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Home safety and community services gaps for ageing in place for older adults in Hong Kong

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Abstract

Purpose – This study aims to examine home safety issues affecting older adults in Hong Kong, identify associated risk factors for falls and injuries, and explore gaps in community services and policy support that hinder effective "ageing in place".

Design/methodology/approach – A literature review and analysis of local and international data were conducted, focusing on demographic trends, injury statistics, environmental hazards, and existing community care services. The study also reviewed current gerontechnology applications and policy frameworks to assess their adequacy in addressing home safety challenges.

Findings – Falls are the predominant cause of injuries among older adults, with risk factors spanning biomedical, behavioural, and environmental domains. Limited living space, inadequate home modifications, and insufficient awareness exacerbate safety risks. Community care services face long waiting times and resource constraints, while gerontechnology adoption is hindered by affordability, usability, and digital literacy barriers. Despite existing initiatives, gaps remain in in-home safety assessments, technology integration, and public education.

Originality/value – This paper provides a holistic view of home safety for older adults in Hong Kong, integrating environmental, technological, and policy perspectives. It highlights critical service gaps and offers actionable recommendations for enhancing home safety and supporting "ageing in place" through multi-sector collaboration.

Keywords Older adults, Home safety, Falls, Injuries, Community care, Ageing in place, Gerontechnology, Hong Kong

Paper type Research article

Introduction

According to the Census and Statistics Department (2026), the total population of Hong Kong was 7,510,800 at the end of 2025. The ageing population in Hong Kong has been growing rapidly, with older adults (aged 65 and above) projected to constitute nearly one-third of the population by 2039 (Census and Statistics Department, 2023). The demographic shift carries important implications for community services, as a significant number of older adults prefer "ageing in place", which was adopted by the Hong Kong government, emphasising community care as a core strategy while using institutional care as a backup. 81.4 percent of older adults preferred living at home rather than moving into residential care homes, even if their health

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condition deteriorated (Health Bureau, 2021). The finding reflects their desire to maintain connections with their families and the community. Consequently, it is important for community services to support this preference effectively.

However, "ageing in place" presents challenges, including the need for safe home environments and accessible community support systems. People spend a substantial proportion of their time in indoor environments, and older adults, who are generally less mobile, tend to spend most of their time indoors (Bamzar, 2019). This proportion may be even higher among older adults with mobility limitations. Unintentional injuries may occur at home. Nearly all injury episodes in Hong Kong are serious unintentional injury that restricts a person's the normal activities, and over a quarter (27.7 percent) of injury episodes happen at home (Centre for Health Protection, 2018). Despite the vast literature on falls, there remains a research gap on a holistic analysis that integrates Hong Kong's unique environmental constraints with technological and policy gaps using a unified analytical framework. The primary research objectives of this paper are: (1) to systematically categorise home safety risk factors for older adults in Hong Kong; (2) to identify the existing gaps in policy and community supports; and (3) to propose aligned, actionable solutions to facilitate safe "ageing in place". Hence, safety at home is fundamental to the overall health and well-being of everyone, particularly older adults.

Methodology

This study employed a comprehensive narrative literature review to examine the multi-dimensional aspects of home safety for older adults in Hong Kong. A narrative review approach was selected because it allows for a holistic synthesis of diverse topics, ranging from clinical risk factors to environmental hazards, technological adoption, and public policy, which is necessary in capturing the complex, interconnected nature of "ageing in place". To identify relevant literature, a systematic search was conducted across multiple academic databases, including PubMed and Google Scholar. The search strategy utilised a combination of primary keywords and Boolean operators, including ["older adults" OR "elderly"] AND ["home safety" OR "fall risk" OR "unintentional injury"] AND ["Hong Kong" OR "gerontechnology" OR "community care services"]. In addition to peer-reviewed academic journals, this study integrated secondary data and official statistics from key local and international organisations to provide contextual relevance. These included reports from the World Health Organization (WHO), the Hong Kong Census and Statistics Department, and the Centre for Health Protection.

To systematically distil the identified literature into meaningful policy gaps and thematic findings, a thematic synthesis approach was applied. Extracted literature was coded inductively into major analytical dimensions: (1) biomedical, behavioural, socioeconomic, and environmental risk factors following the WHO classification; (2) structural service and policy gaps; and (3) technological barriers and adoption challenges. These themes were iteratively refined and triangulated against quantitative secondary statistics from local health databases to ensure academic rigour, empirical grounding, and thematic consistency across the findings.

Home safety concerning older adults

Home safety is associated with a complex combination of risk factors arising from the individual characteristics and the surrounding environments. According to the WHO (2008), risk factors are classified into four main categories: biomedical, behavioural, socioeconomic, and environmental. It is known that unsafe homes may have detrimental effects on the health and well-being of the older population and socio-economic implications for the society. Different kinds of injuries in home settings are significant health risks, resulting in an increase of the demand for medical and health care, and community health services. Therefore, ensuring home safety has become an increasingly important public health concern worldwide, and Kivimäki *et al.* (2020), in an integrative literature review, synthesised existing evidence on home safety risks and conditions among community-dwelling older adults. According to

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statistics of the 2021 Population Census, the median per capita floor area of accommodation of domestic households in Hong Kong was around 172 square feet (Census and Statistics Department, 2021). This undersized living area brings different safety concerns due to limited area and confined space for moving around, plus the furniture at home cannot be adequately and safely organised. In addition, the ground surface or surface conformation (34.6 percent) is the most common and major factor contributing to the onset of fall-related injury episodes at home, particularly hazardous to the older adults (Centre for Health Protection, 2018). In domestic injury episodes, 43.6 percent occurred in the living room, followed by the kitchen at 21.3 percent, and the bathroom and toilet at 12.9 percent. The most frequently noted major direct cause is building, building component, or related fitting (41.5 percent). Other causes are related to animals, plants, or people (28.2 percent) and furniture / furnishing (12.2 percent) at home. Apart from having the possibility of permanent injuries and affecting health, insufficient awareness of home safety problems has added more burdens to the healthcare services in significant medical expenditures from hospital admissions, length of stay and the corresponding rehabilitation visits.

Factors related to falls

According to report of unintentional injury survey 2018, falls were the predominant cause of injury episodes among the older adults, with the proportion increasing significantly with age (Centre for Health Protection, 2018). Falls accounted for 74.5 percent of injury incidents for individuals aged 65 and above. For those aged 65 to 69, falls accounted for 59.8 percent of injuries, rising to 64.4 percent for the 70 to 74 age group, and reaching a remarkable 88.6 percent for individuals aged 75 and above. This trend highlighted the escalating vulnerability of older adults to fall-related injuries as they age. According to the statistics from Elderly Health Service (2026), among 35,000 community-dwelling older adults aged 65 and above, 15.7 percent had experienced falls at least once over the previous year. Of those who fell, approximately 9.8 percent sustained fractures. In the United States, more than 1 in 4 older adults fall each year leading to 41,000 deaths, 3.6 million emergency department visits, and 1.2 million hospital stays (Centers for Disease Control and Prevention, 2024). The falls in older adults result in about US $80 billion in medical costs every year. Specifically, falls among older adults stem from a complex interplay of intrinsic factors, including biological and health-related issues, and extrinsic factors related to the environment and behaviours, and activity-related risks (Patton *et al*., 2022). To provide a comprehensive analysis, these risk factors are categorised using the WHO's (2008) framework, including biomedical, behavioural, socioeconomic, and environmental factors.

Biomedical factors

Biomedical factors relate to biological and health-related issues, including age, gender, presence of chronic illnesses, and functional difficulties. The risk of falling increases significantly with age, while every 5-year increase in age is associated with a 12 percent increase in fall risk (Money *et al*., 2019). Gender also plays a role, with research indicating that women have a significantly higher prevalence of falls (31.8 percent) compared to men (26.6 percent) (Lee, 2021). Furthermore, the incidence of domestic injury episodes rises consistently with the number of selected chronic health conditions. It increases from 0.7 percent among individuals without any chronic conditions to 2.5 percent for those with one condition, and reaches 4.6 percent for individuals with three or more chronic health conditions (Centre for Health Protection, 2018).

Behavioural factors

Behavioural factors involve human actions, choices, and daily habits, such as a lack of physical activity, the number and types of medications taken, and alcohol consumption. Older adults who lack physical activity are notably vulnerable; for instance, 7.2 percent of those without regular exercise suffered from fall-related injury episodes (Centre for Health

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Protection, 2018). Furthermore, the management of medications is a critical behavioural risk. Older adults often experience polypharmacy, and the use of fall-risk-increasing drugs significantly heightens the risk of falls due to adverse side effects like dizziness, impaired cognition, and loss of balance (Ie *et al.*, 2021). Additionally, a major behavioural concern among older adults is the fear of falling. Research in Southeast Asia indicates that older adults who experience fear of falling frequently restrict their daily activities and adopt sedentary lifestyles to avoid hazards. However, activity restriction leads to physical deconditioning, which ultimately compromises functional independence of the older adults and paradoxically exacerbates their actual risk of falling (Vo *et al.*, 2023).

Socioeconomic factors

Socioeconomic factors encompass the social and living conditions of the older adults. A prominent risk factor in this category is household composition. The proportion of individuals experiencing domestic injury episodes is nearly three times higher among those living alone (3.1 percent) compared to those who do not live alone (1.1 percent) (Centre for Health Protection, 2018). Furthermore, recent literature underscores the significant impact of financial constraints and educational background on fall risks. These studies indicate that falls are markedly more frequent among older adults with poorer financial situations and lower educational attainment, as these constraints often limit their ability to access targeted healthcare services, afford assistive devices, or implement effective home modifications (Maruszewska *et al.*, 2025). Additionally, broader socio-spatial inequalities, such as living in districts with uneven distribution of supportive infrastructure and community resources, act as a significant environmental disadvantage. While such resource disparities can practically limit an older adult's ability to access preventative health services, they also directly exacerbate the psychological toll of "ageing in place", with recent evidence from Hong Kong linking within-district infrastructure inequality to increased depressive symptoms among older adults (Yang *et al.*, 2026).

Environmental factors

Extrinsic environmental hazards are major contributors to falls, and these risks can be gender specific. Indoor environmental hazards are linked to increased fall risks for women (1.37), whereas outdoor environmental hazards are more significant for men (1.34) (Lee, 2021). While transport areas account for the highest percentage of fall-related injury episodes overall (29.4 percent), the home remains the second most common location, representing 26.8 percent of such occurrences (Centre for Health Protection, 2018). Common home hazards include slippery floors in showers or bathtubs, a lack of handrails or grab bars, internal stairs, and an absence of night lights.

Consequences of falls

Falls among older adults are a significant public health concern, particularly in Hong Kong, where they are one of the leading causes of injury, disability and death among this aged population. The severity of an injury and its consequences are influenced by a person's frailty than by their age (Stenroth *et al.*, 2023). Frailty refers to the reduced physiological capacity in older adults such as their ability to walk upstairs and carry groceries. Additionally, falls result in profound psychological adverse impact on self-confidence of older adults. Older adults may fear falling again after minor falls and avoid leaving their homes. This will compromise social engagement and puts them at a higher risk of low mood and depression. Repeated falls heighten the risk of injury and hospitalisation but also cause the older adult to become frailer and suffer from osteoporosis. As older adults often face longer recovery times from injuries, falls can be fatal if older adults are unable to get up and seek medical assistance promptly. Moreover, infections from hospital stays and prolonged immobility can further jeopardise their health. On the other hand, older adults who suffer severe injuries may bear higher medical

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costs. The economic burden of falls is not only immediate but also long-term and substantial, as the ongoing medical care such as rehabilitation services and recovery treatment add to the financial strain on the families and healthcare systems. Furthermore, on physical and functional impacts, about 30 percent to 50 percent of the falls give rise to minor injuries, while around 10 percent result in major injuries (Vaishya and Vaish, 2020). Approximately 1 percent of all falls sustain hip fractures that amplify the risk for post-fall morbidity and mortality. Hip and spine fractures often require surgical intervention.

Falls are the primary cause of traumatic brain injury-related deaths in older adults aged 65 and above. Around 20 percent of the falls cause potentially serious injuries like head trauma or fractures (Vaishya and Vaish, 2020). Head injury may manifest either acutely or delayed, presenting as headache and altered sensorium, and sometimes may result in seizures and minor focal neurological deficits. Severe head injuries include concussions and traumatic brain injury after falls. Even mild traumatic brain injuries may lead to cognitive impairments which affect older adults' memory, attention, and executive functions for the rest of their lives. Older adults may suddenly encounter memory loss or being unable to recall past events due to unintentional falls. These injuries also often lead to a degradation in mobility and self-care ability among older people, who may consequently require more community care services or institutional care, increasing the reliance on external support of caregivers, and leading to early admission to residential care homes.

Gaps in policy support and related community services

Limited availability of community care services

Home-based community care services (CCS) programmes in Hong Kong, such as Enhanced Home and Community Care Services (EHCCS) and Integrated Home Care Services (IHCS), provide assessments of older adults' living environments in order to identify home safety hazards and recommend modifications to prevent injuries and falls (Social Welfare Department, 2023). CCS programmes also guarantee prompt assistance in case of accidents by offering 24-hour emergency support. Caregivers receive professional training from CCS programmes, and families are well-equipped with knowledge and tools to maintain safe living environments and boost home safety for older adults. However, there are some gaps and limitations for accessing CCS efficiently.

Firstly, the waiting times for home care services like EHCCS and IHCS have increased significantly over the years (Lam, 2022). From 2010 to 2021, waiting time rose from 2.5 to 6 months. It peaked at 11 to 20 months between 2017 and 2020 respectively. The waiting time for centre-based services grew from 6.8 months to 13 months between 2010 and 2020, with a slight improvement to 7 months in 2021. Moreover, the demand for CCS surged faster than the supply of subsidised places. Between 2010 and 2020, the number of waitlisted cases rose by 356 percent, while the capacity of subsidised CCS only rose by 117 percent. The mismatch has exacerbated the waiting time. Furthermore, prioritising budget allocation to residential care services (RCS) over CCS further constrains the availability of CCS. The recurrent expenditure on subsidised RCS was 3.35 times higher than that on CCS from 2003 to 2015. Although the recurrent expenditure on CCS tripled between 2014 and 2020, the expenditure on RCS remained 1.8 times greater than that in 2020. During 2014 and 2020, the capacity of RCS was consistently three times larger than that of CCS. As a result, the lengthy waiting time for CCS, demand outweighing supply, and budget allocation imbalance between CCS and RCS limit the availability and accessibility of CCS, resulting in insufficient resources and services for older adults to access home care services.

Critically, these institutional limitations illustrate a broader "reactive versus proactive policy failure" in Hong Kong's social welfare system. Rather than implementing proactive, preventive home safety assessments to mitigate fall risks before injuries occur, public resources are predominantly directed reactively toward acute hospitalisations, post-injury rehabilitation, and RCS. This reactive approach fails to address the root causes of home hazards, leading to unsustainable demand and pressure on public healthcare. Furthermore,

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frontline delivery of community care faces severe interdisciplinary collaboration challenges. Although occupational therapists, social workers, and community nurses frequently interact with the same vulnerable clients, professional communication silos, fragmented agency funding, and conflicting administrative targets hamper integrated care. Occupational therapists often focus narrowly on physical hazard, while social workers focus on emotional and socio-economic support. Without a unified interdisciplinary protocol, home safety assessments remain fragmented, leaving older adults to navigate conflicting advice from different service providers.

Socioeconomic barriers and technology support gaps

Gerontechnology integrates gerontology with technology to facilitate "ageing in place" (Cheng *et al.*, 2023). The application of advanced technologies can empower older adults to live confidently, effectively, and safely in comfortable home and community environments. However, adoption remains low due to usability, privacy concerns, and digital divide. Many older adults in Hong Kong lack awareness about the gerontechnological solutions available to them. The complexity of technologies can be a barrier for older adults to learn how to use them effectively. The digital divide among older adults can hinder access to information and resources that could support home safety improvements (Fung *et al.*, 2023). Only 76.5 percent of participants had access to the Internet at home, a mobile phone data plan, or both. Meanwhile, 36.3 percent had never used Internet services, and 18.2 percent did not own any digital devices. Some older adults encounter difficulties when using gerontechnology. For instance, devices are not user-friendly, as it is hard for them to handle the functions of tablets and complex interfaces (Verloo *et al.*, 2020). Older adults may not recognise the necessity of fall detectors until they experience substantial mobility challenges. Some may lack a comprehensive understanding of how fall detectors operate and the advantages they provide, leading to hesitance to adopt these devices. Some older adults are apprehensive about making errors while using electronic devices, which may contribute to their anxiety and avoidance of using technology. Some older adults worry about monitoring their behaviours online, data breaches, surveillance, and unauthorised access when using technology which infringes on their privacy. Besides, the cost of purchasing and maintaining devices can be an obstacle for older adults.

Examining technology adoption through the socio-economic lens highlights that digital exclusion among Hong Kong's older adults is deeply structured by economic inequality. Older adults living on low incomes, comprehensive social security assistance, or fixed pensions face substantial financial barriers to purchasing smart home hardware (e.g., motion-sensing radars, smart beds, ambient monitoring systems) and maintaining monthly broadband subscriptions. Furthermore, lower educational attainment exacerbates technology anxiety and digital illiteracy, rendering complex digital interfaces inaccessible.

Home safety solutions and recommendations

Previous research has explored various strategies to reduce the incidence of injuries-threatening events among older people, including promoting the use of safety and accessibility features at home and introducing a fall prevention programme in the form of community education for older adults (Eriksen *et al.*, 2015). Railing, grab bar, ramp and shower seat can greatly improve home safety and have an impact on the risk of injury among older adults at home. It is estimated that these safety and accessibility features have accounted for a 20 percent reduction in the likelihood of a serious fall by older adults as well as a reduction in nursing home stays (Eriksen *et al.*, 2015). Therefore, the importance of enhancing home safety cannot be neglected. In-home safety assessments, gerontechnology and assistive technology, promotion of safety information in the community, and collaboration with government

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policies and non-governmental organisations are highly recommended. Table 1 has summarised the recommendations with identified risk factors.

In-home safety assessment for older adults

Home screening tests and safety checklists are common and practical assessments to identify potential hazards in a home environment. Many older adults may not have knowledge or ability to improve their home environment without proper assistance and support. Therefore, in-home safety assessment and consultation services are required to evaluate the actual home environment of older adults to provide them with suitable enhancement work. However, designated team or agency responsible for such services are absent in Hong Kong. Some assessments will test whether a person can independently recognise common home safety issues and provide solutions, while some simply provide checklists with broad categories in different areas at home without recommended solutions to risk factors (Tomita *et al.*, 2014). Although caregivers or older adults themselves can browse the Internet for home safety information, users may easily overlook their actual needs and may not identify deficiencies as they have been used to their current living environment. In-home safety assessments allow direct observation and communication with older adults about accessibility features, thus enhancing the availability of independent living for older adults who live alone.

Direct in-home observations and collaborative dialogues enhance accessibility, foster personal autonomy, and support independent living, particularly for community-dwelling older adults living alone. However, dedicated public agencies or specialised teams responsible for delivering systematic in-home assessments remain absent in Hong Kong. Existing efforts to promote age-friendly domestic spaces in Hong Kong are largely driven by non-governmental organisations and corporate social responsibility initiatives. The Elderly Resources Centre (ERC) was set up by the Hong Kong Housing Society in 2005 (Hong Kong Housing Society, 2026). The ERC promotes the idea of an "age-friendly home" through initiatives such as education, health screenings, professional consultations and research conducted by occupational therapists and social workers, aiming to achieve the goal of "ageing in place". ERC established the Mind-Friendly Home Exploration Centre to advocate for the concept of dementia-friendly homes. The centre demonstrates the principles and practical applications for creating more accommodating home designs for older adults with dementia, and aims at alleviating caregiver stress and supporting older adults to reach "ageing in place". A mind-friendly mock-up flat was built to show a realistic demonstration and multi-purpose seminar room for educational talks and workshops on Mind-Friendly Homes. Besides, ERC organised many group and individual tours for older adults, caregivers, students, and professionals from other corporations or institutions to foster community awareness about the importance of home safety in Hong Kong (Hong Kong Housing Society, 2026). The centre received the "Innovation of the Year – Dementia Care Model Solution" award at the 9th Asia Pacific Eldercare Innovation Awards, held by Ageing Asia in Singapore. The InnovAge Home

Table 1. Recommendations with Identified Risk Factors

Identified WHO Risk Factor	Recommended Intervention Strategy
Environmental	Establish DECC/NEC-based In-Home Assessment Teams providing free retrofitting.
Behavioural & Biomedical	Community-based participatory fall prevention classes & medication reviews.
Socioeconomic	Subsidised gerontechnology grants & digital literacy workshops.
Structural / Policy	Rebalance welfare expenditure toward CCS; institutionalise interdisciplinary protocols.

Source: By authors

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Guided Tour and ExporAge Tour focus on understanding Age-Friendly Homes, addressing older adults' needs, and showcasing gerontech products. Participants explore co-designed spaces, engage with virtual reality and augmented reality experiences to establish healthy lifestyles, learn about ageing challenges, and design ideal homes with different materials and furniture.

As there are only small-scale volunteer programmes like "Welcome Home: Elderly Safe Living Scheme", which carry out home environment assessments for the older residents in the Eastern District (Swire Properties, 2025), the government should set up a permanent team embedded within District Elderly Community Centres (DECCs) and Neighbourhood Elderly Centres (NECs). Swire Properties' Community Ambassador Programme, which cooperates with the Hong Kong Housing Society and the Hong Kong Young Women's Christian Association, seek to arouse awareness among the older adults about home safety, focusing on preventing falls. Comprising of social workers and occupational therapists acting alongside community volunteers, these teams can conduct direct environmental evaluations, facilitate co-designed spatial modifications, and assist with installing safety features like grab bars (Cha, 2025). Age-friendly equipment should also be provided at no cost according to older adults' needs, including long-handled reachers, anti-slip mats, anti-slip slippers, shower chairs, and night lights. Moreover, instead of asking the older adults to visit the ERC for consultation on home modification, it will be more effective for the responsible team to take the initiative to approach the older adults and to provide home visits.

Emerging gerontechnology and assistive technology to enhance home safety

Gerontechnology is increasingly recognised as a vital pillar in facilitating safe "ageing in place" by integrating smart monitoring, environmental hazards detection, and emergency response capabilities into domestic settings. In Hong Kong, public education platforms such as the Gerontech and Innovation Expo cum Summit (GIES) have heightened public awareness regarding assistive devices (Gerontech and Innovation Expo cum Summit, 2026). However, effective technological adoption requires shifting from isolated product awareness toward a critical understanding of the broader international trends in ambient health monitoring and the socio-technical barriers that influence their everyday use.

Globally, smart home monitoring for older adults is evolving from active, wearable-based detection toward non-intrusive, passive ambient systems. Conventional fall detection traditionally relies on wearable pendants or wristbands containing accelerometers and emergency alerts (Suryadevara and Mukhopadhyay, 2020). However, these active systems often suffer from poor compliance, as older adults may forget to wear them, feel stigmatised, or find them uncomfortable during sleep. Recent advancements emphasise passive smart home infrastructure by using optical sensors, pressure-sensitive under-carpet mats, and radar-based motion sensors that continuously monitor activity patterns, gait changes, and fall events without requiring manual operation or physical contact. Passive systems can also integrate ambient lighting automatically when pressure is detected on a bed or floor, directly mitigating night-time environmental hazards. While advanced robotics capable of lateral transfers and physical support have also emerged, their real-world applicability in Hong Kong remains severely constrained by small living spaces and high maintenance overheads (Tanabe *et al.*, 2019).

Despite the potential of smart home monitoring, technology adoption is hindered by significant socioeconomic and behavioral barriers. Examined through a socioeconomic lens, digital exclusion among older adults is deeply tied to financial inequality. Advanced passive monitoring devices and continuous high-speed internet connections involve substantial upfront hardware costs and recurring subscription fees, placing them out of reach for lower-income households and fixed-income pensioners. Behaviourally, complex user interfaces, anxieties over digital error, and fears regarding continuous surveillance or privacy violations lead many older adults to resist adoption.

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To bridge these gaps, policy interventions must look beyond mere hardware subsidies. The government should fund community-based pilot programmes that provide eligible older adults with free trials of non-intrusive smart home systems. Crucially, to address the digital divide and privacy anxieties, public funding should support ongoing digital literacy workshops delivered through District Elderly Community Centres (DECCs). By pairing accessible technology with user empowerment and privacy education, gerontechnology can be transformed from an intimidating hardware provision into a sustainable, user-centered safeguard for "ageing in place".

Increased safety information in the community

Preventing falls is therefore crucial, not only to improve the quality of life for older adults but also to alleviate the economic and social pressures on the community. The government should organise adequate community educational events on injury prevention at home for older adults, their families and caregivers. It is suggested that more informative programmes about home risks associated with potential injuries be held. Fall prevention programmes are proven to have successfully reduced the number of injuries from falls in older persons (Bamzar, 2019). A study has concluded that fall-related injuries among the older adults could be reduced when fall prevention programmes are fully implemented in the community, as well as to improve their knowledge about falls and intervene fall prevention behaviours (Montero-Odasso *et al*., 2022).

DECCs and NECs can organise regular activities to promote home safety. In their daily routine, older adults should be encouraged to adopt simple precautions such as choosing non-slip slippers, applying shower mats, and avoiding reaching objects from height. They can also be a platform to learn more about older adults' concerns and problems. On the other hand, related information should also be promoted to the general public through road shows, online advertisements and seminars. As families and children are most likely to have the closest relationship with the older adults, enhancing their awareness allows them to pay more attention to safety issues in their domestic environment and take action to mitigate potential risks at home. Ultimately, with adequate home safety awareness, people would install suitable home accessibility features earlier and create a safe living environment.

Preventive care in primary care

The Health Bureau has published the "Hong Kong Reference Framework for Preventive Care for Older Adults" (Health Bureau, 2021). A module related to falls of older adults in the framework provides guidelines for screening, assessing, and managing fall risks. It is recommended that family doctors should be familiar with the framework and guidelines, and conduct opportunistic screening for older adults at medical encounters at least once every 12 months. For example, asking questions such as "Whether there is history of two or more falls within the last twelve months?" and "Whether the patient is presented with acute fall?" during clinic consultations helps identify individuals at a high risk of falls for further evaluation.

Public health practice and primary care play a pivotal role in assisting older adults to mitigate their fall risk. Primary care doctors are urged to advocate for healthy lifestyle practices as they contribute to healthy ageing and fall prevention. Consultations and advice mitigate the risk factors associated with falls. Encouragement of regular physical activity, healthy diet and lifestyle for older adults is essential. Tai Chi for muscle strengthening and endurance exercise and further balance improvement are suitable examples of exercise for older adults. A balanced diet rich in calcium and vitamin D is recommended to supplement the deficiency of vitamins that cannot be obtained from daily diet. In addition, family doctors should conduct regular medication reviews for older adults to avoid drugs that may induce sedation or hypotension, especially psychoactive medications. In Hong Kong, there were 199,600 individuals with visual impairment, representing 2.7 percent of the total population in

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2021 (Census and Statistics Department, 2021). The prevalence is notably higher among older adults, with 23,800 individuals aged 65 to 69 (11.9 percent) and 122,900 individuals aged 70 and above (61.6 percent) at greater risk of visual impairment. Education on appropriate footwear and home modifications should be part of the intervention strategy. High-risk individuals may benefit from referrals to specialists or fall clinic for multi-factorial assessment and intervention for comprehensive assessment and management.

Collaboration with non-governmental organisations

Falls among older adults are closely associated with osteoporosis due to bone fragility. When older adults with osteoporosis fall, the likelihood of sustaining serious injuries, such as wrist and hip fractures, significantly rises. For instance, The Chinese University of Hong Kong Jockey Club Centre for Osteoporosis Care and Control (JOCOC) provides rehabilitation services, including "Falls, Muscle Mass & Fractures Prevention Assessment for the Elderly" and "Fall Prevention Exercise Class for the Elderly" designed by physiotherapists and guided by physical fitness trainers (JOCOC, 2025). The programmes are intensive and customised to meet individual needs, focusing on enhancing muscle strength, flexibility, and body balance. JOCOC actively supports the International Osteoporosis Foundation and the Hong Kong Osteoporosis Foundation by co-organising medical symposiums, seminars, and courses to train healthcare professionals, including doctors and allied health workers. Public education is inculcated through community health talks, workshops, and World Osteoporosis Day. These activities are crucial for informing government policies on home safety and improving community services for older adults in Hong Kong. The JOCOC is also engaged in various research projects related to osteoporosis that contributed to 29 publications and conference papers in 2016 and 2017.

Some non-governmental organisations like Oxfam Hong Kong offered dance training programmes - "Standing Strong - Silver Age Fall Prevention Programme Through Dance" as part of the activities of their funded projects in the Centre for Community Cultural Development (CCCD) for improving bodily coordination and muscle strength among the older adults, further reinforce their fall-prevention ability and boost resilience (Oxfam Hong Kong, 2024). Public seminars were conducted to raise awareness for fall prevention. A patented fall-prevention dance programme was tailor-made for older adults, and a dance troupe was formed to enhance social well-being of older adults by participating in regular dance sessions.

Community resources and programmes focusing on fall prevention should be highlighted, emphasising the need for accessible services that address the specific needs of older adults. The Elderly Health Service of the Department of Health was established in 1998 to enhance primary health care for older adults living in the community (Elderly Health Service, 2026). Fall prevention tips are given, such as being aware of environmental hazards in the home, choosing appropriate clothing and shoes, using proper walking aids, perform self-care and household chores safely and within older adults' abilities. Apart from preventing falls, actions that should be taken after a fall are also essential, which may reduce the severity of injuries. Older adults lack the opportunity to assess the knowledge to protect themselves when falls occur. Some practical guidelines are given to older adults, such as staying calm, sliding to a wall or stable furniture and attempting to stand using it for support. Older adults should call for help using the Personal Emergency Link Service or open the door and shout for assistance when they cannot get up. As a result, advice can enhance overall health and reduce older adults' fall risk.

Conclusion

Home safety issues are easily neglected, but the inevitable declination of physique functionality in older adults makes them vulnerable to injuries at home. By synthesising

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sociodemographic determinants, such as age, educational background, income, and physical frailty, with spatial and policy structures, this study highlights that fall risks are multi-dimensional, emphasising the critical need for tailored community services based on these specific demographics.

By integrating environmental constraints, socio-economic inequities, and public policy structures into a unified framework, this paper advances current academic understandings of "ageing in place". Existing literature frequently assumes that enabling older adults to remain in their residential homes is inherently beneficial. However, our findings demonstrate that without proactive environmental adaptation and accessible community support, "ageing in place" can become a form of confinement. Older adults may find themselves living in high risk and inadequately adapted environments that compromise their safety and well-being. Reframing home safety through a proactive policy perspective and a participatory social work framework challenges conventional clinical approaches to fall prevention. It highlights that safe "ageing in place" depends not only on reducing risks but also on empowering older adults to actively participate in shaping their living environments.

Consequently, the government cannot overlook the importance of strengthening public awareness of home safety and expanding access to support services. Comprehensive information must be delivered across communities so that older adults, families, and caregivers gain the knowledge required for early precaution and hazard mitigation. Furthermore, actively conducting in-home safety assessments is essential; direct observations within domestic spaces facilitate open, participatory discussions with older adults to accurately identify their self-articulated needs. By shifting from a top-down administrative approach toward a proactive, user-centered service model, older adults in Hong Kong can be truly empowered to live safely, independently, and comfortably within their homes and communities.

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