

**Report to
Rapport au:**

**Ottawa Board of Health
Conseil de santé d'Ottawa
17 September 2018 / 17 septembre 2018**

**Submitted on September 10, 2018
Soumis le 10 septembre 2018**

**Submitted by
Soumis par:**

Dr./D^{re} Vera Etches, Medical Officer of Health/Médecin chef en santé publique

Contact Person

Personne ressource:

**Gillian Connelly, Manager/Gestionnaire
Healthy Communities/Communautés en santé
613-580-2424, ext./poste 28971, Gillian.connelly@ottawa.ca**

Ward: CITY WIDE / À L'ÉCHELLE DE LA VILLE File Number: ACS2018-OPH-HPP-0007

SUBJECT: NEXT STEPS TO SUPPORT HEALTHY AGING IN OTTAWA

OBJET: PROCHAINES ÉTAPES AFIN DE FAVORISER LE VIEILLISSEMENT SAIN À OTTAWA

REPORT RECOMMENDATION

That the Board of Health for the City of Ottawa Health Unit receive this report for information.

RECOMMANDATION DU RAPPORT

Que le Conseil de santé de la circonscription sanitaire de la ville d'Ottawa prenne connaissance du présent rapport à titre d'information.

EXECUTIVE SUMMARY

Ottawa's older adult population is increasing and diverse. In 2016, 29% of the Ottawa

population were aged 55 and older and almost 1 in 6 identified as a member of a visible minority. By 2036, almost one fifth of Ottawa residents will be aged 65 or older.

Older adults continue to enjoy life and contribute to society, yet the incidence of chronic disease, injury and disability becomes more prevalent with age and is higher among vulnerable older adult groups such as those with low income, living alone, or people from cultural minorities. Healthy aging can delay and minimize the burdens of chronic disease and disabilities in later life and save health care costs. It can also contribute to prolonging quality of life for aging seniors and those who care for them.

Given the City of Ottawa is updating its Older Adult Plan (OAP) and Ottawa's growing population of older adults, OPH is reviewing its healthy aging programming with a goal of better serving Ottawa's older adults and expanding collaboration with community partners. Specifically, OPH is seeking to re-orient its healthy aging public health interventions to focus on reducing risk factors for chronic disease and disability and promoting healthy behaviours across the lifespan to optimize quality of life among adults 55 years and older. Key focus areas may include: promoting age-friendly communities, reducing social isolation and improving mental health, supporting caregivers, increasing awareness of advanced care planning, reducing falls, as well as improving brain health and addressing gaps in dental health services.

OPH recommends continued engagement with stakeholders in the development of an OPH healthy aging strategy and support of the City of Ottawa's OAP.

SOMMAIRE

La population âgée d'Ottawa est diversifiée et à la hausse. En 2016, 29 % de la population d'Ottawa était âgée de 55 ans ou plus et presque une personne sur six était identifiée comme membre d'une minorité visible. D'ici 2036, près du tiers des résidents d'Ottawa sera âgé de 55 ans ou plus, un cinquième aura 65 ou plus et 4 %, 85 ou plus.

Même si les personnes âgées continuent de profiter de la vie et de contribuer à la société, les maladies chroniques, les blessures et les handicaps deviennent plus courants avec l'âge et sont même plus fréquents chez les groupes de personnes âgées vulnérables, entre autres celles qui ont un faible revenu, qui vivent seules ou qui appartiennent aux minorités culturelles. Le vieillissement en santé peut retarder et réduire au minimum le fardeau des maladies chroniques et des limitations fonctionnelles plus tard dans la vie, et permettre de réduire les coûts liés aux soins de santé. Il peut aussi contribuer à prolonger la qualité de vie des aînés et des personnes qui en prennent soin.

Étant donné que la Ville d'Ottawa met à jour son Plan relatif aux personnes âgées et que la population des personnes âgées d'Ottawa augmente, SPO révisé son programme de vieillissement en santé afin de mieux servir les personnes âgées d'Ottawa et accroître la collaboration avec les partenaires communautaires. Plus précisément, SPO cherche à réorienter ses interventions en santé publique sur le vieillissement en santé afin de réduire les facteurs de risque des maladies chroniques et des incapacités et de promouvoir des comportements sains tout au long de la vie afin d'améliorer la qualité de vie des adultes de 55 ans et plus. Les principaux domaines d'intervention peuvent comprendre : les collectivités-amies des aînés, réduire l'isolement social et améliorer la santé mentale, les ressources destinées aux proches aidants, la planification des soins de fin de vie, la prévention des chutes, ainsi que la santé cérébrale et dentaire.

SPO recommande un engagement continu avec les intervenants dans l'élaboration d'une stratégie de SPO en matière de vieillissement en santé et le soutien au PRPA de la Ville d'Ottawa.

BACKGROUND

The purpose of the report is to provide a snapshot of the health of Ottawa's older adult population by sharing epidemiological data, evidence related to healthy aging, and updates on national, provincial and municipal strategies to support healthy aging. The report also provides brief highlights of activities undertaken with partners to promote older adults' health, possible areas of focus for Ottawa Public Health (OPH) into the future and proposes next steps.

Similar to the rest of the country, Ottawa has an aging population. According to the 2016 census, 29% of Ottawa's population were aged 55 and older, 15% were aged 65 and older and 2% were aged 85 and older.¹ By 2036, almost one third will be aged 55 and older, one fifth will be aged 65 and older and 4% will be aged 85 and older.²

Not only is Ottawa's population aging, it is becoming more diverse with almost 16% of older adults identifying as a member of a visible minority.³ In addition, approximately 10% of Ottawa residents aged 55 years and older are living in low income⁴ and approximately 20% live alone.⁵

Older adults are significant contributors to Ottawa's community. Older adults contribute to society through volunteering, participating in community events, caring for others and many are still working. One quarter (25%) of Ontario residents aged 65 to 84 years and 11% of residents aged 85 years and older reported participating in volunteer activities in

the past year.⁶ The majority of Ontario older adults reported participating in community-related activities at least once a month in the past year.⁶ Nearly, two thirds of older adults aged 55 to 64 are still working. For older adults aged 64-74, one in five are still employed, most working on a part-time or part-year basis or self-employed.⁷

Aging as a natural process is not a health issue. While people are living longer, the prevalence of disability and chronic disease increases with age. Just over half of Ottawa residents aged 65 and older rate their health as excellent or very good and 50% identify an activity limitation that affects them some of the time or often.⁸ Some older adult groups, such as women, LGBTQ, Indigenous, newcomer and older adults with disabilities are more vulnerable to poor health outcomes.⁹ One in four older adults aged 65 to 79 years, and over one third of older adults aged 80 years and older reported having at least four chronic conditions.¹⁰ In Ontario, 10% of older adults who experience the most complex health issues account for 60% of annual health care spending. The healthiest 50% of older adults account for only 6% of overall annual spending on health care.¹¹ Therefore, preventing and reducing the burden of disability and chronic disease is likely to help manage health care costs as well as improve quality of life.

Healthy aging is “an ongoing process of optimizing opportunities to maintain and enhance physical, social and mental health, as well as independence and quality of life over the life course.”¹² Risk factors for chronic diseases begin earlier in life and their impact increases over the life course.¹³ Public health’s role in supporting healthy aging includes creating healthy environments that make healthier choices possible and more frequent across the lifespan. Supporting older adults to live longer, healthier lives by adopting healthier behaviours earlier in life, including staying socially connected, participating in physical activity, eating healthily, and taking steps to minimize risks for falls and substance use.¹⁴ If adults have opportunities to engage in healthy behaviors in their middle years, they will experience improved health in their 70s and beyond.¹⁵

More information on Ottawa Older Adult Health Overview is included in Document 1.

Federal, Provincial and Municipal Strategies to Support Healthy Aging

To support healthy aging in Canada, all levels of government have developed strategies and action plans, several of which are referenced below.

In January 2016, the National Seniors Strategy was released. It addressed twelve specific policy issues identified under four overarching themes: 1) independent, productive and engaged citizens; 2) healthy and active lives; 3) care closer to home; and 4) support for caregivers.

In 2017, Ontario released Aging with Confidence: Ontario's Action Plan for Seniors, which outlines a plan to help Ontario seniors remain independent, healthy and socially connected at all stages of their lives.

Municipally, the City of Ottawa has adopted the World Health Organization (WHO) Global Age-friendly City Guide and developed its own Older Adult Plan (OAP) to make Ottawa age-friendlier by improving infrastructure, programs, and services for older adults. The City of Ottawa has been a member of the WHO Global Network for Age-friendly Cities and Communities since 2011.

Building on the first OAP, the City launched its second Older Adult Plan 2015-2018. This plan puts forward 51 concrete actions focused on areas within the City's mandate to provide supports that are responsive to the diverse needs and choices of older adults, including Healthy Aging. Ottawa Public Health (OPH) has contributed by providing free dental screening to low income older adults, developing Healthy Eating Active Living (HEAL) guidelines for retirement homes, distributing copies of the Mental Health Caregiver Guide and offering fall prevention workshops.

The City of Ottawa is currently planning its third OAP 2019-2022. From April to June 2018, the City engaged 1,700 residents through an online survey and in-person focus groups to assess the needs and priorities of a diversity of older adults in Ottawa. Together with the research evidence, the consultation findings will inform the development of the next City of Ottawa OAP. OPH is contributing to the development and implementation of this plan.

The Board of Health (BOH) adopted its Seniors Healthy Aging Strategy in 2011, which included enhanced programming focused on falls prevention, physical activity, nutrition, self-care, and social support for seniors and caregivers that.

In 2014, OPH's Seniors Healthy Aging Strategy Update outlined a focus on reducing falls among seniors and improving access to services for older adults. In 2015, the BOH approved OPH's Fall Prevention Approach with five priority areas: 1) Population health surveillance; 2) Engaging stakeholders; 3) Expanding access to physical activity programming for older adults in the community; 4) Enhancing older adult environments to reduce falls; and 5) Engaging older adults in fall prevention behaviours.

Since 2015, OPH has enhanced its Better Strength Better Balance program (BSBB), contributed to regional, provincial and national working groups addressing older adult falls prevention, public awareness strategies on protective factors, and supported older adult and service providers with skill development to prevent falls. This work is

described further below.

DISCUSSION

Given the City of Ottawa is updating its Older Adult Plan and Ottawa's growing population of older adults, OPH is reviewing its healthy aging programming with a goal of better serving Ottawa's older adults and expanding collaboration with community partners. Specifically, OPH is exploring expanding its health promotion interventions in key areas, beyond falls prevention. OPH addresses risk factors that affect healthy aging across the lifespan, with a focus on promoting healthy behaviors and optimizing quality of life among older adults, while also working with partners to address community and societal factors that support healthy aging. Based on the evidence reviewed and consultation with partners, OPH has identified community, family, peer and individual factors that impact healthy aging.

Community Factors Affecting Healthy Aging

Environmental and community influences on health comprise a broad range of factors including the built environment, economics, community's attitudes or norms, health and social policies, social networks and supportive systems.

Age-Friendly Community (AFC)

In 2006, the WHO launched its age-friendly community initiative to advance a thoughtful approach to promote the health and well-being of people of all ages, and especially for older adult populations.¹⁶ Creating an [age-friendly community](#) can support the health and well-being of older adults. In an age-friendly city, policies, services, settings and structures support and enable people to age actively. The WHO has outlined eight domains for an age-friendly community, which include: Outdoor Spaces and City Buildings; Transportation and Mobility; Housing; Communication and Information; Social, Recreation, and Cultural Participation; Civic Participation and Volunteering; Community Support and Health Services; and Respect and Social Inclusion. The City of Ottawa has sought to address these eight domains through the Older Adult Plan (OAP). In addition, community partners, such as The Council on Aging of Ottawa (COA), have implemented initiatives to address components of an age friendly community. Specifically, [Age Friendly Ottawa \(AFO\)](#) is an initiative led by the COA, of which the City of Ottawa is a member, to enhance and improve Ottawa's age-friendliness. Since 2012, over 40 partner organizations have reported on [community action plans](#), completing over 60 actions.

To support creating an AFC, OPH is participating in the re-design of an outdoor garden space used by older adults. Learnings from this can be applied to other shared spaces across the City. OPH also continues to work on implementing HEAL guidelines in retirement homes across the City.

Social inclusion

Research indicates that older adults' social networks can positively influence health behaviors such as being active.¹⁷ Conversely, socially isolated older adults are more at risk of substance use, smoking, sedentary behaviors and unhealthy eating, have a higher likelihood of falls and are at greater risk of hospitalization. Social isolation also affects older adults' psychological and cognitive health and is associated with higher levels of depression and suicide.¹⁷

Addressing social isolation is complex and requires a multitude of partners working together. In Ottawa, a number of organizations provide services and programs to the project [Keeping Ottawa Seniors Connected](#), which increases the social inclusion of older adults from at-risk groups such as: low income, limited official language skills, disability, abuse and living in rural areas. OPH has supported this project by providing a series of conversations on mental health and participating in the COA's social inclusion committee. Since 2007, OPH has worked with the Champlain LHIN and other community partners to deliver OPH programs in eleven Ottawa Community Housing buildings. The Aging in place (AIP) / Vieillir chez-soi project aims to support low-income and at-risk older adults to live healthily and independently in their own homes.

Family and Peer Factors Affecting Healthy Aging

Caregivers

Caregivers experience burdens and need support. An estimated 29% of Ontario's population are caregivers, with the majority of them providing care to a family member. It is estimated that unpaid caregivers save Canada's health and community service system \$31 billion annually.¹⁸ However, caregivers experience significant burdens, with impacts on their physical, emotional, and social health. Approximately 3% of Ontario caregivers rated their physical health as "poor", 11% rated their mental health as "poor", and 13% reported that their overall health has suffered because of their caregiving responsibilities.¹⁸

Expanding caregiver support is one of the ten steps in the Ministry of Health and Long-Term Care's "[Roadmap to Strengthen Home and Community Care](#)." Following this

report, the Ministry established the [Ontario Caregiver Organization](#) to deliver individual, organization and system level supports for caregivers. OPH is seeking collaboration opportunities to support caregivers in Ottawa.

OPH has developed, launched and disseminated the [Online Caregiver Guide](#). To better reach caregivers of people with dementia, OPH is working with the Champlain Dementia Network's *Careteam Regional Operation's Group* to engage caregivers and to provide information and training through a web-based navigation platform in order to decrease caregiver burden and stress. Peer-to-Peer support is another way to help caregivers to learn and support one another with caregiving challenges and is an approach OPH is exploring.

Advance Care Planning (ACP)

With a growing population of older adults, end-of-life care and planning is increasingly important to patients, families and the healthcare system. The majority of deaths occur in hospitals and patients are often admitted to the Intensive Care Unit during their last hospitalization. However, older adults report they would prefer a less aggressive treatment plan or to die at home.¹⁹ ACP involves reflecting on and having conversations about the health and personal care you would want if unable to speak for yourself. OPH's future contribution to promoting ACP will support individuals and families to acknowledge that death is a normal life process and help them deal with end-of-life care. There are several partners with interest and expertise in this area including, Compassionate Ottawa and The Ottawa Hospital.

Individual Factors Affecting Healthy Aging

Brain Health

Nearly 18,400 people over the age of 65 in the Champlain region are living with dementia.¹⁹ Older adults living with dementia are intensive users of the healthcare system, they have double the need of hospitalizations and emergency room visits as compared to older adults who do not have dementia.²⁰ With an aging population, the numbers of individuals living with the disease and the related caregiving demand will continue to grow.

In 2016, Ontario released [Developing Ontario's Dementia Strategy: A Discussion Paper](#) and [A Stronger, Healthier Ontario](#) (2017) announced an investment of \$100 million over three years to support a dementia strategy. Locally, the [Champlain Dementia Network \(CDN\)](#) provides leadership and support for the implementation of a regional dementia

strategy through their [Integrated Model of Dementia Care: Champlain 2020 Making Choices that Matter](#) (2013). These strategies focus primarily on initiatives that support those already living with the disease, their formal and informal caregivers, as well as system improvements.

Although some promising research exists, there is inconclusive evidence that any one intervention will prevent dementia.^{21,22} Evidence is growing that engaging in lifestyle behaviours to promote brain health and potentially build cognitive reserve can mitigate the effects of disease or delay its onset.²¹ Efforts to reduce other potentially modifiable risk factors like hypertension, obesity, smoking, diabetes, and excessive alcohol intake can have an impact on delaying onset of dementia.²¹ Delaying onset by 5 years would halve dementia prevalence, and a 10% reduction in negative health and lifestyle risk factors could reduce prevalence.²¹

Public health can provide evidence-based health promotion messaging, linking healthy behaviours to brain health. Furthermore, dispelling myths about the aging brain and dementia can address fear and stigma associated with the disease. Encouraging early detection and diagnosis is important for early symptom management, establishing a supportive care team, and advance care planning. OPH is collaborating with partners to support and build on current initiatives, including efforts to make communities [Dementia Friendly](#).

Falls

The prevention of falls and related injuries among older adults remains a public health priority. Research demonstrates that regular physical activity reduces the risk of falls. Exercise that improves balance has the most significant impact on reducing falls.²³

OPH continues to promote falls prevention, with a focus on increasing strength and balance, promoting fall prevention behaviors, engaging key stakeholders on service provider training and exploring peer-to-peer approaches. Since 2014, OPH has collaborated with the City of Ottawa's Recreation, Cultural and Facility Services to offer the Better Strength Better Balance exercise program (BSBB) for older adults at 24 city facilities. To date, more than 2,300 older adults have participated annually in the program and evaluation results show an increase in participants' self-reported strength and balance, intention to continue to exercise, a reduced fear of falling as well as increased social support.

Based on participant feedback, in 2018 OPH streamlined the BSBB program registration process and provided education information. These improvements led to

increased client satisfaction.

In 2016, in partnership with the Champlain LHIN Falls Prevention Steering Committee & Working Groups, OPH launched a falls prevention online training module for service providers. To date, 844 service providers have received falls prevention training.

Dental health

Across Canada, people from low-income families have approximately twice the dental problems of higher-income Canadians.²⁴ In Ottawa, people aged 65 years and older living in low income are over three times less likely to have dental insurance and are also 30% less likely to have seen a dentist in the past year than those not living in low income.²⁵ To address dental care needs for an aging population, OPH has received annual funding from the City's Older Adult Plan for urgent and preventative treatment for low-income older adults ineligible for income support programs. However, a gap exists between the number of older adults seeking dental services and the funding envelope available. Therefore, people with needs for dental care may be placed on a wait list, and system navigation is provided for preventive care such as access to free or low-cost service providers (for example, dental hygiene clinics at La Cité and the Canadian National Institute of Health).

NEXT STEPS

Engage partners

There are many key stakeholders in Ottawa focusing on various elements important to older adults. OPH has been consulting with these key stakeholders to understand the current context and leverage collective impact and action for the health of older adults. OPH will continue to engage partners on the development of an OPH healthy aging strategy. See Document 2 for a list of these key stakeholders.

Support the City of Ottawa's Older Adult Plan

The City's Older Adult Plan (OAP) offers a broad range of supports to address the diverse needs and choices of older adults. OPH will review the City's consultation findings to build into the OPH healthy aging plans. OPH will continue to contribute to the development and implementation of relevant OAP initiatives.

RURAL IMPLICATIONS

There are no rural implications to this information report.

CONSULTATION

OPH will continue to consult key stakeholders on the development of an OPH healthy aging strategy. OPH will also review the consultation findings from City of Ottawa's Older Adult Plan to build into the OPH healthy aging plans.

LEGAL IMPLICATIONS

There are no legal impediments to receiving this report for information.

RISK MANAGEMENT IMPLICATIONS

There are no risk management implications associated with this report.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

ACCESSIBILITY IMPACTS

There are no accessibility impacts associated with this report.

SUPPORTING DOCUMENTATION

Document 1: Ottawa Older Adult health Overview

Document 2: Key Stakeholders for Healthy Aging

DISPOSITION

OPH will continue to consult and work with partners for healthy aging strategic plans.

References

¹ Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016190

² Population Projections 2018, 2036, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH Ontario, Date Extracted Oct 2017

³ Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016190

-
- ⁴ Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016127
- ⁵ Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016029
- ⁶ Statistics Canada. [Table 13-10-0466-01 Healthy aging indicators](#)
- ⁷ Norris D. Tapping into Ottawa's older consumer market: Worth \$12.6B a year and growing. Special report 2018 [internet] Ottawa: The council on Aging of Ottawa. 2018 [cited 2018 Sept 07]. Available from <https://coaottawa.ca/wp.../COA-Capital-Aging-Special-Report-FINAL-2018-06.pdf>
- ⁸ Ottawa Public Health. Status of Mental Health in Ottawa. June 2018. Ottawa (ON): Ottawa Public Health; 2018
- ⁹ United Way Ottawa. *A Profile of Vulnerable Seniors in the Ottawa Region* [internet]. Ottawa: United Way Ottawa; 2017 [cited 2018 Aug 30]. Available from: <https://www.unitedwayottawa.ca/seniors/>
- ¹⁰ Public Health Agency of Canada. The Chief Public Health Officer's Report on the State of Public Health in Canada, 2010: Growing Older – Adding Life to Years. Her Majesty the Queen in Right of Canada; 2010
- ¹¹ Sinha, Samir (2012). Living Longer, Living Well. Report Submitted to the Minister of Health and Long-Term Care and the Minister Responsible for Seniors on recommendations to Inform a Seniors Strategy for Ontario. Ministry of Health and Long-Term Care. Government of Ontario
- ¹² Government of Canada. Seniors [internet]. Ottawa: public Health Agency of Canada; 2016 [cited 2018 Sept 06]. Available from: <http://cbpp-pcpe.phac-aspc.gc.ca/public-health-topics/seniors/>
- ¹³ World Health Organization. Preventing Chronic Diseases: A Vital Investment: WHO Global Report. Switzerland: WHO Press; 2005. p. 200
- ¹⁴ Sinha, Samir (2012). Living Longer, Living Well. Report Submitted to the Minister of Health and Long-Term Care and the Minister Responsible for Seniors on recommendations to Inform a Seniors Strategy for Ontario. Ministry of Health and Long-Term Care. Government of Ontario
- ¹⁵ Hartman-Stein, P., Potkanowicz, E. (May 31, 2003) "Behavioral Determinants of Healthy Aging: Good News for the Baby Boomer Generation" *Online Journal of Issues in Nursing*. Vol. #8 No. #2, Manuscript 5. Available from: www.nursingworld.org/ojin/topic21/tpc21_5.htm
- ¹⁶ World Health Organization. World report on ageing and health [internet]. Geneva: World Health Organization; 2015 [cited 2018 Aug 03]. Available from: <http://www.who.int/ageing/events/world-report-2015-launch/en/>
- ¹⁷ National Seniors Council. Report on the Social Isolation of Seniors, 2013-2014 [internet]. Canada: National Seniors Council; 2016 [cited 2018 Aug 24]. Available from:

<https://www.canada.ca/en/national-seniors-council/programs/publications-reports/2014/social-isolation-seniors/page05.html>

¹⁸ The Change Foundation. A Profile of Family Caregivers in Ontario [internet]. Ontario: The Change Foundation; 2016 [cited 2018 Aug 24]. Available from:

<http://www.changefoundation.ca/profile-of-family-caregivers-ontario/>

¹⁹ Robert, F & Michael, H. (2013) End of life Care in Canada. *Clin In_est Med* 2013; 36 (3): E127-E132. Available from <http://www.cahs-acss.ca/wp-content/uploads/2013/08/End-of-Life-Care-in-Canada.pdf>

²⁰ Champlain LHIN. Sub-Region Population Health Profiles Technical Report October 2017. [internet]. Ontario: Champlain LHIN; 2017 [cited 2018 Aug 24]. Available from:

<http://www.champlainhin.on.ca/GoalsandAchievements/OurStratPlan/SubRegions.aspx>

²¹ Livingston, G. et al. Dementia prevention, intervention, and care. *Lancet* 2017; 390:2673-2734

²² National Academies of Sciences, Engineering, and Medicine. 2017. *Preventing cognitive decline and dementia: A way forward*. Washington, DC: The National Academies Press. doi:

<https://doi.org/10.17226/24782>

²³ JAMA. 2018;319 (16):1696-1704. doi:10.1001/jama.2018.3097

²⁴ Health Canada. Report on the Findings of the Oral Health Component of the Canadian Health Measures Survey 2007–2009. [Cited 2018 Aug 24] Available from

<http://publications.gc.ca/site/eng/369649/publication.html>

²⁵ Canadian Community Health Survey 2013-2014, Statistics Canada, Share File, Ontario MOHLTC