

# Canadian Longitudinal Study on Aging (CLSA)



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Étude longitudinale canadienne sur le vieillissement

*Transforming Everyday Life  
Into Extraordinary Ideas!*  
*Transformer la vie quotidienne  
en idées extraordinaires!*



## THE CHALLENGE OF AN AGING POPULATION

One of the most pressing policy implications of an aging population is health and social care affordability. Population forecasts suggest that the proportion of seniors in Canada will reach an unprecedented level in the years to come. By 2026, one in five Canadians will be age 65 or older. In certain provinces, the number of seniors is expected to double.

With the baby boomers now entering their retirement years, there is a strong need for high-quality evidence to inform clinical, public health and social policy decision-making that is directed towards improving the health and well-being of Canada's seniors.

## THE SOLUTION

The Canadian Longitudinal Study on Aging (CLSA) is the largest and most comprehensive study of aging ever undertaken in Canada. Through its innovative design and advanced data collection methods, the study will provide a unique opportunity to examine the aging process and the factors that shape healthy aging. The goal is better understanding the complex interplay among the many of determinants of health, including gene-gene and gene-environment interactions. By collecting information on the changing biological, medical, psychological, social, lifestyle and economic aspects of people's lives as they age, the CLSA will contribute to the identification of modifiable factors that can be used to develop interventions to improve the health of Canadians.

A strategic initiative of the Canadian Institutes of Health Research (CIHR), the CLSA will advance aging research in Canada and enable researchers to move beyond providing a snapshot of the adult Canadian population toward observing and understanding the evolution of diseases, psychological attributes, function, disabilities and psychosocial processes that frequently accompany aging.

## CLSA TEAM

- Dr. Parminder Raina (McMaster University) is the lead principal investigator. Dr. Susan Kirkland (Dalhousie University) and Dr. Christina Wolfson (McGill University) are co-principal investigators.
- The core research team is a dynamic and highly productive group of national and international leaders in the field of aging affiliated with leading universities and research institutes across Canada (University of British Columbia; Simon Fraser University; University of Victoria; University of Calgary; University of Manitoba; Bruyère Continuing Care, University of Ottawa; McMaster University; Université de Sherbrooke; McGill University; Research Institute of the McGill University Health Centre; Dalhousie University; Memorial University).
- The CLSA is a national research collaboration involving a multidisciplinary team of more than 160 researchers from 26 universities across Canada. The team includes experts in biology, genetics, clinical research, social sciences, economics, psychology, nutrition, health services, statistics, epidemiology and population health.

## CLSA DESIGN

The CLSA will consist of a national, stratified, random sample of 50,000 women and men aged 45 to 85 years at the time of recruitment. Participants will undergo repeated waves of data collection at three-year intervals and will be followed for 20 years. Every 12 to 18 months, scheduled follow-up visits will be supplemented with a short questionnaire to maintain contact. The inclusion of study participants as young

as 45 years of age will enable researchers to view mid-life experiences prospectively, since important changes known to influence outcomes later in life occur during this period. The lower age limit will also permit inclusion of a sample from the baby boom cohort (i.e., those born between 1946 and 1964). The upper limit includes individuals entering their senior years who are making the transition into retirement, those who are already retired, and those who have already reached old age. One of the interests in studying the oldest age group prospectively is to examine transitions into the final years of life.

Data collection will occur through telephone and in-home interviews as well as visits to data collection sites. Nationally, there are 11 data collection sites located at CLSA-affiliated universities and research institutes in Vancouver, Surrey, Victoria, Calgary, Winnipeg, Hamilton, Ottawa, Montreal, Sherbrooke, Halifax and St. John's. Three open-source computer software applications – Mastodon, Sabretooth and Beartooth – have been developed to enable paperless data collection, protect participant confidentiality and manage interactions.

All participants will be asked to provide information on demographic, social, physical, clinical, psychological, economic, and health-service-use relevant to health and aging. Of the 50,000 participants, 30,000 individuals will also be asked to visit a CLSA data collection site to provide additional in-depth information through physical examinations and biological specimen collection (blood and urine). The remaining 20,000 will provide information through telephone interviews. Both cohorts will be a representative sample of the Canadian population and the data collected will provide provincial-level estimates of health determinants, health status, and health-system utilization.

An important supplement to the data collected during the CLSA will be linkage to health administration databases to collect complementary information on medication use, health-services utilization, and to ascertain deaths and causes of death for members of the CLSA cohort. These linkages will be done in partnership with provincial agencies after obtaining participant consent. The CLSA is currently working with provincial ministries of health in nine provinces across Canada.

Data collected as part of the CLSA will be managed and stored to protect the privacy and confidentiality of each participant. The standards for confidentiality are overseen by the institutional research ethics boards and CIHR's Ethical, Legal and Societal Issues committee for the CLSA.

## **AN INVESTMENT IN THE FUTURE**

The ultimate aim of the CLSA is to find ways to improve the health of Canadians by better understanding the processes and dimensions of aging. The CLSA will contribute to healthy aging and the maintenance of active, independent lifestyles for all Canadians. The study will provide a research platform that will enable high-quality research on aging as well as access to strong evidence to support the development of national and provincial programs, interventions, policies and care.

The benefits of the CLSA will be many:

- Contributing to the identification of ways to prevent disease and improve health services.
- Developing a better understanding of the impact of non-medical factors, such as economic and social changes, on individuals as they age.
- Creating new knowledge on the many interrelated biological, clinical, psycho-social and societal factors that affect healthy aging.
- Facilitating the rapid adoption of sound research into health practice, programs, and policies which will produce a strengthened and more responsive health system.

For more information on the Canadian Longitudinal Study on Aging, visit [www.clsa-elcv.ca](http://www.clsa-elcv.ca) or contact the National Coordinating Centre at 905-525-9140, ext. 22197.