2019

Aging in Calgary

AN ASSESSMENT AND REPORT ON THE AGE-FRIENDLINESS OF CALGARY USING THE CLSA DATA

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Acknowledgements

First, we would like to thank CIHR for the funding received to carry out this project. We would also like to acknowledge the excellent data from the Canadian Longitudinal Study on Aging and the tens of thousands of people who gave of their time to participate in the CLSA. We also thank the CLSA staff and investigators for their support.

Finally, we acknowledge the World Health Organization and the many people who are working tirelessly towards Age-Friendly Cities in Canada and around the world.

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Introduction: About this Guide and the Current Canadian Population

Among the many issues facing both contemporary Canadians and global societies, two important questions challenge us: how do we adapt to growing urban populations with respect to health and well-being, and how do we foster a healthy interaction between person and environment in an aging population? At the time that data collection ended for the baseline CLSA data, 81.7% of Canada's total population lived in urban areas, with an average annual rate of increase of 1.22% [1]. In addition, as of 2017, 23.3% of the overall Canadian population is aged 60 or over [2,3], with increasingly more women than men past the age of 60 [3]. The proportion of people over the age of 60 is expected to rise over coming years as well, as the population ages and life expectancy continues to rise. In Canada, the 2016 census marked the first time that people 65 years of age and older outnumbered children (14 years of age and younger). Population projections suggest that by 2063 roughly 24% to 28% of the Canadian population could be 65 years of age and older[4].

The issue facing Canadians as well as countries around the globe is how to increase the well-being of those living in urban areas, especially with respect to older individuals. In response to this, the World Health Organization collaborated with researchers and countries around the globe in order to determine how to promote the health and well-being of aging populations in increasingly urban areas. Some of the largest contributors to this project were Canadians. This research eventually culminated in the creation of the Global Age-Friendly Cities Guide in 2007[5].

Our project titled "A Tale of Eight Cities: Age-Friendliness and the CLSA" began in March, 2017 with funding from a CIHR CLSA Catalyst Grant. This report is built heavily on the WHO Age-Friendly Cities Guide (AFCG). The AFC guide identifies several major areas on which cities should focus in order to become friendlier toward older populations (and indeed, everyone). These areas are: outdoor spaces and buildings, transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information, and community support and health services. To achieve the project objectives, we used baseline data from the Canadian Longitudinal Study of Aging to select indicators within

this dataset that either literally measure or otherwise closely approximate aspects of each of the areas of focus identified in the WHO AFC guide.

This report is meant for descriptive purposes. Because the sample size for all of our variables is very high, we are concerned with what is practically significant. Instead, we use the CLSA data to, in essence, paint a composite picture of the state of affairs with respect to the age-friendliness of eight major Canadian cities at the time of measurement of the data. By doing so, we hope to identify areas of strengths, weaknesses, and where there are potential for improvements with respect to age-friendly parameters in order to help guide where efforts by Canadian organizations, municipalities, and governments could be pointed for best effect in increasing the age-friendliness of Canadian cities.

The report will be broken down into individual discussions of each area of focus – based on the areas of focus identified in the WHO AFC guide – and each of these discussions further broken down into an assessment of the chosen indicators for those areas (Part I). Then, we will discuss the overall well being of older Canadian adults based on several indicators (Part II). Afterwards, general conclusions and recommendations will be drawn from the overall data in order to identify the general strengths and weaknesses of eight Canadian cities with respect to age-friendliness (Part III).

Introduction: About the CLSA

The Canadian Longitudinal Study on Aging (CLSA) is a Canada-wide study of over 50,000 male and female participants. The present report draws from the first cycle of CLSA data collected between 2012 and 2015. Participants of the CLSA were between 45 and 85 years of age at the time of entry to the study. The CLSA recruited 51,338 people residing within the 10 Canadian provinces to participate in the baseline round of data collection and to be followed for at least 20 years or until death. Participants were recruited through four sources. First, participants were recruited from the sample of the Canadian Community Health Survey – Healthy Aging (CCHS-HA). The CCHS-HA was conducted between 2008 and 2009, which included a nationally representative sample of people aged 45 years or older. The three additional sources of participants were recruited via: Provincial Health Registries, telephone sampling – Random Digit Dialing, and Quebec Longitudinal Study on Nutrition and Aging. Persons living on First Nations reserves or in some remote or rural areas were excluded. Full-time members of the Canadian Armed Forces, individuals living in long-term care institutions, persons living with cognitive impairment, and those who were unable to respond in English or French were also excluded from participation[6].

Data Collection

This study used secondary data collected in the CLSA. All CLSA participants were asked to provide information on demographics and several aspects of their lives relevant to health and aging. This information included: physical functioning, chronic conditions, injury and falls, psychological and cognitive functioning (e.g., memory), health service utilization, lifestyle (e.g., diet and activity), and social functioning[7]. In total, 21,241 participants (tracking cohort) randomly selected across the 10 Canadian provinces provided this set of information through telephone interviews. 30,097 participants (comprehensive cohort) across Canada provided this set of information through in-home interviews for the entire CLSA dataset. The participants within the comprehensive cohort were also asked to visit one of the Data Collection Sites (DCSs) to provide further information collected through face-to-face interviews, specimen collection, and physical examinations. The comprehensive cohort was selected from the areas within 25 to 50 km of a DCSs. There were 11 DCSs located across seven Canadian provinces[6].

The data on the residents from Calgary included in the present report represents a combination of 485 tracking cohort participants (14.1%) and 2,956 comprehensive cohort participants (85.9%). The total sample size for Calgary was *N*=3,441. Information on demographic characteristics is provided in Table 1, 2 and 3, which provide information on gender, age, total household income, and education respectively. As most of the data is derived from the comprehensive cohort, the information presented herein is relatively generalizable to the residents of Calgary that lived within the census metropolitan area (CMA) at the time of data collection; however, it may not necessarily be as generalizable to residents who live(d) in more rural or CMA fringe area, as the number of participants from the tracking cohort was far fewer than the proportion from the comprehensive cohort. For detailed information on the generalizability of the two different data collection cohorts of the CLSA, please refer to the very well compiled "The Canadian Longitudinal Study on Aging (CLSA) Report on Health and Aging in Canada"[6], which outlines the strengths and limitations of both cohorts.

Informed consent was obtained from all participants of both cohorts. The authors of this report obtained the appropriate permissions to access the CLSA data. Approvals from the appropriate ethics review boards at the University of Ottawa, Health Canada, and Public Health Agency of Canada have been obtained for the authors' use of the dataset. Participants from both the tracking and comprehensive cohorts residing in the eight cities listed above were included in our analyses.

Table 1 – Participants' Gender by Age

Gender	**Age**				**Total**
	45-54	55-64	65-74	75+	
Male	379 *(45.7%)*	566 *(48.9%)*	425 *(49.0%)*	284 *(48.5%)*	1,654 *(48.1%)*
Female	450 *(54.3%)*	592 *(51.1%)*	443 *(51.0%)*	302 *(51.5%)*	1,787 *(51.9%)*
Total	829 *(24.1%)*	1,158 *(33.7%)*	868 *(25.2%)*	586 *(17.0%)*	3,441 *(100%)*

Notes. Percentages in 'Age' columns and right-hand 'Total' column are column proportions. Percentages in bottom 'Total' row are row proportions. Full sample size for Calgary sample is *n*=3,441.

Table 2 – Participants' Income by Age and Gender

Income	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Less than $20,000	21 *(15.3%)*	42 *(3.6%)*	42 *(4.8%)*	32 *(5.5%)*	53 *(3.2%)*	84 *(4.7%)*	137 *(4.0%)*
$20,000-$49,999	45 *(5.4%)*	106 *(9.2%)*	196 *(22.6%)*	197 *(33.6%)*	213 *(12.9%)*	331 *(18.5%)*	544 *(15.8%)*
$50,000-$99,999	161 *(19.4%)*	284 *(24.5%)*	294 *(33.9%)*	166 *(28.3%)*	441 *(26.7%)*	464 *(26.0%)*	905 *(26.3%)*
$100,000-$149,999	174 *(21.0%)*	249 *(21.5%)*	124 *(14.3%)*	54 *(9.2%)*	324 *(19.6%)*	277 *(15.5%)*	601 *(17.5%)*
$150,000+	377 *(45.5%)*	360 *(31.1%)*	95 *(10.9%)*	42 *(7.2%)*	488 *(29.5%)*	386 *(21.6%)*	874 *(25.4%)*
No Response	51 *(6.2%)*	117 *(10.1%)*	117 *(13.5%)*	95 *(16.2%)*	135 *(8.2%)*	245 *(13.7%)*	380 *(11.0%)*
Total	829	1,158	868	586	1,654	1,787	3,441

Notes. 'Income' reported in this table refers to household total income. Percentages are column proportions. Total sample size for household income was *n*=3,441.

Table 3 – Participants' Education by Age and Gender

Education	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Less than Secondary School	<10	13 *(1.1%)*	32 *(3.7%)*	51 *(8.7%)*	46 *(2.8%)*	59 *(3.3%)*	105 *(3.1%)*
Secondary School Graduate	51 *(6.2%)*	82 *(7.1%)*	61 *(7.0%)*	57 *(9.7%)*	87 *(5.3%)*	164 *(9.2%)*	251 *(7.3%)*
Some Post-Secondary	56 *(6.8%)*	92 *(7.9%)*	81 *(9.3%)*	74 *(12.6%)*	130 *(7.9%)*	173 *(9.7%)*	303 *(8.8%)*
Post-Secondary Degree/Diploma	713 *(86.0%)*	971 *(83.9%)*	691 *(79.6%)*	397 *(67.8%)*	1,384 *(83.7%)*	1,388 *(77.7%)*	2,772 *(80.6%)*
No Response	<10	<10	<10	<10	<10	<10	10 *(0.3%)*
Total	829	1,158	868	586	1,654	1,787	3,441

Notes. Post-secondary degree/diploma includes trade certificate or diploma from a vocational school or apprenticeship training, non-university certificate or diploma from a community college, CEGEP, etc., University certificate below bachelor's level, Bachelor's degree, University degree or certificate above bachelor's degree, or other post-secondary education. Total number of respondents was *n*=3,441.

About the Present Report

The present report both summarizes and analyses data collected in the CLSA for those living within the CMA for Calgary. The information in this report is meant to be viewed in conjunction with the "A Tale of Eight Cities: A General Report on the Age-Friendliness of Eight Major Canadian Cities", which was previously released to appropriate groups and individuals from all eight cities for whom individual reports were subsequently made. The current report summarizes data with respect to all variables examined in the "A Tale of Eight Cities" general report using the data from the CLSA that is specific to Calgary.

Methodology for Comparing Each City to the Overall Data

In addition to summarizing the data, the present report will also compare the data from Calgary to the data collected from the other seven cities in the general report. For proportions, this will be done using the "Total" data (the overall proportion collapsed across age and gender categories) from each individual age-friendly indicator variable in the general report. The highest/lowest (depending on which is more appropriate) proportion found across all eight cities for each variable's overall data will be used as the comparative value in a single-sample proportion test in order to determine if each individual city differs from the highest/lowest proportion for that variable. In this way, each city is compared (individually) with the city that is currently demonstrating the "most age-friendly" value with respect to proportions of participants meeting age-friendly characteristics as previously identified by the WHO and previously discussed in the preceding sections of this report. The single-sample proportion test uses the current city's data on a selected variable to generate a proportion mean and a variance. The test uses the proportion generated for the selected city on the selected variable and tests it against the pre-specified value (the highest/lowest among the eight cities previously examined in the general report). It does this by using a distribution whose mean is the pre-specified value and whose standard deviation equals the standard error of generated proportion mean for the selected city on the selected variable. This creates a z-score that is then compared against a distribution table to determine statistical significance. Because of the number of analyses that are run in the present report, and in order to only report significances that are not only statistically significant but also

(hopefully) practically significant, we will only be reporting *p*-values of .001 or less as significant.

For data that uses means and standard deviations, we will first be conducting an Analysis of Variance (ANOVA) in which the means of the eight cities included in the general report are compared to a grand mean. This will generate a mean error term to be used in planned post-hoc comparisons where the means of seven cities will be compared against the city that was previously identified to have the highest/lowest (depending on what was appropriate to the variable) mean value for the respective variable. In the planned comparisons, a Bonferroni correction will be applied to the statistical significance values.

By using these methods, the comparative analyses described in this report will compare each city against a reference city on any given variable. In describing such, we will use several symbols within the tables included in this report in order to denote different outcomes. These symbols are shown in Figure One:

Figure One. Symbols used in tables and their meaning

A	This symbol denotes that the value reported in the table was used as the reference value in the proportion tests for all other cities involved in this project. No further statistical comparisons are conducted on the respective variable for this city using this value.
*	Denotes that the number is significantly different from the reference value at the $p<=.001$ level for proportion tests, and $p<=.05$ for means tests.
H	Denotes that the value reported in the table is the highest value among the eight cities examined in this project on the corresponding variable when the reference value was the lowest.
L	Denotes that the value reported in the table is the lowest value among the eight cities examined in this project on the corresponding variable when the reference value was the highest.
NA	Denotes that the statistical analysis for this city on this variable could not be conducted due to insufficient cell size.

All of the highest values, lowest values, and the reference value for every variable (and every category of variables) can be seen in Appendix A of this report, which can be found at the end of the document after the references.

The choices we made in determining which value (highest or lowest) to use as the reference value in the proportion tests do not necessarily reflect that these values are the "best". Rather, we have tried our utmost to create a system that would convey the most beneficial information to each city with respect to each variable and their respective categories. In some cases, such as for formal/informal care support usage, no solution was necessarily perfect, and so our choice simply reflects what we believe conveys the most useful information out of the two possible reference values (highest or lowest), and which relies the least on any untested assumptions.

Part I

Assessment of Indicators of Age-Friendliness

Dimension 1: Outdoor Spaces and Safety

Safe, clean and walkable outdoor spaces are an important resource for older adults. Being able to go on frequent walks of suitable distance (approximately a mile) helps to keep older adults healthy in several important ways. Frequent walkers tend to have better cognitive capacity; taking frequent walks outside can help older adults with things like verbal memory, fluently categorizing information, and better attention [8]. In addition, going on frequent outdoor walks has been associated with a lower risk of functional decline over time, and with a slower progression of disability. [9]. Having access to clean, safe, pleasant walking environments is also important for older adults who have to transition from being drivers to non-drivers, which is a common and difficult time that can have many negative outcomes [10]. Moreover, a recent review has demonstrated that engagement with nature and natural areas meets the criteria to be considered a basic human psychological need [11, 12]. International evidence along with WHO recommendations puts the accepted minimum standard of urban green space at $9m^2$ per capita [12-16] with an ideal level of $50m^2$ per capita [13].

The World Health Organization describes several aspects of outdoor walking and safety that can affect older adults, such as: cleanliness of the city (including from things such as noise and scent pollution), access to safe and regulated green spaces, pedestrian-friendly walkways, clean outdoor seating at regular intervals, smooth and level pavements that are maintained, regulated and have pedestrian priority, as well as roadways that are safe from slipping and have regular structures meant to assist crossing over busy roads [9]. Pedestrian-friendly walkways for older adults are an important facet of age-friendly cities, as a report by the Public Health Agency of Canada shows that falls are a large contributor to injury, especially hip fractures, among older adults [8].

We examined several aspects of the physical environment that were present in the CLSA data in order to analyse how well Calgary can match the needs of older adults in an age-friendly way. To begin with, we looked at how much park space and water space is available in each city. We used geographic information on the total amount of park space and water space, which we will call ‘green space’ and ‘blue space’ respectively, in each city in square kilometres, as well as population statistics for each city obtained from StatsCan’s 2016 census, in order to create a

value of the amount of green and blue space per capita in square meters (i.e. square meters per person).

With respect to green space, the data shows that Calgary has 79.8m^2 urban green space per capita. This is well above the ideal recommended level of 50m^2 urban green space per capita, which has been used in international peer-reviewed research in response to a recommendation by the WHO. With respect to blue space, while there are not agreed upon standards for the measurement of blue space alone, as such space tends to get lumped into overall "green" space in urban areas, we examined this separately, as there is some evidence that 'blue' space can have a somewhat differential impact than green space [11,12]. We will use the same standard for blue space as we used for green space. With respect to this, the data shows that Calgary has 99.9m^2 urban blue space per capita, which is double the recommended 50m^2 per capita.

Next, we examined how older Canadians generally perceive their local environments, such as how clean people think their neighbourhood is, and how safe they believe it to be; results are in Table 4.

Table 4 – Perceptions of Local Environment

Perceptions of Local Environment (Environment Is…)	**Age**				**Gender**		**Total**
	45-54	55-64	65-74	75+	Male	Female	
Kept Clean	761 *(96.2%)*	1,091 *(97.3%)*	799 *(96.4%)*	537 *(98.4%)*	1,538 *(97.0%)*	1,650 *(96.9%)*	3,188 *(97.0%)**
Vandalism and Graffiti Are Big Problems	61 *(7.7%)*	77 *(6.8%)*	55 *(6.6%)*	23 *(4.2%)*	99 *(6.2%)*	117 *(6.9%)*	216 *(6.6%)**
Not Safe to Walk in After Dark	58 *(7.4%)*	93 *(8.3%)*	87 *(10.7%)*	68 *(12.9%)*	117 *(7.4%)*	189 *(11.3%)*	306 *(9.4%)**

Notes. Percentages are cell proportions of people who agreed with the respective statement about their local environment and community relative to all respondents. Number of respondents was *n*=3,287 for 'kept clean', *n*=3,241 for 'safe to walk in after dark' and *n* = 3,296 for 'vandalism and graffiti are a big problem'.

We also examined how frequently older Canadian adults take a walk outside as a measure of environmental engagement of respondents with their local environment. Respondents were categorized based on how many days per week they typically took a walk outside. The results are shown in Table 5.

Table 5 – Weekly Frequency of Taking a Walk Outside by Age and Gender

Frequency of Taking a Walk Outside	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Never	102 *(12.9%)*	141 *(12.5%)*	129 *(15.5%)*	110 *(20.0%)*	219 *(13.7%)*	263 *(15.4%)*	482 *(14.6%)**
1 to 2 days	127 *(16.0%)*	142 *(12.5%)*	105 *(12.6%)*	75 *(13.6%)*	214 *(13.4%)*	235 *(13.7%)*	449 *(13.6%)*
3 to 4 days	153 *(19.3%)*	198 *(17.5%)*	176 *(21.1%)*	104 *(18.9%)*	285 *(17.8%)*	346 *(20.2%)*	631 *(19.1%)*
5 to 7 days	411 *(51.8%)*	651 *(57.5%)*	424 *(50.8%)*	261 *(47.5%)*	880 *(55.1%)*	867 *(50.7%)*	1,747 *(52.8%)**

Notes. Percentages are column proportions. Total number of participants with data for this data was *n* = 3,309.

We also examined how many falls had occurred among participants as a result of standing or walking in the past year before the survey; see Table 6.

Table 6 – Proportion of Sample Reporting Falls While Standing or Walking

Number of Falls	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Fall, Not Outside	22 *(46.8%)*	40 *(53.3%)*	16 *(50.0%)*	26 *(51.0%)*	47 *(52.2%)*	57 *(49.6%)*	104 *(50.7%)*
Fall Outside	25 *(53.2%)*	35 *(46.7%)*	16 *(50.0%)*	25 *(49.0%)*	43 *(47.8%)*	58 *(50.4%)*	101 *(49.3%)**

Notes. Percentages are column proportions. Respondents are only those who had fallen in the past 12 months in such a way that the fall caused injury enough to disrupt their normal daily living routine for multiple consecutive days. Number of respondents was *n*=205.

Summary

The Good News

- Calgary has well above the ideal recommended amount of urban green space per capita for both green space and blue space individually.
- Nearly 100% of all respondents – agreed that their local environment is kept clean.
- Only a small minority, less than 7% overall, felt that graffiti and vandalism were big problems in their local environments.
- Approximately 1 in 2 respondents reported taking a walk outside in their local environment with a frequency of 5 to 7 days per week. In fact, 71.9% of overall respondents reported taking a walk between 3 and 7 days a week.
- The proportion of reported falls that occurred outside as a result of standing or walking decreased slightly with age, rather than increased (though this may be tied with the lower outdoor walking frequency of those aged 65 and above).

The Bad News

- More than 10% of those aged 65-74, more than 12% of those aged 75+, and approximately 11% of women considered their local environment to be unsafe to walk in after dark.
- 1 in 5 respondents aged 75+ reported not taking any walks outside in their local environment on a weekly basis. In fact, 28.2% of overall respondents reported walking between 0 and 2 days a week.
- Just slightly under 1 in 2 reported falls occurred simply as a result of standing or walking outside, not including doing exercising, or yard work on one's property.

Dimension 2: Transportation

Transportation is an important aspect of independence. Having personal transportation can be a significant boost to a person's quality of life and leads to higher social participation for older adults [18]. However, many older adults may have to experience the difficult transition from driver to non-driver [10], highlighting the importance of alternate forms of transportation not only being available, but viable as well for a wide range of individuals. Even for those who are still driving, they may fear losing their driver's license [19]. However, those who are able to use other modes of transportation, specifically public transportation or walking, tend to have higher social participation compared to passengers and adapted transport/taxi users [20]. Furthermore, the WHO AFCG also explains that having access to affordable transportation will, in turn, also give access to community and health services, and that the issue of accessible, affordable transportation in active aging touches on many other areas of active aging as well. While there are many alternate forms of transportation to driving, such as walking, cycling, taking a taxi, and sharing rides in a motor vehicle, a major aspect of this dimension is the availability and viability of public transportation. Public transportation should be (according to the WHO AFCG): affordable, accessible, reliable and frequent, have an adequate range of travel destinations, use age-friendly vehicles that are accessible to those with mobility limitations and which clearly denote the vehicle number and destination, be safe and comfortable, have priority seating, have easily accessible information, and have accessible and sheltered transport stations and stops.

Using the CLSA data, we were able to examine a number of features regarding transportation use among the CLSA participants. In the first subsection of this dimension, 'Modes of Transportation', we examined the proportion of people who still had a valid driver's license (Table 7) as well as driving frequency for those who had a valid license (Table 8). Moreover, we examined the most common form of transportation used by participants in the last year at the time of measurement, both for drivers (Table 9) and for non-drivers (Table 10). Similarly, we also examined the proportions of participants who had used various forms of transportation in the past month at the time of measurement, again for both drivers (Table 11) and non-drivers (Table 12). Furthermore, we examined the number of people who reported that lack of transportation, of any kind, was a barrier to participation in more social, recreational activities for drivers and non-drivers (Table 13). Because of the heavy emphasis in the WHO

AFC guide on public transportation, we looked more specifically at this mode of transportation in relation to the types of barriers older adults may face when trying to utilize this form of transportation in another subsection, 'Public Transportation', in which we examined the proportion of people who reported various types of barriers to public transportation use (Table 14 and 15) and accessible transportation use (Table 16 and 17).

Modes of Transportation

As previously mentioned, we first examined the number of participants in the Calgary sample of the CLSA who had a valid driver's licence. Results are presented in Table 7.

Table 7 – Driving Status

Driving Status	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Currently Has a Licence	785 *(98.9%)*	1,111 *(98.1%)*	805 *(96.4%)*	484 *(87.8%)*	1,563 *(97.8%)*	1,622 *(94.7%)*	3,185 *(96.2%)*[A]
Does Not Currently Have a Licence	<10	21 *(1.9%)*	30 *(3.6%)*	67 *(12.2%)*	36 *(2.3%)*	91 *(5.3%)*	127 *(3.8%)*

Notes. Percentages are column proportions. Total number of respondents was *n* = 3,312.

Next, we examined the frequency with which those with a valid driver's licence actually drove their vehicle. The results of this examination are presented in Table 8. We also examined the most common mode of transportation over the past year at the time of measurement for those with a valid driver's licence. The results are presented in Table 9. We also examined the same information – the most common mode of transportation over the past year – with respect to those who did not have a valid driver's licence at the time of measurement. The results of this examination are presented in Table 10.

Table 8 – Driving Frequency

Driving Frequency	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Daily	561 *(75.4%)*	699 *(67.8%)*	468 *(66.7%)*	255 *(59.4%)*	1,054 *(72.5%)*	929 *(63.9%)*	1,983 *(68.2%)*[*]
4 to 6 Times a Week	105 *(14.1%)*	202 *(19.6%)*	142 *(20.2%)*	104 *(24.2)*	220 *(15.1%)*	333 *(22.9%)*	553 *(19.0%)*[*]
2 to 3 Times a Week	55 *(7.4%)*	91 *(8.8%)*	61 *(8.7%)*	38 *(8.9%)*	127 *(8.7%)*	118 *(8.1%)*	245 *(8.4%)*[*]
Once a Week	14 *(1.9%)*	17 *(1.7%)*	<10	10 *(2.3%)*	21 *(1.5%)*	27 *(1.9%)*	48 *(1.7%)*[*]
Less than Once a Week, More than Once a Month	<10	<10	<10	<10	<10	11 *(0.8%)*	17 *(0.6%)*[A]
Less than Once a Month	<10	<10	<10	<10	<10	<10	14 *(0.5%)*[A]
Not at all	<10	13 *(1.3%)*	12 *(1.7%)*	16 *(3.7%)*	19 *(1.3%)*	27 *(1.9%)*	46 *(1.6%)*

Notes. Respondents are only those who previously identified that they currently have a valid driver's licence, either with or without restrictions. Percentages are column proportions. Total number of respondents was *n* = 2,906.

Table 9 – Most Common Transportation Type over the Past Year for Drivers

Transportation Use	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Drive a Motor Vehicle	653 *(88.4%)*	896 *(88.3%)*	648 *(93.8%)*	379 *(92.0%)*	1,288 *(89.9%)*	1,288 *(90.5%)*	2,576 *(90.2%)*[*]
Walking	20 *(2.7%)*	45 *(4.4%)*	16 *(2.3%)*	<10	47 *(3.3%)*	40 *(2.8%)*	87 *(3.1%)*[*]
Passenger in a Motor Vehicle	14 *(1.9%)*	26 *(2.6%)*	18 *(2.6%)*	23 *(5.6%)*	21 *(1.5%)*	60 *(4.2%)*	81 *(2.8%)*[*]
Public Transit	34 *(4.6%)*	33 *(3.3%)*	<10	<10	49 *(3.4%)*	29 *(2.0%)*	78 *(2.7%)*[*]
Cycling	16 *(2.2%)*	14 *(1.4%)*	<10	<10	27 *(1.9%)*	<10	32 *(1.1%)*[*]
Accessible Transit	<10	<10	<10	<10	<10	<10	<10[NA]
Taxi	<10	<10	<10	<10	<10	<10	<10[NA]

Notes. Percentages are column proportions. Respondents are those that indicated that they currently have a valid driver's licence, either with or without restrictions. Total number of respondents was *n* = 2,857.

Table 10 – Most Common Transportation Type over the Past Year for Non-Drivers

Transportation Use	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Passenger in a Motor Vehicle	<10	<10	13 *(34.2%)*	41 *(63.1%)*	21 *(42.9%)*	42 *(43.3%)*	63 *(43.2%)*[A]
Public Transit	<10	17 *(50.0%)*	12 *(31.6%)*	10 *(15.4%)*	10 *(20.4%)*	33 *(34.0%)*	43 *(29.5%)*[L,*]
Accessible Transit	<10	<10	<10	<10	<10	10 *(10.3%)*	16 *(11.0%)*[A]
Walking	<10	<10	<10	<10	<10	<10	15 *(10.3%)*
Taxi	<10	<10	<10	<10	<10	<10	<10[NA]
Cycling	<10	<10	<10	<10	<10	<10	<10[NA]

Notes. Percentages are column proportions. Respondents are those that indicated they did not currently have a valid driver's licence. Total number of respondents was *n* = 146.

We also examined what types of transportation participants had used over the past month at the time of measurement, again split between drivers and non-drivers. The results of the analysis for drivers is presented in Table 11.

Table 11 – Transportation Types Utilized in Past Month for Drivers

Transportation Use	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Passenger in a Motor Vehicle	673 *(85.7%)*	921 *(82.9%)*	641 *(79.6%)*	370 *(76.5%)*	1,202 *(76.9%)*	1,403 *(86.5%)*	2,605 *(81.8%)*
Walking	616 *(78.5%)*	872 *(78.5%)*	577 *(71.7%)*	341 *(70.5%)*	1,200 *(76.8%)*	1,206 *(74.4%)*	2,406 *(75.5%)*[*]
Public Transit	311 *(39.6%)*	377 *(33.9%)*	233 *(28.9%)*	122 *(25.2%)*	560 *(35.8%)*	483 *(29.8%)*	1,043 *(32.8%)*[*]
Cycling	213 *(27.1%)*	220 *(19.8%)*	94 *(11.7%)*	22 *(4.6%)*	341 *(21.8%)*	208 (12.8%)	549 *(17.2%)*[NA]
Taxi	185 *(23.6%)*	209 *(18.8%)*	90 *(11.2%)*	37 *(7.6%)*	280 *(17.9%)*	241 *(14.9%)*	521 *(16.4%)*[*]
Accessible Transit	<10	<10	13 *(1.6%)*	10 *(2.1%)*	13 *(0.8%)*	23 *(1.4%)*	36 *(1.1%)*

Notes. Percentages are cell proportions of respondents that responded "yes" to utilizing the corresponding type of transportation in the past month compared to the total number of respondents. Respondents are those that indicated they currently have a valid driver's licence. Total number of respondents was *n* = 3,185.

It should be noted that, because driving status, frequency, and driving as the most common mode of transportation over the past year had previously been examined, driving a personal motor vehicle was not a response option for this line of questioning.

We also examined the same information with respect to non-drivers (see Table 12).

Table 12 – Transportation Types Utilized in Past Month for Non-Drivers

Transportation Use	**Age**				**Gender**		**Total**
	45-54	55-64	65-74	75+	Male	Female	
Passenger in a Motor Vehicle	<10	15 *(71.4%)*	25 *(83.3%)*	63 *(94.0%)*	29 *(80.6%)*	83 *(91.2%)*	112 *(88.2%)*
Walking	<10	11 *(52.4%)*	21 *(70.0%)*	34 *(50.8%)*	19 *(52.8%)*	56 *(61.5%)*	75 *(59.1%)*[*]
Public Transit	<10	14 *(66.7%)*	17 *(56.7%)*	27 *(40.3%)*	20 *(55.6%)*	46 *(50.6%)*	66 *(52.0%)*[*]
Taxi	<10	<10	16 *(53.3%)*	30 *(44.8%)*	13 *(36.1%)*	49 *(53.9%)*	62 *(48.8%)*[A]
Accessible Transit	<10	<10	<10	12 *(17.9%)*	11 *(30.6%)*	14 *(15.4%)*	25 *(19.7%)*
Cycling	<10	<10	<10	<10	<10	<10	<10[*]

Notes. Percentages are cell proportions of respondents that responded "yes" to utilizing the corresponding type of transportation in the past month compared to the total number of respondents. Respondents are those that indicated they currently do not have a valid driver's licence. Total number of respondents was n = 127.

After examining rates of usage of different forms of transportation, we then took a look at those who stated that transportation was a barrier to engaging in more social activities. The results are presented in Table 13. These results are based on participants who had also indicated that, in the past 12 months at the time of measurement, they had desired to participate in more social activities.

Table 13 – Transportation as a Barrier to Participation in More Social Activities

Transportation as Barrier	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Drivers	<10	<10	<10	13 *(6.5%)*	<10	19 *(2.5%)*	23 *(1.6%)*
Non-Drivers	<10	<10	<10	<10	<10	<10	12 *(20.3%)*

Notes. Respondents are people who previously identified that they desired to participate in more social and physical activities over the past year. Percentages are cell proportions and represent the number/percentage of people who responded "yes" that transportation was a barrier to participating in more social activities over the past year at the time of measurement for the corresponding age/gender category. Total number of respondents for 'Drivers' was n = 1,447, and for 'Non-Drivers' was n=59.

Public Transportation

Affordable, accessible public transportation represents an area where municipalities can exert a rather large influence on the well-being of older adults through the provision of a means to travel and gain access to a wide range of services and activities.. After examining rates of usage of public transportation for various subpopulations of the relevant CLSA sample, we then examined the number of bus stops as well as the bus stop density per square kilometre. With respect to bus stop count, the data that is used deals with non-unique bus stops. That is, if two routes both stop at the same physical bus stop, the stop is counted twice. This gives a measure of the variability of options that a person has for using public transportation in a given city above what the number of unique physical stops would otherwise indicate. The results show that Calgary has 6,106 non-unique bus stops (highest value: 48,841; lowest value:1,487). In terms of density, this equates to 1.2 bus stops per km^2 (highest value: 9.4; lowest value: 0.3).

Next, we examined some of the factors that prevented the use of public transportation for those individuals who did not report using public transportation at all in the past month at the time of measurement. The results of this analysis are presented in Table 14. For the sake of parsimony, we examine this issue for all participants, regardless of driving status.

Table 14 – Factors Preventing Use of Public Transportation

Factors That Prevented Use of Public Transportation	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Not Needed	252 *(53.1%)*	407 *(54.9%)*	315 *(53.9%)*	213 *(53.0%)*	563 *(55.3%)*	624 *(52.7%)*	1,187 *(53.9%)*[*]
Inconvenient Schedules/Route	139 *(29.3%)*	202 *(27.3%)*	158 *(27.0%)*	95 *(23.6%)*	312 *(30.6%)*	282 *(23.8%)*	594 *(27.0%)*[*]
Prefer Not to Use	117 *(24.6%)*	160 *(21.6%)*	111 *(19.0%)*	87 *(21.6%)*	212 *(20.8%)*	263 *(22.2%)*	475 *(21.6%)*[*]
Service Unavailable	47 *(9.9%)*	75 *(10.1%)*	52 *(8.9%)*	41 *(10.2%)*	92 *(9.0%)*	123 *(10.4%)*	215 *(9.8%)*[*]
Health/Mobility Limitations	<10	20 *(2.7%)*	11 *(1.9%)*	19 *(4.7%)*	12 *(1.2%)*	43 *(3.6%)*	55 *(2.5%)*
Too Costly	<10	<10	<10	<10	17 *(1.7%)*	10 *(0.8%)*	27 *(1.2%)*[H,*]

Notes. Percentages are cell proportions of those that responded "yes" to the corresponding barrier for each age/gender category. Participants could respond to multiple barriers to public transportation use. Total number of respondents *n* = 2,203.

Next, we examined the proportions of participants who reported different numbers of barriers to the use of public transportation. Please note that this Table only represents those who previously reported not having used public transportation at all in the past month at the time of measurement. The results of this examination are reported in Table 15.

Table 15 – Total Number of Barriers to Public Transportation Use

Number of Barriers	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
0	17 *(3.6%)*	26 *(3.5%)*	29 *(5.0%)*	16 *(4.0%)*	34 *(3.3%)*	54 *(4.6%)*	88 *(4.0%)*[*]
1	398 *(77.5%)*	579 *(78.1%)*	467 *(79.8%)*	320 *(79.6%)*	796 *(78.1%)*	938 *(79.2%)*	1,734 *(78.7%)*[*]
2	76 *(16.0%)*	116 *(15.7%)*	80 *(13.7%)*	54 *(13.4%)*	157 *(15.4%)*	169 *(14.3%)*	326 *(14.8%)*[*]
3+	14 *(3.0%)*	20 *(2.7%)*	<10	12 *(3.0%)*	32 *(3.1%)*	23 *(1.9%)*	55 *(2.5%)*[H,*]

Notes. Total number of barriers is 6. Percentages are column proportions. Respondents are those that previously identified that they did not use public transportation in the past month. Total number of respondents was *n* = 2,203.

We also examined participants' reported barriers to the use of accessible transit. This data is derived only from those participants who previously indicated that they did not use accessible transit in the past month at the time of measurement. The results are presented in Table 16.

Table 16 – Barriers to Use of Accessible Transportation

Factors That Prevented Use of Accessible Transportation	**Age**				**Gender**		**Total**
	45-54	55-64	65-74	75+	Male	Female	
Not Needed	729 *(92.3%)*	1,008 *(90.2%)*	750 *(92.0%)*	463 *(87.5%)*	1,448 *(91.9%)*	1,502 *(89.6%)*	2,950 *(90.7%)*[*]
Service Unavailable	15 *(1.9%)*	21 *(1.9%)*	22 *(2.6%)*	21 *(3.8%)*	27 *(1.7%)*	52 *(3.0%)*	79 *(2.4%)*[*]
Prefer Not to Use	<10	10 *(0.9%)*	<10	10 *(1.8%)*	12 *(0.8%)*	24 *(1.4%)*	36 *(1.1%)*
Inconvenient Schedules/Route	<10	<10	<10	<10	10 *(0.6%)*	20 *(1.2%)*	30 *(0.9%)*[*]
Health/Mobility Limitations	<10	<10	<10	<10	<10	<10	<10[NA]
Too Costly	<10	<10	<10	<10	<10	<10	<10[NA]

Notes. Percentages are cell proportions of those that responded "yes" to the corresponding barrier for each age/gender category. Participants could respond to multiple barriers to accessible transportation use. Total number of respondents were *n*=3,251 for 'Not Needed', and *n*=3,312 for all other barrier categories.

Then, we examined this data with respect to the number of different barriers reported by participants. The results of this analysis are presented in Table 17.

Table 17 – Total Number of Barriers to Accessible Transportation Use

Number of Barriers	**Age**				**Gender**		**Total**
	45-54	55-64	65-74	75+	Male	Female	
0	45 *(5.7%)*	86 *(7.7%)*	44 *(5.4%)*	38 *(7.2%)*	96 *(6.1%)*	117 *(7.0%)*	213 *(6.6%)*[*]
1	732 *(92.7%)*	1,011 *(90.5%)*	752 *(92.3%)*	481 *(90.9%)*	1,459 *(92.6%)*	1,517 *(90.5%)*	2,976 *(91.5%)*[*]
2+	13 *(1.7%)*	20 *(1.8%)*	19 *(3.3%)*	10 *(2.0%)*	20 *(1.3%)*	42 *(2.5%)*	62 *(1.9%)*[*]

Notes. Total number of barriers is 6. Percentages are column proportions. Respondents are those that previously identified they had not used accessible transportation in the past month. Total number of respondents was *n* = 3,251.

Summary

The Good News

- Calgary has the highest proportion of respondents of all eight cities involved in this project who still had a valid driver's licence at the time of measurement.
- 87.2% of drivers reported driving between 4 to 7 days a week.
- Calgary has the lowest proportion of respondents who drive 'less than once a week, more than once a month' and 'less than once a month'.
- Calgary has the highest proportion of non-drivers of all eight cities involved in this project who reported 'being a passenger in a motor vehicle' or 'accessible transit' as their most common mode of transportation over the past year at the time of measurement.
- Three out of four drivers reported using walking as a form of transportation in the past month; four out of five drivers reported being a passenger in a motor vehicle as a form of transportation in the past month; one out of three drivers reported using public transit in the past month.
- Fewer than 2% of drivers reported transportation as a barrier to their desired level of social activity participation.

The Bad News

- The proportion of those aged 75+ without a driver's licence is three times higher than the proportion of those aged 65-74.
- Calgary had the lowest proportion of all eight cities involved in this project of non-drivers who reported public transit as their most common form of transportation during the past year at the time of measurement.
- The proportion of non-drivers aged 75+ using public transit as their most common form of transportation was one-third the proportion of those aged 55-64.
- Very few non-driver respondents (<10) reported cycling as their most common form of transportation.

- The proportion of non-drivers who used walking as a form of transportation in the past month was 17.8% lower than the highest proportion among the eight cities involved in this project.
- One-fifth of non-drivers reported transportation as a barrier to their desired level of social activity participation.
- More than one in four respondents did not use public transit in the past month because of inconvenient schedules/routes; and, almost 10% did not use public transit in the past month because services were not available to them, which was higher than the proportion who reported they simply preferred not to use public transit.
- The proportion of non-public transit users reporting two barriers was almost twice the size of the lowest value among the eight cities in this project.

Dimension 3: Housing

Adequate housing is not only a basic human need, it is a basic human right [21]. Affordable, accessible housing is an important aspect of health worldwide. A systematic review of housing intervention studies demonstrated that housing improvement interventions, especially those improving heating and warmth, lead to improvements in general health, respiratory health and mental health [22]. Adequate housing is especially important for vulnerable groups like those who have health issues, inadequate income, and/or are older in age [22]. For these groups, their vulnerabilities interact with poor housing conditions to create hazardous, long-term situations that are detrimental to physical and mental health [22]. Moreover, lack of affordable, appropriate housing is a common barrier to aging in place [23], and aging in place is an important, common theme in healthy aging, especially for 'stoic' seniors (those who more strongly value self-reliance, practicality, hard work, being close to family/friends, and put less importance on social activities, volunteering, and have less resources to maintain contact over long distances) [24]. The WHO AFCG notes several key features of age-friendly housing, including affordability (including essential services), design (e.g., structurally sound, even surfaces, accessible doorways and hallways), maintenance, access to services in the home, familiar surroundings that establish a sense of community belongingness, housing options that accommodate changing needs for aging in place, and sufficient space and privacy.

Using the CLSA data, we examined several aspects of participants' current housing, including satisfaction, types of problems and number of problems associated with current home. We break down the results with respect to those who own their home versus those who rent, based on post hoc examination of differential rates of housing problems between the two groups.

To begin with, we examined the proportion of individuals who either strongly agreed or agreed with the statement that they are satisfied with their current housing, shown in Table 18.

We also examined current problems with housing for older Canadian adults who own (Table 19) or rent (Table 21) their current home. Participants identified which, if any problems with housing affected them. Participants could respond to all, some or none of the problems. Table 19 shows the proportions of home owners in the CLSA sample currently experiencing problems with leaking, noise, condensation, electrical wiring or plumbing, heating, maintenance or repairs,

and/or infestations, while Table 20 shows the number of different housing problems reported by such.

Table 18 – Satisfaction with Current Housing

People Satisfied with Current Housing	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Owners	707 *(95.8%)*	1,021 *(96.5%)*	752 *(97.7%)*	479 *(98.2%)*	1,430 *(96.6%)*	1,529 *(97.1%)*	2,959 *(96.9%)*[*]
Renters	46 *(86.8%)*	54 *(80.6%)*	54 *(94.7%)*	44 *(91.7%)*	94 *(88.7%)*	104 *(87.4%)*	198 *(88.0%)*[L,*]

Notes. Percentages are cell proportions for those that responded "yes" that they are satisfied with their current housing for the corresponding age/gender category. Total number of respondents was *n* = 3,054 for 'Owners' and *n*=225 for 'Renters'.

Table 19 – Problems with Current Housing for Owners

Problems	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Noise	42 *(5.7%)*	59 *(5.6%)*	35 *(4.5%)*	24 *(4.9%)*	85 *(5.7%)*	75 *(4.8%)*	160 *(5.2%)*[*]
Maintenance or Repairs	41 *(5.5%)*	59 *(5.6%)*	36 *(4.7%)*	15 *(3.1%)*	81 *(5.5%)*	70 *(4.4%)*	151 *(4.9%)*
Electrical Wiring or Plumbing	37 *(5.0%)*	38 *(3.6%)*	28 *(3.6%)*	16 *(3.3%)*	54 *(3.6%)*	65 *(4.1%)*	119 *(3.9%)*[*]
Leaking	28 *(3.8%)*	37 *(3.5%)*	18 *(2.3%)*	11 *(2.3%)*	42 *(2.8%)*	52 *(3.3%)*	94 *(3.1%)*
Condensation	39 *(5.3%)*	24 *(2.3%)*	19 *(2.5%)*	<10	38 *(2.6%)*	49 *(3.1%)*	87 *(2.8%)*[NA]
Heating	<10	26 *(2.5%)*	15 *(1.9%)*	<10	25 *(1.7%)*	32 *(2.0%)*	57 *(1.9%)*[*]
Infestations	11 *(1.5%)*	<10	15 *(1.9%)*	<10	22 *(1.5%)*	16 *(1.0%)*	38 *(1.2%)*[NA]

Notes. Percentages are cell proportions for those that responded "yes" that the respective housing problem was an issue for them at the time of measurement for the corresponding age/gender category. Participants could respond to multiple problems with current housing. Total number of respondents was *n*=3,060.

Table 20 – Total Number of Problems with Current Housing for Owners

Number of Problems	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
0	597 *(80.7%)*	865 *(81.7%)*	660 *(85.4%)*	419 *(85.9%)*	1,228 *(82.8%)*	1,313 *(83.3%)*	2,541 *(83.0%)*
1	100 *(13.5%)*	161 *(15.2%)*	79 *(10.2%)*	62 *(12.7%)*	198 *(13.4%)*	204 *(12.9%)*	402 *(13.1%)*
2	28 *(3.8%)*	21 *(2.0%)*	22 *(2.9%)*	<10	37 *(2.5%)*	36 *(2.3%)*	73 *(2.4%)*[A]
3+	15 *(2.0%)*	12 *(1.1%)*	12 *(1.6%)*	<10	20 *(1.3%)*	24 *(1.5%)*	44 *(1.4%)*

Notes. Total number of problems is 7. Percentages are column proportions. Total number of respondents was *n*=3,060.

We also examined the same variables for those who rent their current home. Table 21 shows the proportions of people experiencing various pre-specified housing problems, while Table 22 shows the proportions of people experiencing different numbers of housing issues.

Table 21 – Problems with Current Housing for Renters

Problems	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Noise	<10	13 *(19.4%)*	<10	<10	11 *(10.4%)*	13 *(10.8%)*	24 *(10.6%)*
Heating	<10	<10	<10	<10	10 *(9.4%)*	<10	18 *(8.0%)*[H,*]
Maintenance or Repairs	<10	<10	<10	<10	<10	<10	15 *(6.6%)*
Electrical Wiring or Plumbing	<10	<10	<10	<10	<10	<10	14 *(6.2%)*[*]
Leaking	<10	<10	<10	<10	<10	<10	11 *(4.9%)*[*]
Infestations	<10	<10	<10	<10	<10	<10	<10
Condensation	<10	<10	<10	<10	<10	<10	<10

Notes. Percentages are cell proportions for those that responded "yes" that the respective housing problem was an issue for them at the time of measurement for the corresponding age/gender category. Participants could respond to multiple problems with current housing. Total number of respondents was *n* = 226.

Table 22 – Total Number of Problems with Current Housing for Renters

Number of Problems	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
0	35 *(66.0%)*	45 *(67.2%)*	44 *(75.9%)*	37 *(77.1%)*	79 *(74.5%)*	82 *(68.3%)*	161 *(71.2%)*
1	15 *(28.3%)*	12 *(17.9%)*	10 *(17.2%)*	10 *(20.8%)*	19 *(17.9%)*	28 *(23.3%)*	47 *(20.8%)*
2	<10	<10	<10	<10	<10	<10	11 *(4.9%)*
3+	<10	<10	<10	<10	<10	<10	<10

Notes. Total number of problems is 7. Percentages are column proportions. Total number of respondents was *n* = 226.

Summary

The Good News

- The majority of both owners (97%) and renters (88%) reported being satisfied with their current housing, and these rates increased with age.
- Only a small minority of owners (5% or less) reported any of the housing problems specified in the CLSA. Less than 2% reported heating as an issue with their current housing.
- The large majority of owners reported none of the problems (83%), and the rates for this increased as age increased. Less than 4% of owners reported more than one issue with their current housing.
- Calgary had the lowest proportion of owners that reported two concomitant housing issues with their current home among the eight cities involved in this project.

The Bad News

- Among the eight cities, Calgary had the lowest proportion of renters (88%) who reported satisfaction with their current housing among the eight cities involved in this project (highest value: 94.8%).

- Nearly 20% of renters aged 55-64 reported noise as a problem with their current housing, with an overall rate of more than one in ten for this issue.
- Calgary had the highest proportion of renters (8%) who reported heating as an issue with their current housing.
- One in four renters reported experiencing one or more problems with their current housing.

Dimension 4: Community Support

Formal and informal support in the community, and access to affordable health services, is essential to help seniors age 'in place'[24]. This is especially true for people with functional limitations or disabilities, and the need for car support increases with age. Several personal factors can impact the use of formal and informal care use, including age, gender, personal values and beliefs [25]. Socio-demographic factors such as income, neighbourhood affluence, population density, family availability and education level can influence care use as well. In Canada, older adults generally believe in governmental responsibility for assisting older individuals with their needs; furthermore, most Canadians do not want to rely on family for informal care beyond emotional support [26]. There is also some evidence to suggest that older Canadian adults who receive formal care support tend to have slightly lower levels of loneliness and higher levels of life satisfaction compared to those who receive informal care or blended home care [26]. Structured interviews with older Canadian adults showed that the use of formal care tends to bolster feelings of independence and autonomy and reduces the sense of feeling like a burden on family members [26].

We used the CLSA data to examine several factors relating to community support and health services use: the proportion of participants who had contact with a family physician in the past year, the proportion of older adults who had contact with a dentist in the past year, the proportion of older adults that received various forms of formal care in the past year, and the proportion of older adults that received informal care in the past year.

To begin with, we examined the number of participants in the CLSA who had contact with a family physician and/or a dentist. The results are presented in Table 23. When examining these results, we recommend keeping in mind that these are relatively high proportions considering that, as of 2015 when collection for the baseline data of the CLSA ended, there were approximately 225 physicians per 100,000 people in Canada [31].

We also examined the proportion of adults in this sample who had formal care, which could include receiving assistance from paid workers or volunteers providing care due to a physical, mental, or cognitive health problem or limitation. The types of care were: personal care (e.g., assistance with eating, dressing, bathing or toileting), medical care (e.g., help taking

medications, dressing changes), managing care (e.g., making appointments), help with activities (e.g., housework, home maintenance, outdoor work), transportation (e.g., trips to the doctor, shopping), and meal preparation or delivery. This data is shown in Table 24.

Table 23 – Proportion of People Who Had Contact with Physician and Dentist

Health Professional	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Family Physician	693 *(87.4%)*	1,014 *(90.1%)*	798 *(95.7%)*	529 *(96.4%)*	1,451 *(91.1%)*	1,583 *(92.6%)*	3,034 *(91.9%)*[*]
Dentist	667 *(84.2%)*	968 *(85.5%)*	677 *(81.1%)*	405 *(73.5%)*	1,597 *(80.4%)*	1,433 *(83.7%)*	2,717 *(82.1%)*[*]

Notes. Percentages are cell proportions and represent the proportion of people in each respective category who have seen the corresponding health professional. Number of respondents are *n*=3,302 (Fam. Phy.) and *n*=3,310 (Dentist).

Table 24 – Use of Formal Assistance

Type of Formal Assistance	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Activities	10 *(1.2%)*	18 *(1.6%)*	20 *(2.3%)*	47 *(8.0%)*	28 *(1.7%)*	67 *(3.8%)*	95 *(2.8%)*[*]
Medical Care	<10	13 *(1.1%)*	<10	19 *(3.2%)*	25 *(1.5%)*	17 *(1.0%)*	42 *(1.2%)*[*]
Personal Care	<10	<10	10 *(1.2%)*	14 *(2.4%)*	15 *(0.9%)*	19 *(1.1%)*	34 *(1.0%)*
Meal Preparation	<10	<10	<10	14 *(2.4%)*	14 *(0.9%)*	15 *(0.8%)*	29 *(0.8%)*
Transportation	<10	12 *(1.0%)*	<10	<10	12 *(0.7%)*	16 *(0.9%)*	28 *(0.8%)*
Managing Care	<10	<10	<10	<10	<10	<10	<10[NA]
Other	<10	<10	<10	<10	<10	<10	<10[NA]

Notes. Percentages are in relation to the number of people who have not used the respective type of formal assistance in their age/gender category. Number of respondents is *n*=3,441.

We also examined the number of different types of formal assistance services used across age groups and genders. The results of this analysis are presented in Table 25.

Table 25 – Number of Types of Formal Assistance Services Used by Age and Gender

Number of Types of Formal Care Used	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
0	815 *(98.3%)*	1,129 *(97.5%)*	843 *(97.1%)*	519 *(88.6%)*	1,606 *(97.1%)*	1,700 *(95.1%)*	3,306 *(96.1%)*^{A}
1	<10	16 *(1.4%)*	13 *(1.5%)*	43 *(7.3%)*	20 *(1.2%)*	61 *(3.4%)*	81 *(2.4%)*^{A,*}
2+	<10	13 *(1.1%)*	12 *(1.4%)*	24 *(4.1%)*	28 *(1.7%)*	26 *(1.5%)*	54 *(1.6%)*

Notes. Percentages are column proportions. Number of respondents is *n*=3,441.

We also looked at rates for receiving informal care, which includes receiving any assistance from family, friends, or neighbours due to a physical, mental, or cognitive health problem or limitation, shown in Table 26.

Table 26 – Use of Informal Assistance by Age and Gender

Type of Informal Assistance	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Activities	58 *(7.0%)*	79 *(6.8%)*	72 *(8.3%)*	67 *(11.4%)*	96 *(5.8%)*	180 *(10.1%)*	276 *(8.0%)**
Transportation	50 *(6.0%)*	73 *(6.3%)*	63 *(7.3%)*	68 *(11.6%)*	99 *(6.0%)*	155 *(8.7%)*	254 *(7.4%)**
Meal Preparation	46 *(5.6%)*	57 *(4.9%)*	44 *(5.1%)*	30 *(5.1%)*	59 *(3.6%)*	118 *(6.6%)*	177 *(5.1%)**
Personal Care	11 *(1.3%)*	22 *(1.9%)*	23 *(2.7%)*	20 *(3.4%)*	29 *(1.8%)*	47 *(2.6%)*	76 *(2.2%)**
Medical Care	<10	23 *(2.0%)*	10 *(1.1%)*	17 *(2.9%)*	32 *(1.9%)*	24 *(1.3%)*	56 *(1.6%)**
Managing Care	<10	10 *(0.9%)*	<10	14 *(2.4%)*	19 *(1.2%)*	17 *(1.0%)*	36 *(1.1%)**
Other	<10	<10	<10	<10	<10	<10	<10NA

Notes. Percentages are cell proportions for the number of people that responded "yes" to using the corresponding informal care type for the respective age/gender category. Participants could respond to multiple types of informal care. Number of respondents is *n*=3,441.

Finally, we examined the number of different types of informal care services used by CLSA respondents in the Calgary CMA. The results are presented in Table 27 below.

Table 27 – Number of Types of Informal Assistance Used by Age and Gender

Number of Types of Informal Assistance	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
0	750 *(90.5%)*	1,045 *(90.2%)*	768 *(88.5%)*	481 *(82.1%)*	1,508 *(91.2%)*	1,536 *(86.0%)*	3,044 *(88.5%)*
1	30 *(3.6%)*	41 *(3.5%)*	43 *(5.0%)*	56 *(9.6%)*	64 *(3.9%)*	106 *(5.9%)*	170 *(4.9%)*
2	16 *(1.9%)*	27 *(2.3%)*	20 *(2.3%)*	20 *(3.4%)*	26 *(1.6%)*	57 *(3.2%)*	83 *(2.4%)**
3	19 *(2.3%)*	20 *(1.7%)*	20 *(2.3%)*	10 *(1.7%)*	25 *(1.5%)*	44 *(2.5%)*	69 *(2.0%)**
4+	14 *(1.7%)*	25 *(2.2%)*	17 *(2.0%)*	19 *(3.2%)*	31 *(1.9%)*	44 *(2.5%)*	75 *(2.2%)**

Notes. Percentages are column proportions. Maximum number of informal care types was 6. Number of respondents is *n*=3,441.

Summary

The Good News

- The large majority of respondents (92% overall) reported seeing a family physician in the past year. Similarly, the large majority of respondents (82%) reported seeing a dentist in the past year. Moreover, the rates for seeing a family physician in the past year increased by almost 10% as age increased.
- Calgary has the lowest proportion of respondents who received none of the different types of formal care in the CLSA among all eight cities involved in this project, and the highest proportion of people who received one type of formal care.

The Bad News

- The rates for seeing a dentist in the past year decreased by 10% as age increased.
- Only 4% of respondents reported receiving one or more types of formal care, compared to 11.5% of respondents who reported receiving one or more types of informal care, which is nearly three times the rate of formal care.
- There were gender discrepancies in receiving some types of informal care, such that men utilized informal care services at nearly half the rate that women did for activities and meal preparation.

Dimension 5: Social Participation

Regular participation in social activities is a very important aspect of quality of life for older adults. Frequent social activity participation reduces the risk of dementia [27] and helps to maintain stronger cognitive ability later in life [28]. Specifically, for Canadian seniors, social participation is associated with better self-rated health [29, 30], and with lower loneliness and life dissatisfaction [29]. Moreover, these relationships between social participation and increased well-being actually get stronger as the number of different types of social activities that a person engage in increases [29]. In the Canadian Community Health Survey – Healthy Aging data from 2008/2009, 21% of senior men and 27% of senior women reported a desire to participate in more social activities [29]. But, despite this desire to participate in more social activities, many Canadian seniors experienced some form of barrier to their desired level of social activity [29]. The WHO AFCG made several recommendations with respect to social participation for older adults, such as accessible opportunities, affordable activities, a variety of different types of opportunities and locations, increasing awareness of activities and events for older adults, and activities that allow socializing with other age groups.

We used the CLSA data to examine several factors relating to social participation in older Canadian adults. To begin with, we examined social activity participation rates, shown in Table 28. These social activities all require that other people are involved, and are as follows: outside the household with family or friends (e.g., small get-togethers, meals outside the household, weddings, reunions), church or religious activities (e.g., services, committees, choirs), sports or physical activities (must involve other people), educational and cultural activities (e.g., attending courses, concerts, plays, visiting museums), service club or fraternal organization activities (e.g., Lion's Club, Rotary, Kiwanis Club, Royal Canadian Legion, Foresters), neighbourhood, community or professional association activities, or other activities involving other people (e.g., hobbies, gardening, poker, bridge, cards, other games). Percentages reported in Table 28 are for those respondents who indicated that they participated in the respective activity type on a daily, weekly or monthly basis, as opposed to either annually or never.

Table 28 – Participation in Social Activities by Age and Gender

Type of Social Activity	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Family/Friends Outside Household	769 *(92.9%)*	1,074 *(92.9%)*	802 *(93.0%)*	528 *(90.7%)*	1,493 *(90.5%)*	1,680 *(94.4%)*	3,173 *(92.6%)**
Sport/Physical Activity with Others	655 *(79.1%)*	839 *(72.6%)*	592 *(68.6%)*	358 *(61.5%)*	1,153 *(70.0%)*	1,291 *(72.5%)*	2,444 *(71.3%)**
Education/Cultural Activities	481 *(58.1%)*	665 *(57.6%)*	444 *(51.3%)*	287 *(49.3%)*	844 *(51.2%)*	1,033 *(58.0%)*	1,877 *(54.7%)**
Religious	231 *(27.9%)*	338 *(29.3%)*	323 *(37.5%)*	304 *(52.1%)*	518 *(31.5%)*	678 *(38.1%)*	1,196 *(34.9%)**
Association Activities	243 *(29.4%)*	309 *(26.8%)*	256 *(29.6%)*	197 *(33.9%)*	468 *(28.4%)*	537 *(30.2%)*	1,005 *(29.3%)**
Clubs or Fraternal Org. Activities	117 *(14.2%)*	190 *(16.5%)*	170 *(19.7%)*	147 *(25.2%)*	302 *(18.3%)*	322 *(18.1%)*	624 *(18.2%)*
Other	564 *(68.2%)*	737 *(64.0%)*	*539 (62.8%)*	378 *(65.2%)*	1,082 *(65.8%)*	1,136 *(64.1%)*	2,218 *(64.9%)**

Notes. Percentages are cell proportions for the corresponding activity type for the respective age/gender category. Participants could indicate participation in multiple types of social/recreational activities. Proportions are for those individuals classified as 'participants', meaning they indicated participating in respective activities monthly, weekly or daily, as opposed to either annually or never. Number of respondents is *n*=3,428.

We also examined the number of different types of social activities that participants reported engaging in frequently across age groups and genders, shown in Table 29. We then looked at the proportion of people who reported the desire to participate in more social activities, shown in Table 30.

Table 29 – Number of Types of Social Activities Engaged in by Age and Gender

Number of Types of Social Activities	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
0	11 *(1.3%)*	26 *(2.3%)*	13 *(1.5%)*	13 *(2.3%)*	38 *(2.3%)*	25 *(1.4%)*	63 *(1.9%)**
1	47 *(5.7%)*	66 *(5.8%)*	67 *(7.9%)*	38 *(6.6%)*	122 *(7.5%)*	96 *(5.5%)*	218 *(6.4%)**
2	107 *(13.0%)*	170 *(14.8%)*	124 *(14.5%)*	83 *(14.4%)*	256 *(15.6%)*	228 *(13.0%)*	484 *(14.2%)**
3	189 *(22.9%)*	261 *(22.8%)*	190 *(22.3%)*	109 *(18.9%)*	351 *(21.4%)*	398 *(22.6%)*	749 *(22.0%)**
4	228 *(27.7%)*	310 *(27.1%)*	212 *(25.9%)*	118 *(20.5%)*	416 *(25.4%)*	452 *(25.7%)*	868 *(25.5%)**
5	162 *(19.7%)*	207 *(18.1%)*	151 *(17.7%)*	135 *(23.4%)*	295 *(18.0%)*	360 *(20.4%)*	655 *(19.3%)**
6	61 *(7.4%)*	81 *(7.1%)*	71 *(8.3%)*	57 *(9.9%)*	116 *(7.1%)*	154 *(8.8%)*	270 *(7.9%)*
7	19 *(2.3%)*	25 *(2.2%)*	25 *(2.9%)*	23 *(4.0%)*	44 *(2.7%)*	48 *(2.7%)*	92 *(2.7%)*

Notes. Percentages are column proportions. Number of respondents is *n*=3,399.

Table 30 – Desire to Participate in More Social Activities by Age and Gender

	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Desire to Participate in More Social Activities	455 *(55.0%)*	565 *(48.9%)*	355 *(41.1%)*	196 *(33.7%)*	735 *(44.6%)*	836 *(47.0%)*	1,571 *(45.8%)**

Notes. Number of respondents is *n*=3,428.

We then examined the proportions of CLSA participants who reported experiencing various types of barriers to social activity participation, shown in Table 31. This examination was based only on those participants who previously identified that they had a desire to participate in more social activities over the past year. We also examined the number of barriers to increased social participation, shown in Table 32.

Table 31 – Barriers to Social Participation by Age and Gender

Type of Barrier	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Too Busy	280 *(61.5%)*	266 *(47.1%)*	127 *(35.8%)*	51 *(26.0%)*	355 *(48.3%)*	369 *(44.1%)*	724 *(46.1%)*
Personal or Family Responsibilities	84 *(18.5%)*	75 *(13.3%)*	60 *(16.9%)*	25 *(12.8%)*	101 *(13.7%)*	143 *(17.1%*	244 *(15.5%)*[*]
Health Condition or Limitation	39 *(8.6%)*	68 *(12.0%)*	75 *(21.1%)*	57 *(29.1%)*	100 *(13.6%)*	139 *(16.6%)*	239 *(15.2%)*
Going Alone	54 *(11.9%)*	85 *(15.0%)*	44 *(12.4%)*	34 *(17.4%)*	83 *(11.3%)*	134 *(16.0%)*	217 *(13.8%)*[*]
Activity Timing	64 *(14.1%)*	81 *(14.3%)*	34 *(9.6%)*	14 *(7.1%)*	97 *(13.2%)*	96 *(11.5%)*	193 *(12.3%)*[*]
Cost	26 *(5.7%)*	31 *(5.5%)*	27 *(7.6%)*	<10	36 *(4.9%)*	54 *(6.5%)*	90 *(5.7%)*[A]
Lack of Activities	14 *(3.1%)*	24 *(4.3%)*	15 *(4.2%)*	13 *(6.6%)*	21 *(2.9%)*	45 *(5.1%)*	66 *(4.2%)*[*]
Far Distance	13 *(2.9%)*	19 *(3.4%)*	16 *(4.5%)*	<10	15 *(2.0%)*	41 *(4.9%)*	56 *(3.6%)*[*]
Location Accessibility	<10	10 *(1.8%)*	<10	<10	<10	20 *(2.4%)*	26 *(1.7%)*[H,*]
Social Barriers	<10	<10	<10	<10	18 *(2.5%)*	<10	25 *(1.6%)*[*]
Safety Concerns	<10	<10	<10	<10	<10	14 *(1.7%)*	16 *(1.0%)*
Other	<10	<10	10 *(2.8%)*	<10	20 *(2.7%)*	12 *(1.4%)*	32 *(2.0%)*[*]

Notes. Numbers are based only on the participants who previously identified that they desired to participate in more social activities over the past year at the time of measurement. Percentages are cell proportions for those that answered "yes" to the corresponding barrier for the respective age/gender category. Participants could indicate multiple barriers. Number of respondents is *n*=1,571.

Table 32 – Number of Barriers to Social Activities by Age and Gender

Number of Barriers to Social Activities	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
0	231 *(50.8%)*	263 *(46.6%)*	152 *(42.8%)*	67 *(34.2%)*	355 *(48.3%)*	358 *(42.8%)*	713 *(45.4%)*[A]
1	178 *(39.1%)*	235 *(41.6%)*	161 *(45.4%)*	100 *(51.0%)*	318 *(43.3%)*	356 *(42.6%)*	674 *(42.9%)*
2	29 *(6.4%)*	47 *(8.3%)*	24 *(6.8%)*	20 *(10.2%)*	43 *(5.9%)*	77 *(9.2%)*	120 *(7.6%)*
3	10 *(2.2%)*	12 *(2.1%)*	<10	<10	16 *(2.2%)*	19 *(2.3%)*	35 *(2.2%)*[*]
4+	<10	<10	<10	<10	<10	26 *(3.1%)*	29 *(1.9%)*

Notes. Percentages are column proportions. Total number of barriers is 13. Number of respondents is *n*=1,571.

Summary

The Good News

- More than nine out of ten respondents reported participating in activities with family/friends outside the household at a rate of once a month or more. Nearly three-quarters of respondents reported engaging in sports/physical activities with others on a daily, weekly or monthly basis. Moreover, more than one out of every two respondents reported engaging in educational/cultural activities on a fairly regular basis.
- 66.3% of overall respondents reported engaging in three to five different types of social activities on a daily, weekly or monthly basis. Slightly more than one in ten respondents reported engaging in six to seven different types (maximum was 7).
- Fewer than 2% of all respondents reported not engaging in any social activities on a fairly regular basis.
- Calgary had the lowest proportion of respondents (5.7%) who reported 'cost' as a barrier to their desired level of social activity of all eight cities examined in this project.

- Calgary had the highest proportion of respondents (45.4%) who did not report any of the barriers to social activities in the CLSA of all eight cities involved in this project.
- Despite the fact that there are thirteen possible barriers to social activity participation in the CLSA, the majority of those that reported a desire to participate in more social activities and also reported a barrier to such only reported a single barrier (42.9%), compared to multiple barriers (11.7%).

The Bad News

- 45.8% of overall respondents reported a desire to participate in more social activities over the past year. This rate is even higher for those aged 45-54 (55%), but lower for those aged 75+ (33.7%).
- Nearly two thirds of respondents aged 45-54 that reported a desire to participate in more social activities also reported that being 'too busy' was a barrier to reaching their desired level of social activity participation.
- Those aged 45-54 reported barriers to social activities mainly focusing on time constraints (too busy, personal/family responsibilities: 18.5%, activity timing: 14.1%) which were all nearly double the rate compared to those aged 75+, whereas those aged 75+ reported barriers that mostly focused on health and social logistics (health condition or limitation: 29.1%, going alone: 17.4%), which were noticeably higher than the rates for those aged 45-54 (e.g., the rate for health condition/limitation for those aged 75+ was 3.4 times higher than the rate for those aged 45-54).
- Calgary had the highest proportion of respondents (1.7%) who reported 'location accessibility' as a barrier to their desired level of social activity of all eight cities involved in this project, where the reference value was the lowest proportion.
- Nearly one in seven respondents reported 'going alone' as a barrier to increased social activity participation.

Dimension 6: Social Inclusion, Respect, and Civic Participation

Feeling included and respected in one's local community is important. It is the foundational experience in creating social cohesion. Social cohesion refers to how connected people feel within a group, how connected different social groups are together, and having a sense of oneness in belonging to a community. It can be a determining factor in peoples' quality of life. For example, social cohesion can decrease peoples' risk for general mortality (that is, mortality that can be caused by a large set of specific causes) [32]. Social cohesion has also been linked with decreased risk for stroke factors [33], and decreased risk of coronary heart disease [34]. When social cohesion is low, it can be linked with increased rates of depression as well [35].

Civic participation is also an important aspect of quality of life for older adults. Volunteering at all ages is linked to higher levels of well-being, lower rates of depression [36], and lower mortality rates [37]. The benefits of volunteering and engaging in one's local community are also greater for older adults compared to younger ages with respect to self-rated health and life satisfaction [38]. However, how often older adults volunteer in their local community can be influenced by factors within the community itself, such as how connected a person feels to the community, how satisfied they are with it, and whether the local neighbourhood has adequate social services [39].

We used the CLSA dataset to explore several indicators of social inclusion, respect and civic participation in older Canadian adults. To begin with, we assessed how positively participants perceived their local environment to be. To do this, we examined responses to several questions regarding friendliness of people in the local area, trust in neighbours, if there were people to help in one's local community if needed, how lonely people felt within their local area, if they felt that people took advantage of them in their local community, and if they felt part of their local community. Responses of "strongly agree" and "agree" were counted together to get a frequency count of the number of people who 'agree' with each of the corresponding statements, and the proportions listed are the percentages of people who agreed with the corresponding statement relative to the total number of respondents. The results of this analysis are presented in Table 33.

Table 33 – Socio-Environmental Perceptions by Age and Gender

Perception of Social Environment	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Most People in Area Are Friendly	760 *(96.9%)*	1,087 *(97.5%)*	806 *(97.8%)*	529 *(98.0%)*	1,547 *(97.7%)*	1,635 *(97.3%)*	3,182 *(97.5%)*[L,*]
Feel a Part of This Area	733 *(93.5%)*	1,075 *(95.7%)*	778 *(94.4%)*	520 *(95.6%)*	1,512 *(95.7%)*	1,594 *(94.0%)*	3,106 *(94.8%)*
Often Feel Lonely in This Area	50 *(6.4%)*	63 *(5.6%)*	56 *(6.7%)*	43 *(7.9%)*	87 *(5.5%)*	125 *(7.4%)*	212 *(6.5%)*
Most People in This Area Can Be Trusted	737 *(95.3%)*	1,061 *(96.6%)*	783 *(97.5%)*	511 *(97.2%)*	1,503 *(96.7%)*	1,589 *(96.5%)*	3,092 *(96.6%)*
People in This Area Take Advantage of You	27 *(3.5%)*	32 *(2.9%)*	22 *(2.7%)*	18 *(3.4%)*	51 *(3.3%)*	48 *(2.9%)*	99 *(3.1%)*
If in Trouble, Lots of People in This Area Would Help	729 *(95.8%)*	1,061 *(97.0%)*	778 *(96.4%)*	512 *(96.4%)*	1,487 *(96.8%)*	1,593 *(96.2%)*	3,080 *(96.5%)*[*]

Notes. Percentages are cell proportions of those who either "strongly agreed" or "agreed" with the corresponding statement. Total number of respondents was *n* = 3,263 for 'Most People in Area Are Friendly', *n*=3,275 for 'Feel a Part of This Area', *n*=3,285 for 'Often Feel Lonely in This Area', *n*=3,200 for 'Most People in This Area Can Be Trusted', *n*=3,227 for 'People in This Area Take Advantage of You', *n*=3,193 for 'If in Trouble, Lots of People in This Area Would Help'.

We also assessed how participants perceived their social standing in their local community. To do this, we examined participants' responses to the SEQ Ladder, which asked participants to imagine a ladder with ten rungs that represents their social standing, with higher rungs indicating greater social standing in their local community. The results are shown in Table 34. We report the mean as the measure of central tendency and standard deviation as the measure of variability for most groups (age and gender) with the exception of those aged 75 and above, as the coefficient of variation for this group was above 33.3%, and so the median and first/third quartiles are reported instead. The coefficient of variation (CV) represents how much of the mean is represented by the standard deviation in a percentage value, and values above 33.3% indicate the mean is too volatile in its variability, and so it cannot be adequately trusted to be representative or generalizable. The CV for the other groups was between 28.4% and 33.3%, and while this is not necessarily perfectly ideal, it still falls within an acceptable range of functionality.

Table 34 – Perceived Social Standing in the Local Community by Age and Gender

Perception of Social Standing	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Mean *(SD)*	6.2 *(1.8)*	6.2 *(1.9)*	Median: 6 *Q1:5, Q3:7*	Median: 6 *Q1:5, Q3:7*	6.1 *(1.9)*	6.0 *(1.9)*	6.1 *(1.9)*

Notes. 'Perceptions of Social Standing' is taken from participants ratings on the SEQ Ladder, which is a 1(very low) to 10(very high) scale that asks participants to imagine that a ladder with ten rungs represents their social standing in their local community, and to rate how high they believe they stand in this respect. "SD" = Standard Deviation; Q1=first quartile; Q3=third quartile. The CV for the reported means are between 28.4% and 33.3%. Number of respondents was *n* = 3,244.

We then examined volunteering participation rates in the CLSA dataset to assess civic participation, shown in Table 35.

Table 35 – Volunteer Participation Rates by Age and Gender

Frequency of Volunteering	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
At least once a day	22 *(2.7%)*	12 *(1.0%)*	18 *(2.1%)*	11 *(1.9%)*	29 *(1.8%)*	34 *(1.9%)*	63 *(1.8%)*[*]
At least once a week	104 *(12.6%)*	158 *(13.7%)*	164 *(19.0%)*	122 *(20.9%)*	220 *(13.3%)*	328 *(18.4%)*	548 *(16.0%)*[*]
At least once a month	223 *(26.9%)*	291 *(25.2%)*	213 *(24.7%)*	149 *(25.5%)*	397 *(24.1%)*	479 *(26.9%)*	876 *(25.5%)*[A]
At least once a year	318 *(38.4%)*	422 *(36.5%)*	229 *(26.5%)*	109 *(18.7%)*	555 *(33.6%)*	523 *(29.4%)*	1,078 *(31.4%)*[A]
Never	161 *(19.4%)*	272 *(23.6%)*	240 *(27.8%)*	193 *(33.1%)*	449 *(27.2%)*	417 *(23.4%)*	866 *(25.2%)*[A]

Notes. Percentages are column proportions. Number of respondents is *n*=3,431.

Summary

The Good News

- The vast majority of respondents agreed with the statements that 'most people in their area are friendly' (97.5%), that they 'feel a part of this area' (94.8%), that 'most people in

this area can be trusted' (96.6%) and that 'in in trouble, lots of people in this area would help' (96.5%) with respect to their local neighbourhood.

- Only a small minority of respondents agreed with the statements that they 'often feel lonely in this area' (6.5%) and that 'people in this area take advantage of you' (3.1%) with respect to their local neighbourhood.
- Mean/median SEQ Ladder ratings are above the midpoint of five, with means/medians holding stable across age groups and genders.
- Calgary had the highest proportion of respondents who reported volunteering at least once a month (25.5%), and the lowest proportion of respondents who reported only volunteering at least once a year (31.4%) or not at all (25.2%) among all eight cities involved in this project.
- Those aged 75+ were more likely to volunteer at least once a week compared to those aged 45-54.

The Bad News

- Despite having the lowest proportions of respondents who only volunteer once a year or not at all, the majority of respondents (56.6% overall) still reported volunteering at these rates, whereas 43.3% of respondents overall reported volunteering once a month or more.
- Those aged 45-54 were more likely to report volunteering only once a year compared to those aged 65-74 and 75+.

Part II

The Well-Being of Older Canadian Adults

After examining a wide array of different indicators of the age-friendliness of eight major Canadian cities – indicators that span a wide range of different dimensions of what an age-friendly city should encourage – an important question comes up: what is the state of the health of older Canadian adults? In this part of the report, we will examine several different indicators of the quality of life of older Canadian adults in the CLSA dataset in the same way that we examined the indicators of age-friendliness. Of course, it is valuable to understand the state of affairs with respect to the indicators of age-friendliness; however, without a parallel understanding of the well-being of older adults it can be hard to determine to what all these indicators amount with respect to the quality of life of the people for whom age-friendly cities are supposed to benefit.

Therefore, we examined several facets of well-being with CLSA data. Well-being is a term used to describe the positive health of an individual, the absence of illness and maladaptivity, and their experiential quality of life. To begin with, we examined the self-reported physical health, mental health and healthy aging of CLSA participants for Calgary. The results of this examination are presented in Table 36.

Table 36 – Self-Reported Health, Mental Health and Healthy Aging by Age and Gender

Self-Reported Health	**Age**				**Gender**		**Total**
	45-54	55-64	65-74	75+	Male	Female	
Physical Health	766 *(92.4%)*	1,041 *(90.1%)*	778 *(89.7%)*	516 *(88.2%)*	1,486 *(90.1%)*	1,615 *(90.4%)*	3,101 *(90.2%)**
Mental Health	776 *(93.6%)*	1,091 *(94.3%)*	829 *(96.0%)*	565 *(96.4%)*	1,572 *(95.1%)*	1,689 *(94.7%)*	3,261 *(94.9%)*
Healthy Aging	760 *(92.0%)*	1,047 *(90.5%)*	801 *(92.4%)*	530 *(90.9%)*	1,507 *(91.3%)*	1,631 *(91.5%)*	3,138 *(91.4%)*

Notes. Percentages are cell proportions of those that reported they had "Good", "Very Good" or "Excellent" health with respect to the corresponding self-reported health variable (as opposed to "Poor" or "Fair") for each respective age/gender category. Number of respondents was *n*=3,436.

We also examined how well respondents rated their satisfaction with life. The satisfaction with life scale[42] sums responses on five questions that ask with how close participants feel their life is to the ideal, how positive the conditions of their life are, how well they have achieved the

important things in their lives, and how much they would change things if they could start their lives over again. The results are shown in Table 37.

Table 37 – Satisfaction with Life by Age and Gender

Satisfaction with Life	Age				Gender		Total
	45-54	55-64	65-74	75+	Male	Female	
Mean *(SD)*	27.9 *(6.6)*	27.6 *(6.5)*	27.7 *(6.4)*	27.9 *(5.9)*	27.8 *(6.2)*	27.7 *(6.5)*	27.7* *(6.4)*

Notes. Range of possible scores is from 5 to 35, with higher scores indicating greater satisfaction with life. Total number of respondents was *n*=3,391.

Nevertheless, well-being is not just the presence of positive factors, but also the absence of negative ones. So, we examined depression scores for participants in the CLSA in order to get a full picture. Depression scores are taken from the 10-item version of the Center for Epidemiological Studies Depression Scale (CESD-10), which sums the responses across several items examining aspects of clinical depression (e.g., loneliness, feeling depressed, trouble concentrating, feeling restless, feeling like everything takes a lot of effort). Scores of 10 or above indicate that a person is at risk of clinical depression. The results of this analysis are presented in Table 38, which reports both the median scores (and corresponding quartiles), as well as the proportion of people with scores above ten, which is the cut-off for clinical depression [43]. The median represents the point at which 50% of respondents scored either above or below the indicated value; the first quartile represents the point at which 25% of respondents scored lower; and the third quartile represent the point at which 75% of respondents scored lower.

We also looked at the proportion of CLSA participants who had functional impairments in their daily activities classification scores of the Instrumental and Basic Activities of Daily Living from the Older Americans Resources and Services (OARS) Multidimensional Assessment Scale. The classifications are no functional impairment, mild impairment, moderate impairment, severe impairment and total impairment, and deal with participants' ability to perform instrumental and basic daily activities for themselves such as preparing meals, getting dressed, eating, taking care of appearance, walk, get out of bed, take a bath, getting to the

bathroom in time, using the telephone, travel, go shopping, and do housework, among others. The results of this analysis are presented in Table 39.

Table 38 – Depression Scores and Proportions by Age and Gender

Depression	**Age**				**Gender**		**Total**
	45-54	55-64	65-74	75+	Male	Female	
CESD-10 Scores Median *(Q1/Q3)*	4 *(2/7)*	4 *(2/7)*	4 *(2/7)*	4 *(2/8)*	4 *(2/7)*	4 *(2/8)*	4 *(2/7)*
Proportion at Risk for Clinical Depression	123 *(15.0%)*	169 *(14.7%)*	129 *(15.4%)*	99 *(17.8%)*	212 *(13.1%)*	308 *(17.6%)*	520 *(15.5%)*

Notes. Scores are taken from the CESD-10. Scores above 10 indicate being at risk for clinical depression. 'Q1' represents the first quartile, 'Q3' represents the third quartile. Total number of respondents was *n*=3,362.

Table 39 – Functional Impairment Classification by Age and Gender

Degree of Impairment	**Age**				**Gender**		**Total**
	45-54	55-64	65-74	75+	Male	Female	
No Impairment	789 *(95.6%)*	1,095 *(94.7%)*	791 *(91.7%)*	455 *(78.7%)*	1,556 *(94.7%)*	1,574 *(88.6%)*	3,130 *(91.5%)*[A]
Mild Impairment	33 *(4.0%)*	53 *(4.6%)*	61 *(7.1%)*	111 *(19.2%)*	76 *(4.6%)*	182 *(10.2%)*	258 *(7.5%)*[A]
Moderate Impairment	<10	<10	<10	10 *(1.7%)*	11 *(0.7%)*	15 *(0.8%)*	26 *(0.8%)*
Severe Impairment	<10	<10	<10	<10	<10	<10	<10
Total Impairment	<10	<10	<10	<10	<10	<10	<10

Notes. Percentages are column proportions. Number of respondents is *n*=3,421.

However, well-being is not something that is solely determined by the individual, but by social factors as well. Thus, we examined the degree to which participants perceived the availability of social support. Social support is examined through scores on the Social Support Survey subscales of the Medical Outcomes Study, which has four subscales that measure social support availability for different areas of life: affection (e.g., someone to show love and

affection), emotional/informational (e.g., someone who listens, someone to provide advice or information), tangible (e.g., having someone to help with daily chores or prepare meals if you were unable to), and positive interaction (e.g., someone to have an enjoyable time with) . Responses to multiple items with a response range of 0 (none of the time) to 4 (all of the time) are summed for each subscale. The results are shown in Table 40.

Table 40 – Perceptions of Social Support by Age and Gender

Type of Social Support Mean *(SD)*	**Age**				**Gender**		**Total**
	45-54	55-64	65-74	75+	Male	Female	
Affection	10.6 *(2.2)*	10.3 *(2.5)*	10.0 *(2.6)*	9.9 *(2.6)*	10.1 *(2.6)*	10.3 *(2.3)*	10.2 *(2.5)*
Emotional/ Informational	26.1 *(5.7)*	25.7 *(6.1)*	24.8 *(6.5)*	24.0 *(6.8)*	24.8 *(6.7)*	25.8 *(5.8)*	25.3 *(6.3)*
Tangible	12.8 *(3.3)*	12.8 *(3.5)*	12.6 *(3.6)*	12.2 *(3.8)*	13.0 *(3.6)*	12.4 *(3.5)*	12.7 *(3.5)*
Positive Interaction	12.9 *(2.9)*	12.8 *(3.0)*	12.5 *(3.4)*	12.2 *(3.5)*	12.6 *(3.3)*	12.7 *(3.1)*	12.6 *(3.2)*
Overall Average	3.3 *(0.6)*	3.3 *(0.7)*	3.2 *(0.7)*	3.1 *(0.8)*	3.2 *(0.7)*	3.2 *(0.7)*	3.2* *(0.7)*

Notes. Range of scores for Affection is 0-12; range of scores for Emotional/Informational is 0-32; range of scores for Tangible is 0-16; range of scores for Positive Interaction is 0-16. Values reported for these variables are the mean of the total score for all respective participants, where higher scores are indicative of greater support. Range of score for "Overall Average" is 0-4, with 0 denoting "None of the Time" and 4 denoting "All of the Time". Overall Average is the mean response for participants across all social support variables, and thus denotes the average amount of overall social support perceived by participants. *SD*=standard deviation. Number of respondents was *n*=3,422 (affection), *n*=3,378 (emotional/informational), *n*=3,399 (tangible), and *n*=3,405 (positive interaction).

Summary

The Good News

- Over 90% of overall respondents reported their physical health (90.2%), mental health (94.9%) and healthy aging (91.4%) as good to excellent (as opposed to fair or poor).

- Mean Satisfaction with Life ratings were well above the midpoint of the scale, and were high across all age groups and genders.
- Calgary had the highest proportion of respondents with no functional impairments (91.5%) and the lowest proportion of people with mild impairment (7.5%) of all eight cities involved in this project.
- On average, most respondents felt that they had social support of all types nearly all of the time, with an overall mean rating of 4.2 (out of 5), and a small standard deviation (low amount of variability around the mean). Individual subscale totals for the MOS Social Support scale were, congruently, all near the maximum value.
- Apart from the emotional/informational subscale, all scores on the MOS Social Support scale were stable across age groups and genders.

The Bad News

- Over 15% of respondents were at risk of clinical depression according to CES-D-10 scores above the cut-off of a score of 10. Women were also somewhat more likely to be at risk than men.
- MOS Social Support ratings for the emotional/informational support subscale decreased somewhat with age.

Part III

Conclusions

In this report, we examined a wide variety of indicators of the age-friendliness of Calgary using the World Health Organization's Age-Friendly Cities Guide for choosing relevant indicators and the Canadian Longitudinal Study of Aging as the data source. We also examined a variety of different indicators of well being in order to examine how well people across different age groups and genders were generally functioning with regard to physical, mental and social health.

With respect to the age-friendly indicators, we found quite an array of 'good news' facets across all dimensions, as well as with respect to well-being. For 'Outdoor Spaces and Safety', we found that Calgary has ample green and blue space, both of which were well above the ideal recommended value of 50m^2 per capita. In addition, the large majority of respondents agreed that their local environment is kept clean, while congruently only a small minority felt that vandalism/graffiti are big problems in their local environment, and that their local environment is unsafe to walk in after dark. Moreover, about half of all respondents reported taking a walk outside in their local environment on five to seven days a week. Finally, the proportion of reported falls that occurred outside as a result of standing or walking decreased slightly with age rather than increased.

With respect to 'Transportation', we found that Calgary has the highest proportion of respondents who held a valid driver's licence of all eight cities involved in this project; and, that the large majority of those with a valid licence drive between four to seven days a week. In addition, we found that drivers still tend to use other forms of transportation as well. Three out of four drivers reported using walking, four out of five drivers reported being a passenger in a motor vehicle, and one out three drivers reported using public transit as a form of transportation in the past month. Calgary also had the highest proportion of non-drivers of all eight cities involved in this project who reported being a passenger in a motor vehicle or accessible transit were their most common forms of transportation over the past year, and the highest proportion of non-drivers that reported using a taxi in the past month. Lastly, less than 2% of drivers reported transportation as a barrier to their desired level of social activity participation.

With respect to 'Housing', we found that the large majority of both owners (97%) and renters (88%) reported being satisfied with their current housing, with these rates being higher in older age groups compared to younger. Likewise, only a small minority of owners (5% or less)

reported experiencing any of the specified housing issues in the CLSA. In fact, 83% of owners did not report any housing issues, and fewer than 4% of owners reported experiencing multiple types of housing issues. In fact, Calgary had the lowest proportion of owners who reported two concomitant housing issues with their current home among all eight cities involved in this project.

With respect to 'Community Support and Health Issues', the large majority of respondents (92% overall) reported seeing a family physician in the past year, while 82% reported seeing a dentist in the past year. Moreover, Calgary had the lowest proportion of respondents who did not receive any type of formal care among all eight cities involved in this project, and the highest proportion of respondents who received one type of formal care.

With respect to 'Social Participation', more than nine out of ten respondents reported participating in activities with family/friends outside the household, nearly three-quarters of respondents reported engaging in sports/physical activities with others, and more than one out of every two respondents reported engaging in educational/cultural activities at least once a month. In fact, two-thirds of respondents reported engaging in three to five different types of social activities at least once a month (for each activity type individually), while less than 2% reported not engaging in any type of social activity on a monthly, weekly or daily basis. In addition, Calgary had the lowest proportion of respondents (5.7% overall) of all eight cities in this project who reported cost as a barrier to their desired level of social activity participation, and had the highest proportion of respondents (45.4%) who did not report that any of the specified barriers in the CLSA inhibited them from social activity participation (among those who also reported a desire to participate in more social activities in the past year). Furthermore, even though there were thirteen possible barriers listed in the CLSA data, a large portion of Calgary respondents (42.9%) that reported a desire to participate in more social activities only reported a single barrier to their desired level of social activity, compared to multiple concomitant barriers.

With respect to 'Social Inclusion, Respect and Civic Engagement', we found that the vast majority of respondents agreed with the statements that: most people in their neighbourhood are friendly (97.5%), they feel that they are a part of their local area (94.8%), most people in their neighbourhood can be trusted (96.6%), and if they were in trouble, lots of people in their neighbourhood would offer help (96.5%). Congruently, only a small minority of respondents

agreed with the statements that they often feel lonely in their neighbourhood (6.5%), and that people in their local neighbourhood try to take advantage of them (3.1%). In addition, mean/median SEQ Ladder ratings were above the midpoint of the scale, indicating that, on average, respondents felt they had a fair degree of social standing in their local community; moreover, the means/medians held relatively constant across age groups and genders. Furthermore, Calgary had the highest proportion of respondents who reported volunteering at least once a month (25.5%), and the lowest proportion of respondents who reported only volunteering at least once a year (31.4%) or not at all (25.2%) among all eight cities involved in this project.

Finally, with respect to well-being, the results showed that over 90% of respondents reported their physical health (90.2%), mental health (94.9%) and healthy aging (91.4%) were good to excellent (as opposed to fair or poor). Moreover, mean satisfaction with life ratings were well above the midpoint of the scale, and held constant across age groups and genders. In addition, Calgary had the highest proportion of respondents who presented with no functional impairments (91.5%), and the lowest proportion of participating with mild impairments (7.5%) among all eight cities involved in this project. Furthermore, most respondents reported that they received all types of social support in the MOS Social Support survey nearly all of the time.

However, we did identify some 'bad news' in each of the six dimensions, as well as with respect to findings regarding well being. To begin with, and with respect to 'Outdoor Spaces', the results showed that more than 10% of those aged 65-74, more than 12% of those aged 75+, and more than 10% of women consider their local environment to be unsafe to walk in after dark. In addition, one in five respondents aged 75+ reported not taking a walk outside in their local environment at all on a weekly basis. In fact, over one-quarter (close to one-third) of overall respondents reported walking between zero to two days a week. Moreover, slightly under one in two reported falls in Calgary occurred simply as a result of standing or walking outside the home.

With respect to 'Transportation', the proportion of those aged 75+ without a valid driver's licence was three times higher than the proportion of those aged 65-74. Also, Calgary had the lowest proportion of non-drivers who reported public transit as their most common form of transportation over the past year among all eight cities involved in this project. Furthermore,

the proportion of non-drivers aged 75+ using public transit as their most common form of transportation was one-third the proportion of those aged 55-64. In addition, very few non-drivers (less than ten) reported cycling as their most common form of transportation. Furthermore, one-fifth of non-drivers reported transportation as a barrier to their desired level of social activity participation. Moreover, more than a quarter of respondents who did not use public transit in the past month reported that inconvenient schedules/routes was a barrier; and, almost 10% did not use public transit in the past month because services were not available to them, which was actually higher than the proportion of respondents who simply preferred not to use public transit.

With respect to 'Housing', Calgary had the lowest proportion of renters among all eight cities (though still high at 88%) who reported being satisfied with their current housing Likewise, nearly one-fifth of renters aged 55-64 reported noise as a problem with their current housing. Calgary had the highest overall proportion of renters (8%) who reported heating as an issue with their current housing among all eight cities in this project. Lastly, one-quarter of renters reported experiencing one or more problems with their current housing.

With respect to 'Community Support and Health Issues', we found that rates for seeing a dentist in the past year went down across age groups by 10%. For formal care services, the results showed that the proportion of respondents who reported utilizing such was, for most types of care, less than 1%. In fact, only 4% of respondents reported receiving one or more types of formal care, compared to 11.5% of respondents who reported receiving one or more types of informal care. In addition, for some types of informal care, men reported utilizing such services at nearly half the rate that women did (i.e., for activities and meal preparation).

With respect to 'Social Participation', we found that 45.8% of overall respondents reported a desire to participate in more social activities over the past year (this rate was 10% higher for those aged 45-54, and 12% lower for those aged 75+). For those aged 45-54, a common barrier to their desired level of social activity was being too busy, with other commonly reported barriers focusing on time constraints (personal/family responsibilities, activity timing). For those aged 75+, common barriers to achieving a desired level of social activity participation tended to focus on health and social logistics (health condition or limitation, going alone). In

fact, nearly one in seven of overall respondents reported going alone as a barrier to increased social activity participation.

With respect to 'Social Inclusion, Respect and Civic Engagement', the majority of respondents (56.6% overall) reported volunteering either just once a year, or not at all. Finally, with respect to well-being, the results showed that over 15% of overall respondents were at risk of clinical depression based on scores of 10 or above on the CES-D-10, with women being somewhat more likely to be at risk than men. Also, MOS Social Support ratings for emotional/informational support decreased somewhat across age groups (i.e., decreased as age increased).

We do hope that this report has been useful and enlightening for you and can serve as a benchmark for future Age-Friendly actions.

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Appendix A

Master Variable List with Highest Value, Lowest Value and Statistical Comparison Value

Variable	Highest %	Lowest %	Reference Value
Dimension 1			
Table 4 - Perceptions of Local Environment			
Environment is Kept Clean	97.98	93.21	**HIGHEST**
Vandalism and Graffiti Are Big Problems	9.17	4.57	**LOWEST**
Not Safe to Walk in After Dark	15.41	7.89	**LOWEST**
Table 5 – Frequency of Taking a Walk Outside			
Never	19.4	8.53	**LOWEST**
Seldom (1 to 2 Days)	18.42	11.92	**LOWEST**
Sometimes (3 to 4 Days)	20.26	16.89	**HIGHEST**
Often (5 to 7 Days)	61.85	43.83	**HIGHEST**
Table 6 – Number of Falls			
Fall Outside	49.78	37.38	**LOWEST**
Dimension 2			
Table 7 – Driving Status			
Currently Has a Licence	96.17	88.67	**HIGHEST**
Table 8 – Driving Frequency			
Daily	71.20	56.72	**HIGHEST**
4 to 6 Times a Week	22.08	17.22	**HIGHEST**
2 to 3 Times a Week	12.76	7.06	**HIGHEST**
Once a Week	2.57	1.44	**HIGHEST**
Less Than Once a Week, More Than Once a Month	1.45	0.58	**LOWEST**
Less Than Once a Month	2.60	0.48	**LOWEST**
Not at All	2.57	1.34	**LOWEST**
Table 9 – Most Common Transp. Type over the Past Year for Drivers			
Passenger in a Motor Vehicle	7.64	2.47	**HIGHEST**
Taxi	Cell count too low	Cell count too low	
Public Transit	7.54	0.89	**HIGHEST**
Accessible Transit	Cell count too low	Cell count too low	
Cycling	4.50	0.51	**HIGHEST**
Walking	6.43	1.98	**HIGHEST**
Drive a Motor Vehicle	93.34	82.46	**HIGHEST**
Table 10 – Most Common Transp. Type over the Past Year for Non-Drivers			
Passenger in a Motor Vehicle	43.15	20.66	**HIGHEST**
Taxi	Cell count	Cell count	

	too low	too low	
Public Transit	55.82	29.45	**HIGHEST**
Accessible Transit	10.96	4.18	**HIGHEST**
Cycling	Cell count too low	Cell count too low	
Walking	19.02	9.52	**HIGHEST**
Table 11 – Transportation Types Utilized in the Past Month for Drivers			
Public Transit	39.28	9.65	**HIGHEST**
Accessible Transit	1.43	0.33	**HIGHEST**
Passenger in a Motor Vehicle	82.17	53.64	**HIGHEST**
Walking	81.79	44.47	**HIGHEST**
Cycling	26.41	10.27	**HIGHEST**
Taxi	20.27	4.00	**HIGHEST**
Table 12 – Transportation Types Utilized in the Past Month for Non-Drivers			
Public Transit	73.48	47.00	**HIGHEST**
Accessible Transit	21.36	8.29	**HIGHEST**
Passenger in a Motor Vehicle	90.61	63.66	**HIGHEST**
Walking	76.88	53.50	**HIGHEST**
Cycling	11.60	1.66	**HIGHEST**
Taxi	48.82	24.94	**HIGHEST**
Table 13 – Transportation as a Barrier to Participation in More Social Activities			
Drivers	3.34	1.52	**LOWEST**
Non-Drivers	30.48	12.57	**LOWEST**
Table 14 – Factors Preventing Use of Public Transportation			
Not Needed	65.40	47.13	**LOWEST**
Prefer Not to Use	21.92	17.06	**LOWEST**
Service Unavailable	29.79	7.39	**LOWEST**
Health/Mobility Limitations	4.07	1.75	**LOWEST**
Inconvenient Schedules/Routes	32.76	10.63	**LOWEST**
Too Costly	1.23	0.38	**LOWEST**
Table 15 – Total Number of Barriers to Public Transportation Use			
0 Barriers	8.88	2.75	**HIGHEST**
1 Barrier	84.48	74.97	**LOWEST**
2 Barriers	19.63	8.81	**LOWEST**
3+ Barriers	2.50	1.63	**LOWEST**
Table 16 – Barriers to Use of Accessible Transportation			

Not Needed	95.45	87.16	**HIGHEST**
Prefer Not to Use	1.41	0.82	**LOWEST**
Services Unavailable	3.26	0.30	**LOWEST**
Health/Mobility Limitations	Cell count too low	Cell count too low	
Inconvenient Schedules/Routes	1.38	0.40	**LOWEST**
Too Costly	Cell count too low	Cell count too low	
Table 17 – Total Number of Barriers to Accessible Transportation Use			
0 Barriers	9.88	1.41	**HIGHEST**
1 Barrier	96.86	88.63	**LOWEST**
2+ Barriers	2.12	0.72	**LOWEST**
Dimension 3			
Table 18 – Satisfaction with Local Housing			
Owners	97.93	96.06	**HIGHEST**
Renters	94.79	88.00	**HIGHEST**
Table 19 – Problems with Current Housing for Owners			
Leaking	7.31	2.81	**LOWEST**
Condensation	4.05	2.12	**LOWEST**
Electrical Wiring or Plumbing	4.30	2.11	**LOWEST**
Heating	2.26	1.17	**LOWEST**
Maintenance or Repairs	7.65	4.59	**LOWEST**
Infestations	5.73	1.24	**LOWEST**
Noise	8.19	3.31	**LOWEST**
Table 20 – Total Number of Problems with Current Housing for Owners			
0 Problems	84.51	74.88	**HIGHEST**
1 Problem	18.09	11.63	**LOWEST**
2 Problems	4.77	2.39	**LOWEST**
3+ Problems	2.38	1.37	**LOWEST**
Table 21 – Problems with Current Housing for Renters			
Leaking	5.91	1.98	**LOWEST**
Condensation	6.45	3.22	**LOWEST**
Electrical Wiring or Plumbing	7.32	2.72	**LOWEST**
Heating	7.96	3.11	**LOWEST**
Maintenance or Repairs	8.23	4.55	**LOWEST**
Infestations	11.15	2.10	**LOWEST**
Noise	17.83	10.25	**LOWEST**
Table 22 – Total Number of Problems with			

Current Housing for Renters			
0 Problems	77.85	64.65	**HIGHEST**
1 Problem	22.29	14.57	**LOWEST**
2 Problems	8.34	3.96	**LOWEST**
3+ Problems	6.37	2.11	**LOWEST**
Dimension 4			
Table 23 – Proportion of People Who Had Contact with Physician and Dentist			
Family Physician	94.06	83.23	**HIGHEST**
Dentist	89.06	69.62	**HIGHEST**
Table 24 – Use of Formal Assistance			
Personal Care	1.61	0.48	**HIGHEST**
Medical Care	2.35	1.12	**HIGHEST**
Managing Care	Cell count too low	Cell count too low	
Assistance with Activities	5.33	2.13	**HIGHEST**
Transportation	1.19	0.43	**HIGHEST**
Meal Preparation/Delivery	1.13	0.27	**HIGHEST**
Other	Cell count too low	Cell count too low	
Table 25 – Number of Types of Formal Assistance Services Used			
0 Types	96.08	93.15	**LOWEST**
1 Type	4.85	2.35	**HIGHEST**
2+ Types	2.00	0.72	**HIGHEST**
Table 26 – Use of Informal Assistance			
Personal Care	3.35	1.88	**HIGHEST**
Medical Care	2.78	1.19	**HIGHEST**
Managing Care	1.96	0.53	**HIGHEST**
Assistance with Activities	11.77	5.32	**HIGHEST**
Transportation	10.64	4.84	**HIGHEST**
Meal Preparation/Delivery	8.36	3.64	**HIGHEST**
Other	Cell count too low	Cell count too low	
Table 27 – Number of Types of Informal Assistance			
0 Types	91.83	83.36	**LOWEST**
1 Type	6.16	3.06	**HIGHEST**
2 Types	3.98	2.14	**HIGHEST**
3 Types	3.06	1.65	**HIGHEST**
4+ Types	3.44	1.19	**HIGHEST**

Dimension 5			
Table 28 – Participation in Social Activities			
Family/Friends Outside Household	94.05	86.05	**HIGHEST**
Religious Activities	39.13	20.92	**HIGHEST**
Educational/Cultural Activities	64.89	49.74	**HIGHEST**
Clubs of Fraternal Organization Activities	19.89	12.97	**HIGHEST**
Association Activities	37.09	19.88	**HIGHEST**
Sport/Physical Activity with Others	79.33	66.56	**HIGHEST**
Other	68.32	56.84	**HIGHEST**
Table 29 – Number of Types of Social Activities Engaged In			
0 Types	4.06	1.08	**LOWEST**
1 Type	9.97	4.95	**HIGHEST**
2 Types	17.66	11.62	**HIGHEST**
3 Types	24.84	19.64	**HIGHEST**
4 Types	29.04	23.29	**HIGHEST**
5 Types	22.48	13.11	**HIGHEST**
6 Types	9.39	6.17	**HIGHEST**
7 Types	2.91	1.77	**HIGHEST**
Table 30 – Desire to Participate in More Social Activities			
Desire to Participate in More Social Activities	50.85	42.07	**LOWEST**
Table 31 – Barriers to Social Participation			
Cost	9.64	5.73	**LOWEST**
Transportation	4.86	2.42	**LOWEST**
Lack of Activities	5.08	2.81	**LOWEST**
Location Accessibility	1.65	0.56	**LOWEST**
Far Distance	4.35	2.29	**LOWEST**
Health Condition/Limitation	21.52	13.46	**LOWEST**
Activity Timing	17.60	6.42	**LOWEST**
Going Alone	18.12	9.95	**LOWEST**
Personal/Family Responsibilities	23.82	10.46	**LOWEST**
Language Reasons	Cell count too low	Cell count too low	
Too Busy	51.95	42.77	**LOWEST**
Safety Concerns	1.14	0.62	**LOWEST**
Social Reasons	2.74	0.77	**LOWEST**
Other	2.55	0.98	**LOWEST**
Table 32 – Number of Barriers to Social Activities			
0 Barriers	45.39	35.92	**HIGHEST**
1 Barrier	47.46	41.73	**LOWEST**

2 Barriers	12.51	7.23	**LOWEST**
3 Barriers	3.86	1.12	**LOWEST**
4+ Barriers	3.92	1.09	**LOWEST**
Dimension 6			
Table 33 – Socio-Environmental Perceptions			
Most People in Area Are Friendly	98.41	97.52	**HIGHEST**
Feel a Part of This Area	95.56	90.16	**HIGHEST**
Often Feel Lonely in This Area	11.16	5.33	**LOWEST**
Most People in This Area Can Be Trusted	97.07	92.61	**HIGHEST**
People in This Area Take Advantage of You	4.10	2.48	**LOWEST**
If in Trouble, Lots of People in This Area Would Help	97.37	89.25	**HIGHEST**
Table 34 – Perceived Social Standing in the Local Community			
SEQ Ladder Rating – Mean*(Standard Deviation)*	6.25(*1.89*)	5.94(*1.99*)	**HIGHEST**
Table 35 – Volunteer Participation Rates			
At Least Once a Day	2.94	1.34	**HIGHEST**
At Least Once a Week	21.84	13.85	**HIGHEST**
At Least Once a Month	25.53	13.91	**HIGHEST**
At Least Once a Year	31.42	19.46	**HIGHEST**
Never	50.24	25.24	**LOWEST**
Well-Being			
Table 36 – Self-Reported Health, Mental Health and Healthy Aging			
Physical Health	92.15	88.53	**HIGHEST**
Mental Health	95.67	92.76	**HIGHEST**
Healthy Aging	92.15	89.72	**HIGHEST**
Table 37 – Satisfaction with Life			
Satisfaction with Life – Mean*(Standard Deviation)*	28.54*(5.72)*	27.20*(6.57)*	**HIGHEST**
Table 38 – Depression Scores and Proportions			
Proportion at Risk for Clinical Depression	18.66	13.72	**LOWEST**
Table 39 – Functional Impairment Classification			
No Impairment	91.49	85.83	**HIGHEST**
Mild Impairment	12.34	7.54	**LOWEST**
Moderate Impairment	1.49	0.62	**LOWEST**
Severe Impairment	Cell count too low	Cell count too low	
Total Impairment	Cell count too low	Cell count too low	

Table 40 – Perceptions of Social Support			
Overall Average – Mean*(Standard Deviation)*	4.37*(0.67)*	4.18*(0.72)*	**HIGHEST**