

## DEVELOPING AGE-FRIENDLY CITIES: A STRATEGIC FRAMEWORK FOR TURKEY

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### ABSTRACT

The rapid increase in the elderly population necessitates that cities adapt effectively to meet their needs. This study proposes localized strategies for Turkey within the framework of the World Health Organization's (WHO) eight strategic domains for age-friendly cities. It examines the barriers to participation faced by older adults in Turkey, particularly in terms of physical, social, and digital accessibility. Key recommendations include improving public transportation infrastructure for greater accessibility, creating spatial arrangements that support social participation, expanding digital literacy, and enhancing healthcare services in rural areas. Additionally, strategies are proposed to encourage the involvement of older adults in urban planning processes. These localized strategies aim to create age-friendly cities aligned with Turkey's socio-economic and cultural context, fostering the effective integration of older adults into society. The study emphasizes the importance of implementing these recommendations as actionable policies by local governments to build accessible, inclusive cities that support the independence and well-being of older adults.

**Keywords:** Age-friendly cities, Built environment, Older adults, WHO, Well-being, Turkey

## YAŞ DOSTU KENTLERİN GELİŞTİRİLMESİ: TÜRKİYE İÇİN STRATEJİK BİR ÇERÇEVE

### ÖZET

Yaşlı nüfusundaki hızlı artış, şehirlerin bu bireylerin ihtiyaçlarını karşılamak için etkili bir şekilde uyum sağlamasını gerektirmektedir. Bu çalışma, Dünya Sağlık Örgütü'nün (DSÖ) yaş dostu şehirler için belirlediği sekiz stratejik alan çerçevesinde, Türkiye için yerelleştirilmiş stratejiler önermektedir. Çalışma, Türkiye'deki yaşlı bireylerin katılımda karşılaştıkları engelleri, özellikle fiziksel, sosyal ve dijital erişilebilirlik açısından incelemektedir. Önerilen başlıca stratejiler, toplu taşıma altyapısının erişilebilirliğinin artırılması, sosyal katılımı destekleyen mekânsal düzenlemeler yapılması, dijital okuryazarlığın genişletilmesi ve kırsal alanlarda sağlık hizmetlerinin iyileştirilmesi yönündedir. Ayrıca, yaşlı bireylerin kentsel planlama süreçlerine katılımının teşvik edilmesine yönelik stratejiler önerilmektedir. Bu yerelleştirilmiş stratejiler, Türkiye'nin sosyo-ekonomik ve kültürel bağlamına uygun yaş dostu şehirlerin yaratılmasını hedeflemekte ve yaşlı bireylerin topluma etkin bir şekilde entegrasyonunu teşvik etmektedir. Çalışma, yerel yönetimlerin bu önerileri uygulanabilir politikalara dönüştürmesi gerektiğini vurgulayarak, bağımsızlık ve yaşam kalitesini destekleyen erişilebilir, kapsayıcı şehirler inşa edilmesinin önemini ortaya koymaktadır.

**Anahtar Kelimeler:** Yaş dostu kentler, Fiziksel çevre, Yaşlı bireyler, DSÖ, Sağlık-esenlik, Türkiye.

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## **EXTENDED SUMMARY**

### **Research Problem**

The rapid growth of the elderly population poses a significant challenge for urban environments, as cities must adapt to meet the needs of older adults. In particular, Turkey faces unique challenges in providing age-friendly environments that ensure the elderly can live independently and participate actively in society. Despite international efforts to develop age-friendly cities, including guidelines by the World Health Organization (WHO), the practical application of these strategies in Turkey remains limited, particularly in smaller cities and rural areas. This study seeks to address the gap by exploring how Turkey can adapt these global frameworks to its local context.

### **Research Questions**

The primary research questions guiding this study are centred on understanding how to adapt age-friendly city strategies to the context of Turkey. Firstly, the study seeks to explore how the age-friendly city frameworks, as defined by the World Health Organization (WHO), can be localized to suit the socio-economic and cultural realities of Turkey. Additionally, the study aims to identify the key barriers present in Turkey's urban environments that hinder older adults from fully participating in social, economic, and cultural activities. Finally, the research will provide strategic recommendations for local governments in Turkey on how to develop more inclusive and accessible urban spaces that accommodate the needs of the elderly population. These questions form the foundation for examining the challenges and opportunities in creating age-friendly cities within Turkey's unique context.

### **Literature Review**

The literature review provides an overview of global trends in age-friendly cities, particularly focusing on the WHO's framework. Various studies have highlighted the importance of the three key dimensions of accessibility physical, social, and psychological in creating spaces that support aging in place. While global examples such as those from the United States, Japan, and the UK have made significant strides, challenges remain in applying these strategies effectively across diverse contexts, particularly in Turkey. The review also discusses the role of technology and digital literacy, which are critical for integrating older adults into modern urban settings.

### **Methodology**

This study adopts a descriptive literature-based methodology, using secondary data from reliable sources such as WHO reports, academic studies, and government publications. A comparative analysis of international practices and the current state of age-friendly city initiatives in Turkey is conducted.

The research focuses on the eight strategic areas identified by WHO and applies them to Turkey's urban realities, emphasizing the need for localized strategies. Data are analyzed through content analysis, categorizing existing practices, identifying gaps, and suggesting actionable recommendations for policy makers.

## **Results and Conclusions**

The findings reveal that Turkey's efforts to create age-friendly cities are primarily concentrated in metropolitan areas, leaving smaller cities and rural regions behind. Major gaps include inadequate physical accessibility, limited healthcare services, and insufficient support for elderly social participation. The study calls for a nationwide expansion of policies addressing these issues, with a particular focus on transportation, housing, healthcare, and digital literacy. Key recommendations for Turkey include: improving public transportation systems, expanding age-friendly housing options, integrating digital literacy programs, and involving older adults in decision-making processes. The study also stresses the importance of coordinated efforts between local governments, central authorities, and non-governmental organizations to build a more inclusive society for older adults. By addressing these challenges, Turkey can align with global age-friendly frameworks while creating environments that foster the independence and well-being of its growing elderly population.

## 1. INTRODUCTION

The rapid increase in the global elderly population and the widespread prevalence of age-related diseases have brought the concept of accessibility in urban planning and services to the forefront. Cities play a critical role in enabling older adults to lead independent lives, participate in social life, and maintain their psychosocial well-being (Yung et al., 2016). In this context, the concept of spatial accessibility must consider not only physical elements but also social and psychological dimensions (Buffel et al., 2017). The World Health Organization (WHO), by introducing the concept of age-friendly cities, has emphasized the importance of policies that support older adults in actively participating in urban life and aging healthily (WHO, 2007a, 2007b, 2015a, 2015b, 2021; Jackisch et al., 2015). However, the participation of the elderly in decision-making processes on urban issues has been understudied and often overlooked (Buffel et al., 2017; Woolrych and Sixsmith, 2020). While many urban organizations address specific segments of society, elderly individuals who hold a significant place in society are often excluded. Finlay and Finn (2021) highlight this issue, noting that while the proportion of elderly populations is increasing in cities, the relationship between older adults and urban spaces is frequently neglected, terming this oversight the “blind spot of space”.

This study discusses the significance of spatial accessibility for older adults and explores ways to make cities more age-friendly. It aims to provide a roadmap by drawing on existing academic literature and examples. When analysing the spatial accessibility principles of age-friendly cities, practices that help older adults maintain their independence, increase social participation, and improve overall health status emerge. Spatial accessibility is often viewed in terms of organizing physical spaces and ensuring easy access (Brookfield et al., 2020). However, the concept should be approached from a broader perspective. Academic literature highlights that spatial accessibility comprises three main dimensions: physical, social, and psychological (Marmot, 2015). Physical accessibility includes measures such as removing architectural barriers in the built environment and designing roads and pavements suitable for older adults (Rantakokko et al., 2010). In this context, the concepts of barrier-free and universal design are essential. Social accessibility involves policies and social services that support older adults' active participation in social activities, while psychological accessibility relates to creating spaces where older adults feel comfortable and safe. Without addressing all these dimensions collectively, it becomes challenging for older adults to fully engage in urban life. Specifically, implementing regulations that enhance the social and psychological well-being of older adults is essential for creating age-friendly cities Zhou et.al. (2022). Even minor changes in the built environment can significantly improve the quality of life for older adults and help them maintain their independence.

### **1.1. The significance of Age-Friendly Cities**

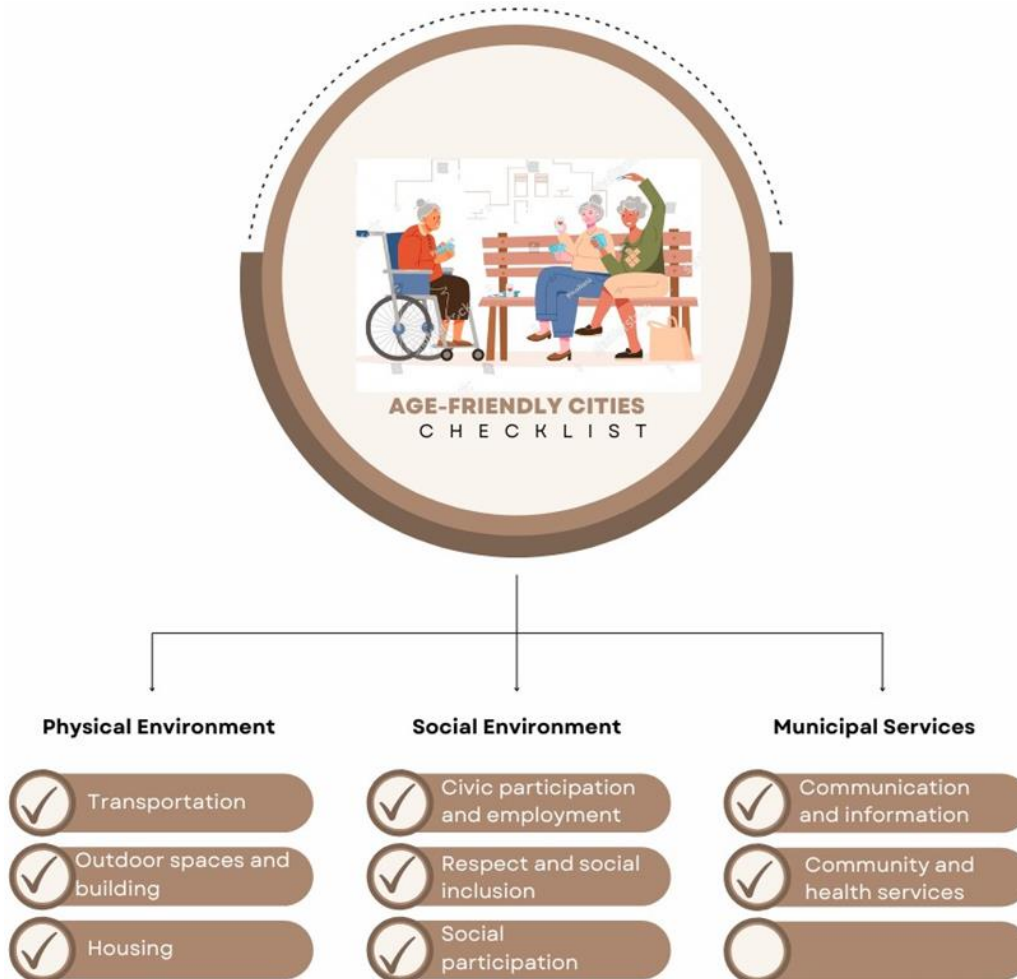
As indicated in the United Nations' global ageing report, the proportion of elderly individuals in the global population is projected to increase from 9% in 2020 to 16% in 2050. This implies that by 2050, one in six individuals will be over the age of 65 (UN, 2020b; Salmistu and Kotval, 2023). This change necessitates the formulation of inclusive and sustainable policies by numerous countries (Arik, 2021). The most significant challenge associated with ageing is health-related. Good health is a fundamental aspect of the well-being and quality of life of older individuals (WHO Regional Office for Europe, 2017). Despite the natural decline in physical and mental capacity, older people continue to contribute to their families and communities (Nordenfelt, 2009).

It is crucial to acknowledge the significance of older individuals as integral members of society, with the aspiration to maintain their autonomy and independence in their chosen residences for as long as feasible, a concept commonly referred to as "ageing in place." Despite the potential need for certain forms of assistance, it is possible for older adults to retain their health and enjoy a high quality of life as they grow older, as evidenced by the findings of Van Hoof and colleagues (2021). As posited by Caro and Fitzgerald, an age-friendly city provides a supportive environment that enables residents to age actively within their families, neighbourhoods and civil society, and ample opportunities for community participation. In other words, an age-friendly city is a place where older people are actively involved, valued and supported by infrastructure and services that effectively meet their needs (Caro and Fitzgerald, 2016). Much research and practical initiatives on age-friendly communities are based on the World Health Organisation's (WHO) 2007 definition: 'Age-friendly communities promote healthy and active ageing at the local level by adapting their structures and services to the diverse capacities of older people.' WHO argues that when physical and social environments are supportive according to the capacities of older people in the community, they can improve their quality of life (Alidoust et al., 2019). In alignment with the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015, the Organisation for Economic Co-operation and Development (OECD) emphasises the importance of considering the spatial diversity of the ageing population in its 'Ageing in Cities' report. It is asserted that the elderly population is not homogeneous and that their needs vary. The WHO's age-friendly cities model proposes the design of cities that meet the needs of older people for independence, health and social participation. In addition to the physical environment, such cities should also develop social policies that will increase the participation of the elderly in society (Keating, 2022).

### **1.2. Strategies for Age Friendly Cities**

Building age-friendly cities requires a multidimensional, interdisciplinary approach, with strategies focused on spatial accessibility. Urban planning should follow universal design principles to ensure

inclusivity (van Hoof and Kazak, 2018). Influential organisations like the WHO and the United Nations have spurred discussions on creating sustainable environments for older adults (Sidorenko and Walker, 2004). For example, through the Healthy Cities Project launched in 1986, the WHO highlighted the relationship between health and the built, natural, and social environments (Edwards and Tsouros, 2006). In 2006, WHO and the Public Health Agency of Canada identified eight age-friendly domains, which include open spaces, transport, housing, social participation, and more (World Health Organization, 2007a, 2007b, 2015a). These domains were later grouped into three clusters: physical environment, social environment, and municipal services (WHO Regional Office for Europe, 2016, 2017, 2018). The Age-friendly Environments in Europe (AFEE) project adapted these domains for the European context, focusing on policy actions and interventions. Examples include providing online services for public requests and promoting urban planning concepts like the 20-minute neighbourhood (Steels, 2015).



**Figure 1.** The eight domains of an age-friendly city (create by author,2024)

### **1.3. Literature review on age-friendly cities in different countries**

Studies comparing age-friendly urban initiatives in different countries around the world focus on specific programmes, indicators and targets for developing urban environments suitable for older people. Some comparative studies have evaluated age-friendly indicators that can be tailored to each city, based on WHO's 2015 guidelines. These tools allow cities to measure and benchmark the effectiveness of their strategies for older people.

Buffel et al. (2017) in their study compare the approaches in Brussels and Manchester for developing age-friendly cities, addressing the opportunities and barriers to implementing age-friendly policies. The study explores the demographic, social, and multicultural contexts of both cities, focusing on physical and social adaptations for age-friendly environments. It also examines how both cities joined the WHO's Global Network of Age-Friendly Cities and Communities, highlighting the similarities and differences in their practices. The study concludes with recommendations for the necessary resources to support active aging. Similarly, the European Innovation Partnership emphasizes transport, housing, public spaces, and healthcare to improve participation and safety for older adults, exploring alignment with sustainability and mobility (van Staalduinen et al., 2018). Akita, Japan, stands out for encouraging older people's social contributions through collaborative projects offering services like discounted transport (Organisation). Studies in Seoul and Singapore also focus on strategies for enhancing older people's independence and participation in urban settings (Pang, 2019).

Ivan et al. (2020) analyse Romania's smart city initiatives and age-friendly strategies, highlighting that while smart city projects focus on infrastructure, energy, and ecology, age-friendly elements are often overlooked. The study shows that age-friendly features are absent in general strategies, despite some projects targeting the elderly. Suggestions include integrating age-friendly strategies into smart city components, such as improving transport, housing, and healthcare access, and adapting technology to elderly needs. Rémillard-Boilard (2021) reviews age-friendly cities in the WHO Global Network, focusing on key priorities for sustainability: changing perceptions of aging, involving key actors, addressing diverse needs, and improving program implementation. The study emphasizes the need for cities to assess their current situation and share successful examples for effective implementation of age-friendly programs. Li and Woolrych (2021) study social inclusion of older people in Chongqing's smart city environment, identifying the need for more inclusive approaches to ensure social participation, safety, and active social relationships in smart cities.

Again, Cao et.al. (2024) addressed the design of high-speed railway stations with an age-friendly perspective in the context of China's rapidly ageing population. The study emphasises the necessity of creating age-friendly environments according to the needs of older passengers with a field application at Nanjing South Railway Station. In the study, the environmental needs of older passengers were

identified and age-friendly design strategies were proposed for different functional areas in the station. Furthermore, an age-friendly modular design system (basic type I, enhanced type II and optimised type III) for high-speed railway stations in China is presented. This system aims to meet station demands at six levels (Cao et al., 2024). A summary of the literature is presented in Figure 2.

## Literature Examples on Age-Friendly Cities from Around the World

### Buffel et al. (2017)

This study compares approaches to developing age-friendly cities in Brussels and Manchester, examining the opportunities and challenges encountered in implementing age-friendly policies. Focusing on adaptations to the social and physical environment for age-friendly cities, the study explores the demographic, social, and multicultural contexts of each city in their efforts to create age-supportive communities. Additionally, it evaluates how Brussels and Manchester joined the World Health Organization's Global Network for Age-Friendly Cities and Communities, assessing the similarities and differences in age-friendly practices between the two cities. The paper concludes with recommendations on essential elements and resources needed to advance age-friendly city development. Finally, it examines how age-friendly policies in Brussels and Manchester are applied to support active aging among older individuals and considers the impact of these policies on the social environment and infrastructure.

### Ivan et al. (2020)

This study analyzes Romania's smart city initiatives from 2012 to 2020, focusing on the integration of age-friendly elements. Findings reveal that these projects prioritize infrastructure, energy savings, and ecological goals, but often lack age-friendly adaptations. While some projects include features for older populations in specific cities, overall strategies rarely address the needs of the elderly. The study compares these efforts with the WHO's eight strategies for age-friendly cities, noting gaps in areas such as social participation, housing, and healthcare access. Recommendations are made to improve accessibility in transportation, housing, and information technology for older adults in future projects.

### Rémillard-Boilard (2021)

This study provides a comprehensive examination of age-friendly city development through an analysis of eleven cities that are members of the World Health Organization's Global Network for Age-Friendly Cities and Communities (GNAFCC). The research focuses on four key priorities to ensure the sustainability of the age-friendly cities movement: changing perceptions of aging, engaging key stakeholders, addressing the diverse needs of older adults, and improving program planning and implementation. Within the framework of WHO's eight strategies for age-friendly cities—health services, transportation, housing, outdoor spaces, social participation, community support, civic engagement, and employment—the study analyzes the benefits and challenges of age-friendly programs across different cities. The findings highlight the importance of cities assessing their current status and engaging in strategic planning and sharing successful examples to effectively implement age-friendly initiatives.

### van Staalduinen et al. (2018)

The European Innovation Partnership's efforts to create age-friendly environments include initiatives focused on transportation, housing, public spaces, and healthcare services. These efforts aim to enhance older individuals' participation in society and provide safe, accessible environments. EU projects explore ways for age-friendly cities to align with age-friendly approaches in areas such as energy efficiency, environmental sustainability, and mobility.

### Pang (2019).

The city of Akita in Japan has gained attention for its initiatives that encourage elderly individuals to make active contributions to society. In Akita, services such as discounted transportation opportunities have been provided through collaboration between private sector and public actors, aiming to increase social participation among the elderly. Projects supporting community involvement have been implemented (Organization). Similarly, studies in Seoul and Singapore focus on strategies that enable elderly individuals to maintain their independence and age actively in urban areas. These cities aim to develop social spaces for the elderly, accessible transportation systems, and participatory projects.

### Li and Woolrych (2021)

This study examines the social inclusion experiences of elderly individuals in the smart city environment of Chongqing, China. It evaluates the opportunities and barriers that smart city technologies offer in daily life and analyzes the impact of the age-friendly city agenda on elderly individuals' independence and social participation. Using semi-structured interviews, walk-along interviews, and focus group discussions with 64 elderly participants, the study highlights the need to integrate elements that support social inclusion into smart city projects. The study concludes that more inclusive approaches are needed to ensure elderly individuals feel safe, maintain social relationships, and actively engage in community life within smart cities.

### Cao et al. (2024)

This study examines the design of high-speed train stations from an age-friendly perspective in the context of China's rapidly aging population. The research emphasizes the necessity of creating age-friendly environments tailored to the needs of elderly passengers, using a field application at Nanjing South Railway Station. The study identifies the environmental needs of elderly passengers and proposes age-friendly design strategies for various functional areas of the station. Additionally, the study presents an age-friendly modular design system for high-speed train stations in China, consisting of three types: basic Type I, enhanced Type II, and optimized Type III. The system is aimed at meeting station demands across six levels.

**Figure 2.** Literature Examples on Age-Friendly Cities from Around the World (create by author,2024)

## 2. MATERIALS AND METHODS

This study has been prepared to examine the applicability of age-friendly city strategies in Turkey within the framework of the World Health Organisation (WHO) Age-Friendly Cities and to propose strategies specific to Turkey. The study includes a comprehensive literature review and a comparative analysis of both international examples and the current situation in Turkey. Focusing on the WHO's eight strategic areas, it discusses which strategies can be implemented to improve access to urban services and quality of life for the elderly population in Turkey. This research is designed as a literature-based descriptive study. A strategic analysis for Turkey was carried out based on the eight main themes of the WHO's Ageing Well Strategy. It also discusses the rapid growth of the elderly population in Turkey and potential problems that may arise in the provision of urban services.

As part of the data collection process for this study, the existing literature on age-friendly cities in Turkey and around the world was analysed. The literature review was carried out using data from reliable sources such as the Turkish Statistical Institute (TUIK), WHO reports and academic studies. The practices of local governments in Turkey for age-friendly city projects, especially metropolitan municipalities such as Istanbul, Ankara, Izmir and Antalya, as well as limited but important projects for rural areas were also analysed. The data collected were analysed using a content analysis method within the framework of eight strategic areas identified by WHO for age-friendly cities. Strategies such as 'awareness raising and empowerment, inclusive and supportive environments, access to services, smart and technological solutions, co-creation and co-production, combating social exclusion, policy and advocacy' defined in the literature were prioritised in the evaluation of practices in Turkey. The selection of the sample focused on local government projects for age-friendly cities. In line with this methodology, the necessary strategies and the current situation for age-friendly cities in Turkey were analysed and the findings were adapted according to the eight strategic headings of the WHO. The data obtained indicate that necessary arrangements should be made to enable the elderly population in Turkey to participate effectively in urban life while maintaining their independence. The process of the study is summarised in Figure 3.

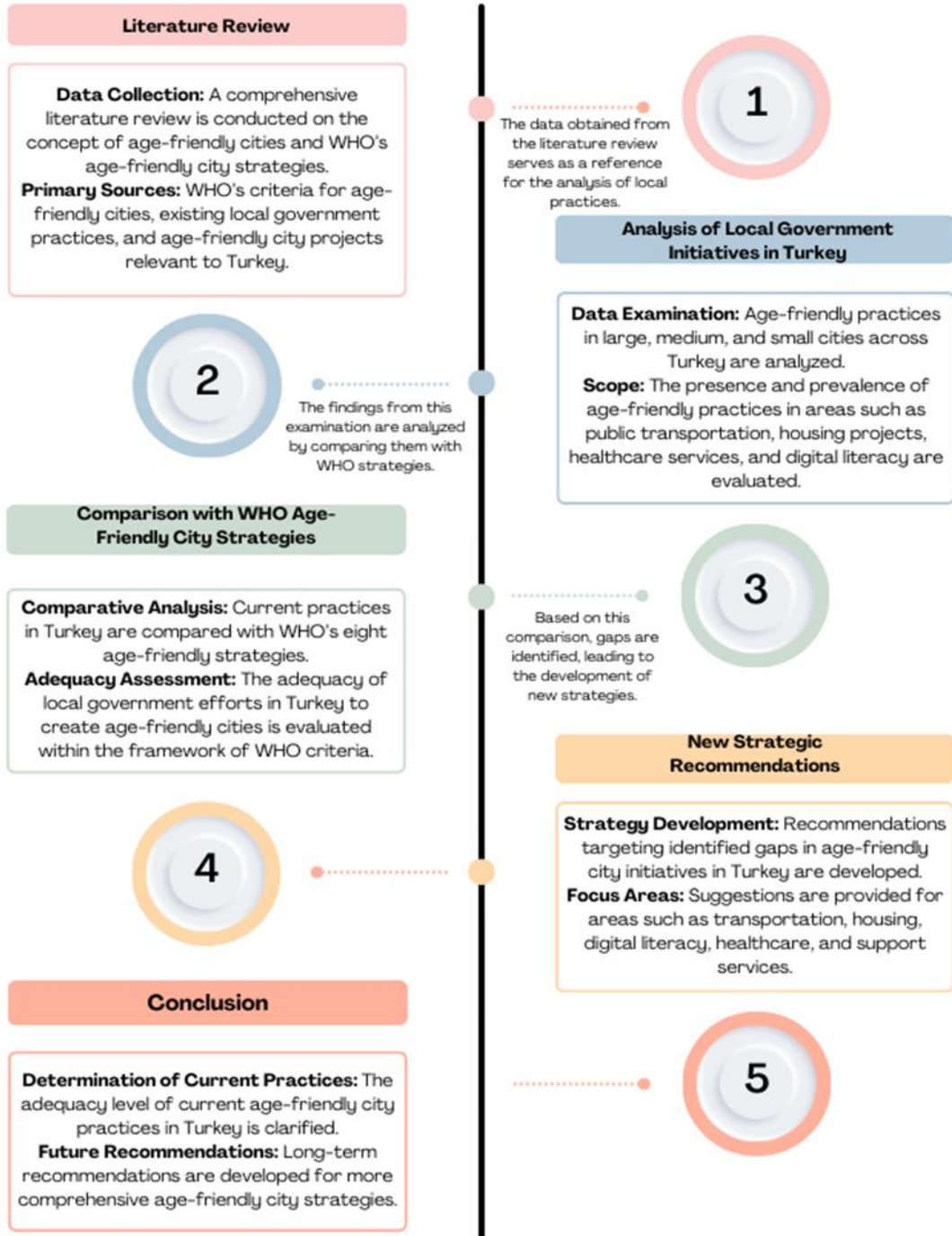


Figure 3. Flowchart of the Research Methodology

### 3. FINDINGS

#### 3.1 WHO Age-Friendly City Strategies and Implementation Status in Turkey

According to the Turkish Statistical Institute (TÜİK) data, as of 2023, the population aged 65 and over has exceeded 10% of the total population, and this percentage is increasing annually (TÜİK, 2023) (Figure 4 and Figure 5). Advances in medicine, technological progress, and improvements in social

policies have contributed to longer life expectancy (Tamkoç and Bilgin, 2020; Söylemez and Ay, 2022). This demographic shift necessitates the development of policies and urban environments that address the needs of elderly individuals. Efforts to make cities age-friendly in Turkey remain limited. In particular, the lack of physical accessibility in urban areas restricts elderly individuals' ability to move independently. Studies indicate that many cities in Turkey are not designed to meet the needs of vulnerable groups, such as the elderly, disabled, and children (Erdoğan & Özmen, 2020). Issues such as narrow sidewalks, inadequate ramps, and public transportation that is unsuitable for elderly individuals hinder their full participation in city life. In Turkey, spatial accessibility is not limited to physical arrangements but also encompasses significant shortcomings in the provision of social services. Cultural and social activities that encourage the participation of elderly individuals in social life are insufficient. Additionally, access to healthcare services for elderly individuals should be considered an essential component of urban design. Elderly individuals migrating from rural areas to urban centres require support to adapt to city life and need improved access to healthcare services (Güler & Aydın, 2019).

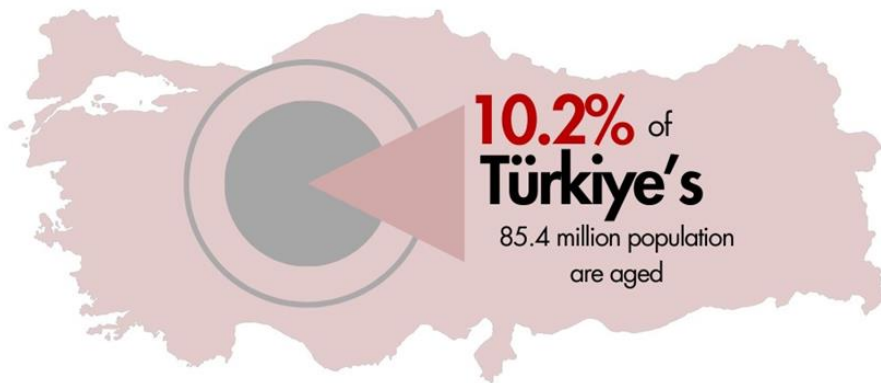


Figure 4. Elderly Populations in Turkey in 2023 (created by author)

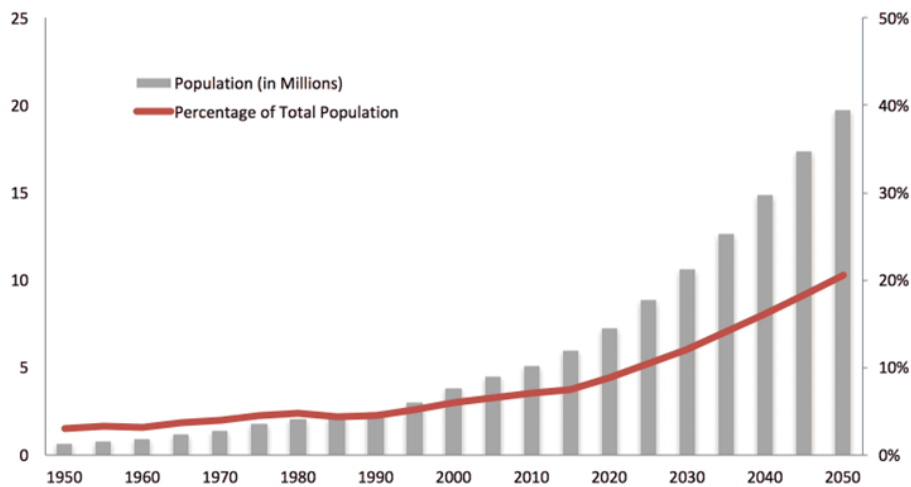


Figure 5. Population Rate by Age Group, 1950-2050 (TÜİK, General Population Censuses, 1935-2000, TÜİK, Address-Based Population Registration System, 2008-2023, TÜİK, 2018 Population Projections, 2030-2080).

In recent years, various steps have been taken in Turkey toward the concept of age-friendly cities. One significant initiative in this area is YADES (Elderly Support Program), launched in 2016 by the Turkish Ministry of Family and Social Policies. At the local level, some municipalities contribute to the age-friendly cities initiative. For example, in 2021, Bornova Municipality joined the World Health Organization's (WHO) Age-Friendly Cities Network and provides health and social services to create safe and accessible spaces for the elderly. Similarly, Kadıköy Municipality in Istanbul adopted a goal to expand age-friendly spaces in 2016. Muratpaşa Municipality in Antalya has been implementing projects aimed at improving health and care standards for older adults (URL-1).

Tepebaşı Municipality in Eskişehir has established Alzheimer Care Homes and a Life Village to support Alzheimer's patients and their families, encouraging social participation. Similarly, Gazimir Municipality in İzmir, in collaboration with İzmir Metropolitan Municipality, offers activities at the Ataevi Healthy Aging Center to strengthen social ties. Mersin Metropolitan Municipality provides health screenings and meal assistance for elderly, bedridden, and disabled citizens, while Sakarya Metropolitan Municipality's Elderly Support Center (YADEM) offers social activities, home cleaning, health check-ups, and psychological support. Beşiktaş Municipality in Istanbul joined the age-friendly cities network in 2019 and runs the "Social Alarm" project to provide healthcare services for seniors. Ankara Metropolitan Municipality has offered services through the Elderly Service Center since 1994. These initiatives focus on improving the physical environment and making public spaces more accessible, though their scope and effectiveness vary across regions (Söylemez and Ay, 2022). While they address some of the WHO's eight strategic domains for age-friendly cities, challenges remain in public building accessibility and transportation infrastructure (Yıldız, 2021; Söylemez and Ay, 2022). Table 1 presents a comparison of current age-friendly city practices in Turkey with international examples, illustrating how these practices can be further developed in Turkey. It is also provided as a summary of the literature section.

**Table 1.** Comparison of International Examples and Türkiye

WHO Age-Friendly City Domains	International Examples	Current Practices in Turkey	Implementation Potential in Turkey
Outdoor Spaces and Buildings	Examples in countries like Japan, Singapore and the Netherlands emphasize universal design, barrier-free access, and promoting safe outdoor spaces for seniors (Pang, 2019).	Some urban areas like Istanbul and Ankara have age-friendly sidewalks, park arrangements, and other outdoor features designed for elderly individuals ((Yıldırım and Arıkan, 2021; Söylemez and Ay, 2022; ).	Age-friendly designs should be expanded to all Turkish cities, particularly in smaller towns where accessibility is still a significant challenge.
Transportation	Countries like China, Seul, Singapur and Canada are known for their well-developed public transportation systems that are inclusive for elderly individuals. (Cirella et al. ,2019; Pang, 2019; Cao et al., 2024)	In metropolitan areas like Istanbul, low-floor buses and discounted elderly passes are provided, but many small cities face challenges in accessibility (Özgür, 2020).	There is a need for a nationwide policy to make public transportation accessible to all elderly individuals, focusing on rural areas.
Housing	Housing solutions in countries like Sweden and Finland focus on universal design principles, providing seniors with accessible living spaces that cater to their needs (Frye, 2013).	Age-friendly housing projects are more common in metropolitan areas, but rural areas lack accessible housing for elderly individuals (Tural 2016; Kalınkara et al., 2016; Zorlu, 2017;).	Turkey needs to invest more in age-friendly housing in rural areas and ensure that urban areas provide universal designs for all residents.
Social Participation	In cities like New York and London, elderly individuals are encouraged to participate in social and cultural activities, supported by community centers and social organizations (Buffel et al., 2017)	Municipalities in cities like Istanbul and Izmir provide social events at elderly centers, but the participation is more centralized to larger cities (Kubilay and Enes, 2019).	Expanding social participation initiatives across Turkey and integrating elderly individuals into social, recreational, and cultural activities is crucial.
Respect and Social Inclusion	Countries such as Canada and the UK focus on eliminating ageism, and promoting social participation through various public initiatives (Buffel et al., 2017; Cirella et al. ,2019)	The social inclusion of elderly individuals is an ongoing challenge. Some urban areas have created spaces for social integration, but it is not uniformly implemented (Yıldız, 2021).	It is essential to reduce ageism and enhance social inclusion programs in all regions, with an emphasis on elderly individuals in rural areas.
Civic Engagement and Employment	In Denmark, older adults are encouraged to participate in voluntary roles, contributing to societal wellbeing and active participation in the community. (Erlinghagen and Hank, 2006)	Programs in Turkey are limited. There is an opportunity to expand and encourage elderly participation in civic life, as evidenced by municipal projects in some urban centers (Yıldız, 2021).	Increasing volunteerism opportunities for elderly people across Turkey will create a more inclusive society, allowing older adults to contribute to their communities.
Communication and Information	China, Australia and the United States implement digital literacy programs, making it easier for elderly individuals to access information, public services, and digital resources (Li and Woolrych, 2021; Sawtell, 2023).	There is a growing recognition of the need for digital literacy programs, but these are often localized and not widespread across rural areas (Koç, 2021).	The expansion of digital literacy programs to cover all regions of Turkey, especially in rural areas, will ensure that older adults can access essential services and information.
Community Support and Health Services	Countries like the China, United States and Canada have implemented comprehensive home healthcare services that include social activities, health services, and transport assistance for elderly individuals (Cirella et al. ,2019; Li and Woolrych, 2021).	Healthcare services for elderly individuals are offered by the Ministry of Health in urban centers, but access in rural areas remains limited. Some cities offer home healthcare services through municipal centers (Sarı, 2021).	Expanding in-home health services and community-based healthcare in rural areas will significantly support elderly individuals and improve their quality of life.

In this study, the reviewed literature has been evaluated based on the eight strategic domains identified by WHO:

- **Outdoor Spaces and Buildings**

Literature: Research by Yıldırım and Arıkan (2021) highlights the lack of features in the design of age-friendly spaces in Turkey that promote accessibility, safety, and social participation. While cities such as Istanbul and Ankara have implemented age-friendly sidewalks and park arrangements (e.g., Istanbul's 'Age-Friendly City' project), it has been observed that such arrangements need to be addressed more comprehensively across Turkey.

Implementation Potential: While age-friendly arrangements are increasing in most large cities, these implementations are often limited to central areas and are not widespread in small and medium-sized cities. The WHO's principles for barrier-free design of outdoor spaces have not been sufficiently adopted throughout Türkiye. In particular, small and medium-sized cities lack spaces that support independent mobility for elderly individuals, limiting their active participation in urban life.

- **Transportation**

Literature: Studies indicate that elderly individuals in Turkey face difficulties accessing public transportation, with buses, trams, and other vehicles needing to be made more accessible (Özgür, 2020). Cities like Istanbul, Izmir, and Ankara offer low-floor buses and discounted passes for the elderly, with Izmir Metropolitan Municipality implementing special arrangements to further facilitate access (Kubilay and Enes, 2019).

Implementation Potential: A more inclusive national policy is needed to make public transportation systems age-friendly in Turkey. Developing public transportation systems that can be easily accessed by individuals of all ages is essential for age-friendly cities.

- **Housing**

Literature: Research on suitable housing for the elderly shows that age-friendly housing projects are especially lacking in rural areas (Kara and Şahin, 2019), while in metropolitan areas, housing tailored to elderly needs is limited and often depends on private sector services. Zorlu (2017) highlights ergonomic design solutions for elderly home use, and Tural (2016) points out that universal design supports housing and public space accessibility. Kalınkara et al. (2016) stress the importance of gerontechnology for independent living, while Esendemir (2016) argues that allowing elderly individuals to feel "ownership" of their space strengthens social bonds. Coşkun et al. (2019) note that improved physical conditions in urban transformations may reduce life satisfaction if social connections are weakened, and Özmete and Dinç (2020) found that gardened housing helps older adults maintain social networks and supports aging in place.

**Implementation Potential:** There is a need to expand age-friendly housing projects across Turkey. Gerontechnological solutions that ease the daily lives of older adults (e.g., emergency alarms, easily accessible lighting, and sensor systems) could be widely implemented through state-supported projects. Urban transformation projects should incorporate solutions that enable elderly individuals to remain in their neighbourhoods while preserving their social networks (e.g., designs aligned with the existing social structure and public spaces that support neighbourly relations). Gardened and low-rise housing projects that strengthen social connections should be prioritized in neighbourhoods with extensive social networks. Such living spaces not only help the elderly feel more independent and secure but also offer an environment where they can maintain their social bonds.

- **Community Participation**

**Literature:** The importance of activities and social integration projects designed to encourage the social participation of older adults is highlighted (Demir, 2022). In cities like Istanbul and Izmir, social events are organized at elderly centres, providing opportunities for older adults to socialize and engage with the community.

**Implementation Potential:** In Turkey, most age-friendly community participation projects are limited to municipal services. There is a need to expand such projects to smaller cities across the country.

- **Social Participation and Integration**

**Literature:** It is emphasized that programs supporting the social integration of older adults should be developed (Aydın, 2021). Social isolation is a common issue among elderly individuals. Cities such as Ankara, Istanbul, Izmir, and Antalya have centres where elderly individuals can participate in social projects.

**Implementation Potential:** Increasing the number of age-friendly integration projects nationwide and developing projects that bring people of all ages together are essential in Turkey.

- **Citizen Participation and Employment**

**Literature:** It is encouraged that older adults be employed in roles that contribute to society or engage in voluntary support activities (Yılmaz, 2020). Municipalities and non-governmental organizations organize projects that support active roles for older adults in the community.

**Implementation Potential:** The number of age-friendly employment projects in Turkey is quite limited. There is a need to increase projects where elderly individuals can work voluntarily or part-time.

- **Access to Information**

**Literature:** It is noted that digital literacy among older adults is low, and the digital divide in access to information is becoming more pronounced (Koç, 2021). Integrating technology into an age-friendly

framework is necessary, as technology plays an increasingly important role in contemporary and future societies (Murtagh et al., 2022). Various projects and programs have been implemented to help older adults adapt to the digital world through digital literacy training.

**Implementation Potential:** To improve access to information for older adults throughout Turkey, there is a need to expand digital literacy projects.

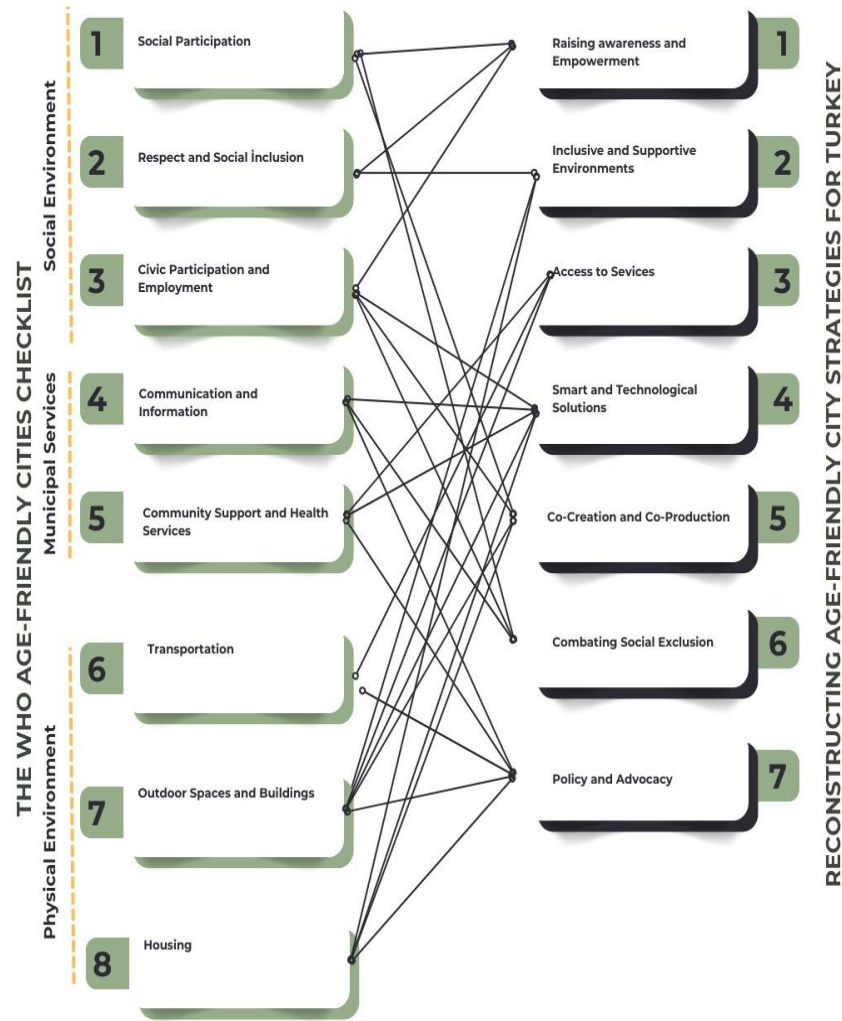
- **Healthcare Services and Support**

**Literature:** It is emphasized that healthcare services should be tailored to meet the needs of older adults, and that home care services require greater support (Sarı, 2021). The Ministry of Health provides home healthcare services for older adults, though access to these services is particularly limited in rural areas.

**Implementation Potential:** Expanding age-friendly healthcare services is essential in Turkey to ensure that older adults can maintain a healthy lifestyle.

### **3.2 WHO Age-Friendly City Strategies and Implementation Status in Turkey**

When proposing the restructuring of age-friendly city strategies for Turkey, it is essential to develop long-term action plans led by local governments under the guidance of the WHO. Sustainable and feasible policies should be created, taking into account potential challenges in meeting the needs of older adults. Implementing these strategies may present certain challenges.



**Figure 6.** Recommendations for Restructuring Age-Friendly City Strategies in Turkey (created by author)

One of the main difficulties is the need for comprehensive urban restructuring to meet the needs of older adults. This includes addressing property economics and planning practices that can prioritize certain groups (Marston and Van Hoof, 2019). The new strategies outlined below have been derived from a literature review and are linked to the Eight Strategies established by the WHO (Figure 6).

**Raising Awareness and Empowerment:** Cities have focused on raising awareness of older people as valuable resources to society and empowering them both personally and within their communities (Green, 2013; Zuniga et al., 2023)

This strategy, which is associated with WHO's “social participation, respect and social inclusion, civic participation and employment” strategies, aims to ensure that older persons have a respected place in society and actively participate in society. In Turkey, it is an important part of raising awareness to ensure that older persons are recognised not only in the field of health services and care but also as assets that they can contribute to society. In this context, municipalities in Turkey can raise awareness through social programmes for the elderly. Such programmes can be disseminated through

community-based activities that support more active participation of the elderly in social life and empowerment can be achieved by highlighting the contributions of the elderly to society.

**Inclusive and Supportive Environments:** Efforts have been made to create inclusive neighbourhoods and supportive physical and social environments that cater to the needs of older adults (Van Hoof et al., 2018; Buffel et al., 2020).

Within the scope of WHO's "Outdoor spaces and buildings, housing, respect and social inclusion" strategies, it is important to develop physical environments in Turkey where older persons can move safely and have access to social life. As in the case of age-friendly projects initiated in metropolises such as Istanbul, Izmir and Ankara, providing wider environmental access is a fundamental requirement for age-friendly cities. For example, increasing green areas, arranging pedestrian and bicycle paths, pavement arrangements, providing sufficient housing stock that is safe and close to the services provided and to the whole community, barrier-free parking areas and elderly-friendly practices in public transport, ensuring continuity in the provision of services to elderly individuals by public, voluntary and commercial organisations can be considered as steps to create an inclusive environment. The dissemination of such physical environments in Turkey facilitates the daily lives of elderly individuals and integrates them into society more effectively. Clean public spaces and public satisfaction.

**Access to Services:** Ensuring that older adults have access to a full range of services, including health, social, and recreational services, is a common strategy (Jackisch et al., 2015).

This strategy, which can be directly related to WHO's "community support and health services, transportation and outdoor spaces and buildings" strategies, aims to facilitate the access of older persons to health, social and recreational services, to make special customer service arrangements for older persons and to ensure that these services are unified and accessible, to ensure that public transport is safe, adequate and continuous, to ensure that public transport vehicles are accessible, clean, well-maintained and appropriate, and to provide information in vehicles. In Turkey, the provision of home care and health services through municipalities can be considered as a positive step towards this strategy. However, considering that older people, especially those living in rural areas, have various difficulties in accessing these services, it is important to extend these services to rural areas. In addition, encouraging participation in social and cultural activities will contribute to a more active and healthy ageing process.

**Smart and Technological Solutions:** The integration of smart city technologies to improve accessibility, mobility, and connectivity for older adults is increasingly recognized as a vital component of age-friendly strategies (Ivan et al., 2020; Klimczuk and Tomczyk, 2016).

This strategy, which is associated with WHO's "communication and information, community support and health services, transportation and outdoor spaces and buildings" strategies, aims to support older people with technological solutions in accessing information and social life. It can be aimed to provide a basic and effective communication system to the whole society, to provide regular publications in line with the focus of interest of older people, and to enable public and commercial services to provide special and close services in line with the wishes of older people. In addition, it is important to expand digital literacy projects in Turkey to facilitate access to information for the elderly. Digital literacy trainings are provided in big cities, but the expansion of such projects in rural areas will increase the adaptation of elderly individuals to digital technology. For example, technological solutions such as e-government, online health counselling and smart city applications can enable older individuals to integrate into society more easily.

**Co-creation and Co-production:** Involving older adults in the co-creation and co-production of age-friendly initiatives ensures that their needs and preferences are directly addressed (Zuniga et al., 2023).

This strategy is related to WHO's "social participation, respect and social inclusion, civic participation and employment, outdoor spaces and buildings, housing" strategies. Participation of older people in decision-making processes will have a direct impact on making cities age-friendly. In Turkey, encouraging the participation of older persons in voluntary projects and increasing the areas where they can be employed will increase the benefits they provide to the society. In line with this strategy, municipalities and local governments can create platforms where older persons can contribute to urban policies. This would enable older persons to be not only decision-makers but also part of projects that provide social benefits.

**Combating Social Exclusion:** Addressing social exclusion among older adults by linking age-friendly initiatives with broader social inclusion agendas has been identified as a beneficial approach (Murtagh et al., 2022).

This strategy, which is related to WHO's "social participation, respect and social inclusion, civic participation and employment" strategies, is important in order to prevent the isolation of older people from society and to include them more effectively in social life. Although the organisation of social activities in elderly centres in Turkey is a positive development, such activities should be extended to rural areas as well. In particular, increasing the number of social activities that will prevent social isolation of older people will increase their psychosocial well-being and enable them to be more active in society.

**Policy and Advocacy:** Advocacy groups and policy initiatives at the local, regional, and EU levels integrate age-friendly concepts into broader urban planning and development frameworks, aiming to

create inclusive environments that prioritize the needs and well-being of older adults. These initiatives promote collaboration across sectors, including health, transportation, and housing, ensuring that policies support active aging and accessibility within urban spaces.

This strategy is an approach that can be extended to all areas in WHO's strategic framework. In Turkey, local governments' advocacy for age-friendly cities will raise awareness on the needs of older persons at both local and national levels. The development of age-friendly policies in Turkey and greater representation of older persons in decision-making processes contribute to more effective implementation of age-friendly strategies. In this context, it is recommended that local governments should transform the age-friendly urban strategies recommended by WHO into policy actions and create platforms where older people can actively participate.

#### **4. CONCLUSION**

This study provides a comprehensive evaluation of the age-friendly cities concept in Turkey, with an emphasis on the local government initiatives undertaken within the strategic framework set forth by the World Health Organization (WHO). By analysing the extent to which Turkish cities adhere to WHO's age-friendly city guidelines, this study proposes strategic recommendations aimed at bridging the gaps in current practices and fostering a more inclusive urban environment for elderly residents across the country. The findings reveal that current age-friendly city initiatives in Turkey remain largely concentrated in metropolitan areas, with limited implementation in small and medium-sized cities. This uneven distribution results in considerable barriers for elderly individuals, particularly in transportation, housing, healthcare, and access to information. These deficiencies not only hinder the social participation of elderly individuals but also reduce their overall quality of life, limiting their ability to engage actively within their communities. To address these gaps effectively, the research underscores the need for a more holistic approach to infrastructure accessibility and a nationwide expansion of elderly support programs that are tailored to meet the unique needs of this demographic. A key recommendation centres on transforming public transportation systems to become more accessible and inclusive for elderly individuals. Improvements such as low-floor buses, priority seating, and nationwide age-friendly transit cards would significantly enhance mobility and independence, encouraging greater social participation among elderly populations. In addition to transportation, the study advocates for the development and implementation of age-friendly housing projects, particularly in rural areas where accessibility to tailored living spaces is often limited. Prioritizing accessibility, safety, and social inclusivity in housing design is essential, as is involving elderly residents in the planning and decision-making processes of these projects. Engaging elderly individuals in these processes not only ensures that the housing solutions align with their needs but also reinforces a sense of community ownership and social integration. Addressing digital literacy also

emerges as a critical factor for improving elderly individuals' access to information and essential services. Particularly in rural regions where digital access can be limited, targeted digital literacy programs would empower elderly individuals, enabling them to navigate and benefit from digital resources effectively. In tandem with these initiatives, the study highlights the importance of expanding healthcare and support services to be more accessible across both urban and rural areas. Enhancing the availability of in-home health services, community-based healthcare, and accessible transportation options for medical needs would substantially support independent living for elderly individuals, further contributing to their well-being and quality of life.

In conclusion, the successful development of age-friendly cities in Turkey requires coordinated action among local governments, central authorities, and non-governmental organizations, with each entity contributing resources and expertise. WHO's age-friendly city framework offers Turkey a robust and comprehensive roadmap for implementing inclusive and sustainable urban policies. By addressing the social, physical, and psychological needs of elderly individuals within this framework, Turkey can build a foundation for age-friendly urban development that fosters active, healthy aging. This study has examined the extent to which Turkish cities adhere to the World Health Organization's (WHO) guidelines for age-friendly cities and analyzed current practices. However, collecting updated data and validating findings through communication with local governments and urban planners could not be achieved within the scope of this study. Therefore, the findings are based on a literature review. Future studies should focus on collecting local data and incorporating it into the analysis, which would enhance the accuracy of the findings and provide a deeper insight into age-friendly city practices in Turkey. This could help better understand the local dynamics in different regions of Turkey and contribute to strengthening strategic directions for the development of age-friendly cities. Future research should focus on evaluating the long-term impacts of these age-friendly city policies, particularly in terms of their effectiveness across different demographic groups and regions. Additionally, future studies could explore the feasibility of adapting WHO's strategies to meet the specific cultural and socio-economic context of Turkish cities, providing insights that could further optimize policy implementation on a national scale. In response to the gaps identified between the proposed strategies and the current practices, it is essential to examine the root causes of these deficiencies in greater detail. The study suggests that while the strategies may be fully designed, the limited scope of their implementation is one of the primary barriers to their success. The challenges of implementing these strategies are not solely related to their completeness but are often linked to insufficient political support, financial resources, and a lack of coordination among local authorities. Analyzing the available data indicates that while some age-friendly initiatives have been implemented in metropolitan areas, smaller cities continue to face substantial challenges in achieving comprehensive age-friendly practices. Future research should delve deeper into the underlying reasons

behind these gaps, such as economic constraints or social barriers, to propose more targeted solutions for bridging these gaps effectively.

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