

Perspectives on Transportation: Building on the Age-Friendly Cities Project - A World
Health Organization Initiative

by

Janet Anne Love
B.A., University of Victoria, 2006

A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of

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Supervisory Committee

Dr. Holly A. Tuokko, (Department of Psychology/Centre on Aging)
Supervisor

Dr. C. A. Elizabeth Brimacombe (Department of Psychology)
Departmental Member

Dr. Elaine M. Gallagher (School of Nursing/ Centre on Aging)
Outside Member

Abstract

Supervisory Committee

Dr. Holly A. Tuokko (Department of Psychology)

Supervisor

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Outside Member

The impact of transportation concerning older adults is under scrutiny as the number of older adults is expected to significantly increase in the coming years. The World Health Organization (WHO) spearheaded a world wide initiative that sought to examine what contributed to an “age-friendly community” in both developed and underdeveloped nations. This paper examines, in particular, the role that transportation plays in relation and contribution to an “age-friendly” community in Saanich, British Columbia, as an addition to the WHO initiative. Focus groups were conducted to ensure that information received was the lived experience of the individual. Results suggested that transportation was more than the ability to operate a vehicle, but in the ability to move safely within an environment. Additional information provided by participants spoke to the necessity of increasing awareness of licensing systems and improvements that could be implemented to ensure safety for older adult drivers and the community.

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I must also acknowledge my friends whom have provided me with unwavering support through the process of achieving this goal. In the words of C. S. Lewis:

"Friendship is unnecessary, like philosophy, like art... It has no survival value; rather is one of those things that give value to survival."

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So often the writer becomes so attached their written work that it becomes difficult to let go of a single word, sentence, or thought. Or the words simply swim wildly in front of your face, without any semblance of order or coherence. I am extremely grateful for having a friend who was willing to give so many hours of his time. I want to thank Anthony Coppens for taking the time to read, edit and help me clarify what I was actually trying to

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Dedication

This thesis is dedicated to my children; James, Stephen, Kaitalyne, and Danielle, each of whom, I am so profoundly proud of. As I have watched you grow through childhood, through adolescence, and into young adulthood, I am in awe of the uniqueness you each bring to life, and to the many gifts of love that you bring to others. Thank you for being a part of my life.

Chapter 1 - Introduction

Study Background and Rationale

Given that there are many years that an older adult is in need of transportation, and driving may not always be a viable option, there are critical research issues concerning older adults and transportation. Transportation is much more than the operation of a vehicle: transportation is the ability to move within the environment. The ease by which a person can move through the environment greatly contributes to a person's well-being and, in many ways, measures the success of a community. A community that provides a supportive environment, allowing individuals to choose their mode of transportation, without fear and anxiety, may be considered an optimal community for an older person to reside.

However, in order to understand an older adult's transportation and mobility needs, I felt that it was important to not only listen to the viewpoints expressed by older adults but also to seek the perspectives of other individuals who work and live in the community, and have a vested interest in this topic. I believed that to best understand the phenomenon of transportation in relation to older adults, and further to that, relate how this phenomenon contributes to an age-friendly community, one must integrate the perspectives from both of these groups. Therefore, I chose to use a theoretical framework from a developmental systems perspective.

Theoretical Framework of the Study: Developmental Systems Theory

The roots of the Developmental Systems Theory (DST) is within a contextual philosophy of science in developmental psychology, focusing on the dynamics of systems (Lerner, 1998) with a life-span view of development (Baltes, 1987) and building on the

bioecological approach of human development (Bronfenbrenner, 1979). DST has the potential to bring scholars of various disciplines together while incorporating community interest and policy. This theoretical framework provides an intellectual context for integrating the voices and concerns of individuals and communities to further understand a particular phenomenon.

Research in the earlier part of the 20th century focused on the nature vs. nurture debate. Although some academics still view development as dichotomous, DST offers a conceptual framework from which to resolve such discussions. In addition, DST describes ontogeny as related cycles of interaction of developmental processes; however, no single process controls the others. I will briefly outline DST.

Outline of the Developmental Systems Theory

Contemporary life-span developmental psychology involves the dualistic study of constancy and of change in behaviour throughout one's life course (Baltes, 1987; Lerner, 1986; 2000; Lerner & Castellino, 2002). In addition, for those that subscribe to this notion, there is a strong belief of an integration of the individual and contextual levels of analysis in a relational manner (Bronfenbrenner, 1977; Lerner & Castellino, 2002), encompassing the social institution, the culture and the collective history (Modell & Elder, 2002). As mentioned before, often our emphasis on understanding the person can be said to be derived from one dimensional theories (i.e., cognition, emotion, stimulus-response, genetics) and this portrayal leaves little room for inter-group and intra-group variability within a dynamic process across the lifespan (Lerner, 2000).

Change and Relative Plasticity

Some previous research has focused on understanding the plasticity that exists across the life span. Paul Baltes, renowned life-span developmentalist, strongly argued for the dynamic of constancy and change across populations (1987) while others, building on the work of Baltes, noted the importance of the individuality of this change (Lerner & Castellino, 2002). Understanding that individuals change across time and populations, but yet also share similar characteristics, contributes to the optimal design of programs that will enhance positive development and promote positive choices at integral cornerstones in life. In relation to transportation, understanding the differences and similarities of the needs of the population offers opportunities to modify the environment to better meet the changing needs of people and the community.

Relationism and the Integration of Levels of Organization

The importance of understanding the integration of multi-level organization that constitutes human life has increased the complexity of research. In 1977, Bronfenbrenner proposed that the changing environment and the evolving human were inter-related and dynamic. Lerner and Castellino (2002) fine tuned Bronfenbrenner's ideas to capture the various micro and macro levels of life phenomena, including the biological, psychological, social relational, cultural, and the various organizational components of a living environment.

An important aspect of the systems theory is the multi-level approach. As time is not static, neither is the relation of organization to it and to the individual. Uni-level theories of development that focus on genetics, behaviour, or socialisation, in part, contributed to the "nature versus nurture" debate and do not seem to adequately reflect the complexity of understanding dynamic human development. Even as far back as 1968, Erikson purported

that it was logical to examine the psychosocial approach to identity formation as embedded within cultural and societal distinctions. Yet it seems that, for much of the 20th century, the focus drifted away from examining the complexity of interactions and how those interactions effect change over the lifespan.

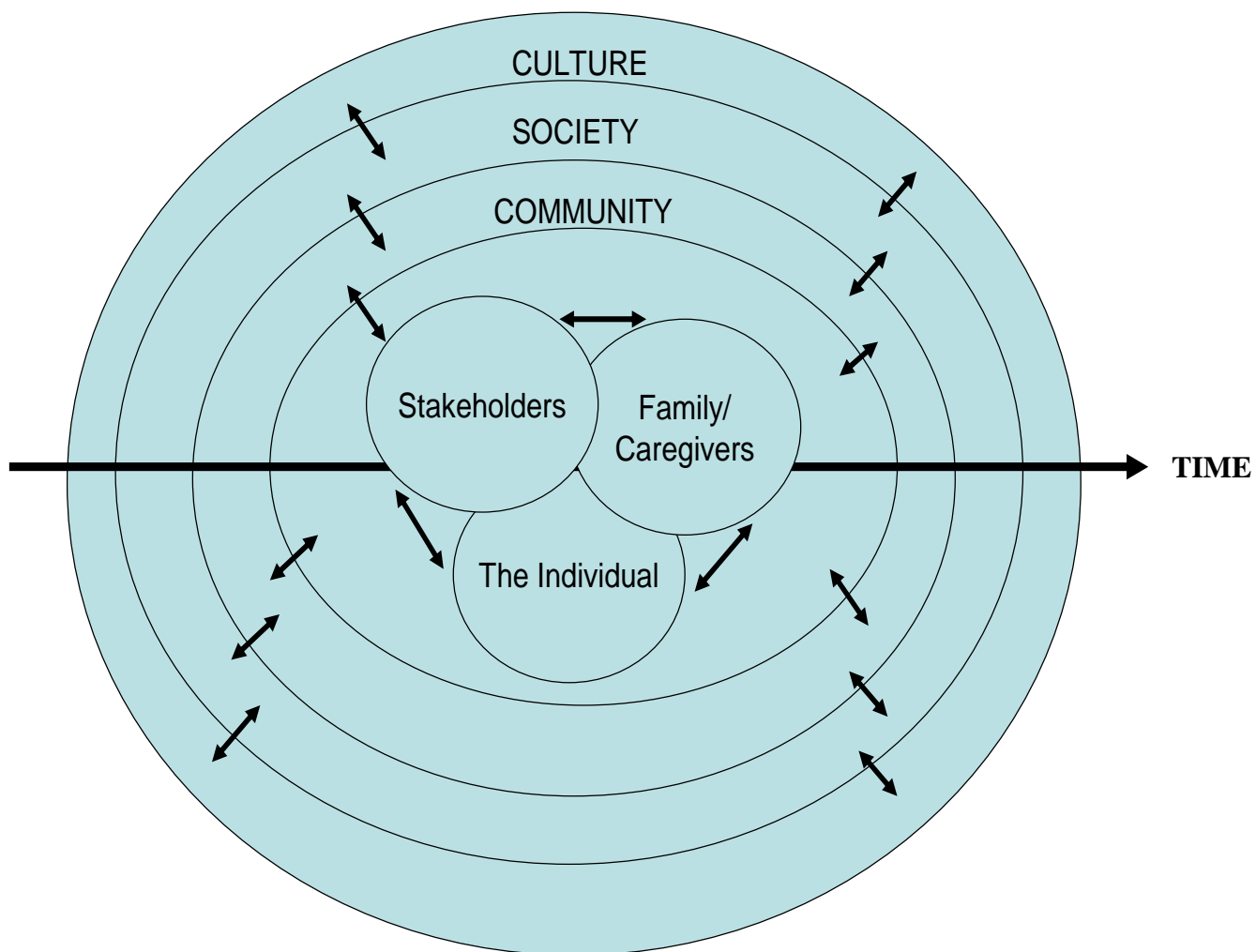
Nonetheless, research in the late 20th century and beyond called for a greater interdisciplinary approach to examining phenomena (Dickerson et al., 2007), recognizing that, to implement new programs with positive outcomes, one must incorporate perspectives of all those affected and elicit the support of community resources. Alternatively, programs that do not receive the financial or structural support of community partners are at an increased risk of failing (White & Whehlage, 2005). Therefore, a major component of this proposed research is to explore the perspectives of community stakeholders as well as older adults in hopes of contributing to an awareness that will provide a strong foundation of knowledge related to transportation issues.

Historical Embeddedness and Temporality

Systems are dynamic, ever changing and this impacts development. From the biological perspective, we observe maturation across the lifespan. The needs of one age group may not be the needs of another age group. Similarly, levels of organization change: structure changes to incorporate the evolving needs of a population with progress as change touted by the media. Cultures change as intermarriage becomes more frequent, intertwining past and present belief systems. Occasionally, change is seen in a negative context and there is an outcry for a return to the past. However, all of these examples illuminate that historical change is inevitable and that change over time is infused at all levels of organization as well at the intraindividual level (Learner & Castellino, 2002).

It may be that the transportation needs of today's older population are different than transportation needs of older adults in previous decades. Certainly, with a greater number of older adults than ever before, the historical landscape is different than it was 20 years ago. Listening to the voices of both the older adult and stakeholder groups will help us evaluate through the lens of a developmental systems perspective, what the various needs of older adults are in terms of transportation and hopefully provide a greater understanding of how we can meet these needs through programs and services. Figure 1 illustrates the Developmental Systems Theory as conceptualized by the researcher.

Figure 1. Developmental Systems Model as Theorized by the Researcher



Overall Goal and Primary Objective of the Study

The overall goal of this proposed study was to contribute to a better understanding of the transportation issues relevant to older adults in the Saanich community, through the process of focus groups that examined the perspectives of older adults and stakeholders. The primary objective was to investigate transportation in relation to the contributions it can add to an *Age-friendly community* for older adults. The data from this investigation was examined within the framework of a *Developmental Systems Model of Human Development*. This theory offers an explanation and understanding of positive development within the multiple levels of community organization (Lerner & Castellino, 2002). From the perspective of developmental systems, relationships between the person, the community, and society are interdependent and reciprocal.

Research Questions

There were two primary research questions for this study, each with several secondary points: (A) Overall, what aspects of the existing transportation situation in Saanich, BC are seen as (a) positive or (b) negative, and (c) what types of improvements might make Saanich, BC a better place for older adults to live? (B) Are there similarities and differences among the perspectives of groups living in Saanich, BC (i.e., older adults, and other stakeholder, including caregivers and service providers) in their perceptions of a) public transportation and alternative modes of transportation, and b) what the community is like for older drivers?

Definition of Terms

For the purpose of this study, the term:

- 1) Older Adults – refers to participants who are over the age of 60.

- 2) Caregivers – refers to individuals who provide direct support to an older adult who would be too impaired, cognitively or physically, to participate in a focus group. In the focus group, the caregivers gave proxy responses for the older adults for whom they were caring.
- 3) Service Providers – refers to individuals involved as: 1) professional staff in public municipal or regional services in key areas (e.g., urban design, culture, parks, and recreation, social and health services, transportation, security, police); 2) business people and merchants (e.g., Chamber of commerce representative, banks, grocery store merchants, pharmacists, restaurant, hairdresser/barber, shopping mall manager, media services); and 3) voluntary organizations (e.g., social service agency, Red Cross, charitable organizations, Alzheimer or other health NGO, religious organizations, older persons' centres).
- 4) Stakeholders refer to both caregivers and service providers.
- 5) Active Aging – refers to the process of optimising opportunities for health, participation and security in order to enhance quality of life as people age (Active Ageing: A Policy Framework, WHO, 2002)
- 6) Age-friendly city - refers to a city that promotes active aging and recognises the; i) great diversity among older persons; ii) the need for promotion, inclusion, and contribution of older adults, in all areas of community life; iii) decisions and lifestyle choices of older adults and respects them; iv) flexibility in aging-related needs and preferences,

thereby anticipating and responding to them (Active Ageing: A Policy Framework, WHO, 2002).

- 7) Age-friendly transportation refers to the inclusion of the availability, acceptability, accessibility, adaptability, and affordability of transportation options for older adults (Active Ageing: A Policy Framework, WHO, 2002).

The Researcher's Conceptualisation of the Perspectives' of Older Adults and Stakeholders Concerning Transportation within DST Prior to Study Outset

Prior to the start of the study, I conceptualized the process by which one can best understand and explain the various perspectives within the DST framework. I believe that, the stories of the individuals (i.e., older adults and stakeholders) would be contextual, be representative of the dynamic and reciprocal nature of systems (Lerner, 1998), and be sensitive to the life-span view of human nature (change over time; Baltes, 1987). Mobility is essential for general independence as well as ensuring good health and quality of life (Oxley & Whelan, 2008). Quality of life, within a biopsychosocial perspective, can include, but is not limited to dimensions such as the physical health, psychological well-being, life-satisfaction, and social networks. A DST framework has the organizational structure to explain phenomena yet retains the importance the biopsychosocial. Finally, I believe that in choosing to use the DST of human development, the results would be best represented as a way to merge scholarly research and community interest to promote community engagement and encourage positive policy changes.

Chapter 2 – Literature Review

In western and industrialised nations, a success story has been born. For the first time in history, populations have the luxury of aging. Nonetheless, with this triumph come challenges for the individual, the family, and the community, all of whom must adapt to a changing social structure in need of additional resources for this burgeoning aging population (Bourne & Rose, 2001; Schneider, 1999). According to Statistics Canada, as of 2007, seniors represented over 13% of our total population and by 2036 this number is expected to grow to over 24% (Turcotte & Schellenberg, 2007).

Transportation is a basic need for all individuals and is integral to independence, autonomy, self-esteem, greater mastery, and quality of life (Dickerson et al., 2007; Ellaway, Macintyre, Hiscock, & Kearns, 2003). Because the private vehicle is the most common form of transportation in North America (Kostyniuk & Shope, 2003), driving also provides seniors with a sense of freedom, flexibility and convenience to go where they want to, when they want to, without having to engage in excessive planning or dependency upon others (Atkins, 2001; Coughlin, 2001).

Despite the availability of alternative forms of transportation (e.g., public transportation, senior transportation services, taxis), 90% of trips are estimated to be in a private vehicle (Glasgow, 2000), with 80% of adults over the age of 65 licensed to drive (Dickerson et al., 2007). In Canada there are over 2.9 million licensed drivers in this later stage of life (Transport Canada, 2006).

However, a myriad of concerns arise as individuals' age. It is not age that leads to problems in driving; declines in driving ability are more likely to occur as a result of medical

illnesses, other health problems, or the medications used to treat those conditions (Dobbs & Carr, 2005). Dementia and even mild cognitive impairment may seriously undermine a person's ability to operate a private vehicle (Adler, Rottunda, & Kuskowski, 1999; Molnar, Patel, Marhal, Man-SonHing, & Wilson 2006) and physical limitations (e.g., loss of mobility, decreased vision, slowed reaction time) contribute to crashes involving older adults (Charlton et al., 2006; Fozard, 2000; Horowitz, Boerner, & Reinhardt, 2002; Kostyniuk & Shope, 2003).

Second only to the youngest age group (age 16 - 25), older drivers are at an increased crash risk per miles driven (BCAA Traffic Safety Foundation, 2008): they represent over 13% of total fatalities and over 8% of serious injuries in motor vehicle collisions (Transport Canada, 2006). Between 1988 and 1998, fatal crashes involving older drivers increased 6.3 percent, injury crashes increased by 10.7%, and the average age of older drivers involved in fatal collisions rose by 1.2 years over the same time period (Transport Canada, 2001).

Because older adults, compared to younger adults, usually experience lengthier recovery processes (Bedard, Guyatt, Stones, & Hirdes 2002), this can impact the social and economic costs (Bedard et al., 2008). Yet, despite increased risk, older adults often continue to drive until a crash alerts authorities and family that the safety of the driver, and those around them, may be compromised (Cobb & Coughlin, 1997; 1998).

It seems apparent, whether it is for health, safety or perhaps even financial concerns, that alternative transportation need to be considered. Although the majority of individuals enjoy the independence of an automobile, at some point, most adults will need to transition to non-driving. According to Foley and colleagues (2002), men will need seven years of transportation support and women ten years after they discontinue driving.

Although there are many alternative transportation options, usage can vary for a multitude of reasons. The Beverly Foundation (2004) defined five attributes of alternative transportation services that determine whether they are “senior friendly:” availability, acceptability, accessibility, adaptability, and affordability. Previous research has revealed that older adults do not believe there are viable transportation alternatives (Adler & Rottunda, 2006). They consider public transportation to be inadequate and not responsive to their needs (Kostyniuk & Shope, 2003), and they lack information about available alternatives, such as public transit or how to access volunteer drivers (Atkins, 2001; Coughlin, 2001). There is also the likelihood of increased anxiety and stress as older adults who no longer drive consider options such as public transportation to be unsafe (Tuokko, McGee, Stepaniuk, & Benner, 2007).

Understanding the transportation needs of the older adult and how it contributes to a healthy community is both challenging and complex. The needs of an individual differ from rural to urban communities (Glasgow, 2000; Johnson, 1998; 1999). The living context demands a differing set of social supports, which will be dictated by communities’ financial abilities (Ragland, Satariano, & MacLeod, 2005). Therefore, it seems that the complexity of estimating what types of alternative transportation options will be needed for an aging community requires not just the input of the older adult, but also other community members with a vested interest in the mobility of seniors (i.e., stakeholder groups). These stakeholder groups include, but are not limited to, caregivers, health care professionals, private sector workers, non-profit workers, and policy/government workers.

There is limited information from stakeholder groups in relation to the topic of transportation and an aging community. Recently, researchers have begun to investigate who

is best to identify at-risk, older drivers. One stakeholder group, for whom this has been the topic of much interest, is health care practitioners (Dobbs, Triscott, & McCracken, 2004). Although they are often legally obligated to report drivers who pose a danger while operating a vehicle, they feel they are ill-qualified to make this decision (Canadian Medical Association, 2000; Dobbs, Triscott, & McCracken; Tuokko & Hunter, 2002). This emphasis on identifying poor drivers is to improve the safety for those individuals and for the others around them, typically by removing that driver from the road. However, driving cessation, particularly when it is involuntary, can be traumatic and life-changing, and it can have significant negative consequences that include reduction in social and recreational activities (Bonnel, 1999; Burkhardt, 2000; 2003; Eisenhandler, 1990), lower self-esteem (Couglin, 2001; Horowitz, Boerner & Reinhardt, 2002; Yassuda, Wilson & von Mering, 1997), isolation and loneliness (Johnson, 1995; 1998; 1999), and depression (Ragland, Satariano & MacLeod, 2005). These consequences may also affect the lives of other stakeholders, such as family members and friends of the older adults.

To more fully understand the specific needs of older adults and transportation, perspectives need to be sought from both older adults and individuals with a vested interest in transportation to help determine what makes an age-friendly community. This will include investigating positive and negative aspects of the pedestrian and the driving environment and how a community can provide transportation supports for older adults.

Chapter 3 - Methods

The Global Age-friendly Cities Project

In 2002, the World Health Organization released a Policy Framework on active aging to support communities in developing and strengthening health and social policies in an aging world. In 2005, at the opening session of the XVIII IAGG World Congress of Gerontology and Geriatrics in Rio de Janeiro, Brazil, the *Global Age-friendly Cities Project* was conceived. The project moved forward with the aid of the Public Health Agency of Canada who provided initial crucial funding for implementing the research. In 2006, in Vancouver, British Columbia, the first gathering of individuals from collaborating cities around the globe occurred. In recognition of the generous support from the British Columbia Ministry of Health in hosting the first meeting of the project, the method developed and the rationale for the parent project was named the *Vancouver Protocol* (WHO, 2007).

The overall objectives and work-plan of the *Age-friendly Cities Project* were threefold: 1) to identify indicators of an age-friendly city, stimulating change and advocacy for older adults in urban centers; 2) to increase awareness of the needs of older adults in urban centers, and; 3) to suggest improvements and to stimulate development. The project rests on the premise that active aging can be promoted when a city is age-friendly. Age-friendly was defined in the Vancouver Protocol as recognizing the great diversity among older adults, promoting the inclusion and contributions of older adults in all areas of community life respecting the lifestyle and decisions of older adults; and anticipating aging-related needs and preferences and responding to them in a flexible manner.

With the support of government, non-governmental organizations, academic groups, and many individuals, the research protocol had input from 35 city partners world-wide and was implemented in 33 large urban centers in 22 countries. The *Age-friendly Cities Project* adopted the approach of acquiring information from the life experiences of the older person and using this information to determine how the needs of this group could be best met. Subsequently, additional information from caregivers of older adults and community members involved in public, voluntary and commercial services was gathered to best understand a community's positive aspects and barriers in regard to age-friendliness. Two major phases were conducted as part of the project: 1) compilation of material through focus groups; and 2) dissemination of the results within each locality.

In 2006, the Province of British Columbia selected Saanich, British Columbia as a partner city. As a partner city in the *Age-friendly Cities Project*, the perspectives of eight different stakeholder groups were sought on transportation and other issues relevant to older adults living in Saanich, BC. Two-hour focus groups were held with four groups of older adults: 1) those aged 60-74 of lower socio-economic status; 2) those aged 60-74 of middle socio-economic status; 3) those aged 75 and older of lower socio-economic status; and 4) those aged 75 and older of middle socio-economic status. In addition, stakeholder focus groups were held with caregivers and three groups of service providers: 1) professional staff in municipal or regional services; 2) business people and merchants; and 3) representatives of volunteer organizations. The objective of the *Age-friendly Cities Project* was to obtain a global understanding of the policies, programs, services and infrastructure related to the physical and social environment that contribute to healthy and safe living conditions for older adults. Saanich, British Columbia volunteered to be a partner city in the overall project to

ensure that the future of municipality is age-friendly. The purpose of this present study was to examine in, greater detail one, aspect of the WHO *Age-friendly Cities Project* - perspectives of older adults and stakeholders regarding transportation in Saanich, British Columbia, and the contribution this can make to an age-friendly community.

The Community of Saanich

Saanich, British Columbia is located on the southern tip of Vancouver Island, next to the provincial capital city of Victoria, British Columbia. In 2006, 23% of the population of Saanich comprised older adults aged 60 and older, with 9.5 % of that total over the age of 74. This is compared to 6% of British Columbia older adults of an age greater than 74 and 5.8% of the Canadian population as a whole. According to the Statistics Canada 2006 Census profile, there were 14 620 older adults aged 60-74, of which 7 700 were female, and, 10 335 older adults over the age of 74, of which 6005 were female.

Population forecasters predict that, over the next 20 years, the population of Saanich will increase by an additional nine percent, with an accelerated proportion of the growth occurring in the older age groups. Factoring in the bulging population of the baby-boomers (individuals aged 45-60 years), understanding the transportation needs of the older adults in this community is essential to city planning of services and infrastructure.

Sample and Recruitment of Present Study

I re-examined the data collected, as part of the *Age-friendly Cities Project*, specific to transportation from each group (i.e., older adults and stakeholders) to identify similarities and differences within the themes that emerged. In the *Age-friendly Cities Project*, older adults and caregivers were recruited with posters placed in seniors centers or other facilities frequented by older adults. Stakeholders identified as possible representatives of regional and

local agencies such as B.C. Transit, Silver Threads, Saanich Volunteer Services Society, the Vancouver Health Authority and several national banks and community associations were contacted by mail and invited to attend focus groups.

Furthermore, I recruited an additional group of stakeholders who had a vested interest in mobility issues relevant to older adults (e.g., police, ICBC representatives, health care professionals, B.C Transit, driving instructors, motor vehicle licensing personnel) to obtain a broader range of service providers perspectives. Although the parent project had eight focus groups, the question involving transportation was only one of eight questions (see Appendix A). There is a great deal of literature that exists on perspectives of older adults and their specific transportation needs. However, less literature is available on the perspectives of those with a vested interest toward transportation and the consequences this has for older adults for an age-friendly community. Therefore, I felt it necessary to further investigate the question around transportation with stakeholders. This was accomplished with an additional two-hour focus group dedicated entirely to the topic of transportation. The supplementary data was to confirm the results from the parent project and to further explore the perspectives of stakeholders. It was evident from the original project that topics pertaining to transportation emerged in all of the questions from the parent project focus groups (see Appendix B). It was my hope that this process would reveal additional, essential information that would, in turn, contribute to a greater understanding of the issue of transportation, and optimally be used to spearhead programs committed to the positive health and well-being of the older population.

The additional stakeholders were recruited from Saanich through telephone calls, letters, and emails. Some recruitment occurred through the use of snowball sampling. That

is, it was anticipated that, upon making contact with stakeholders, they would provide me with other names of people who would be interested in attending the focus group session. Participants who agreed to take part in the focus group were sent a personalized letter thanking them for taking part in the study. The letter also included a brief overview of the purpose of the study and examples of what type of questions would be asked in the focus group. Participants were told that involvement required a two-hour time commitment. They were also provided with a map of the University of Victoria with directions to the location of the focus group and a parking pass so that they would not have to pay for parking.

Ethical approval was granted by the University of Victoria Human Research Ethics Board (HREB) for the *Age-friendly Cities Project*. Written informed consent (see Appendix C) was obtained from all participants, and anonymity and confidentiality were preserved in all situations. Participants were also made aware that they could withdraw at any time during the study, but that any contributions they had made to the focus group discussions until that time could not be removed.

Procedure of Additional Focus Group

Participants of the additional focus group (n = 8) were greeted by the researcher and the moderator of the focus group. To ensure consistency, the same moderator who had conducted or co-conducted the parent project focus groups was used. Participants were given consent forms to read (see Appendix C) and given the opportunity to ask any questions that they may have. They were also given a short descriptive questionnaire, which queried profession and type of involvement that they had with older adults, to fill out (see Appendix D).

Before beginning and turning on the audio recorders, introductions and a brief outline of the rationale of the study were provided. At this time participants were asked if they had any questions pertaining to the study. They were also informed that they could leave at any time but, although anonymity would be protected, any information that they had supplied until that time could not be removed from the audio-tapes.

Participants were given a list of the questions (see Appendix E) that would be asked, so that they could follow along with the moderator. The audio recorders were turned on and the moderator began with the general warm up question used in the parent project (see Appendix A). The moderator then asked the eight questions that the researcher had written (see Appendix E), to best explore the topic of transportation in relation to older adults living in Saanich, BC.

The duration of the focus group was two hours, as told to the participants at the outset. At the end of the focus group, participants were thanked for their time and told that they would be informed of the results when the study was completed.

Data Analysis

This study used qualitative analyses. Qualitative research focuses on gaining insight and understanding about an individual's perception of events or a phenomenon (Nieswaiadomy, 2002). This was accomplished by reading each transcript in detail, immersing myself in the data. Consistent with qualitative methodology, I conducted thematic analysis of the transcribed data (Onwuegbuzie & Teddlie, 2003) looking for patterns. After identifying themes and sub-themes, I noted similarities and differences. This helped me to prepare comparisons across groups, identifying similarities and differences in patterns of responses.

Credibility, Auditability, and Fittingness

In qualitative research, the researcher is searching for patterns and themes rather than focusing on hypothetical testing found in quantitative research. To achieve this goal I took the following steps: 1) I re-analysed and recoded the original transcripts from the *Age-friendly Cities Project's* focus groups in an independent investigation of the data; 2) I involved another individual to independently analyse the supplementary transcript to ensure that I had accurately represented the data, and; 3) I applied the data within the framework of the *Developmental Systems Model of Human Development* (Lerner & Castellino, 2002).

I read each transcript in full, immersing myself in the data. Each transcript was then coded and a thematic analysis was done. As topics relevant to transportation became apparent they were placed in specific themes. The same orders of steps were followed for each transcript. Only after each transcript had been analyzed did I examine the results from the parent project to evaluate whether we had come to the same results. There was one exception to this and that was with the additional focus group of stakeholders. As this group was not part of the parent project the findings could not be compared to the parent project focus groups. Findings between the focus groups were compared by charting similarities and differences.

A second individual was used to independently analyse the data. This person was told to follow the same steps as I. If there were discrepancies between myself and the other rater, we each explained to the other, our reasoning for placing results under a particular theme. We then arrived at a consensus as to which theme to place the findings in.

The data was placed within the framework of the *Developmental Systems*. This perspective involves the study of people providing a source across the lifespan and to that

end giving recognition to each person's individual developmental trajectory (Lerner, 1998). The development occurs through the dynamic interactions people experience with the specific characteristics of the changing contexts. These person-context relations provide both opportunities for growth and change.

The aforementioned steps in my analysis ensured that I met the criteria for scientific rigour in qualitative research (Guba & Lincoln, 1981). LoBiondo-Wood and Haber (1998) go on to describe what a researcher should take do to achieve scientific rigour (credibility, auditability, and fittingness). To accomplished *credibility* (independent researcher analysis of transcripts culminating in a consensus) two independent researchers were used to analyse the data and where disagreement was found, consensus was generated through discussion. In order for *auditability* to be met, it is my belief that I have provided adequate information to the reader that should another researcher examine the transcripts they could replicate this study and may come to similar conclusions. However, although it is entirely possible that the study could be replicated by another researcher they could bring their own perspective and biases and the findings could be different. Finally, it is my strongly held belief that it is with integrity that I was faithful and true in representing the data toward the reality of each individual participant. I tried to describe in enough detail that others who are interested in understanding what contributes to an Age-friendly community may have a stronger awareness of the needs of older adults

Method of Analysis

Although there is a tendency to do so, qualitative studies should not be evaluated with the same guidelines as quantitative studies. Whereas standardised practices would be the norm in quantitative research, methods in qualitative are dynamic, subject to historical and

cultural change (Thorne, 2008). Although I believe that it is important to understand the traditions and historical underpinning of “classical methods” such as phenomenology, ethnography, and grounded theory, the researcher can not be so dogmatic as to discount that a combination of methods may best represent the phenomenon of interest and the perspectives of the individual(s). In the forward written for Sally Thorne’s book, *Interpretive Description*, Margarete Sandelowski wrote:

Like researchers themselves, methods are dynamic actors subject to historical and cultural change. Novice researchers attempt slavishly to adhere to methods. Seasoned researchers know methodological rules and, thereby, know how to bend them. Some see this as methodological anarchy; others, as methodological innovation (2008).

Although my chosen method may be seen as *phenomenological*, in that it examines human experiences through the descriptions provided by involved individuals, one could also argue an *ethnographic* approach as it is data collected from a cultural group (i.e., western civilisation). Some may even argue that this research is a *case study*, an in-depth examination of various groups of people. Ultimately, I chose to use *descriptive analysis* because of my desire to seek knowledge about firmly designed questions in which I expected to arrange the findings within an existing theoretical framework. In doing so, there were three steps that I followed: 1) describe the phenomena; 2) explain the phenomena or process; and 3) discuss the implications or predict future behaviour of the phenomena. Further to descriptive analysis, I employed a comparative technique to understand the similarities and differences between groups of individuals that participated in the study. Although comparative methods are generally cross-sectional and do not usually involve a temporal dimension, for this study I used a diachronic view (the phenomena as a process) to explain some of the findings.

Chapter 4 - Qualitative Results

In reviewing the data from the parent project, each transcript was re-analysed in its entirety (i.e., all questions), despite having only one question devoted to transportation. This was considered necessary because mobility and accessibility of transportation were reoccurring themes within many of questions. The additional focus group data was analysed in the same manner as the original parent project's analysis. All data was reviewed and placed within the themes and sub-themes. This information was used to answer the three research questions. To present these findings, quotations have been used to best represent the thoughts of the participants. Additional supporting information for each focus group can be found in tables 1-9.

Several key themes emerged as a result of the analysis: 1) physical environment; 2) education/communication; and 3) government/policy. For each of the following research questions I examined the data and placed the responses within each of these themes. Research question one combines responses from participants from all of the focus groups. Research question two separates responses from older adults and that of stakeholders.

Research Question 1a: Overall, what aspects of the existing transportation situation in Saanich, BC are seen as positive?

The Physical Environment for Non-drivers

To answer the first research question, participants were asked to identify positive aspects of transportation in Saanich, BC. Transportation was defined in numerous forms (e.g., walking, riding a scooter, driving, taking the bus, utilising community services, using a walker). Many

participants reported that they felt there were many transportation options, they felt supported, and the streets of Saanich offered a clean and non-threatening environment. One responder noted that “Saanich is a reasonably clean and safe environment and I would at no time feel threatened when I’m out in the streets.”

Older adults also acknowledged that alternatives to driving such as public transportation, HandiDart, volunteer community services, and family support were available, and, that in many cases, the individuals providing these services were friendly and informative. One woman in the over 75 age group said that she found “the bus just excellent and the drivers are so kind and so thoughtful.” Caregivers also acknowledged that HandiDart drivers were well trained and offered a relief to caregivers who usually provided primary transportation.

There was a great deal of discussion surrounding the issue of walking paths. Many older adults noted that they appreciated the City of Saanich’s numerous places to walk and bicycle. Stakeholders reported that there were many good examples throughout Saanich where the municipality had created “corridor, sidewalk-friendly” areas. This was in reference to heavily-populated, older adult neighbourhoods where they would most likely not use vehicle transport to shop or attend appointments. These areas, especially the Shelbourne and MacKenzie area, have “mid-block crosswalks (i.e., islands in the middle of the street), sidewalks in excellent repair and ramps for wheelchairs and scooters.”

The Physical Environment for Drivers

The topic of parking spaces was a recurrent theme; however, only the stakeholder groups mentioned that there was an abundance of handicap and senior-friendly parking spaces. It was noted that Saanich has free parking, as opposed to the neighbouring city of

Victoria, and that handicap parking was “always” empty. However, another stakeholder mentioned that some places provided more dedicated parking than others.

Education/Communication

Many participants referred to the existence of educational programs that assisted older adults. This included transit travel training, a program available to teach individuals how to use the public transportation system, and sensitivity training programs for bus drivers and Handi-Dart drivers. In addition, workshops such as the “Mature Drivers program” and “55-Alive” were mentioned by most of the groups as being informative and useful for upgrading driving skills.

Government/Policy

The stakeholder group noted the value of community buses that serviced smaller population areas, and that the regional system in Saanich and surrounding areas was generally good, with newer buses being more “age and disability friendly” (i.e., kneeling buses). Older adults recognised the affordability of the public transportation system.

Research Question 1b: Overall, what aspects of the existing transportation situation in Saanich, BC are seen as negative?

The Physical Environment for Non-drivers

To answer the second part of research question 1, which asked people to identify the negative aspects of Saanich’s transportation system, the most common theme was related to the physical environment for non-drivers. Sidewalks and cross-walks were repeatedly mentioned as an obstacle in an older adults’ ability to navigate safely: the absence of sidewalks in many areas made road travel difficult. One woman described an experience of trying to get to her home from an event she had attended:

...we're told to face the oncoming traffic but the cars kept coming and coming. No sidewalks, I had to keep jumping into the ditch...I find a lot of sidewalks are petering out.

All older adults focus groups cited lack of sidewalks, narrow sidewalks, lack of curbs, and broken sidewalks as a problem. They were considered to be unsafe for those using them to walk, and they were noted to be particularly unsafe for individuals who operated a scooter, were in a wheelchair, or used a walker. In addition, for individuals who used services such as HandiDart or public transportation, uneven or broken sidewalks made for difficult and unsafe loading/unloading practices.

Cross-walks were very much considered negative toward safe mobility of older adults. Many complained of the length of time that one was allotted to cross the street. One participant described a situation where he and his wife were attempting to cross a street:

...you have one heck of a time waiting for the traffic and then shooting through to the other side. I am able to travel across at a pretty good clip. Unfortunately I've had a couple of close calls when my wife comes with me because she can't run as fast as I can. (75+ focus group)

Another man who suffered from macular degeneration described how difficult it is for those individuals who have decreased visual acuity to actually see the message on the cross-walk light.

Older adults also found navigating the physical environment difficult, especially when pedestrians were forced to share pathways with bicycles. They were disconcerted by the speed at which cyclists travelled, by the congestion on walking trails created by cyclists, and the uncertainty of when a trail becomes a roadway.

The Physical Environment for Drivers

Most commonly, older adults and stakeholders stated that a heavy, fast-paced driving environment made it increasingly difficult for older drivers. Altered driving patterns over the past 50 years promoted “anxiety”, particularly as a person ages. In addition, busy parking lots and small parking spaces were noted by both groups. The lack of senior and handicap parking was most relevant for the older adults and caregivers.

Signage was consistently identified as a problem by both older adults and stakeholder groups. Overgrown shrubs and trees made it difficult for individuals to read street signs and addresses. Older adults also mentioned the difficulty they had in reading the signs, when letters were only “two” inches tall.

Education/communication

The consensus among groups was that there needs to be more education and communication for older adults, and stakeholders on the subject of transportation. Stakeholders complained that many older adults did not know how to use the bus or how to access systems like HandiDart. Many participants felt that bus drivers, HandiDart drivers, and taxi-drivers did not know how to best assist older adults in utilising these services and that the older adults and service providers would benefit from educational training programs.

Many older adults felt that those who provided transportation services were ill-equipped to deal with the special needs this population (e.g. providing bus schedules in larger font). In addition, they also felt that the public was not always aware of the special needs of older adults who use public transportation: older adults complained that bus drivers drove too quickly, often leaving a stop before the older adult had taken a seat; young people often sat in seats at the front of the bus forcing older adults to navigate to the back of the

bus. The conclusion of older adults was that there was not enough education surrounding their special public transportation needs.

Finally, the focus groups noted the lack of educational programs for those from culturally diverse backgrounds. One stakeholder admitted that “a large number of groups aren’t being served. We’re not very diverse,” and that these groups needed education on all transportation options because the people were often new to the city.

Government/Policy

All groups agreed that there were many negative aspects of transportation: some were related to government and policy; however, ultimately, they determined that the lack of financial resources limited what improvements could be made. One member of the business community stated, “...the negative part is always that one has to be financially responsible.” Lacks of financial resources were related to inadequate bus service particularly on weekends and/or on holidays. One older adult noted that his activities have diminished because of access:

...I quit going to church years ago when I couldn’t get myself there because of transportation issues...Saturday and Sunday...or evenings...transportation becomes a problem and prohibits me from either serving on boards or other activities that would take place at those times.

Individuals felt that smaller rural communities or less densely populated communities were not served because of the lack of financial resources, and not enough community buses were available.

Research Question 1c: What types of improvements to transportation-related issues might make Saanich, BC a better place for older adults to live?

It was agreed by everyone that transportation affects all areas of life, and that there was a need for the community to recognise the importance of supporting transportation.

The Physical Environment for Non-drivers

In terms of the physical environment, people deemed that it was essential to maintain existing sidewalks more effectively, increase the number of sidewalks, create safer environments for those who walk or use assisted-mobility devices, and provide overhead signage to notify drivers of upcoming crosswalks. One person suggested adding the words “caution – elderly people crossing here” on signs at crosswalks in residential areas heavily populated with older adults. In addition to increasing the time allotted to cross a street at a signal-operated crosswalk (or putting in “island safety zones” or overhead crosswalks for long crosswalks), both older adults and stakeholders stressed the importance of having an audible signal accompany the visual signal.

Walking trails, although considered positive and numerous in Saanich, caused some concern. Older adults expressed a desire for trails to be asphalt to provide a smoother surface for walking and operating devices such as scooters.

The Physical Environment for Drivers

It was acknowledged that the driving environment has become busier and this creates challenges for older adults. Older adults recommended limiting bicycle pathways on roads and increasing the size of printing on signs. One stakeholder cautioned that the

increase of signs may prove to be too distracting for drivers. In parking lots, larger parking stalls were suggested, in part to accommodate older adults who must also navigate getting walkers out of vehicles, and that, perhaps, additional parking spots could be made available during the week, when older adults were more likely to shop. These spots could be converted to general parking on the weekends, when families were more likely to shop.

Educational and Communication

Education and communication were identified as ways to provide better understanding of the transportation options and to increase understanding between older adults, community members, and service providers. Several education programs were suggested: 1) Using and Accessing Alternative Transportation (i.e., bus, taxi, HandiDart, volunteer services for both caregivers and older adults); 2) The Changing Needs of an Aging Population (including building cross-communication between groups and identifying the special needs of culturally diverse populations); 3) Transitioning from Full-time Driver to Non-driver (this included information sharing for older adults on “best times to drive”; 4) Enhancing Driving Skills; 5) Assisted-walking Devices (i.e., walking sticks such that are used predominantly in Europe to decrease falls).

Policy/Government

Many of the recommendations that surfaced in the focus groups were directly tied to funding. Increasing transit routes to low-population and rural areas and increasing smaller community bus service were thought to help increase the use of alternative transportation. Smaller buses would be able to navigate otherwise unserviceable areas (e.g., narrow streets, steep inclines). Several individuals mentioned that creative alternative transportation solutions might be more viable than using regional public systems. One such solution was

that of using school buses, which were otherwise idle during the middle of the day, to pick up older adults to take them on day trips or shopping excursions.

From a city planning perspective some stakeholders believed that working with the engineering community would ensure consistent standards across communities and also assist in designing safe, mobility-friendly communities that would encourage pedestrian traffic. Finally, in recognition of the heterogeneity of the older population, committees that are representative of all persons (i.e., municipal officials, public transport, Handi-Dart, service organizations, and older adults with mobility problems) may be formed.

Research Question 2a: Are there similarities and differences among the perspectives of groups living in Saanich, BC (i.e., older adults, caregivers, and service providers) in their perspectives of public transportation and alternative modes of transportation.

Perspectives of available transportation and alternative transportation differed the groups. All groups agreed that there was a need for increased service in rural communities and neighbourhoods that contained fewer older adults. All groups also agreed that education was the key component in getting older adults to use alternative transportation.

Older adults over the age of 75 were more likely to say that they were afraid of riding the bus and that the bus service did not meet their mobility needs (i.e., bus driver leaving the curb before they had found a seat, bus stop too far from home, bus schedule confusing). One participant responded:

...if you're handicapped, as I am with a cane and a hearing aid, I'm very conscious of where I go. I don't ride buses 'cause I'm frightened and I don't know what they can do about that.

Caregivers were unique with their perspective on the need for alternative transportation. As opposed to relating it to the needs of the older adults they related the need for alternative transportation for the family:

...without alternative transportation there is a real burden on the family...we pick up the slack where other services are not available but the family is burning out.

Research Question 2b: What is the community of Saanich, BC like for older drivers?

In the discussion as to what the community of Saanich was like for older drivers, it was generally noted that as one ages, operating a vehicle becomes more difficult. All of the focus groups raised the issues of signage, road changes, rule changes, traffic pattern changes, and road etiquette. There was one unique result that emerged from the additional stakeholder group. This group, with two hours devoted entirely to the topic of transportation, spent the majority of the time discussing licensing and testing (retesting) of older adults.

It was acknowledged that as persons' age, physical changes in mobility, visual acuity, and slower reaction time affects one's ability to drive with the same skill as when one was younger. When faced with changed traffic patterns, increased traffic, changes in road design and the speed of other vehicles, older adults are more likely to experience higher levels of stress and anxiety. One stakeholder surmised:

...I think for the seniors perhaps just there's a sea of traffic and they see all these wild, poor habits all around them. ...mob rules take over...well it's pretty aggressive driving.

Stakeholders felt strongly that older adults should take measures to ensure that they could maintain their independence through operating a vehicle; moreover, they should be encouraged to not engage in stressful situations that might put them at risk of being placed in a situation that would result in re-testing and, thereby, possibly losing their licence:

...I think we should encourage seniors not to be driving, you know, cut your driving seasonally. So again, if you (*sic*) want to maintain your independence of being able to drive, the easiest way to do that is not to get into an accident. If you get into an accident, you'll be retested and chances are you'll lose your licence. So, if you want to continue to drive, drive when it's a good time to do so.

One person noted that the worst places for an accident are actually parking lots. Parking lots are busy and they have limited parking stalls for seniors. Older adults report the difficulty in trying to look for a parking spot that is close to where they want to go, keep an eye out for other traffic, all while trying to operate their own vehicle. If an older adult is involved in an accident, numerous forms of anxiety are likely to occur. Not only do they stand a greater chance of sustaining an injury than a younger person but they increase their risk of being called in for a re-examination because of their age:

From a claims perspective, from ICBC, parking lots are notorious for crashes...difficult to negotiate...trying to find a spot close to the door...

In addition, the claims process was noted as being particularly confusing for older adults and, for those on fixed incomes, financially straining. However, although Stakeholders agreed that there was a re-testing system in place, they also agreed that it did not seem to be working optimally and changes should be made. To begin with, they agreed that older adults don't seem to understand the "system" and they are in need of education to learn exactly how the licensing and motor vehicle department operates.

...ICBC is basically just doing the work on behalf of the superintendent's office...the ...decision making is with the superintendent...That is something that needs to be addressed with seniors. They don't understand that there are two different divisions...

Many in the focus groups agreed that the licensing system was confusing and added to the fear and anxiety of older adults as they approached their 80th birthday, and faced the increasing chance of being called in for a re-testing. Much of the discussion also revolved

around the type of re-testing that is required of all drivers and how this contributes to their anxiety. Stakeholders involved in re-licensing admitted that tests are generalised to the entire driving population and not to driving skills in which older adults are likely to engage. An ICBC licensing official reported that one older adult actually crashed through the window of the motor vehicle branch when asked to perform a particular manoeuvre, and a gentleman died when he attempted to move his head beyond his physical capabilities:

We have the problem of getting them to back in...it's a manoeuvre they're never going to do on their own and that's kind of a queer thing that evolved into the BC test as part of the graduated program. I am not sure that having seniors back in as part of the re-test is really a reasonable thing at all.

Another licensing issue became clear: people from other cultures may be driving, but yet they fall between the cracks of being tested or licensed in the Province of British Columbia.

Language and culture were noted as problems associated with individuals who potentially operate vehicles when they may not qualify for a licence under present regulations.

Stakeholders acknowledged that many who drive are not licensed due to their inability to read English, their indifference to laws and regulations, or their fear of the authority:

...in relation to First nations...I think we've got some real serious issues there where it comes to driving, seniors, etc....there are literally people out there driving with no licence whatsoever...the education level, the literacy issue, it's big, very big...

Or:

Other ethnic groups...fearful of authority...they can't pass a test because they can't read English so they just drive even if they don't know the rules of the road.

The stakeholder group noted that individuals should be encouraged to attend workshops that offer driving skill refresher courses. They also felt that there were aspects of the present licensing system that could be changed, such as putting a restriction on licences so that older adults could only operate a vehicle during limited hours. Finally, they noted that licensing is a complex issue: stakeholders spoke of understanding the attachment to

vehicular mobility and the autonomy that it provided for so many adults. However, they also noted that there were older adults who should not be operating a vehicle and that there needed to be avenues to distinguish these individuals from the able drivers, so that the safety of the community and the person could be maintained.

Results Incorporated into the Developmental Systems Theoretical Framework

The developmental systems approach provides a framework as a better understanding a phenomenon of interest that can be best explained by examining micro and macro levels of organization and their interactions.

Central to its core is listening to the lived experience of the individual and recognizing the individual differences that exist even at this micro level. This is represented in the results from the stories that the older adults shared on what they felt worked and did not work for them in the community of Saanich. At the same time, caregivers of older adults had specific transportation needs that were related to the transportation needs of the older adult. In conjunction with this was the recognition that, with the passage of time, the needs of both the older adult and the caregiver's could potentially change.

It is not enough to explore the micro-level of phenomena. Stakeholders must also understand what the needs are of the population they are trying to serve. To provide services that are positive or to create programs with optimal designs, stakeholders must take advantage of opportunities to listen to the voices of those who are most likely to benefit. In addition, policy makers, also stakeholders, face challenges in trying to find positive solutions, often without the financial resources. In this study, it was evident that stakeholders were aware of some of the changes that would need to be enacted to increase the *Age-friendliness*

of Saanich, but yet it is also possible, that in listening to the voices of the older adults and caregivers, their understanding would deepen.

Taking into consideration the community, in terms of its physical attributes and geographical location, gives a contextual backdrop from which to study this phenomenon. Saanich, BC is an urban environment that has many transportation options. However, the needs for alternative transportation do change as individuals age. A replication of this study in a rural environment would likely not garner the same results. We also heard through the voices in this study that there are also many improvements that could be made, particularly for pedestrians.

Finally, this study does give some weight to the temporal nature of this kind of research. It was evident that the needs of older adults change as they age. For example, as individuals age, physical mobility may decrease. This may make it increasingly difficult for an older adult to use mass public transportation. Also, while developmentally the needs of adults change, communities also experience change over time. Increased road traffic is a result of a growing population increases. This driving environment has the potential to elevate anxiety levels for older adults as they attempt to operate a vehicle when their physical and mental abilities have altered.

In conclusion, I believe that the developmental systems approach used in this study was an appropriate approach for furthering the understanding of the transportation needs of older adults, stakeholders, and the community in relation to making Saanich a more *Age-friendly* community. This study represents the voices of individuals, families, and stakeholders who chose to take part in my focus groups. The development of the theory is that there are systematic and successive changes across the lifespan and that that in order to

understand normative and atypical process, as they emerge within different developmental periods, and across diverse physical and cultural settings, one must give recognition to the plasticity of human and society when time is considered part of the equation.

Chapter 5 – Discussion

There were three key themes that emerged from the data: 1) environment; 2) education and communication; and 3) policy and government. Perspectives from participants in all of the groups were represented in each of the themes.

Research Question 1a: Overall, what aspects of the existing transportation situation in Saanich, BC are seen as positive?

Adults over the age of 60 represent 23% of the population in Saanich (Statistics Canada, 2006). The fact that so many older adults choose to make this community their home may be in part reflective that Saanich is an *Age-Friendly* community. Older adults and stakeholders agreed that there were many aspects about Saanich that were positive. Trails and walking areas can be found in great abundance. Many individuals also agreed that services that supported their mobility were accessible and affordable. These two attributes are an essential part of determining whether transportation options are *Age-Friendly* (WHO, 2007; Beverly Foundation, 2004).

There were also several neighbourhoods within the municipality that were considered pedestrian friendly and encouraged older adults to utilize shops and services, thereby negating the need using a vehicle. For individuals who did operate a vehicle, driver refresher programs were available

Research Question 1b: Overall, what aspects of the existing transportation situation in Saanich, BC are seen as negative?

It is true that although not all pedestrians are drivers, all drivers are pedestrians. Not surprisingly then, aspects relating to the physical environment elicited the greatest number of negative responses. In many respects Saanich did not meet the transportation needs for many older adults.

For older adults the physical environment created many challenges. In particular sidewalks were reported as a problem, particularly for older adults with decreased mobility. Narrow, uneven, or non-existent sidewalks presented potential hazards that affect the ability of older adults to get around. This is consistent with findings from the World Health Organization Age-friendly cities project (2007). Older adults from both developed and developing countries report that they feel limited in their mobility when the physical environment is not optimal.

Older adults also reported that road crossings were extremely challenging to navigate as they did not feel there was sufficient time to cross and for individuals with vision difficulties they were even more at risk of encountering problems.

Research Question 1c: What types of improvements to transportation related issues might make Saanich, BC a better place for older adults to live?

All of the participants had suggestions for improving Saanich as a place for older adults to live. In keeping with the number of negative responses many suggestions were put forth that would improve the community. Pedestrian walkways were in need of upgrading in

order to make Saanich age-friendly. These upgrades include increasing the number of sidewalks, improving the quality of the sidewalks, and creating better transitions between the curb and the road-way. Crosswalks could be improved by lengthening the time allotted to crossing accompanied by sound.

Older adults felt very strongly that Saanich could do a better job of providing better bus service, particularly in the form of smaller community buses that could service less populated and remote neighbourhoods. Recommendations also included providing “sensitivity training” for bus drivers and individuals who operated HandiDart to educate them on the specific needs of older adults. In addition, public awareness campaigns would help the community to also gain a better understanding.

Research Question 2a: Are there similarities and differences among the perspectives of groups living in Saanich, BC (i.e., older adults, caregivers, and service providers) in their perspectives of public transportation and alternative modes of transportation.

There were differences across the groups in the perspectives concerning public transportation. All groups recognized that education was the key in getting older adults to use systems and that there was a need for having alternatives other than the public transportation system. However, older adults over the age of 75 were less likely to see public transportation in a positive light than older adults aged 65 – 74 and thereby they were less likely to use it. As other research has suggested (Oxley & Whelan, 2008), the older a person, the more likely they will experience difficulty in using public transport because of declines in physical health. Mass transit is really only a viable alternative for those with minimal physical disabilities. This has strong implications in that policy makers need to take that into

consideration and that other alternatives must be encouraged as a person ages. The risk of social isolation will be greater for an older adult who does not have or does not see viable transportation.

Caregivers reported that alternative transportation services were necessary to provide them with respite. Stress on caregivers, generally a spouse, increases when the individual they are caring for can no longer drive (Taylor, 2001). Supportive transportation services are necessary for the well being of the older adult and the caregiver. Supportive transportation is more likely to embrace a “door-door” approach. This type of service would likely encourage older adults to utilize alternative forms of transportation because it would alleviate fears such as falling or being unable to carry groceries.

At the end of the day, the take home message from all of the groups was that an *Age-friendly* community would look at providing alternative transportation specific to needs of individuals of different ages, that would increase personal service, while maintaining affordability. In addition, providing educational/training programs would increase use of services.

Research Question 2b: What is the community of Saanich, BC like for older drivers?

In Saanich, driving is the preferred mode of transportation. However, the community of Saanich can be a challenging driving environment for older adults. In part this could be that Saanich is growing and the number of vehicles on the road is increasing. Consistent with other driving literature (Baldock, Mathias, McLean, & Berndt, 2007), older adults often report that they feel anxious when driving because of the speed of traffic and the lack of road

etiquette. They feel pressured. Changes in road structure and poor signage make operating a vehicle difficult.

Parking lots are also chaotic environments. The Insurance Corporation of British Columbia reports that it is parking lots where the greatest numbers of collisions occur. Not only does this have financial implications but we know that older adults who are involved in accidents are more likely than younger adults to experience negative health consequences (Bedard, Guyatt, Stones, & Hirdes, 2002).

The topic of older adults continuing to drive when they shouldn't was discussed in great detail by stakeholders. Older adults often continue to drive until an accident alerts authorities and family that the safety of the driver, and the general population, may be compromised (Cobb & Coughlin, 1997; 1998). This raised the topic of licensing and re-testing for older adults. Currently in British Columbia there is no automatic re-testing system. Stakeholders felt that there needs to be a revamping of the current system as many older adults should not be operating a vehicle. Currently, individuals must have a physical examination and have their physician complete a medical fitness certificate after the age of 80. Consistent with research conducted by Jang and colleagues in 2006, participants recognised what that this process was ineffective because many physicians felt they were not equipped to identify many at risk-drivers. There was a strong recommendation to improve education for physicians on the topic of driving.

Although stakeholders devoted considerable time to the discussion of licensing and testing, this topic was not discussed in any detail by the older adults. However, the older adults in the parent-project did not have an entire focus group devoted to the topic of transportation. In the 2002 Law commission report "*Legislation and Driving Fitness*" older

adults did express an interest in the topic of licensing and testing. However, it also could be that older adults do not want to talk about a process that causes such anxiety. Perhaps the knowledge that they are not as physically capable now, compared to when they were younger leaves some fearing a re-test that may ultimately take away their autonomy and independence. Or it could be that older adults don't think there is a need to have automatic testing at a certain age and that it should be more related to a person's driving record.

It was event that there were no easy answers on the topic of licensing and testing. Many issues "muddy" the waters, so to speak. Cultural differences should be taken into consideration when developing licensing procedures. There must also be a better understanding of groups for whom literacy contributes to greater challenges relational to testing or even in taking part in educational driving workshops. Clearly this topic is one that warrants an in-depth exploration of the issues.

Study Limitations

There did not seem to be a wide variety of socio-economic classes represented in the focus groups. In addition, there were few participants from culturally diverse backgrounds. Although it was apparent that stakeholders were aware that groups from different cultures had different challenges in relation to transportation, lack of involvement from non-Caucasians was a problem. These two limitations speak to the fact that we can not generalise these findings to the population of older adults but that this study is only representative of the population sampled.

Another limitation to this study was that it was conducted in an urban core. Traditionally, urban centres are much more likely to have programs in place that support the mobility of older adults. In the second stage of the parent project, researchers traveled to

rural and remote communities to ask the same questions. However, the present study did not ask stakeholders from rural communities about their perspectives. It is likely, that in interviewing, at length, stakeholders in rural communities, additional issues, both positive and negative, would emerge. It is possible that suggestions and improvements would vary and the effectiveness of strategies would differ dependent on whether it was an urban or a rural environment.

Finally, there is a limitation in that this study only employed the use of qualitative analysis. To be true to *Developmental Systems Frameworks*, it is recommended that a combination of quantitative and qualitative analysis be employed and that there should be some longitudinal component to the study. This is because of the temporal nature within a true DSF. This study was cross-sectional and I defined the time component as the differences between the two age groups in combination with historical change. This assumption means that I assume that the differences are chronologically based, when in fact, the same results may not be found if you followed the same group over time. For example, the younger age group may not have the same mobility issues as the older age reports when they reach the older group threshold. Generally speaking, younger generations, in developed countries, are taking more proactive and positive measures to improving physical health. Future generations of older adults may suffer less from negative health consequences or at the very least they will be older than current generations when declines in physical health occur.

Future Directions

As mentioned in the limitations, two groups of older adults were noticeably absent in the focus groups: those with challenging economic circumstances and those from culturally diverse backgrounds. Future research should make an effort to include individuals from these

groups to assess whether their needs differ. It may be that those who have fewer financial resources would be more likely to access affordable alternative transportation options, yet they are unaware of which services are available within the community. Alternatively, individuals from culturally diverse backgrounds may be in need of different types of supports, such as individualised programs that better guide them through the processes of licensing, re-licensing, or accessing services.

Improvement projects that have stemmed from the original Age-friendly Cities Project have begun. Saanich has incorporated many of the recommendations that arose from the parent project. Data collection has been completed in rural BC communities, and plans are currently in development to implement changes in those communities (Hallman, Menec, Keefe, & Gallagher, 2008).

However, there are many more changes that can be implemented. In particular, the licensing and re-testing system in British Columbia was thought by many to be lacking in meeting the needs of a heterogeneous population. Evaluating the present program, to better understand what changes could be employed, could be the next step. In addition, exploring the possibilities of reporting older adults who are at risk for unsafe driving, and further to that, discovering what tools individuals need to better identify those at risk, seems like a logical next step.

Conclusion

As with previous research (Dickerson et al., 2007; Macintyre, Hiscock, & Kearns, 2003), transportation was considered by participants central to the independence and quality of life for the older adult. One stakeholder summed it up:

...a senior's mobility defines their quality of life and I don't think you can get much bigger than that.

Transportation was defined as more than just operating a vehicle or using a bus, but it was the ability to move safely and with ease in the physical environment.

Applied developmental science (ADS) is a scientific scholarship that seeks to incorporate developmental research with actions that promote positive development. The ADS perspective challenges the validity of decontextualized knowledge and the legitimacy of isolating scholarship from problems that affect individuals emphasizing the importance of scholar/university-community partnerships (Lerner, 1998).

I believe that in gathering information from both older adults and stakeholders, and asking for suggested improvement from these individuals, there is the potential to spearhead changes that can contribute to a positive *Age-Friendly community*. In examining this phenomenon within the *Developmental Systems* perspective, this theory underscores the diverse ways in which persons can be studied at the individual and also at the contextual levels of relational and temporal organization (Bronfenbrenner, 1977). Key conceptual themes include the embeddedness of the ecology of the research, testing beliefs within the person-context, and appreciating the relative plasticity of both human development and community change. This was very evident in the hearing about the changing needs of older adults (young-old versus old-old). Individuals and community representatives informed the research, which at the heart of systems theory, increases knowledge because these people are "experts" in their lived experiences through a biopsychosocial perspective. If, through scholarly research, our desire is to help implement better policies and programs, engaging in discovery through a developmental system theoretical frameworks, is not only optimal, it is necessary.

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Appendices

Appendix A

Warm-Up Question and Transportations Question Used from the Parent Project for Stakeholder Focus Group for this study

Topics and Open Questions	Prompts
<p style="text-align: center;">WARM-UP QUESTION (10 minutes)</p> <p>What are the most important things your city could do to become a better place for older persons? (10 min)</p>	No prompts
<p style="text-align: center;">Topic 2.(10 minutes)</p> <p style="text-align: center;">TRANSPORTATION</p> <p>The next area is transportation. I want to hear about the positive and the negative aspects, and I want to get your ideas for improvements</p> <p>From your observation and professional experience, what is the public transportation system like for older persons?</p> <p>From your observation and professional experience, what is the community like for older drivers?</p>	<p>Ask about..</p> <ul style="list-style-type: none"> • Accessible public transportation • Accessible adapted transportation for disabled persons • Affordable • Easy to get to? • Easy to board? • Frequency? • Extensive routes to go wherever one wants? • Waiting areas and stops with benches, lighting, protection from the elements? • Secure from crime? • are certain times of day or year more problematic for accessing public transportation? <p>For drivers:</p> <ul style="list-style-type: none"> • Sufficient and close parking • Handicapped reserved parking • Drop off and pick up spots • are certain time of day or year more problematic for driving?
<p style="text-align: center;">WRAP-UP QUESTION (10 minutes)</p> <p>Before we finish, are there any other issues or areas we haven't discussed that you want to raise?</p>	No prompts

Appendix B

Questions to Ask Focus Groups Participants in Better Understanding What Contributes to an Age-friendly Community

Topics and Open Questions	Prompts
<p style="text-align: center;">WARM-UP QUESTION (10 minutes)</p> <p>What are the most important things your city could do to become a better place for older persons? (10 min)</p>	<p>No prompts</p>
<p style="text-align: center;">Topic 1. (10 minutes)</p> <p style="text-align: center;">OUTDOOR SPACES AND BUILDINGS</p> <p>Let's talk about outdoor spaces and buildings. I want to hear about the positive and the negative aspects, and I want to get your ideas for improvements</p> <p>From your observation and professional experience, what is it like for older persons to go outside on foot, for example, to go for a walk or run errands?</p> <p>What is it like for older persons to go into buildings, such as public offices or commercial establishments?</p>	<p>Ask about...</p> <ul style="list-style-type: none"> • design and maintenance of sidewalks and curbs? • street intersections and crosswalks? • traffic volume, noise? • particular times of day, like nighttime? • weather conditions? • green spaces? walking areas? • street lighting? • protection from sun, rain or wind? • benches, rest areas? • policing? • In buildings: barriers related to, e.g., stairs, doors, lift devices, corridors, floors, glare, lighting, signage, doors, public toilets, rest areas
<p style="text-align: center;">Topic 2.(10 minutes)</p> <p style="text-align: center;">TRANSPORTATION</p> <p>The next area is transportation. I want to hear about the positive and the negative aspects, and I want to get your ideas for improvements</p> <p>From your observation and professional experience, what is the public transportation system like for older persons?</p> <p>From your observation and professional experience, what is the community like for</p>	<p>Ask about.</p> <ul style="list-style-type: none"> • Accessible public transportation • Accessible adapted transportation for disabled persons • Affordable • Easy to get to? • Easy to board? • Frequency? • Extensive routes to go wherever one wants? • Waiting areas and stops with benches, lighting, protection from the elements? • Secure from crime? • are certain times of day or year more

<p>older drivers?</p>	<p>problematic for accessing public transportation?</p> <p>For drivers:</p> <ul style="list-style-type: none"> • Sufficient and close parking • Handicapped reserved parking • Drop off and pick up spots • are certain time of day or year more problematic for driving?
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<p style="text-align: center;">Topic 3.(10 minutes)</p> <p style="text-align: center;">HOUSING</p> <p>Housing is the next topic we will cover. I want to hear about the positive and the negative aspects, and I want to get your ideas for improvements</p> <p>From your observation and professional experience, tell me about the housing for older people in the community?</p>	<p>Ask about:</p> <ul style="list-style-type: none"> • Affordability? • Comfort? • Physically safe? • Security from crime? • Proximity to services? • Housing choices for frail or disabled persons?
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<p style="text-align: center;">Topic 4.(10 minutes)</p> <p style="text-align: center;">RESPECT AND SOCIAL INCLUSION</p> <p>The next area deals with how the community shows respect for, and includes, older people. I want to hear about the positive and the negative aspects, and I want to get your ideas for improvements</p> <p>In your professional life, how do you show respect for older persons you deal with?</p>	<p>Ask about...</p> <ul style="list-style-type: none"> • Politeness? • Listening? • Helpfulness? • Responsiveness to individual needs in services and programmes (e.g. volunteers to assist, adapted transportation, special programmes?) • Consultation? • Choices offered? • Public recognition of the
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<p>From your observation and professional experience, how are older persons included in the community?</p>	<p>contributions of older people?</p> <ul style="list-style-type: none"> • Intergenerational activities?
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<p style="text-align: center;">Topic 5.(10 minutes)</p> <p style="text-align: center;">SOCIAL PARTICIPATION</p> <p>Let's talk now about social and leisure activities in the community for the older person you are caring for.</p> <p>I want to hear about the positive and the negative aspects, and I want to get your ideas for improvements</p> <p>From your observation and professional experience, how easily can older persons socialize in your community?</p> <p>From your observation and professional experience, tell me about the participation of older persons in other community activities, like education, culture, recreation, or spiritual activities?</p>	<p>Ask about...</p> <ul style="list-style-type: none"> • Affordability? • Accessibility to disabled? • Frequency? • Convenient location? • Convenient times? • Offer choices? • Varied? • Interesting?
<p style="text-align: center;">Topic 6. (10 minutes)</p> <p style="text-align: center;">COMMUNICATION AND INFORMATION</p> <p>The following topic we will explore deals with information. I want to hear about the positive and the negative aspects, and I want to get your ideas for improvements</p> <p>From your observation and professional experience, how well are older persons</p>	<p>Ask about..</p> <ul style="list-style-type: none"> • Accessibility of information? • Usefulness of information? • Timeliness? • Difficulties with automated systems, print format, size? • Difficulties in comprehending information?

<p>getting the information they need-- for example, about services or activities? This can be information by telephone, TV, in print or in person.</p>	
<p style="text-align: center;">Topic 7. (10 minutes)</p> <p style="text-align: center;">CIVIC PARTICIPATION AND EMPLOYMENT</p> <p>I want to know more about the experience of older persons with respect to volunteer work, or paid work, and about their participation in public affairs.</p> <p>I want to hear about the positive and the negative aspects, and I want to get your ideas for improvements</p> <p>From your observation and professional experience, tell me about participation of older persons in volunteer work in the community?</p> <p>From your observation and professional experience, tell me about the participation of older persons in paid work?</p> <p>From your observation and professional experience, tell me about the participation of older persons in community affairs, like committees, or community associations.</p>	<p>Ask about...</p> <ul style="list-style-type: none"> • Availability of information about opportunities • Accessible opportunities • Variety of opportunities • Attractiveness • Recognition provided • Remuneration (paid work) • Adjustment to older persons' capacities • Adjustment to older persons' preferences • Ways used to motivate older persons' participation
<p style="text-align: center;">Topic 8.(10 minutes)</p> <p style="text-align: center;">COMMUNITY SUPPORT AND HEALTH</p>	<p>Ask about:</p>

<p style="text-align: center;">SERVICES</p> <p>I want to know more about the health and social services that help older people living at home.</p> <p>I want to hear about the positive and the negative aspects, and I want to get your ideas for improvements</p> <p>From your observation and professional experience, tell me about the health and social services that exist in the community to help older persons?</p>	<ul style="list-style-type: none"> • Types of services available • Accessibility • Affordability • Responsiveness of services o individual needs
<p>WRAP-UP QUESTION (10 minutes)</p> <p>Before we finish, are there any other issues or areas we haven't discussed that you want to raise?</p>	<p>No prompts</p>

Appendix C

WORLD HEALTH ORGANIZATION AGE-FRIENDLY CITIES PROJECT TRANSPORTATION AND THE OLDER ADULT CONSENT FORM

You are being invited to take part in the “World Health Organization Age-Friendly Cities Community Project – Transportation Issues”. The parent venture, “World Health Organization Age-Friendly Cities Community Project has received funding from the BC Ministry of Health and is being conducted by a team led by Dr. Elaine Gallagher. Dr. Gallagher is the Director of the Centre on Aging, University of Victoria. This portion of the project focuses on Transportation and the older adult and will build on information collected from the parent study from focus group information gathered from older adults, caregivers, business people, and volunteers directly involved with issues concerning what makes a city age friendly. In addition, this focus group will entirely explore the issues surrounding only transportation.

The objectives of the parent project are to:

1. identify barriers to maintaining active, healthy, and independent lives that older people experience
2. gather ideas from older persons on the priorities to make the city more age-friendly
3. stimulate awareness among the leaders of the community regarding how “age-friendly” the community is from the perspective of older persons
4. elicit further information with respect to the community’s strengths and weaknesses with respect to “age-friendliness”

Saanich, British Columbia has been chosen to represent one of twelve countries around the world to participate in this project. You are being asked to participate in this focus group because you are involved in issues pertaining to transportation and the older adult. Your participation will help researchers to learn more about what is working well and what needs to be modified for a community that is as age-friendly as possible.

If you agree to take part, your participation will involve participating in a focus group that will last approximately 2 hours. You will also be asked to fill out a short questionnaire that will take you about five minutes to complete. This questionnaire will ask you questions about your employment status, health, education, etc. Your participation must be completely voluntary. If you decide to participate, you may decline to answer any questions and you may withdraw at any time without consequences or explanation. If you do withdraw from the focus group, your input will be used as it will be impossible to remove it. The focus groups will be tape-recorded and will be transcribed with all identifying information removed.

Because focus group interviews include other individuals, we cannot guarantee anonymity and confidentiality. We do ask that participants refrain from identifying the individual contributions made by other participants and from

discussing details of the evaluation outside of the focus group setting. There is no risk or inconvenience to you in taking part in this focus group, other than the time commitment involved.

In terms of protecting your anonymity, transcription of focus groups will have all identifying information removed. Information collected during the focus group will only be identifiable by a code number and will be stored in separate locked cabinets and in password protected computers. Data will also be shared with our partners- the BC Ministry of Health and the World Health Organization (WHO)- but in an anonymous form. This means that no identifying information will be attached with the data. Any communication of research findings from this evaluation will not identify individuals. The list of code names will be destroyed and the tapes will be erased when all the data has been analyzed. The computer files will be deleted and the transcripts shredded upon completion of the project.

It is anticipated that the results of this evaluation will be shared with others in the following ways: publication of findings in reports, scientific journals, and through press releases; presentation at a National conference; recommendations to service providers. The WHO will also pool this information with data collected from eleven other countries around the world. The results will be reported together as a group and will be used to create an “Age-Friendly” guide for communities.

If you have any questions or concerns at any time during this study you may contact Dr. Holly Tuokko at (250) 721-6576 or sending a message to htuokko@uvic.ca. If you have any concerns about your rights or treatments as a research participant you may contact the Associate Vice-President of Research at the University of Victoria (250) 472-4545 or ovprhe@uvic.ca.

Your signature below indicates that you understand the above conditions of participation in this evaluation and that you have had the opportunity to have your questions answered by researchers.

Signature of Participant

Date

Printed name of Participant

Signature of Researcher (or qualified designate)

Date

Dr. Holly Tuokko

Printed name of Researcher (or qualified designate)

Please retain a copy of this consent form for your records, and give a signed copy to the researcher.

Appendix D**PARTICIPANT INFORMATION**
Providers of services in the community

Some information is needed about you so that we may describe the overall characteristics of our participants. Please complete this Information Sheet by writing in the answer or checking the proper box.

1. Age at last birthday: _____

2. Sex: Male _____ Female: _____

3. Present occupation: _____

4. In what sector of the community are you employed?
 - Public (municipal, provincial, federal) sector
 - Commercial or business sector
 - Non-profit sector

5. How long have you been employed in this occupation in this city?
 - less than 2 years
 - 2 -5 years
 - over 5 years

6. How much experience do you have with older persons in your work?
none _____ a little _____ a moderate amount _____ a lot _____

Appendix E

Sample Focus Group Questions for Stakeholders

Opening Statement – The area we wish to talk about is the area of transportation. I want to hear about the positive and negative aspects, and get your ideas for improvements.

1. In terms of transportation what are the most important things your city could do to become a better place for older people?
2. From your observation and professional experience, what is the major transportation related issues relevant to older adults?
3. From your observation and professional experience, what is the public transportation system like for older persons?
4. From your observation and professional experience, what is the community like for older drivers?
5. From your observation and professional experience how important an issue is transportation for the older adults?
6. From your observation and professional experience what barriers exist such as language or culture in relation to transportation?
7. From your observation and professional experiences are the other issues relevant to older adults you would like to raise?
8. From your observation and professional experience, what are your suggestions for improving transportation for older adults in our community?

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Table 1. Focus Group with Older adults Aged 60 – 74. What Aspects of the Existing Transportation Situation in Saanich, BC are seen as Positive and Negative and What Improvements Could be Made?

Positive	Negative	Improvements
Non threatening on the streets		
Great walking areas	Sidewalks	
	Speed of traffic...unsafe for pedestrians	More policing
	Indirect bus routes...length of time inconvenient	
	Sidewalks on windy roads non-existent making roads unsafe	
	Crosswalks without sounds unsafe	Install a special sound
	Heavy traffic	
	Hills make it difficult to get home from a bus stop	Regular community buses
	Limited bus service	
Senior bus passes are affordable		

Sidewalks in ill repair and
non-existence and lack of
curbs make climbing into a
bus difficult

Must carry you dog in a crate	Let animals on the bus
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Lack of Handicapped parking and people using it when they shouldn't be	Enforce handicapped parking
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Limited bus service	Improve Bus Service on Sunday and public holidays
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No street signs and poor
visibility (font to small)

Walking space being taken
away

Dependency on others for
rides if you don't drive

Table 2. Focus Group with Adults Over Age 75. What Aspects of the Existing Transportation Situation in Saanich, BC are seen as Positive and Negative and What Improvements Could be Made.

Positive	Negative	Improvements
Non threatening on the streets		
Great walking areas		
	Sidewalks	
	Speed of traffic...unsafe for pedestrians	More policing
	Indirect bus routes...length of time inconvenient	
	Sidewalks on windy roads non-existent making roads unsafe	
	Crosswalks without sounds unsafe	Install a special sound
	Heavy traffic	
	Hills make it difficult to get home from a bus stop	Regular community buses
	Limited bus service	

Senior bus passes are

affordable

Sidewalks in ill repair and
non-existence and lack of
curbs make climbing into a
bus difficult

Must carry you dog in a
crate

Let animals on the bus

Lack of Handicapped
parking and people using it
when they shouldn't be

Enforce handicapped
parking

Limited bus service

Improve Bus Service on
Sunday and public holidays

No street signs and poor
visibility (font too small)

Walking space being taken
away

Dependency on others for
rides if you don't drive

Table 3. Focus Group with Caregivers. What Aspects of the Existing Transportation Situation in Saanich, BC are seen as Positive and Negative and What Improvements Could be Made.

Positive	Negative	Improvements
Services relatively close in Saanich -	Services in rural areas not as accessible	Improve alternatives
	Low visibility ...no street lights in residential areas	Ensure ALL areas have transportation options
	No curbs	
	No sidewalks	
	Crosswalks not near bus stops	Put crosswalks not near bus stops
		Traffic signs near crosswalks in heavily populated senior living areas “caution – elderly people crossing here”
HandiDart – great support for caregivers (well trained staff)	HandiDart more difficult for others...time frame must be booked ahead	
Taxi-saver (more flexible than handi-dart)	Drivers of taxi’s often don’t speak English well and the dialects are difficult to	Educate drivers

discern. Also drivers spend
more time on watching their
module than watching
traffic...scary

Driving more difficult in
today's day and age

Caregivers need to be
educated on alternative
transportation

Not knowing how to access Education, communication
information on HandiDart

Table 4. Focus Group with Professional Staff. What Aspects of the Existing Transportation Situation in Saanich, BC are seen as Positive and Negative and What Improvements Could be Made?

Positive	Negative	Improvements
	Sidewalks	Need more
	Bus service inadequate	
	Not pedestrian friendly	Increase safety of walkways
Shelbourne corridor sidewalk friendly	Financial resources limited to conduct improvements	
	Stress for seniors to get a cab or public transportation	
	HandiDart – preplanning difficult	
Community Bus		Improve the likelihood of continuation by including students on the community buses
Transit Travel Training	Seniors unaware of Transit Travel Training	

	Lack of parking	
Some place have more seniors parking than others (Tillicum mall a good example)	Lack of handicapped parking and even less senior parking spots	More spots
	Handicapped parking spots not wide enough	Make Handicapped parking spots wider
	Road Etiquette The world is going faster and faster	Education the public what it is like for seniors on the road
	Lack of volunteer drivers	
	Lack of planning on when a senior won't be able to drive	
	Gravel trails cause tires to pop and wheelchairs can't move though	All trails should be asphalt
	Seniors don't want to use a cane because of the stigma of being "old"	Educate them and make is social acceptable Promote walking sticks like that which is in Europe

Hills make it difficult when
the bus service is at the
bottom of one

Not enough community
buses...

More community buses that
don't look like a bus

Make it hip and cool to take
the bus

Afraid of the bus and don't
know how to use it

Education

Schedules for the bus uses
too small of print

Increase font size

Buses that have A and B
routes are confusing and a
person runs the risk of not
being able to get where they
are going

Use school buses in remote
areas

Bus drivers will let a person know when there stop is (particularly important for visually impaired)

Automated stops announced such as the trains in Europe and the buses in London

Trolley car
reimplementation to more rural areas such as Cadbaro Bay

Table 5. Focus Group with Business Community. What Aspects of the Existing Transportation Situation in Saanich, BC are seen as Positive and Negative and What Improvements Could be Made?

Positive	Negative	Improvements
Mid-block crosswalks (because that is where seniors will cross)	Mid-block crosswalks (dangerous)	More overhead signage
Walking trails		
Step down buses		
Bus System generally good	Poor frequency in some areas	Community busses
HandiDart	HD complicated phone service and unknown pick up times	Decrease waiting time
Residential homes have own transport	Believe that seniors don't feel safe using it	
Handicapped Parking Spots always empty (their perception)	BC doesn't have automatic retest (not always good)	
Education for driving (mature drivers workshops)	Only attracts the "sophisticated intelligent" group	

Saanich has free parking and
relatively always available

Seniors who Drive at night	Encourage seniors not to drive at nice and poor weather conditions
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Seniors who drive at high traffic times	Shift Seniors into an alternative transportation system for these times (i.e., bus or taxi)
--	--

Seniors who don't plan better to do their errands at less busy times	Education Decreased bus fares in off- peak travel times
--	---

Fear (bus, young people)	Police Post Program (high risk areas such as Tillicum Mall)
--------------------------	---

Planning and designing must
be inviting so to encourage
seniors to walk

Language and social barriers

Font size of information
guides

Computer literacy

particularly with older adults

and of challenging living

situations

Seniors unaware of how cross Education

walks work

Pedestrians and cyclists have

a wide variance on operating

speed

Unsafe cross-walks

Work with the engineering

Particularly important to

community

visually impaired

Cross light signals are not

education

long enough and the white

flashing man is difficult to

see

Cross-walks and sidewalks

Compliment with multiple

sensory...sound and vision,

and maybe tactile

Street signs obstructed by trees (conflict for aesthetics' and safety)	Larger signs (balance with too many signs which causes clutter). More illuminated signs
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Non-sensitive bus drivers

Driving patterns changed from driving on the farm

Weekend public transportation poor	More funding
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Table 6. Focus Group with Non-Profit. What Aspects of the Existing Transportation Situation in Saanich, BC are seen as Positive and Negative and What Improvements Could be Made.

Positive	Negative	Improvements
Good sidewalks		Sm. Communities where
Ramps for wheel chairs and scooters		you can walk to everything
	Crosswalk too long	Shorten them
	Sidewalks too narrow	Widen it to accommodate 2 walkers side by side
	Crosswalks	Beeper and tweeters for the low vision group (must be loud enough to hear over the traffic noise)
	Sidewalks not cleared in the case of snow removal	
	Lack of east-west bus routes	
	Busses too packed with university students	Community Buses
	No spontaneity in HandiDart	Community Buses with lifts at the back

	HandiDart too expensive	
	Bus takes too long...car faster	
		Supportive Transportation Program
	Not enough parking spots for seniors	More in the week and then open them on the weekend. Senior shop more mid week...be creative
	Handicapped parking spaces that are marked on the pavement...covered in snow	Better signage
		Better alternative transportation options
	Seniors don't know how to use alternative transportation options	Education
Transit travel training program	No HandiDart travel training program	

HandiDart will give one on one instruction (how to use the lift with the walkers)	Someone to go with on the first ride...to help them book	
Kneeling buses		
Volunteer Driving programs	Seniors make up the volunteers and sometimes have to be asked to stop because their skills are unsafe for the road	
Taxi Saver		
	Hills and long distances to bus stops	
55 Alive	55 alive expensive	Absorb some costs for the program
Mature Drivers –BCAA	Not hands on	
Good to have police presence also		
	Cost of taxi's	Educate seniors on the cost of owning a vehicle

Table 7. Focus Group with Additional Group of Stakeholders. What Aspects of the Existing Transportation Situation in Saanich, BC are seen as Positive and Negative and What Improvements Could be Made?

Positive	Negative	Improvements
Mid-block crosswalks (because that is where seniors will cross)	Mid-block crosswalks (dangerous)	More overhead signage
Walking trails		
Step down buses		
Bus System generally good	Poor frequency in some areas	Community busses
HandiDart	HD complicated phone service and unknown pick up times	Decrease waiting time
Residential homes have own transport	Believe that seniors don't feel safe using it	
Handicapped Parking Spots always empty (their perception)		
	BC doesn't have automatic retest (not always good)	

Education for driving (mature drivers workshops)	Only attracts the “sophisticated intelligent” group	
Saanich has free parking and relatively always available		
	Seniors who Drive at night	Encourage seniors not to drive at nice and poor weather conditions *
	Seniors who drive at high traffic times	Shift Seniors into an alternative transportation system for these times (i.e., bus or taxi)
	Seniors who don’t plan better to do their errands at less busy times *	Education Decreased bus fares in off-peak travel times
	Fear (bus, young people)	Police Post Program (high risk areas such as Tillicum Mall)
		Planning and designing must be inviting so to encourage seniors to walk

Language and social barriers	
Font size of information guides	
Computer literacy particularly with older adults and of challenging living situations	
Seniors unaware of how cross walks work	Education
Pedestrians and cyclists have a wide variance on operating speed	
Unsafe cross-walks *	Work with the engineering community
Particularly important to visually impaired	
Cross light signals are not long enough and the white flashing man is difficult to see	education

Cross-walks and sidewalks	Compliment with multiple sensory...sound and vision, and maybe tactile
Street signs obstructed by trees (conflict for aesthetics' and safety)	Larger signs (balance with too many signs which causes clutter). More illuminated signs
Non-sensitive bus drivers	
Driving patterns changed from driving on the farm	
Weekend public transportation poor	More funding

Table 8. What are the Similarities and Differences of the Perspectives on Public Transportation and Alternative Modes of Transportation?

Older Adults	Stakeholders
Handi-Dart	
Crosswalks - too short of time to get across	
Sidewalks - too few ...in bad shape...particularly difficult for vision impaired.	Sidewalks*
Culture – language barriers	

Culture – training programs in other
languages

Greater Need

Quality of Life

Lack of availability

Supported transportation and public
transportation

Need for information about alternatives

Modes of transportation

Frightened of riding the bus”

Happy with the bus

Bus service not user friendly

Automated services for getting
information frustrating

Driver Training is good for the most part

Stores are not wheelchair or scooter
friendly

Senior Parking Spots – where do you find
them

Table 9. What is the Community of Saanich Like for Older Drivers?

Older Adults	Caregivers	Stakeholders
Getting around		Older Adults Don't understand
easy, road signs		bureaucracy
good particularly		
when they give		
advance warning.		
Road signs too		
small, hard to find		
when driving and		
looking		
Increases in traffic		Changes to the Road
and road ill		
equipped to handle		
the traffic		
Increased bike		
lanes,		

Changes in vehicle

construction/technology

Rules of the road are not consistent across
jurisdictions

Some adults never tested to get a drivers
license

No upgraded skills

Don't drive at night

Eyesight not as

good

Not as mobile

Physical Changes

Stress in a testing situation

Lack of Responsibility to keep up with
skills

High traffic times

Stress in Driving

(avoid morning and

afternoon rush hour

Driving Restriction

(few miles/daytime driving only)

Too few senior

Poor parking lot design.

parking spots

Too few spaces

High number of crashes

Training in parking

Testing system not appropriate for seniors

Cultural – lack of education and literacy
in particular to First Nation

Other Cultural Groups fall through the
cracks and have fear or licensing
procedure

Take education
courses

Avoid rush hour

Too many bikes on
the road
