Canadian Longitudinal Study on Aging: An Update to Participants
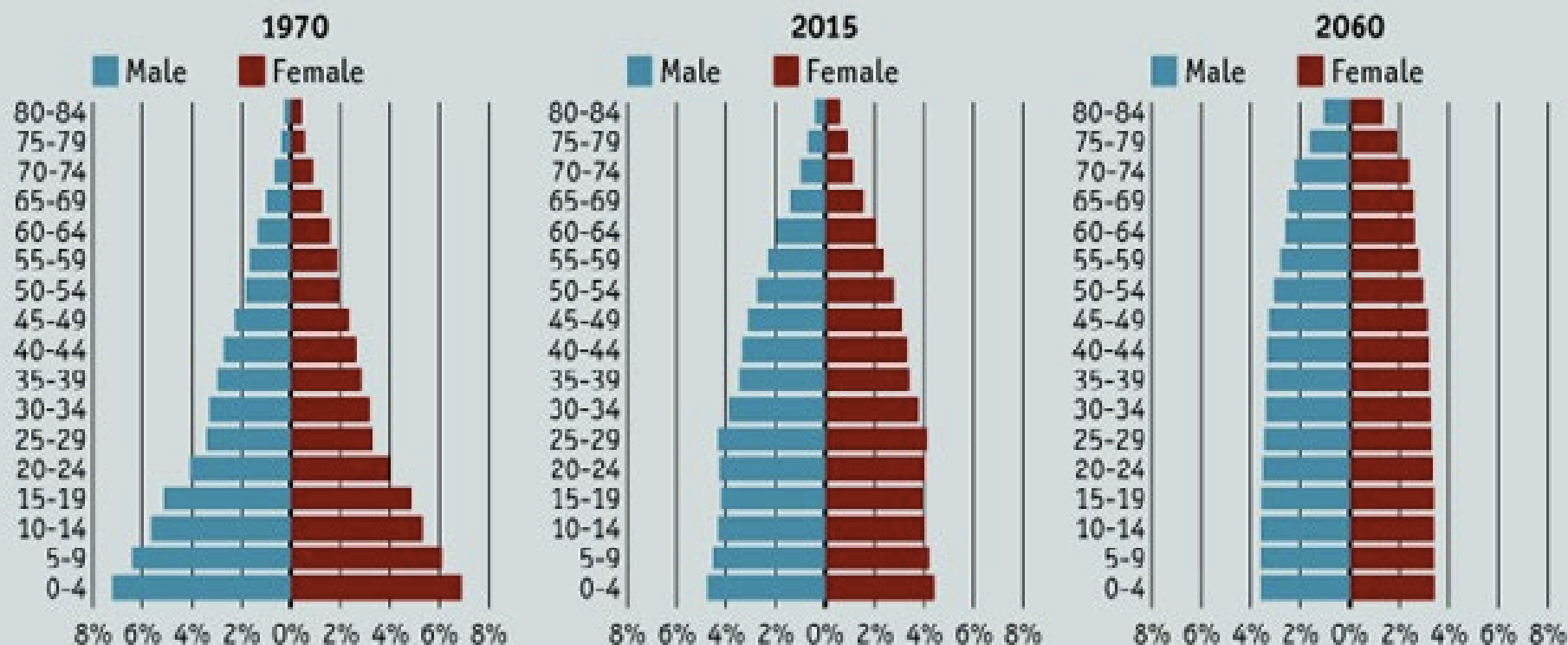
Susan Kirkland, PhD
Professor and CLSA Co-Investigator
Dalhousie University

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

DALHOUSIE UNIVERSITY 1818 2018

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

Global Population Aging

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

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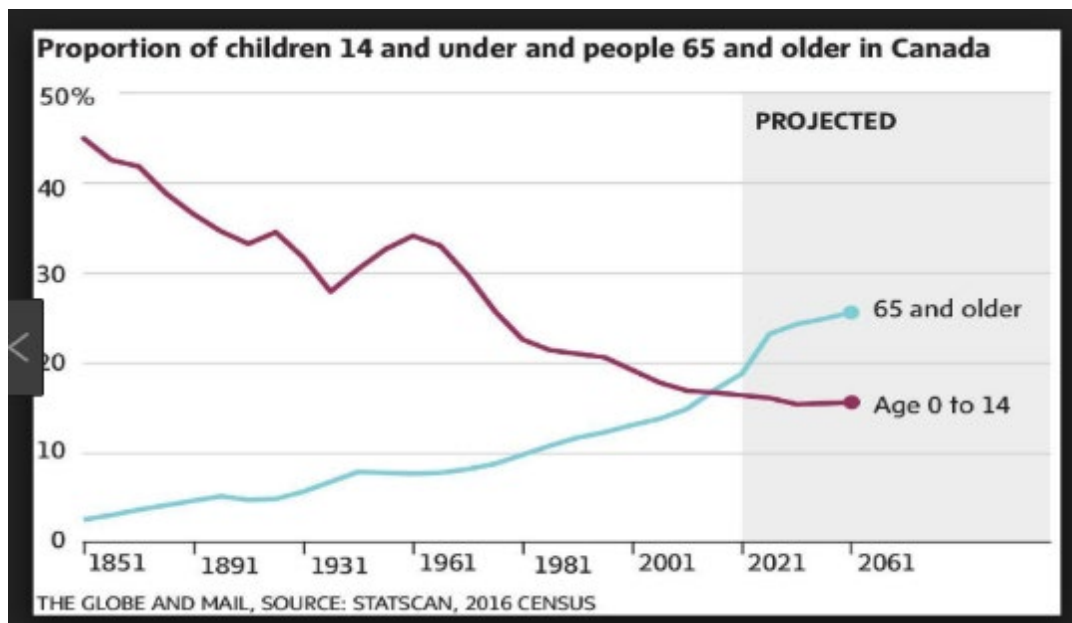
Population aging

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
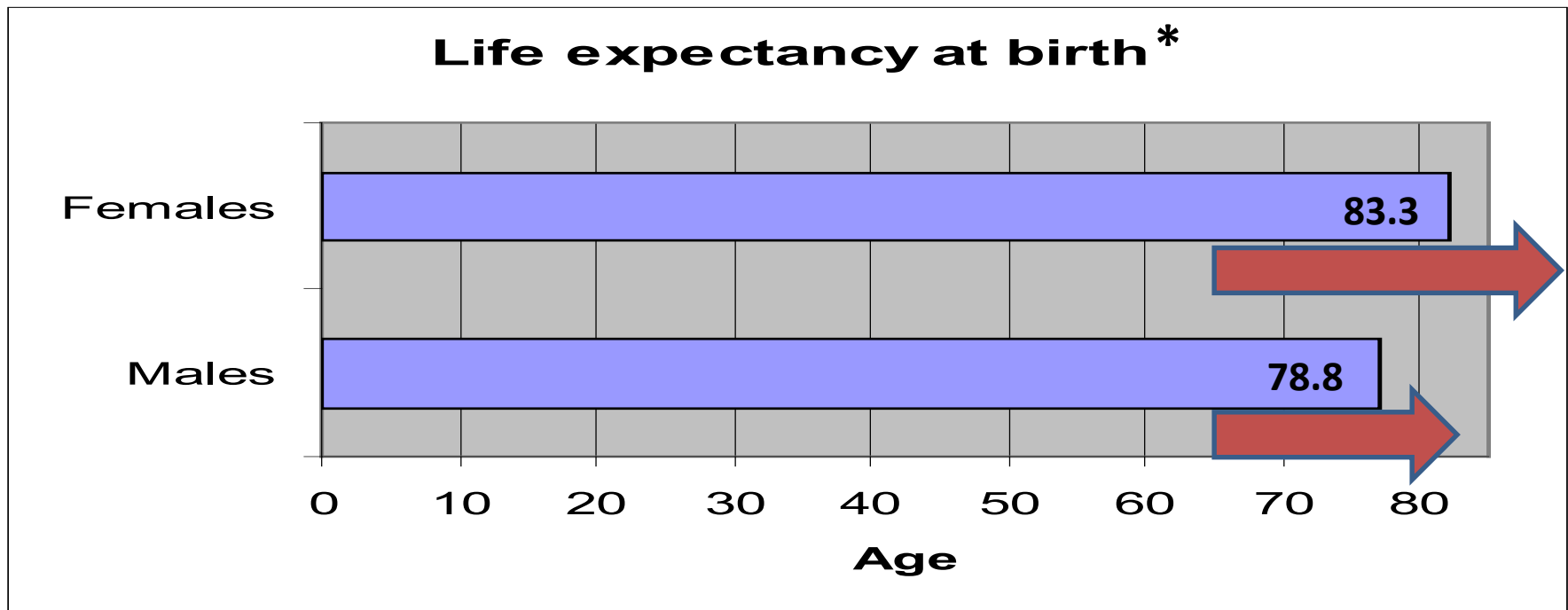Last updated Wednesday, Sep. 30, 2015 8:07AM EDT

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

PROJECTED

65 and older

Age 0 to 14

THE GLOBE AND MAIL, SOURCE: STATSCAN, 2016 CENSUS

3

Metaphors for aging demographics

Life expectancy in Canada
Statistics Canada

Life expectancy at birth*

Females — 83.3

Males — 78.8

Age: 0 10 20 30 40 50 60 70 80

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

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

CLSA Research Platform

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

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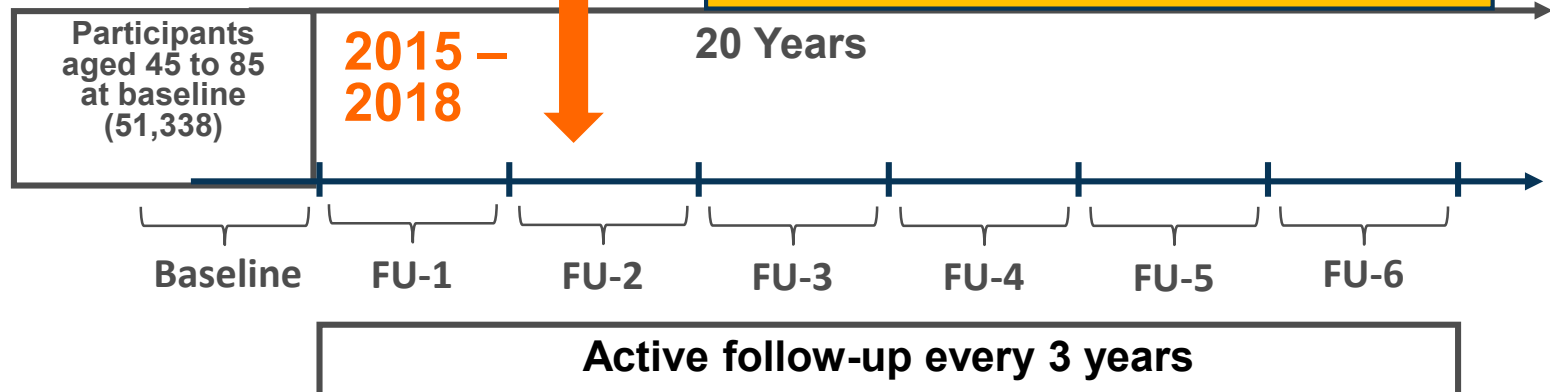Actual: 21,241
Randomly selected within provinces

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

Participants aged 45 to 85 at baseline (51,338)

2015 – 2018

20 Years

Baseline | FU-1 | FU-2 | FU-3 | FU-4 | FU-5 | FU-6

Active follow-up every 3 years

CLSA Participants in every province!

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
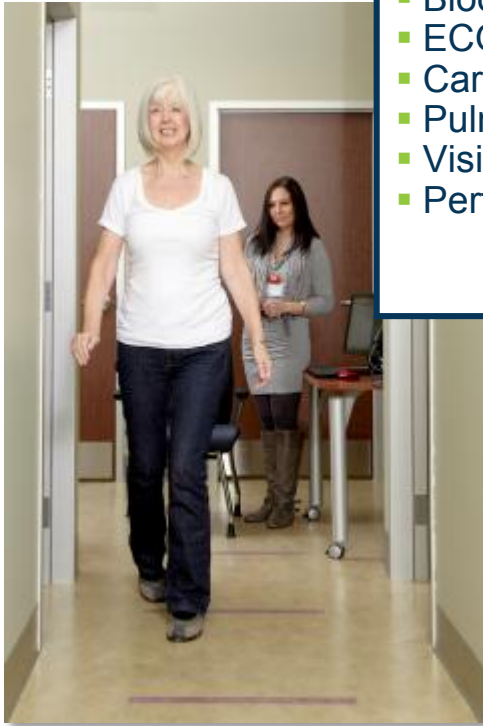- Mobility, Migration
- Built environments
- Home ownership
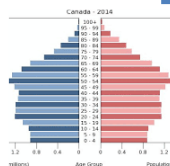
CLSA Data Collection
30,000 visit a Data Collection Site

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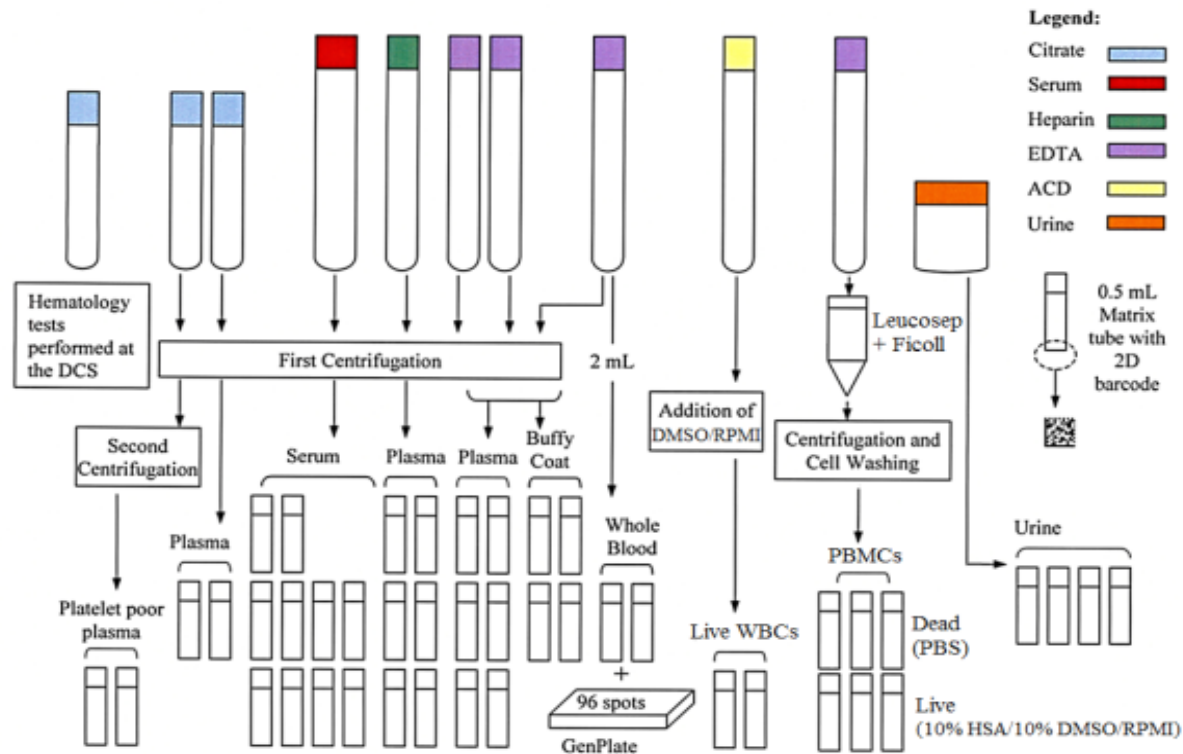- Performance testing
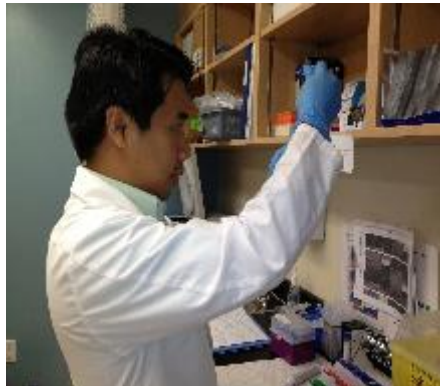
Biospecimen Collection:
- Blood
- Urine

Cognitive Assessments:
- Neuropsychological Battery
  - Memory
  - Executive function
  - Reaction time

3 Tablespoons of blood =
42 aliquots per participant

Where do your biospecimens go? Biorepository and Bioanalysis Centre (BBC), McMaster University

- 31 nitrogen freezers (-190°C)
- Storage for 5 million samples

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

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

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

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

Age & Sex		Province										Total
		Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia	Ontario	Prince Edward Island	Quebec	Saskatchewan	
45-54F	N	701	1202	624	193	488	607	1451	147	1331	187	6941
	%	10.10	17.32	8.99	2.78	7.03	8.75	20.90	2.12	19.18	2.84	
45-54M	N	602	1122	568	182	433	583	1411	150	1260	175	6486
	%	9.28	17.30	8.76	2.81	6.68	8.99	21.75	2.31	19.43	2.70	
55-64F	N	851	1466	759	210	567	744	1822	167	1649	230	8465
	%	10.05	17.32	8.97	2.48	6.70	8.79	21.52	1.97	19.48	2.72	
55-64M	N	821	1374	732	195	538	695	1753	148	1490	209	7955
	%	10.32	17.27	9.20	2.45	6.76	8.74	22.04	1.86	18.73	2.63	
65-74F	N	594	1012	532	149	405	567	1324	140	1169	147	6028
	%	9.85	16.79	8.83	2.47	6.72	9.41	21.96	2.32	19.21	2.44	
65-74M	N	592	1007	522	156	405	600	1287	132	1110	157	5968
	%	9.92	16.87	8.75	2.61	6.79	10.05	21.57	2.21	18.60	2.63	
75-85F	N	453	841	438	139	300	407	1035	123	846	139	4721
	%	9.60	17.81	9.28	2.94	6.35	8.62	21.92	2.61	17.92	2.94	
75-85M	N	450	850	422	135	331	428	1057	135	828	135	4774
	%	9.43	17.80	8.84	2.83	6.93	8.97	22.14	2.83	17.34	2.09	
Total	N	5064	8874	4597	1359	3467	4631	11140	1142	9672	1392	51338
	%	9.86	17.29	8.95	2.65	6.75	9.02	21.7	2.22	18.84	2.71	

- 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

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

The CLSA includes....

- Veterans
- Aboriginal peoples
- Francophone population
- Ethnic groups
- Urban and rural populations
- People living with chronic diseases
- Caregivers
- Retirees

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

CLSA Report on Health & Aging in Canada

The Canadian Longitudinal Study on Aging (CLSA)
Report on Health and Aging in Canada
Findings from Baseline Data Collection 2010-2015

- 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
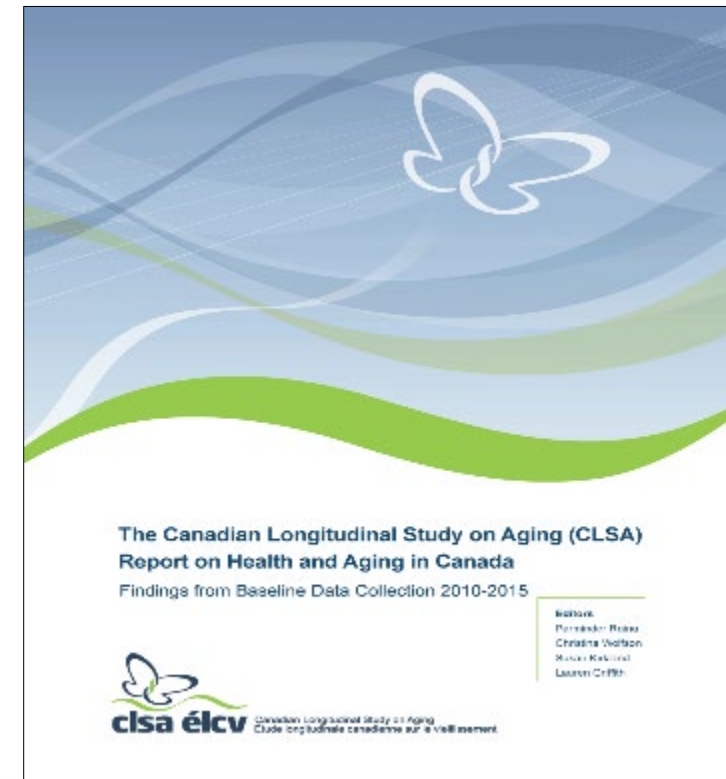
Marital Status
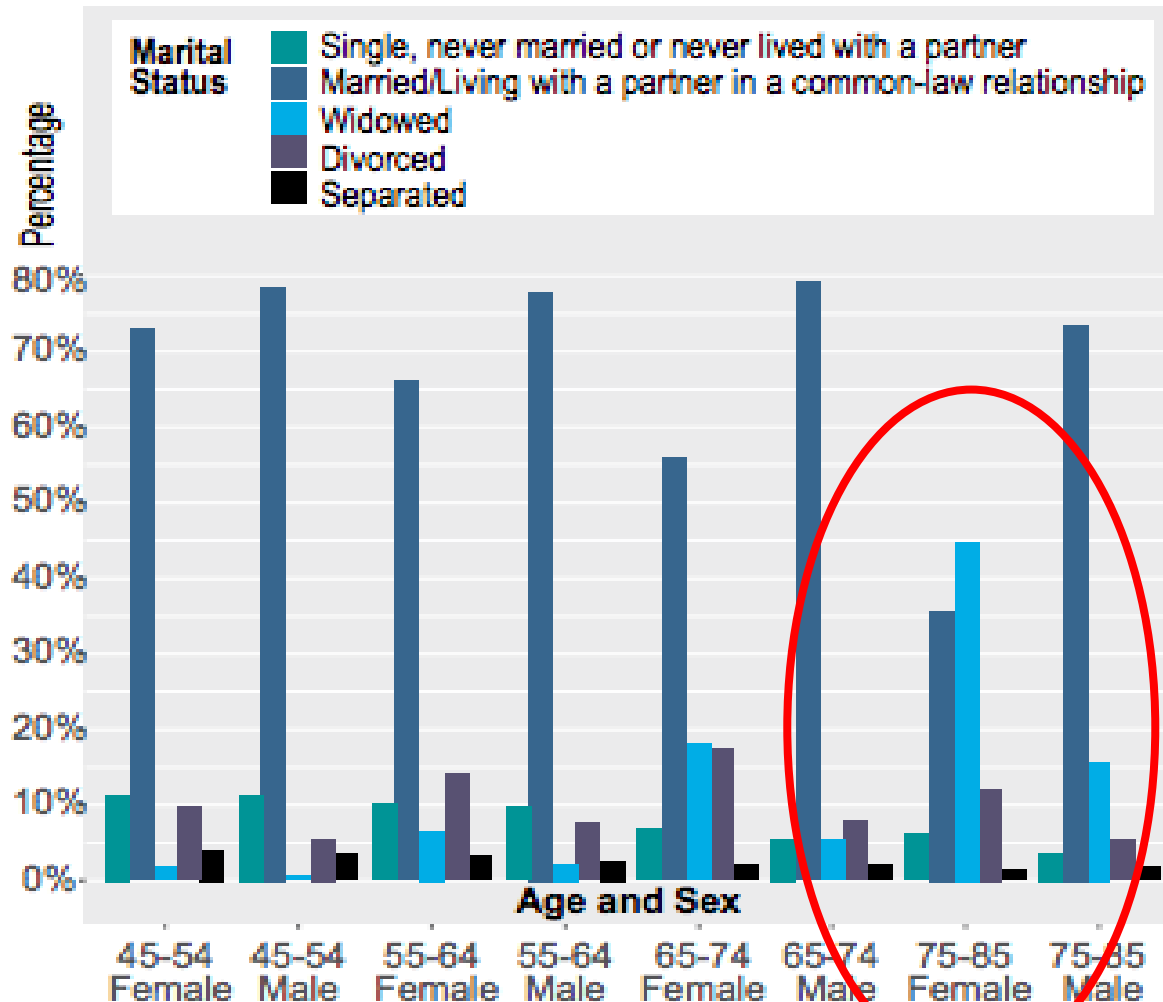
The majority of participants in all age and sex groups are married, with the exception of women aged 75-85

Retirement Status

- **25% of participants say they retired for health reasons**
- **20% of women and 30% of men "unretire"**

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

Loneliness differs by marital status, age, and sex

Proportion of people who say they are lonely at least some of the time
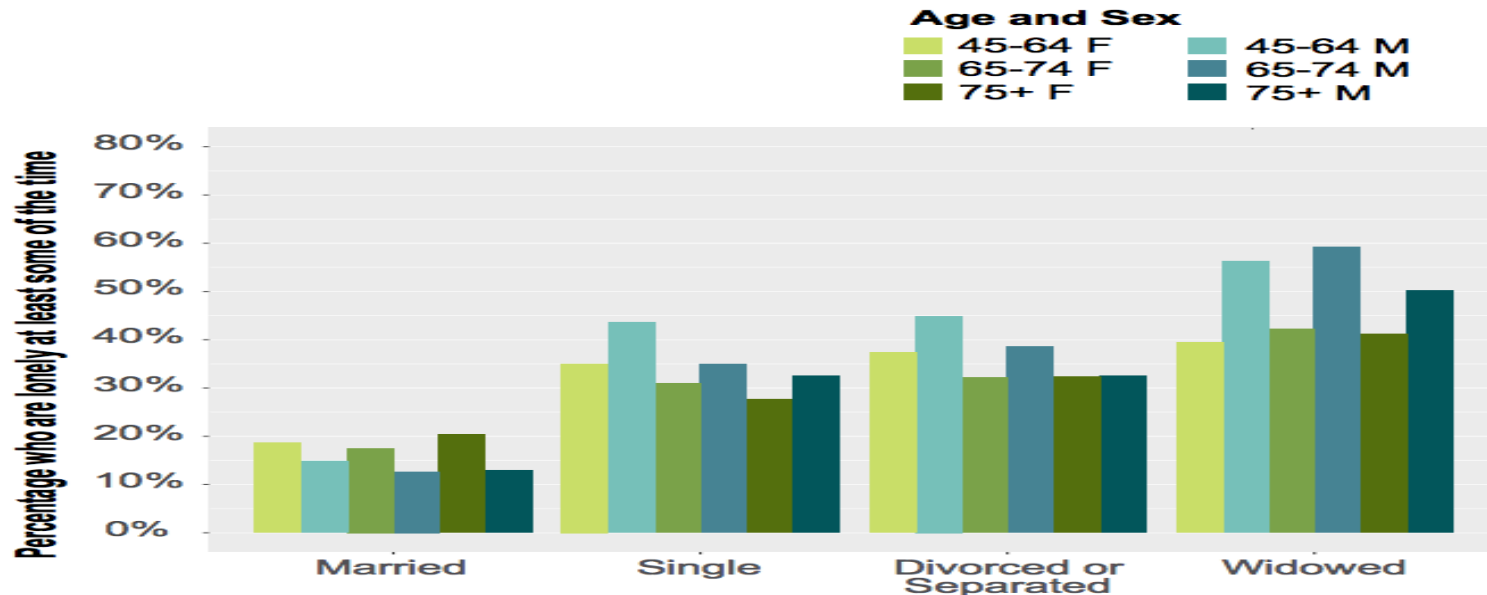
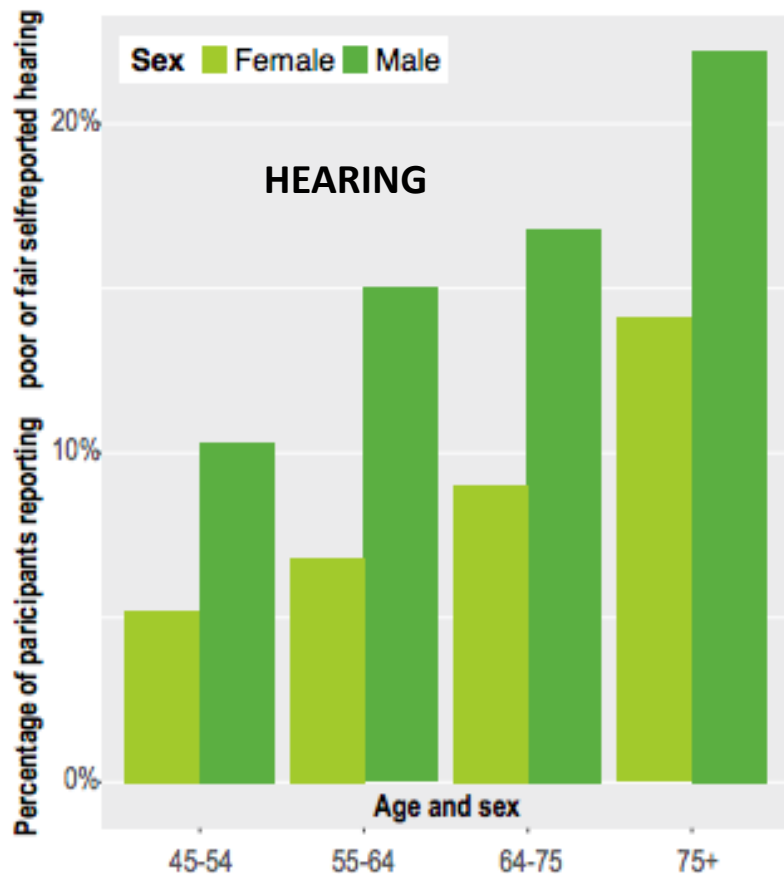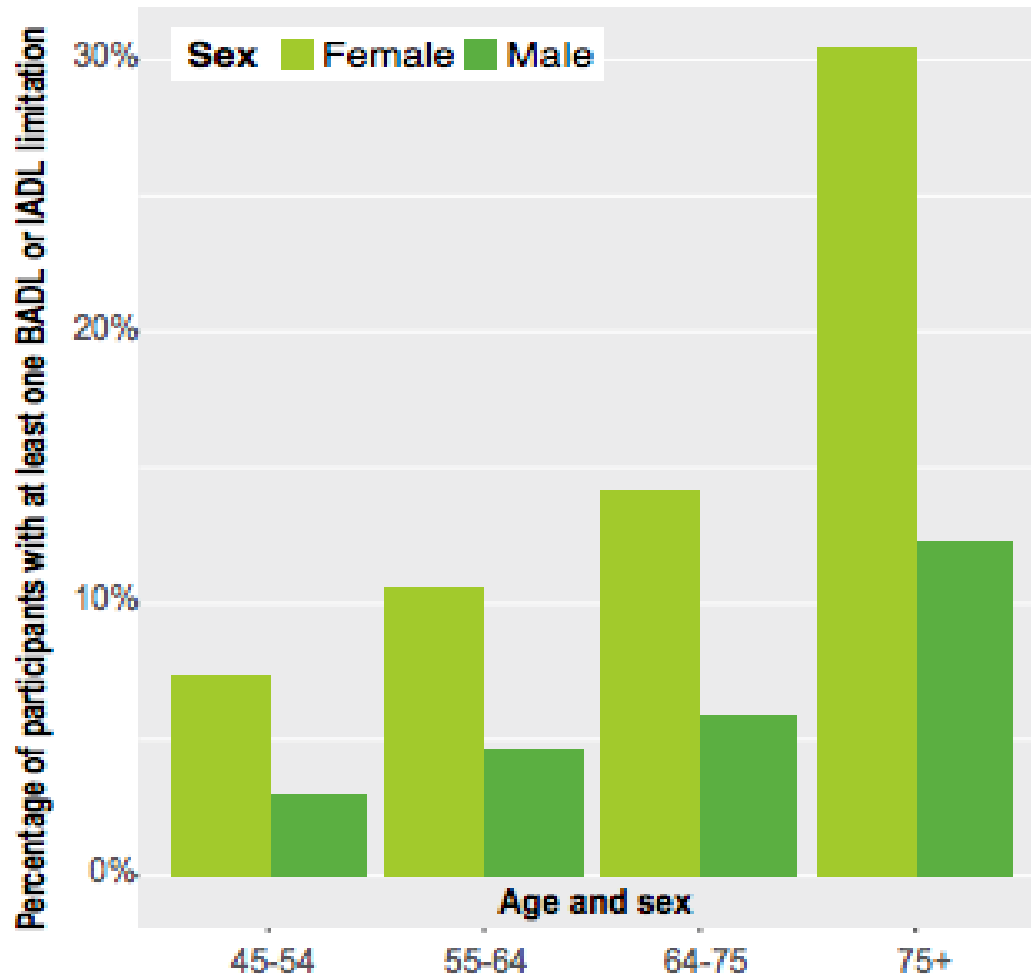Figure 1a — Percentage who are lonely at least some of the time stratified by marital status, age, and sex

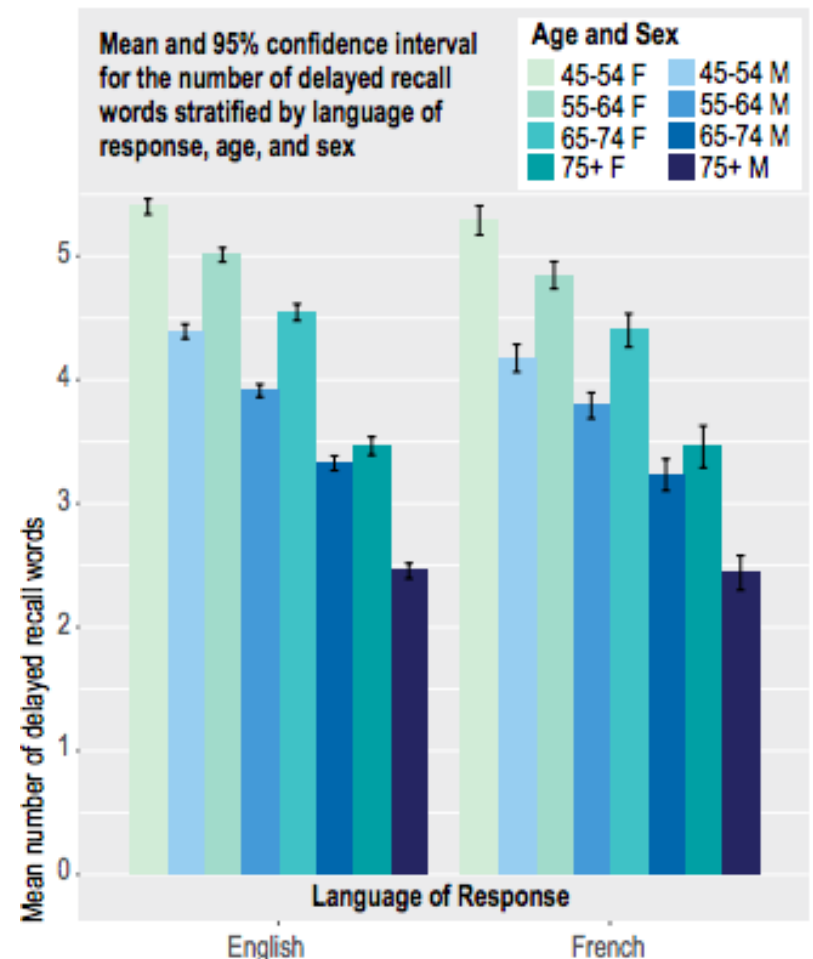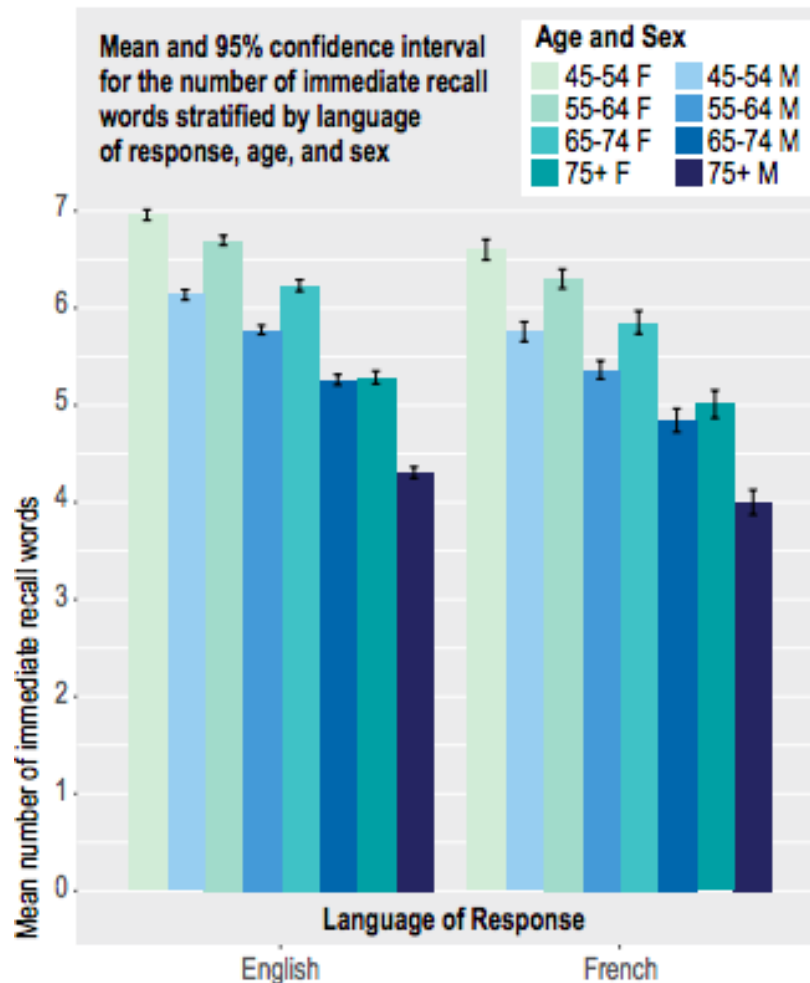# Men report more hearing loss, women report greater vision loss
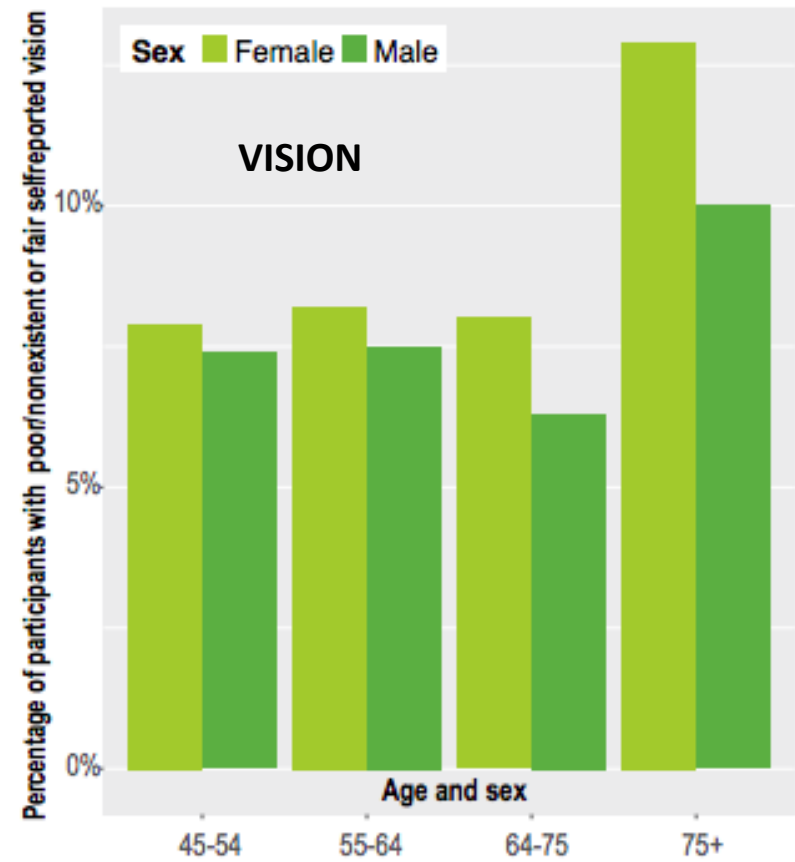
More women than men report at least one difficulty with basic or instrumental activities of living

Cognitive Function: Immediate and delayed recall decreases with age

Self Rated Health is high, consistent with other studies

		CLSA Combined Cohort %	CCHS Healthy Aging %	CCHS 2011-2012 Annual %	CHMS Cycle-3 %
Self-rated General Health	Excellent	20.02	20.45	17.32	14.06
	Very good	39.08	33.80	35.16	34.26
	Good	29.33	30.42	31.67	36.83
	Fair	9.09	11.47	11.55	10.22
	Poor	2.48	3.86	4.30	4.63
Self-rated Mental Health	Excellent	30.29	37.55	34.15	31.30
	Very good	39.19	36.19	36.23	39.53
	Good	25.18	20.55	23.37	20.81
	Fair	4.64	4.87	5.03	6.00
	Poor	0.70	0.85	1.24	2.35

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

CLSA Research Team
Operations Committee and Scientific Leads

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