



Carleton
UNIVERSITY

Canada's Capital University

Aging Autonomy Carleton University Multi-Disciplinary Research Team



AGE-WELL National Innovation Hub
Centre national d'innovation d'AGE-WELL

Sensors and Analytics for Monitoring Mobility and Memory
Capteurs et analytique de suivi mobilité-mémoire

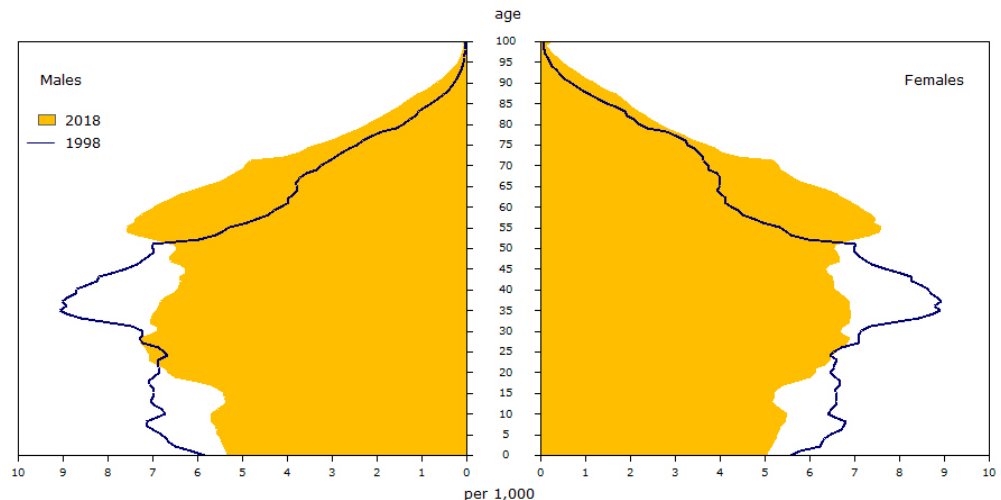
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Canada's Aging Population

- Over 17% of Canada's population is over 65 as of 2018.
- This is expected to continue to grow

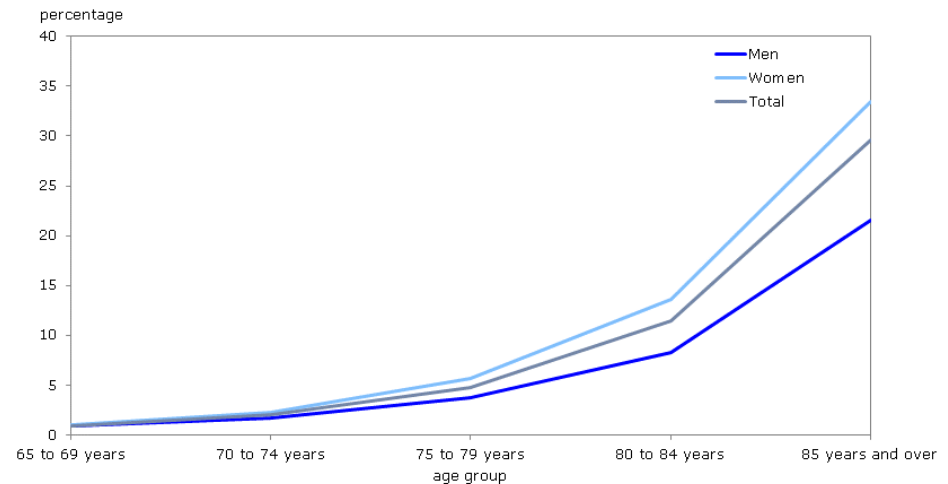
Figure 2.1
Age pyramid of population estimates as of July 1, 1998 and 2018, Canada



Source: Statistics Canada

Aging-in-Place and Independence

- Seniors are more active and able to engage with their social network and community when they are able to continue to remain in their homes.



Percentage of the population aged 65 and over living in special care facilities, 2011

Source: Statistics Canada

The Challenge!

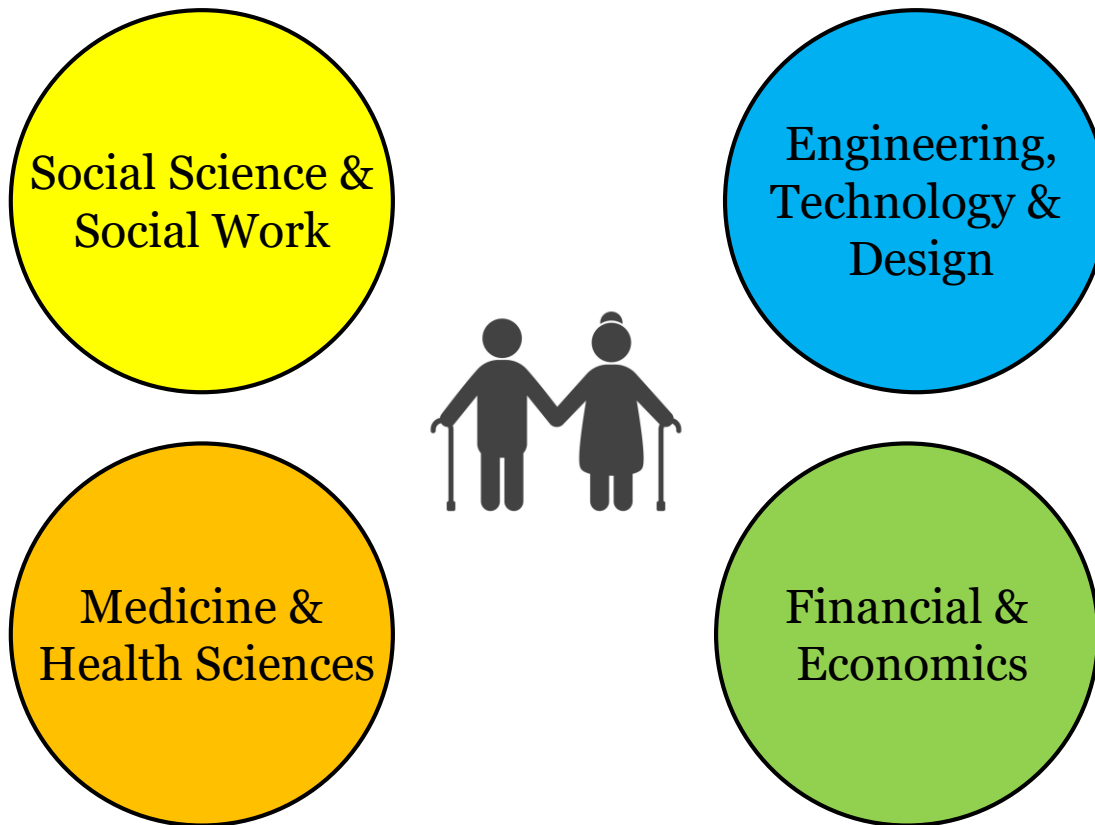
- Aging-in-Place is highly complex and depends on many factors.
- It is not solved by family care-givers, homecare services or technology alone!

AGE-WELL Challenge Areas:

1. Supportive Homes & Communities
2. Health Care & Health Service Delivery
3. Autonomy & Independence
4. Cognitive Health & Dementia
5. Mobility & Transportation
6. Healthy Lifestyles & Wellness
7. Staying Connected
8. Financial Wellness & Employment

Source: AGE-WELL NCE

Multi-Discipline Research



Aging Autonomy Team Expertise

- Social Science & Social Work
 - Dr. Dennis Kao:
 - Expertise focused on aging Canadians in the community.
 - Dr. Susan Braedley:
 - Expertise focused on aging Canadians in the long term care.
- Medicine & Health Sciences
 - Dr. Frank Knoefel:
 - Care of the Elderly physician with medical expertise on aging adults
 - Dr. Chris Herdman:
 - Cognitive Science and simulation such as driving simulation.
 - Dr. Kathy Van Benthem:
 - Simulation (flight and driving) with focus on aging adults.

Aging Autonomy Team Expertise

- Engineering, Technology & Design
 - Dr. Bruce Wallace
 - Expertise on sensor and supportive smart home systems to support aging-in-place
 - Dr. Ana-Maria Cretu
 - Expertise on applications of expert systems to sensor processing (now at UQO)
 - Dr. James Green
 - Expertise on sensor, signal processing and analysis
 - Dr. Ramy Gohary
 - Expertise on mobile communications to enable independence.
 - Dr. Chantal Trudel
 - Expertise on architectural, product and services design for the aging
- Financial & Economics
 - Dr. Jennifer Stewart:
 - Expertise on health economics and public policy
 - Dr. Gerald Grant:
 - Expertise on technical solutions and services for the aging.

Community Collaboration

- The Aging Autonomy Team has extensive networks within the Ottawa Community, Nationally and Internationally
- Carleton has long standing collaboration with Bruyère Continuing Care and Bruyère Research Institute

In the news

Industrial Design

Aging in Place and Cognitive Impairment

Students worked on aging, independence, and dementia-related design challenges under the supervision of Chantal Trudel in collaboration with Bruyère Continuing Care, Bruyère Research Institute, the National Research Council Centre for Air Travel Research, The Dementia Society of Ottawa and Renfrew County, the University of Ottawa's Life Research Institute and Carefor/Carleton's Young Onset Dementia Program. Students developed a variety of design proposals (products, interactives, environments and services) to assist people experiencing cognitive decline and/or their caregivers within residential, driving, air travel, and larger community settings.



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Smart apartment for aging population

Researchers are working on a smart apartment to keep seniors living...

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Local News

Young onset dementia patients in Ottawa find fun, support in The Club

Blair Crawford

Jan 21, 2020 • Last Updated 5 months ago • 3 minute read



Carefor CEO Steve Perry (L) and Jennifer Brenning, Director, Recreation and Athletics for Carleton University, cut the ribbon for the launch of a new young onset dementia program called The Club to be held at Carleton University. JEAN LEVAC / Postmedia News



Bruyère

December 10, 2019

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Bruyère is home to the AGE-WELL SAM3 Smart Apartment – where health researchers and industry are collaborating and testing technologies to help older people remain independent and at home longer.

→ <http://ow.ly/zaAw50xvBT2>

Thanks to Ottawa Tourism for highlighting how our nation's capital is conducive to collaboration bringing together industry, academic research and hospitals.