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Questions often arise surrounding the task of driving, and how members of a community might continue to get around in auto-centric communities even after they’ve lost their license, can’t afford to buy or own a car, or simply do not want to drive. This topic is especially relevant to older adults, as they may lose their ability to drive, or may decide that they no longer wish to use driving as their primary mode of transportation.

The research outlined in this report seeks to explore alternative methods of personal transportation adopted by other communities that have the potential to be effective in the municipalities under study in the current Community Planning Studio, with special consideration given to seniors.

E-Bikes

The findings of a study published in 2018 revealed that electric bicycles - or e-bikes - are popular among older adults in Europe. The study was conducted with participants from Flanders, Belgium, however, the report gives mention to other European countries as well. For example, 65 percent of people who own e-bikes in the Netherlands are 65 or older (Van Cauwenberg et al.). This is noteworthy for the studies on alternative transportation modes in small municipalities in Manitoba because it highlights the fact that **e-bikes can be accessible, convenient, and enjoyable for older adults**. The advantages e-bikes have over regular bicycles include the reduction of barriers to travel, such as lack of fitness, hills in the terrain and elevated wind levels. The physical effort involved in powering the bike is reduced which increases the practicality of e-bikes as vehicles as opposed to exercise equipment (Van Cauwenberg et al.).

The municipalities under study in the Studio are mostly walkable and would therefore be cyclable as well, however, certain elements of e-bike use may limit their effectiveness as alternative transportation. Firstly, the average temperatures in Flanders range from 2-17 degrees Celsius, (Van Cauwenberg et al.) while the temperatures in southern Manitoba are often well below freezing. This may make e-bike use unfeasible in winter months. Secondly, 27.5 percent of study participants had experienced a crash on an e-bike (Cauwenberg et al.). This risk may cause some apprehension, however, the Manitoba communities are far smaller and have far fewer people than the 6,411,000 inhabitants of Flanders (Cauwenberg et al.), and community members have indicated that local traffic largely moves slowly and cautiously.

“65 percent of people who own e-bikes in the Netherlands are 65 or older.”



Figure 1: E-bike designed for older adults



Photo Maurer, M.

Figure 2: Golf cart and bike lanes on roadway

Golf Carts

The town of Lyons in Boulder County, Colorado allows citizens to operate golf carts on city streets as an alternative to automobiles. The golf carts are used in the community for short trips due to their cheap maintenance costs and their energy-efficient nature (“Golf Carts All the Rage in Lyons,” 2010). Operators of golf carts on public roads must obey regular traffic laws and local police enforce this (“Golf Carts,” 2010).

Similar to the Manitoba municipalities being studied in the Studio, Lyons is a small town with a population of 1,923 people (Town of Lyons, 2016). Residents who have adopted golf cart operation as a method of local transportation report that it is enjoyable and convenient (“Golf Carts,” 2010).

There are two concerns with adopting this alternative method of transportation in municipalities in Manitoba, the first of which is climate. At least one Lyons resident reported operating a golf cart regularly in the winter months (“Golf Carts,” 2010), however, this may not be feasible in extreme cold temperatures due to concerns surrounding comfort and functionality of battery-operated carts. The second concern is the logistics of operating the carts on municipal streets. Lyons requires that all cart operators carry a valid driver’s license, or carry a permit and a licenced driver with them in the cart at all times (“Lyons Link,” 2020). If the province were to apply similar restrictions to golf cart use on city streets in small municipalities, it may pose a challenge to those seeking alternative transportation due to losing the ability to drive a car. In this regard, e-bikes would be a better option.

On the benefits side, the four-wheel stability of the golf cart eliminates any risk of crashes or accidents caused by a lack of stability, diminishing some of the apprehension possible with the use of e-bikes.

“Golf carts are used... for short trips due to their cheap maintenance costs and their energy-efficient nature.”



Photo Credit: Town of Lyons

Figure 3: Golf Cart on trail in Lyons, Colorado



Figure 4: Peachtree City, Georgia Pathway and city logo

Multimodal Paths

The mayor of Peachtree City is proud of the pathway’s “green credentials.”

Peachtree City in the State of Georgia is home to a unique system for multimodal transportation. This pathway network spans 80-90 miles (129-145 kilometres) of paved trail, which provides a transportation route for pedestrians and small vehicles (Dalton & Dalton, n.d.). Considering the fact that many of the municipalities under study in the Studio have existing trail systems running through them, this type of multimodal transportation network could be facilitated within them. **In smaller communities, multimodal pathways could be especially helpful for navigating around provincial highways and other major roads for slower moving vehicles.**



Figure 5: Polaris Ranger UTV

Much of the vehicular traffic on the Peachtree City pathway system is golf carts, but other vehicles are used as well. The mayor of Peachtree City is proud of the pathway’s “green credentials,” as use of the pathway system in place of automobiles reduces carbon emissions (Dalton & Dalton, n.d.). The city’s logo even features a golf cart, as can be seen in Figure 4.

A potential barrier for this mode of transportation in Manitoba communities is once again climate, as open-cabin vehicles may be uncomfortable in extreme cold. Considering that pedestrian activity will likely be reduced in extreme cold temperatures, small internal combustion engine vehicles could be allowed to use these pathways, as their fumes will not be as much of a concern to pedestrians. Such vehicles could include utility task vehicles (UTVs), as depicted in figure 5. These vehicles - not much larger than golf carts - often come with fully enclosed cabins and feature interior heating, making winter use more comfortable (Polaris Off Road, 2021).

Conclusion

Alternative transportation methods are an effective tool for facilitating aging in place, as they allow those who cannot and those who choose not to drive to remain active and mobile in their communities despite a lack of public transit. If implemented strategically, these transportation methods, be they electric bicycles, golf carts, or many different vehicles, can provide choice in transportation while also accomplishing larger goals like reducing carbon emissions.

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