

# **Aging in place: From theory to practice**

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## **Abstract**

The rapid aging of many Western societies has compelled policymakers and professionals to develop concepts, programs, and services to meet the complex and diverse needs of their elderly populations, in particular the segment of older persons who are frail, chronically ill, and functionally disabled. Aging-in-place has become a key and guiding strategy in addressing and meeting the needs of older people. This paper discusses the multifaceted aspects of aging-in-place and presents an ecological approach to understanding the interaction between the individual and her or his environment and its impact on aging-in-place. Community care and its components are discussed, examples of programs that reflect aging-in-place and community care are presented, and problems of fragmentation between services are highlighted. The paper concludes with challenges that societies have to confront in order to enable their aging populations to age-in-place.

**KEYWORDS:** older people, person-environment fit, community care, programs

## **Introduction**

The elderly population worldwide is rapidly increasing due to the aging of the population and a constant increase in life expectancy. Projections for the next 40 years foresee an increase in the older population greater than in any younger age-groups. Thus, the number of people aged 60 years and over as a proportion of the global population is expected to more than double from 880 million in 2012 to 2 billion by 2050 (United Nations 2012). The greatest increase is projected in the layer aged 80 and over. The number of centenarians is growing even faster and is projected to increase tenfold, from approximately 343,000 in 2012 to 3.2 million by 2050 (United Nations 2012).

Concurrently, ageing is connected with increased chronic morbidity and functional disabilities. There is evidence that physical disabilities are delayed to older ages than in the past (Freedman et al. 2002) and that the majority of older people aged 65 and over are healthier and more functionally independent compared to older cohorts of older people, suggesting that in the future older adults will be able to live independently in the community later in life.

The majority of older people want to age-in-place, to remain as autonomous, active, and independent as long as possible and live at home surrounded by family and friends (AARP 2011; Rantz et al. 2005). Autonomy consists of decisional control and

choice in shaping one's life; institutional care is perceived to be a last resort. The move to senior residential housing and later to a long-term care facility is often the result of inadequacies of the home to meet the changing needs of older people due to decline in health and self-care abilities, loneliness, solitude, accessibility barriers within the home and in the surroundings, an unavailability of necessary services, a poor quality of care, and the danger or fear of crime and violence in unsafe neighbourhoods.

The purpose of this paper is twofold: first to define the concept of aging-in-place and its theoretical base; second, to review the conditions that are necessary to enable aging-in-place. Specifically, the paper will address the concept of "community care", which relates to formal and informal support systems, including family, friends, and neighbours. It will discuss some programs that are aimed to enable aging-in-place such as age-friendly communities and innovative models of long-term care facilities that are aimed to meet the comprehensive and diverse needs of older adults. We will conclude with the challenges that aging societies need to face.

## **What is "aging in place"?**

The term *place* has several dimensions that are interrelated: a physical dimension that can be seen and touched like home or neighbourhood, a social dimension involving relationships with people and the ways in which individuals remain connected to others, an emotional and psychological dimension, which has to do with a sense of belonging and attachment, and a cultural dimension, which has to do with older people's values, beliefs, ethnicity, and symbolic meanings. Thus, the home-space is not just a physical setting of residence but it enables the older person to preserve life history meanings through which a social identity can be preserved even when the older person becomes chronically ill or disabled. From this perspective, the home reflects an extension of the self, individualization, enabling preservation of integrity of the self and promoting a sense of personhood (Gitlin 2003). The term aging-in-place is relatively new in gerontology and has many meanings (Pastalan 1990); it has been defined as: '... remaining living at home in the community, with some level of independence' (Davey et al. 2004: 133).

The literature on aging-in-place is often about how the home can be made more functional and less risky for the older adult by providing various home aids to help with various aspects of daily life. The idea is that as older people become increasingly frail or chronically ill, they can safely stay in their homes as long as they have appropriate supports and services. The simple meaning of it is often used to denote the policy ideal of being able to remain at home while ageing (Cutchin 2003) and maintaining independence, privacy, safety, competence, and control over one's environment (Dyck et al. 2005). This suggests that the homes of older persons are increasingly becoming spaces of consumption of short- and long-term care provided by formal and informal professionals and lay caregivers, thus blurring the boundaries between private and social space, because the provision of care requires some intrusion into privacy (Dyck et al. 2005). Thus, paradoxically, when the home becomes the core site of everyday life for those who are functionally dependent, it also becomes its most "public space".

However, the term place relates not only to the home of the older person but also to his or her community through family members, friends, neighbours, religious congregations, or service agencies. A longitudinal study (Gilleard et al. 2007) found that as people aged their residential mobility decreased and they felt more attachment and belonging to their community. Indeed, many sociologists and environmental gerontologists have argued that advanced age brings increased attachment to place and to the social and physical environment (Lawton 1985). This highlights the importance of neighbourhoods as people age, particularly in terms of accessibility to local services and amenities. A study (Wiles et al. 2011) that examined how older people perceive aging-in-place, found that older people perceived this concept as having choices about their living arrangements, good access to services and amenities, maintaining social connections and interaction among locals, feeling safe and having a sense of security at home and in the community, and a sense of independence and autonomy.

A more complex view of this concept relates to the dynamics and changes that older persons undergo in their interactions with their environments that hinder their integration in their environment. Changes might be long-term, such as functional decline, or day-to-day, such as variations in health conditions or mood. These problematic situations can result in activities that are aimed at attaining the re-integration between person and place (Cutchin 2003).

## **What are the goals of aging-in-place?**

The goals of aging-in-place are twofold; first, from the perspective of the older persons and their families, most older people prefer to stay in their homes as long as possible because it provides them with control over their lives, it enables them to keep their identity and well-being (Cutchin 2004). Relocation entails losing social relationships, changes in daily routines and lifestyles, leaving behind personal possessions, which they cannot take with them due to small spaces in the residential units, and loss of independence. For example, Clarity (2007) found that 26% of people who feared nursing homes reported they mostly feared losing their independence. All these in turn can result in emotional stress, depression, loneliness, adjustment difficulties, functional deterioration, and debilitate well-being (Chappin & Dobbs-Kepper 2001). It is also economically burdensome for older people, in particular when they have low incomes.

Second, from the perspective of policy makers, institutional care is much more expensive than the provision of care in the community and at the older individual's home (Chappell et al. 2004; Kaye et al. 2009). The high public expenditures on nursing-home care urged policy makers as well as professionals to provide alternatives to serve frail older adults in their communities. Unsurprisingly, many aging societies have endorsed policies that highly prioritize aging-in-place, and home- and community-based services have started to proliferate, providing new options to those who need assistance in the continuation of a somewhat independent life in their places and who do not want to move into a long-term care facility. Thus, policy-makers and the public alike have become attuned to the desire of older people to age-in-place.

Research provides evidence of the benefits of aging in place, and there is also evidence that environmental changes can generate positive outcomes (Lawton 1998) when it improves the person-environment fit by improving living conditions and personal control, thus decreasing environmental pressure (Kahana & Kahana 1983). However, environmental change can be also negative when environments age and decline, undergoing socioeconomic and demographic changes. These changes can turn these neighbourhoods into deprived and unsafe environments or bring about exclusion, detachment, and a sense of being out of place of older people (Phillipson 2007) due to processes such as gentrification and the revitalization of neighbourhoods (Burns et al. 2012; Smith 2009). This definition of aging-in-place, which is based on Lawton's ecological theory of aging (e.g., Lawton 1982; Nahemow 2000) puts more emphasis on the social nature of thought and action of this notion, as is discussed below.

## **Theoretical approach**

Environmental gerontologists assert that as people age they increasingly become attached to the place where they live, but concurrently become more sensitive and vulnerable to their social and physical environment (Lawton 1977; Lawton & Nahemow 1973). Rowles (1978, 1983) developed a theory of *insideness* to conceptualize attachment to place, related to three dimensions: physical insideness, which means living somewhere for long periods of time and developing a sense of environmental control by creating an idiosyncratic rhythm and routine; social insideness, which relates to the social relationships that the person develops with others and is therefore known and knowing others; autobiographical insideness relates to older people's attachment to place because of the memories they have that shape their self-identity. Therefore, older people with strong ties to place also feel more mastery, more secure, and have a positive sense of self.

In parallel to Rowles' work, the ecological theory of aging was developed by Lawton and his colleagues. According to the environmental docility hypothesis (Lawton & Simon 1968), the environment's influence increases as the functional status of the older person decreases. The competence-environmental press model introduced by Lawton and Nahemow (1973) asserts that an interaction between personal competences and social and physical environmental conditions determine the extent to which a person will be able to age-in-place. According to this model, there is a need for a fit between the personal competences and environmental press that can result in positive outcomes, while a mismatch can result in poor adaptation (Lawton 1989). In fact, adaptation in older age reflects the interaction between personal and environmental characteristics. In order to age-in-place, it is necessary that the immediate as well as the near environment will be free of barriers that can hinder independent functioning.

However, Lawton's theoretical model has been criticized because of several limitations. First, it does not offer a precise theoretical strategy to measure person-environment linkages. Second, the model asserts that the environment controls the behaviour of the individual, but it does not relate to individual attributes, such as personality and personal and social resources, and how older people manipulate the environment to reduce its demands on one hand, and how people use the environment as

a resource to meet their needs on the other, and how the home-environment can promote or hinder quality of life at home (Gitlin 2003; Golant 2003). Third, this model is a rather static model and has not given appropriate attention to the changes taking place in the neighbourhoods where older people live and age.

Cutchin (2004) elaborated the concept of “place” and relates to “place integration”, which includes a geographical place that undergoes constant change due to socio-cultural processes and the experiences and actions of people in these time-specific contexts. These changes can lead to a disintegration of the person-place relationship from which problems and possibilities emerge, and stimulate creative thoughts and actions to restore the integration (Cutchin 2003, 2004). Thus, the place integration process can be viewed as a spiral of transactions into new situations, which are different from a circle of repeated and predicted situations. From this perspective, place integration relates to the dynamics and process of aging-in-place. For example, Burns et al. (2012) found that in neighbourhoods that underwent changes even when older residents remained in place, some of them experienced alienation, insecurity, and social exclusion, while others felt a strong sense of social insiderness to the neighbourhood. This suggests that various groups of older people may react differently to environmental changes, thus affecting their process of aging-in-place.

A review article (Wahl et al. 2009) provides empirical evidence of the ecological model by indicating links between the home environmental features, the surrounding environment, and the personal functional outcomes. However, to enable aging-in-place, it is necessary that environmental barriers be removed. These include indoor physical modifications and accommodations to enhance the accessibility and usability of the home environment, increase safety, reduce difficulties in activity performance (Petersson et al. 2008), as well as the provision of formal and informal social support and care services, to enhance older people’s independence (Johansson et al. 2009). One strategy is physical modifications, such as the installation of ramps in staircases, safety bars in bathrooms, and making premises and amenities more accessible and useable. However, failure to adapt to the changing situations may lead to relocation to long-term care facilities.

## **Community care**

The term “community care” relates to the help provided to older people in their own homes or within their communities rather than in hospitals or in long-term care institutions. This help is provided mainly by their families and supplemented and complemented by local formal services.

The gerontological literature has extensively addressed the strategic role played by family caregivers in order to enable their older family members to age-in-place. Furthermore, the roles of family caregivers have dramatically expanded in recent years and include complex medical and nursing tasks that were once provided only in hospitals. A survey conducted in the United States (Reinhard et al. 2012), for example, showed that almost half of family caregivers managed multiple medications, provided help with assistive devices, provided wound care, and operated special medical equipment at the homes of the care recipients.

However, significant changes in family structure and family roles have raised the question of the extent to which the current family by itself is able to meet the complex and varied needs of its older family members. Many of these families are preoccupied with juggling competing roles at work and family, while increasing life expectancies impose on families a longer duration of caregiving to their older family members. Thus, family caregiving entails a caregiver burden that can debilitate their well-being and quality of life and can result, in some cases, in elder abuse and neglect.

To meet the growing needs of older people to age-in-place and to support family caregivers, formal home- and community-based supportive services and assistive technologies have been developed. The primary goal of these services and technologies is to match the level of support provided by the housing environment to the level of capabilities of the individual, although they have historically been underfunded, leaving many without adequate help (Doty 2010).

Several theoretical approaches have addressed the interaction between formal and informal caregiving (Denton 1997). The first is the substitution hypothesis that implies there is a hierarchy of support providers who may be replaced by others when needed (Cantor & Brennan 2000). This suggests that when informal care is unavailable or inadequate, formal care is used to substitute for informal care (Penning & Keating 2000). However, evidence for a substitution effect is scarce (Litwin & Attias-Donfut 2009; Noelker & Bass 1989). The second approach is the supplementary or complementary, according to which family caregivers are in charge of providing care to their elderly family members and the formal care is intended to complement or supplement the care provided by the informal care system (Noelker & Bass 1989).

Several studies lend empirical support to the complementary/supplementary approach. For example, Noelker and Bass (1989) found that in the United States, elderly persons with higher levels of physical impairment and morbidity used more formal service care. Several studies have examined the interaction between the formal and informal care systems in providing care to frail elderly people and found consistent findings supporting the complimentary model (e.g. Brodsky et al. 2004; Litwin & Attias-Donfut 2009) In other words, research findings suggest that frail elderly persons receive instrumental help with personal care and housekeeping from both formal and informal systems, and that family caregivers play a key role in providing care to their elderly members even if there is a paid homemaker.

These approaches are criticized for being non-comprehensive, because they assume that the two systems of care are not only different, but that informal care is preferable to formal care, and that the latter is supposed to supplement the former (Ward-Griffin & Marshall 2003). Furthermore, Ungerson (1990) argues that the conceptual splitting of formal and informal care is a false dichotomy in assuming that the nature of the relationships that prevails in each of these spheres is totally different, and that it is necessary to analyse formal and informal care together. Ward-Griffin and Marshall (2003) argue that there is a dialectic relationship between informal and formal care systems, and provide empirical evidence that both the substitution and supplemental models are interwoven and occur simultaneously.

## **Programs aimed to facilitate aging in place**

In a functional sense, aging-in-place and community care include policies and programs that help maintain fit between the persons and their residential setting (Pynoos 1990). In other words, in order to enable aging in a community, it is necessary to establish what is called “liveable communities” – a concept that connects the physical design, social structure, and social needs of all generations that share a common location. Liveable communities offer affordable and appropriate housing and supportive services, as well as transportation that enable independent living and social engagement (AARP 2005). In recent decades increasing numbers of communities are becoming “naturally occurring retirement communities” as a result of older people continuing to age in the homes in which they resided as young families and as a result of the “out-migration” of younger adults (Black 2008). The Global Age-Friendly Cities Project launched by the World Health Organization (WHO) is one example of such a community planning process that will be discussed later.

Based on Lawton and Nahemow’s ecological perspective (1973) that articulated the dynamic interplay between the individual and the environment to maintain optimal functioning in older age, home- and community-based services for vulnerable older adults have rapidly expanded in recent decades and have grown dramatically in scope and variety. These include home-based services such as homecare services, home health care, home-hospice that is provided in end-of-life care to terminally ill patients, adult-day-care centres, respite services, senior citizen clubs, nutrition programs, as well as supportive services for family caregivers.

Recent technological developments and proliferations such as information communication technologies (ICT) including telemedicine, tele-homecare and other high-tech devices are intended to provide better solutions for safety at home and promote independence. Technology has become an increasingly significant component in enabling aging-in-place. Many of these technologies are aimed to support the working-family caregivers of cognitively impaired and physically disabled older adults (Mahoney 2011).

## **Age-friendly communities**

The Global Age-Friendly Cities Project, which was launched by the World Health Organization (WHO), is aimed at promoting the physical and psychosocial wellbeing of their older inhabitants and thus improve the quality of life of the entire community. This model incorporates all aspects of the natural, built, and social urban environment and includes assessment of needs related to accessible and affordable services, social participation and inclusion, accessible public transportation, provision of information, community support, recreational and social programs, civic participation, and security at home and at outdoor spaces (Gonzales & Morrow-Howell 2009; Plouffe & Kalache 2010). In age-friendly communities, older people are not only consumers of services but are rather a social capital that contributes to the well-being of the whole community.

## **Aging in place in long-term-care facilities**

The idealized vision of aging-in-place presumes that in all ways staying at home in old age is the best and ultimate option. However, recognizing that for some older people

aging in their homes is not a feasible option, Golant (2011) presents a much broader view on the meaning of aging-in-place to also include retirement communities, or assisted living where older people can feel competent and have mastery of their environment, despite their functional disabilities. Thus, the concept of aging-in-place also includes transitions between levels of care within multilevel institutional settings, such as relocation from assisted living to nursing care. These transitions were found (Shippee 2009) to be disruptive of the sense of home and sense of autonomy, caused social disengagement and disempowerment, hindered self-worth, and generated negative attitudes towards these transitions.

Providing support to older people to enable them to age-in-place has also become a core philosophy in long-term care facilities. More attention is given to creating homelike environments and preventing transitions between levels of care. This suggests that instead of moving the resident between different levels of care within facilities or between facilities, the facilities are adjusted and are flexible to meet the changing needs and preferences of the residents and provide the necessary services in their residential units. An example of such a homelike environment is the *Green House model*, which provides an intimate community-oriented alternative to conventional large-scale nursing homes for disabled older adults (Kennedy 2010).

## **Fragmentation and coordination between services**

Concepts such as holistic care, continuum of care, and prevention of functional deterioration are keystones in long-term care for older adults that may have ramifications on quality of care, quality of life of the care recipients, and on public expenditures. A study conducted in the EU (Mur & Van Raak 2003) found that a fragmented system of services was unable to meet the holistic needs of aging societies, because integration between services is complex, including problems in inter-disciplinary teamwork, financing, and legal aspects. However, fragmentation and the need for integration between health and social services is on the agenda of many aging countries (Kodner 2002, 2006; Leichsenring 2004).

A study that compared seven programs aimed at integrating services in Europe and North America (Johri et al. 2003) found that in spite of the differences between the programs all of them had some common characteristics: single entry point, case management, comprehensive geriatric assessment, and interdisciplinary teamwork. However, it is essential to emphasise that integration between services is not a goal but rather a means to achieve policy goals. Therefore, there is no one ultimate model for service integration but rather a diversity of models depending on the goals to be achieved.

## **Challenges and implications for policy**

The constant increase in the number of older people who are chronically ill and/or functionally dependent increase public concern over the cost and future of long-term care. The new generations of older people (the 'baby boomers') are more educated, more politically active, healthier and wealthier, and (most of all) more demanding, and aging-in-place is the preference of most of them (Kennedy 2010). This requires policy makers as well as service providers to devote more attention to several key issues: community

planning, use of land, housing programs, transportation, health and social services as well as long-term care services, social activities, and social integration of older persons in order to make these environments more friendly to older people and enable them to age in their homes and communities. To meet these socio-demographic shifts, the following several key issues should be challenged.

### **Social inclusion**

To age-in-place older people need more opportunities for social involvement, participation, and attachment to their communities. The age-friendly community model can be one means to promote this idea and to change the image of the older population from a burden to a social asset.

### **Urban planning**

There is a “mismatch” between the design of communities and the needs of older people. Both the physical and the social environments are designed for a mobile and functionally independent people. Most housing, transportation, services for health and home care, and public spaces are organized to accommodate people who are healthy. The need to have residential and commercial spaces within walking distance is rarely considered in most urban planning (Bookman 2008). Therefore, urban planners have to take these into consideration and initiate new innovative and creative architectures of housing and city building to enable the integration of older individuals in its mainstream of life.

*Accessibility and affordability of services:* Many older people and their families are unaware of or have no information on available services in their communities or access to them (Bookman & Harrington 2007). This is a substantial barrier to accessing services and may hinder aging-in-place (Tang & Pickard 2008). There are also affordability issues for those who are middle class who are not entitled to receive subsidized housing and care services. Nevertheless, with regard to formal services, attention should be given to welfare state regimes and cultural differences that are profoundly influenced by the role of families in providing support to their older family members.

### **Integration of services**

There is a need to overcome the fragmentation in elder care services. This suggests a comprehensive, coordinated approach to home-based and community services on a one-stop-shopping basis that includes a comprehensive assessment and delivery of services that are tailored to the needs of older individuals. An integrated care system is necessary to enable most older adults to remain in their own homes, even with severe disabilities. This can reduce high expenditures on expensive health care services. Coordination between the multiple care providers is necessary to help older persons and their families better navigate the long-term care system (Castle et al. 2009), increase efficiency and effectiveness of services and improve the quality of life of its consumers. More coordination and collaboration between services and organizations can prevent barriers of accessibility, duplication, and people “falling between the cracks”.

## Training

Service providers should receive training to enhance their interactions with their older care recipients and enrich their knowledge and skills and to qualify them to recognize the comprehensive bio-psycho-social needs of older adults within the context of their living environment and to be able to provide individualized care packages (Black 2008). Special attention should be given to front-line hands-on care workers, such as home care workers, who compose the backbone of formal community care.

## Gerotechnology

Many gerotechnologies and assistive devices are already available, and many new ones are introduced to the market each year. These gerotechnologies can serve as compensatory mechanisms in the person-environment interaction and, therefore, are aimed at enabling older adults to age-in-place and alleviate caregiving burden (Mahmood et al. 2008). However, the use of such technologies also has some pitfalls: it may intrude on privacy and increase loneliness by decreasing face-to-face interaction. It may provide a mechanistic aid that cannot meet the emotional and social needs of the elderly person and may even hinder their quality of life.

In summary, in the coming decades, the greying of the population will be witnessed in many aging societies. Aging-in-place is a common strategy employed to meet the complex, varied, and growing needs of older people. Societies need to face the old-new challenges to take forward the concept of aging-in-place by adapting existing and developing new innovative and creative models of caring for older persons and their families.

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