



Mobility

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Mobility is a primary factor enabling aging in place.

Mobility is the ease with which a person is able to move around a city. It is dependent on both the physical environment and the means of transportation available. Mobility is a key determinant in whether a community is age-friendly because it represents a person's freedom (or lack thereof) to access the services and resources available in their community.

Aging in Place

An older person's level of mobility is a primary factor in determining whether they can age in place within their community. As demographics change, many communities are home to an older population with different mobility needs than what was originally designed for. Communities with a grid-based, mixed-use environment are generally more suited to accommodate their residents aging in place than car-dependent suburbs are. This is particularly true of new suburban development that is attempting to accommodate older adults for the first time in an environment originally built almost exclusively for young families. An older person living in a car-dependent suburb can experience a severe drop in their level of mobility if they can no longer drive. This may force them to move elsewhere if there is a lack of other transportation options available within the community.

Modes of Transportation

The private automobile is the primary mode of transportation for the majority of older adults. This is particularly true in suburbs where other modes of transportation are inconvenient or non-existent. With a built form that caters to automobiles in many communities, this is often the most practical option for many people. Where public transit service is frequent and efficient enough to compete with car travel, it is an important and appealing option for older adults. Riding transit eliminates many hassles of driving, traffic, and parking. Unfortunately, transit service in many communities is not seen as a viable option. Older adults who have driven for decades are often reluctant to try other modes unless they are forced to because they are no longer able to drive.



www.aocenter.com

For shorter trips, walking or cycling is a viable option in some communities. People are more likely to use active transportation in urban neighbourhoods with nearby amenities within 400m. For older people, the design of the streetscape and the overall walkability of an area are essential to enable them to feel comfortable as a pedestrian. They require a pedestrian-friendly environment with places to sit, sufficient time at signals to cross the street, and dedicated sidewalks or trails providing separation from vehicular traffic. Some older adults navigate using electric scooters as well. Communities that do not accommodate the needs of older pedestrians force them to drive instead.

New Transportation Options

Neighbourhood Electric Vehicles (NEVs) are a new class of vehicle approved for street legal use in many jurisdictions, sometimes classified as Low Speed Vehicles (LSVs). In the United States, they are defined as vehicles that can achieve speeds up to 25 mph and are permitted on roads with speed limits up to 35 mph. NEVs range from golf carts used on the road to fully enclosed vehicles outwardly indistinguishable from a subcompact car. Another similar class of vehicles is Medium Speed Electric Vehicles (MSEVs). They travel at top speeds of 30 to 35 mph and are only allowed in ten US states and on roads with a speed limit of 45 mph or less. This is a new class of vehicles subject to greater regulation and higher safety standards than NEVs but less than standard passenger cars.

These new classes of vehicles offer another modal option for older adults. They provide accessibility and freedom like a car but at a slower speed that is perfectly suitable for travel within a neighbourhood. NEVs do not require a driver's license to operate and can take the place of a car for some people who would be otherwise unwilling or unable to drive. In many communities, the use of NEVs is limited because they are not permitted on arterial roads which confines their range to a particular neighbourhood. There are communities such as Celebration, Florida and Leaf Rapids, Manitoba that incorporate NEVs as part of their transportation strategy to make these communities more age-friendly.



www.cars-10.com

NEVs provide accessibility and freedom like a car.



www.mdot.maryland.gov

Accessibility

One of the major determinants of mobility is whether a means of transportation is accessible to older adults. For public transit, this means low-floor buses and trains with universal design guidelines applied to stops and stations. The location of stops in proximity to both housing and destinations (the guideline is within 400m) is a key factor in the accessibility of a transit system. People won't use transit if it doesn't take them where they want to go, particularly older adults whose walking range is limited.

For those using cars, accessibility depends more on the road network than on the vehicle. Older drivers have a longer reaction time and decreased visual acuity, especially in low light conditions. They require advanced warning with larger and clearer signage. Reduced strength and flexibility affect older drivers' ability to shoulder check or to steer through tight corners. Older adults are often selective about where they will drive and under what road conditions, which limits the roads that are accessible to them.

Summary

A person's level of mobility depends on both the built environment in which they live and the modes of transportation available to them. As people age, their level of physical fitness declines and they have different requirements and concerns that affect the way in which they choose to move around their neighbourhood or not. An age-friendly community accommodates a variety of transportation modes, including walking, cycling, transit, cars, and new options such as neighbourhood electric vehicles.



www.eldergadget.com

An age-friendly community accommodates a variety of transportation modes

Sources:

- Ashford, Norman et. al. (1982). *Mobility and Transport for Elderly and Handicapped Persons*. New York: Gordon and Breach.
- Baucom, Alfred. (1996). *Hospitality Design for the Graying Generation*. New York: John Wiley & Sons.
- Cantilli, Edmund. (1970). *Transportation and Aging*. Washington: U.S. Government Printing Office.
- Enos, Diane. (1980). *Transportation and the Urban Environment*. Washington: United States Department of Transportation.
- Lynott, Jana. (2009). *Planning Complete Streets for an Aging America*. Retrieved from: <http://assets.aarp.org>
- O'Connell, D'Arcy. (1978). *Barrier-Free Surface Transportation Terminals: Design Considerations*. Montreal: Transport Canada.
- Rachlis, David. (1970). *Developing Transportation Services for Older People*. Washington: National Council on the Aging.
- Reva Car Club. (2008). *Neighbourhood Electric Vehicle*. Retrieved from www.revaclub.com
- Richards, Brian. (1976). *Moving in Cities*. Boulder, Colorado: Westview Press.
- Richards, Brian. (2001). *Future Transport in Cities*. London: Spon Press.
- Wachs, Martin. (1979). *Transportation for the Elderly*. Berkeley, California: University of California Press.