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Assessing the active aging index in Uzbekistan: Employment, social engagement, and well-being

DNodira Egamberdiyeva¹, DAbdurahmanov Khamid², DGavhar Ruzieva³, Dildora Yulchiyeva⁴, DGulchehra Rahmanova^{5*}

¹Director of the Scientific Research Institute "Family and Gender", Tashkent, Uzbekistan.

²Vice Director of the Scientific Research Institute "Family and Gender", Tashkent, Uzbekistan, Tashkent, Uzbekistan. ³Senior researcher, Doctoral student of the Institute for Retraining of Directors and Specialists of Preschool Educational Organizations and their Qualification Improvement; Tashkent, Uzbekistan.

*Researcher at the Scientific Research Institute "Family and Gender", Tashkent, Uzbekistan.

⁵Associate Professor PhD, Department of English Language and Literature, Andijan State Institute of Foreign Languages, Andijan, Uzbekistan; gulchehrabakieva@gmail.com (G.R.).

Abstract: This article presents the findings of a study evaluating the Active Aging Index (AAI) in Uzbekistan, conducted by specialists from the Research Institute "Family and Gender" in collaboration with the National Institute of Economic Research of Moldova, with financial support from the United Nations Population Fund (UNFPA). The study aims to assess the status and challenges of active aging in Uzbekistan by analyzing employment trends, social participation, independent and secure living conditions, and the broader enabling environment for aging. Since 2012, the Active Aging Index has been widely used in European Union countries as a comprehensive indicator and policy monitoring tool. Applying this methodology to Uzbekistan, the study investigates demographic shifts, economic participation, access to social and healthcare services, and overall quality of life among older adults. The findings reveal significant challenges, including low employment rates among the elderly, limited access to healthcare, economic insecurities, and insufficient social support mechanisms. Additionally, the research highlights regional and gender disparities in aging experiences, with rural and female elderly populations facing greater socio-economic vulnerabilities. Given the lack of complete statistical datasets, the study incorporates proxy indicators to ensure a more accurate assessment. The results emphasize the need for targeted policy interventions to enhance employment opportunities, improve healthcare access, and develop comprehensive social protection programs for older adults. The study concludes with recommendations aimed at strengthening Uzbekistan's active aging framework to promote a higher quality of life and greater social inclusion for the elderly.

Keywords: Active aging index, Aging policies, Demographic analysis, Economic security, Elderly population, Employment trends, Healthcare access, Independent living, Policy interventions, Proxy indicators.

1. Introduction

The demographic transformation in Uzbekistan over the past two decades has led to a steady increase in the proportion of elderly individuals within the population. According to the Statistics Agency under the President of the Republic of Uzbekistan [1] the share of people aged 65 and older increased from 5.8% in 2009 to 9.1% in 2023, indicating a clear trend towards an aging society [1]. This demographic shift is influenced by higher life expectancy, declining birth rates, and improvements in healthcare services [2]. As a result, Uzbekistan is approaching the threshold of an aging population, which presents significant social, economic, and policy challenges.

While international studies have highlighted the importance of comprehensive aging policies to address financial security, healthcare access, and social participation [3, 4] there remains a lack of

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* Correspondence: gulchehrabakieva@gmail.com

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systematic research on active aging in Uzbekistan. Studies have emphasized the impact of migration on elderly individuals, particularly in the context of financial dependence and social isolation. Additionally, Rahmanova, et al. [5] discuss how patriotism and national identity among Uzbek female students abroad play a role in their engagement with home-country issues, including aging policies and social support mechanisms. These issues necessitate urgent policy reforms to ensure the well-being and inclusion of elderly individuals in society.

Given these demographic changes, a comprehensive Active Aging Index (AAI) assessment is required to evaluate employment trends, social participation levels, healthcare accessibility, and overall quality of life among older adults in Uzbekistan. The present study aims to fill this research gap by providing an evidence-based evaluation of the challenges and opportunities associated with active aging in Uzbekistan.

2. Literature Review

The concept of active aging has been widely studied, with research emphasizing its significance in promoting independent, healthy, and engaged lifestyles for older adults [6, 7]. Active aging policies have been implemented in many European Union countries to enhance employment opportunities, healthcare access, and lifelong learning for elderly populations [8]. In Uzbekistan, however, there is still a gap in aging policy implementation, necessitating a localized assessment of active aging challenges and opportunities.

Research by highlights the impact of migration on elderly individuals, emphasizing how the absence of younger family members contributes to social isolation, financial dependence, and limited access to healthcare services. Similarly, researchers examine English-medium instruction in higher education in Uzbekistan, providing insights into the broader socio-economic implications of language policies, which indirectly influence the educational opportunities available to older adults seeking to remain engaged in lifelong learning [9].

Economic well-being is a key determinant of active aging. Studies have shown that continued labor market participation can significantly improve the quality of life for older individuals Zaidi [7] and Foster and Walker [8]. Khodjaev [2] explores the economic conditions of elderly individuals in Uzbekistan, revealing that low pension support and restricted employment opportunities place older adults at risk of financial insecurity Khodjaev [2]. Saydivalieva [3] further examines gender disparities in the labor market, underscoring the difficulties faced by elderly women in maintaining financial stability post-retirement [3]. These findings align with global perspectives advocating for policies that enable workforce participation beyond retirement age and encourage financial independence among the elderly.

Social participation and digital literacy are also crucial factors influencing active aging. Egamberdiyeva and Yulchiyeva [10] investigate the role of familial support systems, showing that strong family ties contribute positively to psychological well-being and overall quality of life for older adults Egamberdiyeva and Yulchiyeva [10]. discuss the use of social media-based corrective feedback in educational settings, suggesting that digital tools can be leveraged to enhance communication and engagement among elderly populations, thereby reducing social isolation [5]. Additionally, Rahmanova, et al. [5] emphasize the role of national identity and community belonging as a factor in social integration, which is particularly relevant in the context of cultural programs for elderly individuals in Uzbekistan.

Healthcare remains a critical barrier to active aging in Uzbekistan. Studies by Nurullaeva [11] focus on the healthcare challenges faced by elderly women in rural areas, where limited medical infrastructure and social stigmas surrounding aging-related illnesses create significant obstacles [11]. Additionally, research in aging-friendly healthcare policies suggests that early intervention and geriatric care improvements can significantly enhance the well-being of older individuals [12].

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Furthermore, Abdiraimova [13] analyzes mortality rates among working-age men, illustrating the long-term effects of premature male deaths on elderly family members, particularly widows, who often face increased economic hardships [13].

The need for policy-driven solutions is evident. Uzbekistan must prioritize comprehensive aging policies that integrate economic security, social participation, and healthcare accessibility. Existing frameworks should be refined to include flexible employment options for older individuals, expanded digital literacy programs, and increased investment in rural healthcare facilities. As suggested by strengthening social safety nets for elderly individuals affected by migration patterns is crucial to mitigating their vulnerability. Future research should focus on developing targeted aging strategies that align with Uzbekistan's socio-economic landscape and international best practices.

3. Methodology

The primary objective of this study is to obtain objective data on the socio-economic conditions of individuals aged 55 years and older, identify their key needs, and develop recommendations for policies that integrate a holistic approach to aging. The research is structured around the Active Aging Index (AAI) methodology, which has been widely used in European Union countries to assess aging policies [4, 7].

Based on this goal, the following research tasks were established:

- Development of an Active Aging Index tailored to Uzbekistan.
- Assessment of the current state of active aging in the country.
- Identification of barriers that prevent active and healthy aging.

A structured survey questionnaire was developed based on these objectives. The questionnaire consisted of 35 questions covering key aspects of aging: employment status, social participation, healthcare access, and quality of life. The breakdown of question types was as follows: 19 closed-ended, 6 semi-open, 8 tabular, and 2 open-ended. Prior to full-scale implementation, a pilot survey was conducted among 47 elderly individuals to refine the questionnaire and validate its reliability.

The Active Aging Index was assessed based on four primary indicators:

- Employment of older people
- Participation in society
- Independent, healthy, and secure living
- Capacity and enabling environment for active aging

Each of these indicators included 19 sub-indicators, allowing for a detailed examination of factors influencing the aging experience. The first three indicators provided an assessment of actual conditions, while the fourth focused on identifying barriers to active aging.

The study was conducted across seven regions of Uzbekistan: Andijan, Bukhara, Kashkadarya, Samarkand, Syrdarya, Khorezm, and Tashkent city. The distribution of respondents is presented in Table 1:

Table 1.

Distribution of Respondents by Region.

Region	Percentage	Number of Respondents
Andijan region	17.8	537
Bukhara region	10.8	325
Kashkadarya region	18.6	562
Samarkand region	22.0	664
Syrdarya region	4.8	144
Khorezm region	10.5	316
Tashkent city	15.5	469
Total	100.0	3 017

To ensure reliability and representativeness, a multi-stage sampling approach was implemented:

- Quota sampling was used to determine the distribution of respondents across regions, ensuring proportional representation.
- Random selection of mahallas (local communities) within each region.
- Targeted household selection in rural areas, ensuring inclusion of households with individuals aged 55 and older.
- Stratified random sampling by age group: respondents were divided into six age groups, as shown in Table 2.

	Percentage	Number of Respondents
55-59	31.7	957
60-64	28.3	855
65-69	18.1	547
70-74	11.4	344
75-79	5.4	164
80-84	3.5	106
80-84 85+	1.5	44
Total	100	3017

 Table 2.

 Age Distribution of Respondents.

4. Data Collection and Processing

Primary data collection was conducted using structured interviews, ensuring that responses were consistent and comparable. The collected data was analyzed using SPSS software, with a focus on:

- Descriptive statistics (mean, percentages, frequencies) to summarize key trends.
- Cross-tabulation analysis to compare differences across regions and age groups.
- Chi-square tests to identify statistically significant relationships between indicators.

The analysis allowed for an in-depth assessment of employment patterns, social integration, health status, and perceived barriers to active aging among Uzbekistan's elderly population.

5. Results and Discussion

It is recognized that the index of active aging is assessed positively when receiving results above 57.5 points. According to the study, the Active Aging Index (AAI) in Uzbekistan was 34.9 points, indicating that only one-third of the elderly population (aged 55 and older) can be considered actively aging, while the remaining two-thirds face significant limitations in their economic, social, and health-related activities (Table 3). Compared to EU countries, where the AAI average is above 50 points [7] Uzbekistan's score suggests substantial room for policy improvement to enhance elderly participation in economic and social life.

Table 3.

Active Aging Index and its Domains.

	Total	Male	Female	Urban	Rural
Active Aging Index	34.9	37.7	32.5	33.2	36.8
Employment	11.0	16.3	6.5	9.1	13.2
Participation in Society (population 55 years and older)	44.9	46.4	43.7	41.5	48.8
Independent, Healthy and Secure Living	40.2	41.6	39.0	41.3	38.9
Capacity and Enabling Environment for Active Ageing	56.5	57.9	55.4	56.7	56.1

5.1. Elderly Employment and Economic Participation

According to the Active Aging Index, an employment rate above 54.2 out of 100 is considered positive. However, the employment rate of elderly people in Uzbekistan was only 11.0 points, highlighting significant barriers to workforce participation among older individuals. This low rate is primarily due to early retirement policies, limited job opportunities, and health constraints (Table 4).

Employment among older individuals declines with age, as evidenced by the progressive drop in employment rates from 19.2% among those aged 55-59 to just 5.5% for those aged 70-74. A key contributing factor is the significant gender disparity in employment: men are more likely to continue working past retirement age, while women are often engaged in unpaid caregiving roles (Table 4). This disparity is further reinforced by Uzbekistan's retirement policy, where the official retirement age for women is 55 years, compared to 60 years for men, limiting their reintegration into the labor market after retirement.

Table 4.

Summary Indicators for Domain 1: Employment.

Employment Indicator	Total	Male	Female	Urban	Rural
Domain 1: Employment (score)	11.0	16.3	6.5	9.1	13.2
Employment level (55-59), %	19.2	27.3	12.1	17.8	20.9
Employment level (60-64), %	11.1	16.1	6.8	10.5	11.8
Employment level (65-69), %	8.0	10.7	5.9	4.4	12.4
Employment level (70-74), %	5.5	11.1	1.0	3.8	7.5

The participation of older adults in the labor market is often driven by economic necessity rather than choice. Many elderly individuals are forced to continue working due to low pension payments, insufficient financial savings, and rising healthcare expenses. The study found that only 11.2% of respondents were engaged in paid employment, while 7.9% expressed a desire to return to work. However, it is noteworthy that nearly half of respondents did not answer the employment-related questions, possibly indicating a lack of formal work opportunities for older adults.

Elderly employment rates vary significantly across different regions. The highest levels of workforce participation were recorded in Andijan (33.3%), Samarkand (23.4%), Kashkadarya (15.9%), and Khorezm (13.2%). These regions have strong trade, agriculture, and handicraft-based economies, where older individuals can engage in self-employment or family-run businesses. In contrast, Tashkent had the lowest employment engagement among the elderly, suggesting that urban economies are less accommodating to older workers or that younger professionals dominate available jobs.

In Andijan, two out of ten elderly individuals reported working for pay in the previous month. This is likely due to high population density, active informal trade markets, and a strong tradition of entrepreneurship. Similarly, older adults in rural areas are more likely to work in farming or small-scale trade, whereas urban elderly individuals face higher barriers to employment due to job competition and digital skills gaps.

5.1.1. Gender and Employment Trends

There are no major employment differences between elderly individuals in urban and rural areas; however, gender disparities remain significant. Men (67.9%) are much more actively engaged in paid work than women (32.1%) (Table 5). This trend can be attributed to traditional family structures in Uzbekistan, where men are considered the primary breadwinners, have greater labor market participation, and retire five years later than women.

Table 5.

Structure of Respondents Performing Paid Work in the Last Month by Residence and Gender. Have you done any paid work in the last months?

	Number of Respondents	Percentage
Total	333	100%
Male	226	67.9%
Female	107	32.1%
Urban	156	46.8%
Rural	177	53.2%

It is evident that participation in economic activities among older individuals is strongly correlated with age. The highest proportion of elderly individuals engaged in paid work belongs to the 55-59 age group (54.4%), followed by 27.0% in the 60-64 age group (Table 6). Employment participation declines significantly after the age of 65, with only 11.7% of individuals aged 65-69 continuing to work, and dropping further to 5.7% for those aged 70-74. By 75 years and older, only 1.2% remain in the workforce. This trend aligns with global aging patterns, where early retirement, declining physical health, and limited job opportunities contribute to reduced workforce participation in later life.

Table 6.

Distribution of Respondents Performing Paid Work in the Last Month, by Age Group.

Have you done any paid work in the last mont	ths?
55-59 age	54.4%
60-64 age	27.0%
65-69 age	11.7%
70-74 age	5.7%
75 + age	1.2%

Employment participation also varies based on marital status. The majority (84.5%) of elderly individuals engaged in paid work were married, suggesting that financial obligations within the household may contribute to continued workforce participation. However, this data should be interpreted with caution, as the overall marital composition of the sample skews toward married individuals, potentially affecting representativeness (Table 7).

Conversely, widowed individuals accounted for 10.2% of those working, which may be attributed to financial necessity rather than choice, especially considering that 65.1% of widowed respondents were aged 65 and older. Economic inactivity among widowed seniors is often linked to limited employment opportunities, absence of dual-income support, and increased health-related challenges.

Table 7.

Distribution of Respondents Performing Paid Work in the Last Month by Marital Status

Have you done any paid work in the last months?	Yes
Not married	1.0%
Married	84.5%
Divorced	4.3%
Widower/widow	10.2%

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Further analysis of employment participation by marital status indicates that divorced elderly individuals are the most economically active group, with 14.8% engaged in paid work, followed by married seniors (12.6%) and those who have never married (9.4%) (Table 8). This trend suggests that divorced seniors may have a greater financial need to remain in the workforce, possibly due to the absence of spousal financial support. Widowed individuals, in contrast, have the lowest employment rates (4.8%), which may be influenced by their older age profile, health issues, and economic dependency on pensions.

Table 8.

Distribution of Respondents Performing Paid Work in the Last Month by Marital Status.

Have you done any paid work in the last months?	Yes	No
Widower/widow	4.8%	95.2%
Divorced	14.8%	85.2%
Married	12.6%	87.4%
Not married	9.4%	90.6%

Education level plays a crucial role in determining the economic activity of older individuals. Older adults with higher levels of education are more likely to remain in the workforce, as they have greater access to skilled jobs, higher financial literacy, and better health awareness. The study found that those with specialized secondary education had the highest employment rates (14%), followed by individuals with higher education (12%) and those with secondary education (9.5%) (Table 9).

Table 9.

Share of Older People Engaged in Paid Activities, by Level of Education.

Have you done any paid work in the last months?	Unfinished Secondary Education	Secondary Education	Specialized Secondary Education	Higher Education	Total
Number of Respondents	5	115	112	96	328
Percentage	1.5	35.1	34.1	29.3	100.0

This data highlights that higher education does not necessarily correlate with the highest employment rates among older individuals. Instead, those with specialized secondary education appear to benefit from practical vocational skills that keep them engaged in the workforce longer.

The study found that employment rates among older individuals vary significantly by region. The highest share of employed elderly individuals was observed in Andijan (21%), while the lowest employment participation was found in Bukhara (6%) and Tashkent (2%). The lower rates in urban areas, particularly Tashkent, may be attributed to fewer age-inclusive job opportunities and a labor market that favors younger professionals. Additionally, the prevalence of self-employment and small-scale trade in Andijan and other rural areas supports higher workforce participation among older individuals.

The study confirmed significant gender differences in elderly employment, with 67.9% of employed older adults being men and only 32.1% being women. This discrepancy is largely due to traditional gender roles, which prioritize men as primary earners, while women often retire earlier and transition into caregiving roles. Furthermore, only 4% of elderly individuals are engaged in entrepreneurship, indicating limited opportunities for self-employment among older adults in Uzbekistan.

5.2. Participation in Society (Social Life)

The participation of older people in social activities is considered positive when it exceeds 40.6 points out of 100. According to the study, the social participation index for individuals aged 55 and older in Uzbekistan is 44.9 points, which indicates a relatively high level of engagement (Table 10).

However, participation is primarily concentrated in family-centered activities, reflecting Uzbekistan's cultural and traditional values.

A significant 88.1% of respondents are actively involved in caring for their children or grandchildren, and 46.1% provide care for elderly individuals aged 75 and older. This suggests that older individuals tend to remain engaged within their households and close-knit communities rather than participating in broader social activities.

Table 10.

Summary Indicators for Domain 2: Social Participation	Summary	Indicators	for Domain	n 2: Social	Participation
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Social Participation Indicator	Total	Male	Female	Urban	Rural
Participation in social life $(55 +)$ (score)	44.9	46.4	43.7	41.5	48.8
Volunteering (weekly), $55 + (\%)$	12.8	15.5	10.6	12.5	13.2
Care for children, grandchildren, aged 55 and older, %	88.1	86.9	89.0	84.7	92.0
Care for the elderly, disabled, $55 + (\%)$	46.1	46.8	45.6	42.4	50.4
Participation in political life (over the last 12 months),	29.2	33.8	25.4	22.6	37.1
55 + (%)					

While family-related activities dominate, engagement in volunteering and political participation remains relatively low. About 80% of older adults do not engage in volunteer work, and when they do, their involvement tends to be short-term rather than structured or sustained. Approximately 12.8% of individuals aged 55+ participate in volunteering on a weekly basis, with rural residents slightly more engaged than their urban counterparts (13.2% vs. 12.5%).

Older adults also participate in social services, charitable organizations, and professional associations, but only 5% engage in cultural, educational, or sports activities. Rural seniors tend to be more involved in social service provision and charity work, while urban seniors participate more in educational and professional associations due to better access to structured organizations.

Political engagement among older adults remains moderate, with 29.2% having participated in political activities over the last 12 months. Rural residents show higher engagement in political discussions (37.1%) compared to urban dwellers (22.6%), possibly due to community-based governance structures in rural areas. The lowest participation levels are observed in activities such as direct communication with government officials, where older adults rarely voice concerns or submit official complaints.

The study examined older adults' knowledge and involvement in two key community organizations: the Older People's Advisory Group and the School of Grandmothers. Awareness of these groups remains limited, with only 30% of elderly respondents stating that they fully understand the role of the Advisory Group and only one-fourth (24.5%) reporting full knowledge of the School of Grandmothers (Table 11).

Table 11.

Have you heard about the activities of the "Advisory Group of Older People" and the "School of Grandmothers" in mahallas?	Never Heard	Partially Heard	Fully Aware	Difficult to Answer
School of Grandmothers	37.5%	26.1%	24.5%	11.9%
Male	35.0%	28.1%	27.0%	9.9%
Female	40.6%	23.6%	21.4%	14.4%
Older People's Advisory Group	30.5%	29.4%	26.6%	12.0%
Male	30.5%	30.9%	27.0%	11.6%
Female	31.5%	28.6%	26.9%	13.0%

Awareness of the "Advisory Group of Older People" and the "School of Grandmothers".

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Notably, awareness of the School of Grandmothers is 10% higher among women than among men, as the organization primarily focuses on older women's activities. In contrast, knowledge of the Older People's Advisory Group is nearly equal between genders, indicating more balanced outreach.

Rural residents show greater participation in social services and community activities, likely due to stronger interpersonal networks and communal living structures. Urban seniors, however, benefit from more established cultural and professional associations, leading to slightly higher participation in education- and profession-based organizations.

Educational attainment has a strong influence on civic engagement. Older individuals with higher education levels are five times more likely to engage in community service and volunteer work than those with lower education levels. Interestingly, participation in trade union meetings is the only activity where education does not play a significant role, suggesting that labor-related engagement remains stable across different education levels.

In general, men and rural residents exhibit higher levels of social participation compared to women and urban dwellers. Men are more likely to engage in volunteer work and political activities, while women tend to focus more on family-centered responsibilities. Similarly, rural residents are more active in social services, community events, and charity work, whereas urban seniors are more engaged in educational, cultural, sports, and professional associations due to better infrastructure and access to such activities.

The disparities between urban and rural seniors reflect differences in available opportunities and cultural expectations. While rural communities provide more opportunities for interpersonal and neighborhood-based engagement, urban environments offer greater access to formal organizations, workshops, and structured civic initiatives. Addressing these disparities through targeted programs could help increase participation among underrepresented groups.

5.3. Independent, Healthy and Secure Life

The independent, healthy, and secure life index for all countries is considered positive when it scores 87.7 out of 100 or higher. In Uzbekistan, the indicator for independent, healthy, and secure life among older individuals is 40.2 points, significantly below the benchmark. This suggests that only four out of ten older adults aged 55 and over experience independent, healthy, and secure living conditions, while the majority face various age-related limitations. The findings highlight the need for greater social protection, particularly for women and rural residents, who face increased risks and barriers (Table 12).

Table 12.

Indicator	Total	Male	Female	Urban	Rural
Independent, healthy and secure life (score)	40.2	41.7	39.1	41.2	39.1
Physical activity, 55+ (%)	48.7	54.8	43.8	52.4	44.5
Access to medical and dental care, 55+ (%)	47.6	48.0	47.4	50.2	44.6
Independent living, 75+ (%)	7.4	7.9	7.1	7.8	7.0
No risk of poverty, 65+ (%)	83.4	85.4	81.1	85.1	82.1
No material deprivation, 65+ (%)	59.5	64.9	55.5	58.5	60.7
Physical safety, 55+ (%)	95.0	95.4	94.6	95.5	94.3
Continuous education, 55-74 (%)	5.3	4.1	6.3	6.0	4.5

Summary indicators for Domain 3: Independent, healthy and secure living.

Health status is a highly individual and subjective factor, closely linked to personal perceptions and lifestyle. The study assessed self-reported health status among older adults. Overall, 50.1% of respondents rated their health as 'good,' while only 8% reported 'excellent' health. In contrast, 34.1% of older adults described their health as tolerable, and around 7.2% reported poor health (Table 13).

Health Rating	Excellent	Good	Tolerable	Poor	Very Bad
Total	8.0%	50.1%	34.1%	7.2%	8.0%
Male	10%	54%	28%	7%	1%
Female	6%	46%	39%	8%	1%
Urban	11%	48%	33%	7%	0%
Rural	4%	52%	35%	8%	1%

 Table 13.

 Level of Subjective Health Assessment by Gender and Place of Residence

Men were generally more likely to rate their health positively, with 64% reporting either 'good' or 'excellent' health, compared to just over 50% of women. A larger proportion of women described their health as tolerable, suggesting a higher prevalence of chronic health conditions among them. The percentage of respondents rating their health as poor or very poor remained below 10% for both genders, indicating that while many older individuals do not consider themselves to be in critical health, a substantial proportion experiences moderate health limitation.

In terms of regional differences, urban residents were more likely to report their health as 'excellent' (11%) compared to rural residents (4%). This disparity may be attributed to better access to healthcare services, higher health literacy, and greater availability of preventive medical measures in urban areas.

The level of education is closely linked to health and significantly influences overall well-being. More than 30% of older individuals with lower education levels rated their health as poor or very bad, whereas this proportion decreases significantly with higher education levels. Specifically, older individuals with secondary education are three times less likely to rate their health poorly, while those with specialized secondary education and higher education are five and six times less likely, respectively, to report poor health outcomes (Table 14).

A higher level of education is not only associated with economic activity but also correlates with health-related behaviors and lifestyle choices. More educated individuals tend to adopt healthier habits, better self-care practices, and increased utilization of healthcare services, contributing to improved overall well-being.

Health Rating	Excellent	Good	Tolerable	Poor	Very Bad
Unfinished Secondary Education	3%	31%	35%	26%	6%
Secondary Education	3%	48%	40%	9%	0%
Secondary Specialized Education	7%	52%	35%	6%	0%
Higher Education	17%	53%	26%	4%	0%

Level of Subjective Health Assessment by Level of Education.

Table 14.

The study also found that 36.3% of older individuals suffer from chronic diseases, with women reporting higher rates than men. The proportion of older women with chronic conditions is 10% higher than that of men. Additionally, rural residents are 10% more likely to report chronic illnesses compared to their urban counterparts (Table 15). The most commonly reported chronic conditions among older adults include high blood pressure (37%), high cholesterol (12%), arthritis, osteoarthritis, and rheumatism (10%), and cardiovascular diseases and diabetes (9%).

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 Table 15.

 Presence of Chronic Diseases by Gender and Place of Residence.

Do you suffer from any chronic diseases?	Yes
Total	36.3%
Male	30.3%
Female	41.2%
Urban	32.2%
Rural	41.0%

In terms of mobility and independence, the majority of older individuals can move independently and do not require daily assistance. However, 15% of older adults reported needing physical assistance for daily activities, including eating, standing, dressing, bathing, and using the toilet (Table 16). The proportion of those requiring assistance remains relatively stable across gender and location, indicating that both men and women, as well as urban and rural residents, face similar challenges in personal care.

Table 16.

Need for Assistance in Personal Care by Gender and Place of Residence

Do you currently need help with daily activities?	Yes
Total	15.2%
Male	13.5%
Female	16.5%
Urban	16.0%
Rural	14.2%

The need for daily self-care assistance increases significantly with age. Older adults aged 75 and above are nearly four times more likely to require assistance compared to those aged 55–59. This trend suggests that physical decline and chronic conditions increasingly limit independence in later years.

Educational attainment also plays a crucial role in determining the likelihood of requiring assistance. More than 40% of older individuals with lower education levels reported needing help with daily activities, while this proportion decreases fourfold among individuals with higher education. The correlation between education and self-sufficiency highlights the importance of lifelong learning and health literacy in promoting independence among seniors.

The physical difficulties experienced by older adults are closely linked to their chronic health conditions. Cardiovascular diseases are strongly associated with challenges such as standing, walking, and climbing stairs after prolonged sitting. Approximately two-thirds of respondents reported difficulties maintaining an active lifestyle for more than two hours. Additionally, 13.3% of older adults reported difficulty getting up from a seated position, while 10% struggled to walk 100 meters or climb multiple flights of stairs without resting.

However, it is important to note that one in five elderly individuals reported experiencing no significant difficulties in daily activities due to illness or physical weakness in the past three months. This suggests that while physical decline is common, a significant proportion of seniors remain active and self-sufficient.

Access to healthcare services remains a critical factor in ensuring well-being among older adults. 82.3% of respondents reported receiving necessary medical care within the last 12 months, whereas access to dental care was significantly lower, with only 51.7% seeking treatment when needed.

Older adults in rural areas face greater barriers in accessing healthcare. The proportion of rural seniors who received necessary dental care was 6 percentage points lower than that of their urban counterparts. This disparity is likely due to underdeveloped healthcare infrastructure in rural regions, particularly regarding specialized medical and dental services (Table 17).

Table 17. Satisfaction of the Need for Medical and Dental Services in the Place of Resid	lence.
Have you had a medical or dental examination whenever needed?	Medical Ser
	0/

Have you had a medical or dental examination whenever needed?	Medical Services	Dental Services
Total	82.3%	51.7%
Urban	83.6%	54.2%
Rural	80.8%	48.9%

The majority of older people reported high levels of mental health, indicating that they usually feel well, rested and active. Collectively, more than 70 % of older people surveyed indicated that they wake up refreshed and rested all or most of the time, feeling alert and in a good mood and relaxed and calm, and 55 % feel active and alert.

The results of the study showed that almost 90 % of elderly people live in large families. It turned out that only 4 % of them live alone. In general, older people are more involved in caring for grandchildren and children. This situation shows that the country has acquired a traditional and territorial identity. Living together with children allows older people not only to ensure social integration and not to feel lonely, but also to protect themselves from certain financial problems.

About 1/3 of the elderly respondents can afford to buy everything they need without cutting back on their usual expenses, but 15% cannot afford even the essentials, and 20% said they only have enough money for the essentials.

The study found that while most seniors have some financial resources to cover everyday expenses, they are less likely to set aside money to buy more expensive items or cover unexpected expenses. More than 60 % of seniors said they can cover their basic needs, but when it comes to more expensive items or unexpected expenses, only 40 % of seniors said they have no problem covering them. 18 % of the elderly can afford to buy a car. It has been found that the level of material deprivation in urban areas is significantly lower than in rural areas.

The level of education of older people remains the main factor determining their economic wellbeing. About 4 out of 10 older people with primary or secondary education responded that they are financially constrained, lacking money even for basic necessities. Among older people with higher education, only 8 % fall into this category. Also, 4 out of 10 people with higher education stated that they can afford to buy everything they need. The distribution of older people by education level is also reflected in employment and health issues. No significant correlation was found between the age indicator and the level of economic well-being of older people.

The material situation of older women is worse than that of men. The share of women who stated that they experience certain difficulties in covering certain expenses is 4–10 % higher than that of men. This situation may be due to objective (women's economic status differs from men's) and subjective (traditional status or role of women in society) reasons.

Most seniors (97 %) reported feeling safe and comfortable walking alone after dark in their neighborhood. Over 70% feel very safe, while about a quarter feel somewhat unsafe. However, 2% of older adults consider it dangerous to go out after dark, and 1% perceive it as extremely unsafe (Table 18).

How safe do you feel walking alone after dark?	Very Safe	Safe	Unsafe	Extremely	Hard to Answer
	-			Dangerous	
Total	71%	24%	2%	1%	2%
Male	70%	25%	1%	1%	2%
Female	71%	23%	3%	1%	1%

Table 18

Tuble 10.
Security Assessment Overall and by Gender.

Edelweiss Applied Science and Technology ISSN: 2576-8484 Vol. 9, No. 5: 3175-3190, 2025 DOI: 10.55214/25768484.v9i5.7668 © 2025 by the authors; licensee Learning Gate Education level influences perceptions of safety. Older individuals with lower education levels are less likely to feel safe in their neighborhoods (85%), compared to over 90% in other educational categories. This heightened sense of insecurity may stem from socioeconomic disadvantages, marginalization, or unsafe living conditions.

Overall, older adults in Uzbekistan feel they live in a safe and respected environment, reflecting a strong societal structure where elders hold a privileged and protected position.

5.4. Capacity and Enabling Environment for Active Ageing

For older individuals to remain active and fulfilled members of society, they must be highly valued within their communities. Achieving their full potential requires favorable conditions, including economic stability, accessible healthcare, social protections, and opportunities for engagement. Beyond these essentials, a supportive and inclusive environment that fosters participation and lifelong learning is crucial for promoting active aging.

The Capacity and Enabling Environment for Active Ageing Index measures a country's ability to empower individuals aged 55 and older to maintain active and healthy longevity. The benchmark for this domain is 77.7 points out of 100. Uzbekistan scores 56.5, indicating that just over half of the older population has realistic prospects for active and healthy aging (Table 19).

	Total	Male	Female	Urban	Rural
Capacity and enabling environment for active ageing (score)	56.5	57.9	55.4	56.7	56.1
Life expectancy at age 55 divided by 50 (%)	46.8	43.4	50.0	48.2	45.0
Proportion of healthy life expectancy at age 55 (%)	66.4	70.9	62.5	65.9	67
Mental wellbeing, $55 + (\%)$	68.3	71.7	65.5	68.7	67.8
Internet use, 55-74 (%)	57.2	62.2	53.0	62.9	50.5
Social ties, $55 + (\%)$	28.0	32.3	24.4	23.6	33.1
Level of education (at least complete secondary education), 55-74 (%)	96.9	97.8	96.2	97.4	96.5

Summary Indicators for Domain 4: Capacity and Enabling Environment for Active Ageing.

A closer look at these indicators highlights notable strengths and challenges. The high education level among older adults (96.9%), internet use (57.2%), and proportion of healthy life expectancy (66.4%) contribute positively to the domain score. However, gaps in social connections and digital literacy present significant barriers to active aging.

The digital divide is a significant factor affecting active aging. While 57.2% of adults aged 55-74 use the internet, there are sharp disparities based on education level. Among individuals with higher education, 85% use the internet daily, while only 4% of those with low education do the same (Table 20). A large portion of low-educated seniors (85%) do not use the internet at all.

Usage Frequency	Every day/almost every day	At least once a week (but not every day)	At least once a month (but not every week)	At least once a month	Haven't used it at all
Total	41%	12%	4%	4%	39%
Unfinished Secondary	4%	7%	1%	3%	85%
Secondary Education	25%	13%	3%	4%	55%
Secondary Specialized Education	50%	13%	5%	4%	28%
Higher Education	64%	10%	3%	3%	20%

Frequency of Internet Use Among Older Adults (Last 3 Months).

While internet use is increasing, many older adults primarily use digital tools for basic communication (calls, messaging apps) rather than for essential services like online banking, bill

Table 19.

Table 20.

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payments, shopping, or education. Limited familiarity with digital financial transactions, online health services, and lifelong learning opportunities presents a significant barrier to full digital inclusion.

Based on active aging index calculations, Uzbekistan's remaining life expectancy at age 55 is 46.8% of the maximum potential (set at 105 years). Of this, 66% is considered 'healthy life expectancy', meaning that individuals live without severe health limitations due to illness or disability.

Mental well-being is a key factor in quality of life for older adults. 68.3% of individuals aged 55+ report high levels of mental well-being, with respondents describing themselves as alert, active, in a good mood, and well-rested most of the time. However, mental well-being varies by gender, with men (71.7%) reporting better well-being than women (65.5%).

A significant challenge is social isolation, as only 28% of respondents report strong social ties. This issue is more pronounced among urban seniors (23.6%) compared to rural seniors (33.1%), highlighting the need for greater community engagement initiatives.

One of the most underdeveloped aspects of active aging in Uzbekistan is continuing education. Despite the benefits of lifelong learning, only 5% of individuals aged 55-74 are engaged in educational activities. This suggests that opportunities for professional development, skill-building, and personal growth remain limited for older adults.

6. Recommendations

To ensure dignified and active aging, Uzbekistan must adopt a comprehensive policy approach that addresses key areas of improvement.

- First, income security remains a major concern for older individuals. Pension schemes should be adjusted to align with living standards, preventing poverty and ensuring a sufficient quality of life. Expanding social pensions for vulnerable groups, such as informal workers, returning migrants, and low-income earners, is essential. Additionally, improving employment policies for older adults through flexible working arrangements, retraining programs, and extended work opportunities will help them maintain financial stability.
- Labor market participation among older individuals can be enhanced by providing vocational education, part-time work options, and financial support for entrepreneurship. Age discrimination in the workplace should also be addressed through targeted policies and employer incentives to encourage hiring older workers.
- Social integration and support programs are necessary to combat isolation among seniors. Establishing community centers, senior clubs, and intergenerational programs will help strengthen social ties. Families providing informal care should receive financial subsidies and counseling support, and home care services should be expanded to provide affordable assistance to seniors in need.
- Education and digital inclusion play an important role in active aging. Increasing access to lifelong learning opportunities, expanding internet accessibility for seniors, and promoting intergenerational learning initiatives can bridge the digital divide and enhance social participation. Older individuals should receive training on digital literacy, financial management, and e-government services to increase their independence.
- Healthcare and aging infrastructure need significant improvements. Expanding mobile clinics, telemedicine services, and rural healthcare facilities will help address medical service gaps in underserved areas. Enhancing dental care accessibility and developing long-term care infrastructure, such as geriatric care centers, will ensure that seniors receive the necessary medical support. Preventive healthcare measures, including healthy lifestyle promotion, regular screenings, and mental health programs, should be prioritized to maintain their well-being.

- Physical activity and well-being are also crucial components of active aging. Providing public spaces, fitness programs, and recreational activities tailored to older individuals will encourage an active lifestyle. Mobility-friendly infrastructure, including improved transportation options and age-friendly urban planning, should be implemented to enhance accessibility for seniors.
- Strengthening government policies on aging is necessary for long-term improvements. A National Active Aging Strategy should be established to develop a coordinated policy framework for managing demographic changes. Enhancing data collection on aging issues and improving statistical monitoring systems will provide better insights into the needs of seniors. Finally, interministerial collaboration between healthcare, labor, social protection, and urban planning sectors should be promoted to ensure a holistic approach to aging policy development.

By implementing these recommendations, Uzbekistan can significantly improve the quality of life for older individuals, ensuring they remain active, respected, and well-supported members of society. A strategic and inclusive approach to aging will help the country effectively manage demographic shifts while promoting the well-being of its senior population.

7. Conclusion

The situation of older individuals in Uzbekistan remains a significant social issue requiring sustained attention from the government and society. While many older adults report relatively stable economic conditions, positive health perceptions, and strong family ties, structural barriers continue to limit their full participation in society. These barriers include urban-rural disparities in living standards, gender inequalities in employment and social security, and education-related disparities in economic well-being and health outcomes. Addressing these challenges is critical to ensuring that older individuals can lead dignified, independent, and active lives.

Although Uzbekistan has made progress in improving the conditions for older adults, rural residents continue to face higher levels of material deprivation, limited access to healthcare, and fewer social engagement opportunities compared to their urban counterparts. Women remain more vulnerable to poverty and social exclusion due to lower lifetime earnings, caregiving responsibilities, and the higher likelihood of widowhood. Education also plays a decisive role, as older individuals with lower educational attainment are more likely to suffer from economic hardship, poor health, and limited self-sufficiency.

Given the steady increase in the proportion of older individuals in Uzbekistan's total population, a national strategy for Active and Healthy Aging is necessary to empower seniors, address structural barriers, and promote social inclusion.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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