

Are Adaptable Homes the Innovation Needed in Your Community?

Adaptable Home Certification

By Leacey E. Brown and Gene Fennell



As a result of health advancements and changing fertility patterns, communities across the globe are increasingly inhabited by older adults (U.S. Census, 2021). By 2030, one in five Americans will be age 65 or older (U.S. Census, 2021). This is a remarkable first in human history. In the past, most community residents were younger (Hobbs & Stoops, 2002). As a result, communities were built for the needs of younger people (child care, employment, business opportunities, etc.). Now is the time to re-imagine how communities might be built with the needs of aging and older adults in mind.

A reality that all adults must face is that decline and disability are part of human life. For example, 40% of people age 65 and older reported trouble with mobility (Administration on Aging, 2021). Even if you live your whole life healthy, without accident or significant disability, you will likely develop major, life-altering limitations prior to death (Centers for Disease Control and Prevention, 2022). Adults also have risk factors associated with developing chronic disease and disability in older age. For example, recent research suggests increasing trends in obesity rates among adults (Liu et al., 2021). Obesity is associated with chronic disease and disability. One example is peripheral vascular disease which may

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lead to loss of limbs (Parvizi, 2010). Therefore, community leaders who are not planning for mobility limitations among community members are making a significant oversight that may impact the economic security of their community.

Aging in place is a highly reported preference (AARP, 2018). By 2030, all baby boomers will be age 65 or older (U.S. Census, 2021). The unfortunate news is that many baby boomers will not be able to successfully age in place. The National Advisory Committee on Rural Health and Human Services (2018) found that, “rural older adults living in the United States face unique and persistent challenges—such as transportation, fragmented delivery and financing of care, and social isolation—which affect their ability to receive necessary supportive services and caregiving.” In addition, social economic status plays an important role in an older adult’s ability to age in place. The median income for older persons in 2019 was \$27,398 (Administration on Aging, 2021). Older adults with more financial resources are more able to renovate their home to account for mobility limitations they may develop, while those with less resources are often stuck with the design of their current home.

While these barriers to aging in place are significant, particularly for rural audiences, home design may become a critical issue. Rural communities face unique challenges constructing new housing (National Low Income Housing Coalition, 2021a). How will rural communities find the resources to modify existing units? Research indicates most of the existing homes are not appropriate for occupants with mobility limitations (Joint Center for Housing Studies of Harvard, 2016;

2019). For example, many homes have narrow hallways and doors, as well as small bathrooms that are inappropriate for anyone with mobility limitations. These glaring deficiencies remain undetected. With good reason, affordable housing is an alarming issue across the country (National Low Income Housing Coalition, 2021b). Unfortunately, many advocates seem to overlook that older adults and people with disabilities are sometimes in the greatest need for affordable housing and these individuals are also likely to have mobility limitations. People without disabilities have higher median earnings than people with disabilities (Rehabilitation Research and Training Center on Disability Statistics and Demographics, 2020).

Beyond the preference of older adults to remain in their homes, there is also the issue of who pays for long-term services and supports (LTSS; i.e., help older adults and people with disabilities need with routine task such meal preparation or running errands; may also include medical services). Medicaid accounted for 42.9% of total spending (\$426.1 Billion) on LTSS in 2019 (Colello, 2021). Two-thirds (69.5%) of LTSS spending comes from public sources, including Medicaid, Medicare, and other public payers (Colello, 2021). Efforts are being made to offer those services in home and community-based settings, such as a home or adult day center. Home and Community-Based Waivers allow state Medicaid programs to meet the needs of people who prefer to receive LTSS in the home, rather than institutional settings (Center for Medicaid and CHIP Services, n.d.). The transition to home and community settings is critical given the cost of LTSS options. Genworth (2022) estimates the national average cost of a private room in a nursing facility is \$9,034 per month in 2021. In contrast, in home

services (Homemaker and Home Health) entail hourly costs that can be customized to the need of the beneficiary (Genworth, 2021). For example, the 2021 national median average of 40 hours of in-home care is \$4,500 (Homemaker) to \$4,680 (Home Care). These services may be difficult to provide in existing homes.

Elements of homes that interfere with aging in place and long-term services and support are narrow halls and doors, entrance steps, small bathrooms, and the lack of an entry level bedroom (Joint Center for Housing Studies of Harvard, 2016; 2019). Not only do these features interfere with aging in place and provision of long-term services and support, these features hinder emergency medical services who may be called to assist adults in need. It is also important to understand some professional care providers may not work with clients who have a bathroom they deem insufficiently sized to provide personal cares (bathing, toileting, etc.) because of staff injury risk.

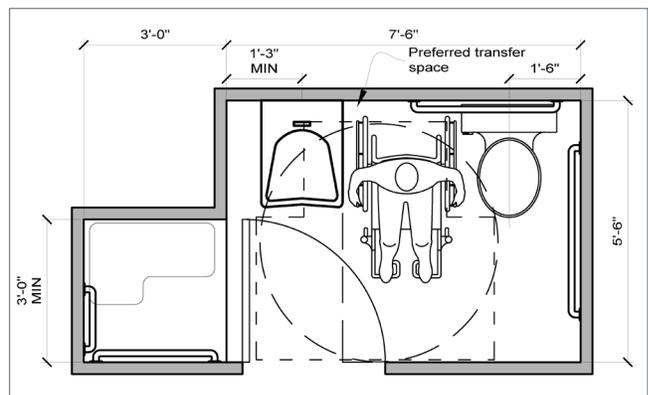
What is needed is a simple way to communicate the essential elements that need to be included in a home to make it appropriate for someone with mobility limitations. The Adaptable Home Certification was developed by South Dakota State University Extension and Fennell Design Inc. (<https://extension.sdstate.edu/adaptable-home-certification-overview>) to meet this need. This certification focuses on four physical features to include in the construction or renovation of a home.

These features include wide halls and doors, a no-step or adaptable entrance, a bathroom that has transfer and approach space for wheelchair users, and a bedroom on the same level as the no-step entrance (Brown & Fennell, 2021). The certification materials include a rack card and five web pages that provide expanded details about each of the four elements and how they might be implemented. These materials are designed to be a communication tool between consumers and building professionals. For

example, a consumer could use the materials to communicate with a designer/drafter about including the four elements in plans for their home or an entrepreneur could use the materials to communicate with their customers about how to age in place.

Objections to adaptable homes are profound. Cost is top of the list. For example, adaptable homes call for additional blocking/backer lumber in key areas of the bathroom (commode, shower, etc.) to allow for the installation of grab bars at a later time. A second objection is related to whom community leaders hope to attract to a community. Many are focused on developing areas of the community that attract and retain employers and employees. Some leaders may be opposed to becoming a 'retirement' destination. A third objection revolves around concerns about appearance. No one wants residential settings to look like institutions. Adaptability is mostly about increasing space in key areas (e.g., bathroom). Adaptability does not call for the installation of lowered counters or any other accessibility modification.

A common misconception is that a home needs to be one-level to support aging in place which may lead to objections because of the large space required for one-level units. However, that is a misperception. Adaptable homes can be multi-story. The key is having essential



Adaptable bathroom with accessible shower - preferred

elements (bedroom and bathroom) accessible through the no-step or adaptable entrance. The final objection is related to the emphasis on affordable housing. Affordable home advocates insist the affordable housing need outweighs the adaptable housing need. Therefore, the cost of adaptable homes cannot be justified. Adaptable homes are about upstream prevention. Most adults who need to renovate their home because of mobility limitations simply cannot afford the expense. For example, 46% of older persons with income received less than \$25,000 in 2019 (Administration on Aging, 2021). How can a home be affordable if occupants are expected to implement costly and significant renovations to live there after developing mobility limitations?

Overcoming objections to adaptable homes will take a multi-pronged approach. First, a public awareness campaign could be used to reach owner-builders and others involved in the real-estate construction industry. Second, building professionals and real-estate professionals could be incentivized to attend educational opportunities to learn about adaptable homes and how they might advocate for adaptability with their clients. Third, coalitions can be established to connect stakeholders interested in housing for older adults and people with disabilities. Finally, government organizations might identify strategies to encourage the development of adaptable homes in their communities. For example, a city council might explore how Tax Increment Financing (public financing method that allows companies to use their taxes to help finance the project) might be used as a tool to encourage developers to construct adaptable units.

The limitations of adaptable home certification must be highlighted. Adaptable homes account for the unusual trajectory of decline and disability that occurs in life and prior to death. People who acquire disabilities that require specialized lifts or other equipment may need additional elements in their home (e.g., structural supports in the ceiling). The second limitation is that

adaptable homes require home modifications for occupations with disabilities. Examples of these home modifications include installation of grab bars or renovating the bathroom to replace the tub and vanity with accessible options. The goal of adaptability is to make those renovations more affordable by eliminating the need for structural renovations. Despite these limitations, adaptable homes may be the innovation needed to keep rural communities strong.

No longer can we rely on 20th century solutions to home design. We must implement innovations that account for mobility limitations that occur during the human lifespan. Sometimes mobility limitations are the result of an accident, chronic disease, aging or end-of-life. Mobility limitations may be permanent, temporary, or life-ending. In all cases, environmental interventions are the key to reducing the magnitude of mobility limitations on the individual, their family, and their community, as well as facilitating in-home care by paid professionals or help by emergency medical service providers. The adaptable home certification series is a tool to help simplify the discussion about critical changes that need to occur in home construction. Please visit the South Dakota State University Extension website at <https://extension.sdstate.edu/adaptable-home-certification-overview> to access the full series. Small quantities of the rack cards are available at no cost. *

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