Executive Summary

Introduction

communities have a higher proportion of older adults and are experiencing aging at a more rapid rate than urban and suburban spaces (Channer et al., 2021). Additionally, many of the same communities face unique obstacles, such as shrinking populations, declining economic bases, lack of capital, and lack of density or infrastructure to support their aging population (Federal/Provincial/Territorial Ministers Responsible for Seniors, 2011).

Elliot Lake, ON is a community facing the interrelated impacts of aging and decline. The city is home to the second-oldest population in the country and has experienced a larger population decline than any other city in Canada (Hartt, 2021a). After the loss of the uranium mining industry, Elliot Lake rebranded itself as a retirement community to meet

Three research objectives were designed to address the above question:

1. Determine the geography of health care facilities in Elliot Lake.

2. Determine what proportion of the older adult population in Elliot Lake can access health care facilities without access to a private vehicle.

3. Evaluate the accessibility of health care facilities in Elliot Lake through an older adult walking and public transportation route audit.

Methodology

This thesis took a three-phase mixed methods approach to evaluate health care access in Elliot Lake. First, a spatial analysis was conducted to determine the spatial distribution of health care facilities in the region. The geographic distribution of physician offices was compared to neighbourhood-level demographic data in ArcGIS software to determine the spatial relationship between older adults and health care facility geographies.

Second, a buffer analysis using a shapefile displaying public transit stops in Elliot Lake identified the walkable catchments of bus stops at three distances (150 metres, 250 metres, and 400 metres) to determine what proportion of the older adult population can access health care facilities without access to a private vehicle.

Lastly, a field study was conducted to determine the accessibility of health care facilities in Elliot Lake using the Older Persons Walking and Transit Audit (OPWATA). The experience of using public transportation on preselected routes was assessed using an adapted version of the Walking Route Audit Tool for Seniors (WRATS) (Kerr & Rosenberg, 2009). This tool evaluates the presence or absence of features that could facilitate or impede an older adult's ability to walk

on a given route, but was adapted to include public transit infrastructure, including bus stops and bus travel experience.

Results

The spatial analysis identified that 27 of the 28 physician offices in Elliot Lake are located in two health care facilities: 70 Spine Road (Elliot Lake's hospital) and 31 Nova Scotia Walk. It further confirmed that many older adults do not live within walking distance of one of the two health care facilities, increasing the likelihood that older adults who do not drive must use public transit to access health care facilities. The buffer analysis identified excellent bus service coverage in the core of the community, with 76% of older adults living within 150 metres of a bus stop, 90% living within 250 metres of a bus stop and 96% living within 400 metres of a bus stop. Finally, the OPWATA established that while the routes analyzed included some age-friendly features, they were not consistently observed on each walking route and at each bus stop. The buses also lacked barrier-reducing features, such as a kneeling mechanism, a stair-free entrance and adequate shock absorption.

Discussion and Recommendations

Several recommendations were made to improve the age-friendliness of Elliot Lake's public transportation service and, consequently, reduce barriers to accessing the community's health care facilities. First, the municipality should consider the creation of an additional health care facility southeast of 31 Nova Scotia Walk to increase the number of older adults located within walking distance (or a short bus ride) of a health care facility.

Second, Elliot Lake is providing public transportation service to its residents within 400 metres of their homes – the distance suggested in transportation planning literature (Murray et al., 1998; Broome et al., 2012; Hess, 2012). It is also exceeding this expectation by providing bus

service to most of its residents at nearly half the distance. However, it is important to note that Elliot Lake covers an area of nearly 700 square kilometres (Statistics Canada, 2022b), and only its core has a public transportation service. The city needs to ensure that some form of transportation is available for those living in these peripheral areas to provide them with equal access to health care services.

Third, the City of Elliot Lake has already committed to developing a universal accessible bus stop design (City of Elliot Lake, 2019). By expanding this design to include nearby pedestrian paths and by ensuring Elliot Lake's future bus fleets eliminate existing barriers, the city would be further encouraging active transportation and public transportation use (Klicnik & Dogra, 2019; Nabipour et al., 2022). The universal design should be inspired by the OPWATA's age-friendly indicators.

Conclusion

Despite the challenges stemming from Elliot Lake's unique context as a shrinking, peripheral, small city, the city offers public transportation services to its two main health care facilities within walking distance of most of its older adult residents, with many age-friendly features being present to varying degrees at bus stops and on walking routes. The recommendations included in this thesis will assist the City of Elliot Lake in improving their existing transit infrastructure and in setting a precedent for age-friendly transportation in shrinking cities and rural communities. These improvements, combined with other initiatives in their Age-Friendly Action Plan, will play a pivotal role in transforming Elliot Lake into a service-rich community for its older adult population (Davenport et al., 2009).