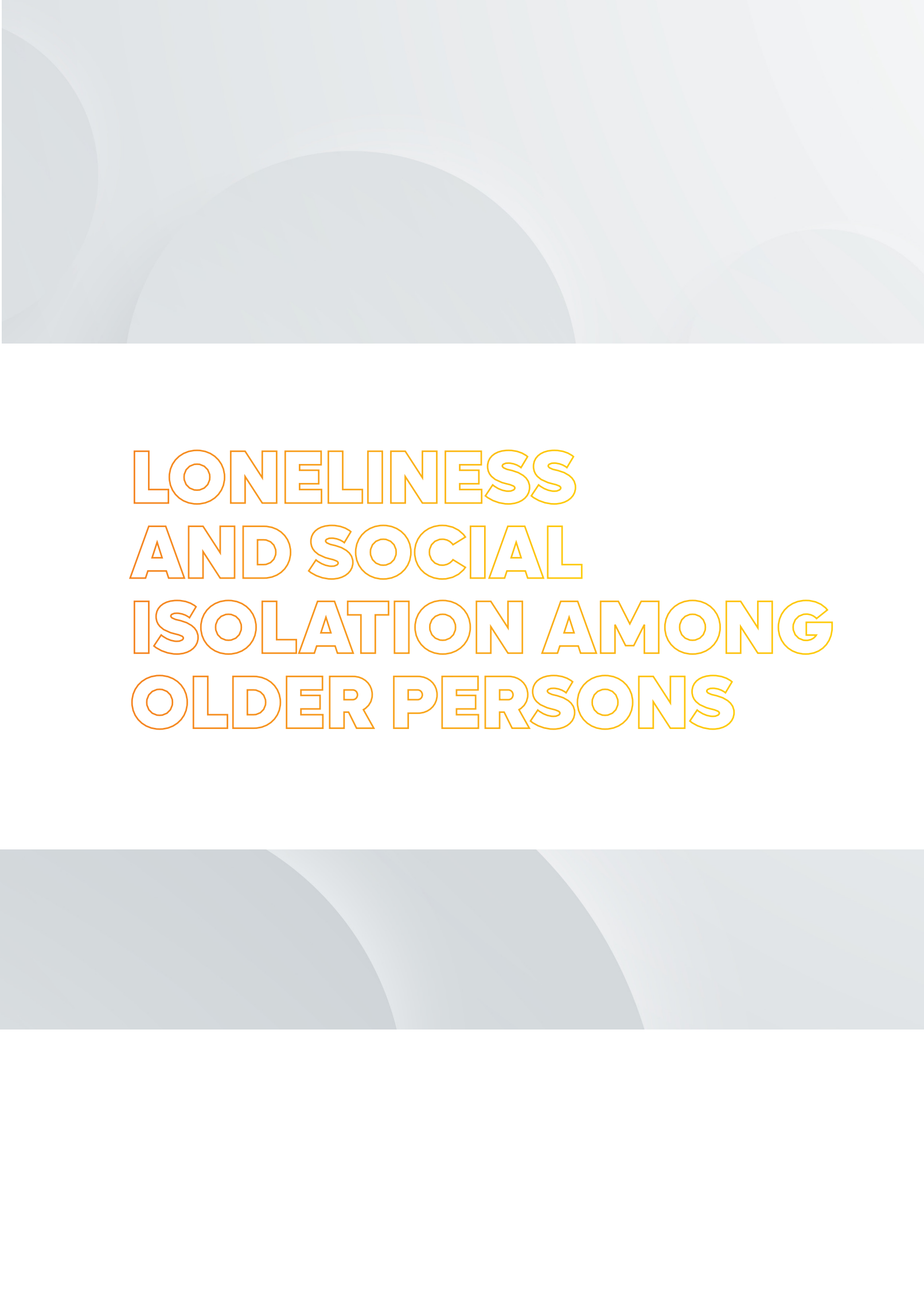


LONELINESS AND SOCIAL ISOLATION AMONG OLDER PERSONS

ANALYSIS OF THE DATA
FOR THE REPUBLIC OF SERBIA

Goran Jordanski, A Break from Life, from the exhibition The Beauty of Getting Old
#2, Association Amity and the Photo Association of Serbia





LONELINESS AND SOCIAL ISOLATION AMONG OLDER PERSONS

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1 OVERVIEW

Introduction

Population aging is a global phenomenon. While older persons make 19% of the population in Europe and North America, projections indicate that by 2030, the elderly will make 22%, and by 2050 as many as 27% of the population in this part of the world. The aging trends in Serbia are consistent with these projections. While older persons made 9.6% of the population in Serbia in 1990, it is expected as soon as 2040 for this group to make 24.0% of the population, where 7.4% would be persons older than 80. Even though loneliness and social isolation have been recorded among the elderly for a long time now, their effect was enhanced during the social restrictions introduced during the COVID-19 pandemic. It therefore becomes increasingly necessary to address this risk factor among the elderly. However, there is still no adequate response in Serbia to this major risk factor for the wellbeing of the elderly.

- In order to understand the frequency and risk factors connected to loneliness, the United Nations Population Fund (UNFPA) implemented a regional research project in six states/territories in the region of East Europe and Central Asia, including Serbia, and made a regional report. The report provides important guidelines pertaining to the regional development of response to loneliness. However, in order to fully utilise the collected data and provide concrete recommendations to decision makers in Serbia pertaining to further development of their response to aging and loneliness among the elderly, the United Nations Population Fund in Serbia, in cooperation with the Centre for Research and Social Development IDEAS, has made an additional analysis of the data for Serbia and created this report. The analysis thus represents an overview of the data pertaining to the position of older persons in Serbia in different fields, including participation in community-based activities, frequency of contacts with family and friends, size of social network, emotional support, support in daily activities, use of information and communication technologies, health and healthcare and social confidence.

Loneliness and Social Isolation among the Elderly - Results of the Data Analysis for Serbia

Loneliness

- 68% of older persons in Serbia are lonely, which is 11% less than in the countries in the region;
- Around a half of the older persons (52%) report not having many people that they can rely on, while two thirds (68%) state that they do not have many people that they can trust entirely;
- 57% of the older persons believe that their circle of friends is too limited, while 52% say that they miss the joy of other people's company;
- 30% of the elderly in Serbia feel rejected.

Participation in activities in the community

- 78% of the elderly participated in no activity in the community even before the COVID-19 pandemic;
- Those who did participate, were most frequently involved in social clubs, i.e. day centres (5%), or in the operation of religious groups (4%);
- Only 2% of the elderly participated in sporting activities, yet 89% of the elderly were moderately physically active 5 times a week or more;
- Only 0.3% of the elderly participated in educational activities;
- Private vehicle or public transport are unavailable to 17% of the elderly.

Contact with family and friends

- 2% of the elderly do not maintain contact with their family, or friends, either live or via phone, while 13% of them maintain only phone contacts;
- COVID-19 led to a significant decrease in the frequency of older persons' contacts with their family members and friends live, so the share of the older persons who meet their family and friends once a month or less soared from 18% to 45%, while the percentage of those who never, or almost never meet their family and friends rose from 3% to 14%;
- Even though telephone is important for elderly people as a way of maintaining contacts, 7% of the elderly do not have telephone access.

The size of social network

- An average size of older persons' social network, i.e. the number of persons they feel they can talk to about the things worrying them, is 5;
- 83% of the elderly feel extremely, or very close to their family members, while 61% of the elderly feel extremely, or very close to at least one friend;
- 67% of the elderly report that they always, or frequently have a person that they love, or because of which they feel loved.

Emotional support by family and friends

- 68% of the elderly believe that their close persons fully, or pretty much understand them, while one third (32%) believe that these persons partially understand them, or do not understand them at all;
- 71% of the elderly believe that they are very important to their close persons, while only 38% of them believe that they are important to other people in the community.

Opportunities for interaction

- 68% of the elderly state that they wish more opportunities for interaction with others, at least at times.
-

Support in daily activities

- 26% of the older persons state that they receive support never, rarely, or sometimes in preparing meals, while 23% do not have support in going to the doctor's when they need it;

- More than a half of the elderly (54%) believe that they regularly or frequently have someone to share with them activities they enjoy, while almost one fourth (23%) state that they never, or rarely have someone to enjoy such activities with them.

Use of information and communication technologies

- Somewhat more than one half of the older persons (55%) have no internet access at home;
- Most of the older persons do not use computers, or other electronic devices (70%). 42% of the older persons admit that they do not know how to use computers, 23% that they do not have a computer or other electronic devices, and 5% that they do not use them.

Health and healthcare

- One third of older persons in Serbia perceive the condition of their health as good or very good (32%), another third state it is good enough (35%) while the remaining third report that their health is poor (33%);
- 12% of older persons in total state that they do not have chronic conditions, while 6% say they do not know whether they have chronic conditions. The older persons with chronic conditions have 3 chronic conditions on average, where the number of chronic conditions according to the older persons statements, ranges from 1 to 20;
- A little less than one fifth (19%) of the older persons have turned to a therapist or doctor in the last two years, due to some mental health issue;
- A little more than a half of the elderly say they have problems with hearing which limit their social and/or family life (52%);
- Almost one fourth of the participants in the research (23%) state that the condition of their health frequently or always represents a difficulty when it comes to their participation in social and community-based activities;
- A third of the participants stated that they were very happy, bearing in mind that 35% checked the mark 8 or higher, while 13% checked marks between 0 and 4, indicating that they were very unhappy;
- Many of the elderly experienced death of a close person (38%). A little bit more than one fourth have experienced death of a close relative or friend in the last 2 years (27%), with 11% experiencing death of the partner.

Social confidence

- A bit less than a half of the elderly (45%) at times, or frequently avoids being included in the groups the members of which they don't know well;
- An overwhelming majority of older persons (70%) never or rarely experience nervousness when they personally speak to a stranger;
- 11% of the elderly always or frequently fear that they would be perceived as boring or unlikable in front of others

Gender differences

The analysis indicates that gender differences are relatively small when it comes to the researched fields. The position of older women is somewhat worse relatively when it comes

to the access to transport, either private or public, so in the last two years, means of transport have been used by 80% of women and 86% of men. When it comes to using transport, women living alone are in a particularly unfavourable position, with only 69% of them using any kind of transport. There is a mild difference when it comes to the perception of health, where men perceive their health as being better when compared to women. Thus 35% of the older men perceive their health as good or very good, 39% think that their health is good enough, and 26% see their health as bad, while 30% of the older women perceive their health as good or very good, 33% see their health as good enough, while 37% believe that their health is bad or very bad. There are also mild differences when it comes to the wish for interaction with others, where 32% of the older men state that they need more interaction with others always, or frequently, as opposed to 26% of women claiming the same

Social exclusion

The analysis indicates that social exclusion, measured via level of education and satisfaction with financial situation, has a significant impact on the position of older persons. The negative impact of social exclusion is the most pronounced when it comes to health, social confidence, as well as use of information and communication technologies, while it is somewhat milder when it comes to the size of social network, frequency of contacts with family and friends, availability of emotional support by family and friends, support in daily activities and loneliness. The older persons without finished primary school, and with only primary school finished, are 5 times more likely to perceive the condition of their health as poor, than those who graduated from college or university. Thus 50% of the elderly who did not finish primary school, or primary school is their only finished level of education see the condition of their health as being poor, compared to 25% of those with finished secondary school and 11% of those with university or college degrees. Simultaneously, while 20% of the elderly with college or university degrees report that they do not have chronic conditions, the same is reported by only 4% of those without finished primary school, or those for whom primary school is the only level of finished education. Older persons with lower education feel less confident in social interactions than those with higher levels of education, so 23% of those with or without finished primary school state that they always or frequently feel unease in situations involving strangers. The same issue is reported by 9% of the older persons with college and university degrees. Also, a lack of confidence when meeting new people is never or rarely felt by 31% of the older persons with or without primary school degree, as opposed to 16% of the older people with college or university degrees. Social exclusion also has a significant impact on access to the internet. While two thirds of the elderly who are very satisfied with their financial situation have access to the internet from their homes, only 25% of those who are highly dissatisfied with their financial situation have internet access. While all the older persons who perceive their financial situation as good have access to phone, 19% of the elderly who perceive their financial situation as very bad do not have access to phone, as well as 14% of those with or without finished primary school. Social exclusion is also connected to the state of development of social relations and acceptance of the elderly by family and friends. While 17% of the older persons state that they do not have a close family member, or they are moderately close with their family members, the same is stated by as many as 41% of the elderly who are dissatisfied with their financial situation. Simultaneously, 28% of the elderly who are dissatisfied with their financial situation state that the people closest to them do not understand them at all, while none of the persons who are highly satisfied with their financial situation claim that.

Recommendations

- On the level of policy framework, as well as in planning the measures of development assistance, support programmes and projects, it is necessary to include measures and activities with the aim of including and supporting the older persons with low education, who live in poverty, or to elderly women living alone.
- On the national and local level, the development of organised activities for older persons should be strongly supported, with the aim of facilitating high quality time, volunteering and, generally, lifelong learning. A special attention needs to be paid to developing opportunities for the development of skills and knowledge of older people, as well as to the availability of all these activities to the elderly at risk of exclusion, including the older persons with or without primary school degree, those living in poverty, those who have poor health, and elderly women living alone.
- On the national and local level, support measures need to be developed to facilitate access to the internet, computers, smartphones and tablets to older persons, accompanied with support programmes with the aim to improve digital literacy of the elderly, and especially of vulnerable older persons.
- On the national and local level, measures that would enable the elderly that face health-related and other barriers to participate in the social life of the community, need to be created and developed.
- On the national and local level, work is required on the development and accessibility of different types of gender-sensitive transport for older persons.
- In order to decrease loneliness of the elderly, it is of crucial importance for actors on the national and local level to develop the support measures for older persons which would facilitate contacts with family and friends, and help them in developing close attachment to others, develop the understanding of the elderly by their close ones and work on the development of support which would facilitate participation in the community by older persons with health problems.
- On the national and local level, it needs to be worked on improving the image of older persons and the valuing thereof.
- On the national and local level, support to the elderly with hearing difficulties needs to be improved, to facilitate their participation in the life of the community.
- The health-related inequalities among the elderly need to be addressed on the national level, and effective measures of safety at work need to be secured, especially when it comes to the jobs performed by older persons with low level of education.
- Develop support programmes on the local level with the aim of strengthening social confidence of the elderly, which offer opportunities to the elderly to make new and develop the existing social contacts and develop intergenerational solidarity and cooperation.
- On the local level, develop support programmes for the families of older persons, dealing with understanding of older persons and characteristics of aging.
- As the COVID-19 pandemic has led to a significant decrease in the maintenance of regular social contacts, it is necessary to create opportunities in the communities for older persons to spend time outdoors and encourage them to make contacts while respecting the COVID-19 prevention measures.

2 FOREWORD

Bearing in mind that the populations of Eastern Europe and Central Asia are ageing more swiftly, the issues of loneliness and social isolation of older persons have become increasingly important. The measures undertaken by states to prevent the escalation of the COVID-19 pandemic, have had a disproportionately stronger effect on older persons and resulted in an increased level of social isolation and loneliness for many.

This analysis is based on research made during the COVID-19 pandemic, it records the effects that the pandemic has had on loneliness and social isolation and appears in the period when states are moving on from the pandemic and work on social recovery.

This analysis would contribute to better understanding of the risk factors that lead to loneliness and social isolation. We hope that this analysis would help policy creators and civil society in providing support and improving the services necessary to the elderly in maintaining their physical and mental health and wellbeing, and staying actively engaged in the society.

Fighting the loneliness experienced by older people is a key factor in our efforts to create a society for all generations.



Rasa Milojević, Love is Forever, from the exhibition The Beauty of Getting Old #2, Association Amity and the Photo Association of Serbia

3 INTRODUCTION

Population aging is a global phenomenon. While older persons make 19% of the population in Europe and North America, projections indicate that, by 2030, the elderly will make 22%, and by 2050 as many as 27% of the population in this part of the world¹. The aging trends in Serbia are consistent with these projections. While older persons made 9.6% of the population in Serbia in 1990, it is expected as soon as 2040 for this group to make 24.0% of the population, where 7.4% would be persons older than 80².

In addition to the physical conditions related to aging, older persons with years encounter numerous mental challenges. These include social disconnection, which involves loneliness and social isolation. Both of these are overwhelming among the elderly, with as much as three fourths of older people reporting that they often feel lonely³. These two aspects are frequently mutually connected, yet they measure two different components of the lack of social interaction. Social isolation is an objective measure which indicates the frequency of social interactions, i.e. how often a person meets other people and has social interactions with them⁴. Loneliness, on the other hand, is a subjective measure, which indicates people's perception about having enough close friends and acquaintances. Emotional loneliness and social loneliness are different things. Emotional loneliness, which occurs when a person lacks close relationships and intimate friends, generally indicates the quality of one's relationships. Social loneliness⁵ occurs when a person lacks a wide social network and it indicates the quantity of person's social relations.

Loneliness and social isolation are crucial risk factors when it comes to age-related health conditions, and are thus harmful for the condition of one's health. Even though loneliness and social isolation have been recorded in older people for a long time now, their effects have been emphasised by the social restrictions introduced during the COVID-19 pandemic⁶. It therefore becomes increasingly urgent to address this risk factor occurring in older persons. However, Serbia still lacks an adequate response to this major risk factor when it comes to older people's wellbeing.

In order to understand the frequency of occurrence and risk factors connected with loneliness, the University College London (UCL) and United Nations Population Fund (UNFPA) conducted a poll on loneliness in six states/territories in the region of Eastern Europe and Central Asia: Albania, Azer-

- 1 United Nations. Department of Economic and Social Affairs (2022). *World Population Prospect 2022. Summary of Results*: <https://reliefweb.int/report/world/world-population-prospects-2022-summary-results>
- 2 Republika Srbija, Republički zavod za statistiku (2022). Statistički godišnjak Republike Srbije, 2022 : <https://www.stat.gov.rs/sr-cyrl/publikacije/?d=2&r=>
- 3 Keck, T. (2020). Changes in behaviors and the projected health benefits for members of healthy ageing centres in Bosnia and Herzegovina. UNFPA Technical Report; Masi, C.M., Chen, H.Y., Hawkey, L.C., and Cacioppo, J.T. (2011). A meta-analysis of interventions to reduce loneliness. *Pers Soc Psychol Rev* 15, 219-266.
- 4 Beller, J., and Wagner, A. (2018a). Disentangling Loneliness: Differential Effects of Subjective Loneliness, Network Quality, Network Size, and Living Alone on Physical, Mental, and Cognitive Health. *J Aging Health* 30, 521-539; Beller, J., and Wagner, A. (2018b). Loneliness, social isolation, their synergistic interaction, and morality. *Health Psychol* 37, 808-813.
- 5 Domenech-Abella, J., Lara, E., Rubio-Valera, M., Olaya, B., Moneta, M.V., Rico-Urbe, L.A., Ayuso-Mateos, J.L., Mundo, J., and Haro, J.M. (2017). Loneliness and depression in the elderly: the role of social network. *Soc Psychiatry Psychiatr Epidemiol* 52, 381-390.
- 6 Savage, R.D., Wu, W., Li, J., Lawson, A., Bronskill, S.E., Chamberlain, S.A., Grieve, J., Gruneir, A., Reppas-Rindlisbacher, C., Stall, N.M., et al. (2021). Loneliness among older adults in the community during COVID-19: a cross-sectional survey in Canada. *BMJ Open* 11, e044517.

baijan, Bosnia and Herzegovina, Georgia, Serbia and Kosovo⁷. This poll examined the following: 1) the level of loneliness that older persons report in different states/territories; 2) demography (gender, age, living in urban/rural environment, family situation, access to the internet, social and economic situation, condition of health) of the lonely persons, including the measures of social isolation; 3) availability of direct support necessary for daily tasks, such as preparation of meals, performing house chores and use of medical care; and 4) social factors that presumably contribute to the sense of loneliness, including opportunities for social interaction, social and emotional support and social confidence. The poll was participated in by 1,010 older people in Serbia, their age ranging from 65 to 86. This sample was representative for the population of Serbia and it involved the target population from both urban and rural areas.

- The poll identified that 79% of the elderly are at least moderately lonely, with 18% being extremely lonely, which was consistently repeated in all six states/territories.
- The poll showed that there were four aspects that primarily contributed to loneliness in this population:
- Direct support: availability of support in performing necessary daily tasks, such as preparing meals, performing chores and going to the doctor's. In the population of older persons, lower marks for direct support are connected with higher levels of loneliness. These results emphasise the importance of basic daily support to the older persons who need it.
- The size of social network: the total number of friends and family members. A lower number of social contacts is connected with higher levels of loneliness. The persons with bigger social networks are thus less lonely.
- Social support: there is someone with whom a person can do something that brings him/her joy. The persons with less social support are lonelier. 86% of the persons with low levels of loneliness responded that they always, or frequently had someone with whom they could do something that brought them joy. Contrary to that, only 28% of the persons with high levels of loneliness said that they always or frequently had someone with whom they could do something that brought them joy.
- Social confidence: how anxious a person is when meeting new people and how much he/she cares about the way that other people see him/her. Lower levels of confidence are connected with higher levels of loneliness, which indicates that it is more likely for a person that has social interaction anxiety to be lonely.
- The report provides important guidelines pertaining to regional development of response to loneliness. However, as the poll collected different data concerning the position of older people in Serbia, which were not presented in the original report, and as Serbia is the country with the largest share of older persons in the population structure when compared to the remaining countries that participated in this research, in order to secure the full use of the data collected pertaining to the position of older persons in Serbia, and offer concrete recommendations for the improvement of the position of the elderly citizens of Serbia to the decision makers, the UNFPA in cooperation with the Centre for Research and Social Development IDEAS (IDEAS) realised an additional analysis of the data for Serbia. This analysis would not repeat the findings presented in the already published report entitled "Loneliness and Social Isolation among Older People in Eastern Europe and Central Asia", but it rather represents its supplement. The following text includes a detailed presentation of the data concerning loneliness, as well as the following factors that describe the position of older persons, which could have their impact on loneliness:

7 Every reference to Kosovo needs to be interpreted in line with the Security Council's Resolution no. 1244 (1999).

- Participation in activities in the community
- Contact with family and friends
- The size of social network
- Emotional support by family and friends
- Opportunities for interaction
- Support in daily activities
- Use of information and communication technologies
- Health and healthcare
- Social confidence

Dealing with each of the aforementioned areas involves analysing their correlation with demographic variables, and after individual analyses, the results which indicate correlation between loneliness and said factors are presented. In the end, the main conclusions of the analysis are presented, as well as guidelines for further development of response to aging.



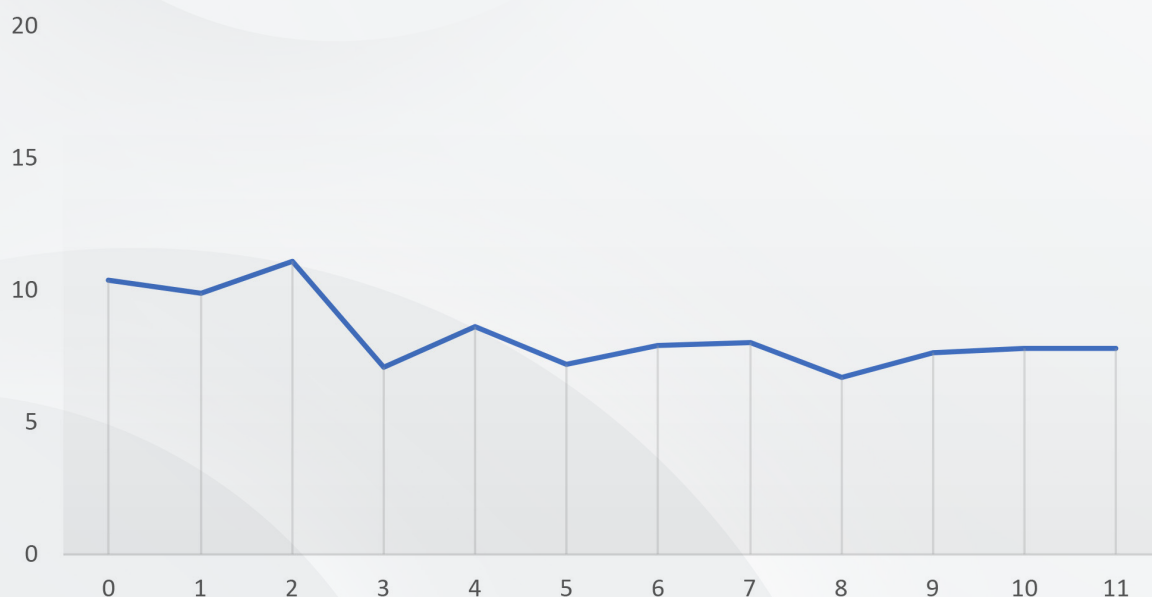
Dragan Lapčević, *The Confrontation*, from the exhibition *The Beauty of Getting Old #2*, Association Amity and the Photo Association of Serbia

4 POLL ANALYSIS

4.1 LONELINESS

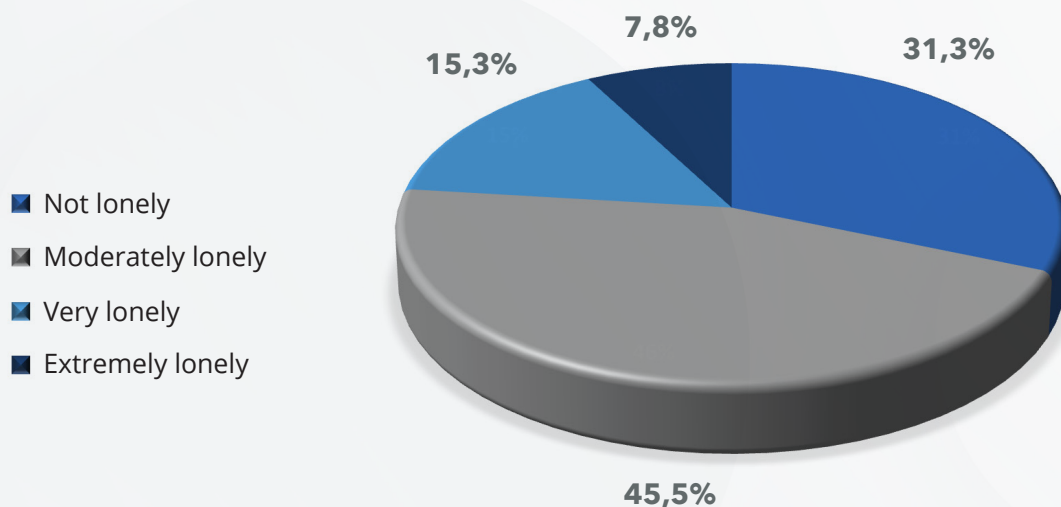
Loneliness is measured with a scale containing five questions concerning social loneliness and six questions referring to emotional loneliness. The scores received for the two sets of questions are summed up to get the final score that ranges from 0 to 11. Typically, the scores represent the range of loneliness: absence of loneliness (0 to 2), moderate loneliness (3 to 8), serious loneliness (9 and 10) and very serious loneliness (score 11). The regional research indicates that in the region of Eastern Europe and Central Asia, the median is 6, with 79% of the respondents scoring more than 3 points (they are at least moderately lonely), while 18% falling into the categories of serious and very serious loneliness. In Serbia, the median is somewhat lower and it is 5, with arithmetic mean of 5.12 and standard deviation of 3.54, which all indicate the level of loneliness is somewhat lower in Serbia than in the remaining countries in the region.

Loneliness score shown in the population



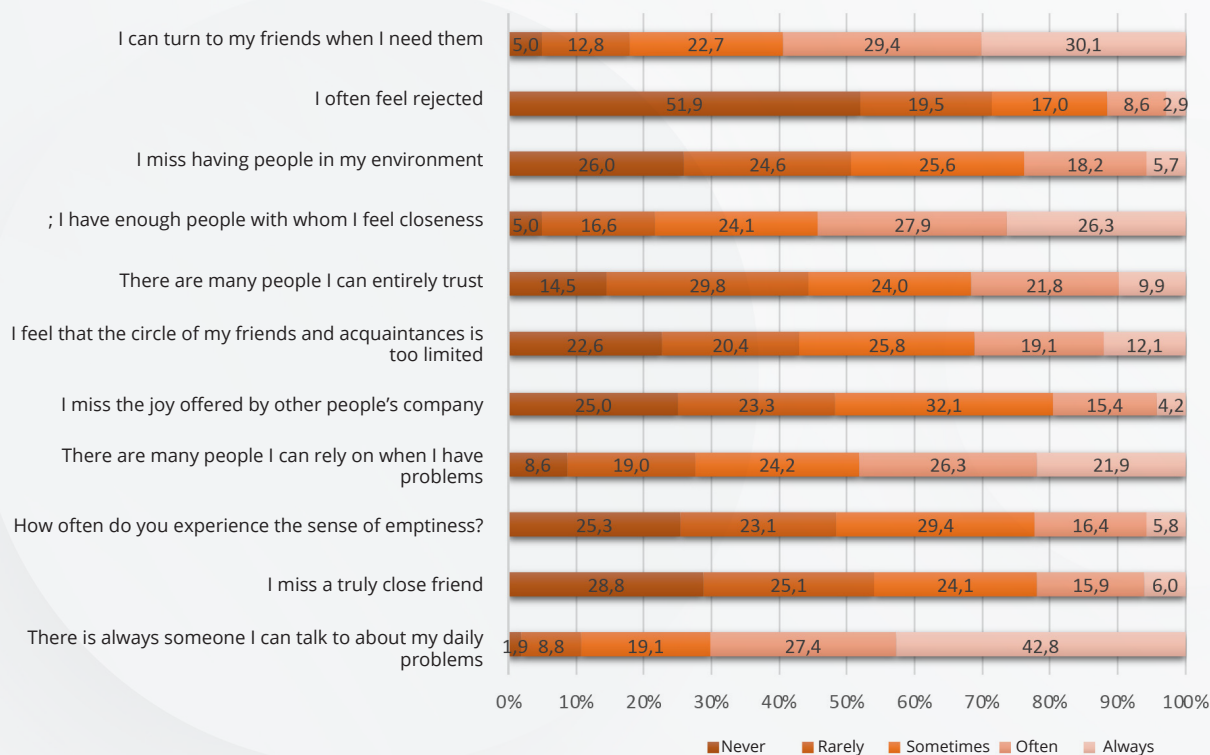
In line with this, 68% of the older persons in Serbia have a score which exceeds 3 points, which is 11% lower than the regional average.

Loneliness scores for the entire population



If we observe answers to individual items in the loneliness scale, it can be concluded that in relation to social loneliness, most of the elderly believe that they do not have many people they can entirely trust, which is implied by two thirds of the older persons (68%), and that they do not have many people they can rely on when they have problems, which is stated by a half of the older persons (52%). On the other hand, most of the older persons in Serbia have someone with whom they can talk to about their daily problems (70%). When it comes to emotional loneliness, most of the older persons believe their circles of friends to be too limited (57%), and that they lack the joy offered by other people's company (52%). Most of the older persons do not feel rejected (71%). These results indicate that, even though the majority of the elderly have someone with whom they can spend their time, 30% of the elderly lack someone with whom they can talk about their daily problems. When relationships are developed, the quality of such relationships is still questionable in the sense of receiving support, i.e. the manner in which the time is passed, and it needs to be worked on creating the conditions which would allow older people to strengthen their social networks, and improve the quality of the time they spend with their friends, so that it would become more fulfilling.

Overview of different aspects of loneliness



By analysing the results against demographic variables, it has been determined that there is no statistically significant correlation between loneliness and older persons' gender, or their employment status. There is a correlation between age and loneliness, as the share of the persons feeling extremely or very lonely rises from 17% in 65 to 69 age group, to 35% in 80 to 85 age group. There is a stronger correlation between loneliness and marital status. As is expected, the least lonely are married older persons, so there are 14% of them that are extremely or very lonely, while loneliness is significantly more pronounced among the older persons living alone, who are divorced or their spouses have deceased, where about one third of such older persons are extremely, or very lonely. Loneliness is also connected to one's education level. Almost one third of the participants with or without finished primary school are extremely or very lonely (30%), as opposed to 10% of those with university or college degrees. Obviously, the score on the loneliness scale is also connected to the number of household members, and loneliness decreases with the rise in the number of members living together in the household with older persons. The loneliest are the older persons living alone, 36% of which are extremely or very lonely, as opposed to 20% of the elderly who live with 2-3 persons, and 9% of those living with 6 or more persons. The analysis against demographic variables indicates connection of loneliness with a range of demographic variables, including age, marital status, level of education and number of household members, but such correlations are moderate to weak in intensity. The analysis did not indicate gender differences when it comes to loneliness.

If the overall contribution of demographic variables to explaining loneliness is observed, it is relatively modest and it accounts to 16% of variance, where, except for education and household size, other demographic variables have relatively low impact.



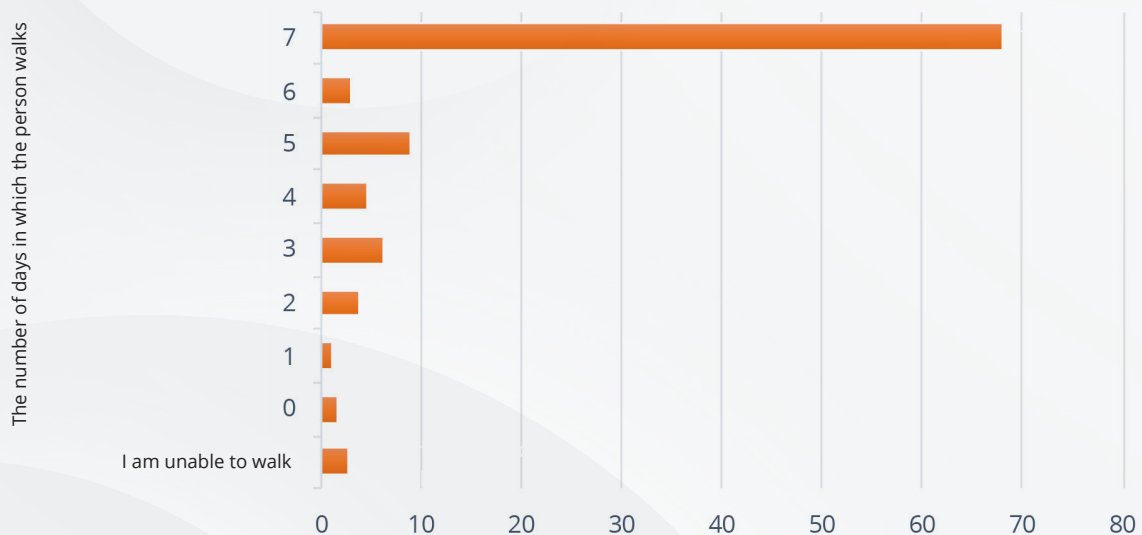
Aleksandar Žarkov, Cheerfully, from the exhibition The Beauty of Getting Old #2, Association Amity and the Photo Association of Serbia

4.2 PARTICIPATION IN COMMUNITY-BASED ACTIVITIES

This aspect of the analysis includes participation of older persons in the activities in the community, such as physical activities, group activities and use of public transport, connected with the elderly's capability of participating in community-based activities, especially if their mobility is hindered and they live in larger cities.

Two thirds of the older persons (68%) engage in a moderate physical activity or walking daily, while 80% of older persons are physically active more than a half of the days in a week. 16% of the older people engage in physical activities 1 to 4 days a week, while additional 4% state that they are unable to walk, i.e. that they do not move around the community. The results have shown that the oldest participants, belonging to 80 to 85 age group, are rarest to participate in physical activities, where 9% state that they do not move around the community, while 69% say that they move 5 or more times a week. Also, a moderate correlation has been confirmed between the number of days that an older person is physically active and care of one's household and family. The data have shown that 77% of the elderly who take care of their household and family are active every day for at least ten minutes, as opposed to 59% of the elderly who do not take care of their household and family.

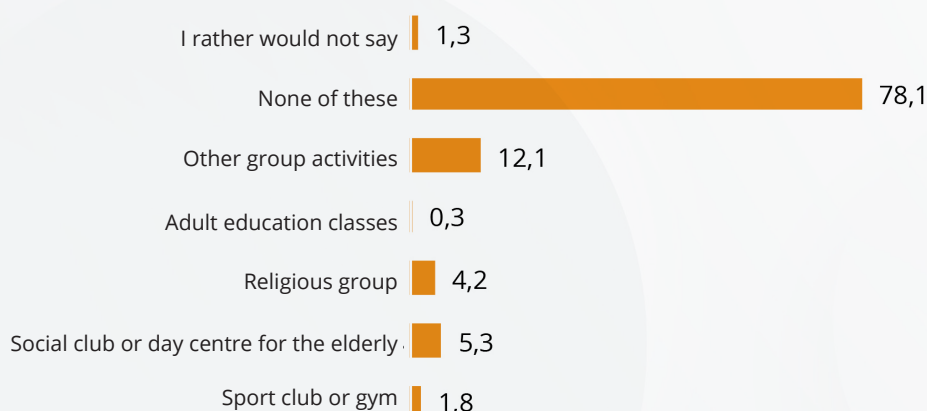
In a typical week, how many days you walk for at least ten minutes, or engage in another moderate physical activity?



The results of the activities indicate that older persons very rarely participate in community-based activities, where as many as 78% of the older persons replied that they had not participated in community-based activities even before the COVID-19 pandemic. Thus merely 5% participated in the operation of a social club, or day centre, while 4% of the older persons participated in religious groups. Other activities were engaged in by even less older persons, with 2% stating that they attended sport clubs or visited gyms, while only 0.3% participated in educational activities. The total of 11% of the elderly stated that they participated in the offered activities, while additional 12% stated that they engaged in other activities that were not provided as options.

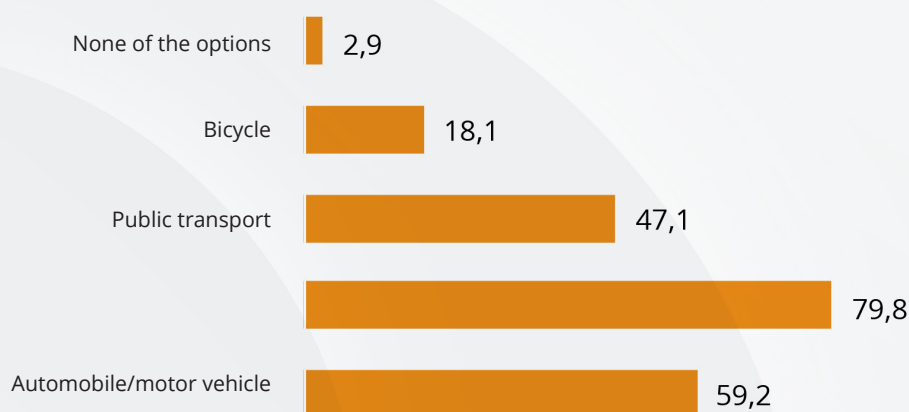
Participation in the aforementioned activities in the community is connected to education, with older persons with primary and secondary school degrees are two times rarer to participate in community-based activities than the respondents with college and university degrees. Only 9% of the elderly with secondary education and 10% of those with or without finished primary school responded that they participated in some of the offered community-based activities.

In which of the following activities you regularly engaged before the COVID-19 pandemic and would you like to return to them once the restrictions are lifted?



In the previous two years (2019 – 2020) a bit more than a half of the older persons used cars as means of transport (59%), while almost half used public transport (47%). If use of any of these two means of transport is analysed, it can be concluded that 83% of the older persons used either a private car or public transport. Cars and public transport are somewhat less accessible to the persons older than 80, which is particularly challenging. While transport was used by 87% of the persons 65 to 69 years old, 71% of those between 80 and 85 also used it. Similarly, transport is somewhat more accessible to men than to women, and thus it has been used by 86% of men in the last two years, as opposed to 80% of women. Use of transport is also connected to marital status, being significantly less available to women living alone, 69% of whom used transport.

During the last two years, what types of transport have you regularly used?



Unexpectedly, participation in the community-based activities accounts for only 6% of the loneliness variance.



First Prize 2017, Katarina Marinković, V13, Elementary School "Dositej Obradović", Požarevac

4.3 CONTACT WITH FAMILY AND FRIENDS

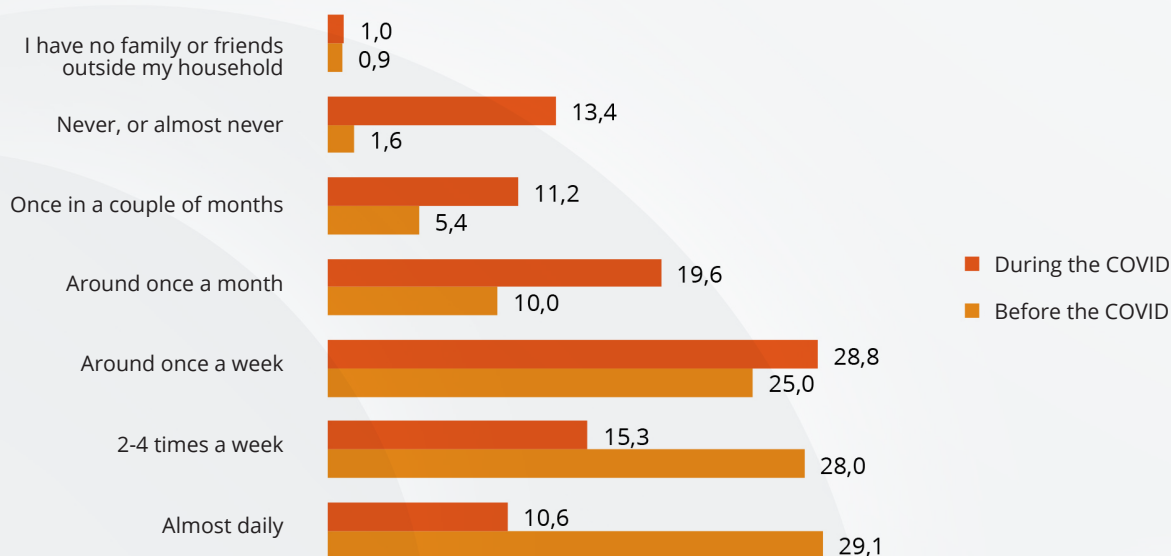
This domain includes the frequency of maintaining contact with one's family and friends, either through visits, or via telephone calls.

The results of the analysis indicate that older persons have been significantly rarer to visit their family and friends during the COVID-19 pandemic, than before it. Before the pandemic, a bit more than a half of the elderly visited their family and friends frequently (57%), while during the pandemic, 26% of the elderly frequently visited their family and friends. In line with this, the share of persons who very rarely visit their family and friends increased, from 7% to 25%.

The frequency of visiting one's family and friends decreases with age, so a bit less than a half of the oldest respondents (48%) maintained regular live contacts. Also, the frequency of visiting is connected to education, where the older persons with or without finished primary school are the rarest to visit their family and friends (53%). A correlation also exists between the perceived health condition and the frequency of visits to/of one's family and friends, so the elderly who assess their health as poor visit their family and friends with a significantly lower frequency than other groups (44%).

The COVID-19 pandemic has led to changes in the patterns of connection. Thus, during the pandemic, the differences related to age and education have decreased. The correlation pertaining to the perceived condition of one's health remained more or less the same, with the persons of poor health being significantly less likely to meet their family or friends than other groups.

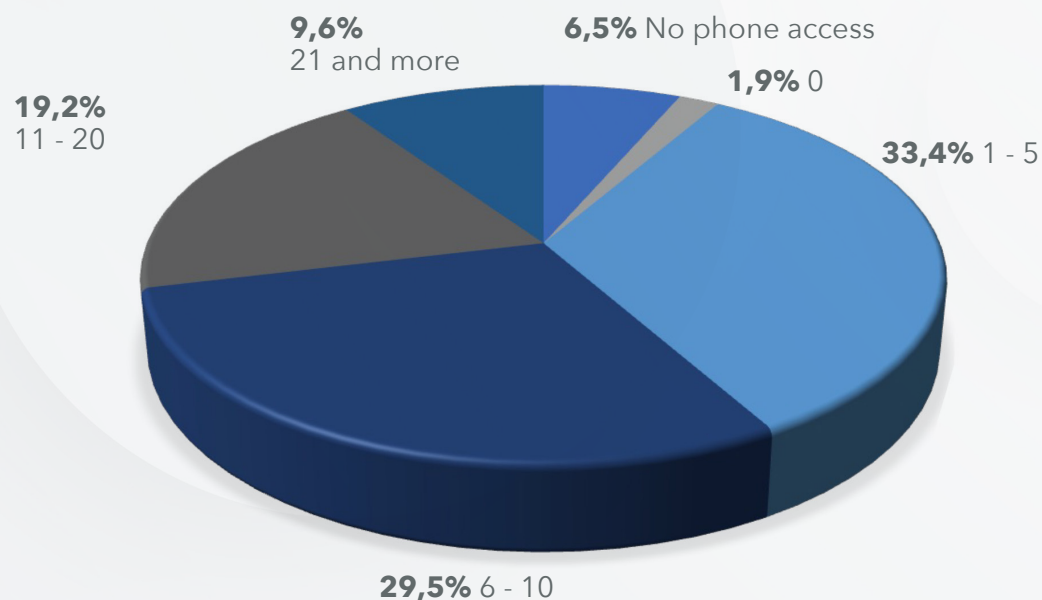
How often do you meet, or visit your family and friends, or you receive their visits?



The results of the research indicate that older persons relatively frequently use telephone in order to maintain contact with their family and friends, where 7% of the elderly have no access to telephone, and 2% of the elderly do not use telephone.

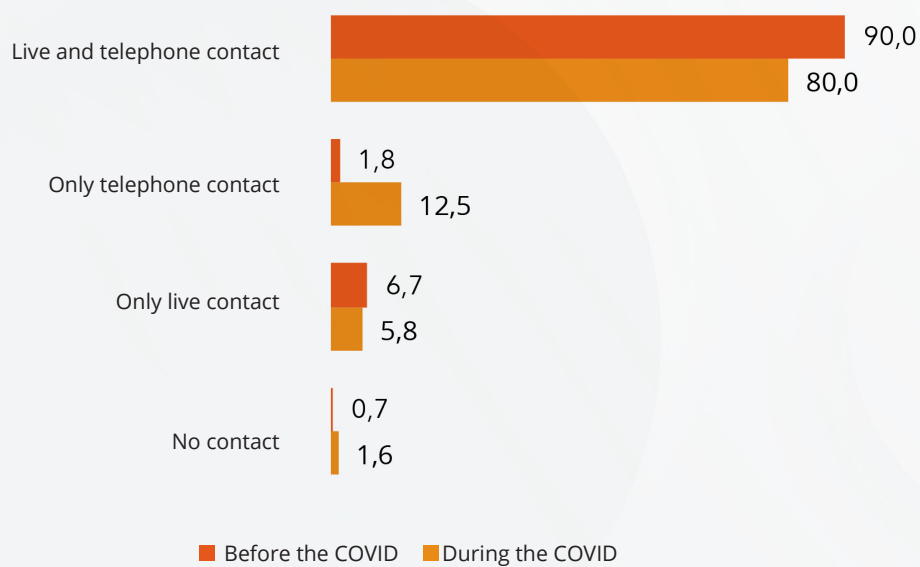
The results show that, even though it is perhaps the most necessary for them, access to telephone is more often lacked by older persons in 80-85 age group, 13% of which state that they do not have access to phone, as well as persons of poor health (14%). Similarly, telephone is significantly less available to persons with or without finished primary school (14%), as well as to the older persons who perceive their situation as very bad (19%).

In a typical week, how many telephone or video calls do you have with your family and friends, in order to have a chat and socialise?



If the contacts live and over the phone are analysed, it can be concluded that the number of older persons who maintain contacts in both these ways has significantly decreased during the COVID-19 pandemic, when compared to the period before that. Before the pandemic, 0.7% of the older persons had no contacts either live, or via telephone, while live contacts were maintained by 91% persons. During the pandemic, the percentage of the older persons who had no contacts with their families and friends rose to 1.6%, while the share of those who maintained live contacts fell to 80%. On the other hand, the share of the older persons who maintained contact with their family and friends only via telephone rose from 1% to 13%.

COVID-19



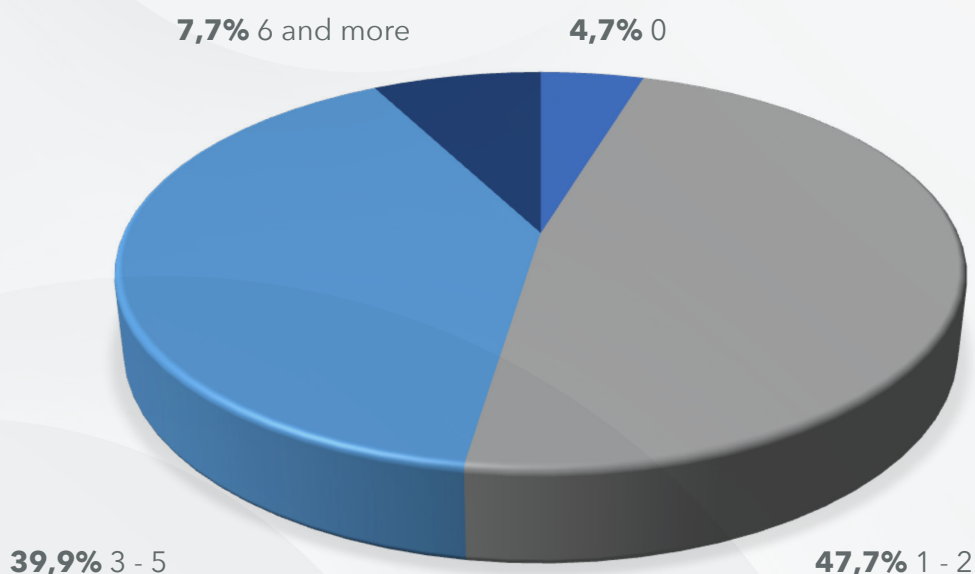
The frequency of contact has a relatively low impact on loneliness, and it accounts for only 7% of the loneliness variance.

4.4 THE SIZE OF SOCIAL NETWORK

The size of social network was measured via the number of close family members and friends. Older persons have 3 family members on average, with whom they can talk about the thing that concern them ($M=2.80$, $SD=2.15$)⁸. Relatively small number of older persons have no one with whom they can talk to (5%), while the majority has one or two family members or friends (48%).

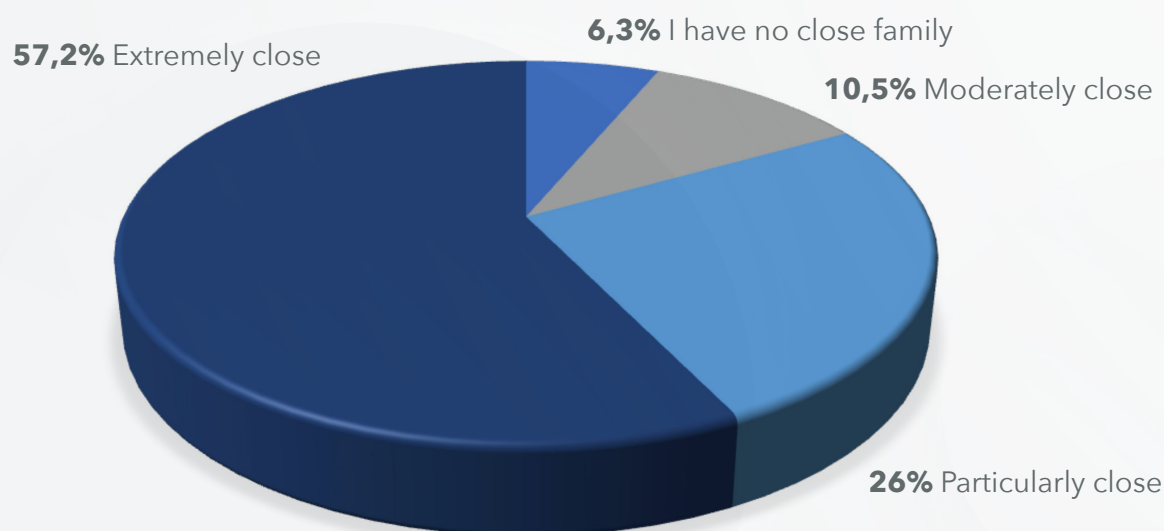
The number of family members with whom older persons are close enough that they can talk to them about their problems is connected to marital status, as expected, and this is a moderate intensity correlation. Thus 15% of the respondents who have never been married, have no close family members, as well as 26% of the divorced persons. The persons who live in single-member old persons' households (15%) also have smaller number of close persons. The number of close persons is also connected to one's healthcare condition, so 8% of the persons who perceive their health as being bad also state that they have no one with whom they could share their problems.

How many members of your family (including your spouse and children) you feel close enough to share with them your personal problems or something that concerns you?



A little less than one fifth of the older persons (17%) state that they are moderately close, or not close at all with their family members. The feeling of closeness with one's family members is moderately correlated with marital status, perception of one's health and satisfaction with one's current financial situation. The divorced older persons are more likely than other groups to report that they do not have extremely, or particularly close family members (43%), as well as the older persons who are extremely dissatisfied with their current finances (41%), and those who reported having mental health difficulties (43%). One fourth (27%) of the older persons who perceive the condition of their health as bad, stated that they have not one extremely, or particularly close family member.

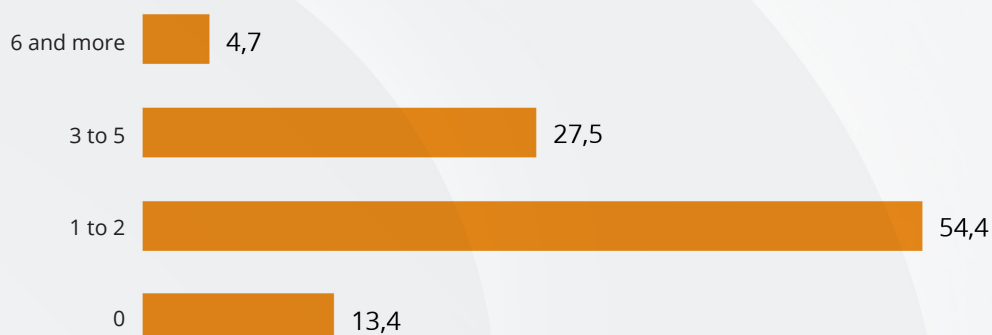
How close do you feel to your family members?



More than a half of the older persons (54%) have one or two friends to whom they feel close enough so that they can talk to them about their problems or something bothering them. On the other hand, 13% of the older persons have no friends.

The number of persons with whom older persons feel closeness is correlated with the level of education, so older persons with or without finished primary school are the most frequent to report that they have no friends (19%). The number of close friends is also connected to one's current financial situation, and the number of friends increases with the increased satisfaction with one's own financial situation. The older persons who declared that they were extremely or very dissatisfied with their financial situation were more frequent to state that they had no friends (20% in each of these two categories).

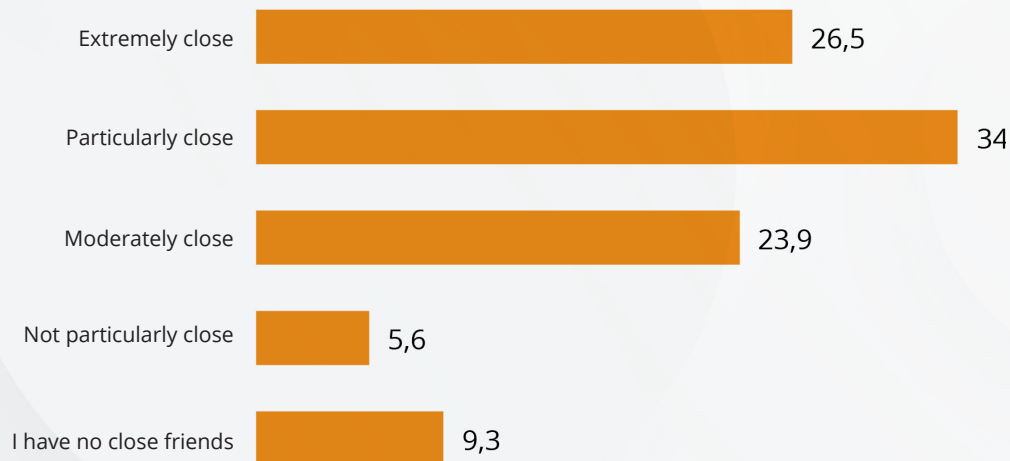
With how many friends do you feel enough closeness to talk to them about your personal problems or something that bothers you?



Almost two thirds of the older persons assess that they feel extreme, or particular closeness with their friends (61%), one fourth feels moderate closeness, while 15% of the older persons have no friends to whom they feel close. The feeling of closeness to one's friends is not

significantly correlated with demographic variables, except with one's perceived health. The connection to one's friends is felt the least by the older persons who perceive their own health as being bad, so a half of them (49%) stated that they had no friends to whom they felt extremely, or particularly close.

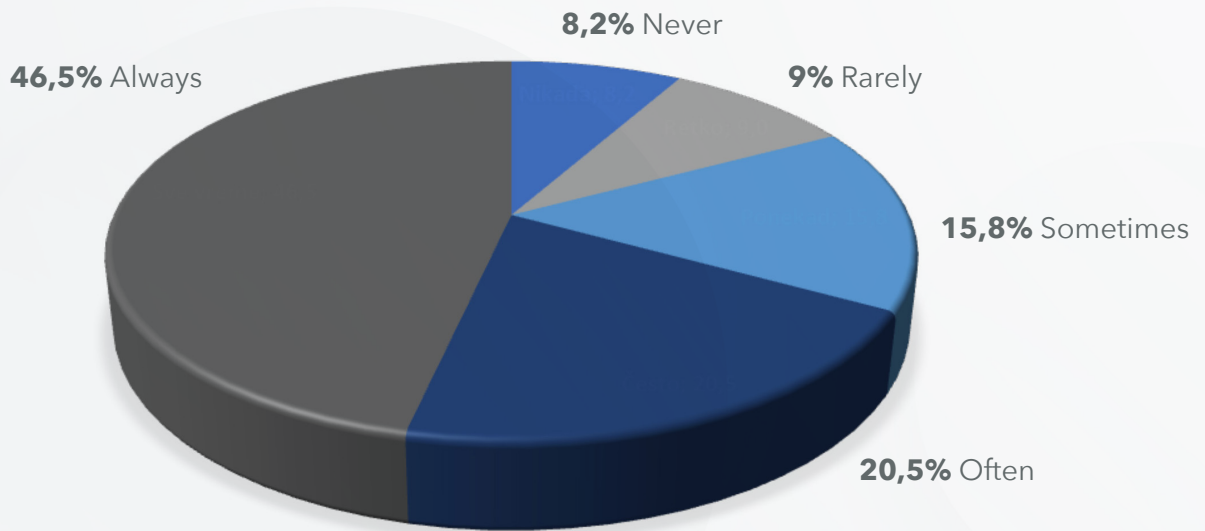
Who is your closest friend? How close do you feel to that person?



In line with these findings, most of the respondents (67%) report that they always, or frequently have someone that they love and who makes them feel loved, while 17% never, or rarely have such person in their environment.

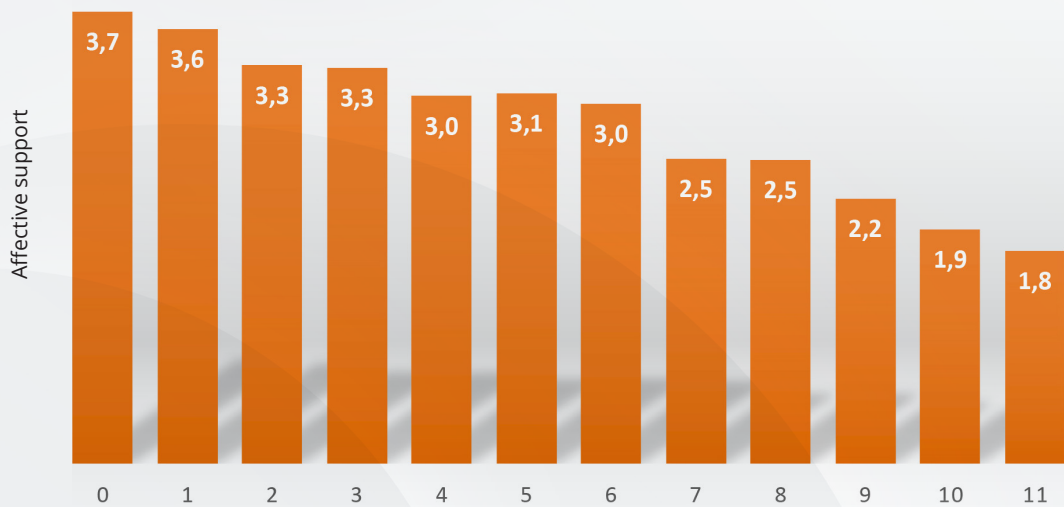
The existence of close relations, i.e. affective support, is correlated with marital status, number of household members, satisfaction with financial situation and age. The persons living alone and persons in worse financial situation, as well as those 80 to 85 years old, are two times less likely to have a close person than the average older person. Expectedly, a moderate correlation with marital status has been confirmed, so 36% of the older persons who have never been married and 33% of the divorced older persons believe that they never, or rarely have someone whom they love and who makes them feel loved. To a somewhat lesser degree, this feeling is correlated with the level of education. One fourth (24%) of the respondents with or without finished primary school believe that they never, or rarely have someone whom they love and who makes them feel loved.

How often do you feel this way: I have someone whom I love and who makes me feel loved



When the distribution of the affective support score is observed against the scores on the loneliness scale, it can be perceived that the persons who are less lonely have a significantly higher score of affective support.

Connection between affective support and the scores on the loneliness scale



If we observe the total size of the social network, as the number of close family members and friends, it can be concluded that older persons in Serbia have 5 close persons on average (M=4.97, SD=2.81), with 2% of older persons not having even one close person.

The size of the social network accounts for 37% of the loneliness variance, which is a quite significant share. All the predictors from this domain are important, where the level of closeness with one's family members is a stronger predictor than the number of close family members, with the number of close friends and the level of closeness to one's friends being of similar strength. What is interesting is that the lack of closeness with one's family members

cannot be compensated for with closeness with one's friends, or vice versa, so it is necessary to work on the development of the relations in one's family, as well as outside it.

If we observe the average size of social network in relation to the individual scores on the loneliness scale, it can be perceived that there is an almost linear correlation between the size of social network and the score on the loneliness scale, where loneliness decreases with the enlargement of social network, while older persons need 5 or more close persons not to feel lonely.

The correlation between the size of social network and the score on the loneliness scale



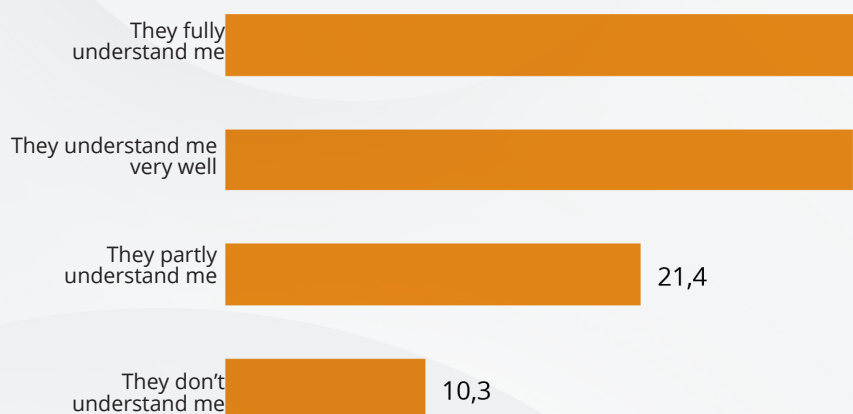
4.5 EMOTIONAL SUPPORT BY FAMILY AND FRIENDS

The level of emotional support refers to the feeling of belonging to the community, i.e. group, as well as acceptance and understanding by close persons.

One third of the older persons (32%) believe that the close persons partly understand them, or don't understand them at all, whereby 10% believe that they are not understood at all, while 68% of the older persons believe that the close persons understand them very well, or fully.

That they are not understood at all by the close persons is most frequently believed by the older persons dissatisfied with their financial situation (28%), as well as the divorced older persons (21%). Additionally, correlations also exist when it comes to the number of household members and the level of education. In this sense, the most frequent to believe that they are not understood by their close persons are the older persons who live in single-member households (17%) and older persons with primary education, or without formal education.

How well do the persons closest to you understand you?



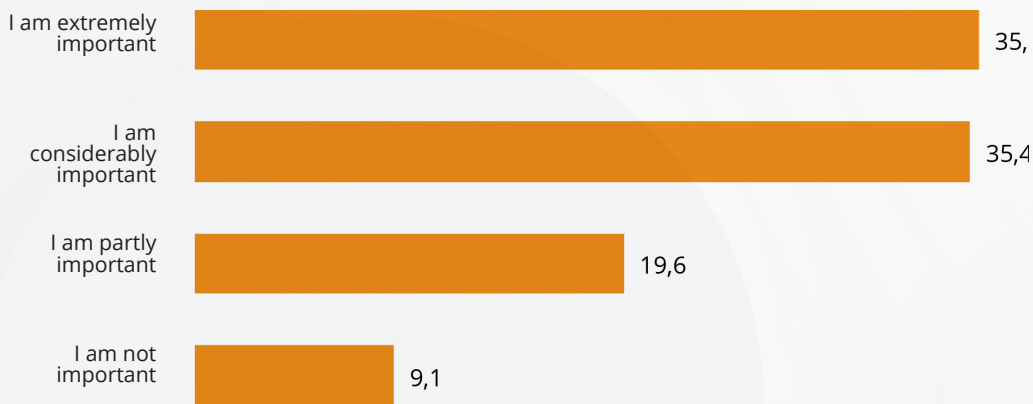
The number of older persons who believe that they are very important to their close persons (71%) is almost identical as the number of older persons who believe that their close persons understand them very well, and it is similar when it comes to the respondents who believe that they are not important to their close persons (9%).

The results of the analysis indicate that the older persons who are dissatisfied with their financial situations are the most likely to believe that they are not important to their close persons (27%). There is a moderate correlation between the sense of being important to one's close persons and one's marital status, where the older persons who have never been married are the most likely to believe that they are not important to their close persons (22%). There is a correlation between the sense of being important to others and the number of household members, where the older persons living alone are the most likely to feel that they are not important to others (17%).



Branišlav Brkljačić, Ah, That Tango, from the exhibition The Beauty of Getting Old #2, Association Amity and the Photo Association of Serbia

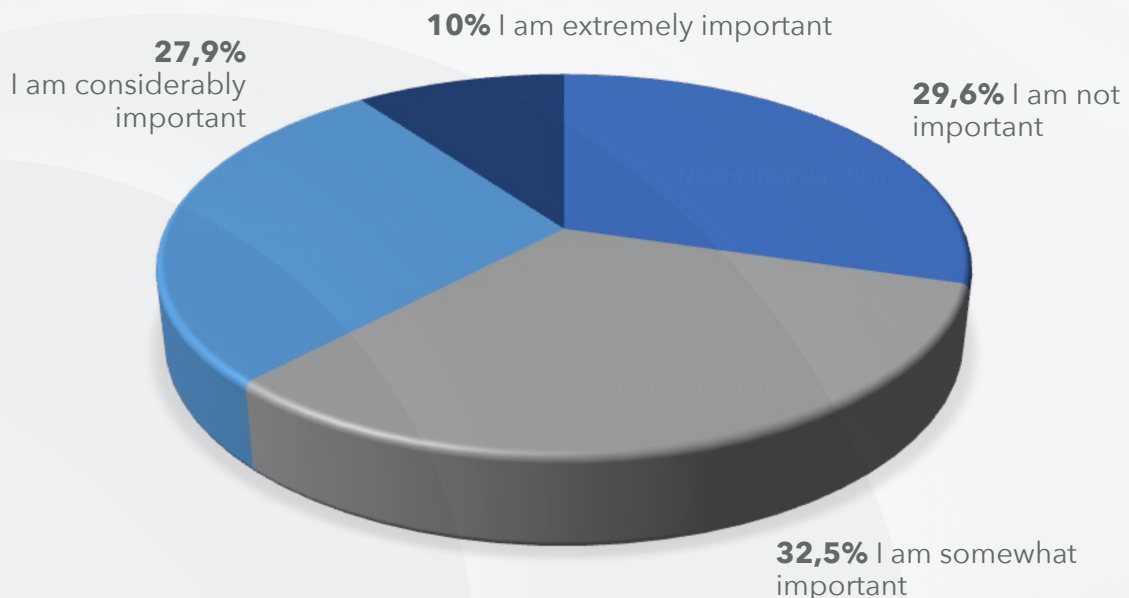
How important do you think you are to your closest persons?



Almost two thirds of older persons (62%) believe that they are not important, or that they are partly important to the community, while only 38% of them feel considerably, or extremely important.

The results of the analysis indicate a moderate correlation with marital status, so that the divorced older persons are the most likely to feel that they are not important to others in the community (62%). The correlation is somewhat weaker when it comes to satisfaction with one's financial situation and number of household members, so that a bit over one half of the persons extremely dissatisfied (53%) and very dissatisfied with their finances (52%) believe that they are not important to others in the community. Almost one half of the respondents who live alone share their opinion (46%). The analysis also confirmed the correlation between the sense of importance to others in the community and age and level of education, so that 43% of the oldest respondents and 38% of the older persons with or without finished primary school, state that they do not feel at all important to others in the community.

How important do you feel you are to others in the community?



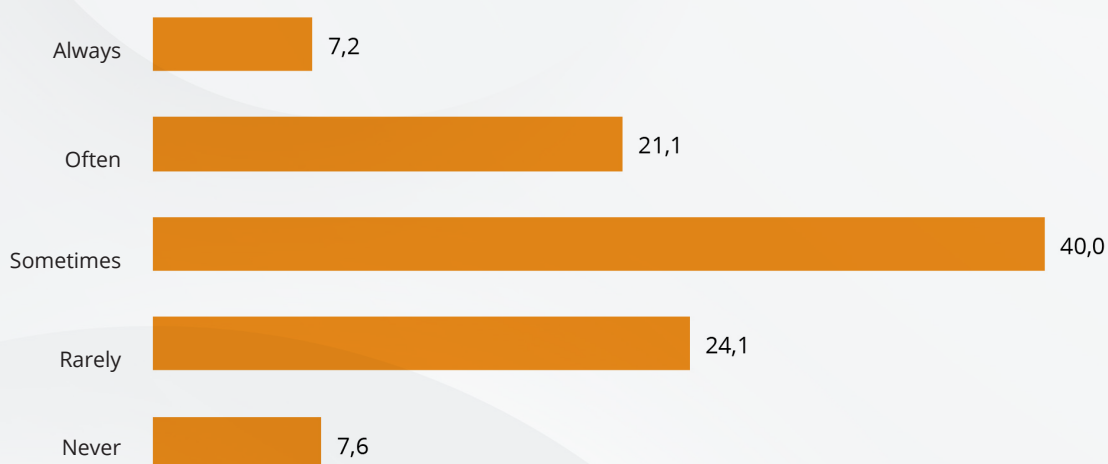
The level of emotional support is strongly correlated to loneliness and it accounts for 33% of the loneliness variance, with the strongest predictor being the level of understanding by one's close persons, whereby, if personal factors are taken into account, acceptance by the community does not have a significant impact to loneliness. This indicates that for the sense of loneliness, emotional support by close persons is of crucial importance.

4.6 OPPORTUNITIES FOR INTERACTION

Within the research, the older persons were asked if they would like to have more opportunities for interaction with other people. Two thirds of the elderly stated that they wished more opportunities for interaction with others at least sometimes (68%), while one third rarely needed additional interaction (32%).

The analysis indicates that there is no significant correlation between the wish for additional interaction and one's age, but there is a mild correlation when it comes to gender, where men express a somewhat more pronounced need for additional interaction (32%) than women (26%). Expectedly, the desire for additional interaction is expressed more by the persons living alone, than those living with someone. There is also a correlation between the desire for interaction and financial situation, where the greatest desire for additional interaction is expressed by either the persons who are the most satisfied with their financial situation (40%) or those extremely dissatisfied (45%). Also, the wish for additional interaction is more frequently expressed by persons with poor health condition (35%) than those with good, or decent health.

How often do you wish that you have more opportunities for interaction with other people?



The desire for additional interaction accounts for a very small part of the loneliness variance, only 3%.



Second Prize 2018, **Svetlana Vlahović**, VII3, Elementary School "9th October", Prokuplje



Third Prize 2018, **Sofija Stojadinović**, VI2, Elementary School "Dositej Obradović", Požarevac

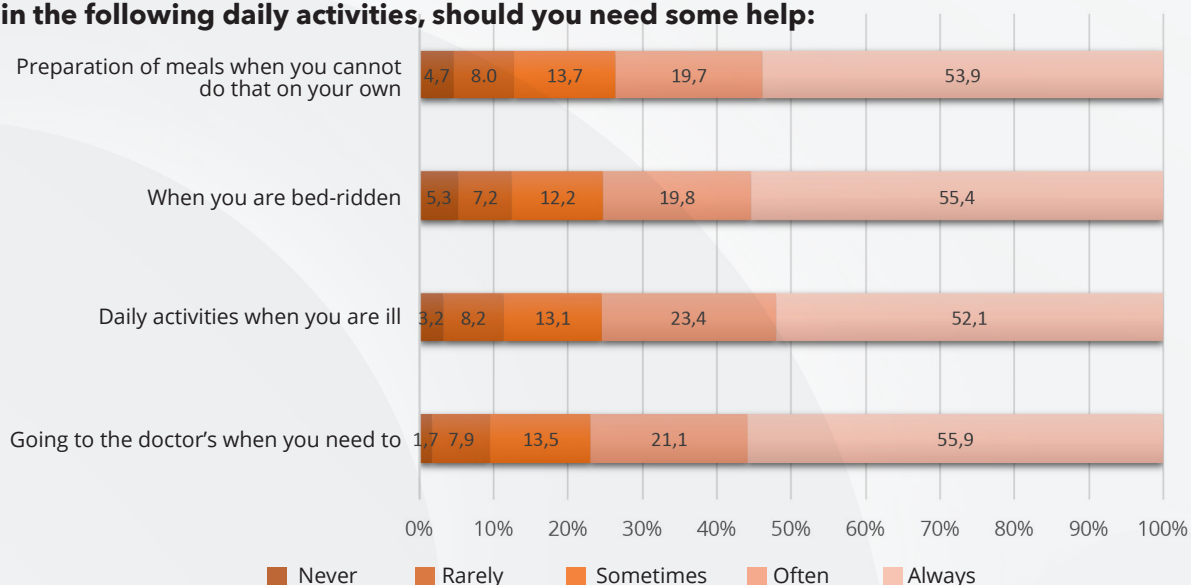
4.7 SUPPORT IN DAILY ACTIVITIES

Available support refers to assistance in preparing meals, everyday tasks, assistance when going to the doctor's and support in the periods when older persons cannot perform daily activities, but also to positive social support.

Around one half of the older persons have support available whenever they need it, while one fifth state that support is frequently available to them. Around one fourth of the elderly report that they have difficulties in accessing support when they need it, with no significant differences in accessibility of support when it comes to different domains. Thereby, 26% of the older persons report that support is never, rarely, or sometimes available to them in preparing meals, 25% state this when it comes to daily tasks when they are ill, while 23% of them do not have assistance in going to the doctor's when they need it.

Hindered access to support is moderately correlated with the persons' marital status, so the divorced older persons encounter bigger challenges when it comes to the support accessibility (62%), as well as the persons who have never been married, 61% of which encounter challenges in accessing support. Existence of challenges in accessing support is strongly correlated with the size of the household in which older persons live. Thus in single-member old persons' households, 64% of the older persons encounter challenges in accessing support, as opposed to 36% of those living in households with 2-3 members. This share is further decreased to 25% in households with 4-5 members, while 13% of the older persons living in households with 6 or more members encounter challenges in accessing support. Especially challenging is the fact that accessibility of support decreases with deterioration of one's health. Thus, while 16% of the older persons with excellent health encounter challenges in receiving some of the aforementioned types of support, challenges in receiving support are encountered by 55% of the persons with poor health.

How often do you feel that you could have someone to help you in the following daily activities, should you need some help:



If we observe the distribution of the average value of support in daily activities in relation to the scale of support availability (with the values ranging from 0 to 16), it can be perceived that the persons who are less lonely have a significantly greater level of available support than the persons feeling lonely.

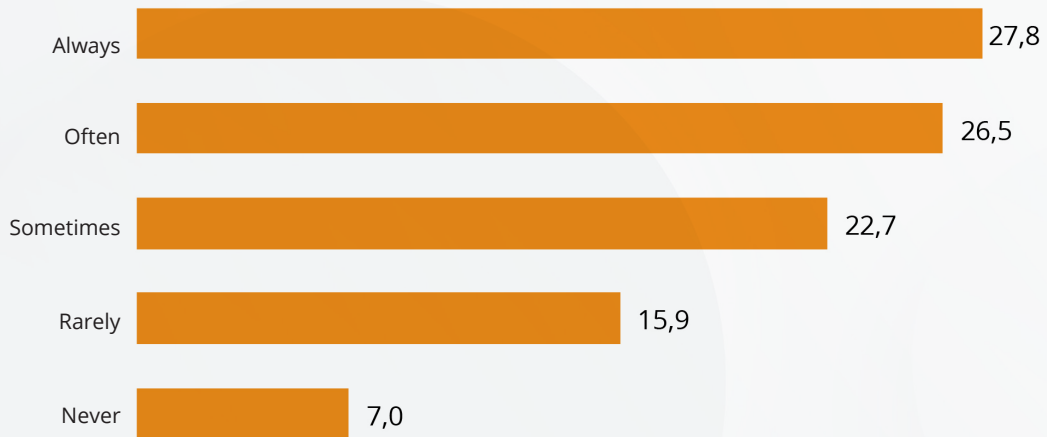
Correlation between the available support in daily activities and the score on the loneliness scale



When we talk about positive social support, it is measured via the question which refers to the presence of a person in their life with whom older persons can do something that brings them joy. More than a half of the older persons (54%) believe that they always or often have someone with whom they can share enjoyable activities, while almost one fourth (23%) state that they never, or rarely have someone to share such activities with.

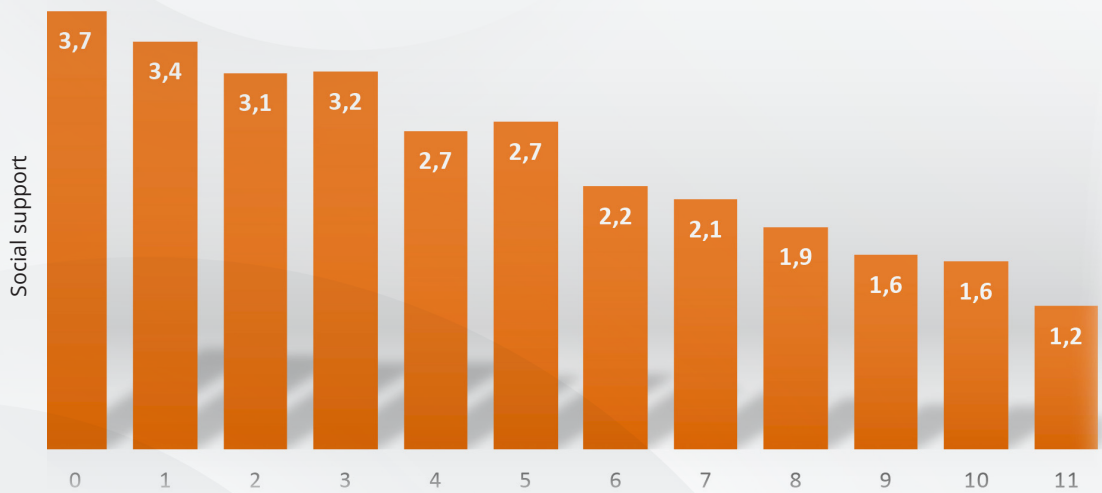
The analysis shows that a larger number of demographic variables are correlated with whether an older person has someone to share enjoyable activities with. There is a moderate correlation with marital status, where the least opportunities to do something that they enjoy with others have the older persons who have never been married, 45% of which are stating that they never, or rarely have someone with whom they could share enjoyable activities, as well as the divorced older persons, 43% of which give such answers. The activities they enjoy with other persons are the least frequently available to the elderly who are extremely dissatisfied with their finances, more than a half of which never, or rarely have someone with whom they can share such activities (56%). The number of household members is also correlated with such activities, where 41% of the older persons living alone state that they have no one to share enjoyable activities with. The correlation with age is also confirmed, and the frequency of shared engagement in activities decreases with age. Among the persons between 80 and 85 years old, 36% never, or rarely have someone to share enjoyable activities with. When it comes to the level of education, the analysis shows that the older persons who are the least likely to have someone to share enjoyable activities with are those who attended primary school, or they have never had formal education, 32% of which state that they never or rarely have the opportunity to jointly enjoy in activities.

How often do you feel like this:



If we observe the distribution of the average score of social support, it can be concluded that the older persons who are lonely are significantly less likely to have someone with whom they can share the things that bring them joy.

Correlation between social support and the score on the loneliness scale



Availability of support is a strong predictor of loneliness and it accounts for 42% of the loneliness variance. Thereby, a significantly stronger predictor of loneliness is social support, which independently accounts for as much as 38% of the loneliness variance.

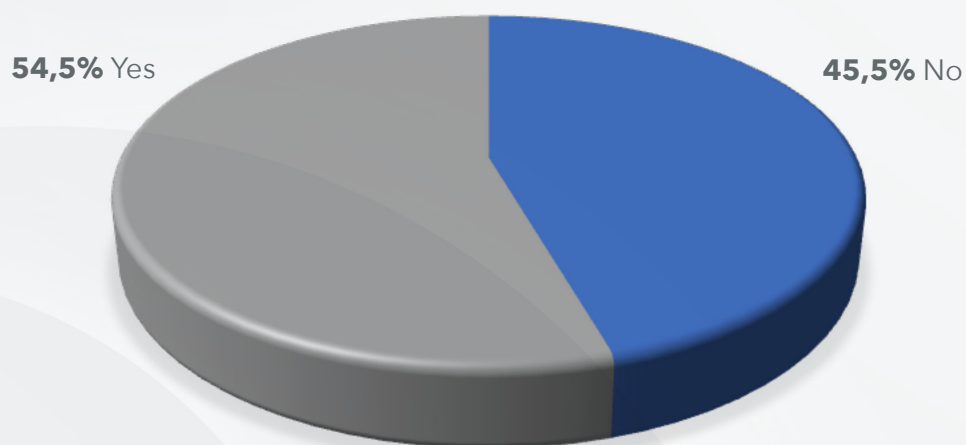


4.8 USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES

The analysis of the use of information and communication technology involved researching accessibility of the internet to older persons, as well as the frequency of using computers and other electronic devices.

Somewhat more than a half of the older persons (55%) have no access to the internet from their homes. A moderate correlation is confirmed between the availability of the internet at home and age, marital status and the level of education of the older persons. Among the respondents in 80-85 age group, only one fourth (25%) have the internet in their homes. There are major variations when it comes to education, with less than one third of the persons with primary school or without formal education (31%) having the internet in their homes, which is more than two times less than when it comes to the respondents with college and university degrees. Simultaneously, only 25% of the persons who perceive their financial situation as very bad have home access to the internet. When it comes to marital status, the least likely to have internet access are the older persons who have never been married (22%). The correlation with the perception of the condition of one's health is somewhat less intense, though the internet is the least accessible to the elderly who perceive their health as very bad, where only 21% of them have internet access. The percentage is almost identical among the elderly who live alone (22%), and with the increase in the number of household members, accessibility of the internet in the household also increases.

Do you have regular internet access from your home?

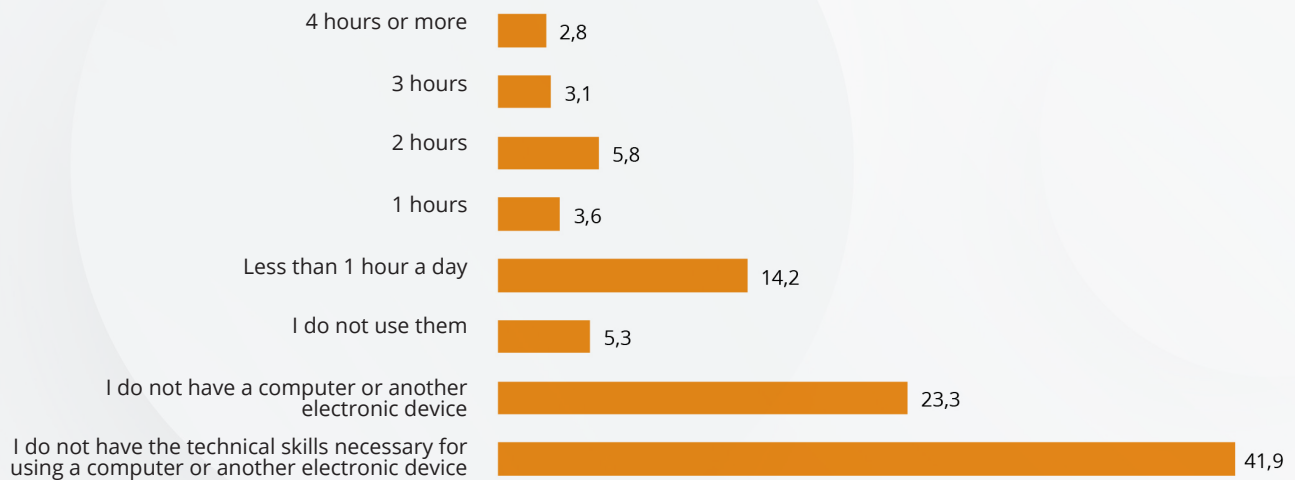


The majority of the older persons do not use computer or other electronic devices (70%). The largest share of the elderly have no technical skills required for using computers and other electronic devices (42%), less than one fourth (23%) state that they do not possess a computer or other electronic devices, while 5% say that they do not use them. Computers and other electronic devices are used by 30% of the elderly, 14% of which are doing so for less than an hour a day.

The analysis indicates the existence of a moderate correlation between the time spent before a computer or another electronic device and age, marital status and the level of education. When it comes to age, only 3% of the persons older than 80 and 4% of the respondents in 75-79

age group use these devices for more than two hours a day. Computers and other electronic devices are least likely to be used by the persons with finished primary school, or without formal education, and the elderly who perceive their health as bad (12%). Additionally, only one fifth of widowed respondents (19%) and the elderly who have never been married (20%) use computers and other electronic devices.

On a typical day, how many hours do you spend using a computer or other electronic device for some other purpose than watching TV programmes or films?



Using of computers or other electronic devices is a weak predictor of loneliness and it accounts for 4% of the loneliness variance.

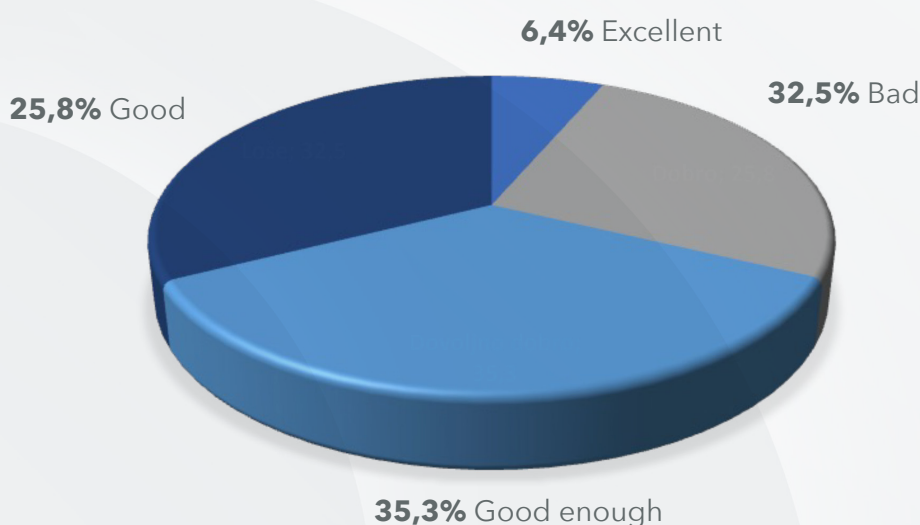
4.9 HEALTH AND HEALTHCARE

The research in this domain involved examining the health of older persons via indicators of subjective health and the number of chronic conditions they had, impact of the condition of health to functional efficiency, subjective sense of happiness and exposure to stress.

One third of the elderly in the Republic of Serbia perceive the condition of their health as good or very good (32%), one third state that it is good enough (35%) while the remaining third report that the condition of their health is bad (33%).

Their health is perceived by good, or very good by 40% of the elderly in 65-69 age group, and this share decreases with age, so that 33% of the elderly in 70-74 age group report that their health is good, or very good, and the share is 32% in 75-79 age group, and 20% in 80-85 age group. These data indicate that the health condition of the elderly is somewhat worse in Serbia than in the European Union. The research also shows that women perceive their health as somewhat worse than men. Thereby 35% of men perceive the condition of their health as good, or very good, 39% as good enough and 26% as bad, as opposed to 30% of women who perceive their health as good or very good, 33% as good enough and 37% as bad, or very bad. The condition of one's health is also correlated to one's marital status, where married persons are the most likely to perceive their health as good, or very good, while the older persons who have never been married and widowed persons are the most likely to perceive their health as being bad. Only 24% of the elderly who have never been married perceive their health as good, or very good, while 37% of them perceive it as bad, or very bad. The condition of one's health is moderately correlated to education. Only 18% of those with or without finished primary school perceive their health as good or very good, as opposed to 38% of those with finished secondary school and 54% of those with college or university degrees. On the other hand, 50% of the older persons with or without finished primary school perceive the condition of their health as bad, as opposed to 25% of those who finished secondary school and 11% of those with college and university degrees.

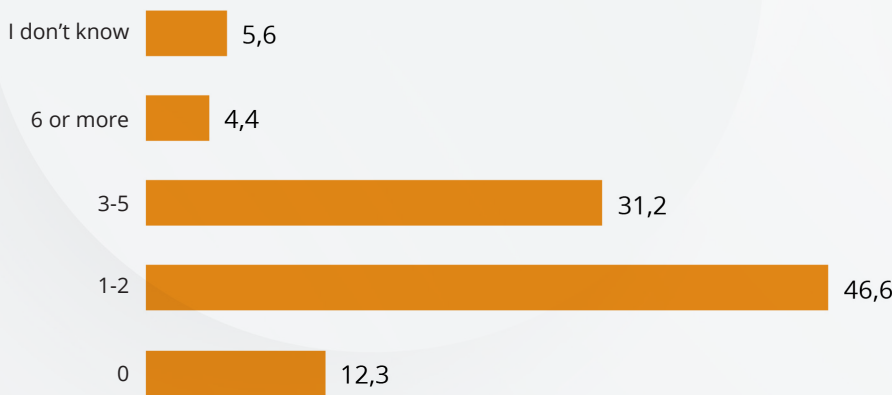
Generally speaking, how would you assess your overall health?



The total of 12% of the elderly state that they do not have chronic conditions, while 6% say they don't know if they have them. The older persons who have chronic conditions, have 3 on average ($M=2.61$, $SD=1.71$), where the number of chronic conditions, as reported by the older persons, ranges from 1 to 20. 47% of the elderly have one or two chronic conditions, 31% have three

to five, while 4% of the elderly have six or more chronic conditions. Expectedly, the number of chronic conditions is moderately correlated with age, and it increases with one's years. Thereby the percentage of the elderly without chronic conditions decreases from 17% in 65-69 age group, to 6% in 80-85 age group, while the number of those with 6 or more chronic conditions increases from 3% to 6%. There is a moderate correlation between the presence of chronic conditions and education, where 20% of the respondents with college and university degrees do not have chronic conditions, while the share of those without chronic conditions is only 4% among the elderly with or without primary school degrees. The number of chronic conditions is also correlated with the number of household members, where the persons living in single-member old persons' households have more chronic conditions than others. Among the elderly who live alone, only 9% have no chronic conditions, while 6% have six or more chronic conditions.

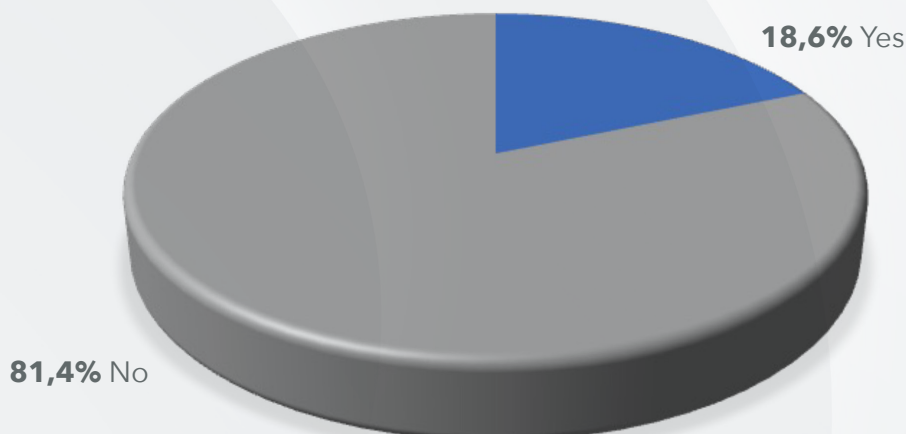
I will list some chronic conditions. Could you tell me whether you have them? Are there some additional conditions that also have impact on your daily life?



A little bit less than one fifth (19%) of the older persons have turned to a doctor or therapist in the last two years, due to mental problems.

Visits to doctors or therapists are correlated to one's satisfaction with their current financial situation, and the nature of this correlation is such that the number of the elderly who have visited a doctor, or therapist falls with the increase of the satisfaction with one's current financial situation. One third (36%) of the extremely dissatisfied older persons have sought professional help for mental health issues. The analysis has confirmed that the divorced older persons have been more likely to visit doctors and therapists for mental health issues (31%), as well as 24% of the elderly who experienced the death of their partner.

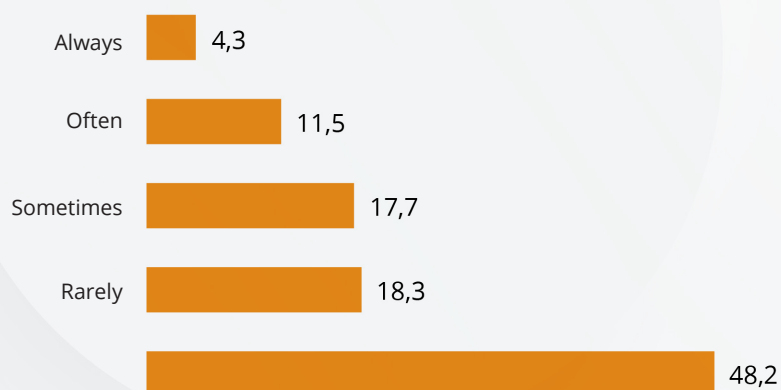
Have you gone to a doctor or therapist in the last two years for your nerves, anxiety, stress, or depression?



A little bit over one half of the elderly report that they have problems with hearing which have impact on their social and/or family life (52%).

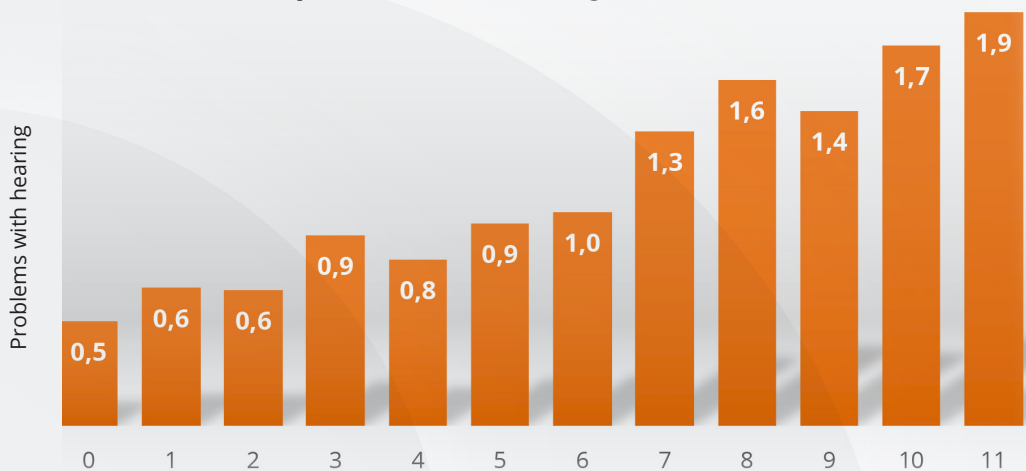
The results of the analysis indicated a strong correlation between the hearing difficulties and age. In this sense, more than one third of the older persons in 80-85 age group (36%) state that have difficulties hearing frequently, or always. The hearing difficulties are also more likely to be experienced by the older persons who attended only primary school or have no formal education (25%), and widowed older persons (24%).

How often do you have problems with hearing which have impact on your social or family life?



If we observe the distribution of the average score of hearing difficulties in relation to the loneliness scale, we can see that the persons who don't have substantial difficulties hearing are significantly less lonely.

Correlation between the problems with hearing and the score on the loneliness scale

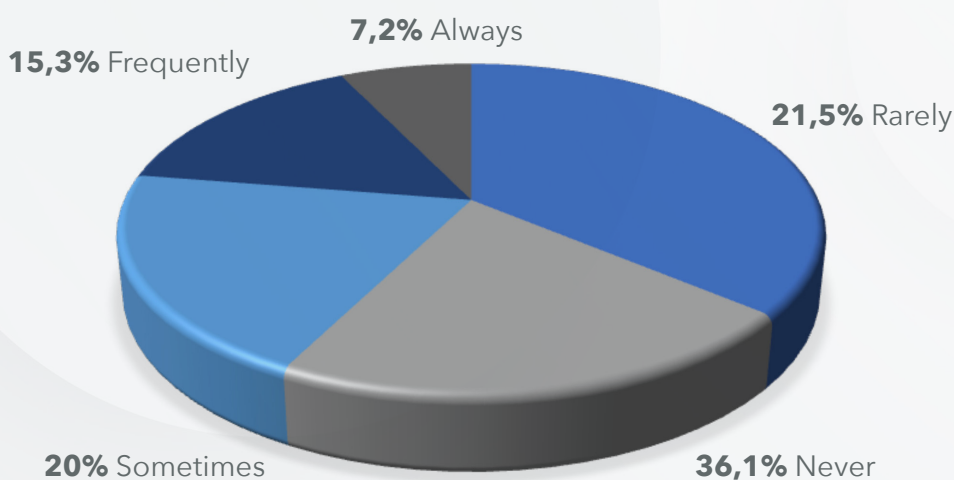


Almost one fourth of the respondents (23%) state that the condition of their health always or frequently represents a difficulty that prevents them from participating in social and community-based activities.

The analysis has shown that there is a strong correlation between the presence of the health problems which represent limitation to person's functioning and older persons' age. Almost one half of the elderly in 80-85 age group believe that their health always, or frequently represents

a problem in their participation in community-based activities (48%). The perception of one's health as a barrier for participation in activities is correlated with one's satisfaction with finances, where 40% of the persons who are highly dissatisfied with their financial situation also state that their health limits their participation in social activities. Marital status is also correlated with this aspect of health perception, where 36% of the elderly who have never been married report that their participation in activities is limited due to the condition of their health, just like 31% of the persons whose partner has deceased. Finally, when it comes to education, a third (33%) of the persons with or without finished primary school state that their health is a limiting factor in their participation in community-based activities.

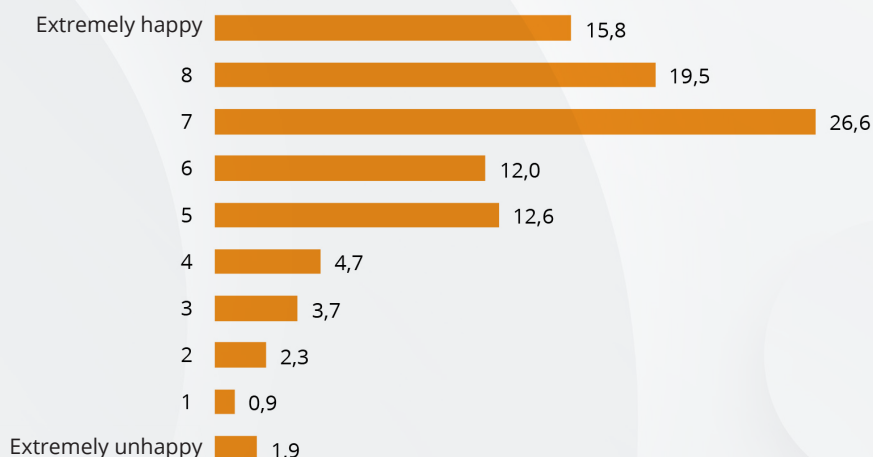
How often your mental of physical health limits your ability to participate in social and community-based activities?



One third of the respondents declared themselves very happy, bearing in mind that 35% of them supplied the mark of 8 or higher, while 13% checked the marks between 0 and 4 on the scale, indicating that they were very unhappy.

The analysis indicates a moderate correlation between happiness and marital status, where 27% of the persons who have never been married, as well as those who got divorced, stated that they were unhappy. The feeling of happiness is also correlated with satisfaction with one's current financial situation, where the persons who are extremely dissatisfied with their financial situation are the most likely to be unhappy (41%). Almost one fourth of the persons living alone (23%) stated that they were unhappy, as well as one fifth of the persons who finished only primary school, or have no formal education (19%).

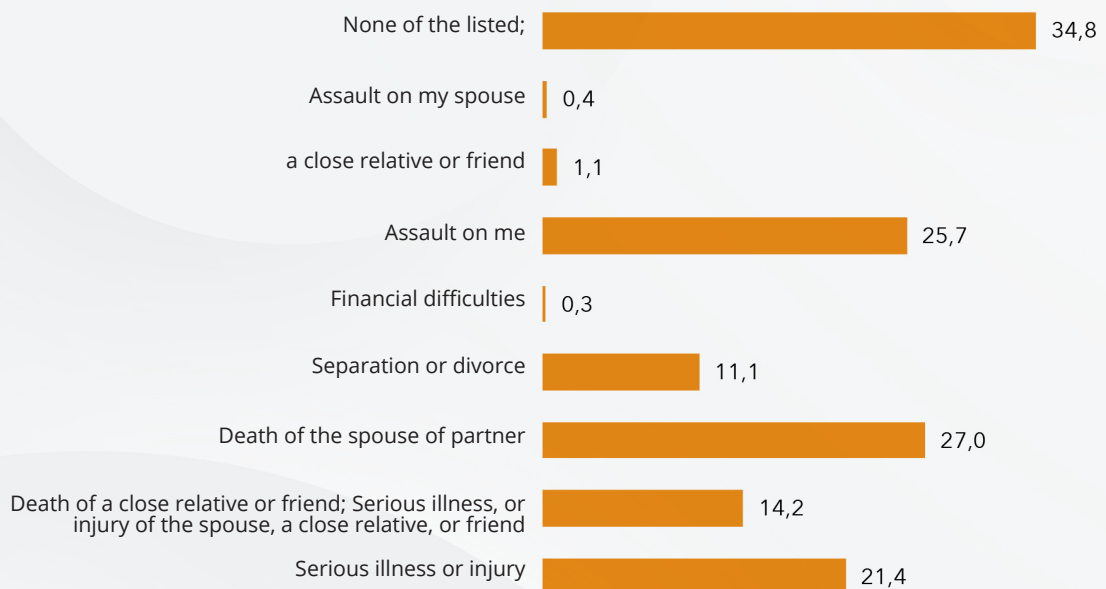
How happy you are, generally?



One third of the older persons (35%) have had no stressful situations in the last two years, while the majority of the elderly have experienced a significant levels of stress. The largest share of the elderly experienced death by a close person (38%). A bit more than a fourth of the respondents have experienced death of a close relative or friend in the last two years (27%), while 11% have lost their partners. Also, one fourth reported financial difficulties, while one fifth reported serious illnesses or injuries.

The analysis confirmed the link between certain stressful events in the last two years and certain demographic characteristics. Satisfaction with one's current financial situation is the most frequently correlated with stressful events. The older persons who are extremely dissatisfied with their finances are the most likely to have been ill (38%), endured a serious illness by a close person (28%) and also more likely to have experienced the death of their partner (20%). Also, a bit more than one fourth of the persons who claim that they are highly dissatisfied with their financial situation (28%) have personally experienced serious illness in the last two years.

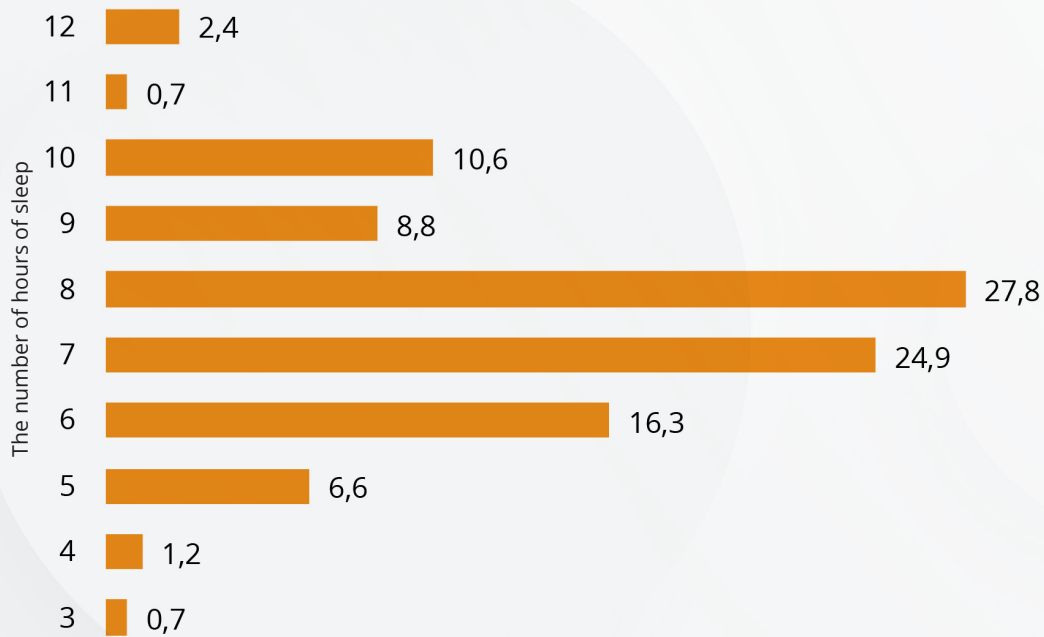
Have you experienced any of the following in the last two years?



A bit more than a half of the respondents (53%) sleep 7 or 8 hours a day, which is, according to research, the amount of sleep necessary for normal functioning of an older person. Exactly one fourth of the elderly sleep less or more than the recommended amount of sleep, where 20% of the elderly sleep 5-6 hours, while another 20% sleep 9-10 hours a day.

The amount of sleep is correlated with age. When compared to other age groups, almost three times more persons in 80-85 age group sleep less than 5 hours (4%), yet it is interesting that excessive sleep is also the most likely to occur in this age group. In as much as 32% of cases, they sleep longer than 8 hours, while this share is lower than 21% in other groups.

How many hours do you sleep approximately, in 24 hours? (Please also include daytime naps)



The variables related to health account for 30% of the loneliness variance. The greatest impact on loneliness here have the subjective perception of one's health, influence of the condition of one's health on participation in community-based activities and the feeling of happiness. Perception of subjective health independently accounts for 16% of the variance, while the variable which measures the influence of health on community participation explains additional 6%, and another 6% is accounted for by perception of the subjective feeling of happiness. This indicates that a change on the level of community participation and improved feeling of happiness might somewhat limit the impact of health on one's loneliness. Negative events and visits to doctors due to mental health challenges are not correlated with the feeling of loneliness.

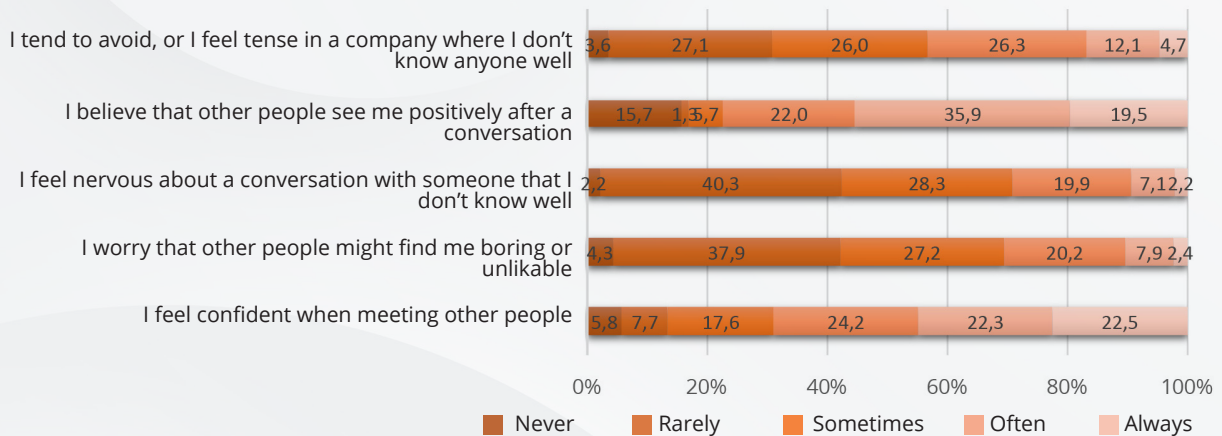


4.10 SOCIAL CONFIDENCE

The analysis also involved social confidence of the elderly, i.e. the extent to which older persons are nervous when meeting new people, that is, the extent to which they worry about the way they would be perceived by others in social situations.

A bit less than a half of the older persons (45%) avoid, at times or frequently, to become involved in groups where they don't know the participants well. On the other hand, only 5% of them do this always. Two thirds of the older persons (66%) believe that other people always or frequently see them in a positive light after a conversation. A small number, only 2%, believe that this is never the case, while 7% think that this rarely happens. An overwhelming majority of the elderly (70%) never, or rarely feel nervous when talking directly to a stranger. There is a small number of those who always (2%) or frequently (7%) have this problem. 11% of the elderly always or frequently fear that they would appear to be boring or unlikable to others. On the other hand, 68% never or rarely have such fear. One fourth of the elderly never (8%) or rarely (18%) feel confident when meeting new people.

Respond to the question from the social confidence scale

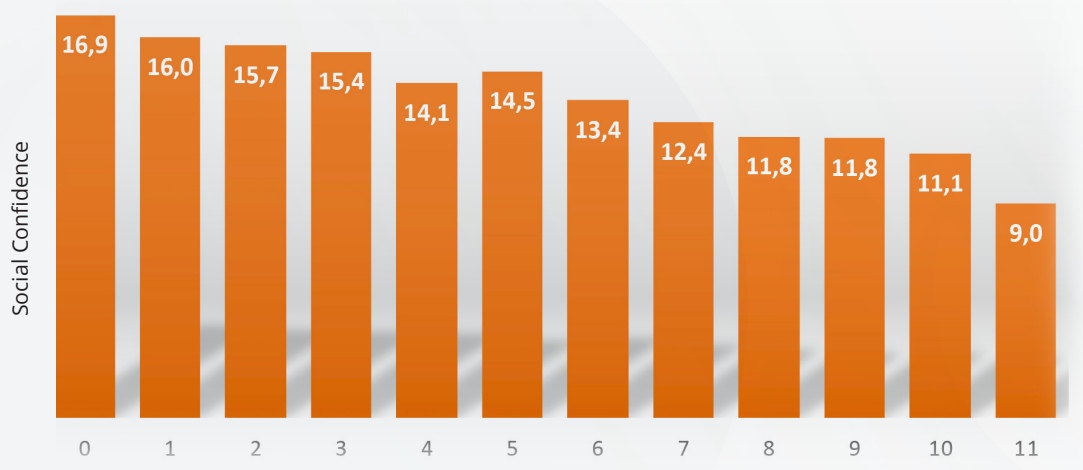


Analysis of the variance indicates that there is a correlation between age and social confidence, where social confidence decreases with age. Thus the average score on the scale of social confidence for the persons in 65-69 age group is 15 (M=14.75, SD=3.39), while in 80-85 age group it falls to 13 (M=12.54, SD=3.98). Social confidence is not correlated with gender or marital status, while it is moderately correlated with the level of education, where the persons with or without finished primary school have a somewhat lower scores on the scale of social confidence (M=13.11, SD=4.00), than those with college and university degrees (M=14.31, SD=3.12).

The score on the social confidence scale is a strong predictor of loneliness, accountable for 31% of the loneliness variance.

The analysis of the distribution of scores on the social confidence scale against the scores on the loneliness scale indicates a correlation between loneliness and social confidence, where loneliness is decreased with an increase of social confidence.

Correlation between social confidence and scores on the loneliness scale



4.11 ANALYSIS OF IMPACT OF RISK FACTORS ON LONELINESS

For the purpose of the analysis, the factors with impact on loneliness have been divided into three groups: 1) demographic characteristics that are hard to change; 2) factors that could be changed within a longer period of time through a comprehensive policy approach; 3) factors that could be addressed through interventions on the local level; 4) factors that cannot be directly addressed. The first group of factors comprises education, household characteristics, age and gender. The second group of factors includes satisfaction with financial situation and perceived health. The third group of factors, that could be targeted with interventions the most easily, involves the frequency of contacts with family and friends, size of social network, level of closeness with family and friends, positive social support, as well as development of opportunities for participation in the community, including when there are limiting factors when it comes to physical or mental health. The fourth group of factors includes the feelings of happiness, belonging and social confidence.

All the aforementioned factors account for 59% of the loneliness variance. The first group accounts for 14% of the loneliness variance, while material situation and subjective health account for additional 13%. In other words, the factors that are hard to influence account for about a half of the loneliness variance. The third group, the one that can be directly addressed through interventions, accounts for the remaining loneliness variance, i.e. 30% of the variance. Among these variables, the most impactful when it comes to loneliness are the number of friends to whom the elderly feel sufficiently close, the level to which they are understood by the persons close to them and the existence of persons with whom the elderly can jointly participate in enjoyable activities. This indicates that targeted interventions in local communities could significantly decrease loneliness, even if structural factors, such as health and financial situation, are not addressed, which justifies investing in this type of interventions.

5 CONCLUSIONS AND RECOMMENDATIONS

The United Nations Population Fund in Serbia in cooperation with the Centre for Research and Social Development IDEAS, realised an additional analysis of the data concerning the position of older people in Serbia and impact of different factors on loneliness, so as to offer concrete recommendations to decision-makers for the improvement of the position of senior citizens in Serbia.

The research indicates that somewhat more than two thirds of the older persons in Serbia are lonely, which is 11% lower than in the region.

Community-based activities are not available to older persons. As little as 11% of the older persons state that they have participated in the work of day centres, religious groups, or engaged in sport activities, while merely 0.3% of the elderly have participated in educational activities. In this sense, older persons in Serbia do not have opportunities to participate in organised activities in order to pass time, meet new people, develop competences and become involved in lifelong learning. Their participation in lifelong learning activities is additionally hindered by the fact that 70% of the elderly do not use computers or other electronic devices, while 55% have no internet access in their homes. However, older persons independently organise themselves to engage in the activities they love, so 54% of them report that they have someone with whom they can share enjoyable activities. However, 23% of the elderly also report that they never, or rarely have someone who could share with them the activities that bring them joy.

One fourth of the elderly state that they do not have support in daily activities available to them when needed, including preparation of meals, going to the doctor's and other daily tasks.

The analysis indicates that the COVID-19 pandemic has had impact on older persons' contacts with family and friends, so the share of older persons who see their family rarely has risen from 18% to 45%. In other words, one in two older persons see their family and friends once a month or less. Even though older persons have decreased live contacts significantly, since the elderly do not use computers and other electronic devices, the contacts are mainly maintained via telephone. Older persons have relatively narrow social networks, consisting of 5 persons on average. In line with this, more than a half of the elderly believe their circles of friends to be too limited (57%). However, 45% of the elderly avoid being involved in the activities where they don't know other participants well. A significant number of the older persons (32%) state that their family and friends do not understand them very well, while 29% feel that they are not important to their close persons.

Significant health problems are acknowledged by 33% of the older persons. As much as 52% emphasise that they have problems with their hearing which limit their social life, while 23% report that the condition of their health largely prevents them from participating in any kind of

social and community-based activities. One third of the older persons state that they are very happy (35%), while 13% are very unhappy.

The analysis indicates relatively small gender differences in the position of the elderly in the observed dimensions, except in the cases when women are living alone, as well as a significant impact of social exclusion. In this sense, the older persons with low education and bad financial situation are significantly more exposed to risks, while the risks are also more frequently faced with by women living alone.

When it comes to loneliness, the analysis has indicated the crucial impact of the factors that could be addressed through interventions on the local level. Namely, these factors account for 30% of the variance, independently of demographic characteristics, financial situation and condition of older persons' health. These factors pertain to contacts with family and friends, development of close relationships, understanding by close persons and development of support for the elderly of deteriorated health to participate in the community. By investing in the activities that address these factors, the older peoples' loneliness could be significantly decreased.

In line with the recommendations for the improvement of the position of older persons supplied in the regional report, which rely on the importance of investment in prevention activities, as well as in targeted support in order to decrease loneliness, attention needs to be dedicated to the following, in order to additionally improve the position of the older persons in Serbia:

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