon in question in the most synthetic and representative manner (taking into account individual variables only).

The first element of the analysis focuses on the impact of age on the quality of life, i.e. whether age constitutes a determinant and to what degree the relation concerns the elderly group. Afterwards, the quality of life determinants in the elderly group were identified. Their description was supplemented with a corresponding analysis performed for other people group in order to determine which relationships are characteristic of older people, and which ones pertain to the remaining population as well. Therefore, such a comparison was made between a group of persons aged 65 years and over, and the remaining population members, along with assessing the significance of the differences in the way in which individual factors influence the quality of life. With a view to conducting the analyses in question, several logistic regression models explaining the life satisfaction were estimated, what made it possible to assess specific correlations and effects. The indicator of the overall life satisfaction, taking into consideration the "satisfied" and "very satisfied" responses, served as the response variable. The same set of explanatory variables was used in various models, whereas the population (the observation subset) concerned and the specification of the effects of various factors (including the differentiation of model parameters by age or not), were different, so as to provide responses to specific questions formulated in the analysis plan.

The model concerning the entire population comprising all the age groups (16+), including age as one of the explanatory factors, reveals a significant influence of age on life satisfaction⁴. The estimation results for the parameters describing the influence of age are shown in Table 2. It can be observed that the effect of age is connected especially with the differentiation into the elderly group and other age groups, with statistically significant results (in relation to the reference age group of 35-45, i.e. outside the elderly group) being

⁴ Other factors included in the model are listed in Table 3, along with a description of the sub-population models.

observed for the last three groups comprising persons aged 55+ (with the strongest effect concerning the last two groups, i.e. 65+). These are positive effects implying that the membership of older age groups contributes to greater life satisfaction. This observation, however, is likely to arise from the retrospective assessment approach taken by respondents, who not only take into consideration the current situation, but also reflect on their entire way of life. It is further worth noting that older people are not the most satisfied with their lives, as was shown in point 5.1. The positive effect estimate obtained in the model may therefore be explained by, among other things, stating that it reflects the effect adjusted with other factors, e.g. health status.

Table 2. Detailed effects of age – model for the whole population

<i>Age group</i>	<i>Parameter estimate</i>	<i>Wald statistics</i>	<i>p-value</i>
16 – 24	0.092	0.37	0.5436
25 – 35	-0.019	0.04	0.8478
35 - 44	<i>Ref.</i>		
45 – 54	-0.001	0.00	0.9916
55 – 64	0.272	8.85	0.0029
65 – 75	0.531	20.07	<.0001
75 +	0.589	20.07	<.0001
<i>Complete factor effect (DF=6)</i>		31.11	<.0001

*Significant effects at the level 0.05 marked **bold**.*

Table 3 features the synthetic estimation results (i.e. the complete effects of various factors) of the models explaining life satisfaction separately for two subpopulations, which jointly form the population under analysis, i.e. persons aged 16-64 and 65+ (older people).

The factors identified as being statistically significant in the model applied to persons aged 65 years and over (p-value < 0.05 in the last column) can be treated as significant determinants of the quality of life (as measured by the overall life satisfaction) of older people. A set of the most important determinants in the group of older people is similar to

that of other people. However, certain differences are also observed, which may prove particularly interesting and worth noticing.

Table 3. Analysis of the complete factor effects (separate estimation for 16-55 and 65+ subpopulations)

<i>Factor</i>	<i>DF</i>	<i>Age 16 - 64</i>		<i>Age 65+</i>	
		<i>Wald statistics</i>	<i>p-value</i>	<i>Wald statistics</i>	<i>p-value</i>
Sex	1	0.03	0.8604	0.00	0.9469
In a relationship	1	129.25	<.0001	16.17	<.0001
Education	4	7.73	0.1020	3.92	0.4174
Labour market status	8	24.34	0.0020	9.24	0.2356
Occupation	10	3.81	0.9555	11.20	0.3421
Material situation:					
income	2	0.79	0.6723	6.15	0.0462
living conditions	2	51.02	<.0001	32.71	<.0001
budget balance	2	34.73	<.0001	8.13	0.0171
Social capital					
associations	3	5.07	0.1664	0.72	0.8684
friends and neighbours	3	18.67	0.0003	26.74	<.0001
family	3	9.41	0.0243	36.21	<.0001
Disability	1	0.73	0.3926	0.06	0.8035
Religious involvement	4	42.92	<.0001	22.63	0.0002
Way of life (<i>a graphic scheme selected by the respondent</i>)	4	225.20	<.0001	115.35	<.0001
Self-assessment of the health status	4	191.81	<.0001	77.43	<.0001
Assessment of the amount of free time	4	16.10	0.0029	12.31	0.0152
Age (in years)		(DF=4) 8.96	0.0622	(DF=1) 0.55	0.4569

Significant effects at the level 0.05 marked **bold**. DF (degrees of freedom) = number of levels – 1. Geographical effects (NUTS2 unit and type of locality) omitted.

Two differences have been found in the set of determinants which are considered significant at the 5% significance level. Namely, for older people the influence of income proves significant, whereas the labour market status (economic activity) does not appear so. The first effect is especially worth noticing⁵. Generally speaking, the material situation seems to constitute a fairly important (though not the most important) determinant of the quality of life for the entire population, but current income is its least significant element (the essential elements being living conditions and budget situation). In the group of older people, the significance of current income increases considerably, reaching the statistical significance. A decreased importance of occupational activity also seems a real effect, despite the smaller sample of older people, and can be explained by the natural age-related weakening or disappearance of occupational activity, and thus the reduced significance of this sphere of life.

The most significant determinants in both population groups include the way of life and health status, their influence being more significant than that of the determinants described above, which are specific to individual subpopulations. As regards both the entire population and persons aged 16-64, the most significant determinants also include being in a relationship, though this significance drops slightly for older people, for whom the family-based capital comes to play a more important role. It is worth mentioning that age does not form a significant explanatory factor in the models applied separately for each subpopulation. This confirms the thesis that the impact of age on life satisfaction arises in particular from the specific characteristics of the elderly population.

Separate subpopulation model estimations facilitate a descriptive comparison of the influence exerted by various factors and sets of determinants, but it does not enable the statistical verification (significance assessment) of the differences in the parameter values in both subpopulations. It does not make it possible to statistically verify whether the impacts of various factors on the life satisfaction differ significantly in particular subpopulations. To this end, the model estimation was performed for the entire population, admitting different parameter values related to the impact of all factors presented in both populations. This led to assessing the overall effects for the population aged 16-64 (reference population) and the

⁵ The identification of a given statistically significant effect for the subpopulation of older people, which does not occur for other age groups, carries a greater statistical value than the reverse situation, considering a smaller sample of older people. The reverse situation, i.e. failure to confirm among older people the effect observed for the remaining population members, can result from the smaller sample being used, rather than from weaker correlations.

effects specific to the 65+ population, i.e. the differences between the values of a given parameter in both subpopulations. These effects are the subject of statistical verification.

Table 4. Analysis of the complete factor effects of the age 65+ on model parameters (effects of differences between parameters for 16-64 and 65+ aggregated by factors – model for the whole population with parameters individualised by subpopulation)

<i>Factor</i>	<i>DF</i>	<i>Wald statistics</i>	<i>p-value</i>
Sex	1	0.10	0.7561
In a relationship	1	9.53	0.0020
Education	4	5.53	0.2368
Labour market status	8	11.87	0.1048
Occupation	10	9.43	0.4917
Material situation:			
income	2	3.20	0.0716
living conditions	2	0.05	0.9773
budget balance	2	0.50	0.7782
Social capital			
association	3	0.54	0.9100
friends and neighbours	3	8.14	0.0433
family	3	8.19	0.0423
Disability	1	0.53	0.4675
Religious involvement	4	15.43	0.0039
Way of life	4	5.62	0.2294
Self-assessment of the health status	4	3.83	0.4298
Assessment of the amount of free time	4	7.59	0.1077

*Significant effects at the level 0.05 marked **bold**. DF (degrees of freedom) = number of levels – 1.*

Table 4 presents synthetic assessments of the significance of the effects specific to the 65+ age group concerning complete factors. It can be inferred on this basis that the factors whose impact on the quality of life is significantly different in both subpopulations (i.e. among older people and the remaining people) include being in a relationship, the friends and neighbours-based social capital, the family-based social capital and religious involvement. All those factors act as significant determinants in both subpopulations.

Table 5 features assessments concerning the detailed effects specific to the levels of factors mentioned above. The first part of the table shows parameters measuring the impact of explanatory variables on life satisfaction (for the reference population of 16-64), making it possible to assess the impact direction and strength. The second part presents modifications

of these parameters for the 65+ subpopulation (the difference between the parameter value for the 65+ and 16-64 populations), as well as allows determining the pure age-related effect on a given relationship.

Table 5. Detailed effects of individual levels of selected factors – a model for the whole population with parameters individualised by subpopulation (by age)

<i>Effect (explanatory variable)</i>		<i>Parameters for 16-64 (reference parameters)</i>			<i>Effects of 65+ on the reference parameters (differences between parameters for 16-65 and 65+)</i>		
<i>Factor</i>	<i>Level</i>	<i>Parameter estimate</i>	<i>Wald statistics</i>	<i>p-value</i>	<i>Parameter estimate</i>	<i>Wald statistics</i>	<i>p-value</i>
In a relationship		0.791	141.97	<.0001	-0.381	9.53	0.0020
Friends and neighbours-based capital	very low	<i>Ref.</i>					
	low	0.225	7.19	0.0073	-0.286	4.45	0.0348
	medium	0.334	13.42	0.0002	-0.025	0.02	0.8773
	high	0.448	24.33	<.0001	0.048	0.09	0.7691
Family-based capital	very low	<i>Ref.</i>					
	low	0.071	0.26	0.6131	0.516	6.72	0.0095
	medium	0.292	4.45	0.0348	0.449	5.14	0.0234
	high	0.426	7.85	0.0051	0.646	6.87	0.0088
Religious involvement	no religious involvement	<i>Ref.</i>					
	very low	0.012	0.01	0.9314	-0.115	0.13	0.7155
	low	0.438	9.24	0.0024	-0.446	2.03	0.1547
	medium	0.627	16.26	<.0001	-0.384	1.42	0.2330
	high	0.492	6.86	0.0088	0.295	0.62	0.4307

Values which illustrate effects described in the text marked **bold**.

Each of the four factors listed exerts a positive impact on the explained phenomenon. Namely, being in a relationship, as well as a higher family-based capital, friends and neighbours-based capital, and religious involvement contribute to greater life satisfaction. Let us now focus on the age-related differences in the correlations in question.

As regards being in a relationship, the positive impact of this factor is significantly weaker among older people. It seems that living alone in this age group (usually caused by spouse's death) constitutes a more natural and common state than for younger age groups, hence its weaker negative impact on the life satisfaction assessment.

The significance of the family-based capital increases among older people. At this point, it is worth noticing that this capital in the age group in question is much lower than among younger people. It therefore forms "a rare good" which is more appreciated. In this case, we are dealing with a somewhat reverse phenomenon to that of being in a relationship. Namely, the low family-based capital is more common among older people, and so is the lack of a spouse/partner, but the negative impact of the former appears stronger. One way of explaining the situation in question may be to state that the life satisfaction assessment, especially as regards the elderly group, is hugely retrospective, i.e. not "here and now" is evaluated, but also the entire life history and past experiences. For this reason, the family capital, being viewed as "the life achievement", has more significance than loneliness which results from a given event on which the person has no impact, even if it strongly affects the present situation.

Contrary to the first two factors, the 65+ age effects concerning the influence of the friends and neighbours' capital and religious involvement are not unidirectional. The positive impact of the high friends- and neighbours-based capital, and religious involvement, on life satisfaction is stronger than in the case of younger people. Nonetheless, the positive impact of the "medium" levels of these factors is weaker among older people. It can be therefore inferred that the friends- and neighbours-based capital and religious involvement levels, above which these factors begin to contribute to a greater life satisfaction, are higher in the elderly group.

7. The material situation complementing the description of the well-being of older people

As was mentioned before, the greatest emphasis in this paper was placed on the subjective aspects of the quality of life. However, this description would be impossible without mentioning the material aspects and presenting basic information, especially in view of the fact that – as shown by the models described in point 6 – there are significant correlations, important from the point of view of this description, between the material and subjective well-being. Information describing the material situation is obtained and analysed at the household level. While defining the situation of individuals, it was assumed that it corresponds to the situation of the household which a given person belongs to. The material situation, similar to the subjective well-being, is described in this analysis in three-dimensional terms, taking into account the following three elements: income, living conditions and budget situation (related to budget balance). Each of these components is described using a separate measure. Income is measured with equivalised income, whereas for the

remaining two dimensions special measures have been established, reflecting the occurrence of specific symptoms (and measuring their number). Based on each measure (corresponding to the particular material situation component), a classification of households (and, indirectly, their members) is created, comprising three categories (levels):

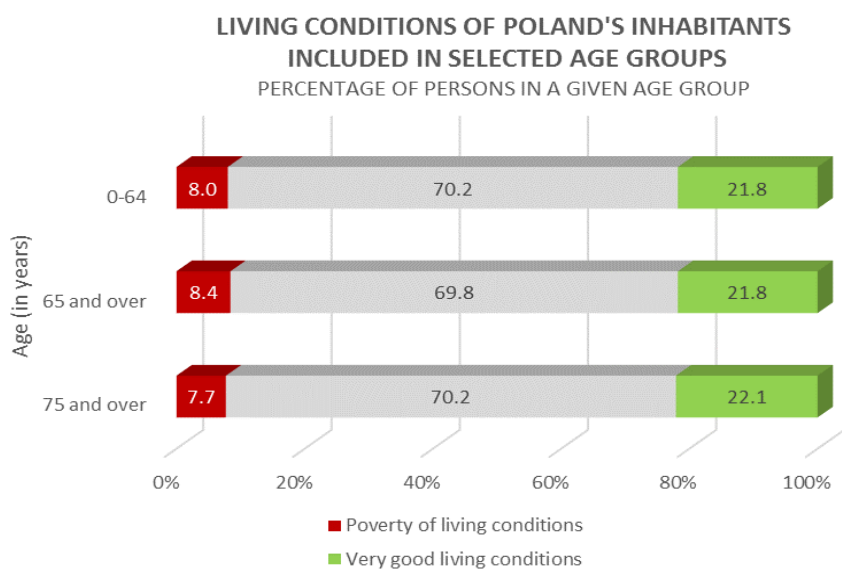
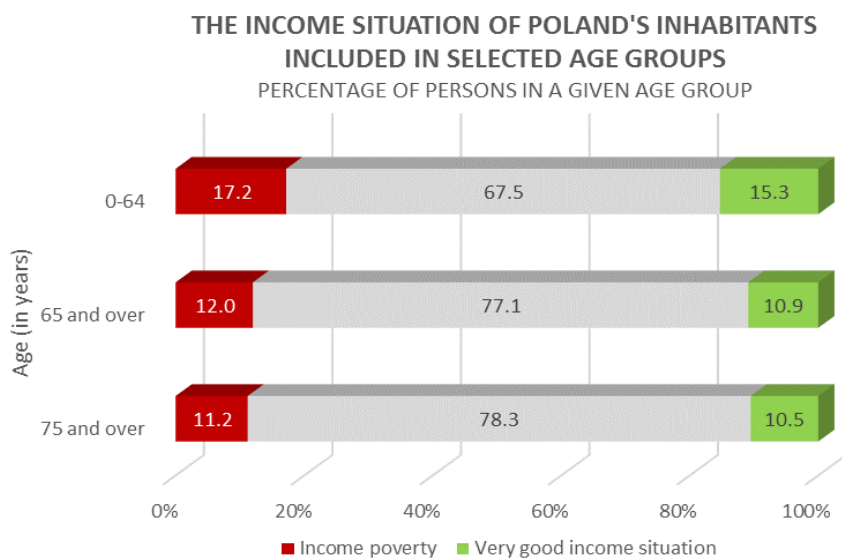
- persons affected by poverty of a certain type (i.e. poverty in terms of income, living conditions or the lack of budget balance),
- persons in the most favourable (very good) situation according to a given criterion,
- persons not included in either of the above categories.

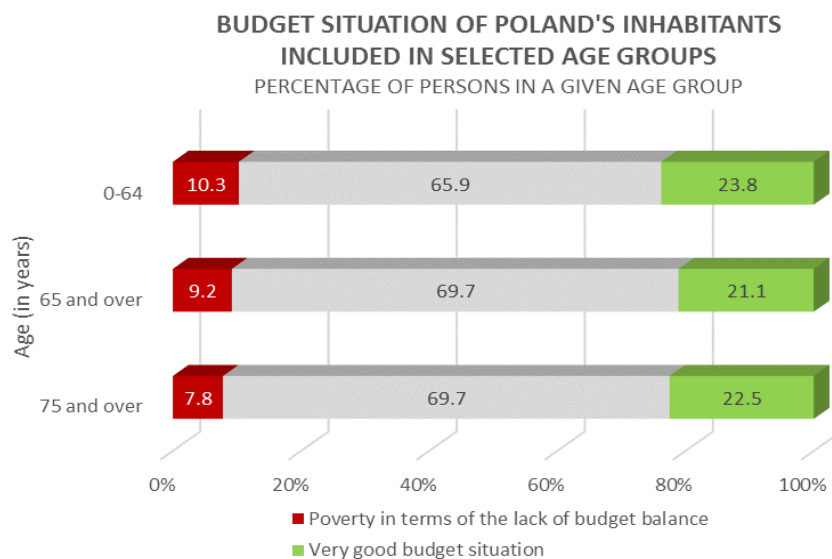
Detailed definitions of the measures and categories determined on their basis are included in the tabular compilation. Given that the material situation is determined at the household level, it may be specified for all people, including also children.

<i>Assessed at the level of the household which a given person belongs to</i>	
Income situation	
Income poverty	This concerns people in the households for which the monthly equivalised income (in the period of 12 months preceding the survey) was lower than the value considered the poverty threshold. The poverty threshold was assumed at 60% of the median equivalised income. An equivalised income is a theoretical income per the so-called equivalised unit, i.e. calculated so as to be comparable between households with various demographic structures.
Very good income situation	This concerns households earning the highest income, i.e. those in which the monthly equivalised income exceeded 5/3 (approx. 167%) of the median equivalised income (i.e. approx. 2.8 times higher than the assumed relative poverty threshold).
Living conditions	
Poverty of living conditions	This concerns households in which at least 10 out of 30 symptoms of poor living conditions were observed, concerning housing quality, the provision of durable goods, as well as deprivation of other types of consumption needs (both material and non-material).
Very good living conditions	This concerns households in which none of the 30 symptoms of poor living conditions was found.
Budget situation	
Poverty in terms of the lack of budget balance	This concerns households considered poor in terms of "inability to deal with their budget", i.e. in which at least 4 out of 7 symptoms were observed, concerning both subjective opinions of households as regards their material status, and facts reflecting budget difficulties (e.g. default in payments).
Very good budget situation	Households with the highest budget freedom, i.e. those which positively assessed their abilities to manage their income, in which none of the 7 symptoms of "inability to deal with their budget" were found.

The figures present a comparison of the material situation of older people and other age groups (aged up to 64). While assessing the situation of older people, the 65+ age group

was taken into consideration, as was done before in life satisfaction modelling, and the 75+ age group was added.





Source: The CSO, the Social Cohesion Survey 2015

The material situation of older people, in the light of the presented data, appears to differ from that of other people to a lower extent than could be expected. The clear-cut differences, which are worth interpreting, can actually be found only in the income situation. In the elderly group, the number of people facing poverty is lower, but so is the number of people in the most favourable situation. This group is therefore more homogenous in terms of income than the remaining population.

The reasons are probably complex, especially if reference is made to the poverty indicator comparisons which suggest a better standing of older people. One can hardly state that this age group in Poland is privileged in terms of income – it is quite to the contrary. However, the lower diversification of income, coupled with higher income certainty and stability, leads to the observed situation. Furthermore, the remaining population comprises children who do not earn income, as a consequence of which households with children display lower equalised income values, despite applying the appropriate equalisation scale.

As regards other aspects of the material situation, the insignificant differences between the indicator values do not prompt any conclusions as to the specific situation of older people. Although the factors influencing the material situation, such as household furnishings, individual needs that may be subject to deprivation, and the causes of the potential budget balancing problems, are likely to differ in the age groups compared, their overall situation expressed by means of synthetic indicators appears similar.

The material situation which is diversified to a relatively insignificant degree may, in a way, confirm the justifiability of the approach adopted, focusing on the subjective and non-

material assessments of the quality of life. This analysis has revealed a number of effects specific to the elderly population, and a variety of interesting correlations.