

## Interventions for supporting the adaptation of older adults to climate change

- Climate change affects human life and health in various ways, impacting air and water quality, food security, and the safety of living environments.
- It is expected that climate change will cause approximately 250 000 additional deaths per year globally between 2030 and 2050.
- Older adults are a particularly vulnerable group to the impacts of climate change.
- The bodies of older individuals are less able to compensate for environmental changes compared to younger people, and for example, heatwaves increase mortality rates.
- Aging weakens the immune system, making older adults more susceptible to serious diseases, for example those transmitted through insects or water.
- In addition to aging, medications may impact the body's ability to adapt to conditions such as extreme heat.
- Individuals with dementia may find it difficult to process and cope with extreme events and phenomena related to climate change.
- Physical activity is a key factor in promoting the holistic well-being of older adults. However, extreme climate events such as heatwaves, cold weather, icy conditions, and heavy snowfall can limit older adults' ability to participate in outdoor activities and mobility.

### Literature Review

The literature review was conducted as part of a master's thesis (Varis & Palviainen, 2024), following the JBI scoping review protocol. The purpose was to describe interventions that support the adaptation of older adults to climate change. The aim was to provide knowledge for the development of educational interventions that support the adaptation of older adults. The research question, "Which interventions support older adults in adapting to climate change?" was created using the PCC method (Population, Concept, Context). Data were collected from the PubMed and Cinahl EBSCO databases. Scientific research articles published between 2017 and 2024 that were readily accessible were selected (n=15). The quality of the data was assessed according to JBI criteria. The data were analyzed using thematic analysis.

### Results

The analysis of the data provided five main themes. **The availability of well-being services and the competency of professionals must be ensured.** Professionals need to have sufficient knowledge of the impacts of climate change in order to anticipate, guide, and support older adults in adapting to the effects of climate change, as well as to ensure the availability of services under extreme conditions.

**Risk prevention strategies and warning systems must be developed.** Health risks caused by extreme weather events, such as heatwaves, should be systematically assessed and addressed through preventive measures. For example, heatwaves can be mitigated by providing shade, cooling systems, and targeted, effective communication. Early warning systems should be developed for climate-related disasters and deteriorating air quality.

**Older adults must be protected from vector- and waterborne infections.** They should be guided in infection prevention, including protective measures against ticks and mosquitoes.

**Attention must be given to the living conditions and environments of older adults.** Homes should ensure adequate insulation, ventilation, shading, and temperature control options. Changing weather conditions increase the moisture stress on buildings, which must be considered in architectural design. Environmental planning should prioritize age-friendliness and green infrastructure. Well-designed natural areas should include trees, fountains, social spaces, and an effective rainwater management system. The environment should support risk management for older adults and promote their opportunities for outdoor mobility and social interaction.

**Economic resources and social support for older adults must be considered in the context of adapting to climate change.** Financial resources and poverty influence the ability to protect oneself from extreme climate conditions. Economic challenges, such as low pensions and high energy costs, affect the ability to acquire necessary equipment and utilize heating and cooling systems. The role of relatives and family can be significant in providing emotional and social support to older individuals, as well as assisting with equipment purchases and ensuring adequate heating. Society should actively work to combat inequality and promote the management of energy costs.

## Recommendations for the adaptation of older adults to climate change

- The availability of well-being services must be ensured under all conditions.
- The expertise and guidance capabilities of well-being professionals regarding climate change and its health impacts should be enhanced.
- Preventive strategies and warning systems specifically targeting older adults need to be developed.
- Older adults should be protected from vector- and waterborne infections.
- Attention must be given to ensuring healthy living conditions for older adults, and home temperatures should be adjustable.
- Environmental planning should focus on creating age-friendly green spaces.
- Society must enable a safe and healthy living environment for older adults, regardless of personal wealth.

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## Authors

Dr. Elina Turunen, Principal lecturer, PhD, MNSc, RN-D  
Marika Lappalainen, Senior lecturer, MHc, RN  
Anne Ryhänen, Senior lecturer, MSc, PT  
Kaija Saramäki, Senior Lecturer, MSc. (Env. For.)  
Dr. Liisa Timonen, PhD (Education), Director, Internationalisation  
Dr. Tuula Kukkonen, Principal lecturer, PhD (Soc.Sci.)  
Karelia University of Applied Sciences  
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