**THE ROLE OF TRANSPORTATION IN OLDER ADULT
SOCIAL ACTIVITY PARTICIPATION: A QUALITATIVE STUDY IN MISSISSAUGA, ONTARIO**

By:

Sonia Suet Yi Tam

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Master of Planning in Urban Development

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ABSTRACT

The purpose of this research was to explore accessibility and how older adults in suburban communities are participating in social activities outside their home. Twenty older adults in Mississauga, Ontario took part in this study. A combination of activity-based travel diaries and semi-structured interviews were used to collect data. Findings suggest that understandings of accessibility vary between users of different transportation modes. Further, travel time rather than distance travelled may be a more significant indicator of participation. Land use mix also attracts participation, while conditions that risk the health and safety of older adults are deterrents. This research contributes to the limited literature on older adult social participation as related to transportation. Results from this study highlight potential problems for older adult accessibility in a suburban context. Research may inform the development of accessibility interventions, municipal land use policies, and public transit strategies to build healthier, more inclusive age-friendly communities.

Keywords: older adults, social participation, accessibility, mode of transportation, public health, mobility, age-friendly communities, healthy communities

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Chp 1: Introduction

1.1 Background

Demographics in Canada are changing. For the first time in Canadian history, the number of those over the age of 65 has outnumbered those under 15 (Statistics Canada, 2015). With the number of seniors projected to increase from 15.3% in 2013 to between 23.8% and 27.8% by 2063 (Statistics Canada, 2013), we can expect there will be more seniors facing health and mobility challenges, which will undoubtedly impact cities and municipalities in which seniors live. While in recent decades there has been increased research and policy development to address these anticipated changes, planning to develop healthy communities inclusive of senior populations continues to be a concern.

The concept of “healthy communities” is not new to the planning profession. In fact, the history of modern planning began with concerns regarding public health. It was the public health workers who first recognised the connection between health and infrastructure. Today, planners still strive to create healthy communities that facilitate active living and social wellbeing. In fact, the Canadian Institute of Planning and HB Lanarc (2012) have developed a *Healthy Communities Practice Guide* to help support this goal to build healthier and sustainable communities. In Ontario, the *Provincial Policy Statement* (2014) directs municipalities to “build strong healthy communities,” and municipalities are currently working to integrate healthy community policies into their policy frameworks.

A healthy community should benefit all members of the public, including older adults, and both policy and scholarly research emphasise the need to improve communities to be inclusive of people of all ages and mobilities. The World Health Organisation (WHO, 2007) has promoted the “age-friendly cities” initiative encouraging the removal of both physical and social barriers to make cities more inclusive of the needs and capabilities of older adults. Opening cities to people of all ages can encourage participation, health, security, and independence amongst those young and old. For the many seniors who live in suburban communities, there is particular concern regarding healthy aging. Scholars, public health officials, and city builders are concerned about how to include older adults in a community that is built around private vehicles.

Researchers who have studied the health of older adults living in suburban communities have voiced concerns about the over-reliance on private vehicles for daily mobility needs. Studies have found that those living in suburban environment are likely to be less active than those living in higher density communities (Chen & McKnight, 2007; Rodríguez, Khattak, & Evenson, 2006). In this respect, the primary concern is regarding the physical health of suburban residents. However, if a person was to lose one’s license or one’s physical mobility, there is even greater concern regarding the social health of these individuals.

The ability to access and participate in various activities within a community can contribute to an older adult’s physical, psychological, and social health and well-being. Research has shown that the social health of older adults is much impacted by one’s physical health. Reduced mobility and becoming more dependent on others affects quality of life (Hall, Williams, Senior, Goldswain & Criddle, 2008). For example, Cornwell and Waite (2009) suggest that older adults who experience

social isolation are more likely to associate themselves with lower levels of physical health. There is a need then to design communities which encourage healthy living and active aging. Understanding how older adults are participating, as well as the challenges they face will help identify barriers and opportunities to building healthy communities.

There exists an established literature investigating the significance of social activity for health and well-being at older age (Menec & Chipperfield, 1997; Silverstein & Parker, 2002). However, how access to different travel modes impact willingness and the decisions to participate specifically in social activities have yet to be extensively investigated. Unlike activities which are necessary for survival purposes, the decision to participate in social activities is both a personal commitment and preference. An exploration of social participation among older adults, just one of the dimensions of an age-friendly city as identified by the WHO (2007), may also provide an opportunity to understand the social health of older adults in lower density, auto-oriented communities.

This paper explores perceptions and experiences related to access and participation in day-to-day social activities among older adults in a suburban municipality. This has been achieved through data collected from activity-based travel diaries and in-depth interviews with a small group of older adults. While there is extensive research on accessibility, mobility, and health for seniors, little work has been done in the area of understanding how accessibility is experienced and understood by seniors living in suburban communities, specifically as this relates to social activity participation. Findings from this study provide insight into how older adults participate in their communities and anticipate their future living and mobility situations.

1.2 Research Questions

The purpose of this research is to further understand how older adults living in suburban municipalities move within their communities and participate in social activities. Within the context of this research, a social activity is defined as an activity in which social interaction is involved. For this study interaction with friends and family, as well as recreational and physical activities with other people are considered social activities. Furthermore, this study seeks to understand how seniors experience and perceive the accessibility of social activities in suburban environments. The following questions are explored in this study:

- How are older adults living in suburban communities choosing to participate in social activities?
- How does the use of different transportation modes impact the challenges and opportunities related to accessing these community activities?

1.3 Contribution of Research

Findings from this research will improve our understanding of the needs of older adults travelling to participate in social activities, and may inform future policy and practice focused on the allocation of community resources in the context of Canada's aging suburban communities. Aging population is an important urban phenomenon that will increasingly be a concern for the planning and health professions, as well as cities and communities in the near future. This research will particularly be helpful to inform suburban communities who are exploring ways to adapt these environments for improved walkability, accessibility, and active aging.

1.4 Organization of Report

This report has been organised into six chapters. **Chapter 1** presents background information as well as rationale for study, which is followed by an extensive review (**Chapter 2**) of the existing literature linking accessibility with participation. The methods of data analysis are described next in **Chapter 3**. **Chapter 4** speaks to the key findings gathered from interviews and activity-based travel diaries, as well as themes which have developed during the research process. **Chapter 5** discusses potential implications of these findings regarding older adult participation and perceptions of social activities. Limitations of the research are also discussed in this chapter. Finally, a summary of the findings (**Chapter 6**) and recommendations for future research concludes this study.

Chp 2: Literature Review

2.1 Introduction

A literature review was conducted to explore existing literature related to travel behaviour and the social and physical health among older adults within suburban communities. Literature from diverse fields, including urban planning, public health, and gerontology, were consulted for the purpose of this review.

2.2 Seniors in Suburbs

Emerging literature suggests that suburban communities are seeing increases in senior populations (Rosenbloom, 2003 and 2004). Contrary to past predictions that seniors would downsize and move back to higher density, mixed-use communities, several studies have found that many seniors in both Canada and the United States are choosing to remain in their homes in the suburbs (Engelhart, 2006; Frey, 2003; Patterson, Saddier, Rezaei & Manaugh, 2014). The phenomenon is popularly known as “aging in place” and implies that seniors, in spite of declining mobility or other physical ailments, may still hold some control of their lives when they live in the comfort of their own homes (Thomas & Blanchard, 2009). Much of the desire to stay in one’s home is due to emotional attachment. Looking at why many older adults favour staying in their homes in the suburbs, Deprés and Lord (2005) noted that homes were perceived by older adults to be a centre of security, socialisation, daily life, as well as a “territory of mobility.” Some older adults make an effort to remain in their homes in suburban communities, modifying travel routes, locations, and activities to do so (Lord & Luxembourg,

2007). For many however, the choice to remain in their homes, and thereby their communities, does not come without challenges. Aging suburbs and aging in suburbs are concerns not only for seniors themselves, but also healthcare workers, urban planners, and communities at large.

2.3 Senior Travel Behaviour in Suburban Communities

With the current growth of aging population in suburban communities, there are also concerns regarding how these communities can accommodate this aging population. Seniors today are healthier, more mobile, and more active than previous generations (Rosenbloom, 2004; van den Berg, Arentze & Timmermans, 2011). While better health and increased mobility are in part due to medical advances and technological innovations, increased mobility, defined here as the ease of movement, can also be attributed to the rise of access to and reliance on the private automobile.

Because travelling in suburban communities relies heavily on use of the private vehicle, as the number of adults entering their senior years is on the rise, so too is senior driving. Studies have found that the car-oriented environments of these suburban communities impact travel patterns amongst all age groups (Cao, 2010; Cao, Mokhtarian & Handy, 2009), but there is a particular concern for older adults who choose to live and travel in their suburban communities (Kerr, Rosenberg, & Frank, 2012; Lynott, McAuley & McCutcheon 2009; Zeitler, Buys, Aird & Miller, 2012). For many seniors living in suburbs, they are dependent on cars to go about their daily activities (Lord, Depres & Ramadier, 2011; Mercado & Paez, 2009; Newbold, Scott, Spinney, Kanaroglou, & Páez, 2005; Rosenbloom 2001; Rosenbloom 2003; Rosenbloom 2004).

While seniors in suburban communities may have easier access to a vehicle, the reality is that seniors are more likely to experience a decline in travel distances and trips outside the home because of health problems which often impact physical mobility as well as the ability to drive as they reach older age (Mercado & Paez, 2009). Even so, many seniors are reluctant to give up their driver licenses because for many this is perceived as a loss of independence (Adler & Rottunda, 2006). As such, many in suburban communities are not making mobility and activity decisions purely based on choice, but rather due to health and environmental restrictions as well as limited alternatives to travel by private vehicle (Fobker & Grotz, 2006).

Even when there are alternative modes of transport in suburban communities, the likelihood of a significant shift amongst driving seniors to other modes of transportation is limited. Many working age adults who are currently driving are less likely to switch to public transport upon retirement (Rosenbloom, 2004 and 2009). While many may still possess the health and ability to drive when they retire, some researchers found that once older adults cease to drive, many will not shift towards use of public transit (Evans, 1999; Hensher & Alsnih, 2005; Hensher & Reyes, 2000). The problem is that if older adults are not encouraged to choose alternative transit modes before but especially after they stop driving, this may impact not only physical health, but also the social well-being and independence of older adults.

There is growing evidence in the literature to support this concern in regards to mobility loss. From the perspective of health professionals, there is general consensus that greater physical mobility and activity is associated with better health amongst older adults (Hirvensalo, Rantanen, & Heikkinen, 2000; Simonsick, Guralnik, Volpato, Balfour, & Fried, 2005). Edwards, Lunsman,

Perkins, Rebok, & Roth (2009) also found that driving cessation is associated with health problems among former drivers who are more likely to experience depression and a decline in physical wellbeing than their peers who relied on other modes. A study based in Australia found that loss of one's driving license is associated with increases in social isolation when adequate public transportation is unavailable and one's support system is lost (Hensher, 2007). Another Australia-based study found that seniors living in suburbs who did not drive faced social exclusion, particularly if bus stops are difficult to access and destinations were far from their homes (Engles & Liu, 2011). The mobility levels and experiences amongst older adults are not all the same, with personal preferences and individual situations also contributing to the activity patterns of older adults (Lord, Després & Ramadier, 2011; van den Berg, Kemperman, de Kleijn & Borghers, 2015). However, the relationship between how older adults move about their communities and how design of the communities impact participation needs to be more thoroughly explored to identify possible solutions in creating more accessible suburbs for more active and healthier living.

2.4 Senior Accessibility and Participation in Suburban Communities

Beyond mobility, accessibility also impacts participation amongst older adults in the community. Generally, accessibility is defined as the ease or ability of reaching a destination whereas mobility is the ease of movement (Levine & Garb, 2002; Talen, 2002). Determinants of accessibility depends on both transportation mode as well as the physical-spatial context (Handy & Clifton, 2001). Studies have found that suburban environments, characterised by low development density, segregated land use distribution, and car-dependent street networks are less accessible

than higher density, mixed-use, and walkable environments which permit more opportunities for active transportation and social interaction (Cao, Mokhtarian & Handy, 2010; Leyden, 2003). Existing literature on older adults has used accessibility indicators, including distance from shops and health centres, to measure accessibility at both the neighbourhood and community level (Michael, Green & Farquhar, 2006; Negron-Poblete, Seguin & Apparicio, 2014; Paez, Mercado, Farber, Morency & Roorda, 2010). However, current research largely focuses on activities older adults participate in for the purpose of survival. In this context, Musselwhite & Haddad (2010) categorises utilitarian, affective, and aesthetic mobility needs of older adults recognising the importance of all three to support a high quality of life for seniors. Accessibility and opportunities for social interaction, more than simply trips taken for practical purposes and survival, need more thorough investigation to better understand the social health of seniors living in suburbs.

2.5 Participation in Social Activities

Recent research has begun to explore the relationship between aging, participation in social activities, and the neighbourhood built environment (Horner, Duncan, Wood, Valdez-Torres & Stansbury, 2015). For example, one study found that drivers, walkers, and public transit users participate in leisure activities more than those who use taxi and transport adapted for wheelchair users and others with mobility difficulties as primary modes of transportation (Dahan-Oliel, Mazer, Gelinas, Dobbs & Lefebvre, 2010). Another study by Zeitler & Buys (2015) found that older people living in suburban communities take part in daily activities in various locations outside their homes and prefer more flexible transportation options like the car. Alsnih and Hensher (2003) have studied the accessibility and mobility expectations among older adults,

however greater understanding of how older adults perceive accessibility, specifically in suburban environments, is also necessary for a more complete portrait of access and social health in these communities.

2.6 Summary

To summarise, seniors are beginning to have an increasingly notable presence in suburban communities. They are more likely to choose the private vehicle as their primary mode of transport not only because of choice but because the suburban environment makes this the most convenient option for travel. In the context of an overwhelming evidence indicating an association between mobility and activity participation, and physical as well as social wellbeing, dependency on the private vehicle is a cause for concern. Cities which are not adapted for those of all ages, mobilities, and travel modes do not make for inclusive communities. With these trends and relationships in mind, attention will be turned to the present work.

Chp 3: Research Methods

3.1 Introduction

This study examines travel behaviour and perceptions of older adults regarding access to social activities in Mississauga, Ontario. This study adopted a mixed-methods approach with the use of travel diaries and semi-structured in-depth interviews to address its research question. This approach makes use of complementary methods, which allow the researcher to further probe regarding the meanings and experiences of collected data, as well as to strengthen data validity (Sechrest & Sidani, 1995). Data collected in the form of an activity-based travel diary, which captured the distances travelled, modes used, and activities involved in on a given day, was used to guide in-depth interviews in order to discover the underlying motives and desires relating to activity participation (Kothari, 2004).

Ethics approval for this research was obtained from the Ryerson Ethics Review Board. Ethics approval was granted in September 2015 to conduct research of older adults aged 65 and older at the Square One Older Adult Centre in Mississauga.

3.2 Study Area: Mississauga, Ontario

This study used the City of Mississauga, a lower-tiered municipality of the Region of Peel, as a case study. The sixth largest city in Canada, Mississauga is located to the west of Toronto (Figure 3.1) and has a population of 713,443 (Statistics Canada, 2012). The city was selected as largely car-oriented and low density single-use development predominates much of the urban built area within the city. However, Mississauga has been moving towards developing more connected and

accessible communities through policies affecting developments, transportation, and built form. In the city's *Strategic Plan*, five "pillars of changes" support the city's vision to become "a place where people choose to be." This plan, complemented by an *Action Plan*, includes directions for the city to become more transit oriented, to develop complete communities, and to ensure the city is inclusive of people of all ages and backgrounds, including older adults (City of Mississauga, 2009).

Figure 3.1 Map of Mississauga in the Greater Toronto Area

As of the 2011 Canadian national census, 11.4% of Mississauga's total population, compared to 14.8% of the Canadian population, were 65 years of age or older (Figure 3.2). Although Mississauga's population has traditionally been younger due to immigration and families choosing to live in the city, the aging population is set to increase in the future particularly as Baby Boomers enter senior age, and many older adults intend to age in place. The aging population has implications on not only city services but policy and city building at large. In

fulfillment of its vision to become more inclusive and accessible of older adults, the city has committed to becoming a designated Age-Friendly City. The heavily car-oriented environment in Mississauga was largely designed without the needs and capacities of older adults in mind. Although one of the goals of the city's *Strategic Plan* is to improve walkability, there is still inconsistency between neighbourhoods. For example, the downtown core has clearly marked crosswalks and well-maintained sidewalks, but within many of the city's subdivisions, sidewalks may be nonexistent and shopping or other public activity areas may be difficult to access without a vehicle. With more recent policy shifts towards higher density development and improving transit services, research on the current condition of senior accessibility will help inform and identify ongoing barriers to participation in Mississauga.

Figure 3.2 Older Adults as Percentage of Total Population in Mississauga and Canada
Source: Statistics Canada (2011)

3.3 Recruitment

Interviewees were recruited from the Square One Older Adult Centre (SQ1OAC), which is a senior's recreational and community facility centrally located in the Square One Shopping Centre in Mississauga. The centre offers a variety of social, recreational, and health programs for adults 50 years of age and older (SQ1OAC, www.sq1oac.com). Recruitment took place for three weeks in October 2015 at the centre. Recruited interviewees met the following criteria: 1) 65 years of age and older, 2) working English proficiency, and 3) took part in social activities in Mississauga.

The community development coordinator of SQ1OAC was contacted by email in September 2015 seeking permission to research members of their centre. A recruitment flyer was posted on the centre's community events bulletin one week prior to recruiting.

The researcher set up a booth at SQ1OAC in October 2015 to introduce the study and recruit participants. During recruitment the researcher was available to answer inquiries about the purpose, methods, and duration of the project.

A total of 20 participants were recruited for the study. Meetings were scheduled 1 to 3 weeks after recruitment based on participants' availabilities. During the scheduled meeting, participants took part in completing an activity-based travel diary followed by an in-depth interview, which were between 30 minutes and 1 hour in length. All interviews were conducted face-to-face at SQ1OAC between October and November 2015.

3.4 Activity-Based Travel Diaries

Each interview began with participants being asked to recount their activity and travel experiences to the researcher, who subsequently recorded these accounts in a travel diary. The diary helped the researcher to understand the travel and participation behaviours of participants.

The diary began with a brief survey recording gender, age, marital, and employment status as well as primary transportation mode used by the participant for daily travel needs. Next, each participant was asked to retrospectively report activities and travel details for two days (one weekday and a Saturday) immediately prior to the date of being interviewed. Particular emphasis was made to record social activities, defined in this study as an activity in which social engagement is involved. Examples of these activities include volunteering, participating in a church group, or attending yoga classes to both socialise and exercise with friends. The following information was also collected for each documented activity: activity and travel duration, location, transport mode, and whether or not the activity was a social activity.

3.5 Semi-structured In-depth Interview

While the travel diaries provided a snapshot of daily activity participation pattern, in-depth interviews were conducted to further understand the perception, rationale, and outlook of participants in regards to how they participate in social activities. Conducted following the completion of the travel diary, the interview included twenty-seven open ended questions. The first set of questions sought to understand the physical and spatial context of participants' communities. The next set of questions probed further into participants' perceptions of mobility

challenges looking at the current and future outlook of participation in social activities amongst older adults. Questions related to transportation modes, particularly exploring the impact of transportation mode to social activity participation. The final set of questions focused on accessibility asking participants to reflect on the relationships between built form, transport mode and participation in social activities. A copy of the interview guide can be found in Appendix 1.

Interviews were audio-recorded with the consent of participants and transcribed verbatim for the purpose of analysis. To keep the identity of participants anonymous, each participant was assigned a pseudonym for this study.

3.6 Data analysis

Travel data gathered from the diaries was mapped with Google Maps to provide a spatial understanding of participants' travel behaviours. Maps were analysed alongside data gathered from the interviews and whenever possible, were supplemented with interview data to understand rationale and motivations behind travel and activity choices. By employing both the diaries and interviews, this methodological triangulation allowed comparisons between perceptions and the realities of how the participants live, travel, and participate in their communities, while strengthening the research with a multi-method approach (Denzin, 2006).

A universal thematic approach was taken to analyse the data (King & Horrocks, 2010). This approach identifies patterns in the data addressing the challenges, opportunities, and rationale for participating in social activities common amongst older adults living or participating in social

activities in Mississauga. Key findings were organised into clearly identifiable themes supported with quotes from interviews and travel diaries.

This thematic approach to analysis began with highlighting relevant material and coding quotations with descriptive titles. These titles were then further analysed for interpretation of their meanings before overarching themes highlighting key findings were identified. These themes addressing how older adults' choices to participate in social activities are influenced by the modes they use, and highlight the significance of accessibility to maintaining participation at older age.

3.7 Summary

Participants were recruited from the SQ1OAC in Mississauga, a largely suburban city which is in the process of improving public infrastructure and policy to be inclusive of older adults. A total of 20 older adults were recruited, and at the consent of participants, interviews and activity-based travel diaries were completed to understand decision-making and perceptions of older adult participation in social activities. After the audio-recorded interviews were completed, they were subsequently transcribed verbatim and travel routes were mapped to understand quantitatively how older adults travel to their activities in Mississauga. Findings were analysed by major themes pertaining to the perceptions and travel behaviours of participants. These findings are detailed in the following section.

Chp 4: Findings

To understand how older adults are choosing to participate in social activities, data from twenty older adults in Mississauga was collected using semi-structured interviews and activity-based travel diaries. Socio-demographic information was gathered and summarised in Table 4.1. Sixteen participants were female (80%) and the age of participants ranged between 65 and 85, with the average age being 72 for women and 69 for men. Nine (45%) of the participants were married, while four (20%) were single, four (20%) were divorced or separated, and three (15%) were widowed. Sixteen (80%) were retired, two (10%) were homemakers, and two (10%) were partially retired working part-time positions.

To further understand the characteristics of participants, data on residence type and primary mode of transportation (for usual travel to social activities) was also gathered. Thirteen (65%) lived in houses, one temporarily, while six (30%) lived in high-rise apartment buildings. Fourteen (70%) of the twenty interviewed primarily travelled by private vehicle while four (20%) bused and one (5%) walked to social activities. One participant (5%) named both public transportation and private vehicle as her primary modes. Of those who primarily used cars, one participant primarily travelled as passenger only; the other thirteen drove to their destinations. Figure 4.1 shows the location of participants' homes and their reported primary modes of transportation to social activities.

Table 4.1 Socio-demographic and Travel Characteristics of the Interview Participants

Participant	Age	Marital Status	Employment Status	Residence Type	Primary Transport
Anne	71	Married	Retired	House	Car Driver
Mary	72	Single	Retired	High-Rise	Car Driver
Iris	79	Married	Retired	House	Public Transit
Elaine	69	Widowed	Homemaker	High-Rise	Walking
Claire	76	Divorced	Retired	High-Rise	Car Driver
Jamie	69	Married	Employed (part time)	House	Car Driver
Sybil	66	Married	Homemaker	House	Car Driver
Lucy	68	Married	Retired	House	Car Driver
Anita	76	Widowed	Retired	High-Rise	Car Driver
Edith	66	Married	Retired	House	Public Transit/ Car Passenger
Irene	77	Single	Retired	High-Rise	Public Transit
Emma	77	Divorced	Retired	High-Rise	Car Driver
Victoria	69	Single	Retired	High-Rise	Public Transit
Daisy	80	Single	Retired	House	Car Driver
Violet	70	Divorced	Retired	House	Car Driver
Mae	85	Married	Retired	House	Car Passenger
Phil	67	Widowed	Retired	House	Car Driver
Charlie	73	Married	Employed (part time)	House	Car Driver
Wes	65	Separated	Retired	House (Temporary)	Public Transit
Ted	69	Married	Retired	House	Car Driver

The collected data was analysed thematically. Accessibility has different meanings for users of different modes. However, there was consensus regarding favoured locations and overarching challenges for participation. Activity clusters, locations where there are concentrations of activities, were considered preferable locations for seniors where they would more commonly participate in social activities, regardless of their travel mode. Health and safety also emerged as key concerns underlying participation decisions. Accessibility was understood in the context of a largely car-oriented, low density community and although accessibility of activities was important, mobility appears to be key to maintaining physical and social well-being at older age.

Figure 4.1: Location of Participants by Primary Transportation Mode

4.1 Accessibility has different meanings

Participation in social activities outside the home is closely related to one's access to transportation options. As such, determinants of mode choice have been identified to understand decisions regarding whether or not to participate in social activities. On one hand, it is a matter of people using the transportation options most convenient for them. This means not only use of transportation options available, but also choosing the options which maximise the ability to reach desired destinations. The car, for example, was the most popular mode choice amongst participants. Many drivers and public transit users suggested that the car is the most convenient travel option. For example, Mary, a retired woman currently living in an apartment outside downtown Mississauga, uses the car because it allows her to travel to and from a destination on her own schedule and at her own pace.

“Well when you can go out and jump in your car and drive where you want to go and when you want to go, you know, you're trapped on the bus. You have to go at his speed, where he's going.”

Victoria, a former driver who has been using public transit as her primary mode for the last ten years, also reflected on why many people in her community favour the car:

“When I was driving I could go anywhere and I did that. I went and visit people or go out on runs ... So yeah, having a car or a chauffeur, the places you can go, you can't go on public transit.”

For current bus users, all of whom are former drivers, the reasons for the change in modes are varied but all live within close proximity to a bus stop and generally choose activities accessible by bus. For example, Victoria made the switch from being a driver to a bus user ten years ago due to a health condition, but she lives along a major bus route. In contrast, Irene, who still owns

her car and lives in walking distance from many of her activities, noted increased bus use since moving to her current residential location nine years ago.

“Because I have buses coming right under my apartment building. So I don’t have to [travel] very far to get the bus. And plus it is convenient. I don’t have to worry about, you know, driving or no pain no stress. I just depend on the [bus] driver and go wherever I have to go.”

For Elaine, the only participant who lists walking as her primary mode of transport, walking is not only a means of getting from one location to another. Instead, she said, “I need to [walk] because I am a diabetic person. I need to walk at least 2-3 miles everyday.” She has never driven, but her residential location enables walking.

Elaine further shared that all her weekly social activities are concentrated and within walking distance not only from her home, but also from each other. She lives in the central Mississauga area in a condominium and describes her travel experience to points of interest in terms of times spent walking.

“Outside the building I am in such a good centre place, you know the building. I can go to library within 5 minutes, I can go to YMCA within 6-7 minutes. I can come to Square One mall in 10 minutes, so everything. Even the bus, these MiWay buses. Also the bus terminals also you’ll be there in 10 minutes walk so it is very convenient about it and I am happy about it.”

While Elaine is able to walk to her activities, the reality is that walking is simply not an attractive option for many participants. For many, neighbourhoods in Mississauga are simply not built with the pedestrian in mind, and as such, activities are not within walking distance. When questioned about the locations of her activities, Anita, who drives regularly to activities, first identified activities as being in close proximity to her home, but later revealed that this was only the case

if she drove to these activities. There are limited facilities within walking distance for her to participate in social activities.

“I have to get in my car to go to most facilities. Really, you know, to do anything I would have to go in my car. I can't, I wouldn't walk say to even if a school had some kind of a thing on there you know they're a good distance, yeah.”

While activities within walking distance may not be an option for some, access to transportation modes is still key to participation. Drivers have easy access to their cars, public transit users live in close proximity of a bus stop, and pedestrians rely on their personal mobility to reach activities. This is reflected in the distances users of different modes travel to reach their activities. In fact, the distance that an older adult would travel to participate in social activities appears to be relative to the mode of transport used by older adults for their usual travel. While three of the four respondents who primarily use public transportation and the single participant who typically walks to her activities are exclusively involved in activities close to their homes, for drivers, activity locations were more diverse. While some still participate in activities within their immediate neighbourhoods, others travel further for social activities both within Mississauga and to neighbouring municipalities. Figure 4.2 shows four daily travel patterns for four of the respondents.

Map A : Route for Sybil (Driver)

Map B: Route for Anne (Driver)

Map C: Route for Mae (Passenger)

Map D: Route for Elaine (Pedestrian)

- ★ Place of Residence
- Social Activity
- Other Activities

Figure 4.2 Example Trip Routes of Participants

4.2 Distance is a factor for some, but travel time is more important

For some drivers, distance to activities is less of an issue at least when it comes to participating in social activities that are regular but do not necessarily require a daily commitment. For example, Ted, who is moving to a larger house in a subdivision outside of the Greater Toronto and Hamilton Area (GTHA), believes perceptions of distance are built up through habit or daily routine.

“I would say an hour tends to be an outer limit. Not always but because for so many years my commute was an hour, that’s still within my mind frame of what is a reasonable time to get somewhere and I really believe that is [true] for almost anybody ... Because if you're in downtown Toronto and your trip time is 15 minutes, half an hour is the end of the earth. But I've been doing an hour for a long time. Even though I've been retired for 2 years now.”

Distance is also not the deciding concern for Victoria. Even though she does not live close to downtown, she lives in proximity to a neighbourhood bus stop along the route of an express bus service to and from downtown Mississauga. She does not need to transfer between several buses to reach her activities. The service is comfortable and convenient for her because her social activities are located where there is a concentration of both activities and bus services. She describes how she reaches her activities and consequence of potential loss of accessibility in the following statement:

“Well, it’s the ease of transportation. If you go ... its not necessarily the distance. It is that the time it takes by bus or by public transit. Now here, I can get here to Square One from where I live in 10 minutes. I take the express bus, but if this were to move and I were to go to another location in Mississauga and I have to take several buses and I would be disinclined to make that long trip.”

While the ability to travel further distances is dictated by modes, distance is not always a priority when it comes to travel. For some, it is the time spent on reaching a destination that

is a greater concern and impacts how and where older adults choose to participate in social activities.

4.3 Land use mix is also activity mix

The concentration of activities in close proximity to each other is an important aspect that may enable participation in social activities. Participants tend to visit places where there are multiple activities or destinations, largely due to convenience. Both transit users like Iris and drivers like Daisy, enjoy activities located where they can socialise as well as do their necessary shopping. Here Daisy can buy her daily necessities and take part in activities for social purposes. When asked why she would come to SQ1OAC for social activities, she pointed out that:

“Because it is right in the middle of big plaza ... Big mall ... You have stores and all kinds of facilities there ... And you can come and do whatever you want and then wander around the mall ... Do your shopping ... Window shopping ... Whatever you want to do.”

Many participants drove or travelled long distances to social activities, but that is not necessarily because accessibility was not considered in the decision to participate in social activities. Instead, some participants were willing to travel by bus or car to destinations where there are several activities clustered together. In other words, participants in this study recognised the diversity of land use mix as something that is potentially important for the maintenance of an active social life.

4.4 Safe Travel is important for all modes

Beyond choosing activity clusters for socialisation, participants also prioritised their health and safety when deciding participation. Many recognise the sensitivity of their mental and physical

health. The stress, heightened attention, and quick reflexes required from highway driving are among some of the reasons why those like Daisy, who is 80 and drives to all her activities, only participates in activities within Mississauga. For Anita, highway travel especially when she is travelling alone is not what she would prefer.

“I don't like driving on big highways that much because I do have a bad sense of direction, but I might consider it if there was somebody else in the car with me who could say oh yeah we got to take this exit or something like that but I don't think ... I'm not even sure if I would do that.”

While highway travel is distinctly a driver's concern, there was general consensus among participants regarding the relationship between Canada's winter climate and willingness or ability to participate in social activities. The winter weather becomes a major challenge for them to navigate, when health and safety are of key concern. For Emma, even though she has access to a car, which can provide shelter from the winter elements during travel, this is still not enough to encourage her to participate in social activities unless they are required or are very important. As much as she enjoys to participate in social activities for personal enjoyment, she does not feel safe driving in the winter.

“For one thing I am not ... If I don't have to go in that snow, I'm not going ... If I have to go to a doctor's appointment, that's different and if its snowing too hard and the weather is bad, I just cancel for another time.”

Victoria, who suffers from cognitive issues, emphasised that the winter weather, specifically icy sidewalks, is a safety issue for pedestrians and public transit users. In her view there appears to be a lack of consideration for pedestrians in Mississauga. Even if she is willing to go out in the winter to take the bus, sidewalks are not often cleaned, which works as a major barrier to activity participation.

“It’s easier in the better weather. It’s when the severe weather, the pavements are icing. You have to walk on the road because it’s cleared. That’s when I feel more shut in and that you may want to go but the weather is hampering.”

In addition to the risk of falling, exposure to the elements is also a health concern. No matter how short the distance, pedestrians are still exposed to the cold, the wind and ice. For Elaine, even though all her activities are within walking distance, the winter does not make for comfortable travel.

"Winter is a little bit tough for me. Even though everything is so close, I don't, it is not enough still. Still now. I don't know if when I get older what would happen, but at this moment I can manage. If I cannot manage, sometimes my daughter drops me here."

The winter climate also affects how and what are the types of activities in which older adults can and prefer to take part. For example, Claire enjoys participating in activities located in a shopping centre mainly because she is able to remain active in the winter. The enclosed space protects her from the cold and is thus seen as a preferable location. In case social activities were to move from this location, however she suspects she will no longer be able to participate in this activity.

“They were talking about going to move to like an old school and that would definitely affect our walking club because especially in the winter months that would not be accessible.”

Aside from climate, activities requiring travel during the night can also be a deterrent. Daisy notes vision problems when driving at night, which would impact not only her own safety, but also the safety of others on the road. However, for Iris, activities during the night are simply not suitable for older adults like herself. She says, “In nighttime I don’t like to go out ... for me activities are during the daytime.”

Older adults are very much aware of their health and well-being, which is why many choose to participate in social activities and maintain their physical health. However, in choosing to

participate in activities, they face health and safety related barriers which may cause them to be reluctant to participate under these conditions.

4.5 Anticipated Mobility Challenges

Even when activities are in close proximity to one's home, are concentrated in centralised areas, or threats to health and safety are minimised, older adults who participate in social activities nevertheless must be at least minimally physically able to take part. Although several participants were unwilling to speak about the potential of losing their mobility those who did speak to the issue identified the potential mobility loss as a key concern relating to their continued participation.

For those who currently drive to most places, the prospect of losing one's license was met with varied responses. For Daisy, losing her ability to drive would be "a total disaster because I'm so dependent on my car." Although she lives relatively close to the activities that she travels to, she exclusively drives. She does not see walking as a realistic option due to arthritis pains, and fears immobility will confine her to her home. Reduced access to a car, in her eyes, is similar to the loss of mobility, and she plans to continue to drive in the years to come. She has no intention of taking public transit as she, like several other drivers, is of the opinion that public transit is inconvenient and infrequent.

"I don't like it. It's a problem. You see especially in Mississauga, buses are very infrequent and you know get to the bus and getting off the bus. I never tried it. I don't know how I would work out. I might opt to take a taxi. Probably."

However, Sybil is more optimistic about a future when her ability to drive would be limited. She sees the bus, friends, and family as facilitators to continued participation.

“Well, there's transit. That won't stop me. I have friends. I could call if they're not busy. They could drop me off. I have my daughter. She doesn't live too far from me either.”

For those who walked or used transit to their activities, the potential of limited physical mobility is notably the key concern. Edith emphasised that, even if buses were to be available, she would need to maintain her physical mobility to access these buses and therefore her activities.

“Because if you have a problem with your feet, you cannot walk what are you going to do? You take the wheelchair? You cannot go here and there right?”

Similarly, Elaine understood the importance of maintaining her ability to walk. For her, walking is her means to be socially active. Like many, she cannot think of a future when she may lose her mobility.

“I depend on my walking. Most of my activities are by walking. So I cannot even think about it what would happen if I did not walk.”

While the accessibility of activities can encourage greater participation, this must be qualified with the mobility of the older adults themselves. At what point one considers oneself no longer able to participate appears to be dependent upon one's mobility as well as willingness to adjust and availability of alternative transport options. While not all drivers may consider loss of one's driving license as the end to one's social life, it would appear to be a major milestone not all can overcome.

4.6 Summary

This chapter explored older adult participation in social activities and their perceptions on opportunities and barriers to participation. Most interviewees reported that the private vehicle was their primary mode of transportation, but the experience and understanding of accessibility can vary between users of different modes. For some, distance may be significant,

but travel time can be even more important contributing to decisions of participation. Amongst most interviewed, locations which provide for the concentration of activities is favoured while situations which affect safe travel can be a deterrence to participation. While many spoke to the barriers they currently face in anticipation of potential mobility loss, several report this will affect their future involvement in social activities outside the home.

Chp 5: Discussion

5.1 Implications of Findings

Some interesting and novel findings emerged from an analysis of twenty older adults in Mississauga, a suburban municipality in Ontario, Canada. The older adults who participated in this study had varied views on what made for accessible social activities, and also on what influenced their activity participation. Many of the findings regarding older adult travel behaviour are consistent with, and confirms, previous travel behaviour research focusing on older adults. However, existing research focusing on travel to and participation in social activities, specifically in suburban communities, is limited. Given this, this study serves to improve understandings of accessibility experiences among older adults living and choosing to participate in activities within suburban communities.

The majority (70%) of participants had direct access to a car. In contrast, public transit users lived in close proximity to a bus stop, and the only pedestrian in our sample lived within walking distance to social activities. For public transit users, this does not simply mean increased availability of buses, but most essentially, buses which are accessible take one directly to a destination with minimal or no transfers. This makes for more convenient access to modes, as well as desired destinations.

Many participants, particularly drivers, travelled outside their immediate communities to participate in social activities. This is perhaps because many older adults in Mississauga live in lower density neighbourhoods with few activities accessible by foot. This would suggest that

there is a relation with travel modes and choice of activity participation. Where older adults choose to live and play may also impact the options available to them and factor into decisions to participate in social activities outside the home.

The results are not entirely surprising as most participants in this study were younger older adults. Those like Ted who retired two years ago are still relatively active and maintain a similar travel time budget as to when they were working. In fact, other studies have found that travel distances to recreational activities actually increase until 80 years of age (Hildebrand, 2003; Schmöcker, Quddus, Noland, & Bell, 2005). However, several studies have also found that older adults tend to travel shorter distances as they age, especially as they experience more age-related medical conditions (Colia, Sharp, & Giesbrecht, 2003; Mercado & Paez, 2009; Rouwendal & Rietveld, 1994). The reliance on the car to maintain social participation may become problematic in the future if older adults were to experience a decline in mobility and health. Cars will likely continue to be the most convenient option for suburban older adults with access to a private vehicle, but if urban planners are to facilitate the development of healthier and age-friendly communities, improving access to other transportation options is of vital importance. Educating those about alternative transport modes may serve to prolong the social life and social health of older adults in the community.

While built environments that favour shorter travel distance (i.e., high land use mix) should improve accessibility, travel distance may not be the only factor that an older adult takes into consideration when making decisions regarding participation in social activities. Previous research that has focused primarily on walking among older adults has identified the influence

of neighbourhood design on activity participation (Michael, Green, & Farquhar, 2006; Nagel, Carlson, Bosworth, & Michael, 2008; Patterson & Chapman, 2004), but land use mix also should be considered vital to encourage active aging. In this study, travellers of all modes, including drivers and transit users, favoured travelling to activity clusters, and to areas where there are many destinations that are located in close proximity to each other. In the context of a suburban community, these clusters are characterised by the variety of both social and essential daily activities that they have to offer. They are typically located in community nodes that have a higher mix in land uses and are well-served by public transit. For example, Mississauga's downtown is centred around the regional shopping mall, which is surrounded by a bus terminal to different parts of the city and other municipalities, as well as recreational, retail, and even institutional land uses. The *Mississauga Official Plan* (2015) has identified other community nodes with similar but smaller scale opportunities for activity concentration. The finding that most participants, including drivers, favoured this type of concentration of activities for the convenience and variety it provides would suggest that a community designed with a high land use mix may encourage more social activity participation amongst older adults. Improving the accessibility of these activity clusters through alternative transportation modes, such as high frequency transit, could be another means to encourage active aging in Mississauga.

Findings from this study also indicates that the built and/or the natural environments that minimise stress may also enable social activity participation. As much as they may enjoy participation, however the accessibility of activities may be hampered if they risk the health and safety of themselves or others. Improving accessibility for older adults at its heart is to encourage prolonged participation and thereby create healthier and happier seniors, but as much as barriers

to accessibility may impact participation, they are also rooted in health and safety concerns. From highway driving to the winter weather, many older adults are unwilling to participate in social activities if they perceive their lives or health could be at greater risk under certain environmental conditions. Our findings also confirm existing research that emphasised the potential impact of perceived risk on walking amongst older adults (Gallagher, et. al., 2010; Mitra, Siva, & Kehler, 2015). Additionally, senior drivers may self-regulate and modify their driving behaviours in order to feel safer (Benekahal, Resende, Shim, Michaels, & Weeks, 1992; Eberhard, 2000). For older adults with visual or cognitive impairments, they are more likely to avoid challenging driving situations for their own safety and the safety of others (Ball, Owsley, Stalvey, Roenker, Sloane, & Graves, 1998). While physical and cognitive age-related changes are to be expected, city services and infrastructure can be designed to improve older adult safety. Timely road maintenance by the municipality in order to minimise falling hazards, and urban design interventions, including added bus shelters, benches, and more publicly accessible indoor spaces, may improve an older adult's travel experience, and consequently enable a more active social life.

Lastly, and similar to what has been reported in previous research, the loss of one's driving privileges is likely to have adverse effects on an older adult's social activity participation. For those who currently use public transit or travel by foot, the loss of physical mobility is anticipated to have an adverse impact on their social lives. Rosenbloom (2003) writes that driving is easier than other modes for older adults and that seniors tend to lose their ability to walk or use public transit before they stop driving. In this context, providing the options for and encouraging the use of alternative modes before seniors experience a major loss of mobility may contribute to healthier aging and may encourage a shift to longer participation in the community. Interestingly,

all participants in this study who currently use public transit are former drivers, and reported positive experiences relating to the available bus service in Mississauga. Findings such as this one suggest that programs that encourage older adults to use public transit may help change any negative perceptions of public transit, enable prolonged participation in social activities, and thereby the health and wellbeing of older adults in the longer term. Since the summer of 2015, Mississauga (2015, June) has been piloting a six month \$1 senior fare pilot project for this purpose. Oakville Transit has also adopted a program since 2012 where all seniors in the city ride for free on Mondays. According to Mah and Mitra (2015), this program changed ridership behaviour and may also play a part in creating a more accessible transit service for seniors of various socio-economic backgrounds. Future research in the success of this project is warranted.

The need to improve accessibility is rooted in the desire to make for more inclusive and healthier communities. Due in part to how suburban cities like Mississauga are built, as well as the growing proportion old adults living in these communities, this study identifies existing problems of accessibility affecting not only participation, but more generally the ability to age comfortably and safely within one's community. If planners are to play a role in improving the accessibility of suburbs like Mississauga, barriers to participation must be addressed to make for more safe, inclusive, and supportive communities for all.

5.2 Limitations of the study

The findings from this study, however, cannot be generalised beyond what is permitted by the data. Recruitment for this study took place at the Square One Older Adult Centre, and as a result, there were limitations in regards to who was recruited and interviewed. Because older adults

who participate in activities at senior centres are relatively active, this study attracted younger older adults of relatively good health and physical mobility. Women, who made up a majority of the centre's clientele, also made up the majority of the study. As well, those who participated could travel to activities with relatively little assistance and at their own schedules. As such, mobility experiences of those who rely on taxi services or adaptable transit service for those with physical and mental impairments were not addressed in this study.

Also, because an English language requirement was outlined during recruitment, this study does not capture the views of those who do not or have difficulty communicating in English. Many visible minority or new immigrant seniors face a higher chance for depression and social isolation because they cannot communicate with others outside their language community (Treas & Mazumdar, 2002; Wong, Yoo, & Stewart, 2005; Wong, Yoo, & Stewart, 2007). Further research specifically on the views of these seniors would paint a more comprehensive picture of the challenges faced by seniors of these communities.

While the travel diaries capture the activities and travel modes of participants on given days, several diaries, in full or in part, had to be excluded due to a variety of reasons including: travel abroad and staying at home. While this study focused primarily of social activities outside one's home, it should be noted that new technologies will allow for more opportunities to engage older adults in activities from the comfort of their homes. While this study accepts that the social and physical activity of older adults are important to overall health, other engagement methods should also be recognised.

As well, many seniors discussed barriers faced by other older adults with mobility impairments. While these observations could be useful, to ensure the validity of this study, only accounts of personal experience and perspectives were included in this research project.

While there are limitations to this study and generalization should not be made, this study contributes to a deeper understanding of the accessibility challenges Canadian older adults face and are expected to face in suburban communities like Mississauga. Furthermore, this qualitative study will contribute to a growing body of research looking at the relationship between transportation and participation from the perspective of Canadian older adults.

Chp. 6 Conclusion

While previous studies have linked suburban living to lower levels of physical activity and socialisation, there is a lack of research addressing the underlying rationale of older adult participation, particularly as this relates to social activities and transportation. It is essential to ensure social activities are accessible to older adults, not only for their social well-being but also for physical health. As they stand, suburban communities are still highly auto-oriented. While activities may be available, the opportunities to access, travel, and take part in these activities may be limited for those without a private vehicle. By supporting the development of communities that provide for easy access to social activities for users of all modes, planners, public health, and service providers will be engaged in proactive planning to facilitate the development of communities not only inclusive of older adults, but also beneficial to their health.

For the purpose of improving accessibility in suburban communities, this study shed light on both the challenges and opportunities to participation in social activities at an older age. The City of Mississauga was used as a case study for this research. Beyond identifying the means by which older adults are accessing their activities, an important finding from this study was that accessibility can be understood and experienced differently by users of different modes. For example, activities located outside one's community may be considered accessible by drivers, but may deter public transit users if activities are not accessible by bus. Another important finding was that although distance may contribute to decisions to participate, travel time can be of more significance. It is a matter of being comfortable with the amount of time spent travelling. Another important finding is that activity clusters are significant in encouraging older adult participation.

However, activity clusters alone cannot improve accessibility if the health and mobility of older adults were to decline. This is because many participants still need to drive to access their activities. Participants reported that conditions which risk their health and safety are major deterrents to travel and ultimately engagement in social activities. That many believe the potential loss of mobility will be a milestone marking the decline of public participation further suggests the urgent need to improve accessibility in suburban communities. Planners have a role to facilitate the development of cities and our suburbs. Improving the accessibility of activities may not only affect the social and physical well-being of older adults, but impact their families and communities as well.

While this study highlights the significance of accessibility at a time when the older adult population in Canada is on the rise, it does not intend to rid suburban communities of private vehicles. Rather, it underscores the need to create multi-modal communities. In doing so, suburbs have the opportunity to become more equitable spaces inviting those of all ages, mobilities, and health conditions to be active participants of the community. Improving accessibility without giving attention to perceptions of particular transportation options is unlikely to encourage new ridership if transit services are not perceived as viable transportation options. Beyond simply improving and providing accessible services, this study recommends that attention must also be given to improving perceptions of public transportation. Municipalities can help by creating senior discount programs or educational workshops to encourage older adults to try their local transit services for themselves. If suburbs are to become age-friendly, inclusive of those from eight to eighty who may experience physical or cognitive impairments, improving the transportation options is vital for continued participation within the community,

and improving the experiences of transit users both new and old may justify further investment in transit services.

Future research should explore methods used by cities, transit services, and public health to encourage prolonged participation amongst older adults. Future studies should also investigate the public transit experiences of older adults living in large suburban subdivisions. In this regard, studies should also look to recruit a greater number and more diverse group of older adults whose experience of travel and participation in suburban communities may differ. Finally, this research primarily captures the perceptions of future mobility challenges. Research including older adults who already face these challenges, and particularly those who use adaptive transit services, would provide greater insight into participation and its relation to health and transportation.

Appendix 1: Interview Guide

Interview Guide

Opportunities and Challenges to Accessing Community Activities Among Older Adults in Mississauga

Expected Duration: approx. 45 minutes

Community Questions

1. Please generally describe your community.
(possible prompts – dwelling types, roadway infrastructure, proximity to community facilities)
2. Why do you live where you do?
3. Do you like where you live?
(possible prompts – dwelling types, roadway infrastructure, proximity to community facilities)
4. Do you anticipate a need to move from your current residence in the future? Why or why not?
 - a. What are your feelings about this?
 - b. Do you anticipate challenges to moving from/ staying in your current home?
5. Would you like to move to a different community that might offer improved mobility or access at an older age? Why, or why not?

Mobility Challenges Questions

6. What do you think are some of the personal, social and environmental barriers to mobility in your community, particularly to and from social activities outside your home?
7. Have you encountered any such barriers?
 - a. If so, please discuss.
8. Do you require assistance getting to and from out-of-home activities?
 - a. If so, for what types of activities do you ask for assistance?

Social Activity Questions

Social activity: an activity where social engagement is involved. For this study, interaction with friends and family as well as recreational and physical activities with other people are considered social activities

9. Do you participate in any social activities that you have not participated in the two days that you have reported in the travel diary (both outside-the-home and from home)?
10. Why do you participate in these activities?
11. How often do you participate in these activities?
12. Who participates in these social activities with you?
(possible prompts – your friends, family members or relatives)

13. Is there anything in particular that motivates you to participate in social activities?
(possible prompts – health, happiness, other)
14. Is there anything in particular that discourages you from participating in social activities?
(possible prompts - distance from activity, mode of transportation, personal mobility)
15. Are you satisfied with how long you travel to get to these social activities?
16. Are you satisfied with your current level of participation in these activities? Why or why not?

Mode of Transportation Related Questions

17. What would you say is your primary mode of transport for day to day activities?
 - a. If you use private automobile, are you a passenger or driver?
18. Why is this your primary mode of transport?
19. How does this mode of transportation influence your choice to participate in social activities outside your home?
20. I see that you use *(Insert mode of transportation)* instead of *(Insert primary mode of transportation)*, which you usually use. Why?
21. Does your primary mode of transport help you, or work as a barrier, to participate in more social activities than other transport modes?
22. Have you experienced changes to your primary mode of transportation in recent years?
 - a. If so, how has this impacted your participation in social activities?
 - b. If not, do you anticipate changes in your mode of transportation will impact your participation in social activities?

Accessibility Related Questions

Accessibility: the ease of reaching a destination

23. In your opinion, what encourages access to out-of-home activities in your community?
(possible prompts - types of transportation modes, quality of journey, distance from destination)
24. Do you face any challenges/ obstacles getting access to your primary mode of transportation?
 - a. If YES, what sort of difficulties do you face?
 - b. If NO, what makes for easy access to this mode of transport?
25. Have you experienced challenges/ obstacles accessing other modes of transport?
26. Overall, are you satisfied with how you reach your social activities?

Final Question

27. Is there anything else about your mobility experience that you would like to speak about?

Thank you for participating in this interview.

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