

Empowering community dwelling women age 85 and older in maintaining their chosen lifestyle

Olive Bryanton

University of Prince Edward Island

### ABSTRACT

The population in Canada's four Atlantic Provinces is aging more rapidly than the rest of the country and women age 85 and older are one of the fastest growing segments of the aging population. Little is known about the experiences of community dwelling women age 85 and older as they negotiate their daily lives or factors that enhance or limit their ability to do the things they want and need to do to maintain the lifestyle they have chosen. Using data from the Atlantic Seniors Housing Research Alliance (ASHRA) 2007 seniors housing and support services survey, this paper focuses on factors that enabled the women to access services and participate in the community. The results reveal a diverse group of women aged 85 to 102 with varied backgrounds and living conditions. The majority (82.1%) were widowed, 67% living in single-family dwellings and 68% were non-drivers. Over half (51.6%), of non-drivers lived in the city, but (40%) lived in rural areas more than 10 km from a town or city. For some, in particular the non-drivers in both the rural and urban settings, their potential to do the things they want and need to do to maintain their chosen lifestyles was challenged. The results of this study reveal that these women could enhance their quality of life through empowerment education related to the aging process, rights and social justice, and the provision of transportation options to meet their mobility needs.

#### Keywords

Women age 85 and older, older adult education, transportation, empower, Atlantic Canada

## EMPOWERING COMMUNITY DWELLING WOMEN AGE 85 AND OLDER IN MAINTAINING THEIR CHOSEN LIFESTYLE

Similar to many other countries, Canada is experiencing a rapid growth in the aging of the population and that population is aging more rapidly in Atlantic Canada than in the rest of the country (Shiner, 2007; Statistics Canada, 2011). Within that population are women age 85 and older who are one of the fastest growing segments of the population yet little is known about their experiences or the challenges they face as they age in their communities.

We know that older adults are increasingly choosing to continue to live in the community in their own homes for as long as possible. To continue living in their chosen location they need to access goods and services and maintain social connections. Using data from the Atlantic Seniors Housing Research Alliance (ASHRA) 2007 seniors housing and support services survey, this paper will examine how women age 85 and older living in Atlantic Canada accessed goods, services and maintain social connections to do the things they wanted and needed to do with and without driving or other transportation.

The aim of this paper is to gain a better understanding of how community dwelling women age 85 and older in Atlantic Canada maintained the lifestyle they had chosen through examining differences between those women living in rural and urban communities and those who were drivers or non-drivers.

Because there is negligible amount of research focusing on active transportation for community dwelling women age 85 and older, little is known about the challenges these women experience or how they could be empowered to improve their own situation. Results of this study will contribute to our understanding of some of the challenges this demographic experience as

they strive to maintain the lifestyle they have chosen. The results can contribute to policy makers understanding of the needs of this population.

It has been recognized that for older adults, the ability to drive is critical for their mobility, social participation, and autonomy in daily living activities (Byles and Gallienne, 2012), is an essential component of quality of life for older adults (Bauer et al., 2003; Kostyniuk & Shope, 2003), plays a pivotal role in providing access to opportunities supportive of independent living and full participation in society (Whitehead, Howie, & Lovell, 2006), and is a social justice and inclusion issue (Beyzit, 2011; Nilsson & Townsend 2010). Transportation options that support independence can be impacted by financial strain and ability to afford the cost of being a car owner Choi, Mezuk and Rebok (2012), or life expectancy exceeding the ability to drive Canadian Medical Association (2006), who identified that on the average life expectancy can exceed the ability to drive by 9.4 years for women and 6.2 years for men. In spite of this, most drivers do not plan or prepare for driving cessation (Bryanton, Weeks, & Lees, 2010; Canadian Medical Association, 2006; Kostyniuk & Shope, 2003; Liddle, McKenna, & Broome, 2004; Whitehead et al., 2006;

Although it is reported that the transition from being a driver to being a non-driver is often a negative event in the life of older adults, with little support available to help them through this transition (Bryanton and Weeks, 2014; Whitehead et al, 2006;) older adults experience a decrease in social integration Mezuk and Rebok, (2009). Other researchers Haltiwager & Underwood, (2011) found that not all non-drivers experience negative consequences because they no longer drive themselves, because of their attitude and consistent efforts to get their needs met. Making assumptions around who requires or does not require transportation support simply based on knowing the driving status of older adults was raised as a concern by Weeks, L.E.,

Standnyk, R., Begley, L., & MacDonald, D. (2013), who found that some drivers still have transportation challenges and some non-drivers do not have transportation challenges. Older drivers may continue driving because they have no other choice or no alternative transportation. As people age they may experience a variety of reasons to either keep driving or to become a non-driver.

Although aging is an individual and unknown process impacted by health, socioeconomic factors, services and social supports, older adults often reach later life with little or no formal education on aging or guidance in aging. This results in individuals being less socially, emotionally or physically prepared for old age than they could be if they had knowledge about aging (McGuire and Klein, 2005). Other researchers identified that good knowledge of the aging process could help decrease aversive uncertainty about aging (Neuvo, Wetherell, Montorio, Ruiz and Cabrera, 2009), formal, non-formal learning activities promote an active and engaged lifestyle that helps create and preserve community (Merriam and Kee, 2014), or the empowering potential of late-life learning (Formosa, 2012).

## **Methods**

The paper draws on survey data from the Atlantic Seniors Housing Research Alliance (ASHRA) 2007 housing survey. The survey focused on Atlantic Canadians age 65 and older and a total of 1670 independent individuals completed the survey providing their thoughts on a variety of topics related to housing: the type of housing and communities they live in; services and social supports; how they get to community services and activities; their subjective health status; education attainment and income levels. The details of the survey have been published elsewhere (Shiner, D.V., 2007). Overviews of the survey, its rationale and methods, can be

located on the study's website: <http://ashra.msvu.ca/projectdet.htm>. Several Research Ethics Boards (REB), in Atlantic Canada including the University of Prince Edward Island Research Ethics Board provided approval for the original study. Criteria for participation included being age 65 years and above and living independently in the community (not in an institutional setting such as long term care facilities) in the four Atlantic Canadian provinces. The data drawn for this paper are for the women age 85 and older. The information profiled here is on transportation and where the women went and how they got there from the perspective of the respondent as a driver or non-driver living in a rural or urban setting. There were 78 women age 85 and older from the four Atlantic Canadian provinces.

### Demographics

For this paper the demographics examined were: marital status, education, income, subjective health, current dwelling type, current location, home ownership, and years in the current home. These demographics are reported by individual Atlantic Canadian province and by the total Atlantic region.

### Type of Community

Respondents were asked the type of community they currently lived in and for the purpose, of this paper, types of community were divided into rural and urban. Rural communities included villages and rural areas less than and more than 10 km from a town or city. Urban communities included both towns and cities.

### Transportation

The respondents were asked about their mode of transportation both in good and bad weather and included how they got to: the family doctor, specialist physician, post office, grocery store, seniors centre, bank, church, visit friends, visit family and recreation. The modes of transportation examined for this study were: walking, driving self, spouse driving, others driving and taxi. Public transit buses were not examined due to the fact that they were rarely used.

## **Results**

The majority of the Atlantic Canadian women age 85 and older that completed the survey were widowed (82%) had a lower level of education 69% having high school or less, and 47% had an income of less than \$20,000 per year. Although most were homemakers (42.3%), fourteen percent were professionals. Forty-six percent were rural dwellers and 36% lived in urban areas. Most of the women 50% were in good or excellent health. Sixty-four percent lived in single-family dwelling and 63% owned their own home. Forty-two percent lived in their current location for 40 or more years. Sources of income were: Old Age Security 97.4%, Canada Pension Plan 66.7%, Guaranteed Income Supplement, 46.2%, retirement pension 46.2% and 32% savings and investments.

A provincial exploration showed some differences in demographics (see Table 1). Nova Scotia had the highest percentage of respondents who were widowed 96%, the lowest percentage stating their health was good or excellent 43% and highest percent stating their health was poor or very poor 14%. New Brunswick had the highest percentage of those married 22%, those with incomes over \$60,000 (17%), respondents living in single family dwellings 82% and respondents owning their own home 77%. Newfoundland/Labrador had the highest percentage of respondents

with post secondary education 21% and the highest percentage living in other types of housing accommodations 21%, it also shared with New Brunswick having the highest percentage of respondents living in urban areas 73%. Prince Edward Island had the highest percentage of renters and apartment dwellers 33% respectively.

**Table 1.** Demographics of Community Dwelling Women Age 85 and Older by Region and Province

Demographics	Atlantic Canada N – (%)	New Brunswick N – (%)	Newfoundland and Labrador N – (%)	Nova Scotia N – (%)	Prince Edward Island N – (%)
Marital Status (n= 78)	(n= 78)	(n= 23)	(n= 14)	(n= 23)	(n= 18)
never married	1 – (01)	1 – (04)			
widowed	64 – (82)	15 – (66)	12 – (86)	22 – (96)	15 – (83)
divorced/separated	3 – (04)	2 – (08)			1 – (06)
married/common-law	10 – (13)	5 – (22)	2 – (14)	1 – (04)	2 – (11)
Education (= 78)					(n= 18)
less than high school	22 – (28)	8 – (35)	2 – (14)	5 – (22)	7 – (39)
some/ high school grad	32 – (41)	8 – (35)	5 – (36)	11 – (48)	8 – (44)
trade post-secondary	13 – (17)	4 – (17)	4 – (29)	4 – (17)	1 – (06)
post-secondary degree	11 – (14)	3 – (13)	3 – (21)	3 – (13)	2 – (11)
Income (n= 68)	(n= 68)	(n= 18)	(n= 13)	(n= 22)	(n= 15)
Less than 20,000	32 – (47)	6 – (33)	6 – (46)	10 – (45)	9 – (60)
20,000 to 50,999	33 – (48)	9 – (50)	7 – (54)	12 – (55)	5 – (33)
60,000 and over	4 – (05)	3 – (17)			1 – (07)
Subjective Health (n= 74)	(n= 74)	(n= 21)	(n= 12)	(n= 23)	(n= 18)
poor or very poor	7 – (09)	1 – (05)	1 – (08)	3 – (14)	2 – (11)
fair	30 – (41)	8 – (38)	5 – (42)	10 – (43)	7 – (39)
good or excellent	37 – (50)	12 – (57)	6 – (50)	10 – (43)	9 – (50)
Current Dwelling (n= 78)	(n= 78)	(n= 23)	(n= 14)	(n= 23)	(n= 18)
single family	50 – (64)	19 – (82)	8 – (58)	14 – (61)	9 – (50)
apartment	16 – (21)	2 – (09)	3 – (21)	5 – (22)	6 – (33)
other	12 – (15)	2 – (09)	3 – (21)	4 – (17)	3 – (17)
Current Location (n= 77)	(n= 77)	(n= 22)	(n= 14)	(n= 23)	(n= 18)
urban	41 – (53)	16 – (73)	10 – (73)	9 – (39)	6 – (33)
rural	36 – (47)	6 – (27)	4 – (27)	14 – (61)	12 – (67)



**Table 1.** Demographics of Community Dwelling Women Age 85 and Older by Region and Province

Demographics	Atlantic Canada N – (%)	New Brunswick N – (%)	Newfoundland and Labrador N – (%)	Nova Scotia N – (%)	Prince Edward Island N – (%)
Home Ownership (n= 75)	(n= 75)	(n= 22)	(n= 13)	(n= 23)	(n= 17)
own	47 – (63)	17 – (77)	7 – (54)	15 – (65)	8 – (47)
rent	22 – (29)	3 – (14)	5 – (38)	7 – (30)	7 – (41)
other	6 – (08)	2 – (09)	1 – (08)	1 – (05)	2 – (12)
Years in Home (n=72)	(n= 72)	(n= 22)	(n= 11)	(n= 22)	(n= 17)
10 or less	23 – (32)	4 – (18)	3 – (27)	8 – (36)	8 – (47)
10 to 39.5 years	19 – (26)	9 – (41)	2 – (18)	5 – (23)	3 – (18)
40 or more years	30 – (42)	9 – (41)	6 – (55)	9 – (41)	6 – (35)

Note: Numbers varied due to not everyone answered all questions.

### Demographics by Driving Status and Dwelling Location

Table 2 displays the demographic variables; subjective health, marital status, income, education, current dwelling, and proportion of income needed to cover the cost of shelter and compared drivers versus non-drivers and rural versus urban revealing differences and similarities. More driver's reported good or excellent health, slightly higher income levels, living in single-family homes, and owning their own home. Both drivers 40% and non-drivers 49% received the Guaranteed Income Supplement. Rural dwellers were more likely to own their own home. Rural and urban dwellers had similar percentages in all categories of health. In all categories the majority of participants were widowed and for over fifty percent their proportion of income for shelter was over 30%.

As might be expected, subjective health status of drivers was better than non-drivers with 80% and 36% respectively reporting good or excellent health. Drivers also had slightly higher incomes than non-drivers with 67% versus 40% being in the \$20,000 to \$60,000, income range.

Drivers living in rural areas were more likely to own their own home and were more likely to pay less than 30% of their income on shelter.

**Table 2** Demographic Variables of drivers, non-drivers, rural and urban dwellers by health status, marital status, income, education, current dwelling, % of income for shelter, and ownership.

Variables	Driver N - (%)	Non-Driver N - (%)	Rural N - (%)	Urban N - (%)
Age Range in years	85 to 99	85 to 102		
Subjective Health Status	(n= 25)	(n= 50)	(n= 36)	(n= 36)
Poor or Very Poor	1 - (4)	6 - (12)	3 - (8)	4 - (10)
Fair	4 - (16)	26 - (53)	14 - (39)	16 - (42)
Good or Excellent	20 - (80)	18 - (36)	19 - (53)	18 - (47)
Marital Status	(n= 25)	(n= 33)	(n= 36)	(n= 41)
Never Married	18 - (72)	1 - (03)	32 - (89)	1 - (02)
Widowed	2 - (08)	26 - (79)		32 - (78)
Divorced/Separated	5 - (20)	1 - (03)	4 - (11)	3 - (08)
Married/Common Law		5 - (15)		5 - (12)
Income	(n= 21)	(n= 47)	(n= 34)	(n= 34)
Less than 20,000	7 - (33)	24 - (52)	18 - (53)	13 - (38)
20,000 - 39,999	10 - (48)	15 - (32)	10 - (29)	15 - (44)
40,000 - 59,999	4 - (19)	4 - (8)	4 - (12)	4 - (12)
60,000 or more		4 - (8)	2 - (6)	2 - (6)
Education	(n= 25)	(n= 53)	(n= 36)	(n= 41)
Less than High School	5 - (20)	17 - (32)	11 - (31)	11 - (27)
Some High School	4 - (16)	10 - (18)	7 - (19)	7 - (17)
High School Graduate	4 - (16)	14 - (26)	10 - (28)	8 - (19)
Technical/Trade Diploma	2 - (08)	3 - (6)	1 - (03)	4 - (10)
Some PSE	5 - (20)	3 - (6)	4 - (11)	3 - (08)
College/University Degree	5 - (20)	6 - (12)	3 - (08)	8 - (19)
Current Dwelling	(n= 25)	(n= 53)	(n= 36)	(n= 41)
Single family	20 - (80)	30 - (57)	26 - (72)	23 - (56)
Apartment	4 - (16)	12 - (23)	4 - (11)	12 - (29)
Other (mobile, in-law suite, semi-detached, row house, etc.)	1 - (04)	11 - (20)	6 - (17)	6 - (15)

**Table 2** Demographic Variables of drivers, non-drivers, rural and urban dwellers by health status, marital status, income, education, current dwelling, % of income for shelter, and ownership.

Variables	Driver N - (%)	Non-Driver N - (%)	Rural N - (%)	Urban N - (%)
Home Ownership	(n= 24)	(n= 51)	(n= 36)	(n= 38)
owns	19 – (79)	28 – (55)	26 – (72)	20 – (53)
rents	5 – (21)	17 – (33)	6 – (17)	16 (42)
other		6 – (12)	4 – (11)	2 – (05)
Proportion of Income for Shelter	(n= 22)	(n= 51)	(n= 30)	(n= 35)
Less than 30%	9 – (41)	18 – (36)	14 – (46)	12 – (35)
30 to 39%	8 – (36)	19 – (37)	8 – (27)	11 – (32)
40% or more	5 – (23)	14 – (27)	8 – (27)	11 – (32)

Note: Total numbers of non-drivers, drivers, rural and urban change according to variable since not all respondents answered all questions

### Mobility Variables

Table 3 examined mobility variables and compared drivers, non-drivers, rural and urban dwellers revealing that an equal percentage of drivers and non-drivers had no difficulties getting places, with an equal percent reporting occasional or often having difficulties. Not liking to ask was the main reasons respondents had difficulties getting places with a slightly higher percentage of rural dwellers not liking to ask. When asked what would improve transportation, all categories suggested door-to-door service as the best way to improve transportation service.

**Table 3.** Mobility Variables of women age 85 and older in Atlantic Canada Comparing Driving Status and Dwelling Location

Variables	Drivers N – (%)	Non-Drivers N – (%)	Rural N – (%)	Urban N – (%)
Difficulties Getting Places	(n = 23)	(n = 52)	(n = 35)	(n = 40)
Never	14 (61%)	32 (61%)	22 (63%)	24 (60%)
Occasionally	9 (39%)	17 (33%)	13 (37%)	13 (32%)
Often		3 (06%)		3 (08%)
Reason for Difficulties	(n = 10)	(n = 28)	(n = 17)	(n= 20)
Can't Afford		1 (04%)		1 (05%)
No One to Ask	2 (20%)			1 (05%)
Not Liking to Ask	3 (30%)	10 (36%)	7 (41%)	6 (30%)

**Table 3.** Mobility Variables of women age 85 and older in Atlantic Canada Comparing Driving Status and Dwelling Location

Variables	Drivers N – (%)	Non-Drivers N – (%)	Rural N – (%)	Urban N – (%)
Needs Assistance	0 (00%)	6 (21%)	4 (24%)	2 (10%)
Regular Driver Unavailable	5 (50%)	11 (39%)	6 (35%)	10 (50%)
Transportation Improvements	(n = 66)	(n = 57)	(n = 41)	(n = 55)
Weekend Service	29 (44%)	2 (04%)	3 (07%)	7 (13%)
Service to Larger Centre	13 (20%)	7 (12%)	10 (24%)	9 (16%)
Regular Town Service	9 (14%)	7 (12%)	5 (12%)	9 (16%)
Door-to-Door Service	10 (15%)	28 (49%)	16 (39%)	21 (38%)
More Frequent Service	2 (03%)	6 (11%)	2 (05%)	6 (11%)
Other	3 (04%)	7 (12%)	5 (12%)	7 (13%)

Note. Total numbers of non-drivers, drivers, rural and urban were indicated (n=) according to characteristic because not all respondents answered all questions.

### Transportation

As would be expected, non-drivers depended on others for transportation and drivers drove themselves and bad weather reduced out of home activities. In general, in bad weather drivers living in rural areas were the least likely to go to their family doctor, specialist physician and recreation. Drivers in urban areas were least likely to go out for drug store items, groceries, banking and church or seniors centres. In good weather it was more likely the non-driver who did not go out whether living in rural or urban settings (See Table 4).

**Table 4.** Modes of Transportation Used by Community Dwelling Women Age 85 in Atlantic Canada in Good and Bad Weather

Transportation Mode and Destination	Good Weather				Bad Weather			
	Driver N – (%)	Non-Driver N – (%)	Rural N – (%)	Urban N – (%)	Driver N – (%)	Non-Driver N – (%)	Rural N – (%)	Urban N – (%)
Family Doctor (n= 78& 77)	(n= 27)	(n= 54)	(n= 37)	(n= 44)	(n= 28)	(n= 53)	(n= 37)	(n= 43)
don't go		2 – (04)	2 – (05)	1 – (02)	7 – (25)	12 – (23)	11 – (30)	7 – (16)
walk		2 – (04)		2 – (04)				
drive self	21 - (78)		9 – (24)	12 – (28)	13 – (46)		6 – (16)	7 – (16)
spouse drives	1 - (04)	5 – (09)	1 – (03)	5 – (11)	1 – (04)	4 – (08)	1 – (03)	4 – (09)
others drive	2 – (07)	38 – (70)	24 – (65)	15 – (34)	5 – (18)	31 – (58)	19 – (51)	17 – (40)
taxi	3 – (11)	7 – (13)	1 – (03)	9 – (21)	2 – (07)	6 – (11)		8 – (19)
Specialist Physician (n= 74) (n= 73)	(n= 23)	(n= 49)	(n= 40)	(n= 40)	(n= 24)	(n= 49)	(n= 33)	(n= 39)
don't go	2 – (9)	2 – (04)		2 – (05)	7 = (30)	9 – (18)	8 – (24)	7- (18)
walk	13 – (56)		5 – (12)	8 – (20)				
drive self	2 – (09)	5 – (10)	11 – (28)	6 – (15)	6 – (25)		2 – (06)	4 – (10)
spouse drives	6 – (26)	37 – (76)	24 – (60)	19 – (48)	2 – (08)	3 – (06)	2 – (06)	3 – (08)
others drive		5 – (10)		5 – (12)	8 – (33)	32 – (66)	21 – (64)	19 – (49)
taxi					1 – (04)	5 – (10)		6 – (15)
Post Office (n= 77) (n= 74)	(n= 27)	(n= 52)	(n= 35)	(n= 43)	(n= 64)	(n= 50)	(n= 36)	(n= 34)
don't go	1 – (04)	15 – (29)	8 – (23)	8 – (19)	12 – (19)	26 – (52)	19 – (53)	13 – (38)
walk	1 - (04)	4 – (07)	2 – (05)	3 – (07)		1 – (02)		
drive self	24 – (88)		9 – (26)	14 – (32)	49 – (77)		5 – (14)	7 – (21)
spouse drives	1 – (04)	5 – (10)	1 – (03)	5 – (12)	1 – (01)	3 – (06)	1 – (03)	3 – (09)
others drive		25 – (48)	14 – (40)	11 – (25)	2 – (03)	19 – (38)	11 – (30)	10 – (29)
taxi		3 – (06)	1 – (03)	2 – (05)		1 – (02)		1 – (03)
Drug Store (n= 77) (n=75)	(n= 26)	(n= 54)	(n= 35)	(n= 45)	(n= 65)	(n= 51)	(n= 36)	(n= 41)
don't go	1 – (04)	6 – (12)	3 – (08)	4 – (09)	12 – (19)	19 – (37)	15 – (42)	15 – (37)

**Table 4.** Modes of Transportation Used by Community Dwelling Women Age 85 in Atlantic Canada in Good and Bad Weather

Transportation Mode and Destination	Good Weather				Bad Weather			
	Driver N – (%)	Non-Driver N – (%)	Rural N – (%)	Urban N – (%)	Driver N – (%)	Non-Driver N – (%)	Rural N – (%)	Urban N – (%)
walk	1 – (04)	4 – (07)	1 – (03)	4 – (09)				
drive self	23 – (88)		9 – (26)	14 – (31)	50 – (77)		5 – (14)	7 – (17)
spouse drives	1 – (04)	5 – (09)	1 – (03)	5 – (11)	1 – (01)	4 – (08)	1 – (02)	4 – (09)
others drive		34 – (63)	20 – (57)	14 – (31)	2 – (3)	26 – (51)	15 – (42)	13 – (32)
taxi		5 – (09)	1 – (03)	4 – (09)		2 – (04)		2 – (05)
Grocery Store (n= 77) (n= 76)	(n= 28)	(n= 54)	(n= 37)	(n= 44)	(n= 65)	(n= 43)	(n= 37)	(n= 42)
don't go	1 – (03)	6 – (12)	3 – (08)	4 – (09)	10 – (15)	21 – (49)	17 – (46)	14 – (34)
walk	1 – (03)	3 – (05)	1 – (03)	3 – (07)		1 – (02)		1 – (02)
drive self	23 – (83)		9 – (24)	13 – (30)	51 – (78)		5 – (14)	7 – (17)
spouse drives	1 – (03)	5 – (09)	1 – (03)	5 – (11)	1 – (02)	4 – (09)	1 – (02)	4 – (09)
others drive	2 – (08)	36 – (67)	22 – (59)	16 – (36)	3 – (05)	16 – (38)	14 – (38)	15 – (36)
taxi		4 – (07)	1 – (03)	3 – (07)		1 – (02)		1 – (02)
Seniors Centre (n= 66) (n= 66)	(n= 17)	(n= 36)	(n= 26)	(n= 27)	(n= 59)	(n= 39)	(n= 27)	(n= 31)
don't go	5 – (29)	24 – (67)	13 – (50)	16 – (59)	11 – (19)	27 – (70)	17 – (63)	21 – (68)
walk		1 – (03)		1 – (04)		1 – (02)		1 – (03)
drive self	10 – (59)		4 – (15)	6 – (22)	45 – (76)		2 – (07)	2 – (06)
spouse drives	1 – (06)	1 – (03)	1 – (04)	1 – (04)	1 – (02)	1 – (02)	1 – (04)	1 – (03)
others drive	1 – (06)	10 – (27)	8 – (31)	3 – (11)	2 – (03)	11 – (28)	7 – (26)	6 – (20)
taxi								
Bank (n= 76) (n= 74)	(n= 26)	(n= 51)	(n= 33)	(n= 42)	(n= 66)	(n= 51)	(n= 36)	(n= 41)
don't go		7 – (14)	2 – (06)	5 – (12)	10 – (15)	22 – (43)	16 – (45)	16 – (39)
walk		4 – (08)		4 – (10)				
drive self	22 – (85)		9 – (27)	13 – (31)	50 – (76)		5 – (14)	6 – (15)

**Table 4.** Modes of Transportation Used by Community Dwelling Women Age 85 in Atlantic Canada in Good and Bad Weather

Transportation Mode and Destination	Good Weather				Bad Weather			
	Driver N – (%)	Non-Driver N – (%)	Rural N – (%)	Urban N – (%)	Driver N – (%)	Non-Driver N – (%)	Rural N – (%)	Urban N – (%)
spouse drives	1 – (04)	2 – (04)	1 – (03)	1 – (02)	1 (01)	3 – (06)	1 – (02)	3 – (07)
others drive	3 – (11)	36 – (70)	20 – (61)	15 – (36)	5 – (08)	25 – (49)	14 – (39)	15 – (37)
taxi		2 – (04)	1 – (03)	4 – (09)		1 – (02)		1 – (02)
Church (n= 74) (n= 71)	(n= 24)	(n= 50)	(n= 32)	(n= 41)	(n= 64)	(n= 48)	(n= 28)	(n= 37)
don't go	1 – (04)	9 – (18)	4 – (13)	6 – (15)	9 – (14)	21 – (44)	13 – (46)	16 – (43)
walk	1 – (04)	1 – (02)		2 – (05)		1 – (02)		1 – (03)
drive self	19 – (80)		8 – (25)	10 – (24)	49 – (77)			3 – (08)
spouse drives	1 – (04)	2 – (04)	1 – (03)	2 – (05)	1 – (01)	2 – (04)	1 – (04)	2 – (05)
others drive	2 – (08)	36 – (72)	19 – (59)	19 – (46)	5 – (08)	24 – (50)	14 – (50)	15 – (41)
taxi		2 – (04)		2 – (05)				
Visit Friends (n= 72) (n= 71)	(n= 26)	(n= 50)	(n= 36)	(n= 40)	(n= 24)	(n= 47)	(n= 31)	(n= 39)
don't go	2 – (08)	9 – (18)	5 – (14)	6 – (15)	11 – (46)	20 – (43)	14 – (45)	17 – (44)
walk	1 – (04)	3 – (06)	1 – (03)	3 – (07)		1 – (02)		1 – (04)
drive self	20 – (76)		9 – (25)	11 – (28)	8 – (33)		4 – (13)	4 – (10)
spouse drives	1 – (04)	3 – (06)	1 – (03)	3 – (07)	1 – (04)	1 – (02)		1 – (04)
others drive		33 – (66)	20 – (55)	15 – (38)	4 – (17)	24 – (52)	13 – (42)	15 – (38)
taxi	2 – (08)	2 – (04)		2 – (05)		1 – (02)		1 – (04)
Visit Family (n= 74) (n= 72)	(n= 23)	(n= 46)	(n= 33)	(n= 39)	(n=24)	(n= 47)	(n= 32)	(n= 38)
don't go		2 – (04)	2 – (06)	3 – (08)	7 – (29)	18 – (38)	11 – (34)	14 – (37)
walk					1 – (04)		1 – (03)	
drive self	17 – (74)		8 – (24)	9 – (23)	8 – (34)		4 – (12)	4 – (11)
spouse drives	1 – (04)	5 – (11)	1 – (03)	5 – (13)	1 – (04)	2 – (04)	1 – (03)	2 – (05)
others drive	5 – (22)	37 – (81)	22 – (67)	20 – (51)	7 – (29)	27 – (58)	15 – (47)	18 – (47)

**Table 4.** Modes of Transportation Used by Community Dwelling Women Age 85 in Atlantic Canada in Good and Bad Weather

Transportation Mode and Destination	Good Weather				Bad Weather			
	Driver N – (%)	Non-Driver N – (%)	Rural N – (%)	Urban N – (%)	Driver N – (%)	Non-Driver N – (%)	Rural N – (%)	Urban N – (%)
taxi		2 – (04)		2 – (05)				
Recreation (n= 66) (n=64)	(n= 20)	(n= 39)	(n= 25)	(n= 34)	(n= 18)	(= 39)	(n= 24)	(n= 32)
don't go	5 – (25)	21 – (54)	13 – (52)	13 – (38)	11 – (61)	26 – (67)	18 – (75)	19 – (60)
walk		2 – (05)	2 – (08)			1 – (02)		
drive self	13 – (65)		3 – (12)	10 – (29)	4 – (23)		1 – (04)	3 – (09)
spouse drives	1 – (05)	1 – (03)		2 – (06)	1 – (05)			1 – (03)
others drive	1 – (05)	13 – (33)	7 – (28)	7 – (21)	2 – (11)	12 – (31)	5 – (21)	9 – (28)
taxi		2 – (05)		2 – (06)				



## Discussion

The results of this study demonstrate that women age 85 and older do not always get out on a regular basis, and whether they lived in a rural or urban location or were a driver or non-driver did have had an impact. The non-driving women living in urban areas were the least likely to get out for activities or services in good weather. But the non-drivers in rural areas were the least likely to participate in social or recreational activities. Bad weather impacted on both drivers and non-driver ability to get out, but the non-drivers living in the rural areas were affected the most. Surprisingly, more than 60% of drivers, non-drivers, and rural or urban dwellers reported never having difficulties getting places. Although an almost equal number of each category reported occasionally having difficulties getting places, the driver's in rural areas were more likely to need assistance, and the non-driver living in the urban area that often had difficulties getting places. The importance of including the needs of the driver as well as the non-driver was highlighted by Weeks, et al. (2013) who found that both drivers and non-drivers experience transportation challenges and cautioned that decisions should not be based on driving status alone.

As might be expected those who were drivers drove themselves most of the time and those who could not drive depended on others. A small number walked as a form of transportation, used a taxi, or were driven by their spouse. The majority depended on others for their transportation including those who were current drivers. This suggests that perhaps if alternative methods of transportation were available some of the current drivers would chose to become non-drivers. Byles and Gallienne (2012) found that despite the risks of driving at older ages, women in regional and remote areas may have few alternatives to driving. A fact also faced by the women in this study who had to depend on the availability and willingness of others,

especially family, to take them places they needed and wanted to go. This reality was compromised by the reluctance of older women to ask for a drive and a regular driver not being available when they need to go somewhere. The lack of affordable, accessible, and flexible transportation options results in community participation disparities and the need to rely on family and friends (Jansuwan, et al. 2013).

Having to depend on others further restricts those women who place a higher priority on attending activities related to their physical needs and see their social needs as an extravagances (Bower et al., 2003); Bryanton et al., (2010). This lack of recognizing the importance of continued social involvement, by the women themselves and those who are providing transportation, is more than a transportation issue, it is also an educational issue that needs to be addressed. The fact that women (whether drivers, non-drivers or rural or urban dwellers) continue to need social and community involvement and the lack of adequate and appropriate alternative transportation options is marginalizing them and ignoring their rights as human beings. The issue of marginalized persons was addressed by Nilsson and Townsend (2010) who suggest an occupational justice lens as a tool for enabling the empowerment of populations who routinely experience exclusion, a tool which could help inform professionals, non-formal transportation providers.

As argued by Merriam and Kee (2014) community wellbeing can be promoted through lifelong learning for older adults and “that more efforts need to be made to reach out to and include less educated, and lower socioeconomic class elders who, although have much to offer from their life experiences are intimidated by educational institutions” p 140). With an ageing population, which consists predominantly of women, the development of lifelong learning for older women, or older adults in general could have a significant effect on their continuing

participation as active citizens in communities. I would argue that education as a tool for social change Glassman, Erdem, and Bartholomew (2012), marginalized older adults Findsen (2007); Friere (1970), empowerment for older adults Formosa (2005); Freire (1984) were all missing factors in this study. As identified by Jacka (2014) there is need “to broaden the understanding of what it means to contribute productively to society, emphasizing and enhancing agency of the so called ‘vulnerable groups’ to their own well-being and to broader development toward a just social order” (p 200). Education and knowledge about aging would help older women to adjust to the transformations that accompany old age, decrease worry and uncertainty and empower them to seek solutions to improve their transportation and other needs.

Within the original study, assumptions did exist related to social needs, there were no questions related to how older adults got to cultural events, local social events, events related to grandchildren or to attend wakes and funerals – all issues raised by older women who had retired from driving Bryanton (2009). I would argue that the omission of these issues represent a bias toward older adults needs and wants. Attitudes about the aged and aging play a large role in quality of life for older adults and is an issue that must be addressed.

The study limitations are that it was a study of older adults in Atlantic Canada, an area that has specific issues that may not apply to other area thus could not be generalized to other persons in other area of the country. Secondly because this is a secondary analysis some critical variables that might have been helpful were not included. For example we had no way of knowing if the women were satisfied with the lifestyle they had chosen or even if they had chosen this lifestyle or they had no options. The question related to not going to a doctor or to a service there was no way of knowing whether it was because they did not want to go or because they did not need to go or they were unable to go because of lack of transportation. Further

research related to current location satisfaction, and why respondents do not go out to socialize and use services would provide a clearer understanding of the experiences of women 85 and older

### **Conclusion**

This paper examined transportation and related factors that impact Atlantic Canada community dwelling women age 85 and older. The aging of our population and the predominance of older women within that population will continue for several decades into the future. The findings from this study confirm that community dwelling women age 85 are vulnerable to disparities due to transportation disadvantages and lack of knowledge about aging and the aging process. These results should assist policy makers as they develop strategies to support older women to age in place and maintain community involvement.

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