# The participant event, 'Update on the Canadian Longitudinal Study on Aging (CLSA),' will begin shortly.

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• This webinar will be recorded and livestreamed on YouTube.

# Land acknowledgement

McMaster University is located on the traditional territories of the Mississauga and Haudenosaunee Nations, and within the lands protected by the Dish With One Spoon wampum agreement.

We respectfully acknowledge the Ləkwəŋən peoples on whose traditional, unceded territory the University of Victoria stands, and the Songhees, Esquimalt and WSÁNEĆ Nations whose historical relationships with the land continue to this day.

Simon Fraser University's three campuses are located on the traditional, unceded territories Skwxwú7mesh Úxwumixw (Squamish), səl'ilwəta?ł (Tsleil-Waututh), xwməθkwəy'əm (Musqueam), kwikwəλ'əm (Kwikwetlem), Kwantlen, q'íc'əy' (Katzie), Qayqayt, Semiahmoo and Tsawwassen peoples.

The University of British Columbia is located on the traditional, ancestral, and unceded territory of the Musqueam people.

The University of Calgary is located on the traditional territories of the peoples of Treaty 7, which include the Blackfoot Confederacy (comprised of the Siksika, the Piikani, and the Kainai First Nations), the Tsuut'ina First Nation, and the Stoney Nakoda (including Chiniki, Bearspaw, and Goodstoney First Nations). The City of Calgary is also home to the Métis Nation of Alberta (Districts 5 and 6).



## Land acknowledgement

We acknowledge the diverse Indigenous nations who call these lands home, respect the Treaties that were made on these territories, and acknowledge the harms and mistakes of the past as we dedicate ourselves to moving forward in partnership with Indigenous communities in a spirit of reconciliation and collaboration.



# **PARTICIPANT WEBINAR**



Update on the Canadian Longitudinal Study on Aging (CLSA)

**Date:** Tuesday, September 24, 2024 **Time:** Noon PDT | 1 p.m. MDT/CST

#### CLSA panelists include:



Dr. Tarek Amer Site Co-principal Investigator, University of Victoria



**Dr. Ryan Falck** Postdoctoral Fellow, University of British Columbia



Dr. Jacqueline McMillan Site Principal Investigator, University of Calgary



Eireann O'Dea PhD Candidate, Simon Fraser University



Dr. Andrew Wister Site Principal Investigator, Simon Fraser University



Update on the Canadian Longitudinal Study on Aging (CLSA)

An online event for CLSA participants

September 24, 2024



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# Today

- Welcome & CLSA Update
- Study Enhancements
- Findings & Impact
- Closing



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Eireann O'Dea PhD Candidate, Simon Fraser University



Dr. Andrew Wister Site Principal Investigator, Simon Fraser University

# **Scientific Leadership**





Lauren Griffith Co-principal Investigator McMaster University



Cynthia Balion Co-principal Investigator McMaster University



Andrew Costa Associate Scientific Director McMaster University

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### Site Principal and Co-Principal Investigators British Columbia, Alberta and Manitoba



### Site Principal and Co-Principal Investigators Manitoba, Ontario, Quebec, Nova Scotia, Newfoundland





Lauren Griffith McMaster University

Laura Anderson McMaster University



Vanessa Taler University of Ottawa



Arne Stinchcombe University of Ottawa



Benoît Cossette University of Sherbrooke



Mélanie Levasseur University of Sherbrooke



Christina Wolfson McGill University



Susan Kirkland Dalhousie University



Olga Theou Dalhousie University



Gerry Mugford Memorial University



Zhiwei Gao Memorial University

# **CLSA Site Coordinators**









# What is the CLSA?

# A research study and platform.

Supports population research into health and aging, leading to better health and quality of life for Canadians.





# **CLSA Network of Collaborating Institutions**









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a place of mind THE UNIVERSITY OF BRITISH COLUMBIA



Institut de recherche Centre universitaire de santé McGill Research Institute McGill University Health Centre





# **CLSA Research Platform**

51,338 participants aged 45 - 85 at recruitment









## **Platform Enhancements**



# **Data Collection through Questionnaires**

Answer a variety of questions on physical, social and psychological health

Questions largely remain the same, but new content has been added

- In Follow-up 3, a short supplemental questionnaire was added
  - Baseline Tracking data were released in 2015, leading to research about social isolation, hearing loss, risk factors for falls, retirement, and chronic health conditions





# **CLSA Data Collection**

**Data Collection Site Visits** 







- TicWatch
- ActiGraph (thigh)
- Tracks activity and community mobility (e.g., driving)
- All Comprehensive participants

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# Sleep Trackers

- Muse headband
- ActiGraph (wrist)
- Tracks sleep quality and patterns
- 2,360 Comprehensive participants
- For information on our activity trackers: <u>https://www.clsa-</u> <u>elcv.ca/participants/activity-</u> <u>trackers</u>

# Losses to the CLSA

- By the end of the second follow-up, 7.4% of participants had withdrawn from active data collection though most (80%) consented to continue through data linkage
- 6.9% of participants have died since their baseline assessment
- Strategies to prevent losses
  - Web questionnaires for participants who move outside of the area
  - Proxies who can answer questions for the participant

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# **New Measures in Follow-up 4**



#### Ageism Experiences

- Additional questions
- All participants



- Additional questions
- All participants



- Odour pens (Sniffin' Sticks)
- Conducted at Data Collection Sites
- Comprehensive participants



- Vision contrast sensitivity test
- Conducted at Data Collection Sites
- Comprehensive
  participants



## **Changes at the Data Collection Site**



 Ultrasound of neck to assess thickness of the arteries



 Cardiac ultrasound (Echo) to examine the structure and function of the heart



Follow-up 3

Follow-up 4

How are the collected data being used?



# **Projects & Publications**

- More than 600 research teams have been approved to use CLSA data since 2014
  - More than a third of approved projects are led by trainees
  - Most projects are based in Canada, but many are international e.g., U.S., UK, Netherlands, Switzerland, Australia
  - www.clsa-elcv.ca/approved-projects
- 350+ publications have been published in scientific journals
  - www.clsa-elcv.ca/stay-informed/publications



# **Scientific Publications**



Mills CM, Keller HH, DePaul VG, Donnelly C. Factors Associated with the Development of High Nutrition Risk: Data from the Canadian Longitudinal Study on Aging. Can J Aging. 2023 Sep 26:1-14.



Levasseur M, Dubois MF, Généreux M, Naud D, Trottier L, Menec V, Roy M, Gabaude C, Couturier Y, Raina P. **Key Age-Friendly Components of Municipalities that Foster Social Participation of Aging Canadians: Results from the Canadian Longitudinal Study on Aging**. J Urban Health. 2023 Aug 18.



He W, Han X, Ong JS, Wu Y, Hewitt AW, Mackey DA, Gharahkhani P, MacGregor S. **Genome-wide metaanalysis identifies novel loci and improves disease prediction of age-related macular degeneration.** Ophthalmology. 2023 Aug 25:S0161-6420(23)00622-X.



Hopper S, Wister AV, Cosco TD, Best JR. Social isolation, physical activity, and subsequent changes in cognition among middle- and older-aged adults: Results from the Canadian Longitudinal Study on Aging. Psychosom Med. 2024 Feb-Mar 01;86(2):107-115.



Ho M, Pullenayegum E, Fuller-Thomson E. Is Social Participation Associated with Successful Aging among Older Canadians? Findings from the Canadian Longitudinal Study on Aging (CLSA). Int J Environ Res Public Health. 2023 Jun 6;20(12):6058.



Wood Alexander M, Wu CY, Coughlan GT, Puri T, Buckley RF, Palta P, Swardfager W, Masellis M, Galea LAM, Einstein G, Black SE, Rabin JS. **Associations Between Age at Menopause, Vascular Risk, and 3-Year Cognitive Change in the Canadian Longitudinal Study on Aging**. Neurology. 2024 May;102(9):e209298.



# Recent media coverage

SFU researchers zero in on what makes some people healthier than the rest of us



Newsweek

Click here for the full article

#### Click here for the full article

# Marriage helps boost health of older men, not women

By Ernie Mundell, HealthDay News







Scientists Reveal Factors That Increase Risk of Memory Loss With Age

Updated Jul 11, 2024 at 9:43 AM EDT

Click here for the full article

# Impact of Projects & Publications on Policy



### DECADE OF HEALTHY AGEING BASELINE REPORT



Public Health Agency of Canada Agence de la santé publique du Canada



COVID-19 GROUPE DE TRAVAIL IMMUNITY SUR L'IMMUNITÉ TASK FORCE FACE À LA COVID-19

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# Study Enhancements



### **CLSA-Weston Healthy Brains, Healthy Aging Initiative**

- \$12M brain health initiative funded by the Weston Family Foundation
- 6,000 Comprehensive participants
- MRIs & stool samples (2,630 Comprehensive participants)
- Stool samples only (6,000 Comprehensive participants)
- Launched September 2022
- For more information on the Healthy Brains, Healthy Aging Initiative: <u>https://www.clsa-elcv.ca/healthy-brains</u>





# **Memory Study**



- \$1M study funded through Public Health Agency of Canda
- Investigates whether information collected through CLSA interviews can be used to correctly identify individuals who have memory problems and individuals without memory problems
- 597 CLSA participants with a range of cognitive abilities:
  - Completed a medical assessment and neurocognitive examination
  - Identified a family member or friend for a 20-minute telephone interview
- Data analysis underway

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# **COVID-19 Studies**



#### **COVID-19 Questionnaire Study**

- April 2020 Dec 2020
- Web and telephone surveys
- Weekly, biweekly, monthly
- 28,565 participants
- COVID-19 Data Dashboard: clsa-elcv.ca/covid-study-results



#### **COVID-19 Antibody Study**

- October 2020 July 2021
- 19,334 participants:
  - At-home blood sample collection
  - Blood sample collection at a Data Collection Site
- Summary of findings: clsa-elcv.ca/antibody-results-update



#### **COVID-19 Brain Health Study**

- Launched Summer 2021
- Impact of COVID-19 on cognition & brain health
- MRI, phone assessment
- Data collection expected to conclude in fall 2024



cihr-irsc.gc.ca/e/53522.html

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COVID-19 Data Dashboard: clsa-elcv.ca/covid-study-results
### **COVID-19 Antibody Study: Findings**



18,536 CLSA participants provided blood samples between November 2020 to July 2021.



Between November 2020 and July 2021, 3.9% of participants tested positive for antibodies that indicates infection from the SARS-CoV-2 virus.



17,311 blood samples were able to be tested for the presence of antibodies that indicates infection due to SARS-CoV-2 the virus that causes COVID-19.



Overall, younger participants (aged 50-69 years) were most likely to test positive for antibodies that indicates infection from the SARS-CoV-2 virus.



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Rates of positivity increased over time in all provinces.



Additional results available here: clsa-elcv.ca/antibody-results-update https://www.clsa-elcv.ca/antibody-studyresults

### **COVID-19 Scientific Publications**



MacNeil A, Cottagiri SA, Villeneuve PJ, Jiang Y, de Groh M, Fuller-Thomson E. Incident Functional Limitations Among Older Adults With Diabetes During the COVID-19 Pandemic: An Analysis of Prospective Data From the Canadian Longitudinal Study on Aging. Can J Diabetes. 2024 Jul;48(5):290-298.e2.



De Rubeis V, Griffith LE, Duncan L, Jiang Y, de Groh M, Anderson LN. **Self-reported chronic conditions and COVID-19 public health measures among Canadian adults: an analysis of the Canadian Longitudinal Study on Aging.** Public Health. 2024 Jun;231:99-107.



adian Longitudinal Study on Aging

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Oremus M, Tyas SL, Zeng L, Newall N, Maxwell CJ. **The association between memory, COVID-19 testing, and COVID-19 incidence in middle-aged and older adults: a prospective analysis of the CLSA.** Neuropsychol Dev Cogn B Aging Neuropsychol Cogn. 2024 Apr 16:1-18.



Scientific Reports

Meng T, Nielsen DE. **TAS2R38 haplotypes, COVID-19 infection, and symptomatology: a cross-sectional analysis of data from the Canadian Longitudinal Study on Aging.** Sci Rep. 2024 Feb 26;14(1):4673.



Grady A, Stinchcombe A. The impact of COVID-19 on the mental health of older sexual minority Canadians in the CLSA. BMC Geriatr. 2023 Dec 7;23(1):816.



Griffith LE, Beauchamp M, McMillan J, Borhan S, Oz UE, Wolfson C, Kirkland S, Basta NE, Thompson M, Raina P; Canadian Longitudinal Study on Aging (CLSA) Team. Persistent COVID-19 symptoms in community-living older adults from the Canadian Longitudinal Study on Aging (CLSA). Commun Med (Lond). 2023 Mar 11;3(1):36.

### **Outcomes &** Impact



#### Loneliness a major risk factor for depression in seniors: study

A survey of more than 24,000 Canadians over the age of 50 found they were twice as likely to experience symptoms after the first pandemic lockdown

November 20, 2023 | 5 min read

#### Older adults with cancer at higher risk for depression during COVID-19 pandemic



**OTV**NEWS CORONAVIRUS New

A quarter of Canadians over 45 struggled to access health care in 2020: survey

#### The New Hork Times

#### The Pandemic Has Made Many Seniors Less Active

Health experts are concerned that the pandemic, in upending daily routines, has reduced mobility and physical conditioning in older adults.



GROUPE DE TRAVAIL COVID-19 IMMUNITY SUR L'IMMUNITÉ TASK FORCE FACE À LA COVID-19 About 🗸 Research 🗸 CITF Databank Seroprevalence in Canada Events 🗸 Media 🗸 Resources 🗸 Contact Us 🛛 FR 📿 MORE THAN 75% OF CANADIANS HAD IMMUNITY TO SARS-COV-2 DUE TO **INFECTION BY MARCH 2023** More than 75% of Canadians had immunity to SARS-CoV-2 due to infection by March 2023 August 14, 2023 | MEDIA RELEASES MONTREAL, Monday, August 14, 2023 - By March 2023, after 16 months dominated by the Omicron variant, three quarters of people in Canada had immunity due to infection against SARS-CoV-2, the virus that causes COVID-19. Today, the COVID-19 Immunity Task Force (CITF) published the most comprehensive peer-reviewed analysis of pan-Canadian seroprevalence estimates across Canada in CMAJ (Canadian Medical Association Journal) The CITF, with help from seven collaborating teams of scientists, used aggregate data to estimate trends in both infection-acquired and vaccine induced SARS-CoV-2 seroprevalence across Canada. Three time periods were analyzed: pre-vaccination (March 2020 to November 2020); vaccine roll out (December 2020 to November 2021); and the Omicron waves (December 2021 to March 2023). All data were derived from blood samples collected from CITF-supported general population studies with data at multiple time points. Beyond the studies that contributed to this analysis, the CITF, which is financed by the Public Health Agency of Canada, has funded 120 research studies with a focus on immunity to SARS-CoV-2, many of which have engaged underrepresented populations and those living in long-term care homes.

SAVE .

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Social Isolation, Loneliness during the Pandemic

### **Selected COVID-19 Pandemic Articles**

Wister, A., Li, L., Cosco, T., Best, J., & Kim, B. (2022). Multimorbidity and depression, anxiety and comprehensive impact during the COVID-19 pandemic: Analyses using the Canadian Longitudinal Study on Aging (CLSA). *Clinical Gerontologist.* <u>https://doi</u> 10.1080/07317115.2022.2094742.

Wister, A., Li, L., Mitchell, B., Wolfson, C., McMillan, J., Griffith, L., Kirkland, S., Raina, P., & on behalf of the Canadian Longitudinal Study on Aging (CLSA) Team. (2022). Levels of depression and anxiety among informal caregivers during the COVID-19 pandemic: A study based on the Canadian Longitudinal Study on Aging. Journal of Gerontology, Series B. gbac03., https://doi.org/10.1093/geronb/gbac035.



Wister, A., Li, L., Cosco, T., McMillan, J., Griffith, L., & on behalf of the Canadian Longitudinal Study on Aging (CLSA) Team. (2022). **Multimorbidity resilience and COVID-19 pandemic self-reported impact and worry among older adults: A study based on the Canadian Longitudinal Study on Aging** (CLSA). *BMC Geriatrics*. 22:92. <u>https//doi.org/10.1186/s12877-</u> 022-02769-2.

Wister, A., Li, L., Levasseur, M., Kadowaki, L., & Pickering, J. (2023). The Effects of loneliness on depressive symptoms among older adults during COVID-19: Longitudinal analyses of the Canadian Longitudinal Study on Aging. *Journal of Aging and Health*, *35*(5–6), 439–452. https://doi.org/10.1177/08982643221129686.

Kirkland, S., Griffith, L., Oz, E., Thompson, M., Wister, A., Kadowaki, L., Basta, N., McMillan, J., Wolfson, C., Raina, P., & on behalf of the Canadian Longitudinal Study on Aging (CLSA) Team. (2023). Increased prevalence of Ioneliness and associated risk factors during the COVID-19 pandemic: Findings from the Canadian Longitudinal Study on Aging (CLSA). *BMC Geriatrics*. 23:872. https://doi.org/10.1186/s12889-023-15807-4.

### **Defining Loneliness and Social Isolation**

#### **Social Isolation**

 "A lack in quantity and quality of social contacts" and "Involves few social contacts and few social roles, as well as the absence of mutually rewarding relationships" (Keefe et al., 2006, p.1)

#### Loneliness

• "Defined as a distressing feeling that accompanies the perception that one's social needs are not being met by the quantity or especially the quality of one's social relationships" (Hawkley & Cacioppo, 2010, p.1)



### **CLSA Data Analysis**

- Analyzed prevalence of loneliness using CLSA data from three timepoints:
  - Baseline data: Collected 2011-2015 (n=51,338)
  - Follow-up One data: Collected 2015-2018 (n=44,817)
  - CLSA COVID-19 Study: Collected April to December 2020 (n=28,559)
  - COVID Survey had two time periods, we use the first (baseline) April-September
- Loneliness Measure: Single loneliness item comprising the CES-D depression scale, with participants reporting being lonely some of the time, occasionally, or all of the time deemed to be lonely (compared to rarely/none of the time)
- Depression Measure: CES-D 10 scale and the 10+ cut point

### % of Older Adults Lonely at Least Some of the Time



### % of Older Adults Depressed



### **Social Isolation Risk Factors**

#### Box 2. Risk Factors and Groups Associated with Social Isolation

- advanced age
- living alone
- low income or poverty
- lack of affordable housing and shelter and care options
- loss of sense of community
- widowhood
- episodic or lifelong physical and mental health issues (including seniors with Alzheimer's disease or other related dementias, frailty, sensory loss, or multiple chronic illnesses)

- challenges relating to technology (access to WiFi, costs, literacy, comfort) including telephone systems, computers, social media
- those living in rural or remote areas
- immigrant and/or ethnic older adults especially visible minorities
- Indigenous elders
- lesbian, gay, bisexual, or transgender seniors
- caregivers with heavy burden



Sources: De Jong Gierveld et al. (2015); Kirkland et al. (2015); Newal et al. (2015); National Seniors Council (2014a; 2014b; 2016); Wister et al. (2018); Wister & Kadowaki (2021).

Factors Associated with Loneliness During the Pandemic



#### **Individual Level Factors**

- Mixed findings for age and gender
- Higher loneliness was found for several factors associated with COVID-19 circumstances (e.g., experiencing personal losses, COVID-19 anxiety, depression)
- Lower loneliness among persons with greater resilience due to positive attitude, adjusting expectations of social contact)

#### **Interpersonal Level Factors**

- Living alone consistently identified as a risk factor
- Interpersonal level protective factors identified in some studies (e.g., social support, strong social network, resilience)

#### **Policy Level Factors**

 Pandemic-related restrictions and changes to social behaviour (e.g., self-isolating, reduced interactions) were associated with higher levels of loneliness in a small number of studies

### A Few COVID-19 Results (Wister et al.):

• Being a caregiver, self-rated poor to fair health, and living with multimorbidity are risk factors of greater depressive symptoms.



### Academic & Gray Literature Scan of COVID-19 Interventions to Reduce Loneliness & Isolation

- AgeLine, CINAHL, Medline, Social Sciences, PsychInfo, Academic Search Premier databases
- Scan of gray literature (e.g., newspapers, organizational websites, reports, etc.) conducted to identify programs being implemented/utilized in Canada to reduce social isolation and loneliness among the older adult population during the pandemic
- Search conducted between February and March 2021
- Programs identified via a Google Search of the news, searches of organizational websites, and information shared by contacts



Kadowaki, L., & Wister, A. (2022). Older adults and social isolation and loneliness during the COVID-19 pandemic: An integrated review of patterns, effects, and interventions. Canadian Journal on Aging. Nov 8:1-18. <u>https://doi.org/10.1017/S0714980822000459</u>.

Wister, A. V., & Kadowaki, L. for the Federal/Provincial/Territorial (FPT) Forum of Ministers Responsible for Seniors. (2021). Social Isolation Among Older Adults During the Pandemic. Employment and Social Development Canada. https://www.canada.ca/content/dam/canada/employment-social-development/corporate/seniors/forum/covid-19-social-isolation-en.pdf

# Programs to Reduce Loneliness and Social Isolation in Canada (1)

**Befriending Programs:** Volunteers are • it has been reported that befriending programs form positive connections matched with isolated older adults and between older adults and volunteers and there is high demand for these engage in regular in-person or remote programs (e.g., Campbell, 2020; Parsons, 2020). visits. **Telephone Help and Information Lines:** Callers can receive emotional support, Preliminary evidence suggests rising call volumes to these lines during friendly conversation, and referrals or the pandemic (e.g., Ireland, 2020, Szperling, 2020). information on services. **Telephone Outreach:** Staff or volunteers • Programs are described as providing opportunities for socialization and call vulnerable or isolated older adults to unmet social needs to be addressed (e.g., Sault Area Hospital, n.d.; offer check-ins, emotional support, and Volunteer Toronto, 2020) referral to needed services. Senior Centres Without Walls: SCWW • It has been reported that participants are very isolated prior to offer a wide array of social and educational participation (e.g., Healthy Aging CORE British Columbia, 2020a) and programs to older adults virtually or by high demand has led to more sessions being offered (e.g., Zillich, 2020). telephone.

# Programs to Reduce Loneliness and Social Isolation in Canada (2)

Practical Assistance: Provide assistance such as meal delivery, transportation, and wellness check-ins. Outreach and friendly conversation are often informal components of these programs.

 There is high demand for services (e.g., Hannah, 2020) and anecdotally providers reports they believe these efforts help to alleviate loneliness (e.g., Healthy Aging CORE British Columbia, 2020b).

Remote Health Promotion and Wellness Programs: Programs such as caregiver support groups, physical activity programs, and adult day programs have transitioned to remote delivery during the pandemic.

Technology Access and Training Programs: Programs train and educate older adults on how to use digital technology. Some also include access components and loan/gift to older adults digital technology and internet access.  Some remote programs are based on pre-pandemic in-person/remote interventions that had evidence suggesting their effectiveness at reducing social isolation or loneliness

 Initial reports suggest programs are successful at facilitating access to digital technology, and that older adults use the digital technology for social activities and interactions (e.g., Palamarchuk, 2020)

# Exploring Volunteering among Older Adults using CLSA Data

Presented by: Eireann O'Dea, MA September 24<sup>th</sup>, 2024

# Hello!

- I am a PhD candidate in Gerontology at Simon Fraser University
- My PhD dissertation is focused on volunteering among older adults in Canada
- I am also the supervisor of the CLSA Computer-Assisted Telephone Interview (CATI) site at Simon Fraser University, where I coordinate a staff of 7 interviewers.
- I also worked as an interviewer on and off for about 5 years while in graduate school.



# GERONTOLOGY

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# **My PhD Research**

- The goal of my PhD research is to explore socio-cultural and historical factors surrounding older adults who volunteer in Canada.
- I chose to explore two factors that have an impact on older adult volunteers in Canada today: ethnocultural identity and COVID-19.
- My dissertation is comprised of three manuscripts, each of which represents a unique research study.
- Study 2: Volunteering among Older Adults and Effects of Ethnic Minority Status before and during the COVID-19 Pandemic: Longitudinal Analyses of the CLSA
- A summary of the article, "Volunteering among Older Adults and Effects of Ethnic Minority Status before and during the COVID-19 Pandemic: Longitudinal Analyses of the CLSA," is available here: <u>https://pubmed.ncbi.nlm.nih.gov/38812428/</u>





Canadian Journal on Aging / La Revue canadienne du vieillissement

#### www.cambridge.org/cjg

#### Article

Cite this article: O'Dea, E., Wister, A., Li, L., Canham, S.L., & Mitchell, B. (2024). Volunteering among Older Adults and Effects of Ethnic Minority Status before and during the COVID-19 Pandemic: Longitudinal Analyses of the CLSA. Canadian Journal on Aging / La Revue canadienne du vieillissement https://doi.org/10.1017/S0714980824000229

Received: 29 November 2023 Accepted: 04 April 2024

Keywords:

COVID-19; CLSA; Volunteering; Aging; Canada

Mots-clés: COVID-19; ÉCLV; bénévolat

#### Corresponding author:

La correspondance et les demandes de tirésapart doivent être adressées à:/ Correspondence and requests for offprints should be sent to: Eireann O'Dea, Department of Gerontology, Simon Fraser University, 2800 Harbour Centre, 5151 West Hastings Street, Vancouver, BC, V6B 5K3, Canada (eireanno@sfu.ca). Volunteering among Older Adults and Effects of Ethnic Minority Status before and during the COVID-19 Pandemic: Longitudinal Analyses of the CLSA

#### Eireann O'Dea<sup>1</sup>, Andrew Wister<sup>1,2</sup>, Lun Li<sup>3</sup>, Sarah L. Canham<sup>4</sup> and Barbara Mitchell<sup>1,5</sup>

<sup>1</sup>Gerontology Department, Simon Fraser University, Vancouver, BC, Canada; <sup>2</sup>Gerontology Research Centre, Simon Fraser University, Vancouver, BC, Canada; <sup>3</sup>Department of Social Work, MacEwan University, Robbins Health Learning Centre, Edmonton, AB, Canada; <sup>4</sup>College of Social Work, University of Utah, Salt Lake City, UT, USA and <sup>5</sup>Department of Sociolgy/Anthropology, Simon Fraser University, Burnaby, BC, Canada

#### Abstract

The COVID-19 pandemic has presented numerous challenges to older adults in Canada, including the ability to volunteer. The purpose of this study is to improve the understanding of the social context surrounding volunteering in Canada, by (a) determining changes in associations between human, social, and cultural capital and volunteering among older adults; and (b) examining the relationship between ethnic minority status and volunteering, using data from the Canadian Longitudinal Study on Aging (CLSA), collected prior to and during the pandemic. This study utilized data from 24,306 CLSA Baseline, Follow-up 1 (FUP1), and COVID-19 Baseline Survey participants (aged 55+). Results confirm a decrease in volunteering during the early stages of the pandemic. Compared to pre-pandemic associations, volunteers during the early stages of the pandemic were more likely to be young–old, male, employed, and not involved in religious activities. Findings provide evidence of pandemic effects on volunteering among older adults in Canada.

#### Résumé

La pandémie de COVID-19 a confronté les personnes âgées à de nombreux défis au Canada, et a notamment restreint leur capacité de faire du bénévolat. Cette étude a pour objet d'améliorer la compréhension du contexte social dans lequel s'inscrit le bénévolat au Canada, en : a) déterminant l'évolution des liens entre le capital humain, social et culturel et le bénévolat chez les personnes âgées, et b) examinant les relations entre le statut de membre d'une minorité ethnique et le bénévolat, à l'aide de données recueillies par l'Étude longitudinale canadienne sur le vieillissement (ÉLCV) avant et pendant la pandémie. La présente étude a utilisé les données recueillies auprès de 24 306 participants au sondage de référence et de suivi initial de l'ÉLCV et au sondage de référence de l'ÉCLV sur la COVID-19 (âgés de 55 ans et plus). Les résultats confirment une baisse du bénévolat au cours des premiers stades de la pandémie. Par rapport aux liens établis avant la pandémie, les bénévoles actifs pendant la pandémie étaient en majorité des hommes de tous âges qui étaient employés et ne participaient pas à des activités religieuses. Les résultats confirment par des preuves l'incidence de la pandémie sur la pratique du bénévolat chez les personnes âgées au Canada.

# Volunteering among older adults

- Long-standing interest in gerontology on volunteering among older adults.
- Volunteering has been proven to provide physical, mental, and social benefits to older adults.
- Older adults in Canada contribute more volunteer hours than any other age group.
- Their work ensures the functioning of numerous community organizations and services.



## Volunteering in Canada

• General Social Survey on Giving, Volunteering, and Participating (2018): 80% of Canadians aged 15 and above participated in either formal or informal volunteer activities.

• Average of 206 hours per year.

• Most common volunteer locations: hospitals, religious organizations (Statistics Canada, 2021).



### Volunteering among older adults in Canada

- While less likely to volunteer overall, older adult volunteers in Canada contribute more hours than any other age group (Statistics Canada, 2021).
- "Top volunteers": Volunteers aged 73-100 dedicated an average of 222 hours per year in 2018.



### Volunteering among older adults in Canada

- The COVID-19 pandemic had a significant impact on volunteerism in Canada.
- Research on older adults during the early stages of the pandemic has delivered mixed results.
- Increasing cultural diversity of the population aged 65+ in Canada
- Research suggests that belonging to a diverse racial, ethnic, cultural, or religious group may have an impact on the likelihood and types of volunteering activities that are chosen (Khvorostianov & Remennick, 2017; O'Dea et al., 2023; Slevin, 2005; Wright-St Clair et al., 2018).





# Purpose of this Study

- To compare participation in volunteering before and during the COVID-19 pandemic.
- To compare predictors of volunteering (human, social, and cultural capital associations) among older adults before and during the COVID-19 pandemic.
- To examine the relationship between diverse cultural background and volunteering among older adults before and during the COVID-19 pandemic.
- Using data from the CLSA.

# **Data and Sample**

- Utilized data from CLSA Baseline (2011-2015);
- Follow-up 1 (FUP1) (2015-2018);
- and COVID-19 Baseline studies (April-May 2020)
- Comprehensive and Tracking cohorts
- N= 24,306 (aged 55+) who participated in all three studies.
- **Generalized Linear Mixed Models (GLMM)** were used to evaluate the differences in volunteering between two time points (FUP1/Baseline and COVID-19 Baseline).



# **CLSA Variables**

- **Dependent variable:** Participation in volunteer/charity work.
- Independent variables:
- Human capital (income, education, self-perceived health)
- Social capital (sense of social cohesion)
- Cultural capital (participation in religious activities, ancestral ethnic background, country of birth)
- **Covariates:** sex, marital status, household size, employment status, living area



Volunteering	
Volunteer at FUP1	
Less than once a week or	77.23 (18686)
never	<mark>22.77 (5508)</mark>
At least once a week	
Volunteer at COVID-19	
Baseline	95.24 (21568)
Less than once a week or	<mark>4.76 (1077)</mark>
never	
At least once a week	

### Results

Among the 24,306 study participants, the majority were female (52%), born in Canada (84%), Caucasian (94%), 55-64 years of age (41%), and were married or living with a common-law partner (69%).

- Decrease in volunteering during the early stages of the pandemic (18%).
- Compared to pre-pandemic associations, where volunteers were more likely to be female, 75+, unemployed/retired, and involved in religious activities....
- Volunteers during the early stages of the pandemic were more likely to be young-old, male, employed, and not involved in religious activities.
- No significant relationship was found between volunteering and ethnocultural identity, for CLSA Baseline or from pre to during the pandemic.



• These findings provide evidence of pandemic effects of older adults in Canada.

- The decrease in the number of participants who volunteered at least once a week can likely be attributed to the shift in the reality of daily life during the initial stages of the COVID-19 pandemic in Canada
- During this time, older adults were affected by public health measures, including physical/social distancing, closure of non-essential businesses, stay-at-home orders, lockdowns, mask mandates, travel restrictions, and restrictions on visitors to their homes.
- As a result, the types of organizations frequented by older adult volunteers (e.g. hospitals, religious institutions, non-profit organizations) were required to decrease or cease their volunteer opportunities (Statistics Canada, 2022).



- These changes likely impacted both the desire and ability of older adults to engage in volunteer activities.
- Research has determined that, when compared to younger age groups, older adults were more likely to adhere to public health safety measures during this time (Cabot & Bushnik, 2022).
- Older adults may have also potentially been affected by the prevailing public discourse surrounding older age during COVID-19, much of which was negative and ageist in nature. Framed older adults as "victims" and "vulnerable."
- Such discourse may have affected older adults' willingness and confidence to volunteer during this period.



- Associations between volunteering and age, gender, and employment status were found to have changed when comparing pre pandemic volunteering to volunteering during the pandemic.
- While volunteering before the pandemic was more likely among older adults who were older (75+), female, and unemployed, the opposite was observed at the COVID-19 Baseline, when it was found that being younger (i.e. age 55–64), male, and employed was associated with a greater likelihood of volunteering.
- While our data did not provide information on the exact reasons for the observed changes, we know that the COVID-19 pandemic challenged all aspects of daily life
- Younger older adults (i.e. age 55–64) may have felt less vulnerable during this time than 'older' older adults (i.e. aged 75+) which could have impacted their desire to volunteer.
- Older women may have been more likely to have been called upon by their families to engage in spousal/family caregiving and grandparenting during this time (Fan & Moen, 2023)
- **Employed** older adults may have found more time to dedicate to volunteer activities.



# **Concluding thoughts**

- Findings from this study revealed the significant impact that the COVID-19 pandemic had on older adults' volunteering activities, while also revealing new associations between human, social, and cultural capital and volunteering.
- Disruptions to older adults' volunteer trajectory could have lasting effects and will likely impact older adults' decisions related to volunteering in the future.
- These findings should be considered by those attempting to establish, maintain, or reignite volunteering opportunities for older adults, including policy makers, leaders of community organizations that rely on older adult volunteers, and coordinators of volunteer programs.
- It is important that volunteer organizations learn from the COVID-19 experience and attempt to create safe spaces for older adults to engage in volunteering, even amidst potential future health crises.





## **Future Research**

- In utilizing a nationally representative sample of older adults in Canada, this study has tremendous advantages in terms of statistical power
- However, the quantitative nature of the data, and the limitation of underrepresentation of specific ethnic groups, means that we do not know the full extent of older adults' volunteer experiences or reasons for continuing or discontinuing volunteering during the pandemic.
- While this study helps to confirm what occurred with respect to patterns of volunteering among older adults in Canada during the outset of the pandemic, future qualitative research could help to explain why these changes occurred.
- This could be achieved by asking older adults more in-depth questions related to their access to volunteer opportunities during the early stages of the pandemic, to understand why some were able to continue volunteering while others were not.
- Future waves of CLSA data (FU2, FU3) should be utilized as they become available.



# Thank you!

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### THE 24-HOUR ACTIVITY CYCLE AND BRAIN HEALTH IN THE CANADIAN LONGITUDINAL STUDY ON AGING

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SEPTEMBER  $24^{TH}$ , 2024








Introduction to the 24-hour activity cycle (5 minutes)

The 24-hour activity cycle and brain health: Findings from the CLSA (8 minutes)

Next steps (2 minutes)



## INTRODUCTION TO THE 24-HOUR ACTIVITY CYCLE

### **AGE-RELATED COGNITIVE CHANGES**

Individual Variability in Cognitive Trajectory





# THE 24-HOUR ACTIVITY CYCLE AND COGNITIVE HEALTH





### WHAT IS THE 24-HOUR ACTIVITY CYCLE?





### PHYSICAL ACTIVITY

Physical Activity is any bodily movement that increases energy expenditure above resting levels

(Caspersen, 1985)

**Household Activity** 

**Occupational Activity** 

**Transportational Activity** 



Exercise

### **SEDENTARY BEHAVIOUR** DEFINITION

Any low energy behaviour which is done from the seated or lying position

(Pate et al., 2008)

Screen Time Transportation Reading Socializing School work



### WHAT IS SLEEP?



80



Falck et al., 2021 Am J Lifestyle Med

### THE CANADIAN 24-HOUR MOVEMENT GUIDELINES



24-Hour Movement Guidelines

HOME GUIDELINES V RESOURCES V ENGLISH V

## Make your whole day matter.

Aging is an inevitable part of life. But following **the Canadian 24-Hour Movement Guidelines for Adults (65+ years)** can help you stay strong, mentally fit and independent.



MYWDM\_65

aile

https://csepguidelines.ca

including standing

### THE CANADIAN 24-HOUR MOVEMENT GUIDELINES



Age Group	Sleep	Sedentary Behaviour	Physical Activity
<b>Adults</b> (18-64 years)	7-9 hours of good quality sleep on a regular basis, with consistent bed and wake-up times	<ul> <li>Limit sedentary time to 8 hours or less, which includes:</li> <li>1. No more than 3 hours of recreational screen time</li> <li>2. Breaking up long periods of sitting as often as possible</li> </ul>	<ul> <li>≥150 minutes/week of moderate to vigorous aerobic physical activities</li> <li>Muscle strengthening activities using major muscle groups ≥2x/week</li> <li>Several hours of light physical activities including standing</li> </ul>
<b>Older Adults</b> (65+ years)	7-8 hours of good quality sleep on a regular basis, with consistent bed and wake-up times	<ul> <li>Limit sedentary time to 8 hours or less, which includes:</li> <li>1. No more than 3 hours of recreational screen time</li> <li>2. Breaking up long periods of sitting as often as possible</li> </ul>	<ul> <li>≥150 minutes/week of moderate to vigorous aerobic physical activities</li> <li>Muscle strengthening activities using major muscle groups ≥2x/week</li> <li>Physical activities that challenge balance</li> <li>Several hours of light physical activities</li> </ul>

# THE 24-HOUR ACTIVITY CYCLE AND SOCIAL DETERMINANTS OF HEALTH





### THE 24-HOUR ACTIVITY CYCLE AND BRAIN HEALTH FINDINGS FROM THE CLSA

## ARE THERE AGE AND SEX DIFFERENCES IN THE ASSOCIATIONS OF PHYSICAL ACTIVITY AND SLEEP WITH COGNITIVE FUNCTION?





#### **Study Design**

Baseline data from comprehensive cohort (N= 30,097)

#### **Cognitive Measures**

Used neuropsychological battery to develop 3 factor model of cognition:

Memory

Executive Function

Verbal Fluency

**24-hour Activity Cycle Measures** *Physical activity*: PASE

*Sleep*: Self-reported sleep duration

Associations of PA and Sleep with Cognition



### AGE AND SEX DIFFERENCES IN COGNITION



Associations of PA and Sleep with Cognition

#### AGE AND SEX DIFFERENCES IN PA AND SLEEP





Associations of PA and Sleep with Cognition

## AGE AND SEX DIFFERENCES IN THE ASSOCIATIONS OF PA AND SLEEP WITH COGNITION





#### DOES SOCIOECONOMIC STATUS MODERATE THE RELATIONSHIP BETWEEN PHYSICAL ACTIVITY AND COGNITION?





Deprivation Index from CANUE

#### EXAMPLE #2

#### Socioeconomic status and the association of physical activity and cognition MODERATING EFFECTS OF NEIGHBOURHOOD DEPRIVATION ON THE ASSOCIATION BETWEEN PHYSICAL ACTIVITY AND COGNITION FOR ADULTS AGED 45-64 YEARS



UBC



## **NEXT STEPS**



#### THE COVID-19 PANDEMIC AND THE 24-HOUR ACTIVITY CYCLE







Alzheimer Society Djavad Mowafaghian CENTRE FOR BRAIN HEALTH

CANADA



#### **Acknowledgements**

**Supervisors** Teresa Liu-Ambrose, PhD Roger Tam, PhD

#### **Collaborators**

Jennifer C. Davis, PhD John R. Best, PhD Chung Liang Hsu, PhD Karim Khan, MD PhD Narlon Cassio Boa Silva, PhD Andrew Wister, PhD Theodore Cosco, PhD Cindy Barha, PhD

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## Thank you!





### Reminders

• Questions? New contact information? Get in touch:

- Toll-free: 1-866-999-8303
- Email: info@clsa-elcv.ca
- Web: www.clsa-elcv.ca/update-your-details
- For the latest study updates, visit <u>www.clsa-elcv.ca</u> or follow us on social media.
- Complete your feedback survey and let us know if you enjoyed today's webinar <u>https://forms.office.com/r/fAfbLbNUvZ</u>



### **Past Participant Events**

#### FROM DATA TO IMPACT:

**EXPLORING THE CANADIAN** LONGITUDINAL STUDY ON AGING



#### cisa élcv Canadian Longitudinal Study on Aging Étude longitudinale canadienne sur le vieillissement

#### www.clsa-elcv.ca/data\_to\_impact

#### **PARTICIPANT WEBINAR**

Update on the **Canadian Longitudinal** Study on Aging (CLSA)

CLSA panelists include:



Dr. Parminder Raina Lead Principal Investigator

Dr. Christina Wolfson Principal Investigator







Date: Friday, October 27, 2023

Time: 1 PM ET | Noon CT

Dr. Vanessa Taler Site Investigator,

Dr. Brent Richard Co-lead, Biomarker Working Group

#### Inaugural Site Investigator Site Investigator, Montreal Winnipea

www.clsa-elcv.ca/clsa\_update\_central

### **New Website Launch**

OCTOBER 2024

- Improved design and accessibility
- Easier navigation
- Database of approved project descriptions and findings
- Optimized for mobile devices





NEW





CLSA is funded by the Government of Canada through CIHR and CFI, and provincial governments and universities. COVID-19 research funding is provided by the Weston Family Foundation, COVID-19 Immunity Task Force, Juravinski Research Institute, McMaster University, McMaster Institute for Research on Aging, Nova Scotia COVID-19 Health Research Coalition and the Public Health Agency of Canada.





