Aging in Place

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The idea of aging in place is attractive to many people as they age, however, the continuity of living independently and safely in their own homes might be challenging as people's physical, social, and intellectual abilities vary as they grow older. Aging in place (AIP) implies an ability to live in one's own home, preferably to the end of life, to avoid institutionalization (p.69).[7]A key step in planning for independence is assessing the suitability of the home to determine if it can meet the changing needs as one age.[4]

This precedent research will introduce a few AIP home modifications, house designs, and technologies that will benefit older adults with different needs. The recommended housing options for AIP are Lifetime Homes, Visitable Homes, Flexhouse, and Universal Design Homes. Besides, this precedent research will use these four primary dimensions: accessibility, adaptability, universal design, and visitability from Age Safe America[5] as a guideline to propose models and designs for house modifications that could ease and longer the ability of older adults to live in their own homes.

Home Modifications

To ensure the older adults can live in the same home while aging, the Centre of Inclusive Design and Environmental Access (IDeA Centre) introduces many home modifications that were applied to encourage aging in place.[8] These home modifications include: ramps for entrances, toilets and grab bars, widened doorways, roll-in showers, etc.

Figure 3: Modified roll-in shower with an installed grab bar

Figure1: Widened Doorway

Figure 2: Installed ramp


Photo Credit: Bridgewater neighborhoods.com

Figure 4: Visitbale house Bridgewater with a no step entrance


Photo Credit: Bridgewater neighborhoods.com

Figure 5: Visitable house Bridgewater with wide entrance

Visitable Homes

A model that embraces aging in place is visitable homes. Visitable homes are modified to include a few design details to ease access to the main floor of houses without any interference or obstacles. This design ensures that everyone is welcomed to visit; therefore, it enhances the social life for older adults that wish to age in place. The important features of visitable homes are wide doors and hallways, no step entrances, wheelchair accessible main floor washrooms.[2] Bridgewater Development in Winnipeg is one of the first to offer visitable homes in Canada, with the vision to create houses that are accessible to everyone.[1]

Lifetime Homes

In the early 90s, the concept of Lifetime Homes was developed by a group of housing experts.[9] The rationale of Lifetime Homes is to ensure that homes are accessible and inclusive. In addition, Lifetime Homes incorporates 16 design criteria that can be universally applied to homes at an economical cost, such as accessible and illumined entrances, wheelchair turning zones, entry level bed spaces, accessible and adaptable bathrooms, wide doorways and hallways, and identified spaces for a future through the floor lift.[6] Lifetime homes are designed as adaptable and flexible for everyone, to create comfort and convenience at all stages of life, whether you're a parent using a stroller, a wheelchair user or dealing with reduced mobility in later life.


Photo Credit: HCLDR

Figure 6: Accessible and inclusive kitchen

Universal Design Homes

Universal Design homes are designed environments to be usable by all people, regardless of age and ability. In 2005, the Centre for Inclusive Design and Environmental Access introduced a single-story home model at the horizon home show in New York.[3] The model proves universal design practices that can be incorporated into contemporary housing. This home model features a flat driveway, a no-step entrance, wide doorways, accessible kitchen with varied counter heights, and fully accessible bathrooms. It is also modified with lowered light switches, raised outlets, and video surveillance security system.[3] All these characteristics make it an inclusive home.

Figure 7: Flexhouse wide doorway to screen porch

Figure 8: Flexhouse spacious bedroom with an accessible bathroom

Flexhouse

The objective behind the Flexhouse is to build a modifiable home to prepare for aging in place, plus an adaptable home for all ages and physical abilities. Patsy Welch was inspired to build a house that combined the best of several design movements, universal design, sustainability, and the small house movement.[11] The advantages of Flexhouse are durable, energy efficient and require low maintenance, this accommodates older adults with fixed income and enables them to maintain their homes with lower costs.[11]

The Flexhouse design implements many elements of universal design. Nevertheless, the flexhouse take into consideration preparing for possibilities and having more open design plans for spaces to be remodeled or modified based on future changes in uses or number of inhabitants. The design also introduces different ways to save energy and promote sustainability, such as installing large pane windows that permit sunlight to enter the house, and even installing BioPCM that stores heat from the sun then releases it at night.[11]

Technology for Aging in Place

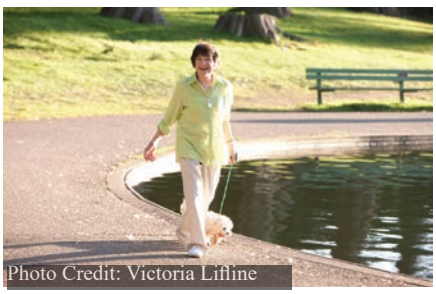

Figure 9: Older lady enjoying a walk while wearing a GoSafe Pendant

Two models of AIP technologies to ensure the safety of older adults are TruSense and the GoSafe Pendant. TruSense is a system of sensors that passively monitors the path of a person throughout the home; a remote family member can supervise that, TruSense uses a comprehensive sensor system that tracks activity, contact and even water sensors to detect flooding, it also offers day-at-a-glance summaries.[10] GoSafe Pendant is an alert system provided by Victoria Lifeline Manitoba to older adults. It is designed to send help once you press the button on it, sense or detect a significant fall, and two-way communication with the Lifeline Response Centre right through the button.[12]

Final Thoughts

All the precedent models and designs are introduced to assist older adults willing to live independently and safely. In short, not only the home modification, while planning for AIP, one also need to pay attention to the supports and services required, getting around to places, and the social connections with the community members one is living in.

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