

**The Canadian
Longitudinal Study on Aging
(CLSA): Understanding the
complexity of aging and
health through
interdisciplinary research**

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CLSA



Hamilton



Why Study Aging in Canada?

Why Study Aging in Canada?

- Canadians are living longer and older people are making up a larger share of the population.
- Between 1980 and 1999, the average Canadian's life expectancy increased to 79 years from 75 years.
- By 2025, 1 out of every 5 Canadians (20%) will be 65 or older, compared to 1 in 8 (12%) in 2000.

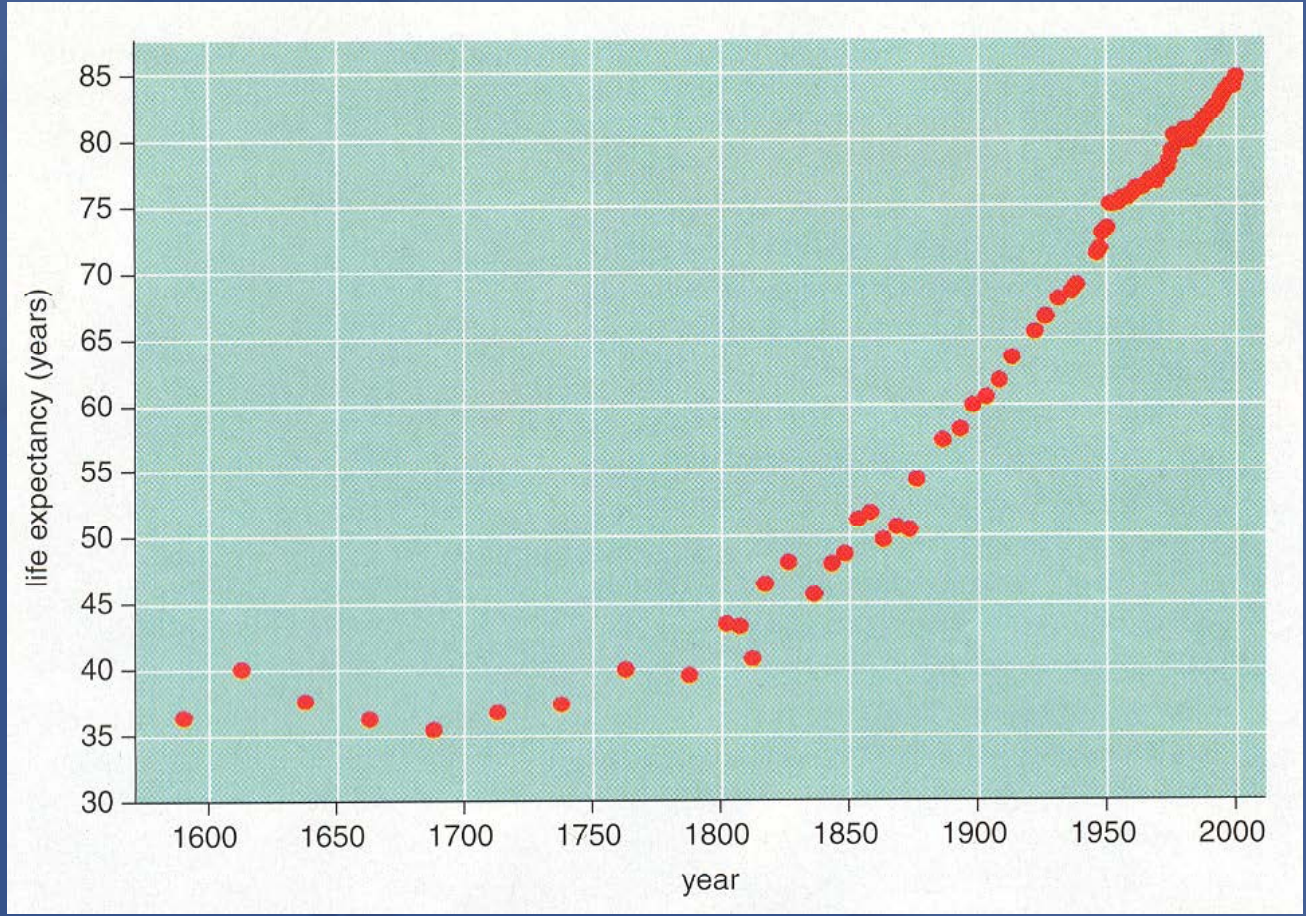
Why Study Aging in Canada?

- Baby boomers begin turning 65 in 2011
- Different needs, expectations
- Implications for health care system, social programs
- Need for evidence based decision making
- Generation of new knowledge



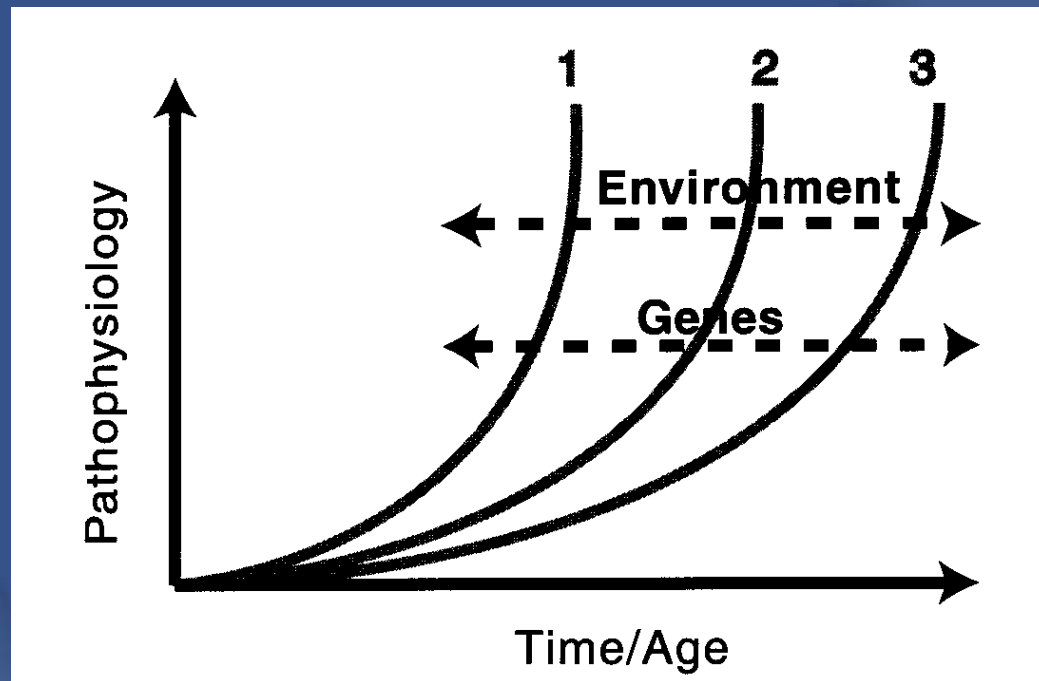
Boomers International™

World Wide Community for the Baby Boomer Generation



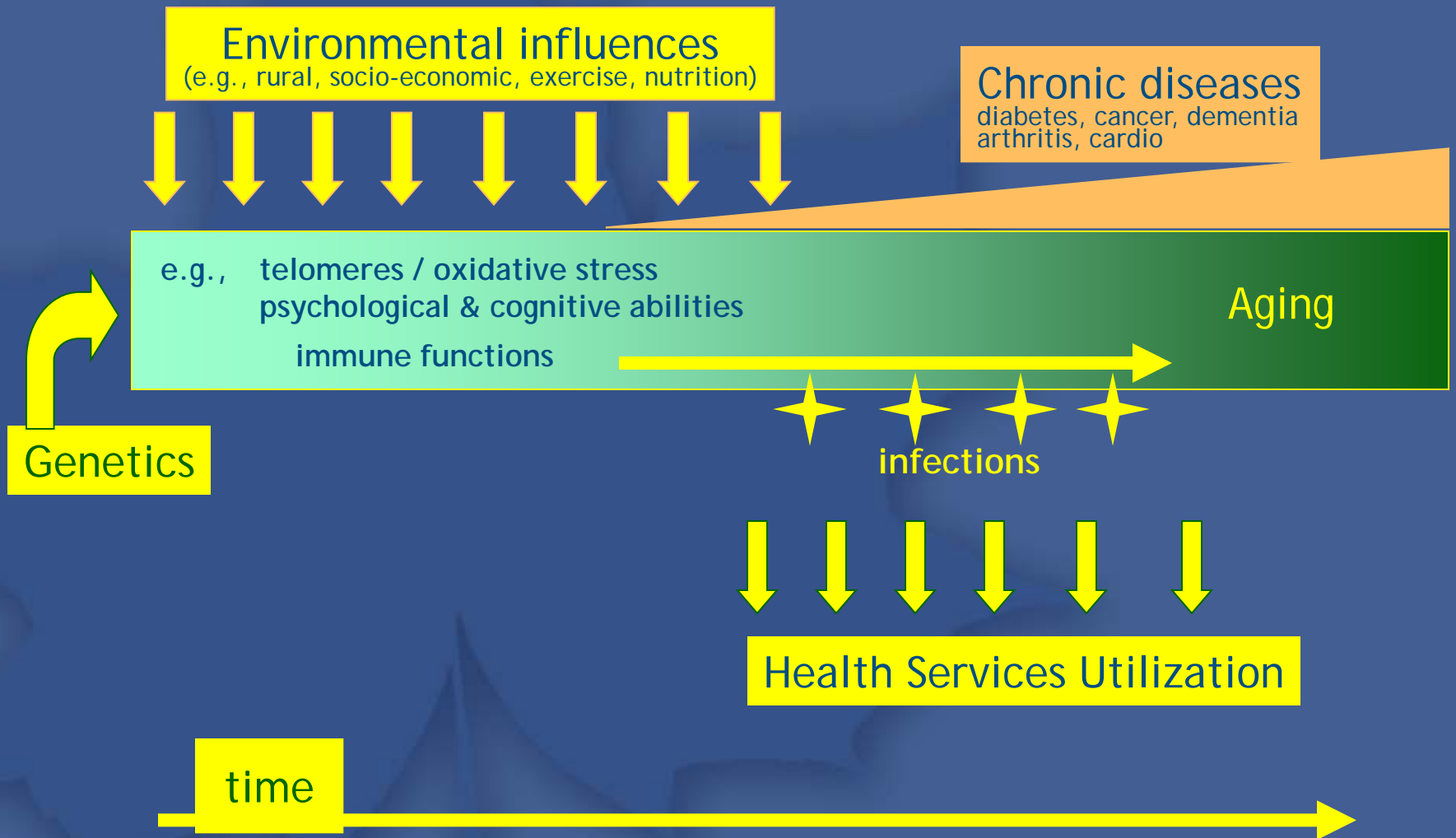
Why does Aging happen?

- What is “normal” in the aging process - primary aging
- More susceptibility to disease - secondary aging
- More heterogeneity in the elderly population
- Onset indeterminable and progression varied
- Genetic and environmental factors



Why does Aging Happen?

- Genes
- Nutrition
- Lifestyle
- Environment
- Chance



Future of Research on Aging

- Age-related changes---“complexity”
 - INDIVIDUAL LEVEL
 - SOCIETAL AND CONTEXTUAL LEVEL
- Innovative study design that advance science of aging and health as well as inform health and social policy
- Need for interdisciplinary long-term longitudinal studies

What is Canadian Longitudinal Study on Aging (CLSA)?

The Canadian Longitudinal Study on Aging (CLSA)

- One component of the Canadian Lifelong Health Initiative, a strategic initiative of CIHR
 - The Canadian National Birth Cohort
 - The Canadian Longitudinal Study on Aging (CLSA)

CLSA Conceptual Framework

- Characterize aging beyond the absence of disease: Healthy/successful aging
- Aging not aged
- Life course approach
- Determinants of health
- Continuum of micro to macro levels
- Complex interplay of bio-psycho-social
- Gene-environment interactions
- Adaptation

Overall Aims of the CLSA

- To examine aging as a dynamic process.
- To investigate the inter-relationship among intrinsic and extrinsic factors from mid life to older age.
- To capture the transitions, trajectories and profiles of aging: healthy/successful aging.
- To provide infrastructure and build capacity for sustained high quality research on aging in Canada.

Who will Participate in the CLSA?

- Longitudinal study
- Women and men aged 40 and over
- 50,000 individuals
- 20 year follow-up
- Repeated measurement (every 3 years)
- Linkage to existing databases
- Eventual public access data

What Issues is CLSA Trying to Address?

PHYSICAL HEALTH

- Activities of daily living/disability
- Frailty/co-morbidities
- Chronic diseases
 - Cardio/cerebrovascular, diabetes, hypertension, PD, cognitive impairment, osteoporosis, Injuries, arthritis, cancer
- Health conditions, states
 - Oral health, communication, vision, hearing

PSYCHOLOGICAL HEALTH

- Cognitive functioning
- Values and meaning
- Everyday competence, adaptive functioning, coping
- Personality, emotion, psychopathology
- Psychological distress

SOCIAL HEALTH

- Social networks and social support
- Work to retirement transitions
- Structural inequalities
- Matters of place and mobility
- Basic social characteristics

BIOLOGY

- Biochemical, physiological, metabolic markers of aging
- Genetics of aging
 - Disease susceptibility
 - Longevity

BEHAVIOURS

- Nutrition/diet
- Obesity
- Physical activity
- Alcohol/Tobacco
- Sleep

HEALTH SERVICES

- Medications
- Assistive devices
- Institutional care
- Homecare

Quality of Life

Pain

**What kind of Information will
the CLSA collect?**

Active data collection (with consent)

- **Telephone Interviews**
- **Face-to-face Interviews**
 - **Psychological, social, economics, nutrition**
- **Clinical examination**
 - **Neuropsychological, medical, physical measures**
- **Blood, and urine samples**

Passive Data Collection

- **Data linkage at the individual level (with consent) to existing databases:**
 - **Administrative databases: physician services, hospitalizations, medications**
 - **Homecare, community services, mental health**
 - **Mortality**

Passive data collection contd..

- **Pollution: air, water, noise**
- **Climate: temperature, precipitation**
- **Distribution of industry, toxic chemical compounds**
- **Motor vehicle density**
- **Neighbourhood characteristics (census): Income, education, proportion lone parents**
- **Neighbourhood characteristics (municipality): Crime, proportion involved in voluntary sectors, newspaper readership**

What are Ethical, Privacy and Confidentiality Issues in the CLSA?

- Informed consent
 - Capacity to consent
 - Cognitive versus other factors that impact capacity to consent
 - Proxy consent
 - Full consent versus staged consent
 - 20 year duration
 - For biological samples, clinical assessment, questionnaire based information
 - Genetic and biochemical testing
 - Products from biological samples: cell lines
 - For unspecified research projects in the future
 - Blanket consent versus issues related to re-consent

- Informing participants/family physicians
- Risks and benefits
- Linkage with existing healthcare and other data bases
 - Privacy and confidentiality
 - Data ownership issues
- Facilitating the Public access of CLSA data
 - protecting confidentiality and privacy
 - Timely use of the data
 - Promoting innovative research

How will Canadians benefit from the CLSA?

- New knowledge on the factors that affects health and aging.
- Identification of ways to prevent disease and disability, and promote healthy aging and improved services.
- A rapid adoption of sound research into practice, programs and policies.

- Building Capacity and providing opportunities for existing and new Canadian and international researchers.
- Platform for future research.
- Recognition of Canada's position as a leader in cutting edge health and health care research.
- Stimulation of the economy through discovery and innovation.

**Do we have to wait 20 years
for the results?**

Who is Working Behind the Scenes on the CLSA?

Principal Investigator Triumvirate

Susan Kirkland - Dalhousie University

Parminder Raina - McMaster University

Christina Wolfson - McGill University



The CLSA Research Team

- 180 Co-Investigators
 - Representing 26 Universities across Canada
 - Investigators in all 10 provinces
- A special committee set by CIHR to address ethical and legal issues associated with the CLSA
 - Ethical, Legal and Societal Implications (ELSI)

Ethical, Legal, Societal Issues (ELSI)

- Lawyers
- Ethicists
- Philosophers
- Geneticists
- Epidemiologists
- Social scientists
- Privacy commissioner
- Community representative

Canadian Institutes of Health Research

- Institute of Aging (Dr. Anne Martin-Mathews)
- Other Institutes of CIHR
- Dr. Alan Bernstein (President of the CIHR)
- Governing Council (CIHR)

**Where is the CLSA Train now
and
where is it going next?**

CLSA TRAIN



CLSA Developmental Phase

- Phase I: April 1, 2004 to December 2005
 - Refine the study content
 - Conduct methodological feasibility studies
- Phase II: January 2005 to December 2006
 - Content related feasibility studies
 - Validity, reliability testing and translation of selected measures
- Phase III: January 2007 to March 2008
 - Pilot full protocol

Proposed CLSA Launch 2008!

Thank you!

For more information please visit our
website

www.clsa-elcv.ca

OR

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