Message from the CLSA Research Team

The CLSA continues to make significant strides in the collection of vital information from its 50,000 participants across Canada and the promotion and advancement of innovative research on aging using the CLSA platform.

CLSA data first became available to researchers in 2015, and is now being used by more than 150 independent researchers, government partners and stakeholders for health research initiatives spanning multiple disciplines. Some researchers have already begun to release their preliminary findings, and findings related to cognition, frailty, multimorbidity, and any number of chronic conditions are currently featured on the CLSA website.

This past year, the CLSA released image data related to bone density and body composition by dual-energy x-ray absorptiometry (DXA) and carotid intima media thickness, as well as electrocardiogram (ECG) tracings, for the first time. These rich data are already being accessed by researchers across Canada and will provide valuable insights into the biological, clinical, psychosocial and societal factors that influence disease, health and well-being as we age. In the coming months, the CLSA will celebrate key milestones, including the launch of Follow Up 2 and the inaugural release of biospecimens for analysis by researchers.

The CLSA remains focused on participant retention and has implemented a range of strategies, including publishing regular newsletters and hosting participant events, to mitigate attrition, enhance participant engagement, and maintain the quality and integrity of the CLSA platform.

The CLSA’s continued success would not be possible without the support of the research community and the participants who bring its data to life. Thank you for supporting the CLSA.

New and Noteworthy

**CIHR Invests $1.7 Million in Health Research using CLSA Data**

The CLSA relies on new and ongoing relationships with key partners and funders to promote research on aging. In May 2017, the Canadian Institutes of Health Research (CIHR) awarded $1.7 million in funding to support 25 research projects using CLSA baseline data to help shape future health policies and programs. “Research is a critical building block for providing better support to Canadians, and I congratulate each of the 25 teams of researchers that will explore the rich CLSA data to provide answers to their questions,” said Jane Philpott, who served as Minister of Health at the time of the announcement. “I also applaud all the Canadians participating in this important national effort.”

**Ongoing Baseline Data Releases**

The CLSA continues to release baseline data collected via the Tracking and Comprehensive cohorts. Recent releases have included alphanumeric data on cognition, hematological biomarkers, and physical assessments comprising body composition and bone density by DXA and carotid intima media thickness data. Additionally, both the Tracking and Comprehensive datasets have been enriched with the addition of Census Subdivision (CSD) information and an update to the Air Pollution and Meteorological Exposure Measurements.
Cognition in the CLSA

The CLSA’s first report on cognition, funded through grants from the CIHR and the Alzheimer Society of Canada, has shown that the performance of CLSA participants who completed the cognitive assessments over the telephone is similar to what has been observed in previous studies related to cognition, validating the use of CLSA cognitive measures for epidemiological studies of aging. The research, led by Dr. Holly Tuokko and published in The Clinical Neuropsychologist, found in an assessment of 20,000 CLSA participants between the ages of 45 and 85, that cognitive ability declined gradually across the youngest age group to the oldest age group, regardless of sex or primary language. Cognition data from more than 50,000 CLSA participants are now available for access by researchers.

Recent Publications Relevant to the CLSA


CLSA in the Media

In September 2017, La Presse published an article explaining how CLSA data may be used to study the health secrets of ‘super seniors,’ people who live active, healthy lives well into their 90s or 100s without developing serious illnesses or diseases. In October 2017, The National Post, The Hamilton Spectator and The Conversation published an op-ed by CLSA Lead Principal Investigator Dr. Parminder Raina titled, “It’s time to treat aging as an asset, not a burden.” Links to these articles can be found on the CLSA website at www.clsa-elcv.ca/stay-informed/new-clsa.

CLSA to Celebrate Data Access Milestone

In the coming months, the CLSA will celebrate a major data access milestone with the approval of the 100th researcher-driven project using CLSA data since it became available in 2015. Approved projects span the disciplines of biological, clinical, social sciences and population health, and will help fulfill the CLSA’s vision to enable interdisciplinary, population-based research. The approved project summaries can be found on the CLSA website at www.clsa-elcv.ca.

CLSA Team News

Dr. Hélène Payette will retire from her role as local site principal investigator for the CLSA Sherbrooke DCS and CATI sites, and lead for the CLSA lifestyles working group, in December 2017 after many years of dedicated service with the CLSA.

Dr. Benoît Cossette was recently appointed assistant professor in the Faculty of Medicine and Health Sciences at the University of Sherbrooke and will take over as the CLSA Sherbrooke local site principal investigator in January 2018.

Dr. Carol Bassim has joined the CLSA as an assistant professor in the Department of Health Research Methods, Evidence, and Impact at McMaster University. In the CLSA she is responsible for overseeing the management of complex data and the CLSA’s Quality Management System.

Dr. Parminder Raina, CLSA lead principal investigator, was appointed to the Council of Canadian Academies’ expert panel on the Transportation Needs of an Aging Population.
Between 2010 and 2015, the CLSA recruited and collected baseline data from more than 50,000 participants across Canada. July 2015 saw the launch of the first follow-up to not only conduct repeat measurements on all participants three years after their enrolment, but also to gather additional data on hearing, cognition, epilepsy, childhood experiences and elder abuse. The CLSA's Data Collection Sites (DCS) and Computer Assisted Telephone Interview (CATI) sites are on track to complete Follow Up 1 and launch Follow Up 2 in the spring of 2018. Data collection for Follow Up 2 is expected to be completed in 2021.

### New Data Collection Tools

The CLSA has developed additional data collection tools to enable data collection from participants whose circumstances may have changed since baseline:

- **A proxy questionnaire** is being developed to allow participants who have identified a proxy to continue with data collection answering questions on their behalf if needed. The proxy questionnaire will be implemented in 2018.
- **A decedent questionnaire** has been developed to collect end-of-life information from family members, friends, or caregivers of CLSA participants who pass away during the course of the study. The decedent questionnaire was launched in September 2017.

### Quality Management

The CLSA has implemented new measures to identify opportunities for quality assessment and quality control within the study, provide for the documentation and continual improvement of operational processes, establish protocols for information management and the management of non-conforming events, and provide guidance for equipment calibration, inventory management, and safe operating procedures in CLSA facilities.

### Study Updates

To date, the **Statistical Analysis Centre (SAC)** has prepared data for seven baseline data releases, including sequential alphanumeric data and select imaging data for bone density and body composition by DXA, carotid intima-media thickness (cIMT), electrocardiogram (ECG) tracings and retinal scans. The National Coordinating Centre and SAC have partnered with experts to implement quality grading processes for some imaging data (such as DXA and cIMT), and the quality indicators are made available to researchers as part of their tailored dataset. Detailed information about data access timelines and the data access application process, including a set of Frequently Asked Questions (FAQs), can be found at [www.clsa-elcv.ca/data-access](http://www.clsa-elcv.ca/data-access).

The **Biorepository and Bioanalysis Centre (BBC)** has now completed retrieval and shipping of all baseline blood samples to Calgary Laboratory Services (CLS) and Genome Québec Innovation Centre, which will complete their analyses of the samples by the end of 2017. The BBC is also in the process of creating supplemental documents to provide comprehensive information about these biomarkers to researchers, who will have access to baseline biospecimens in 2018. Notably, the BBC will provide storage for more than 2 million biospecimens by January 2018, marking an important data collection and analysis milestone for the CLSA. Finally, the BBC has also published a study validating the use of cryopreserved ACD blood to enumerate complex white blood cells. This will allow cell-based research to be done using this blood fraction collected from CLSA participants without the need for fresh blood.

A laboratory technician places biospecimens in a cryofreezer in the Biorepository and Bioanalysis Centre (BBC)
The CLSA webinar series features online presentations from trainees, mid-career, and established health researchers and aims to provide researchers and trainees with a forum to learn about the latest health and aging research.

In September 2017, the CLSA’s associate scientific director Dr. Lauren Griffith presented *The Canadian Longitudinal Study on Aging: A National Platform and Infrastructure for Researchers and Trainees* to more than 120 attendees including graduate students and postdoctoral fellows. This presentation, jointly organized with the Canadian Institutes of Health Research (CIHR), is now available on the CLSA website.

The 2017-2018 webinar series will feature presentations about a range of topics and using CLSA data, including:

- **Osteoarthritis – Not Just a Nuisance Condition of Old Age: An Overview of Findings from the CLSA**, presented by Dr. Elizabeth Badley and Dr. Anthony Perruccio
- **They are older now: a snapshot of self-identified Veterans in the CLSA**, presented by Dr. Christina Wolfson
- **The Prevalence of Visual Impairment, its Risk Factors, and its Consequences in Canada**, presented by Dr. Ellen Freeman
- **The Development of Normative Data and Comparison Standards for the Cognition Measures Employed in CLSA**, presented by Dr. Holly Tuokko, and more...

To register, visit: bit.ly/clsawebinars
To view recordings of recent presentations, visit: www.clsa-elcv.ca

### Partners and Supporters

The CLSA continues to focus on partnership development nationally through a wide range of outreach and promotional activities. The CLSA has been successful in securing partners and funders for the baseline data collection phase, and partnerships in support of the study’s first follow-up. New and noteworthy partnerships include:

**Public Health Agency of Canada (PHAC)**

In partnership with PHAC, the CLSA is evaluating new measures for inclusion in Follow Up2, including intimate partner violence, positive mental health and generalized anxiety disorder. PHAC has also providing funds for the CLSA to conduct feasibility studies in these areas.

**Employment and Social Development Canada (ESDC)**

In collaboration with the CLSA and PHAC, ESDC will sponsor the development of a report using CLSA baseline data to present key findings on a range of health-related topics.

**Dementias Platform UK (DPUK)**

The CLSA and DPUK have signed a memorandum of understanding to explore collaborative research using big data to address the public health burden of dementia.

**The EU Joint Programme - Neurodegenerative Disease Research (JPND)**

The CLSA will join the largest global research initiative aimed at tackling the challenge of neurodegenerative diseases through JPND’s Global Cohort Portal. The portal will provide, for the first time and in one place, information on cohorts worldwide that may be of value to neurodegenerative disease research.

### Stay Connected

Sign up to receive the latest news and updates: www.clsa-elcv.ca/newsletter/signup