A STATISTICAL PROFILE OF OLDER ADULTS IN HAMILTON

March 2019

Epidemiology & Evaluation
epiandeval@hamilton.ca
A Statistical Profile of Older Adults in Hamilton

March 2019 (Version 1.0)

Epidemiology and Evaluation
Epidemiology, Wellness, and Communicable Disease Control – Public Health Services
Healthy and Safe Communities
City of Hamilton

epiandeval@hamilton.ca
Introduction

In 2013, the City of Hamilton partnered with the Hamilton Council on Aging and the Seniors Advisory Committee to develop its first Age Friendly Hamilton Plan. The plan was approved by City Council in September 2014. Since 2015, the Age Friendly Hamilton Plan has guided municipal decision-makers, staff, and community stakeholders in addressing the needs and priorities for older adults in Hamilton. In 2019, work began to develop the Age Friendly Hamilton Plan 2 that will span the years 2020-2025. As a guiding plan, it is important that it is informed by the most current local information available. This report represents current local data about older adults living in the City of Hamilton to support the ongoing work of the Age Friendly initiative.

This report provides data about the local demographics and context related to older adults living in the City of Hamilton which is one component of evidence-informed decision making. This information should be considered alongside community and political preferences, research evidence, and resources or assets when making decisions. Ultimately, this report can be used for various purposes, including:

- To increase understanding and generate awareness about challenges that older adults face to age successfully
- To plan and prioritize actions to create both physical and social environments to promote the health, well-being, safety and security of Hamilton residents, in particular older adults.

Source: NCCMT: http://www.nccmt.ca/about/eiph
Executive Summary

**A Statistical Profile of Older Adults in Hamilton**

- **167,050** people age 55 and older representing **30%** of the total population.
- The population of older adults is projected to increase to 260,000 by 2041.
- There are **2 times** more women than men age 85 years and older.

- **1 in 5** adults age 75 years and older speak a non-official language at home.
- **28%** of older adults continue to pay a mortgage on their home.
- **1 in 3** older adults live in inadequate, unsuitable, or unaffordable housing.
- **22%** of older adults live alone.

Note: The term 'older adults' is used to refer to people age 55 years and older unless otherwise stated.

Please see the full report titled "A Statistical Profile of Older Adults in Hamilton" for more information about this data.
A Statistical Profile of Older Adults in Hamilton

1 in 5
people age 75-84 years and 85 years and older did not report any private retirement income

20,225
of older adults experience low income

20%
of people age 65-74 remain in the labour force

17%
of older adults do not have a driver’s license

Seniors age 65 years and older made
491
emergency department visits for motor vehicle collisions injuries in 2017

66%
of seniors age 65 years and older consume vegetables and fruit less than 5 times per day

63%
of seniors age 65 years and older have a BMI indicating overweight or obese

43%
of seniors age 65 years and older have a diagnosed chronic condition

Seniors age 65 years and older were hospitalized
24
times for pedestrian-related injuries in 2017

Note: The term ‘older adults’ is used to refer to people age 55 years and older unless otherwise stated.
Please see the full report titled “A Statistical Profile of Older Adults in Hamilton” for more information about this data.
Contents
Introduction ................................................................................................................................ 3
Executive Summary ................................................................................................................... 4
Population .................................................................................................................................. 7
Housing .....................................................................................................................................10
Communication and Information ...............................................................................................13
Social Participation ...................................................................................................................14
Employment ..............................................................................................................................18
Income ......................................................................................................................................19
Transportation & Related Injuries ..............................................................................................23
Health Risk, Determinants, & Outcomes ...................................................................................29
Conclusions ..............................................................................................................................35
Data Notes ................................................................................................................................36
Population

Currently there are 167,070 people age 55 years and older living in the City of Hamilton representing about 30% of the total population (536,917). Because women tend to live longer than men, women represent 54% (89,890) of this population. This is particularly evident in the oldest age groups where there are almost two times more women (9115) than men (4815) age 85 years and older (Figure 1). Overall, the population of Hamilton seniors age 65 years and older represents 17% of the population (92,905).

The distribution of the older adults by age group in the City of Hamilton is similar to Ontario (Table 1).

Table 1: Percent of total population by age group, City of Hamilton and Ontario, 2016

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Hamilton</th>
<th>Ontario</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 years</td>
<td>13.8% (74,160)</td>
<td>13.6% (1,835,605)</td>
</tr>
<tr>
<td>65-74 years</td>
<td>9.4% (50,395)</td>
<td>9.4% (1,266,390)</td>
</tr>
<tr>
<td>75-84 years</td>
<td>5.3% (28,585)</td>
<td>5.1% (684,195)</td>
</tr>
<tr>
<td>85 years and older</td>
<td>2.6% (13,925)</td>
<td>2.2% (301,075)</td>
</tr>
</tbody>
</table>

According to Statistics Canada, the numbers of older adults in the City of Hamilton is projected to increase. By 2041, it is projected that there will be close to 260,000 people age 55 years and older living in the City of Hamilton. It is projected that the greatest increases will be in the oldest age groups. The 75 to 84 and 85 years and older age groups are both projected to more than double between 2016 and 2041. In 2041, it is projected that there will be 106,300 people over 75 years old (compared to 43,000 currently) (Figure 2).

In 2016, areas with a higher proportion of older adults age 55 years and older were located outside the lower central areas of the City in places such as Mount Hope, Dundas and surrounding areas, lower-Eastern areas of Stoney Creek, central areas in the community of Flamborough (north of Hwy No. 8), as well as, a few pockets on the central mountain. A similar pattern emerges for the population age 75 years and older.
Housing

According to Statistics Canada, 65% of people age 55 years and older living in private households\(^1\) are living in single detached housing. Fifteen percent (15%) are living in apartments with five or more storeys, 13% are in a semi-detached or row house, and 7% are in low-rise apartments or duplex. The percent of older adults living in single detached housing decreases with age while high-rise apartment living increases with age (Figure 3). When comparing to the City of Hamilton overall, a higher proportion of adults in the oldest age groups live in high rise apartments (18-20% vs. 11%) and a lower proportion live in semi-detached or row houses (10-12% vs. 16%).

* Figure 3: Structural type of dwelling for older adults living in private households by age group, City of Hamilton 2016

\(^1\) Excluded institutional living older adults

The majority of older adults living in private dwellings\(^2\) own their place of residence (74\%) compared to renting (26\%). Twenty-eight percent (28\%) of the older adults living in Hamilton live in their own home while continuing to pay a mortgage. A lower percent of older adults in the oldest age groups own their own home and continue to pay a mortgage (Table 2).

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Owner – with mortgage</th>
<th>Owner – without mortgage</th>
<th>Renter – Subsidized</th>
<th>Renter – Not Subsidized</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 years</td>
<td>40.7% (17,535)</td>
<td>33.5% (14,445)</td>
<td>4.5% (1930)</td>
<td>21.3% (9205)</td>
</tr>
<tr>
<td>65-74 years</td>
<td>24.3% (7405)</td>
<td>49.7% (15,180)</td>
<td>5.7% (1755)</td>
<td>20.3% (1609)</td>
</tr>
<tr>
<td>75-84 years</td>
<td>11.9% (2145)</td>
<td>61.9% (11,200)</td>
<td>5.5% (995)</td>
<td>20.8% (3760)</td>
</tr>
<tr>
<td>85 years and older</td>
<td>8.0% (625)</td>
<td>65.8% (5165)</td>
<td>5.4% (425)</td>
<td>20.8% (1635)</td>
</tr>
<tr>
<td>55 years and older</td>
<td>27.8% (27,710)</td>
<td>46.2% (45,990)</td>
<td>5.1% (5105)</td>
<td>20.9% (20,790)</td>
</tr>
<tr>
<td>Total City</td>
<td>40.7%</td>
<td>26.8%</td>
<td>5.0%</td>
<td>27.4%</td>
</tr>
</tbody>
</table>


---

\(^2\) Non-reserve; non-farm

\(^3\) Tenure - Refers to whether the household owns or rents their private dwelling. The private dwelling may be situated on rented or leased land or be part of a condominium. A household is considered to own their dwelling if some member of the household owns the dwelling even if it is not fully paid for, for example if there is a mortgage or some other claim on it. A household is considered to rent their dwelling if no member of the household owns the dwelling. A household is considered to rent that dwelling even if the dwelling is provided without cash rent or at a reduced rent, or if the dwelling is part of a cooperative.

**Presence of mortgage payments-** Refers to whether an owner household makes regular mortgage or loan payments for their dwelling.

**Subsidized housing -** Refers to whether a renter household lives in a dwelling that is subsidized. Subsidized housing includes rent geared to income, social housing, public housing, government-assisted housing, non-profit housing, rent supplements and housing allowances.

\(^4\) Primary household maintainer - The first person in the household identified as someone who pays the rent, or the mortgage, or the taxes, or the electricity or other services or utilities for the dwelling. When more than one member of the household contributes to the payments, the first person listed is chosen as the primary household maintainer. If no person in the household is identified as making any such payments, the first person listed is selected by default. The order of the persons in a household is determined by the order in which they are listed on the questionnaire. Generally, an adult is listed first followed, if applicable, by their spouse or common-law partner and then by their children. The order does not necessarily correspond to the proportion of household payments made by each person.
The majority of people age 55 and older living in private dwellings\(^5\) have adequate and suitable housing; meaning that most are living in buildings that are not in need of major repair and have enough bedrooms for the size and composition of the household. Close to 24% of people age 55 and older in Hamilton are spending 30% or more of their average monthly total income on shelter costs. A higher proportion of adults in the oldest age groups are spending 30% or more of their income on shelter costs (Table 3).

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Adequacy – Major Repairs Needed</th>
<th>Suitability(^6)</th>
<th>Affordability(^7)</th>
<th>Adequacy, suitability or affordability(^8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 years</td>
<td>6.9% (2990)</td>
<td>4.1% (1780)</td>
<td>21.8% (9405)</td>
<td>29.7% (12,790)</td>
</tr>
<tr>
<td>65-74 years</td>
<td>5.2% (1585)</td>
<td>1.8% (555)</td>
<td>24.2% (7385)</td>
<td>28.9% (8835)</td>
</tr>
<tr>
<td>75-84 years</td>
<td>4.8% (865)</td>
<td>1.3% (235)</td>
<td>25.4% (4595)</td>
<td>29.4% (5315)</td>
</tr>
<tr>
<td>85 years and older</td>
<td>4.5% (355)</td>
<td>0.9% (70)</td>
<td>29.3% (2305)</td>
<td>33.0% (2590)</td>
</tr>
<tr>
<td>55 years and older</td>
<td>5.8% (5795)</td>
<td>2.7% (2640)</td>
<td>23.8% (23,690)</td>
<td>29.7% (29,530)</td>
</tr>
<tr>
<td>Total City</td>
<td>7.0%</td>
<td>5.2%</td>
<td>26.1%</td>
<td>34.0%</td>
</tr>
</tbody>
</table>


\(^5\) Non-reserve; non-farm
\(^6\) The indicator for housing suitability (a topic often referred to as crowding) is whether the dwelling has enough bedrooms for the size and composition of the household.
\(^7\) The indicator of housing affordability is the proportion of household total income that is spent on shelter costs, also referred to as shelter-cost-to-income ratio. It captures when 30% or more of average monthly total household income is spent on shelter costs.
\(^8\) This category includes households who fall below at least one of the adequacy, suitability or affordability housing indicators.
Communication and Information

The majority (86%) of people age 55 years and older speak an official language (English or French) most frequently at home. A higher proportion of adults in the oldest age groups (75 years and older) (1 in 5) report speaking a non-official language most frequently at home (Table 4). Of those who report that they speak a non-official language most frequently at home, the most common languages spoken are: Italian, Portuguese, Polish, Serbian, Croatian, Spanish, Punjabi, Cantonese, Arabic, Vietnamese, Tagalog, and Greek.

Table 4: Language most frequently spoken at home for older adults living in private households by age group, City of Hamilton 2016

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Official Language – English only</th>
<th>Official Language – French only</th>
<th>Non-official Language only</th>
<th>Multiple response including at least one official language</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 years</td>
<td>83.8% (61,645)</td>
<td>0.3% (220)</td>
<td>11.9% (8770)</td>
<td>3.9% (2895)</td>
</tr>
<tr>
<td>65-74 years</td>
<td>81.7% (40,660)</td>
<td>0.5% (230)</td>
<td>13.6% (6790)</td>
<td>4.2% (2085)</td>
</tr>
<tr>
<td>75 years and older</td>
<td>74.7% (29,195)</td>
<td>0.4% (165)</td>
<td>20.2% (7885)</td>
<td>4.7% (1855)</td>
</tr>
<tr>
<td>55 years and older</td>
<td>81.0% (131,500)</td>
<td>0.4% (615)</td>
<td>14.4% (23,445)</td>
<td>4.2% (6835)</td>
</tr>
<tr>
<td>Total City</td>
<td>83.8%</td>
<td>0.4%</td>
<td>10.9%</td>
<td>4.9%</td>
</tr>
</tbody>
</table>


Most older adults living in the City of Hamilton are non-immigrants (61%) or long-term immigrants (27% immigrated before 1981 and 13% between 1981 and 2010; 40% combined). Older age groups have a higher proportion of longer-term immigrants (Table 5).

Table 5: Immigration status for older adults living in private households by age group, City of Hamilton 2016

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Non-Immigrants</th>
<th>Recent Immigrants 2011-2016</th>
<th>Immigrants 1981-2010</th>
<th>Immigrants Before 1981</th>
<th>Non-permanent Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 years</td>
<td>69.0% (50580)</td>
<td>0.8% (600)</td>
<td>18.3% (13380)</td>
<td>14.5% (10600)</td>
<td>0.2% (155)</td>
</tr>
<tr>
<td>65 years and older</td>
<td>54.5% (47340)</td>
<td>0.8% (680)</td>
<td>8.8% (7665)</td>
<td>37.3% (32425)</td>
<td>0.2% (150)</td>
</tr>
<tr>
<td>55 years and older</td>
<td>61.1% (97920)</td>
<td>0.8% (1280)</td>
<td>13.1% (12045)</td>
<td>26.9% (43025)</td>
<td>0.2% (305)</td>
</tr>
<tr>
<td>Total City</td>
<td>74.1%</td>
<td>2.5%</td>
<td>17.6%</td>
<td>9.6%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

Social Participation

Close to two thirds (63%) of the people age 55 years and older living in the City of Hamilton are married or living in common-law relationships. A higher proportion of males (73%) are married or common-law compared to females (55%). Given that women live longer than men, a higher proportion of females are widowed (24%) compared to males (7%). As expected, the proportion of seniors who are widowed is highest in the oldest age groups. Sixty percent (60%) of older adults age 85 and older are widowed in the City of Hamilton (Table 6).

Table 6: Current marital status\(^9\) for older adults living in private households by age group and sex, City of Hamilton 2016

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Married or Living Common Law</th>
<th>Never Married</th>
<th>Separated or Divorced</th>
<th>Widowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 years</td>
<td>69.1% (51,265)</td>
<td>9.6% (7155)</td>
<td>16.9% (12,565)</td>
<td>4.3% (3175)</td>
</tr>
<tr>
<td>65-74 years</td>
<td>67.6% (34,055)</td>
<td>5.4% (2715)</td>
<td>14.8% (7470)</td>
<td>12.2% (6155)</td>
</tr>
<tr>
<td>75-84 years</td>
<td>55.9% (15,965)</td>
<td>3.6% (1015)</td>
<td>9.1% (2610)</td>
<td>31.5% (8995)</td>
</tr>
<tr>
<td>85 years and older</td>
<td>32.1% (4465)</td>
<td>3.6% (495)</td>
<td>4.4% (610)</td>
<td>60.0% (8350)</td>
</tr>
<tr>
<td>Males (55+)</td>
<td>72.9% (56,275)</td>
<td>7.8% (5990)</td>
<td>12.5% (9645)</td>
<td>6.8% (5245)</td>
</tr>
<tr>
<td>Females (55+)</td>
<td>55.0% (49,490)</td>
<td>6.0% (5385)</td>
<td>15.2% (13,630)</td>
<td>23.8% (21,430)</td>
</tr>
<tr>
<td>55 years and older</td>
<td>63.3% (105,750)</td>
<td>6.8% (11,380)</td>
<td>13.9% (23,255)</td>
<td>16.0% (26,675)</td>
</tr>
<tr>
<td>Total City(^10)</td>
<td>54.9%</td>
<td>29.1%</td>
<td>9.7%</td>
<td>6.3%</td>
</tr>
</tbody>
</table>


\(^9\) Currently married/common law people may be previously divorced or widowed
\(^10\) Age 15 and older
The majority (72%) of the adults age 55 years and older living in the City of Hamilton are living in a family with a spouse and/or children. A higher proportion of males (78%) live in a traditional family compared to women (66%). Again, given that women live longer than men, a higher proportion of females are living alone (26%) compared to males (17%). The proportion of seniors who are living alone is highest in the oldest age groups. Forty-four percent (44%) of older adults age 85 live alone in the City of Hamilton (Table 7).

Table 7: Family structure for older adults living in private households by age group and sex, City of Hamilton 2016

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Adults in a Family</th>
<th>Living with Other Relatives</th>
<th>Living with Non-relatives Only</th>
<th>Living alone</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 years</td>
<td>77.8% (57,030)</td>
<td>2.9% (2100)</td>
<td>3.1% (2280)</td>
<td>16.2% (11,900)</td>
</tr>
<tr>
<td>65-74 years</td>
<td>72.5% (35,930)</td>
<td>4.0% (2005)</td>
<td>2.1% (1065)</td>
<td>21.3% (10,555)</td>
</tr>
<tr>
<td>75-84 years</td>
<td>63.0% (16,945)</td>
<td>5.8% (1550)</td>
<td>1.5% (400)</td>
<td>29.8% (8025)</td>
</tr>
<tr>
<td>85 years and older</td>
<td>45.7% (4745)</td>
<td>9.4% (975)</td>
<td>1.2% (125)</td>
<td>43.7% (4545)</td>
</tr>
<tr>
<td>Males (55+)</td>
<td>77.7% (58,055)</td>
<td>2.5% (1840)</td>
<td>2.9% (2150)</td>
<td>17.0% (12,700)</td>
</tr>
<tr>
<td>Females (55+)</td>
<td>66.3% (56,615)</td>
<td>5.6% (4790)</td>
<td>2.0% (1715)</td>
<td>26.1% (22340)</td>
</tr>
<tr>
<td>55 years and older</td>
<td>71.6% (114,650)</td>
<td>4.1% (6630)</td>
<td>2.4% (3870)</td>
<td>21.9% (35,025)</td>
</tr>
<tr>
<td>Total City</td>
<td>79.9%</td>
<td>2.6%</td>
<td>4.0%</td>
<td>13.5%</td>
</tr>
</tbody>
</table>


11 Includes married spouses and common-law partners with or without their children, lone-parents, children in census families (as in sons, daughters or grandchildren)
12 Age 15 and older
In 2016, areas with a higher proportion of older adults age 65 years and older living alone were located in eastern areas of the community of Stoney Creek, central and western mountain areas, the lower West end of the City, and in Dundas and surrounding areas.
Similar to other age groups, the majority (72% or 63,800) of seniors age 65 years and older report that they have a strong or very strong sense of community belonging (Figure 4).

Figure 4: Self-reported strong or very strong sense of community belonging by age group, City of Hamilton 2015-16

Source: Canadian Community Health Survey (2015-16), Share File, Ontario Ministry of Health and Long-Term Care.
Employment

Just over one third (36% or 58,270) of the population age 55 years and older are engaged in the labour force, as either employed or unemployed. The unemployment rate\(^{13}\) for this group is 4.5% compared to 7.0% for the whole population of Hamilton. As expected, labour force participation decreases with age. One-quarter (25%) of males and 16% of females age 65-74 years remain in the labour force. Males have a consistently higher labour force participation rate in all age groups compared to females (Figure 5).

\(^{13}\) Refers to the unemployed expressed as a percentage of the labour force. Labour force = Employed + Unemployed

---

Figure 5: Labour force participation rate for older adults by age group and sex, City of Hamilton 2016

Income

Close to one in five (18%) adults age 55 and over had annual income less than $15,000 and this percentage was higher for women (24% or 19,785) compared to men (12% or 8505). Close to half (47%) of older adults living in the City of Hamilton with after-tax income had a 2015 income of $20,000 to $40,000 (Figure 6).

Older adults living in the City of Hamilton had a median income ranging from $27,000 to $41,000. Median total income peaks at 45-54 years of age and decreases into the older age groups. Median total income is lower for females compared to males in all ages groups (Table 8).

Table 8: Median total income in 2015 by age group, City of Hamilton, 2016

<table>
<thead>
<tr>
<th></th>
<th>15-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>65-74</th>
<th>75-84</th>
<th>85+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$10,842</td>
<td>$34,228</td>
<td>$45,438</td>
<td>$47,076</td>
<td>$41,147</td>
<td>$31,606</td>
<td>$27,523</td>
<td>$26,940</td>
</tr>
<tr>
<td>Males</td>
<td>$10,862</td>
<td>$37,591</td>
<td>$53,160</td>
<td>$56,212</td>
<td>$50,173</td>
<td>$39,694</td>
<td>$33,923</td>
<td>$32,542</td>
</tr>
<tr>
<td>Females</td>
<td>$10,808</td>
<td>$31,743</td>
<td>$39,540</td>
<td>$40,526</td>
<td>$33,921</td>
<td>$24,783</td>
<td>$23,290</td>
<td>$24,289</td>
</tr>
</tbody>
</table>

Source: Statistics Canada, 2016 Census of Population, Custom table: CPP-2c: Ethnic origin (64), Age groups (10), Sex (3), Income Status in 2015 - CPP (9) and Knowledge of official languages (5) for the population in private households, 2016 Census (Urban Poverty Project). Accessed via the Community Data Program
Based on their 2015 income, 39% of older adults age 65-74 at least some of their annual income from employment income including wages, salaries, commissions, net self-employment income and/or professional practice. The percent of older persons receiving employment income decreases with age. Almost all older adults in the City of Hamilton receive some income from government transfers\textsuperscript{14}. The majority of older adults supplement their income with a private retirement plan but close to one in five people age 75-84 years (22%) and 85 years and older (21%) did not report any private retirement income in 2015 (Figure 7).

Figure 7: Sources of income\textsuperscript{15} for older adults in private households, City of Hamilton 2016

\begin{figure}
\centering
\begin{tabular}{ccc}
65-74 years & 75-84 years & 85 years and older \\
\hline
Employment Income\textsuperscript{16} & Government Transfers\textsuperscript{17} & Private Retirement Income \\
39% & 22% & 13% \\
98% & 100% & 100% \\
62% & 78% & 79% \\
0% & 0% & 0% \\
\end{tabular}
\caption{Sources of income for older adults in private households, City of Hamilton 2016}
\end{figure}

Source: Statistics Canada, 2016 Census of Population, Custom table: EO2767 Tb 4 -CPP-5B -CDCSD - Visible minority status (14), Age groups (6), Sex (3), Income status in 2015 - CPP (7) and Selected income characteristics (35) for the population 15 years and over with income in private households, 2016 Census. Accessed via the Community Data Program

\textsuperscript{14} Includes Old Age Security pension (OAS) and Guaranteed Income Supplement (GIS), Canada Pension Plan (CPP) and Quebec Pension Plan (QPP) benefits, Employment Insurance (EI) benefits, and Other income from government sources
\textsuperscript{15} Categories are not mutually exclusive; for people with reported income.
\textsuperscript{16} Includes wages, salaries, commissions, net self-employment income and/or professional practice
\textsuperscript{17} Includes Old Age Security pension (OAS) and Guaranteed Income Supplement (GIS), Canada Pension Plan (CPP) and Quebec Pension Plan (QPP) benefits, Employment Insurance (EI) benefits, and Other income from government sources
Based on the after-tax low-income measure, 13% (20,225) of older adults age 55 and older experience low-income in the City of Hamilton\(^{18}\). A higher proportion of female older adults experience low-income (14%) compared to males (11\%)\(^{19}\). A higher percent of women in the oldest age group experience low-income (17\%) (Figure 8).

---

\(^{18}\) Not shown

\(^{19}\) Not shown
In 2016, areas with a higher proportion of older adults age 65 years and older with low income are located in the lower central areas of the City of Hamilton.
Transportation & Related Injuries

Older adults living in the City of Hamilton are mainly using automobiles as their primary mode of transportation. In 2016, 91% of trips taken by older adults were as either the driver (76%) or passenger (15%) of a car. Similarly, when looking at Hamilton’s oldest residents age 85 years and older, 88% of trips taken were either as the driver (52%) or passenger in a car, however, a higher proportion of these trips were as the passenger (37%). Five percent (5%) trips taken by older adults used transit (Figure 8).

Figure 8: Primary travel mode for motorized trips\textsuperscript{20} by age group, City of Hamilton households 2016

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure8.png}
\caption{Primary travel mode for motorized trips by age group, City of Hamilton households 2016}
\end{figure}

\begin{itemize}
\item Auto Driver
\item Auto Passenger
\item Transit (excl GO)
\item Other
\end{itemize}

Source: Transportation Tomorrow Survey, accessed via Data Management Group Cross Tabulation Query Form 2016 v1.1 (Trip Attributes), extracted February 2019

\textsuperscript{20} Total estimated average trips for the reported time period on weekdays (estimates based on the survey data expanded to represent the total population). Trips are collected for all trips made by motorized means, but only for walking trips that were either to or from work or school or if they connected other eligible trips (in other words, a ‘round trip’ journey made entirely via walking would not be captured as a trip in this survey).
Most older adults (82%) living in the City of Hamilton have a driver’s license. The percent of older adults reporting that they have a driver’s license decreases with age and 57% of adults age 85 years and older do not have a driver’s license. Twelve percent (12%) of older adults report having a local bus pass or Presto pass. The percent of older adults reporting that they have local transit pass increases with age and one in four (26%) adults age 85 years and older report having a local transit pass (Table 9).

Table 9: Transportation access for older adults by age group, City of Hamilton households 2016

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Has a Driver’s License</th>
<th>Does Not Have a Driver’s License</th>
<th>Has Any Local Transit Pass</th>
<th>Does Not Have Any Transit Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 years</td>
<td>87.6% (65,124)</td>
<td>11.1% (8219)</td>
<td>8.9% (6577)</td>
<td>89.4% (66,405)</td>
</tr>
<tr>
<td>65-74 years</td>
<td>85.5% (43,129)</td>
<td>13.6% (6841)</td>
<td>10.4% (5250)</td>
<td>88.7% (44,755)</td>
</tr>
<tr>
<td>75-84 years</td>
<td>71.3% (17,452)</td>
<td>28.0% (6863)</td>
<td>16.3% (3992)</td>
<td>81.4% (19,934)</td>
</tr>
<tr>
<td>85 years and older</td>
<td>41.7% (3995)</td>
<td>56.9% (5449)</td>
<td>25.6% (2449)</td>
<td>72.4% (6931)</td>
</tr>
<tr>
<td>55 years and older</td>
<td>81.7% (129,700)</td>
<td>17.2% (27,372)</td>
<td>11.5% (18,268)</td>
<td>86.9% (138,025)</td>
</tr>
<tr>
<td>Total City</td>
<td>83.8%</td>
<td>15.1%</td>
<td>15.9%</td>
<td>81.7%</td>
</tr>
</tbody>
</table>

Source: Transportation Tomorrow Survey, accessed via Data Management Group Cross Tabulation Query Form 2016 v1.1 (Person Attributes), extracted February 2019
Note: Unknown transportation access represents less than 2% of persons but has been included in the calculation

---

21 Includes Presto or Other Agency Pass (e.g. HSR); Reported Combination/Dual passes and Metro passes only have been excluded from the local transit pass category and represent less than 1% of responses each overall.
22 Only include those with no reported transit pass regardless of the type of pass.
23 Age 16 and older for driver’s license and age 11 and older for transit passes
The majority (89%) of trips made by older adult with households in the City of Hamilton are trips to destinations within the City of Hamilton. The percent of older adults making local trips within the City increases with age (Figure 9).

Figure 9: Percent of motorized trips with Hamilton as a destination by age group, City of Hamilton households 2016

<table>
<thead>
<tr>
<th>Age group</th>
<th>Percent of trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 years</td>
<td>86.3</td>
</tr>
<tr>
<td>65-74 years</td>
<td>90.9</td>
</tr>
<tr>
<td>75-84 years</td>
<td>92.5</td>
</tr>
<tr>
<td>85 years and older</td>
<td>96.2</td>
</tr>
<tr>
<td>55 years and older</td>
<td>88.9</td>
</tr>
<tr>
<td>City Total</td>
<td>87.6</td>
</tr>
</tbody>
</table>

Source: Transportation Tomorrow Survey, accessed via Data Management Group Cross Tabulation Query Form 2016 v1.1 (Trip Attributes), extracted February 2019

---

24 Total estimated average trips for the reported time period on weekdays (estimates based on the survey data expanded to represent the total population). Trips are collected for all trips made by motorized means, but only for walking trips that were either to or from work or school or if they connected other eligible trips (in other words, a ‘round trip’ journey made entirely via walking would not be captured as a trip in this survey).
Motor vehicle collisions (MVC) are a leading cause of transport-related injuries among seniors age 65 years and older living in the City of Hamilton. In 2017, there were 491 emergency department visits for injuries related to MVC (506 per 100,000). While emergency department visits for injuries related to public transit use are low in Hamilton, senior age 65 and older have the highest rates among all age groups (37 per 100,000 or 36 visits) (Figure 10).

Figure 10: Emergency department visit rate for land transport related injuries by type* and age group, City of Hamilton 2017

*Note: Categories are not mutually exclusive
Source: Ambulatory Emergency External Cause (Chapter 20) and Population Projections table, Ontario Ministry of Health and Long-Term Care. IntelliHEALTH ONTARIO, extracted November 2018
Since 2014, the emergency department visit rate for MVC and cycling for seniors age 65 years and older has been increasing and is at its highest in 2017 since 2010 (Figure 11).

Figure 11: Emergency department visit rate for land transport related injuries by type* for people age 65 years and older, City of Hamilton 2010-2017

*Note: Categories are not mutually exclusive
Source: Ambulatory Emergency External Cause (Chapter 20) and Population Projections table, Ontario Ministry of Health and Long-Term Care. IntelliHEALTH ONTARIO, extracted November 2018
Seniors are some of our most vulnerable road users. Unlike emergency department visits, seniors age 65 years and older have the highest rate of hospitalization for MVC and pedestrian related injuries potentially indicating higher severity or health risk associated with types of injuries. In 2017, the hospitalization rate for injuries related to MVC was 101 per 100,000 (or 98 hospital discharges); highest of all age groups. In 2017, the hospitalization rate for injured pedestrians age 65 years and older was 25 per 100,000 (or 24 hospital discharges); highest of all age groups (Figure 12).

Figure 12: Hospitalization rate for land transport related injuries by type* and age group, City of Hamilton 2017

*Note: Categories are not mutually exclusive
Source: Ambulatory Emergency External Cause (Chapter 20) and Population Projections table, Ontario Ministry of Health and Long-Term Care. IntelliHEALTH ONTARIO, extracted November 2018
Health Risk, Determinants, & Outcomes

Many seniors report behaviours or conditions that put their health at risk. More than two-thirds (66%) of the population age 65 and older report that they consume vegetables or fruit less than 5 times per day. Over sixty percent (63%) of seniors report a body mass index categorizing them as overweight or obese. Close to one third of seniors consume alcohol above low-risk drinking guidelines for chronic disease prevention. Twenty-two percent (22%) of seniors self-report leisure time physical activity levels below the Canadian Physical Activity Guidelines. Nine percent (9%) of seniors are current daily or occasional smokers (Figure 13).

---

25 This variable uses the respondent’s adjusted (see data notes for more information about the adjustment) BMI, to assign adult respondents aged 18 and over (except pregnant women) to one of the following categories: underweight; acceptable weight; overweight; obese class I; obese class II; and, obese class III. Here, the BMI categories are adopted from a body weight classification system recommended by Health Canada and the World Health Organization (WHO) which has been widely used internationally. According to Health Canada, this BMI classification system can be used as a screening tool to identify weight-related health risks at the population and individual levels. The classification should be used with caution at the individual level because the health risk associated with each BMI category varies considerably between individuals. Particular caution should be used when classifying: youth who have not attained growth maturity, adults who are naturally very lean, very muscular adults, some ethnic and racial groups, and adults over 65 years of age.

26 Canada’s Low Risk Alcohol Drinking Guidelines, intended for Canadians of legal drinking age who choose to drink alcohol, are informed by the most recent and best scientific research and evidence (1). They are intended to provide consistent information across the country to help Canadians moderate their alcohol consumption and reduce their immediate and long-term alcohol-related harm. Five specific guidelines that identify three distinct types of risk from drinking were developed: Guideline 1: increased long-term risk of chronic diseases caused by the consumption of alcohol over a number of years (e.g., liver disease, some cancers); Guideline 2: increased short-term risk of injury or acute illness due to the overconsumption of alcohol on a single occasion; and Guidelines 3-5: risk associated with situation-specific or individual circumstances that are particularly hazardous (e.g., woman who are pregnant or planning to become pregnant, teenagers, persons on medication) and for which abstinence or only occasional light intake is advised. Data here represent guideline 1 and measures males that drank more than 15 drinks per week, females that drank more than 10 drinks per week OR males that drank more than 3 drinks per day, females that drank more than 2 drinks per day OR males or females with less than 2 non-drinking days a week.

27 Physically active is defined by the Canadian Physical Activity Guidelines as having at least 150 minutes of moderate-to-vigorous-intensity aerobic physical activity per week, in bouts of 10 minutes or more.
Figure 13: Percent of the population age 65 years and older reporting health risks, City of Hamilton 2015-16

- Fruit and vegetable consumption less than 5 times/day: City Total 66.3, 8.8
- Body-mass index indicating overweight or obese: City Total 63.4, 22.2
- Increased long-term health risk due alcohol consumption: City Total 42.5, 29.5
- Below recommended physically active levels: City Total 59.9, 21.7
- Current daily or occasional smoker: City Total 19.2, 17.1

* City total - population 12 years and older
Source: Canadian Community Health Survey (2015-16), Share File, Ontario Ministry of Health and Long-Term Care.
As expected, self-reported diagnosed health conditions increase with age with 43% of seniors reporting having at least one chronic condition\textsuperscript{28} diagnosed by a health professional. This is significantly higher than the overall City proportion (Figure 14).

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure14.png}
\caption{Percent of the population with self-reported diagnosed chronic conditions (at least one) by age group, City of Hamilton 2015-16}
\end{figure}

\textsuperscript{28} Includes asthma, COPD, diabetes, heart disease, cancer, or effect of a stroke; specified as "long-term conditions" which are expected to last or have already lasted 6 months or more and that have been diagnosed by a health professional.

\textsuperscript{\footnotesize Source: Canadian Community Health Survey (2015-16), Share File, Ontario Ministry of Health and Long-Term Care.}
In 2015-16, 45% of seniors in the City of Hamilton report very good or excellent health and this is lower than the younger age groups. In terms of self-rated mental health, similar to other age groups, 64% of seniors report that it is very good or excellent (Figure 15).

Figure 15: Self-report health status by age group, City of Hamilton 2015-16

Source: Canadian Community Health Survey (2015-16), Share File, Ontario Ministry of Health and Long-Term Care.
Diabetes, abnormal reactions to surgical or medical procedures, ischaemic heart disease, chronic obstructive pulmonary diseases and falls are the top-ranking causes of hospitalization for preventable conditions for older adults living in the City of Hamilton (Table 10).

Table 10: Leading causes of preventable hospitalization\(^{29}\) for older adults by age group, City of Hamilton households 2015-2017

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Rank 1(^{st})</th>
<th>Rank 2(^{nd})</th>
<th>Rank 3(^{rd})</th>
<th>Rank 4(^{th})</th>
<th>Rank 5(^{th})</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 years</td>
<td>Diabetes</td>
<td>Surgical and other medical procedures causing an abnormal reaction</td>
<td>Ischaemic heart disease</td>
<td>Chronic obstructive pulmonary disorders</td>
<td>Alcohol-related diseases</td>
</tr>
<tr>
<td>65-74 years</td>
<td>Diabetes</td>
<td>Surgical and other medical procedures causing an abnormal reaction</td>
<td>Chronic obstructive pulmonary disorders</td>
<td>Ischaemic heart disease</td>
<td>Therapeutic use of drugs or other treatment substances causing adverse effects</td>
</tr>
<tr>
<td>75-84 years</td>
<td>Diabetes</td>
<td>Surgical and other medical procedures causing an abnormal reaction</td>
<td>Ischaemic heart disease</td>
<td>Chronic obstructive pulmonary disorders</td>
<td>Falls</td>
</tr>
<tr>
<td>85 years and older</td>
<td>Diabetes</td>
<td>Ischaemic heart disease</td>
<td>Falls</td>
<td>Surgical and other medical procedures causing an abnormal reaction</td>
<td>Chronic obstructive pulmonary disorders</td>
</tr>
</tbody>
</table>

Source: Inpatient Discharges, IntelliHealth MOTLHC

\(^{29}\) Preventable conditions refer to a subset of avoidable conditions that informs efforts to reduce the number of initial cases (that is, incidence reduction). These include conditions considerably linked to modifiable factors, such as smoking (e.g. lung cancer) or excessive alcohol consumption (e.g. liver cirrhosis), as well as deaths related to effective public health interventions, such as vaccinations, or traffic safety legislation (regarding speed limits, seat belts and motorcycle helmets, for example). Definition is based on classifications of the International Statistical Classification of Diseases and Related Health Problems 10th Revision (CID-10) based on all diagnoses using the code definitions consistent with Canadian Institute for Health Information (CIHI)'s health indicators. More information is available: [https://secure.cihi.ca/free_products/health_indicators_2012_en.pdf](https://secure.cihi.ca/free_products/health_indicators_2012_en.pdf)
Diabetes, falls and other injuries, lung cancer, abnormal reactions to surgical or medical procedures, and chronic obstructive pulmonary disorders are the top-ranking causes of emergency department visits for preventable conditions for older adults living in the City of Hamilton (Table 11).

**Table 11: Leading causes of emergency department visits** for older adults by age group, City of Hamilton households 2015-2017

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Rank 1st</th>
<th>Rank 2nd</th>
<th>Rank 3rd</th>
<th>Rank 4th</th>
<th>Rank 5th</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 years</td>
<td>Diabetes</td>
<td>Other accidental injuries</td>
<td>Falls</td>
<td>Lung cancer</td>
<td>Surgical and other medical procedures causing an abnormal reaction</td>
</tr>
<tr>
<td>65-74 years</td>
<td>Diabetes</td>
<td>Falls</td>
<td>Lung cancer</td>
<td>Other accidental injuries</td>
<td>Surgical and other medical procedures causing an abnormal reaction</td>
</tr>
<tr>
<td>75-84 years</td>
<td>Diabetes</td>
<td>Falls</td>
<td>Lung cancer</td>
<td>Other accidental injuries</td>
<td>Non-melanoma skin cancer</td>
</tr>
<tr>
<td>85 years and older</td>
<td>Falls</td>
<td>Diabetes</td>
<td>Non-melanoma skin cancer</td>
<td>Other accidental injuries</td>
<td>Chronic obstructive pulmonary disorders</td>
</tr>
</tbody>
</table>

Source: Ambulatory Visits, IntelliHealth MOTLHC

---

30 Preventable conditions refer to a subset of avoidable conditions that informs efforts to reduce the number of initial cases (that is, incidence reduction). These include conditions considerably linked to modifiable factors, such as smoking (e.g. lung cancer) or excessive alcohol consumption (e.g. liver cirrhosis), as well as deaths related to effective public health interventions, such as vaccinations, or traffic safety legislation (regarding speed limits, seat belts and motorcycle helmets, for example). Definition is based on classifications of the International Statistical Classification of Diseases and Related Health Problems 10th Revision (CID-10) based on all diagnoses using the code definitions consistent with Canadian Institute for Health Information (CIHI)'s health indicators. More information is available: [https://secure.cihi.ca/free_products/health_indicators_2012_en.pdf](https://secure.cihi.ca/free_products/health_indicators_2012_en.pdf)
Conclusions

This statistical profile report highlights some of the current statistics related to older adults living in the City of Hamilton. The findings from this report are summarized below:

- There are 167,050 people age 55 years and older living in the City of Hamilton, representing about 30% of the total population. This is projected to increase to 260,000 by the year 2041.
- There are 2 times more women age 85 years and older compared to men.
- 1 in 5 seniors age 85 years and older live in a high-rise apartment building (of those still living in private dwellings).
- 28% of older adults continue to pay a mortgage on their home.
- 1 in 3 older adults live in inadequate, unsuitable, or unaffordable housing.
- 1 in 5 seniors age 75 years and older speak a non-official language at home.
- 22% of older adults live alone.
- 1 in 5 people age 75-84 years and 85 years and older did not report any private retirement income.
- 20,225 older adults experience low income.
- 20% of people age 65-74 years old remain in the labour force.
- 17% of older adults do not have a driver’s license.
- Seniors made 491 emergency department visits for motor vehicle collision injuries in 2017.
- Seniors were hospitalized 24 times for pedestrian-related injuries in 2017.
- 66% of seniors consume vegetables and fruit less than 5 times per day.
- 63% of seniors have a body mass index categorizing them as overweight or obese.
- 43% of seniors self-report having a diagnosed chronic condition.

These findings can be used to support the ongoing work of the Age Friendly initiative and to raise awareness about challenges that face older adults in aging successfully.
Data Notes

The Canadian Community Health Survey (CCHS)

The Canadian Community Health Survey (CCHS) collects information on health status and determinants, and health care utilization. It surveys a large sample of respondents 12 years of age and older living in private dwellings. Since the CCHS only collects information from community-dwelling residents, indicators do not represent the health status of all individuals living in the community (e.g., individuals living in institutions or those who are homeless). CCHS data are self-report and, as a result, are subject to error. Individuals may have difficulty accurately recalling their past behaviours or may 'adjust' their responses to align with what is seen as socially desirable. Unless otherwise stated don't know, refusal and otherwise not stated responses are included in the denominator and represent less than 5% of the response. Unless otherwise stated, bootstrapping techniques provided by Statistics Canada were used to produce the 95% Confidence Intervals (CIs) for CCHS data and used to compare the differences in outcomes for Hamilton residents between population groups and over time. 95% CIs accompany estimates in brackets. Normal distribution was assumed. Health equity analysis compares populations using the CCHS.

Body Mass Index

A systematic review of the literature concluded that the use of self-reported data among adults underestimates weight and overestimates height, resulting in lower estimates of obesity than those obtained from measured data. Obesity estimates based on the CCHS are subject to these biases. Using data from the 2005 Canadian Community Health Survey (CCHS) subsample, where both measured and self-reported values were collected, correction equations have been developed. These correction equations have been successfully applied to both 2005 and 2008 self-reported CCHS data to produce more accurate estimates of obesity.

Canadian Census

The Census aims to include every adult and child living in Canada on Census Day, as well as those Canadians living abroad on a military base, diplomatic mission or on a Canadian-registered merchant vessel. Individuals with a temporary work, study, or resident permit (and their dependents) are also included in the Census. Statistics Canada is required by law to conduct a Census of Population every five years. Just as Statistics Canada is required by law to conduct a census, respondents are also required by law to complete their census questionnaires. The 2011 Census was completed on May 10, 2011 and the 2016 Census was completed on May 10, 2016. Data from Statistics Canada are randomly rounded to maintain confidentiality. Values are randomly rounded up or down to a multiple of 5 or 10 and as such total values may not match the sum of individual values. Some groups are underrepresented in the Census such as the homeless, young adults, and aboriginal people on reserves. For more information on data quality from the Census refer to the documentation available at https://www12.statcan.gc.ca/census-recensement/2011/ref/overview-apercu/index-eng.cfm.

IntelliHealth

• Ambulatory Visits - NACRS Emergency Department Visits
Ambulatory care visits are a source of morbidity information available through IntelliHealth originally from the National Ambulatory Care Reporting System (NACRS), Canadian Institute for Health Information (CIHI). NACRS contains data for all hospital-based and community-based ambulatory care: Day surgery, Outpatient and community-based clinics, and Emergency departments. Client visit data is collected at time of service in participating facilities. CIHI receives data directly from participating facilities or from regional health authorities or ministries of health. Data collection methods may vary by facility. Data presented here only represent unplanned emergency visits available via the IntelliHealth IBM Cognos environment. Geography was determined using Public Health Unit or patient province as designated in the Cognos SAS environment. Data are categorized using the International Statistical Classification of Diseases and Related Health Problems 10th Revision (CID-10) for the diagnoses. Factors other than need can also health care system usage rates so trends should be interpreted with caution.

• Inpatient Discharges - DAD Hospitalization

Inpatient discharges are a source of morbidity information available through IntelliHealth originally from the Discharge Abstract Database (DAD), Canadian Institute for Health Information (CIHI). The DAD captures administrative, clinical and demographic information on hospital discharges (including deaths, sign-outs and transfers). Data is received directly from acute care facilities or from their respective health/regional authority or ministry/department of health. Facilities in all provinces and territories except Quebec are required to report. Data presented here only represent inpatient discharges from acute care facilities available via the IntelliHealth IBM Cognos environment. Geography was determined using Public Health Unit or patient province as designated in the Cognos SAS environment. Data are categorized using the International Statistical Classification of Diseases and Related Health Problems 10th Revision (CID-10) for the diagnoses. Factors other than need can also health care system usage rates so trends should be interpreted with caution.

Transport-Related

This data describes emergency diagnosis records for visits with an external cause of injury diagnosis. External cause is a reason for a medical condition that was caused by something outside the body (e.g. hit by object, fall). Data are based on all emergency department visits provided via the National Ambulatory Care Reporting System (NACRS) (excluding newborn or stillborn discharges) with ANY external cause code associated with the main problem diagnosis (i.e. the diagnosis with the longest duration of treatment). External causes are commonly associated with an injury-related main problem diagnosis, but they can also be associated with other main problem diagnosis. Hospitalization are defined as emergency department visits with a disposition status of admitted as inpatient or transferred to another acute care facility. Data are classified by the Chapters and codes of the International Statistical Classification of Diseases and Health Related Problems 10th Revision (ICD-10) (see http://apps.who.int/classifications/icd10/browse/2010/en#XX).

- Motor Vehicle Collisions (Traffic and Non-traffic): V02-V04, V09.0, V09.2, V12-V14, V19.0-19.2, V19.4-V19.6, V20-79, V80.3-80.5, V80.9, V81.0-81.1, V82.0-82.1, V82.8, V83-V86, V87 (.0-.8), V88 (.0-.8), V89.0, V89.2
- Pedestrian: V01-V09
Transportation Tomorrow Survey

The Transportation Tomorrow Survey (TTS) is a comprehensive travel survey conducted in the Greater Golden Horseshoe Area once every five years. The TTS is a joint undertaking by the agencies represented on the Transportation Information Steering Committee (TISC), formerly known as the Toronto Area Transportation Planning Data Collection Steering Committee (TATPDCSC). The 2016 TTS consists of demographic and travel information collected throughout the survey area. In the 2016 survey, a random sample of households in the survey area was provided by Canada Post from a database of mailable residential addresses. In 2016, the size of the sample was determined as required to obtain a 3% sample of occupied dwelling units in the City of Hamilton. All TTS are a retrospective survey of travel taken by every member (age 11 of over) of the household during the day previous to the telephone or web contact. In 2016, the household was given the option of a telephone interviewer or completing the interview on-line. More information about the survey and its contents can be found here:
http://dmg.utoronto.ca/transportation-tomorrow-survey/tts-reports

---
