Canadian Longitudinal Study on Aging: An Update to Participants

Susan Kirkland, PhD
Professor and CLSA Co-Investigator
Dalhousie University

Engaging in Aging:
A CLSA Q&A
April 28th, 2019
Halifax, NS
Global Population Aging

Population pyramid: A thing of the past?
(Global population, % of total)

Sources: World Population Prospects: The 2012 Revision, Medium Variant.
Population aging

Canada shows its age as seniors outnumber children for first time

ERIC ANDREW-GEE
The Globe and Mail
Published Tuesday, Sep. 29, 2015 9:50PM EDT
Last updated Wednesday, Sep. 30, 2015 8:07AM EDT

![Graph showing population aging](https://via.placeholder.com/150)

**Proportion of children 14 and under and people 65 and older in Canada**

<table>
<thead>
<tr>
<th>Year</th>
<th>Age 0 to 14</th>
<th>65 and older</th>
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<tbody>
<tr>
<td>1851</td>
<td></td>
<td></td>
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<tr>
<td>1891</td>
<td></td>
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<tr>
<td>1931</td>
<td></td>
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<tr>
<td>1961</td>
<td></td>
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<tr>
<td>1981</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td></td>
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<tr>
<td>2021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2061</td>
<td></td>
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</table>

THE GLOBE AND MAIL, SOURCE: STATSCAN, 2016 CENSUS
Metaphors for aging demographics
Life expectancy in Canada
Statistics Canada

<table>
<thead>
<tr>
<th>Age</th>
<th>Males</th>
<th>Females</th>
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<tbody>
<tr>
<td>0</td>
<td>78.8</td>
<td>83.3</td>
</tr>
<tr>
<td>65</td>
<td>86.6</td>
<td>83.5</td>
</tr>
</tbody>
</table>

At age 65: Women 21.6 years (86.6)
At age 65: Men 18.5 years (83.5)

* If born in 2007-2009

Source: CANSIM
Challenge: Live long AND well

Need to shift our focus:

- Mortality
- Morbidity
- Longevity
- Function
- Ability/Disability
- Well being
- Quality of life
- Autonomy/Independence

We require high quality data in order to understand and address evolving needs
The Canadian Longitudinal Study on Aging (CLSA)

• Strategic initiative of the Canadian Institutes for Health Research (CIHR); on Canadian research agenda since 2001

• Team of 3 principal investigators, more than 160 co-investigators from 26 institutions

• Aim is to provide infrastructure and build capacity for state-of-the-art, interdisciplinary, population based research and evidenced-based decision making

• Largest study of its kind to date in Canada for breadth and depth
Participants aged 45 to 85 at baseline (51,338)

Active follow-up every 3 years

CLSA Research Platform

50,000 women and men aged 45 - 85 at baseline

TRACKING
Target: 20,000
Actual: 21,241
Randomly selected within provinces

COMPREHENSIVE
Target: 30,000
Actual: 30,097
Randomly selected within 25-50 km of 11 sites

Questionnaire
• By telephone (CATI)

Questionnaire
• In person, in home (CAPI)

Clinical/physical tests
Blood, urine
@ Data Collection Site

2010 - 2015

2015 – 2018

20 Years

Participants aged 45 to 85 at baseline (51,338)
CLSA Participants in every province!

- Home Interviews & Data Collection Site Visits
  Recruitment & follow-up

- Telephone Interviews
  Recruitment & follow-up

Locations:
- Winnipeg
- Vancouver
- Victoria
- Surrey
- Calgary
- Hamilton
- Ottawa
- Montreal
- Sherbrooke
- Halifax
- St. John’s
CLSA Questionnaire Modules at Baseline
51,338 participants

Demographic/Lifestyle
- Age
- Gender
- Education
- Marital status
- Sexual orientation
- Language
- Ethnicity
- Wealth/income
- Veteran Identifier
- Smoking, alcohol
- Nutritional risk
- Physical activity
- Health care utilization
- Medication use
- Supplement use

Health
- General health
- Women’s health
- Chronic conditions
- Disease symptoms
- Sleep
- Oral health
- Injuries, falls
- Mobility
- Pain, discomfort
- Functional status
- ADL, IADL
- Cognition
- Depression
- PTSD
- Life Satisfaction

Social
- Social networks
- support
- participation
- inequality
- Online communication
- Care receiving
- Care giving
- Retirement status
- Labour force participation
- Retirement planning
- Transportation
- Mobility, Migration
- Built environments
- Home ownership
CLSA Data Collection
30,000 visit a Data Collection Site

Physical Assessments:
- Height, Weight, BMI
- Bone Density, Body Composition, Aortic Calcification
- Blood Pressure
- ECG
- Carotid Intimal-Medial Thickness
- Pulmonary Function
- Vision & Hearing
- Performance testing

Biospecimen Collection:
- Blood
- Urine

Cognitive Assessments:
- Neuropsychological Battery
  - Memory
  - Executive function
  - Reaction time
3 Tablespoons of blood = 42 aliquots per participant
Where do your biospecimens go?
Biorespository and Bioanalysis Centre (BBC), McMaster University

- 31 nitrogen freezers (-190°C)
- Storage for 5 million samples
CLSA as a Platform for Research: Data and Biospecimen Access

Fundamental tenets:

- The rights, privacy and consent of participants must be protected and respected at all times.
- The confidentiality and security of data and biospecimens must be safeguarded at all times.
- Available to researchers and trainees at public institutions.
- Must have approval from the CLSA Data Sample and Access Committee, and an accredited Research Ethics Board.
A Snapshot of CLSA Participants at Baseline

- Majority of participants self identify as White (92%), were born in Canada (84%) and most often speak English at home (79%)

- 4% self identify as Indigenous, including North American Indian, Metis, and Inuit

- 64% report their religion as Christian, 21% state they have no religion, 24% attend religious activities weekly

- Overall, 6% report their annual household income as less than $20,000, but for women aged 75-85 it is 12%
CLSA Participants by Province

- The provinces with the highest proportions are Ontario (21.7%), Quebec (18.8%)
- 9.0% (4631) are from NS
- 2.7% (1359) are from NB
- 2.2% (1142) are from PEI
- 6.8% (3467) are from NFLD

Total from the Atlantic Region: 19.5%; 10,599 participants
The CLSA includes:

- Veterans
- Aboriginal peoples
- Francophone population
- Ethnic groups
- Urban and rural populations
- People living with chronic diseases
- Caregivers
- Retirees
CLSA Report on Health & Aging in Canada

- Partnership between the CLSA, Public Health Agency of Canada, Employment and Social Development Canada & Canadian Institutes of Health Research
- May 22, 2018 – CLSA Day on the Hill
The majority of participants in all age and sex groups are married, with the exception of women aged 75-85.
Retirement Status

- 25% of participants say they retired for health reasons
- 20% of women and 30% of men “unretire”
Loneliness differs by marital status, age, and sex

Proportion of people who say they are lonely at least some of the time

Figure 1a – Percentage who are lonely at least some of the time stratified by marital status, age, and sex
Men report more hearing loss, women report greater vision loss.
More women than men report at least one difficulty with basic or instrumental activities of living.
Cognitive Function: Immediate and delayed recall decreases with age
Self Rated Health is high, consistent with other studies.

<table>
<thead>
<tr>
<th>Self-rated General Health</th>
<th>CLSA Combined Cohort %</th>
<th>CCHS Healthy Aging %</th>
<th>CCHS 2011-2012 Annual %</th>
<th>CHMS Cycle-3 %</th>
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<tbody>
<tr>
<td>Excellent</td>
<td>20.02</td>
<td>20.45</td>
<td>17.32</td>
<td>14.06</td>
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<tr>
<td>Very good</td>
<td>39.08</td>
<td>33.80</td>
<td>35.16</td>
<td>34.26</td>
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<tr>
<td>Good</td>
<td>29.33</td>
<td>30.42</td>
<td>31.67</td>
<td>36.83</td>
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<tr>
<td>Fair</td>
<td>9.09</td>
<td>11.47</td>
<td>11.55</td>
<td>10.22</td>
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<tr>
<td>Poor</td>
<td>2.48</td>
<td>3.86</td>
<td>4.30</td>
<td>4.63</td>
</tr>
</tbody>
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<table>
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<tr>
<th>Self-rated Mental Health</th>
<th>CLSA Combined Cohort %</th>
<th>CCHS Healthy Aging %</th>
<th>CCHS 2011-2012 Annual %</th>
<th>CHMS Cycle-3 %</th>
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<tbody>
<tr>
<td>Excellent</td>
<td>30.29</td>
<td>37.55</td>
<td>34.15</td>
<td>31.30</td>
</tr>
<tr>
<td>Very good</td>
<td>39.19</td>
<td>36.19</td>
<td>36.23</td>
<td>39.53</td>
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</tbody>
</table>
120M+ investment 2009-2020 from CLSA Funders and Partners
Transforming Everyday Life into Extraordinary Ideas
susan.kirkland@dal.ca

CLSA funded by the Government of Canada through CIHR and CFI, and provincial governments and universities

www.clsa-elcv.ca