

## Elderly friendly tourism management model in Berastagi

Aditiya Pratama Daryana\*, Prima Yudhishtira  
Universitas Negeri Medan, Indonesia  
[aditiya@unimed.ac.id](mailto:aditiya@unimed.ac.id), [primayudhistira@unimed.ac.id](mailto:primayudhistira@unimed.ac.id)

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### ABSTRACT

*Elderly-friendly tourism is becoming increasingly important as the elderly population increases, but many tourist destinations do not yet provide accessibility and services that meet the needs of this group. Previous studies have placed more emphasis on the development of theoretical frameworks, while implementation in the field is still limited and often does not take into account the social realities of tourist destinations. This study analyzes the elderly-friendly tourism management model in Berastagi by identifying obstacles in terms of accessibility, facilities, services, and safety based on the direct experience of elderly tourists. The mixed method approach is used to obtain layered data, but this study consciously places more emphasis on a qualitative approach because the main focus is to explore the meanings, perceptions, and subjective experiences of the elderly as the basis for the formulation of management models. The survey of 100 elderly tourists only serves as a comparison to enrich the qualitative analysis of in-depth interviews and participatory observations. The findings show that there is a gap between the availability of facilities and real access felt by the elderly, especially related to transportation, health services, and tourism staff training. Based on these findings, this study offers a management model based on universal design and inclusive tourism that emphasizes policy integration, adaptive infrastructure, and service quality improvement as a strategy towards sustainable elderly-friendly destinations.*

### ABSTRAK

Pariwisata ramah lansia menjadi semakin penting seiring dengan meningkatnya populasi lanjut usia, namun banyak destinasi wisata belum menyediakan aksesibilitas dan layanan yang sesuai dengan kebutuhan kelompok ini. Studi sebelumnya lebih banyak menekankan pada pengembangan kerangka teoritis, sementara implementasi di lapangan masih terbatas dan sering tidak mempertimbangkan realitas sosial di destinasi wisata. Penelitian ini menganalisis model pengelolaan wisata ramah lansia di Berastagi dengan mengidentifikasi hambatan pada aspek aksesibilitas, fasilitas, layanan, dan keselamatan berdasarkan pengalaman langsung wisatawan lanjut usia. Pendekatan metode campuran digunakan untuk memperoleh data yang berlapis, namun penelitian ini secara sadar memberikan penekanan lebih kuat pada pendekatan kualitatif karena fokus utama adalah menggali makna, persepsi, dan pengalaman subjektif lansia sebagai dasar perumusan model pengelolaan. Survei terhadap 100 wisatawan lansia hanya berfungsi sebagai pembanding untuk memperkaya analisis kualitatif dari wawancara mendalam dan observasi partisipatif. Temuan menunjukkan adanya kesenjangan antara ketersediaan fasilitas dan akses nyata yang dirasakan oleh lansia, khususnya terkait transportasi, layanan kesehatan, dan pelatihan staf wisata. Berdasarkan temuan tersebut, penelitian ini menawarkan model pengelolaan berbasis desain universal dan pariwisata inklusif yang menekankan integrasi kebijakan, infrastruktur adaptif, serta peningkatan kualitas layanan sebagai strategi menuju destinasi ramah lansia yang berkelanjutan.

## INTRODUCTION

The elderly population in Indonesia continues to increase along with the increase in people's life expectancy. Based on data from the Central Statistics Agency (BPS) in 2023, the number of elderly people (over 60 years old) reaches 11.8% of the total population and is predicted to continue to increase to 20% in 2040 (BPS, 2023). With the increasing elderly population, the need for elderly-friendly tourist destinations is becoming more and more urgent. Berastagi, which is located in Karo Regency, North Sumatra, is one of the leading tourist destinations in Indonesia which is famous for its natural beauty, cool air, and cultural and culinary attractions. However, based on initial observations, the infrastructure and facilities in Berastagi have not fully supported elderly tourists. This condition reflects a broader phenomenon where UNWTO (2022) reports that 63% of tourist destinations in the Asia-Pacific region lack basic accessibility facilities for elderly travelers, including ramps, ramps, and dedicated guides. This is in line with the findings of the WHO (2020) which states that only 35% of public tourist areas in developing countries meet age-friendly standards, and most health emergency services are not designed to respond to the needs of elderly tourists in conditions of limited mobility.

At the national level, the Ministry of Tourism and Creative Economy (2023) confirmed that more than 70% of Indonesia's leading tourist destinations are still oriented towards economy-based mass tourism without considering aspects of social accessibility, especially for vulnerable groups such as the elderly. Research by Rudwiarti & Vitasurya (2020), and Sutedja & Pramono (2024) also confirms that natural tourism in highlands such as Berastagi tends to have physical obstacles such as steep land

contours, paths without handrails, limited benches, and the absence of early warning systems and light health posts.

In addition to physical factors, most tourist destinations in Asia still use a "one service model for all tourists" approach, even though the elderly need different service designs based on inclusive tourism principles and universal design Apriyanti et al., (2024a). Therefore, the unavailability of accessibility facilities is not only a technical problem of infrastructure, but also reflects the absence of a tourism policy perspective based on spatial justice and elderly welfare.

The following is data on the increase in the number of elderly people in Indonesia and its projected growth until 2040:

Table 1. Growth of the elderly population in Indonesia

Year	Number of Elderly (million)	Percentage of Total Population
2010	18,1	7,6%
2015	21,7	8,5%
2020	25,9	9,8%
2025*	30,2	11,2%
2030*	35,5	13,0%
2040*	50,3	20,0%

Source: Central Statistics Agency (BPS, 2023).

(\*Projections based on population growth trends)

In comparison, the percentage of the elderly population in Indonesia is still lower than that of some developed countries such as Japan (28.4%) and Germany (21.5%), but the growth is quite significant and needs more attention in the tourism sector (UN Population Division, 2022). To clarify the trend of increasing the elderly population in Indonesia, here is a graph showing its growth from 2010 to the projection of 2040:

The Figure 1. shows the trend of increasing the number of elderly population in Indonesia from 2010 to the projected year 2040. With the significant growth of the elderly population, the need for inclusive and elderly-friendly tourist destinations is increasingly urgent.



**Figure 1. Growth of the elderly population in Indonesia (2010-2040)**  
 Source: Central Statistics Agency (BPS, 2023).

### Research Objectives or Questions

This research aims to develop an elderly-friendly tourism management model in Berastagi that can improve accessibility, comfort, and safety for elderly tourists. The research questions asked in this study are:

1. What is the condition of tourist facilities in Berastagi in meeting the needs of elderly tourists?
2. What are the challenges faced in implementing the concept of elderly-friendly tourism in Berastagi?
3. What kind of tourism management model can be applied to improve the quality of services for elderly tourists?

Research on elderly-friendly tourism has been widely conducted in various countries, such as Japan and Europe, which have developed the concept of elderly-friendly tourism with an accessibility and technology-based approach. However, special research on the management of elderly-friendly tourism in Indonesia, especially in the Berastagi area, is still very limited. The novelty of this study compared to previous research such as: The focus is on Berastagi tourist destinations which have unique geographical and cultural characteristics, in contrast to other tourist destinations in Indonesia that have implemented the concept of elderly-friendly tourism. Development of a

management model based on the needs of local elderly tourists, paying attention to the cultural, social, and infrastructure aspects available in Berastagi. An integrative analysis of the accessibility, infrastructure, and health services needed by elderly tourists in mountain tourist destinations.

With this research, it is hoped that it can provide policy recommendations for local governments, tourism managers, and related stakeholders to increase the competitiveness of Berastagi as an inclusive and welfare-oriented tourist destination for the elderly.

### LITERATURE REVIEW

#### Elderly friendly tourism concept

Elderly-friendly tourism is a concept that emphasizes inclusivity in the tourism industry by providing facilities, services, and experiences that are accessible to elderly travelers. As the global elderly population grows and their participation in tourism activities increases, this concept is becoming increasingly important in tourism destination planning. Some of the latest experts who have defined and developed the concept of elderly-friendly tourism include: [Apriyanti, Susanto, and Prabawasari \(2024a\)](#). In their research published in the *Asian Journal of Environment and Sustainability*, [Apriyanti et al. \(2024a\)](#) stated that elderly-friendly tourist destinations should be designed with a healing environmental approach, which includes:

- Infrastructure that supports the physical and mental health of the elderly, such as safe pedestrian paths, comfortable seating at various points, and open facilities that support natural therapies.
- The design is based on inclusivity, which ensures that all facilities can be easily used by the elderly without physical or sensory barriers.

- Tourism services based on the needs of the elderly, such as special tour guides, medical facilities, and activity programs that are appropriate to the level of mobility of the elderly.

This approach emphasizes that tourist destinations must not only be physically accessible, but also provide an enjoyable and beneficial experience for the health of the elderly.

### **An age-friendly city model**

The age-friendly city model emphasizes that tourist destinations and urban environments can be designed to be inclusive of all ages, especially elderly travellers by aligning aspects of physical accessibility, safety & sustainability, as well as medical & social services. [UrriUriarte et al. \(2024\)](#) developed an "AgeFriendly Neighborhood" index that can serve as a long-term framework for age-friendly city planning, and the framework is very relevant if adapted to the management of age-friendly tourist destinations. The approaches in this model include:

- **Universal Accessibility:** Urban environments with safe pedestrian paths, easily accessible transportation, and public buildings designed for all ages including the elderly. [UrriUriarte et al. \(2024\)](#) mentioned that physical accessibility is one of the main pillars in the age-friendly city index.
- **Safety and Sustainability:** Tourist destinations need to ensure that the environment is free from physical barriers and harmful risks, as well as consider long-term environmental and social sustainability. The index emphasizes that safe environmental design while paying attention to sustainability aspects will improve the quality of life of the elderly ([UrriUriarte et al., 2024](#)).
- **Medical and Social Services:** The integration of health facilities,

community social programs, and services connected with the local community is part of the framework of an age-friendly city. In the context of elderly tourist destinations, this means the existence of health information centers, emergency services, and social interactions that support the involvement of elderly tourists with the local community. [UrriUriarte et al. \(2024\)](#) consider social services & health as an important factor in their index.

By applying this approach, universal accessibility, safety & sustainability, as well as medical and social services, a tourist destination such as a city or tourist area can be developed into a truly friendly environment for elderly tourists. This requires the integration of urban planning and destination management strategies to create a safe, comfortable, and inclusive travel experience for all age groups.

This approach focuses more on the integration between urban planning and tourist destinations to create a truly elderly-friendly tourist environment.

### **Motivation of elderly travelers**

The motivation of elderly tourists in choosing tourist destinations cannot be separated from the need for comfort, tranquility, and meaningful social experiences. In the context of beach tourism, social motivation such as interaction with family or friends is the most dominant motivation for tourists, including the elderly group. Seniors tend to seek out experiences that are not only enjoyable, but also strengthen social relationships and provide psychological calm. Research shows that aspects such as relaxation, natural beauty, and access to elderly-friendly facilities are important considerations that affect the intention of repeat visits ([Wijayanti et al., 2024](#)). Thus, understanding the motivation of the elderly in tourism can be the basis for developing

more inclusive, sustainable, and humane destinations.

In a study published in *the Journal of Aging and Tourism*, Li (2023) highlighted that the motivation of elderly travelers is influenced by the theory of *push and pull*, in which tourists are driven to travel due to psychological factors (motivational factors) and are drawn to certain destinations due to external factors (pull factors). The main factors that attract elderly tourists include:

- Relaxation Tourism – Seniors prefer destinations with a calm atmosphere, cool air, and health-based activities such as spas or meditations.
- Transportation Accessibility – Tourist destinations that have easy transportation access, such as airports with special services for the elderly or elderly-friendly shuttle buses, are more in demand by this group.
- Support Services – The availability of specialized tour services, such as tour guides who understand the needs of the elderly and travel assistants, can increase the comfort and interest of elderly travelers.

Li also emphasized the importance of digitalization in age-friendly tourism, where the use of technologies such as AI-based mobile apps can help seniors plan their trips more easily.

Several theories support the concept of elderly-friendly tourism, including:

#### **Push and pull theory in tourism**

This theory explains that individuals are driven to travel due to two factors:

- *Driving Factors*: Desire for relaxation, exploration of new places, and health benefits.
- *Attraction Factors*: Destination attractiveness, accessibility, elderly-friendly services, and cultural factors (Li, 2023).

This model is useful for understanding the motivation of elderly tourists in choosing destinations.

#### **Age-friendly city theory**

WHO (2007) developed this theory to create an inclusive environment for parents, which includes:

- Infrastructure Planning - Safe roads, easy-to-use public transportation, and comfortable public spaces.
- Social and Health Support - The existence of a supportive community and easily accessible health facilities.

This approach can be applied in the management of elderly-friendly tourism to ensure that tourist destinations meet the physical and social needs of the elderly.

#### **Inclusive tourism model**

The "Inclusive Tourism" model emphasizes that tourism must be accessible to all age groups, including the elderly. In the context of Berastagi, the application of this model can be carried out through:

- Training for tour guides and hotel staff on how to better serve elderly travelers. Research by Sutedja & Pramono (2024) shows that in the destination of the National Monument (Monas) in Jakarta, one of the key recommendations is "socialization of managers and staff about the importance of accessibility for the elderly".
- The development of special tour packages for the elderly that are more relaxed, have more rest time, and adjust the travel speed to the physical condition of the elderly. Sutedja & Pramono (2024) stated that comfort, safety, and ease of access are the main factors in attracting elderly tourists; Therefore, the physically adjusted and speed tour packages for the elderly are very relevant.
- Improved access to tourist information in age-friendly formats, such as large, high-contrast maps or audio-based

directions. Although the [Sutedja & Pramono \(2024\)](#) study highlighted more physical facilities and transportation accessibility, the implication is that information formats intended for the elderly are also part of a broader accessibility strategy.

By integrating these three approaches workforce training, elderly-specific packages, and access to age-friendly information, an inclusive tourism model can support the creation of tourist destinations in Berastagi that are truly friendly to all groups, including elderly tourists. Therefore, destinations like Berastagi need to design and develop physical facilities, services, and information that specifically consider the needs of the elderly as part of an inclusivity strategy.

#### **Age-friendly city model**

This model emphasizes the integration of the physical environment, social services, and public policies to create inclusive tourist destinations for the elderly ([Rudwiarti & Vitasurya, 2020](#)). Implementations of this model include:

- Elderly-Friendly Infrastructure Development - Convenient pedestrian paths, elevators in tourist attractions, and public transportation accessible to the elderly.
- Social and Health Services in Tourist Destinations - Small clinics or health posts in tourist sites.
- Age-Based Policy - Regulations that support easy access for elderly travelers.

#### **Health tourism model**

The health tourism model focuses on the health benefits of tourism, and includes three main approaches: relaxation tourism, medical tourism, and healthy culinary tourism. In the context of elderly tourism, this model is relevant for crafting

a tourist experience that is not only enjoyable, but also supports the physical and psychological condition of elderly tourists. Based on the results of a systematic review by [Chang et al. \(2022\)](#) which highlighted the welfare of the elderly in tourism, the following is an explanation of each approach:

- Relaxation Tourism – Activities such as spas, meditation, and outdoor activities that are soothing and suitable for elderly travelers. [Chang et al. \(2022\)](#) show that the well-being of the elderly in tourism is more than just a temporary pleasure: adequate experiences are required for mental, physical, and social health.
- Medical Tourism - Tourism that provides light medical services or activities that support the physical/mental health of elderly tourists, such as light therapy, massage, or light health programs. Within the framework of [Chang et al. \(2022\)](#), supporting factors for the well-being of the elderly involve accessibility, health services, and the reduction of barriers in travel that are relevant to medical aspects.
- Healthy Culinary Tourism - The provision of food and culinary activities that support health, such as tasting healthy local food, visits to organic gardens, or culinary activities that pay attention to the physical condition of the elderly. [Chang et al. \(2022\)](#) identified that the social and physical dimensions of elderly well-being in tourism are interrelated; Culinary that supports physical and social conditions can strengthen their well-being.

By integrating these three approaches of relaxation tourism, medical tourism, and healthy culinary tourism, the health tourism model can offer significant added value for destinations looking to attract elderly tourists. This means that destination managers must design tour packages with a focus on comfort, health,

stress reduction, and provide facilities and services that suit the physical and psychological needs of the elderly.

This model can be applied in Berastagi by utilizing its natural beauty and cool air as a health tourism destination for the elderly.

## RESEARCH METHODS

The research methodology used in this study aims to develop an elderly-friendly tourism management model in Berastagi with an approach based on the needs of elderly tourists, accessibility, and support services. This research uses qualitative and quantitative approaches (*mixed methods*) to obtain comprehensive data.

The sampling techniques in this study were adjusted to the characteristics of the mixed methods used, with the main emphasis on qualitative approaches. To gain an in-depth understanding of the experiences and needs of elderly tourists, this study uses purposive sampling combined with a maximum variation approach, so that the selected informants are subjects who meet the criteria relevant to the research context. The qualitative informants consist of elderly tourists aged 60 years and above who have visited Berastagi in the last 12 months, tourist destination managers, regional tourism office officials, and health workers around the tourist area. At this stage, the snowball sampling technique is also applied to reach other stakeholders who understand the dynamics of elderly tourism services but are not easily identified directly, such as tour guides who have special experience in accompanying the elderly. The number of qualitative informants is not rigidly determined, but follows the principle of theoretical saturation, which is a process that stops when no significant new themes or information are found.

Meanwhile, in the quantitative component that serves as the main analysis support, the study uses time-location sampling with the systematic intercept method at the points of visit of elderly tourists such as flower markets, city parks, and major recreational areas. Every elderly visitor who meets the age criteria is systematically selected, for example every fifth visitor who passes the initial screening, up to 100 respondents. In addition, for the purpose of analysis using the Analytical Hierarchy Process (AHP), the research also involves an expert sample through expert judgment sampling, namely selecting destination managers, technical officials, and health workers who have authority and experience in the elderly tourism service system. The combination of this sampling strategy not only ensures a diversity of perspectives, but also maintains the credibility of the findings through the process of triangulating sources and methods, in line with the character of the research that prioritizes the quality of qualitative data but still strengthens validity through the support of measurable quantitative data.

### Data source

The study uses two main types of data sources:

#### 1. Primary Data

- In-depth interviews with stakeholders, including tour managers, elderly tourists, medical personnel, and local communities.
- Participatory Observation of tourism infrastructure in Berastagi to assess the level of accessibility and availability of elderly-friendly facilities.
- A quantitative survey of elderly tourists to find out their preferences, barriers, and experiences when visiting Berastagi.

#### 2. Data Seconds

- Literature studies from scientific journals and the tourism industry report on the concept of elderly-friendly tourism.
- Statistical data from the Central Statistics Agency (BPS) regarding the number of elderly tourists visiting Berastagi and elderly demographic trends.
- Policy documents from local governments related to the development strategy of elderly-friendly tourism.

### Data collection techniques

Data collection in this study was carried out using several qualitative and quantitative methods to obtain comprehensive information about the management of elderly-friendly tourism in Berastagi. This method refers to and is adapted from approaches that have been used in previous research on *accessible tourism* and *inclusive tourism* in Indonesia (Mijiarto, et al. 2024; Panggabean et al., 2025; Abidin & Darmawan, 2020).

#### 1. Semi-structural interview

Interviews are conducted in depth with key stakeholders to explore perceptions, challenges, and strategies in developing tourist destinations that are friendly to elderly tourists. Interviews involve:

- 10 elderly tourists (age 60 and above)
  - 5 Local Attraction Managers
  - 3 local government officials in the field of tourism
  - 3 medical personnel or health services around Berastagi
- This method adopts the approach used by Paninggiran, et al. (2025), which emphasizes the importance of a multistakeholder perspective in the development of inclusive destinations.

#### 2. Field observations (Participatory observation)

Observations were carried out in several major tourist locations in Berastagi to evaluate the level of accessibility and availability of facilities that support elderly tourists. Observation indicators include:

- Availability of elderly-friendly pedestrian paths
  - Vehicle access and transportation to tourist sites
  - The existence of rest areas and health facilities
- The use of this observation technique refers to the evaluation model of elderly facilities developed in the research of Maghfira & Aulia (2024).

#### 3. Quantitative survey

The survey was conducted on 100 elderly tourists who had visited Berastagi. The questionnaire distributed include the following aspects:

- Destination preferences and types of tourist activities
  - Challenges or obstacles encountered during the trip
  - Satisfaction with tourist facilities
  - Suggestions and recommendations for tourism managers
- The questionnaire was developed based on the instruments used in the study by Panggabean et al. (2025), which emphasized the measurement of the perceptions and specific needs of senior tourists.

#### 4. Analysis of documentation

The analysis was carried out on secondary data in the form of tourism statistics reports of Karo Regency from BPS, as well as local government policy documents regarding the development of inclusive destinations. The source of the document is supported by an evaluative approach from Mijiarto, et al (2024) which highlights the role of public policy in

accelerating the implementation of inclusive tourism principles in Indonesia.

### Data analysis techniques

This study uses the following qualitative and quantitative analysis approaches:

1. **Qualitative analysis with Nvivo data** from interviews and observations will be analyzed using Nvivo software to identify patterns, key themes, and factors influencing elderly-friendly tourism. This technique follows a *grounded theory approach*, where theories are developed based on findings in the field (Apriyanti, 2024b).
2. **Quantitative analysis with the AHP (Analytical Hierarchy Process) Method** to measure the priorities in the development of elderly-friendly tourism, this study uses the *Analytical Hierarchy Process (AHP)* method (Saaty, 2013). This method allows researchers to determine the most influential factors in elderly tourism management by comparing various variables such as accessibility, health facilities, and safety.
3. **Walkability index for the elderly** to measure the level of comfort and walkability for elderly tourists in the Berastagi tourist area, this study uses a *walkability index* approach developed by Alves et al. (2020). This approach is designed to evaluate the quality of the built environment based on the needs and physical limitations of the elderly, especially in terms of mobility in public spaces. This method was chosen because it is able to provide a quantitative assessment of the factors that affect the walking experience for the elderly group, both as locals and tourists. The walkability index in this study is calculated based on three main indicators, namely the width and condition of the sidewalk, pedestrian

safety, and the availability of supporting facilities such as seating and crossings. Sufficient pavement width and flat surface will improve the comfort and safety of the elderly while walking. Similarly, pedestrian safety is largely determined by street lighting, the presence of traffic markings and signs, and protection from motor vehicles. In addition, easy-to-reach seating and safe crossings are important elements that are often overlooked, even though they are vital for elderly groups who have limited stamina or mobility.

This approach has proven relevant in similar studies in Indonesia, such as those conducted by Anggraini, Ikhsani, and Masyitoh (2025) in their research on elderly-friendly public spaces in the Simpang Lima area, Semarang. They found that walking comfort for the elderly was strongly influenced by the integration between decent infrastructure and the design of public spaces that took into account aspects of age inclusivity. Thus, the implementation of this walkability index is expected to provide an objective picture of the extent to which tourist destinations in Berastagi have met the mobility needs of elderly tourists, as well as a reference in improving the design and management of tourist areas in a more inclusive manner.

This research methodology model is systematically compiled to ensure that the research process on the management of elderly-friendly tourism in Berastagi has a strong, comprehensive, and scientifically accountable analytical foundation. The research flow begins with the framework of the Research Methodology, which serves as a conceptual basis in directing all stages of analysis. From this point, the research is divided into two main lines of data

sources, namely Primary Data and Secondary Data. Primary data was obtained directly from elderly tourists, destination managers, health workers, and stakeholders through field interactions, while secondary data was collected from official documents, statistical reports, tourism policies, and scientific literature related to inclusive tourism and accessibility standards.

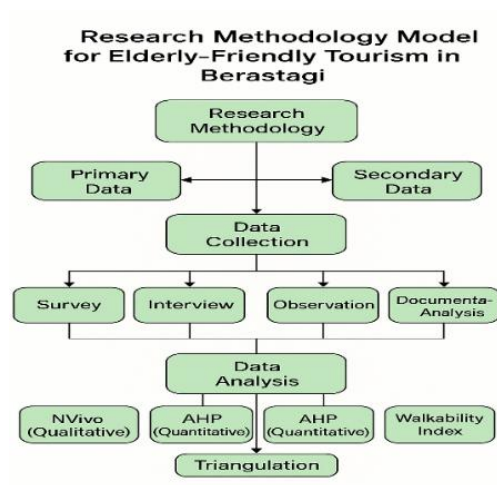
tourism policies, and scientific literature related to inclusive tourism and accessibility standards.

The two data sources then flow to the Data Collection stage, which uses several techniques to ensure the depth and breadth of information. Surveys are used to capture the quantitative patterns of elderly travelers' experiences, while Interviews provide space for in-depth exploration of the perceptions and constraints they experience. Field observations are carried out to see firsthand the conditions of accessibility and services in tourist destinations, which are then complemented by Documentation Analysis to assess the suitability of available infrastructure policies and standards.

All the data collected were then analyzed at the Data Analysis stage, where this research consciously prioritized an interpretive qualitative approach through NVivo to identify the main themes of the informants' narratives. This analysis is strengthened by the AHP (Analytical Hierarchy Process) quantitative approach to determine the priority of the factors that have the most influence on the readiness of elderly-friendly tourist destinations, and the Walkability Index to objectively measure the level of ease of mobility of the elderly in tourist areas. The final stage is Triangulation, which brings together qualitative findings, quantitative measurements, and field observations to produce a complete, valid, and strategically implementable elderly tourism management model in Berastagi.

The measurement of all indicators in the operational variable table was carried out using a five-point Likert Scale to capture the perception of elderly tourists in a more measurable and tiered manner. A score of 1 indicates that facilities or services are very inadequate, and even tend to be unavailable or difficult to access for the elderly. A score of 2 is given if facilities are available but do not function effectively

## Research Methodology Model



**Figure 2. Research Methodology Model**  
*Source: Author data, 2024*

This research methodology model is systematically compiled to ensure that the research process on the management of elderly-friendly tourism in Berastagi has a strong, comprehensive, and scientifically accountable analytical foundation. The research flow begins with the framework of the Research Methodology, which serves as a conceptual basis in directing all stages of analysis. From this point, the research is divided into two main lines of data sources, namely Primary Data and Secondary Data. Primary data was obtained directly from elderly tourists, destination managers, health workers, and stakeholders through field interactions, while secondary data was collected from official documents, statistical reports,

or do not provide comfort for the elderly. A score of 3 shows that the condition is quite adequate, meaning that facilities exist but still need adjustments according to the physiological needs and mobility of the elderly.

A score of 4 indicates that the facilities are functioning well and

supporting the activities of the elderly, although there is still room for minor improvements. Meanwhile, a score of 5 indicates that the facilities and services have fully met inclusive tourism standards and universal design, where the elderly can move, rest, access services and respond to risks with a high level of comfort.

Table 2. Operational variables in elderly friendly tourism research in Berastagi

Variable	Sub Variables	Indicators	Scale	Not. Thing	Data Source
Accessibility	Elderly-Friendly Transportation	Availability of easily accessible public transportation	Likert 1-5	1	Surveys, Observations
	Pedestrian Paths	Availability of safe and convenient pedestrian paths	Likert 1-5	2	Surveys, Observations
	Supporting Facilities	Availability of ramps/stairs with handrails	Likert 1-5	3	Observation
	Directions and information	Ease of finding tourist routes and information	Likert 1-5	4	Observations, Surveys
Elderly-Friendly Facilities	Rest Facilities	Availability of seats at tourist sites	Likert 1-5	5	Observations, Surveys
	Elderly Toilet	Availability of elderly-friendly toilets (handrails, appropriate height)	Likert 1-5	6	Observations, Surveys
	Special Spaces for the Elderly	The existence of a special area for the elderly in tourist attractions	Likert 1-5	7	Observations, Surveys
	Healthy Menu	Provision of a healthy food menu suitable for the elderly	Likert 1-5	8	Observations, Surveys
Tourism Services	Staff Attitudes and Competencies	Willingness of tourism staff to help the elderly	Likert 1-5	9	Interviews, Surveys
	Senior Tour Guide	The existence of a special tour guide for the elderly	Likert 1-5	10	Interviews, Surveys
	Health Facilities	Availability of health services or medical posts in tourist areas	Likert 1-5	11	Observations, Surveys
Security and Safety	Safety Instructions	Safety information board availability	Likert 1-5	12	Observations, Surveys
	Emergency Services	Speed of emergency healthcare response	Likert 1-5	13	Observations, Interviews
	Risk of Accidents	The level of safety of tourist trails and elderly facilities	Likert 1-5	14	Observations, Interviews
Satisfaction of Elderly Travelers	Travel Comfort	Satisfaction with travel comfort	Likert 1-5	15	Survey
	Tourism Services	Level of satisfaction with the services provided by the tour manager	Likert 1-5	16	Survey
	Recommended Destinations	The willingness of the elderly to recommend destinations to others	Likert 1-5	17	Survey

Source: Research source, 2025

## RESULTS AND DISCUSSION

### Accessibility factors for elderly tourism in Berastagi

Accessibility is the main factor in the management of elderly-friendly tourism. The results show that the level of accessibility in Berastagi still needs to be

improved, especially in public transportation, elderly toilet facilities, and safe pedestrian paths.

Table 3. Accessibility indicators

Accessibility Indicators	Average Survey Score (1-5)	Percentage of respondents experiencing problems (%)	Accessibility Categories	Data Source
Elderly Friendly Streets	3.2	45	Enough	Observations, Surveys
Elderly-Friendly Public Transportation	2.8	60	Less	Surveys, Interviews
Directions and information	3.5	38	Good	Observations, Surveys
Access to Toilets for the Elderly	2.5	65	Less	Observations, Surveys
Access to the Rest Area	3	50	Enough	Observations, Surveys
Accessibility to Major Tourist Areas	3.3	40	Enough	Observations, Surveys

Source: Researcher data processing, 2025

Accessibility is the main factor in the management of elderly-friendly tourism. The results show that the level of accessibility in Berastagi still needs to be improved, especially in public transportation, elderly toilet facilities, and safe pedestrian paths.

### 1. Elderly friendly streets

- Average survey score: 3.2 (moderate).
- 45% of respondents had problems walking.
- The main obstacles: uneven quality of the sidewalks, lack of pedestrian paths for the elderly, and lack of handrails on uphill paths.
- Implications: Elderly people with limited mobility have difficulty exploring tourist areas independently.

### 2. Elderly-friendly public transportation

- Average survey score: 2.8 (less).
- 60% of respondents felt that public transport was not elderly-friendly.
- The main obstacles: the lack of tourist vehicles with wheelchair access, transportation services that do not provide assistance for the elderly, and public transportation that does not have priority seats for the elderly.
- Implications: Seniors have to rely on the help of family or tour guides, reducing their freedom to travel.

### 3. Directions and tourist information

- Average survey score: 3.5 (good).
- 38% of respondents still have difficulty understanding directions.
- The main obstacles: the lack of information boards with large fonts, the lack of audio instructions, and the use of a less inclusive language.
- Implications: Elderly travelers with visual and hearing impairments have difficulty understanding tourist information.

### 4. Access to toilets for the elderly

- Average survey score: 2.5 (less).
- 65% of respondents complained about the lack of elderly-friendly toilets.
- The main obstacles: lack of toilets for the elderly, inappropriate toilet heights, and lack of handrails in toilets.
- Implications: Seniors have difficulty using unassisted toilet facilities, which can reduce their comfort in traveling.

### 5. Access to the rest area

- Average survey score: 3.0 (moderate).
- 50% of respondents felt that the number of seats was still sufficient.
- The main obstacles: too few seats, the absence of seats with backrests, and the lack of a cool and quiet rest area.

- Implications: Elderly travelers quickly get tired while walking due to a lack of places to rest.
- 6. Accessibility to major tourist areas**
- Average survey score: 3.3 (moderate).
  - 40% of respondents have difficulty accessing major tourist areas.
  - The main obstacles: the lack of dedicated routes for the elderly to reach major tourist attractions, the lack of specialized transportation, and stair infrastructure that does not have handrails.
  - Implications: Elderly tourists have difficulty accessing tourist areas that have challenging heights or terrain.

**Factors of the availability of elderly-friendly facilities**

Facilities that are friendly to elderly tourists are a key factor in providing comfort, safety, and a better travel experience. However, the results of the study show that most of the facilities in

Berastagi still do not meet the standards of elderly-friendly tourism.

**1. Backseat availability**

- Average survey score: 3.0 (Moderate).
- Satisfaction percentage: 50%.
- Main obstacles:
  - Seating is limited in tourist areas.
  - Some chairs do not have backrests, which causes discomfort for the elderly.
  - The location of the seats is not evenly distributed.

**2. Elderly friendly toilets**

- Average survey score: 2.5 (Less).
- Satisfaction percentage: 40%.
- Main obstacles:
  - Elderly-friendly toilets are very limited, only available in a few tourist attractions.
  - The height of the toilet is not suitable for the elderly.
  - There are no handrails in the toilet.
  - Lack of cleanliness and maintenance of toilet facilities.

Table 4. Facility indicators

Cility Indicators	Average Survey Score (1-5)	Percentage of satisfied respondents (%)	Evaluation Categories	Data Source	Facility Indicators
Backseat Availability	3	50	Enough	Observations, Surveys	Backseat Availability
Elderly Friendly Toilets	2.5	40	Less	Observations, Surveys	Elderly Friendly Toilets
Quiet lounge	3.1	53	Enough	Observations, Surveys	Quiet lounge
Accessibility of Health Facilities	3.3	58	Enough	Observations, Interviews	Accessibility of Health Facilities
Places to Eat with Healthy Menus	2.9	47	Less	Observations, Surveys	Places to Eat with Healthy Menus
Parking Area with Elderly Access	3.2	55	Enough	Observations, Surveys	Parking Area with Elderly Access

Source: Processed data sources for researchers, 2025

Inclusive design theory emphasizes the importance of designing an environment that is accessible to all individuals, without the need for additional modifications. One of the applications is to ensure that elderly toilets are available at all major tourist attractions and use designs that support the mobility of the elderly. Based on [Nurwulan's \(2024\)](#) research, here

are some solutions that can be applied to create a more elderly-friendly environment:

• **Ensuring elderly toilets are available in all major tourist attractions**

The availability of elderly-friendly toilets at major tourist attractions is an important step in creating inclusive tourist destinations. [Nurwulan \(2024\)](#)

stated that toilet designs designed specifically for the elderly, with a wider size and easy access, can increase comfort and safety for elderly tourists.

- **Using handrailed toilet design to support elderly mobility**

An age-friendly toilet design should include elements such as wall-mounted or toilet-side handrails, which are critical to supporting the mobility of the elderly, especially when they need assistance with standing or sitting. In the study, Nurwulan (2024) highlighted that strong and properly installed handrails can help reduce the risk of accidents and provide a sense of security to elderly toilet users.

By integrating these inclusive design elements, tourist destinations can create facilities that are not only friendly to the elderly but also support their comfort and accessibility during travel. This is important to enhance a more comprehensive travel experience that is accessible to all individuals without barriers.

- **3. Quiet lounge**

- Average survey score: 3.1 (Moderate)
- Satisfaction percentage: 53%
- Main obstacles:
  - The lack of rest is far from the crowds.
  - There is no special place for the elderly who want to rest without distractions.
  - Lack of facilities such as umbrellas or roofs to protect from the weather.

- **4. Accessibility of health facilities**

- Average survey score: 3.3 (Medium).
- Satisfaction percentage: 58%.
- Main obstacles:
  - Medical services are still minimal around tourist sites.

- There are no health posts in some major tourist destinations.
- Access to the nearest hospital or clinic takes a long time to travel.

- **5. Places to eat with healthy menus**

- Average survey score: 2.9 (Less).
- Satisfaction percentage: 47%.
- Main obstacles:
  - The lack of restaurants that provide healthy food menus for the elderly.
  - The majority of the foods available are high in fat and do not pay attention to the needs of the elderly.
  - There are no nutritional information labels on the food provided.

- **6. Parking area with elderly access**

- Average survey score: 3.2 (Moderate).
- Satisfaction percentage: 55%.
- Main obstacles:
  - Lack of parking areas dedicated to the elderly and people with disabilities.
  - Parking locations are often far from the entrance to tourist destinations.
  - Lack of dedicated access lanes for the elderly from the parking lot to the main location.

### **Factors of tourism services for the elderly in Berastagi**

Good tourism services are essential to create a safe, comfortable, and enjoyable travel experience for the elderly. However, the results of the study show that tourism services in Berastagi still need to be improved, especially in the availability of special tour guides, assistance services, and tour packages suitable for the elderly.

Table 5. Indicators of tourism services for the elderly

Service Indicators	Average Survey Score (1-5)	Respondents (%)	Evaluation Categories	Data Source
Availability of Elderly Tour Guides	2.7	42	Less	Interview, Surveys
Attitude and Competence of Tourism Staff	3	50	Enough	Observations, Surveys
Tourism Information in Elderly Friendly Format	3.2	55	Enough	Observations, Surveys
Assistance Services for Elderly Travelers	2.9	48	Less	Observations, Surveys
Availability of Elderly Tour Packages	2.8	45	Less	Interviews, Surveys
Information Technology Accessibility for the Elderly	3.1	53	Enough	Observations, Surveys

Source: Processed data sources for researchers, 2025

### 1. Availability of elderly tour guides

- Average survey score: 2.7 (Less)
- Satisfaction percentage: 42%
- Main obstacles:
  - Some tour guides have special training in handling elderly tourists.
  - There are no tour guide services that focus on the special needs of the elderly, such as lighter tourist routes or adequate rest.
  - Most elderly tourists have to travel alone without the help of a guide.

### 2. Attitude and competence of tourism staff

- Average survey score: 3.0 (Moderate).
- Satisfaction percentage: 50%
- Main obstacles:
  - Not all tour staff have a sufficient understanding of how to cater to elderly travelers.
  - Some staff are not yet trained in elder-friendly communication, especially in providing clear and patient information.
  - There are no specific service standards for elderly travelers.

### 3. Tourism information in elderly friendly format

- Average survey score: 3.2 (Moderate).
- Satisfaction percentage: 55%
- Main obstacles:

- Not all tourist destinations have information boards with large fonts and high-contrast colors.
- The lack of tourist information in the format of audio guides for elderly tourists with visual impairments.
- The lack of brochures and tourist maps that are easy for the elderly to read.

### 4. Assistance services for elderly travelers

- Average survey score: 2.9 (Less)
- Satisfaction percentage: 48%
- Main obstacles:
  - Lack of mobility assistance services, such as wheelchair rental at tourist sites.
  - There is no special staff on duty to assist elderly travellers if they have any difficulties.
  - Seniors often find it difficult to walk long distances without a seat along tourist routes.

### 4. Availability of elderly tour packages

- Average survey score: 2.8 (Poor)
- Satisfaction percentage: 45%
- Main obstacles:
  - There aren't many tour packages specifically designed for the elderly, so they have to follow a general itinerary that may be too crowded.
  - There is no choice of flexibility in choosing a schedule or tour

- activities that suit the physical condition of the elderly.
- Some tour packages do not take into account the need for rest and travel speed for the elderly.
- The lack of free Wi-Fi access at tourist sites makes it easier for the elderly to find information.

**5. Information technology accessibility for the elderly**

- Average survey score: 3.1 (Moderate)
- Satisfaction percentage: 53%
- Main obstacles:
  - Some seniors find it difficult to use technology-based travel applications because of the user-friendly interface.
  - Lack of tutorials or guidance for seniors to use the digital reservation system.

**Safety and Security Factors for Elderly Tourism**

Safety and security are a major factor in the travel experience for the elderly, given that this group is more prone to accidents and health problems during travel. The results of surveys and observations show that the level of security and safety in Berastagi still needs to be improved, especially in the aspects of lighting and accident risk mitigation.

Table 6. Safety and security indicators

Safety & Security Indicators	Average Survey Score (1-5)	Percentage of Respondents feel safe (%)	Evaluation Categories	Data Source
Safety Instructions	3.1	53	Enough	Observations, Surveys
Medical Emergency Services	3.3	58	Enough	Observations, Interviews
Accident Risk Level	2.8	42	Less	Observations, Surveys
Lighting on the Tourist Trail	2.9	47	Less	Observation
The Existence of the Tourism Security Team	3	50	Enough	Observations, Surveys
Accessibility to the Nearest Medical Post	3.2	55	Enough	Observations, Interviews

Source: Processed data sources for researchers, 2025

**1. Safety instructions**

- Average survey score: 3.1 (Moderate).
- Percentage of respondents feeling safe: 53%.
- Main obstacles:
  - Not all tourist destinations have clear safety information boards.
  - Warning signs in accident-prone locations are still minimal.
  - Lack of evacuation route maps and emergency gathering points.

**2. Medical emergency services**

- Average survey score: 3.3 (Medium).

- Percentage of respondents feel safe: 58%
- Main obstacles:
  - Health posts are not available in all major tourist areas.
  - Lack of medical personnel who are ready to handle the elderly at tourist sites.
  - Emergency health service response times are still slow.

**3. Accident risk level**

- Average survey score: 2.8 (Poor)
- Percentage of respondents feel safe: 42%
- Main obstacles:

- Some tourist routes have slippery surfaces and are risky for the elderly.
- Lack of handrails on uphill or rocky trails.
- The lack of special lanes for elderly tourists who use walkers.

#### **4. Lighting on the tourist trail**

- Average survey score: 2.9 (Less)
- Percentage of respondents feel safe: 47%
- Main obstacles:
  - Some tourist areas have inadequate lighting, especially on pedestrian paths.
  - Elderly tourists have difficulty seeing the trails at night or in foggy weather.
  - There are no emergency lights in remote areas.

#### **5. The existence of the tourism security team**

- Average survey score: 3.0 (Moderate).
- Percentage of respondents feel safe: 50%.
- Main obstacles:
  - Lack of security officers at tourist sites at certain times.
  - There is no routine patrol system to ensure the safety of elderly tourists.
  - Elderly tourists often feel unsafe when they are in quieter tourist locations.

#### **6. Accessibility to the nearest medical post**

- Average survey score: 3.2 (Moderate).
- Percentage of respondents feel safe: 55%.
- Main obstacles:
  - The location of the medical post is too far from the main tourist area.
  - Elderly tourists have difficulty finding a location for medical

services if they experience health problems.

- There is no special transportation to take the elderly to medical facilities in an emergency.

## **CONCLUSION**

Based on the results of the research on the Elderly-Friendly Tourism Management Model in Berastagi, it can be concluded that accessibility, facilities, services, and tourism safety and security for the elderly still need to be improved. The main results found in this study were:

### **1. Accessibility level**

- Pedestrian trails, public transportation, and directions still do not fully support elderly tourists.
- The elderly experience mobility constraints due to uneven paths, lack of handrails, and lack of dedicated paths for wheelchairs.

### **2. Facility availability**

- Tourist facilities, such as reclining chairs, elderly-friendly toilets, and quiet toilets, are still limited and uneven in all major tourist destinations.
- The accessibility of health facilities for elderly tourists also still needs to be improved.

### **3. Tourism services**

- The lack of tour guides who specialize in catering to elderly travelers leads to a less than optimal travel experience for them.
- The availability of elderly tour packages and mobility assistance services is still not considered by tourism service providers.

### **4. Security and safety**

- Some tourist routes have a high risk of accidents, mainly due to slippery surfaces and lack of lighting.
- The availability of emergency medical services and the tourist

security patrol system still needs to be strengthened.

### **Recommendations for elderly-friendly tourism development**

Based on the above findings, this study proposes several recommendations based on the theory and model of inclusive tourism as well as the concept of developing elderly-friendly destinations.

#### **1. Age-Friendly tourism model**

The Age-Friendly Tourism Model emphasizes the importance of policies, physical environments, and social services that support the elderly on the journey. The implementation of this model can be done with an approach that includes accessible infrastructure, inclusive destination design, and improved transportation facilities. Based on the research of [Przybysz & Stanimir \(2022\)](#), here are some steps to implement this model:

- Improving Tourism Infrastructure that is Safe and Accessible to the Elderly Safe and accessible infrastructure is a key component of age-friendly tourism. This includes wheelchair-friendly pedestrian paths, improved access facilities for people with disabilities, as well as pedestrian paths that have slopes suitable for the elderly. [Przybysz & Stanimir \(2022\)](#) shows that good accessibility increases the participation of elderly tourists in tourism activities and supports their active lifestyles.
- Adjust Tourist Destination Design to Make It More Inclusive Inclusive destination design is an important aspect in ensuring the comfort and safety of elderly tourists. This includes providing easily accessible facilities, such as hand-held toilets and non-slip flooring, which minimises the risk of accidents. [Przybysz & Stanimir \(2022\)](#) emphasized that elderly-friendly tourist destinations must consider the basic physical and social needs of the elderly,

making them feel more comfortable during their travels.

- Improving Transportation Facilities That Allow the Elderly to Move Comfortably

Comfortable and safe means of transportation are essential to support the mobility of the elderly. Public and private transportation should be designed with adequate accessibility, including sufficient space for wheelchairs and other amenities. According to [Przybysz & Stanimir \(2022\)](#), easily accessible transportation helps the elderly in enjoying tourist trips without worry, thereby increasing their participation in tourism.

By integrating accessibility policies, inclusive destination design, and adequate transportation facilities, this age-friendly tourism model will create more comfortable and safe destinations for older travelers. This is very important to encourage elderly tourists to continue to actively participate in tourism and enjoy the tourist experience with a sense of safety and comfort.

#### **2. Inclusive tourism model**

The inclusive tourism model aims to remove barriers in accessibility for all tourists, including those with physical limitations and the elderly. The main approaches in this model include universal design, special services, and additional facilities.

##### **a. Universal Design**

Universal design leads to the creation of infrastructure and facilities that are friendly to all travelers, without exception. This includes the development of accessible access, adequate public facilities, as well as the use of technology that allows everyone, including people with disabilities and the elderly, to enjoy a seamless tourism experience. [Gorbatova's research \(2024\)](#) shows that the development of inclusive

tourism that applies universal design principles has a significant contribution to the sustainable development of host communities (Gorbatova, 2024).

b. Special Services

Special services are important to ensure that tourism workers can meet the specific needs of elderly or special needs tourists. In this case, training for tourism staff is indispensable to understand the physical and psychological needs of these tourists. This aims to make every tourist feel welcome and appreciated while in a tourist destination, as well as create a friendly environment for everyone (Wang, 2023).

c. Additional Facilities

Additional facilities such as special access points, wheelchairs, health services, and other supporting infrastructure such as dedicated lanes, disability-friendly toilets, audio/visual guides are important aspects in ensuring the comfort and safety of tourists. Research by Putri & Taufik (2024) emphasizes the importance of developing disability-friendly tourism facilities, such as accessible access lanes, wheelchairs, and special toilets, to improve the comfort of tourists with physical limitations. A similar thing was also found in the study of Reindrawati et al. (2022), which showed that additional facilities can reduce the barriers faced by tourists with disabilities. These facilities serve to provide a sense of security for tourists with limited mobility and ensure that they can enjoy all facilities in tourist destinations comfortably (Reindrawati et al., 2022; Korbziel, 2025).

By integrating these three approaches universal design, specialized services, and additional facilities of the inclusive tourism model, we can create a more inclusive tourism destination for all people, without exception. Therefore, it is important for every tourist destination to design and develop facilities that meet accessibility standards that are accessible to all individuals, including those who need additional support.

### 3. Universal design model

The universal design concept emphasizes that tourist destinations should be accessible to all individuals without the need for additional modifications. This model focuses on creating an inclusive environment for everyone, including the elderly and people with disabilities. Based on the research of Ramírez-Saiz et al. (2025), here are some of the applications of universal design that can be implemented in the management of tourist destinations:

- **Construction of tourist routes with anti-slip materials and installation of handrails in hilly areas or stairs**

The construction of safe tourist routes is essential to ensure accessibility for all individuals. Ramírez-Saiz et al. (2025) emphasize the use of anti-slip materials in pedestrian paths and the installation of handrails in vulnerable places such as stairs or cobblestone roads, which are very important to facilitate the movement of elderly tourists and people with disabilities.

- **Increased lighting on tourist trails and public facilities, especially at night or in areas with low visibility**

Adequate lighting on tourist trails and public facilities can prevent accidents and improve tourist comfort. Good lighting is essential in areas with low visibility or at night, thus ensuring that all tourists, especially the elderly, can move around safely and comfortably (Ramírez-Saiz et al., 2025).

- **Improvement of security systems through patrols and special complaint services for elderly travelers**

Security is one of the important aspects of universal design. [Ramírez-Saiz et al. \(2025\)](#) highlight the importance of improving the security system through more frequent patrols and complaint services accessible to elderly tourists. This will help create a sense of security for them while in a tourist destination.

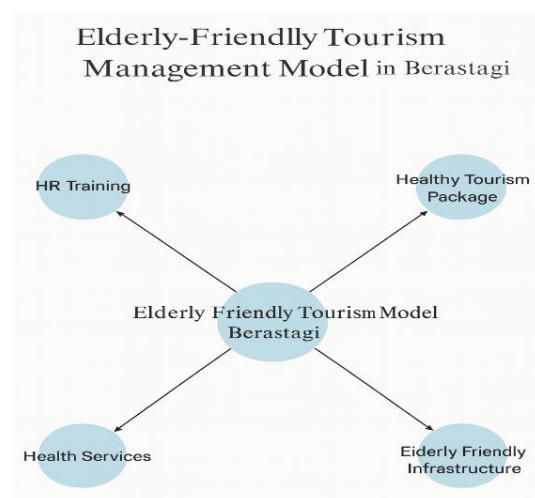
By implementing universal design principles, tourist destinations can create a more inclusive and safe environment for everyone, without exception. It also ensures that tourists with various needs can enjoy a travel experience comfortably and without obstacles.

#### 4. Healing environment ([Apriyanti et al., 2024b](#))

The Healing Environment Approach highlights that the tourism environment must support the physical and mental health of elderly tourists. Some of these theory-based recommendations include:

- Adding more green space and rest areas in tourist destinations, which can provide a calmer atmosphere for elderly tourists.
- Provide health facilities in major tourist areas, such as medical posts or emergency ambulances.
- Promote health-based tourism, for example by providing nature therapy activities, light yoga, or relaxation tourism.
  - The elderly-friendly tourism management model in Berastagi was built by placing the Elderly-Friendly Tourism Model Berastagi as the center of strategy development. This model emphasizes that the management of tourist destinations does not

only focus on the provision of tourist attractions, but also on the creation of an ecosystem of services that are inclusive and in accordance with the physiological, psychological, and health needs of elderly visitors. To realize this, there are four key components that are interconnected and become the main pillars of its successful implementation.



**Figure 3. Recommendations for the Elderly Tourism Model**

*Source: Author data, 2024*

The elderly-friendly tourism management model in Berastagi was built by placing the Elderly-Friendly Tourism Model Berastagi as the center of strategy development. This model emphasizes that the management of tourist destinations does not only focus on the provision of tourist attractions, but also on the creation of an ecosystem of services that are inclusive and in accordance with the physiological, psychological, and health needs of elderly visitors. To realize this, there are four key components that are interconnected and become the main pillars of its successful implementation.

The first component is HR Training, which highlights the importance of training human resources to have

empathy, awareness, and technical skills in serving elderly travelers. Without the readiness of human resources, good infrastructure will still not provide a meaningful tourism experience. The second component is the development of the Healthy Tourism Package, which is the design of a tour package that not only offers entertainment, but also considers the rhythm of travel, rest time, light activity options, and healthy culinary that suits the physical condition of the elderly.

The third component is the provision of Health Services, which includes access to light medical services, the availability of health posts, and emergency handling preparedness. This is important because a sense of medical security is one of the main requirements for the comfort of the elderly in traveling. Finally, the model emphasizes the importance of Elderly-Friendly Infrastructure, which is physical facilities such as ramps, handrails, elderly-friendly toilets, reclining chairs, and safe lighting, which allow the elderly to move independently without over-reliance on companions.

Overall, this model shows that it is not enough for elderly-friendly tourist destinations to simply build facilities, but must implement an integrative approach that simultaneously brings together aspects of human services, health, travel design, and adaptive infrastructure. With the consistent application of these four components, Berastagi has the potential to become a reference model for inclusive tourist destinations based on elderly welfare in Indonesia.

### **Implications and impacts of implementation**

If this recommendation is implemented, Berastagi can become a more elderly-friendly tourist destination, which provides the following benefits:

- Increasing the attractiveness of Berastagi tourism as an inclusive destination that can be accessed by all age groups.
- Improving the welfare of elderly tourists, both in terms of safety, comfort, and a more pleasant tourist experience.
- Attracting more senior tourists, both domestic and foreign, which will ultimately increase the revenue of the local tourism sector.
- Reduce the risk of accidents and emergencies for elderly travelers, thereby creating a safer tourist environment.

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