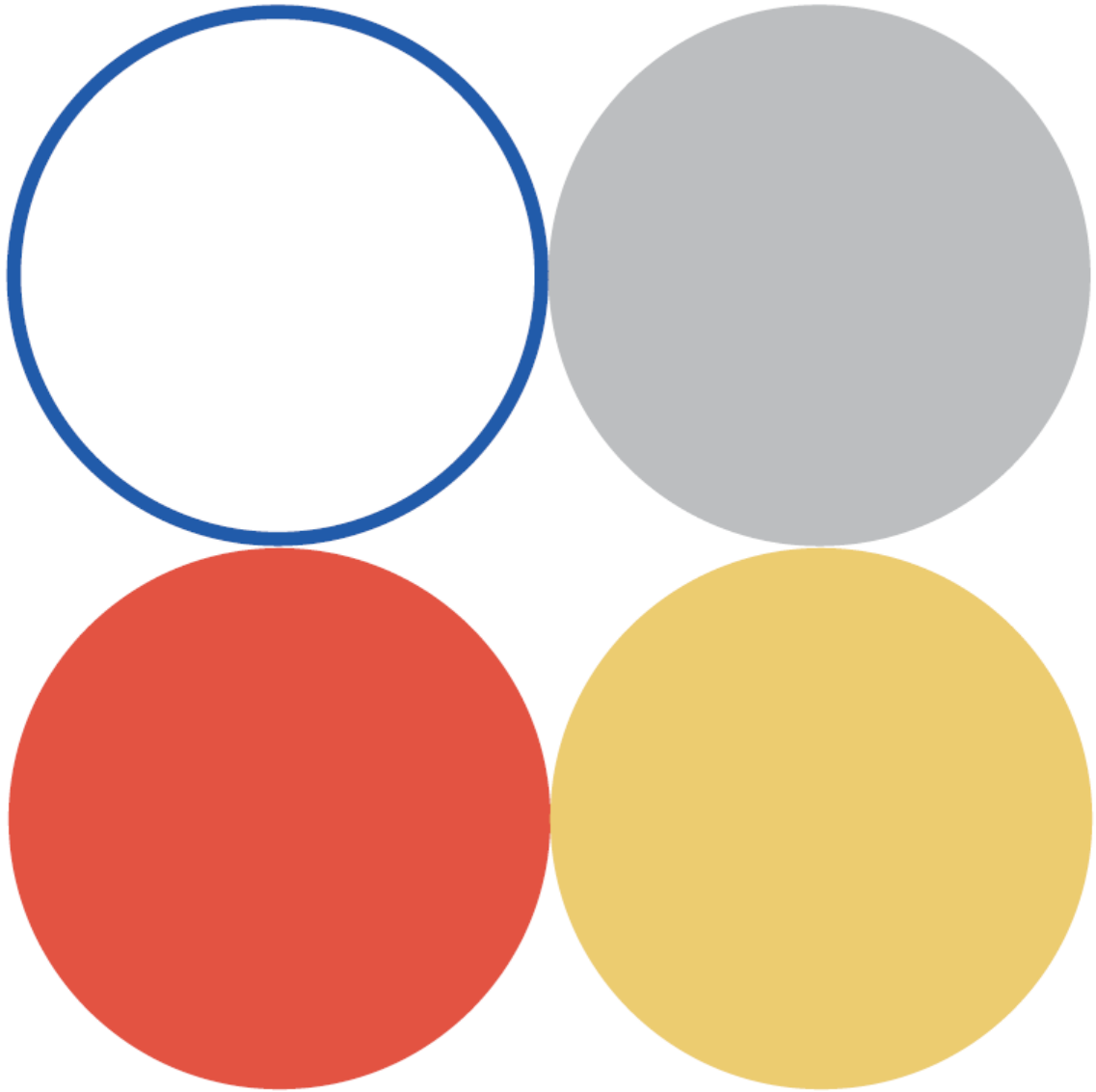
Aging & Thriving
In the 21st Century

A Scan and Selective Systems Analysis of Issues, Trends, and Innovations Vital to Older Adults in Canada



James Stauch
Institute for Community Prosperity
Mount Royal University
November, 2021

"Learning without action is selfishness."

LEARNING

SOCIAL PROBLEMS

"A social condition or pattern of behaviour that is believed to warrant public concern and collective action."

- Tepperman, Lorne and Curtis, Josh. *Social Problems: A Canadian Perspective*. Oxford University Press, 2010.

SYSTEMS THINKING

"[An approach] which focuses on recognizing the interconnections between the parts of a system and synthesizing them into a unified view of the whole."

- Colleen Lannon, A Vocabulary of Systems Thinking: A Pocket Guide. Leverage Networks Inc., 2018.

TRANSFORMING THE SYSTEM

ACTION

"Action without learning is ignorance."

MOUNT ROYAL UNIVERSITY 1910 | Institute for Community Prosperity

ATCO always there. anywhere.

SPACELAB ATCO

Table of Contents

05

Introduction

06 What is old age?

07

The Trends

07 Population Pofile and Trends
08 Socio-economic Status
10 Aging and Indigenous People
10 Health
11 Housing
12 Housing the Elderly- Types and Terminology
13 Community and Lifestyle

15

The Issues

15 Loneliness and Social Isolation
16 Ageism
17 Purpose and Meaning
18 Long-term Care
22 Caregivers
26 Dementia

27

The Innovations

28 Key Players and Leverage Points
31 Proactive and Preventative Health Supports
32 Aging in Place & Age-Friendly Communities
25 Intergenerational Living and Empathy-Bridging
36 Age Tech

41

Final Thoughts

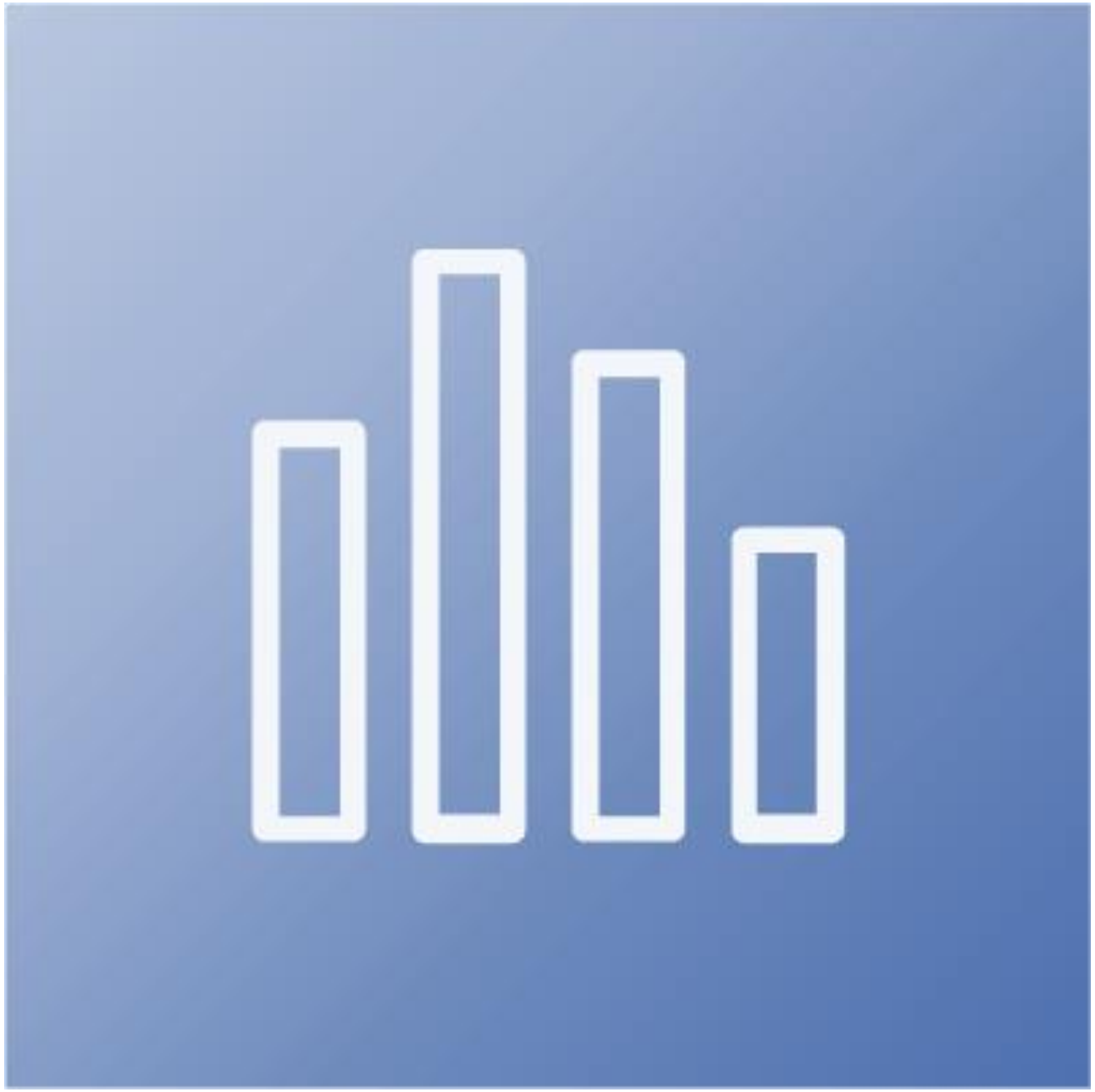
42

Endnotes

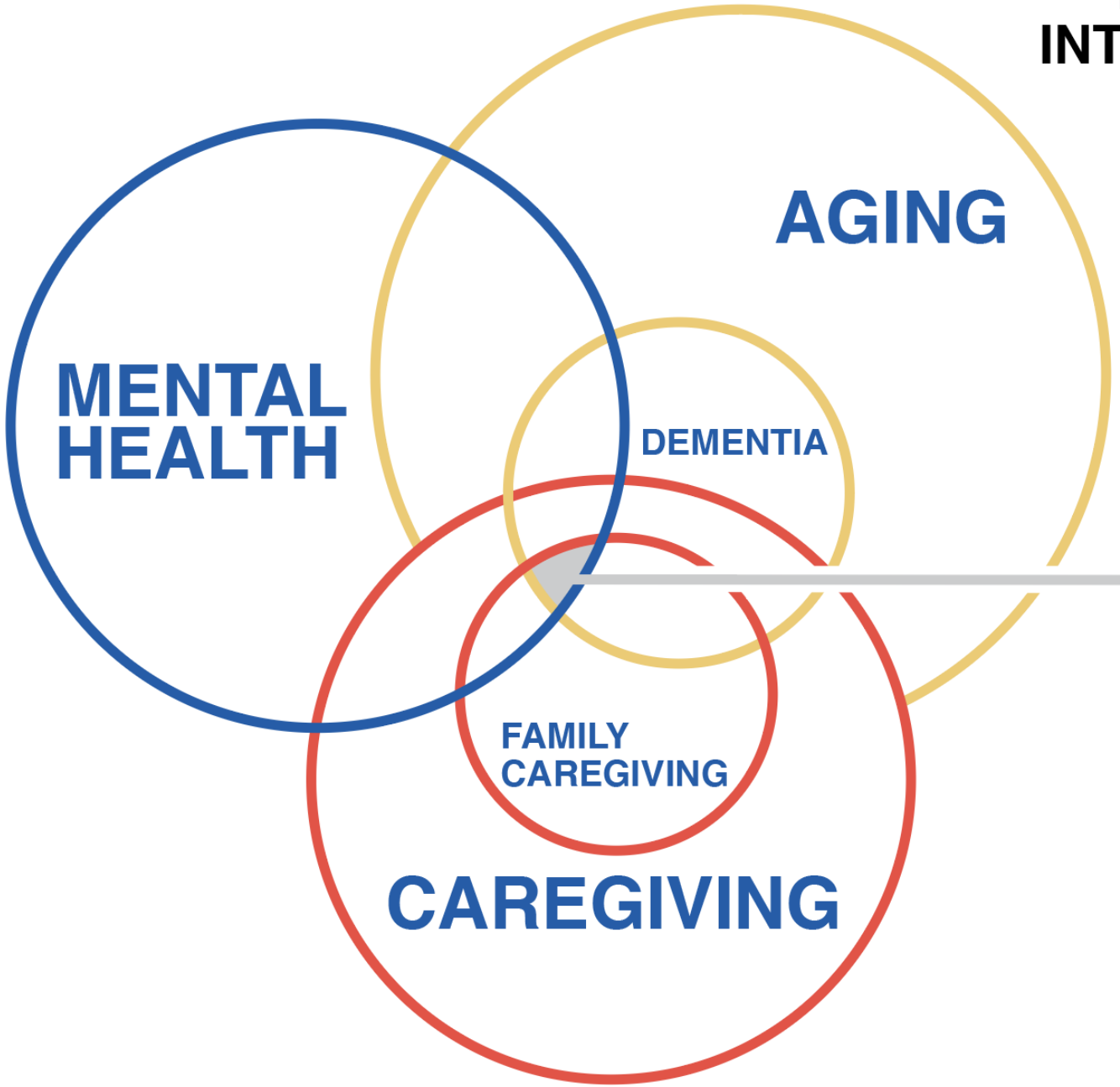
The Question

What factors are preventing older Canadians from flourishing, and how might we transform systems to maximize the choice, dignity, mobility, security, and trust accompanying an aging population transitioning into less autonomous living circumstances?

Poll

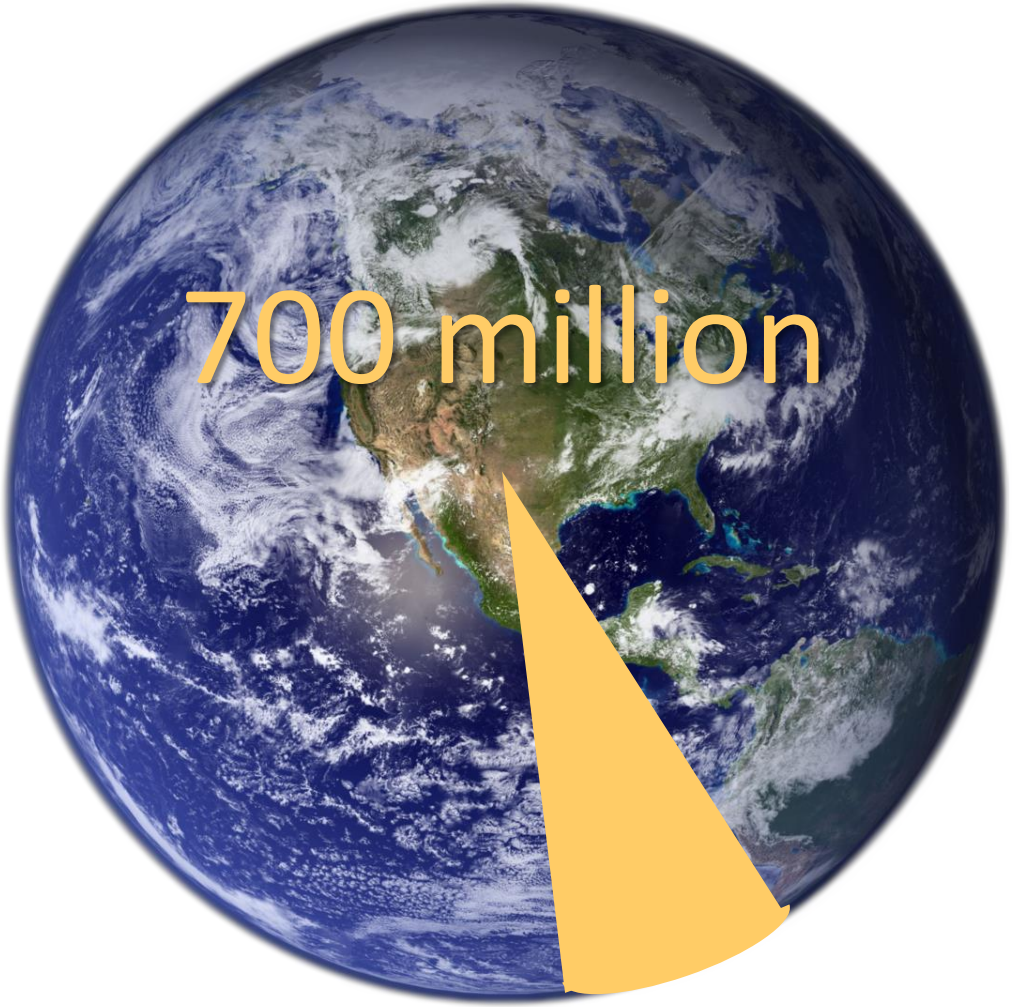


SYSTEMS SNAPSHOT – AGING IN CANADA: EXAMPLES OF INTERSECTIONS AND NESTED COMPLEXITY (CHALLENGE LANDSCAPE)



Caregiver burnout, mental fatigue, risk of PTSD; risk of elder abuse

The Trends

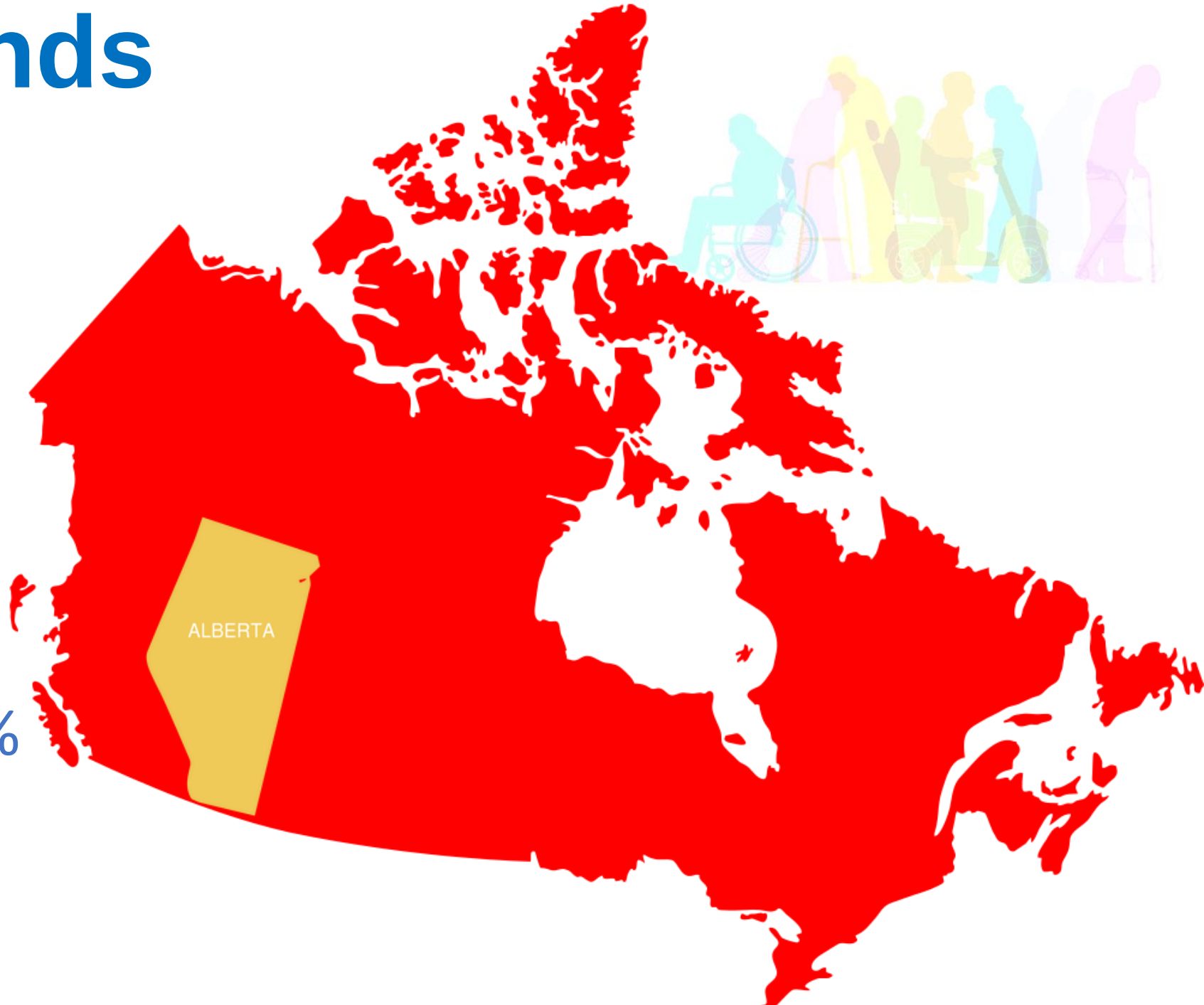


2050

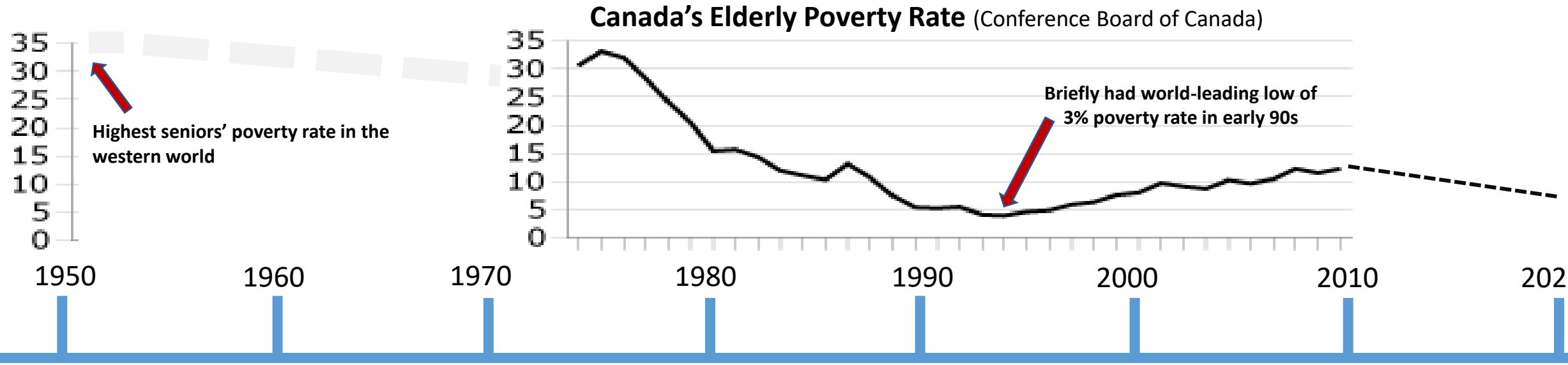
The Trends

Alberta Seniors

- Lowest %
- Fastest growing %
- Greatest % in LTC



The Trends



Old Age Security

Canada Pension Plan; Guaranteed Income Supplement

First cohort to receive full public pension turns 65

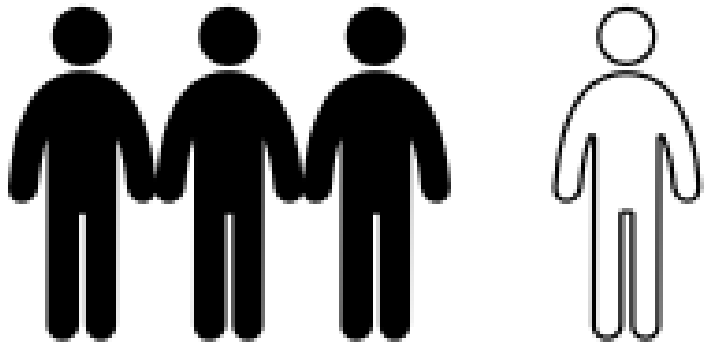
Chretien/ Martin Austerity
(+ Klein, Harris)

Fiscal stimulus + federal cabinet portfolio established for seniors

The Trends

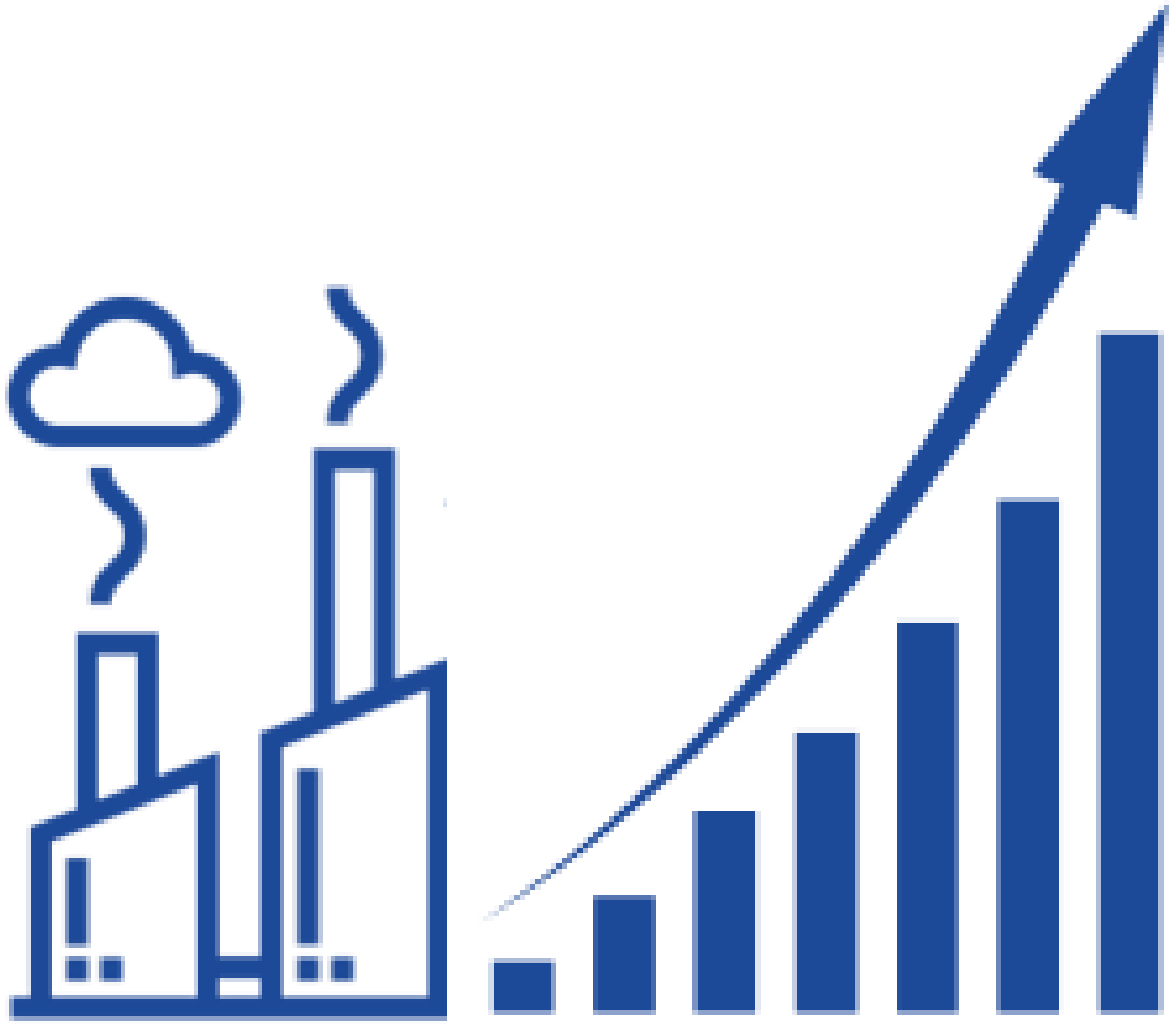
PHOTO: James Stauch, Elders at Floe-Edge near Iqaluit, Nunavut

The Issues

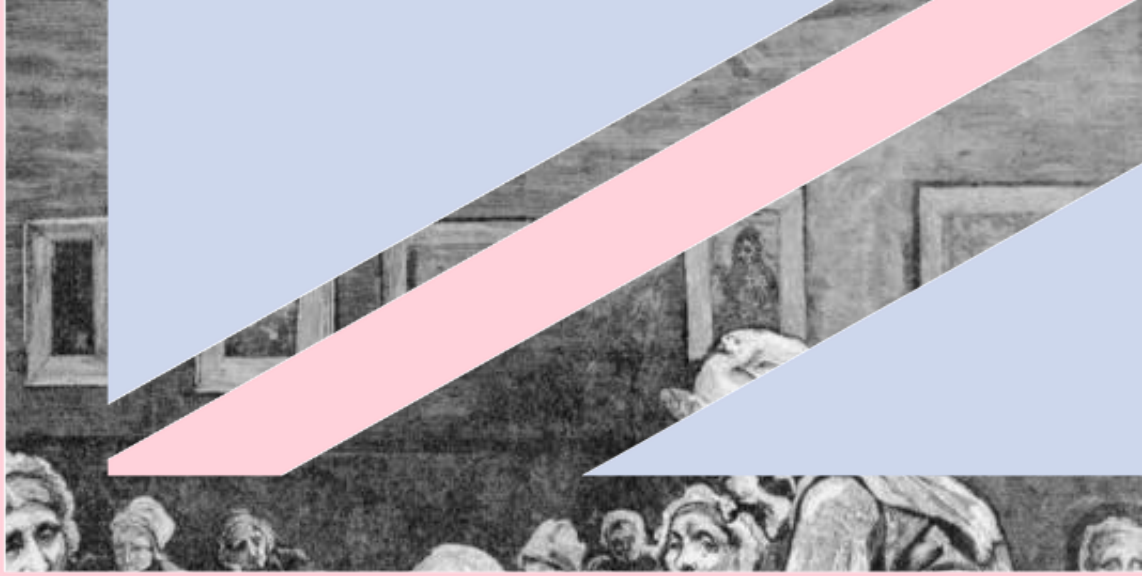


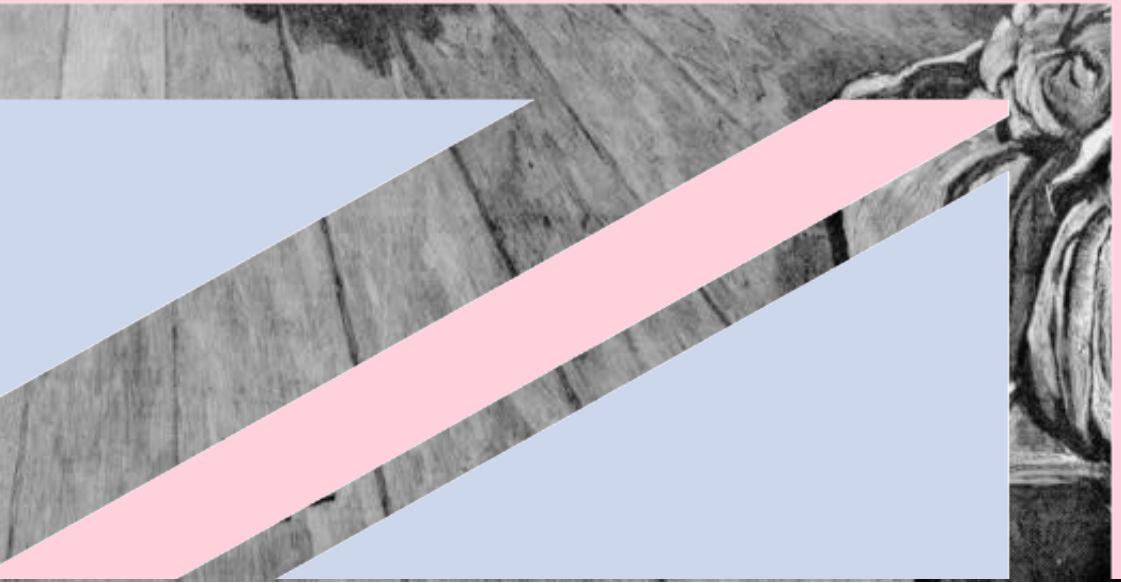
Participation or Isolation?

The Issues



Ageism



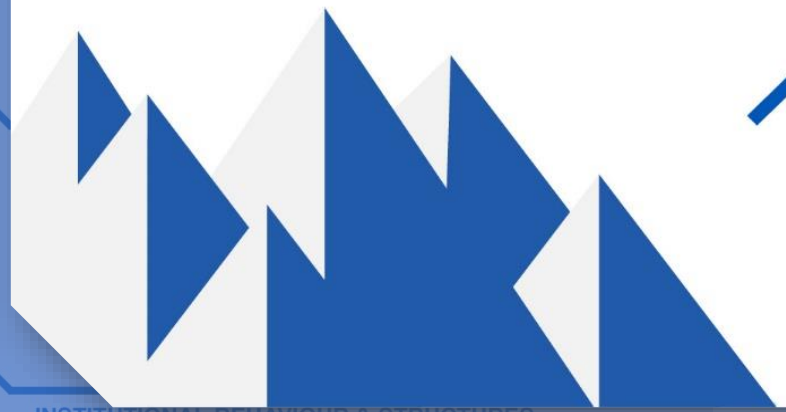


The Issues

Are we living longer or dying longer?

Purpose

SYSTEM SNAPSHOT – AN 'ICEBERG' VIEW OF LONG-TERM CARE



EVENT

Canadian Forces dispatched to long-term care facilities during COVID-19 first wave report that residents are dying in alarming numbers and that many of those still living are dwelling in deplorable conditions (unattended, dehydrated, disoriented, lying in their own urine/feces, etc.)

PATTERN

- Over 80% of first wave COVID-19 deaths were in long-term care facilities, by far the highest rate among OECD countries
- 27% of infected residents in LTC have died of COVID-19 (over 15,000 residence to date)
- Intensified social isolation, a major determinant of health

INSTITUTIONAL BEHAVIOUR & STRUCTURES

- Accountability gap (governments failed to act on over 150 commissioned reports and studies)
- Profit motivation of commercial LTC can lead to corner-cutting
- Non-profit LTC lacking financial flexibility to respond nimbly to emergencies
- Constitutional division of powers creates jurisdictional confusion

MENTAL MODELS & CULTURAL ASSUMPTIONS

- Systemic ageism
- Institutionalizing the 'indigent' (alms-based and 'out of sight, out of mind')
- 'Social contract' that preferences personal responsibility over societal responsibility

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SYSTEM SNAPSHOT – AN 'ICEBERG' VIEW OF LONG-TERM CARE

PRACTISES

- Overcrowded facilities (as many as four to a room)
- Overworked, underpaid and undertrained staff (often working multiple shifts at different facilities, spreading the virus in the process)
- Lack of PPE (prioritized for hospitals) and poor infection control
- Lax regulatory oversight and spotty inspection
- Inconsistent procedures and preparedness across facilities

POLICIES

- Patchwork of provincial regulatory regimes
- Low public expenditure (1.3% of GDP in Canada compared with OECD average of 1.7%)
- Lack of public home care alternatives (Canada spends only 0.2% of GDP on home care, the second lowest allocation in the OECD)
- Voluntary accreditation of LTC facilities
- Lack of certified training or rigourous standards for paid caregivers

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SYSTEMS SNAPSHOT – CAREER (DIS)EMPOWERMENT
JOURNEY MAP OF A PERSONAL SUPPORT WORKER

Note: This snapshot typifies the experience of a worker in either a commercial, private long-term care

TO PURSUE A REA
(DUE TO EXCL
AND HI
ntity

Education / Training

Employmen Status

Working Conditions

TO SEEK FAIRER OUTCOMES FROM EMPLOYER

Support

Little support to process, grieve, etc.
Support networks and philanthropy more focused on family caregivers

Migrant workers tied to single employer (whichh prevents them from quitting or complaining)

TO ADDRESS SYSTEMIC EXCLUSION

Agency & Influence

Low levels of unionization and alleged union-busting

Outsourcing

TO PURSUE A READILY AVAILABLE VOCATION

START

(DUE TO EXCLUSION FROM MUCH OF THE LABOUR MARKET AND HIGH DEMAND FOR WORKERS)

Origins & Identity

90% female
Large proportion racialized minority

Most workers are recent immigrants or temporary migrants

TO BE CERTIFIED TO WORK IN LTC OR HOME CARE

Education / Training

Private colleges are unaccredited
No standardized certification & no common nomenclature for PSW work

For homecare PSWs:
Foreign accreditation either not recognized or work is tied to single employer

SYSTEMS SNAPSHOT – CAREER (DIS)EMPOWERMENT
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TO OFFSET PRECARIOUS EMPLOYMENT

Employment Status

- 1 in 5 are temporary jobs
- 45% are part-time or casual jobs
- Many workers work in more than one facility
- Wages are low relative to nature of the work
- Few or no benefits

TO ALLEVIATE POOR WORKING CONDITIONS

Working Conditions

Lower access to PPE, poorer infection control
Patients, who became close to PSWs, die regularly in these settings

Both casual and institutional racism is common
Long shifts and unpaid hours

philanthropy more focused on family caregivers

or complaining)

TO ADDRESS SYSTEMIC EXCLUSION

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TO SEEK FA…

…er…

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SYSTEMS SNAPSHOT – INFLUENCE DYNAMICS IN FAMILY CAREGIVING CHOICES

ETHICS: COMPASSION
Moral obligation to care for loved one

ETHOS: AGING IN PLACE
Reinforced by research as good practice

SYSTEM FAILURE: LONG-TERM CARE
Family members removing loved ones from LTC and congregate living facilities

DRIVERS

FAMILY CAREGIVERS
(a.k.a. informal/ unpaid caregivers)

EMPLOYMENT PRESSURE AND DISCONNECTS
Maxing out vacation, sick leave and personal days (absent workplace benefits or other employer provisions, caregiver is forced to take unpaid leave or quit)
Mental and physical exhaustion
Lack of employer support and empathy
Society does not recognize this as work

Mental 'fog' (the elder care of equivalent of 'baby brain')
Atrophy of Skills and Knowledge
Financial pressure

SOCIAL ISOLATION AND 'INVISIBILITY'
Lack of connection and recognition
Risk of depression

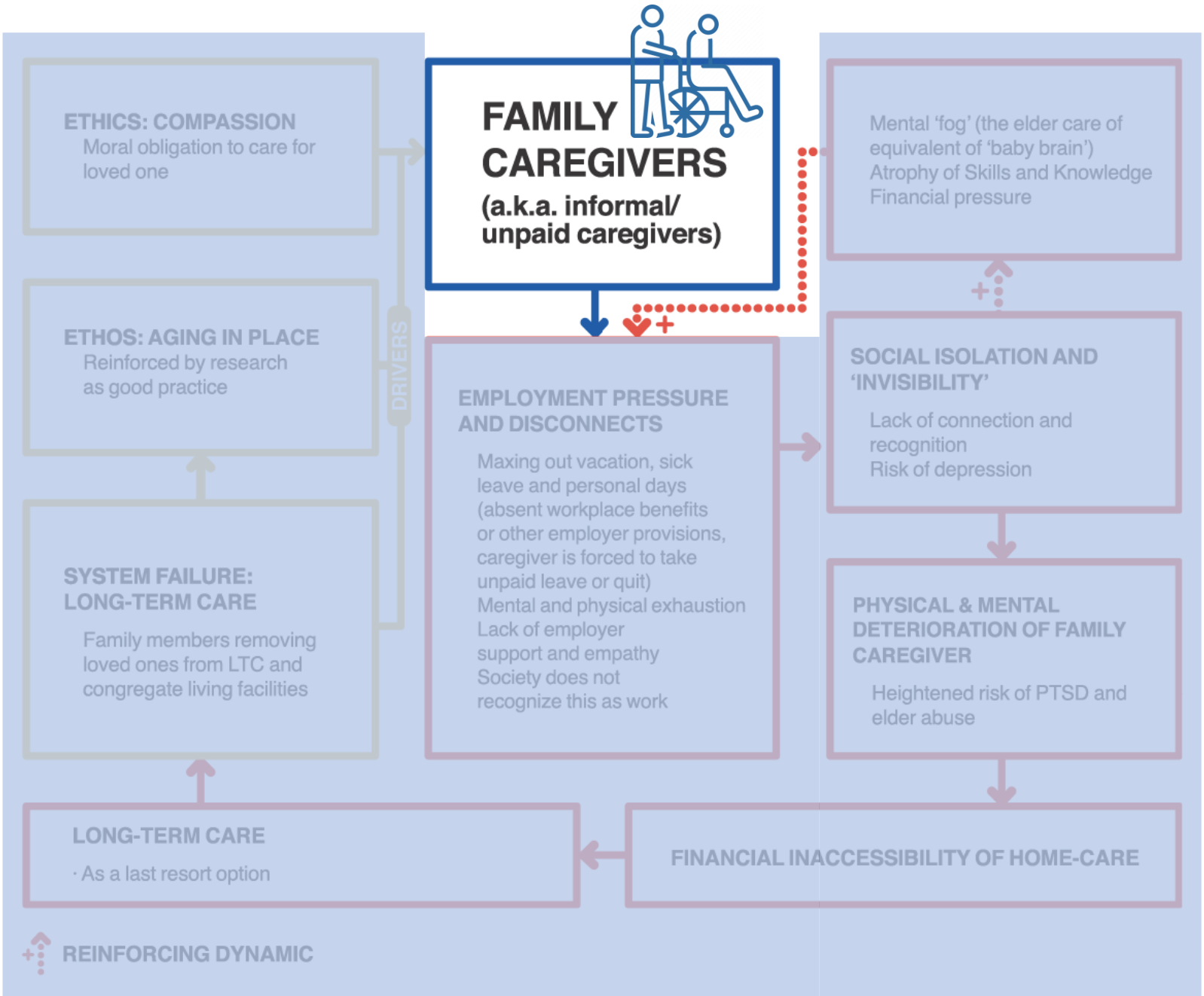
PHYSICAL & MENTAL DETERIORATION OF FAMILY CAREGIVER
Heightened risk of PTSD and elder abuse

FINANCIAL INACCESSIBILITY OF HOME-CARE

LONG-TERM CARE
· As a last resort option

REINFORCING DYNAMIC

SYSTEMS SNAPSHOT – INFLUENCE DYNAMICS IN FAMILY CAREGIVING CHOICES



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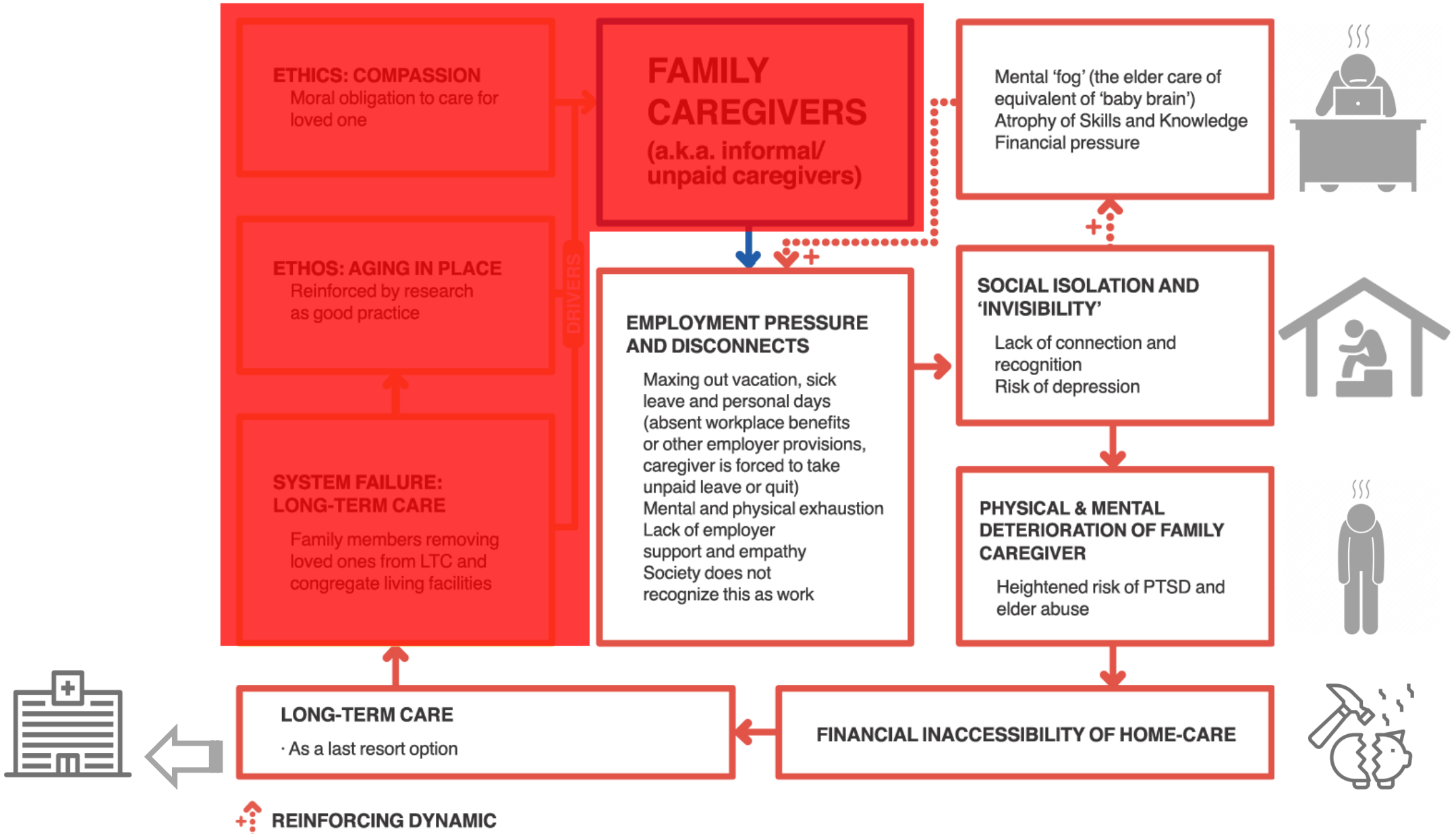
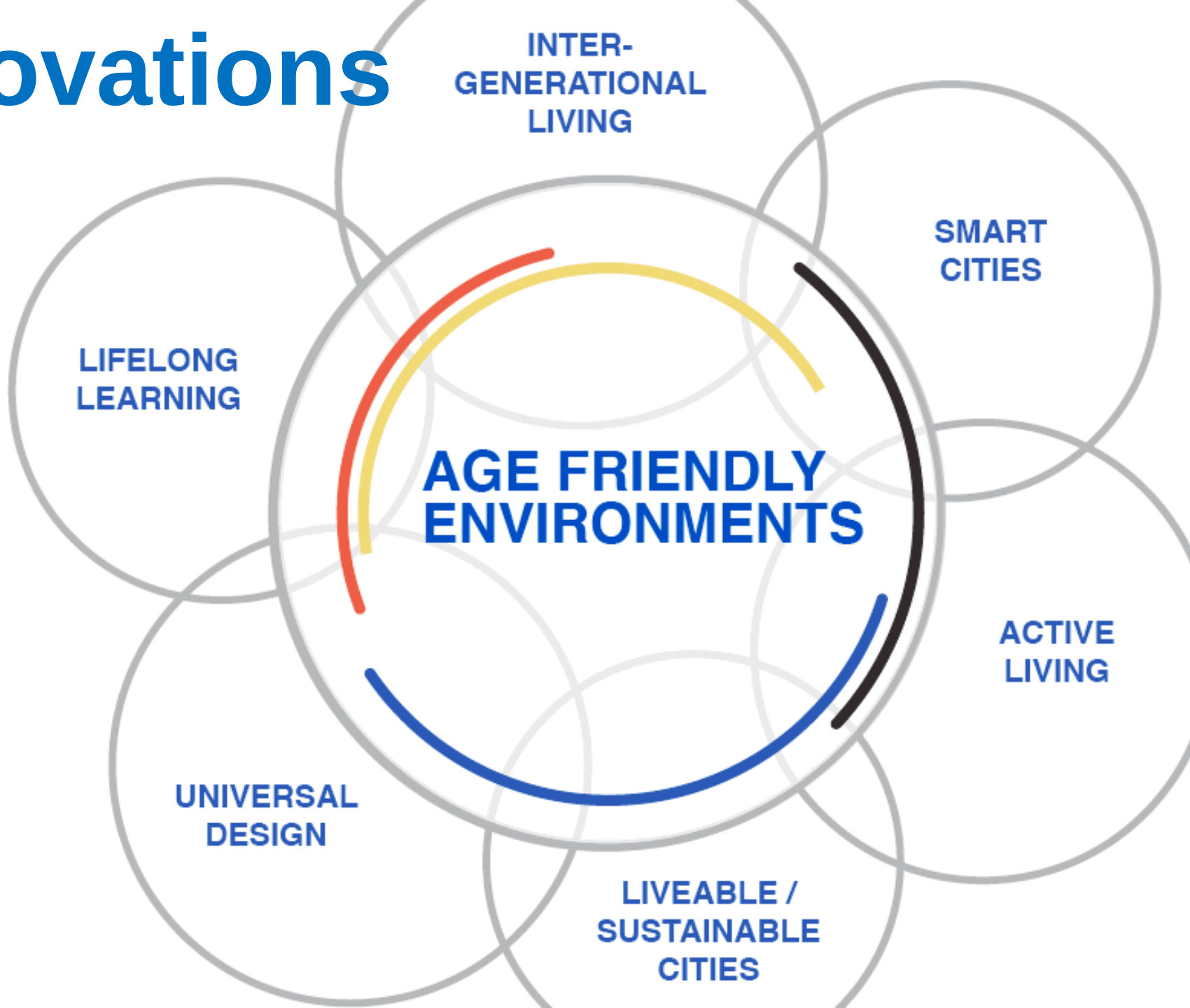


The Innovations



SYSTEMS SNAPSHOT – INFLUENCE DYNAMICS IN FAMILY CAREGIVING CHOICES (WITH LEVERAGE POINTS IDENTIFIED)

ETHICS: COMPASSION
Moral obligation to care for loved one

ETHOS: AGING IN PLACE
Reinforced by research as good practice

Universalized aging-in-community practices, from enhanced housing options, to urban design and planning, to age tech

DRIVERS

SYSTEM FAILURE: LONG-TERM CARE
Family members removing loved ones from LTC and congregate living facilities

FAMILY CAREGIVERS
(a.k.a. informal/ unpaid caregivers)

Mental 'fog' (the elder care of equivalent of 'baby brain')
Atrophy of Skills and Knowledge
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EMPLOYMENT PRESSURE AND DISCONNECTS
Maxing out vacation, sick leave and personal days (absent workplace benefits or other employer provisions, caregiver is forced to take unpaid leave or quit)
Mental and physical exhaustion
Lack of employer support and empathy
Society does not recognize this as work

Widespread employer behaviour change through societal awareness, human rights court action, labour regulation, and employer HR policy shifts

SOCIAL ISOLATION AND 'INVISIBILITY'
Lack of connection and recognition
Risk of depression

More widespread, easily accessed respite (including respite for learning and skills development) for caregivers, broader tax relief, universal basic income, etc.

PHYSICAL & MENTAL DETERIORATION OF FAMILY CAREGIVER
Heightened risk of PTSD and elder abuse

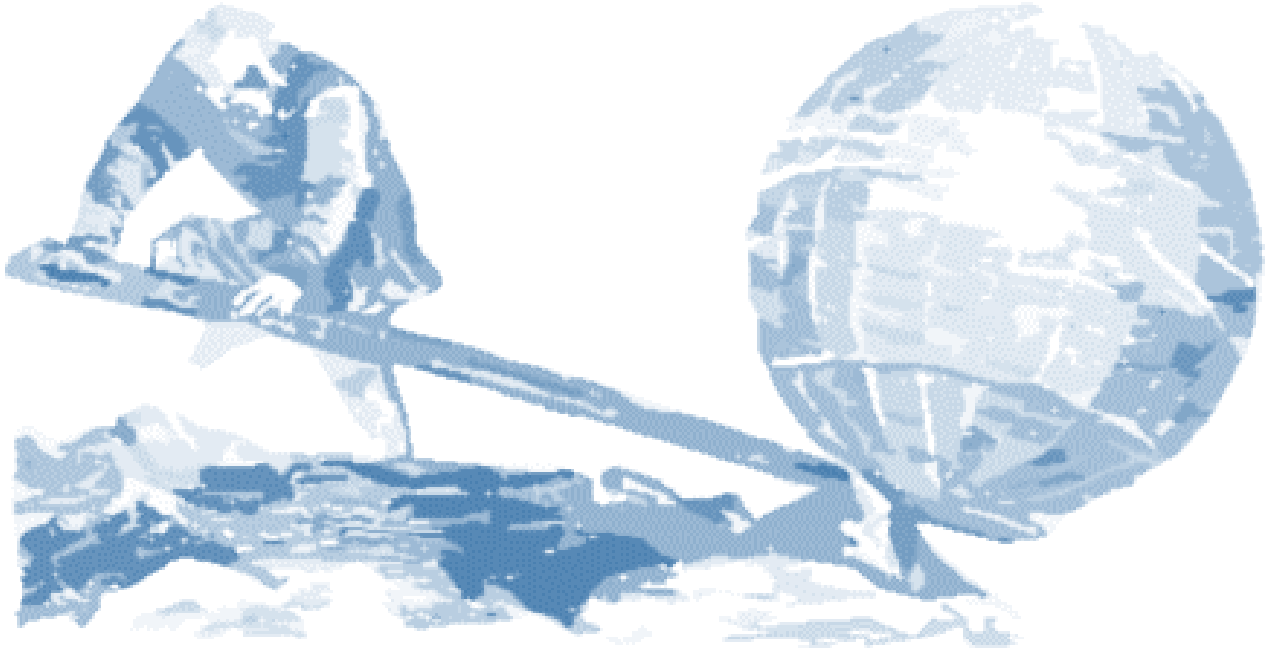
Subsidized and enhanced access to mental health resources for caregivers

FINANCIAL INACCESSIBILITY OF HOME-CARE

Universal home care, or additional home care subsidies and tax relief measures

LONG-TERM CARE
· As a last resort option

Public policy, design reforms, and overhaul of formal caregiver pipeline to enhance long-term care facilities



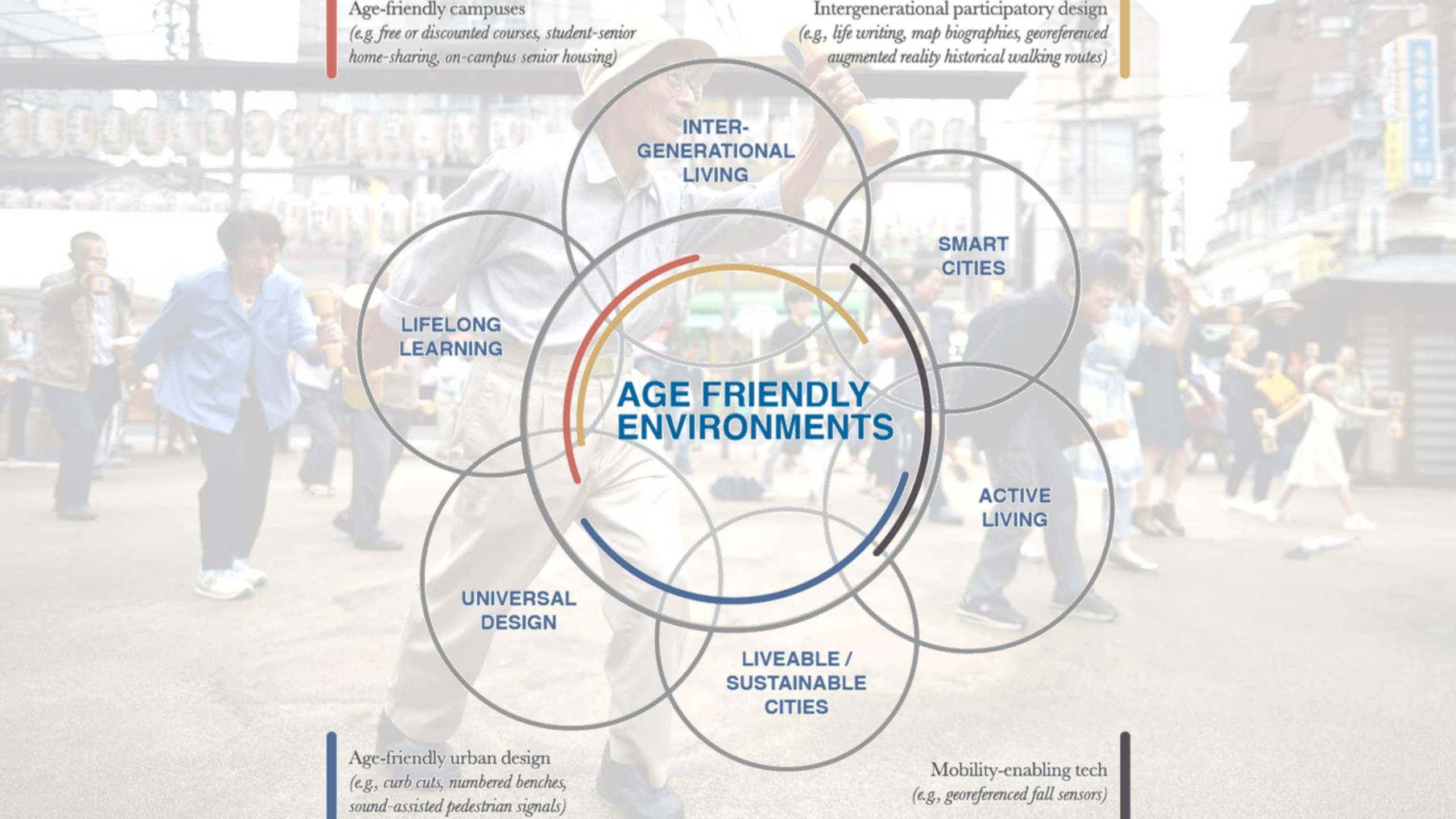
LEVERAGE POINTS **REINFORCING DYNAMIC**

In order to identify and understand leverage points, one must first understand

The Innovations

Age-friendly campuses
(e.g. free or discounted courses, student-senior home-sharing, on-campus senior housing)

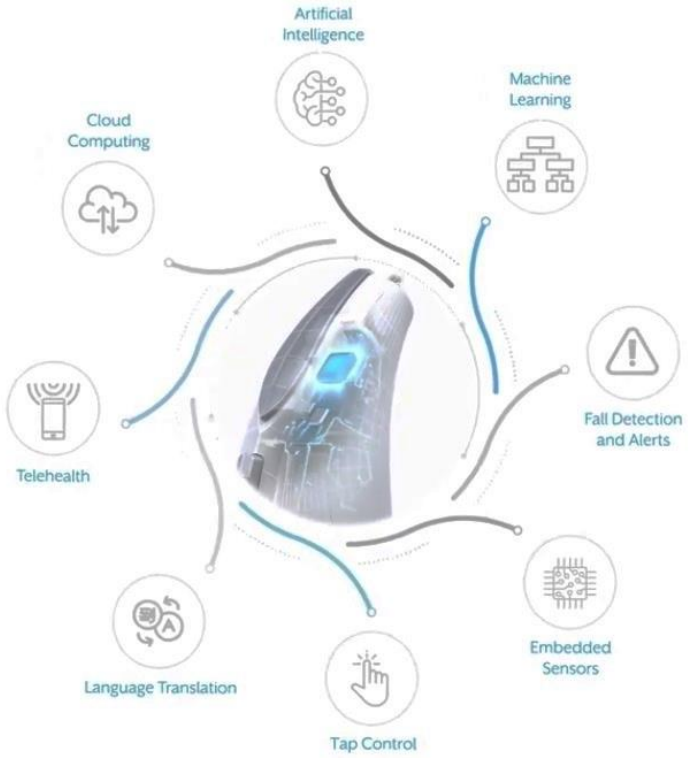
Intergenerational participatory design
(e.g., life writing, map biographies, georeferenced augmented reality historical walking routes)



Age-friendly urban design
(e.g., curb cuts, numbered benches, sound-assisted pedestrian signals)

Mobility-enabling tech
(e.g., georeferenced fall sensors)

Age Tech


Artificial Intelligence
Machine Learning
Cloud Computing
Fall Detection and Alerts
Telehealth
Embedded Sensors
Language Translation
Tap Control

BEHAVIORAL MARKERS THAT ARE EXTRACTED FROM SENSOR DATA[252]

Category	Features
Mobility	Step count, walking speed, step length, daily distance covered, number and duration of times in one spot, number walking bouts, activity level
Exercise	Number, duration, movement types, intensity, location
Sleep	Number and duration of daily sleep bouts, sleep times, sleep locations, sleep fitfulness, sleep interruptions, sleep apnea
Activity	Number, duration, and location of basic and instrumental activities of daily living
Environment	Frequented locations with type, outdoor walkability score, indoor and outdoor air quality, temperature, light levels, sound levels, number of residents, environment clutter

City4Age

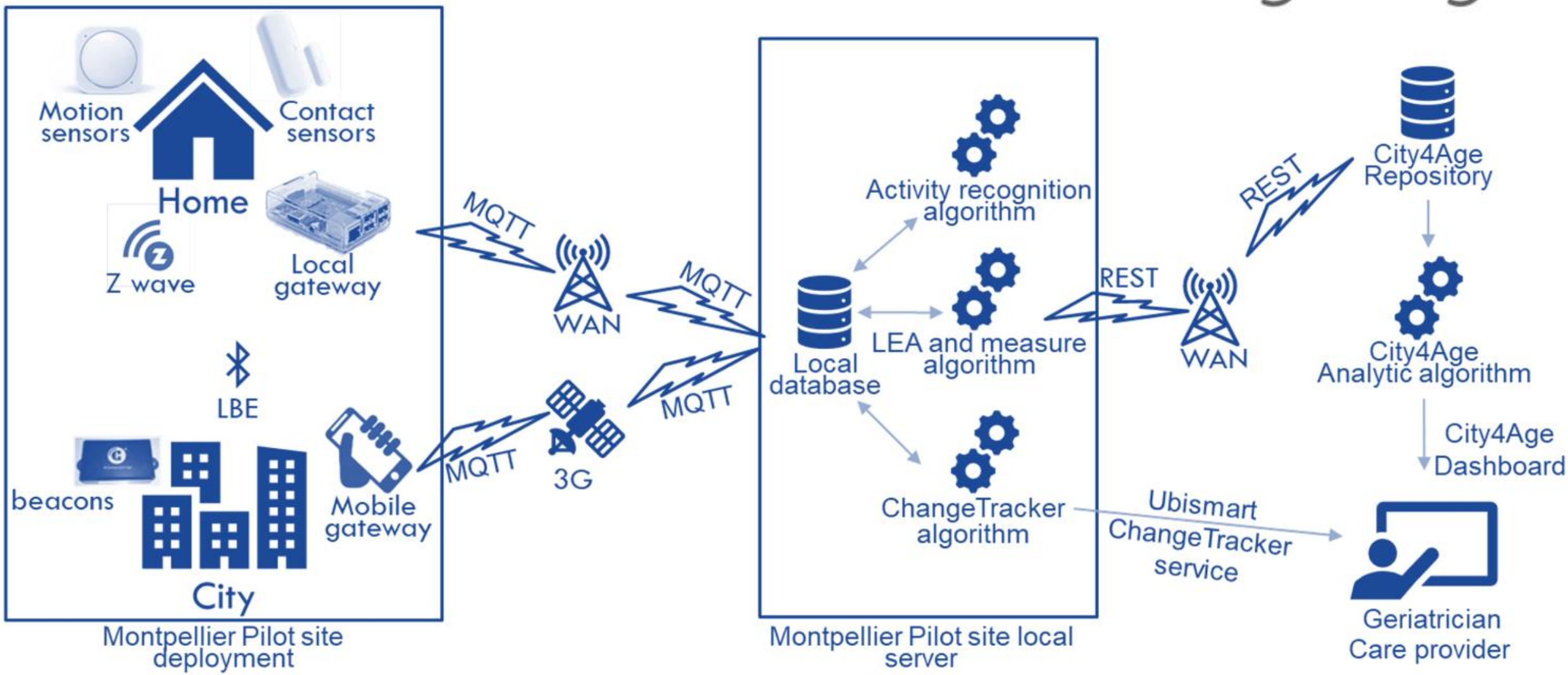
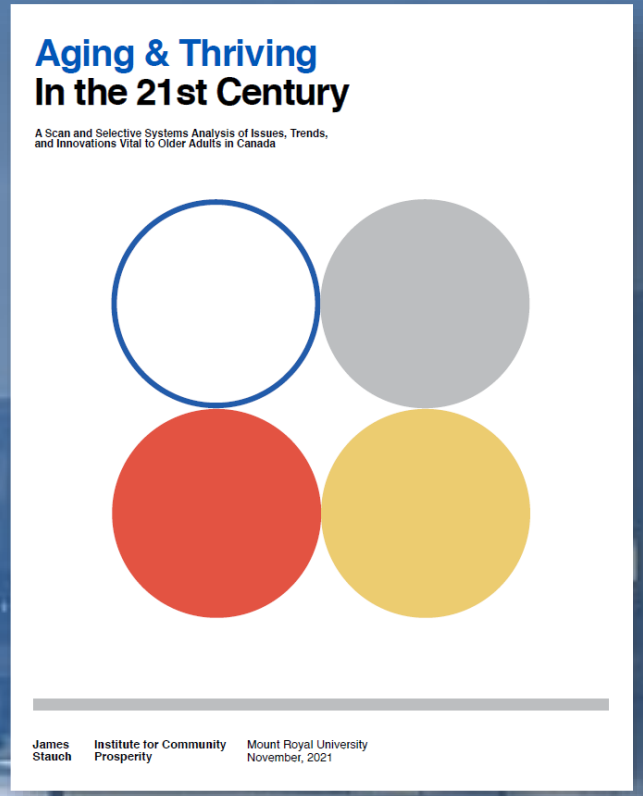
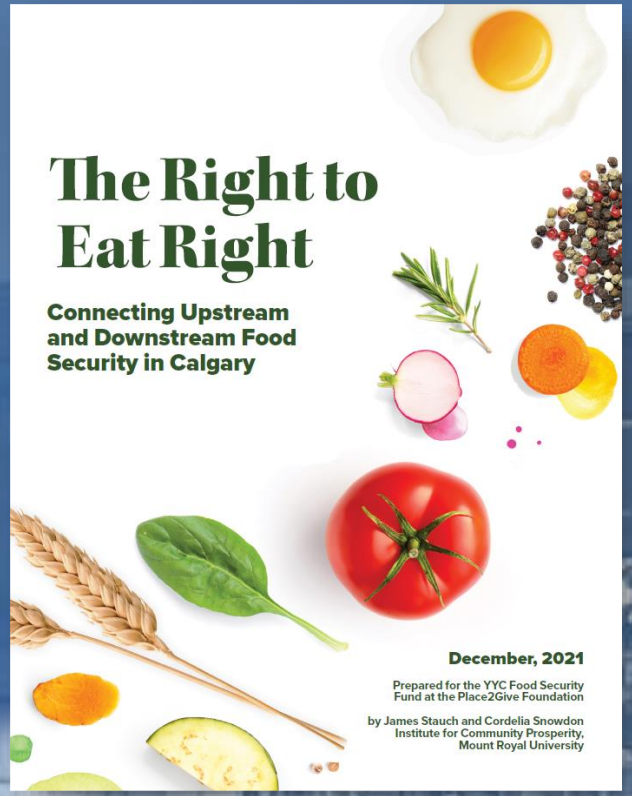

Motion sensors
Contact sensors
Home
Z wave
Local gateway
LBE
beacons
Mobile gateway
City
Montpellier Pilot site deployment
MQTT
WAN
MQTT
MQTT
3G
MQTT
Activity recognition algorithm
Local database
LEA and measure algorithm
ChangeTracker algorithm
Montpellier Pilot site local server
REST
WAN
REST
City4Age Repository
City4Age Analytic algorithm
City4Age Dashboard
Ubismart ChangeTracker service
Geriatrician Care provider

Photo: Franck Robichon/EPA, *The Guardian*





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Institute for Community Prosperity

WELLBEING ECONOMY ALLIANCE

ASHOKA U CHANGEMAKER CAMPUS SINCE 2017

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