Chapter 8
Green Infrastructure Strategies for Ageing Populations:
Enhancing Health and Well-Being Through Sustainable Urban Design

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ABSTRACT

This chapter explores how green infrastructure strategies can improve health and well-being for ageing populations through sustainable urban design. With a focus on concepts such as ageing in place, the chapter demonstrates how access to green spaces reduces loneliness, enhances mobility, reduces falls and promotes holistic care, including those facing chronic conditions like oncology, chronic kidney disease (CKD), and frailty-related issues requiring specialised moving and handling practices. Aligning with Sustainable Development Goals (SDGs), it addresses equitable access to urban health solutions, sustainability, and social inclusion, proposing innovative urban planning solutions to foster improved mental and physical health outcomes for older adults.

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1. INTRODUCTION

1.1 Background on Ageing Populations and Urban Challenges

The phenomenon of population ageing is increasingly prominent in urban environments worldwide, presenting a series of complex challenges that necessitate innovative solutions. As urbanisation accelerates, cities are witnessing a demographic shift characterised by a growing proportion of elderly residents (Reis da Silva, 2023a; Reis da Silva, 2024a). By 2050, it is projected that the global population aged 60 years and older will reach 2 billion, with a significant concentration in urban areas (Lehrner, 2022). This demographic transition is compounded by the rapid urbanisation of developing countries, where the urban population is expected to rise from 55% in 2014 to 68% by 2050 (Buerkert & Schlecht, 2019). The implications of this demographic shift are profound, as ageing populations often face increased health risks, social isolation, and a lack of accessible services, particularly in urban settings where infrastructure may not be adequately designed to meet their needs (Hoof et al., 2018).

Urban environments pose unique challenges for older adults, including inadequate public transportation, limited access to healthcare facilities, and insufficient recreational spaces that promote physical activity and social interaction (Isa et al., 2023). Moreover, the intersection of urbanisation and ageing exacerbates health inequalities, as older adults in urban areas may experience disparities in access to resources and services compared to their younger counterparts (Cook et al., 2013). The rapid pace of urbanisation often leads to the neglect of the specific needs of ageing populations, resulting in environments that can hinder their health and well-being (Hoof et al., 2018). Consequently, there is an urgent need for urban planners and policymakers to adopt strategies that prioritise the integration of green infrastructure, which can enhance the quality of life for older adults while addressing the broader challenges posed by urbanization (Azzali et al., 2022).

1.2 Importance of Green Infrastructure for Health and Well-Being

Green infrastructure refers to a strategically planned network of natural and semi-natural areas that provide ecosystem services and enhance urban resilience. The incorporation of green spaces within urban design has been shown to have significant benefits for public health, particularly for ageing populations. Access to green spaces is associated with improved mental health outcomes, reduced stress levels, and increased opportunities for physical activity (Endreny, 2018). Studies have demonstrated that older adults who live in proximity to parks and green areas