Sinai Health | Healthy Ageing and Geriatrics

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What Has the COVID-19 Pandemic Taught Us About the Future for Caring for Older Canadians

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2021 SHS/UHN Geriatrics Institute Education Day
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Disclosure and Financial Support – Dr. Stall

- **No Conflicts of Interest to Disclose**
  - No relationships with commercial interests
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  - Receive income as Associate Editor at CMAJ
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Disclosure and Financial Support – Dr. Sinha

- **Commercial Relationships and Sources of Financial Support**
  - Receive Honoraria as an Advisory Board Member – Telus, Bayshore Health and Closing the Gap Healthcare
- **Other Sources of Financial Support**
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  - Receive income as Director of Health Policy Research, National Institute on Ageing

Learning Objectives

- Understand the epidemiology of COVID-19 in older adults in community and residential care settings
- Understand why Canada has experienced the highest global rates of COVID-19 deaths in its residential care settings compared to any other jurisdiction and why some jurisdictions did better than others.
- What was the early impact of the COVID-19 vaccine rollout on Ontario's LTC homes?
- How should our COVID-19 experiences help accelerate how we consider the future delivery of geriatric and long-term care in Canada?

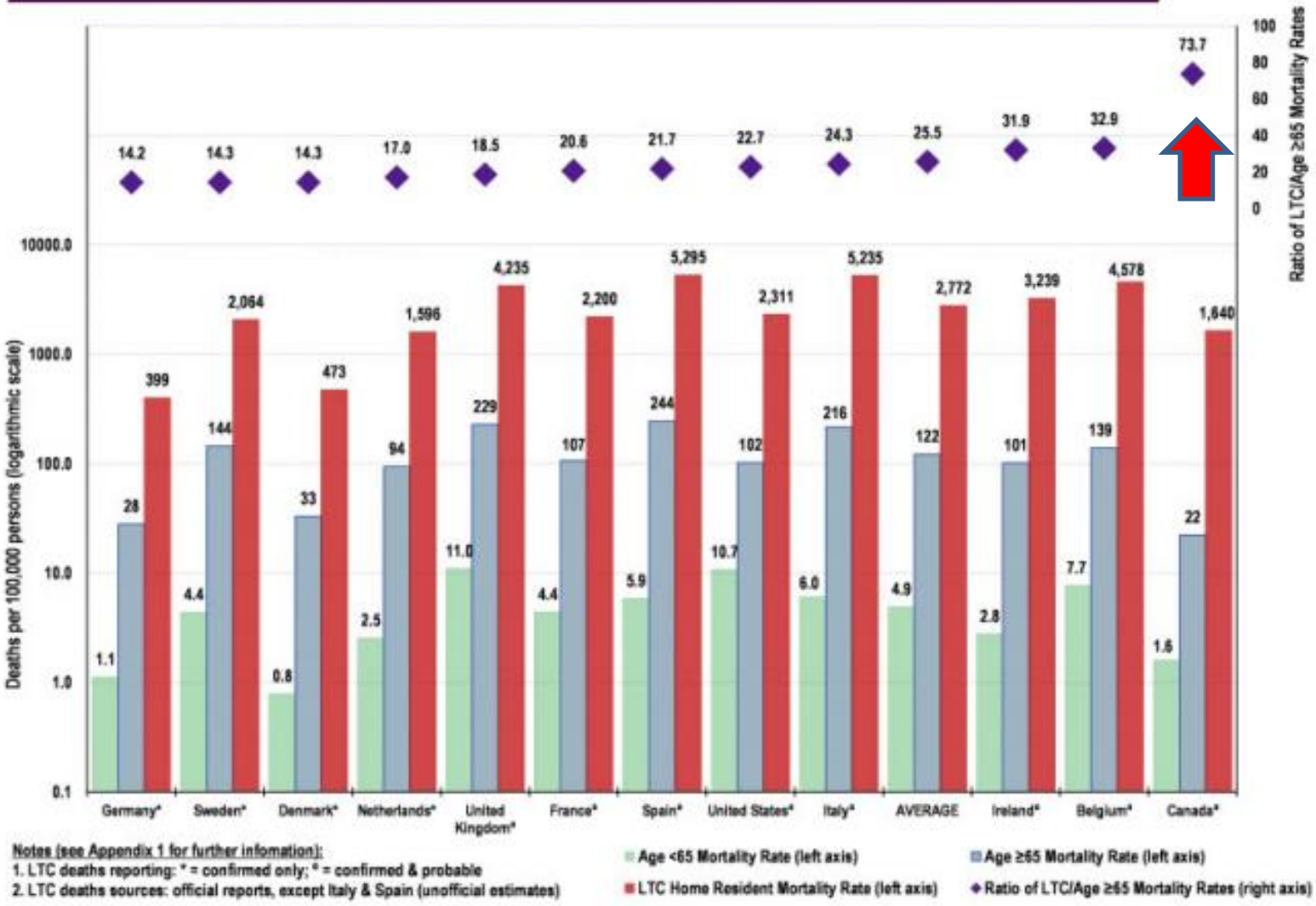
COVID-19 Has a Predilection for the Old

- Most Novel Viruses Affect those with Less Developed and Weakened Immune Systems: Young, Old and Chronically Ill
- CASE FATALITY RATES:
  - <18 = <1%
  - 18-59 = 1-2%
  - 60-69 = 3%
  - 79-79 = 8%
  - 89-89 = 15%
  - 90+ = 25%
  - LTC – 28%

95% of Canada's 26,000 COVID-19 Deaths have occurred in Canadians 60+

59% have occurred in LTC and Retirement Home Settings

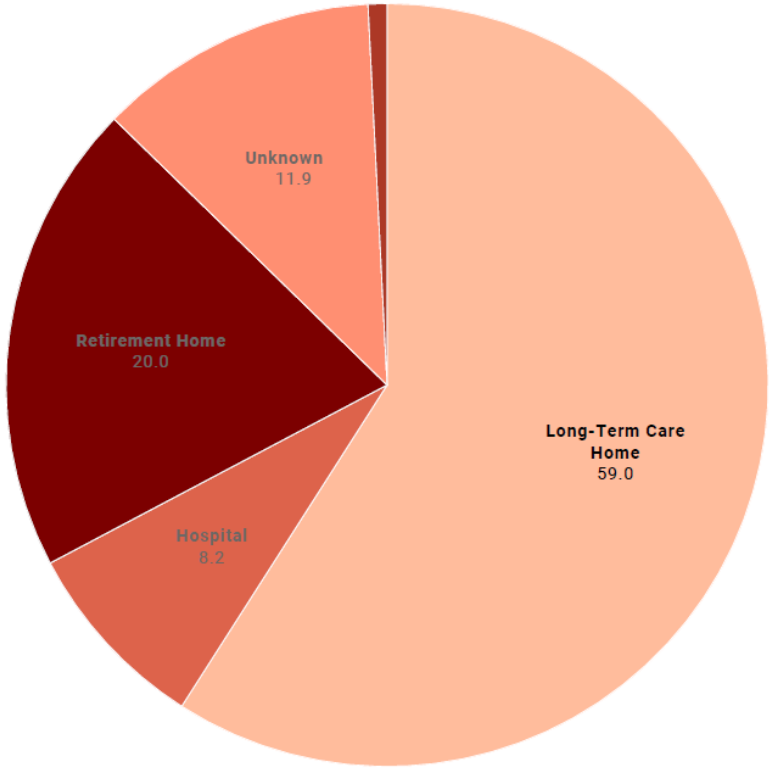
Figure 4: Death per 100,000 among LTC Residents, Older Adults, and People Aged 64 Years and Younger Across 12 OECD Countries (Sepulveda, Stall, & Sinha, 2020)



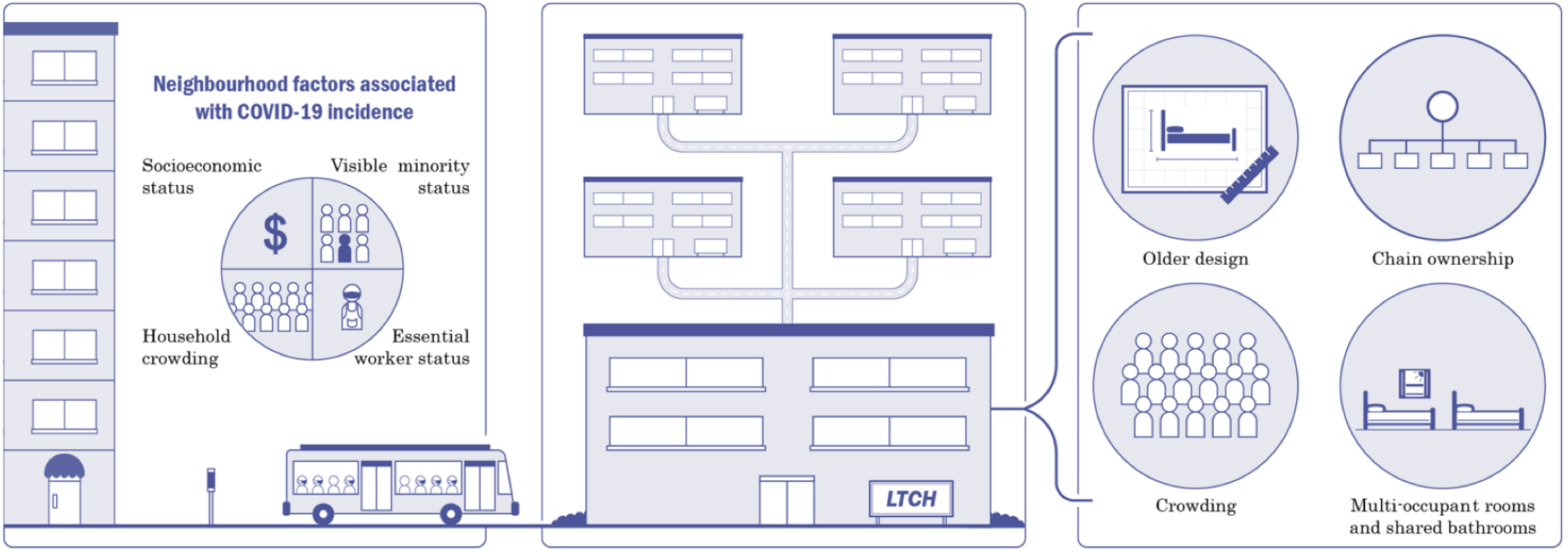
Where Ontario's Outbreaks Live…

- Ontario's LTC Homes have faced 3x and 7.5x the number of influenzas, rhinoviruses, coronaviruses, combined outbreaks and other infections that Retirement Homes + Hospitals did between 2014-2019.

Chart: Victoria Gibson/iPolitics
Source: Public Health Ontario respiratory virus bulletins



Anatomy of LTC Outbreaks and Spread



Many LTC staff live in COVID-19 hotspots

Outbreaks begin in LTC homes when COVID-19 is imported from the community

1. Undetected asymptomatic and pre-symptomatic staff
2. Absence of universal paid sick-leave
3. Employment of part-time staff who work multiple jobs
4. Temporary staff work in multiple healthcare settings

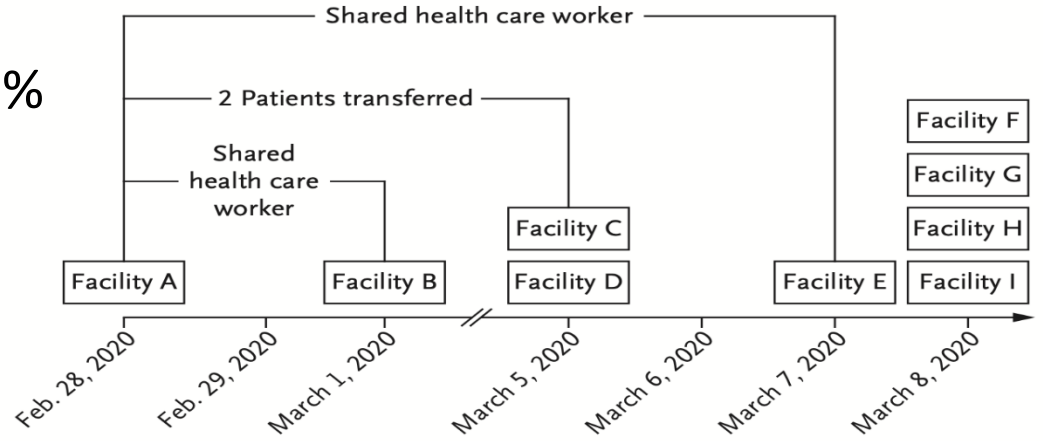
Outbreaks spread in LTC homes

1. Staffing shortages
2. Availability of personal protective equipment
3. Insufficient infection prevention and control

Epidemiology of COVID-19 in LTC Settings

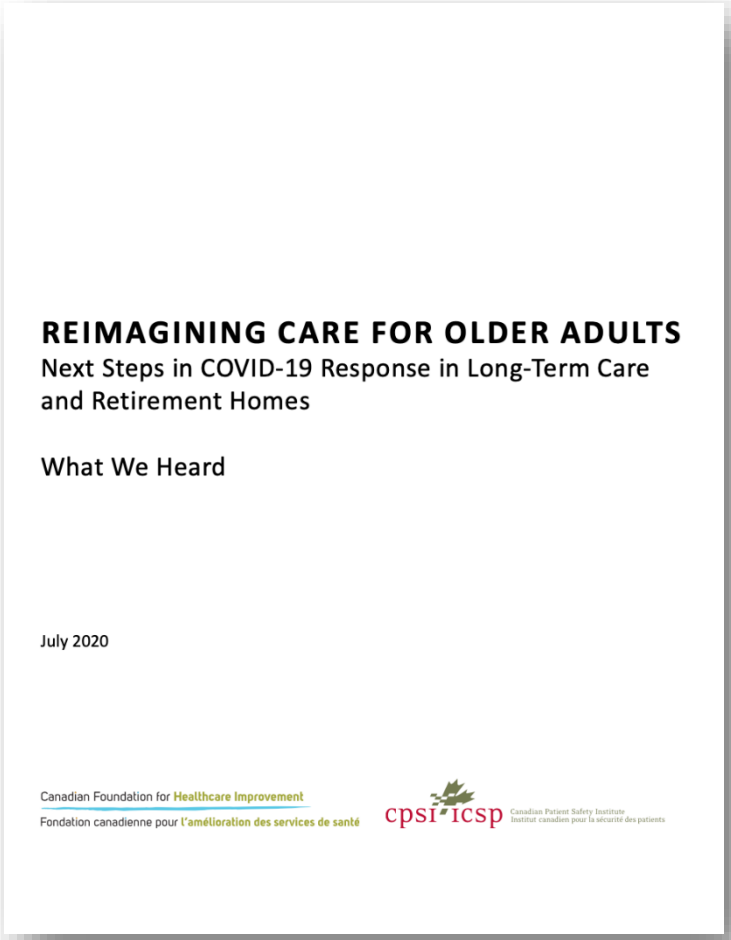
- LTC residents are at high risk of contracting SARS-CoV-2:
  - Congregant living
  - Exposure to staff (and visitors)
  - Challenges with physical distancing and hand hygiene

- LTC residents are at Increased Risk of COVID-19 Morbidity and Mortality:
  - Advanced Age (Immunosenescence)
  - Multimorbidity
  - Case fatality rates ~25-35%

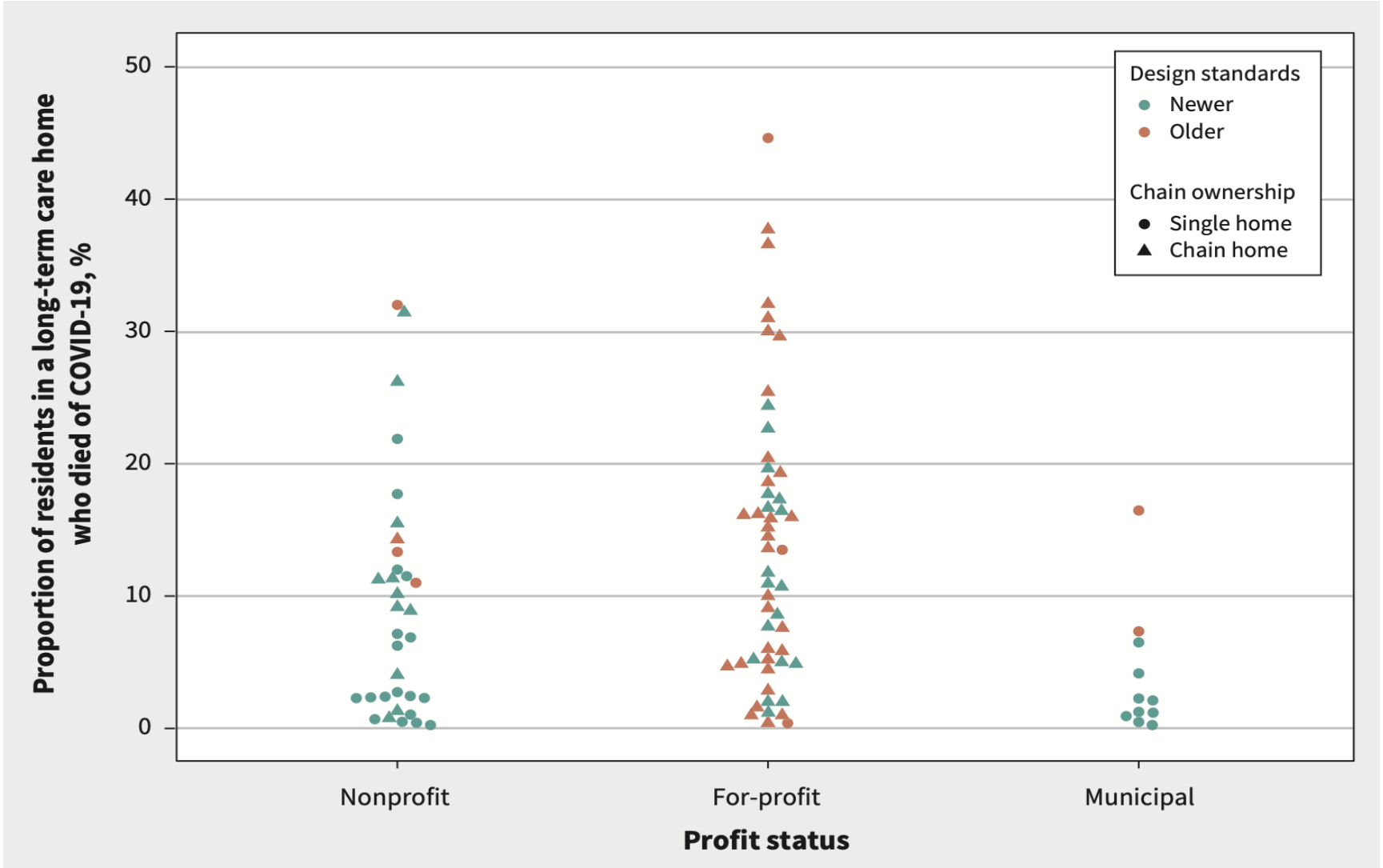


LTC Preparedness and Early Experiences

- **COVID-19 Exposed Longstanding Vulnerabilities in LTC Settings:**
  - Chronic under-resourcing
  - Rising acuity of residents
  - Infrastructure/facility risks
  - Staffing challenges
  - Underlying demographics of healthcare workers
  - High numbers of people coming into homes with limited infection control measures
  - Insufficient IPAC training and practices
  - Uneven medical direction practices and responsibilities



Infrastructure and Facility Risks



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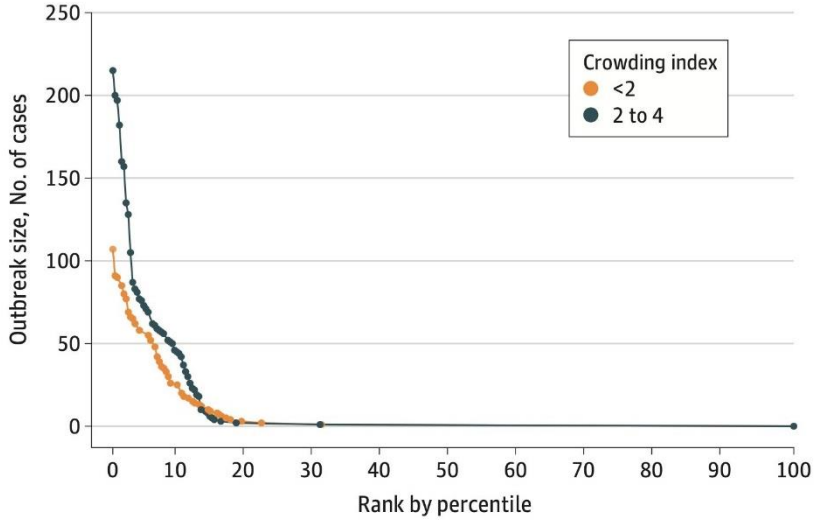
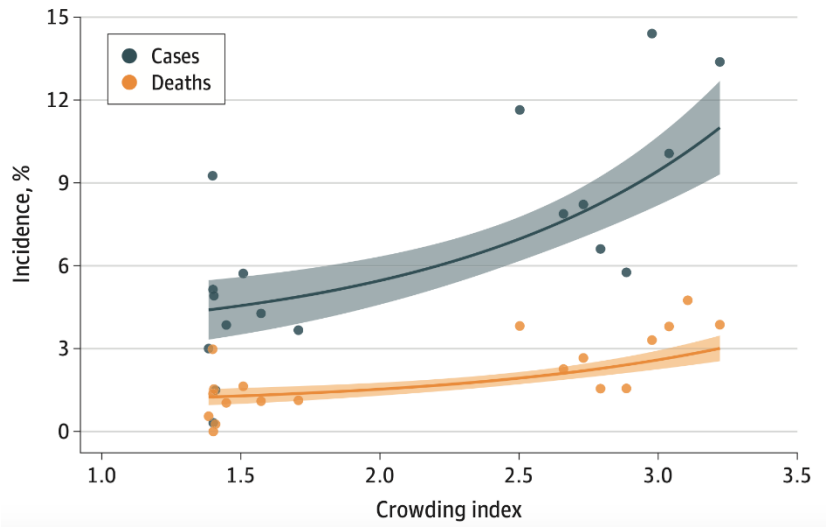
Infrastructure and Facility Risks

- As of March 29th, there were 78,607 resident beds in LTC homes, with 36.9%, 37.3%, and 25.8% in single, double, and quadruple-bedded rooms
- Crowding index (mean residents per room and bathroom) associated with an increased incidence of infection (RR = 1.73) and mortality (RR = 1.69)
- Simulations suggested that converting all 4-bed rooms to 2-bed rooms would have averted 998 COVID-19 cases (19.1%) and 263 deaths (18.1%)





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Canada's Reponses Have Been Variable

- **Every province/territory has acted differently at different time points**
  - ➢Restricting all "non-essential" visits
  - ➢Preventing staff to work in multiple settings
  - ➢Masking all staff and visitors
  - ➢Implementing infection prevention and control policies for COVID-19 and not influenza – including making more space to isolate residents during an outbreak
  - ➢More flexible admission and discharge policies
  - ➢Supporting the introduction of family presence policies in care homes

https://www.nia-ryerson.ca/covid-19-long-term-care-resources

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Table 1. The NIA's Long-Term COVID-19 Tracker First Wave and Second Wave Data on LTC and Retirement Home Outbreaks as of February 15, 2021

Canadian Jurisdiction	Total Number of Homes	Total Number of Homes Affected		Total Number of Residents Deaths (Resident Case Fatality Rate %)		Total Number of Resident Cases		Total Number of Staff Cases		Total Number of Staff Deaths	
		First Wave	Second Wave*	First Wave	Second Wave*	First Wave	Second Wave*	First Wave	Second Wave*	First Wave	Second Wave*
QC	2,215	588	451	4,902 (38%)**	2,814 (26%)	13,012***	13,535****	7,850*****	Unknown*****	8	4
ON	1,396	479	408	2,072 (31%)	2,225 (21%)	6,716	10,380	3,445	7,925	8	3
AB	350	85	183	153 (24%)	1,013 (14%)	641	7,057	503	2,037	0	4
BC	392	46	110	120 (34%)	567 (28%)	357	2,041	226	1,259	0	0
NS	134	13	0	57 (22%)	0	259	0	133	0	0	0
SK	402	4	96	2 (50%)	84 (21%)	4	402	4	230	0	0
MB	261	6	80	3 (50%)	465 (28%)	6	1,653	8	805	0	0
NL	125	1	0	0	0	1	0	0	0	0	0
NB	468	2	11	2 (13%)	13 (12%)	16	109	10	73	0	0
PEI	39	1	0	0	0	0	0	1	0	0	0
YT	5	0	0	0	0	0	0	0	0	0	0
NWT	9	0	0	0	0	0	0	0	0	0	0
NU	5	0	0	0	0	0	0	0	0	0	0
CANADA	**5,801**	**1,225**	**1,339**	**7,311 (35%)**	**7,181 (20%)**	**21,012**	**35,177**	**10,409*****	**14,101*****	**16**	**11**

Disclaimer: This table was generated with raw data that has not undergone cleaning at this point. Any future analysis with this data may result in different conclusions or results.

* Second Wave began September 1, 2020 and was not concluded as of February 15, 2021

Impact on Family Presence

Impact on Family Presence

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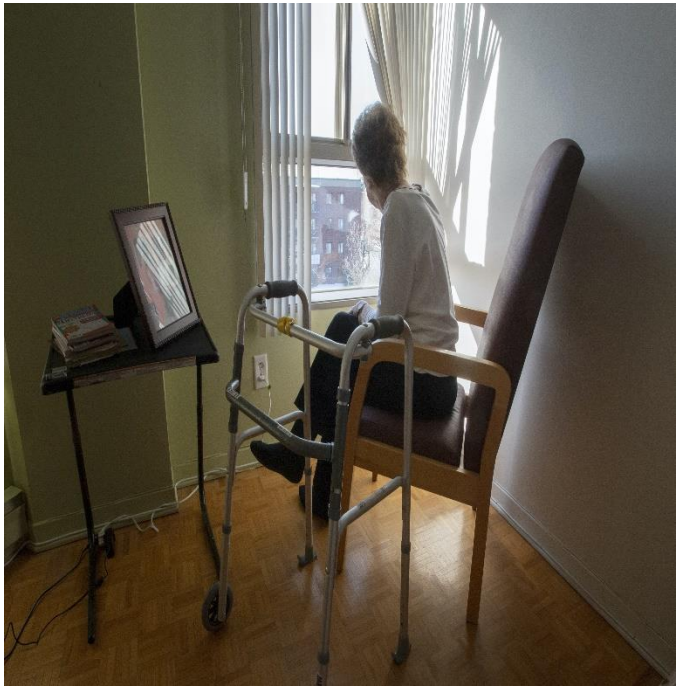
The “Confinement Syndrome”



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journal homepage: www.jamda.com

Letter to the Editor

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)-Related Deaths in French Long-Term Care Facilities: The “Confinement Disease” Is Probably More Deleterious Than the Coronavirus Disease-2019 (COVID-19) Itself

To the Editor:

To date, coronavirus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has infected 2.2 million people and has killed more than 150,000.[1] The population groups most susceptible to severe and fatal coronavirus disease-2019 (COVID-19) are older adults and those with chronic underlying chronic medical disorders. The residents of long-term care facilities (LTCFs) typically combine those 2 features and are, thus, particularly at risk. In France, 9.4% of the population is over age 75 years and nearly 600,000 people currently reside in LTCFs for older dependent individuals. To date, more than 60% of the French LTCFs have reported at least 1 case of COVID-19 among their residents.

Estimated overall mortality among patients with COVID-19 is 10% in France but reaches up to 30% in LTCFs. There are, however, substantial differences in mortality rates between the different LTCFs. [2] What explains these differences?

We intervened in 1 LTCF located in the Southern Île-de-France region that had registered more than 24 deaths related to COVID-19 among the 140 residents in 5 days. No acute respiratory distress syndrome was observed, and mortality was mainly due to hypovolemic shock. Most of the victims had been left alone in their rooms for confinement settings for many days without help because of the lack of protective masks and the work overload for caregivers affected by a 40% staff absenteeism rate. The dependent infected residents were confined and no longer received the usual assistance for drinking and eating. In addition, general practitioners stopped their physical examination visits, limiting their interventions to telemedicine, which proved unsuitable whenever feasible at all.

With appropriate resources lacking, the “disease linked to confinement” thus proved more fatal than COVID-19 itself. We did not observe this phenomenon in other LCTFs where healthcare staff and physicians were physically present in full force.

A task force team intervened as soon as the fifth death was reported. Adapted infusion to restore hydroelectrolytic balance as well as oxygen therapy per World Health Organization guidelines led to a rapid improvement of this high mortality trend.[3,4]

Disproportionate mortality because of COVID-19 in LTCFs is not a fatality. Continuous provision of pragmatic medicine and wellness care will limit the devastating impact of this infection in dependent older people.

References

1. Dong E, Du H, Gardner L. An interactive web-based dashboard to track COVID-19 in real time. Lancet Infect Dis 2020;20:533–534.
2. Santé Publique France. Available at: https://www.santepubliquefrance.fr/maladies-et-traumatismes/maladies-et-infections-respiratoires/infection-a-coronavirus/documents/bulletin-national/covid-19-point-epidemiologique-du-9-avril-2020. Accessed April 18, 2020.
3. World Health Organization. Clinical management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected: Interim guidance V 1.2. Available at: https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected. Accessed April 18, 2020.
4. World Health Organization. Integrated care for older people (ICOPE): Guidance for person-centred assessment and pathways in primary care. World Health Organization. Available at: https://apps.who.int/iris/handle/10665/326843. Accessed April 18, 2020.

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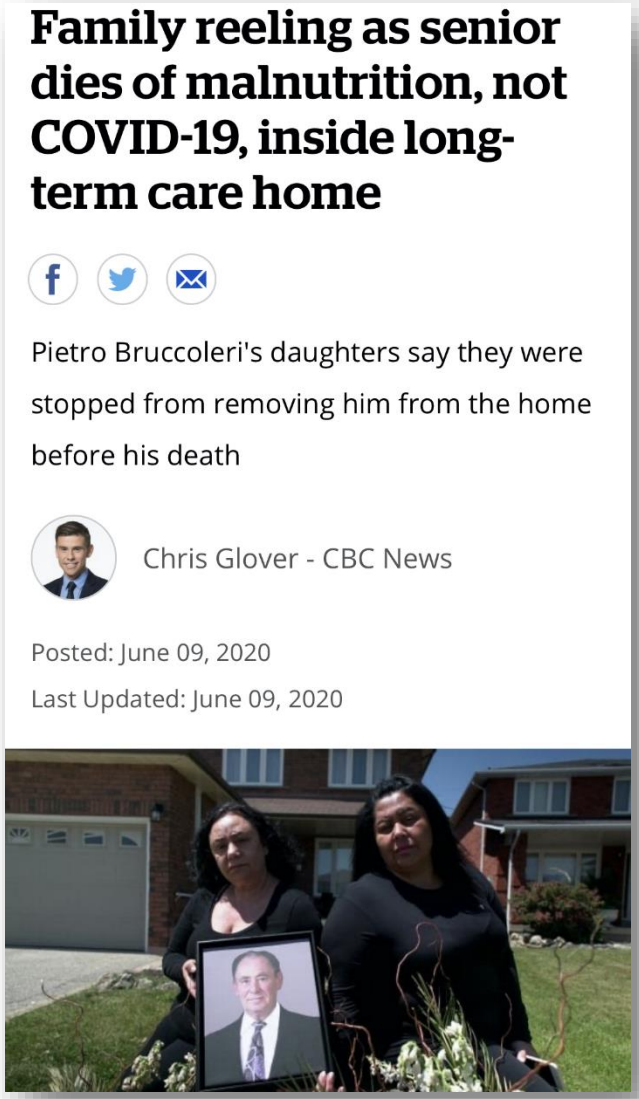
The “Confinement Syndrome”

- **Collateral Damages:**
  - ➢Dehydration and malnutrition
  - ➢Physical and functional decline
  - ➢Exacerbation of chronic medical conditions and mental health disorders
  - ➢Cognitive decline and delirium
  - ➢Worsening of responsive behaviors
  - ➢Loneliness and social isolation
  - ➢Psychological distress, depression and anxiety



Family reeling as senior dies of malnutrition, not COVID-19, inside long-term care home

Pietro Bruccoleri's daughters say they were stopped from removing him from the home before his death

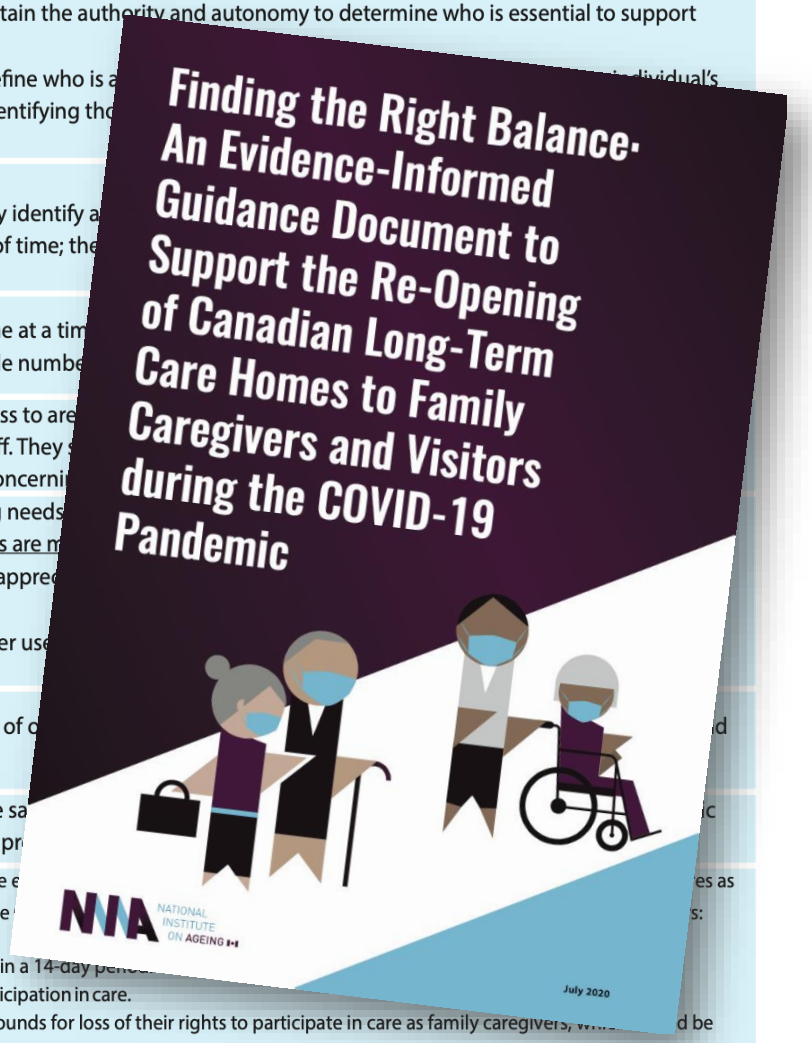
Chris Glover - CBC News

Posted: June 09, 2020

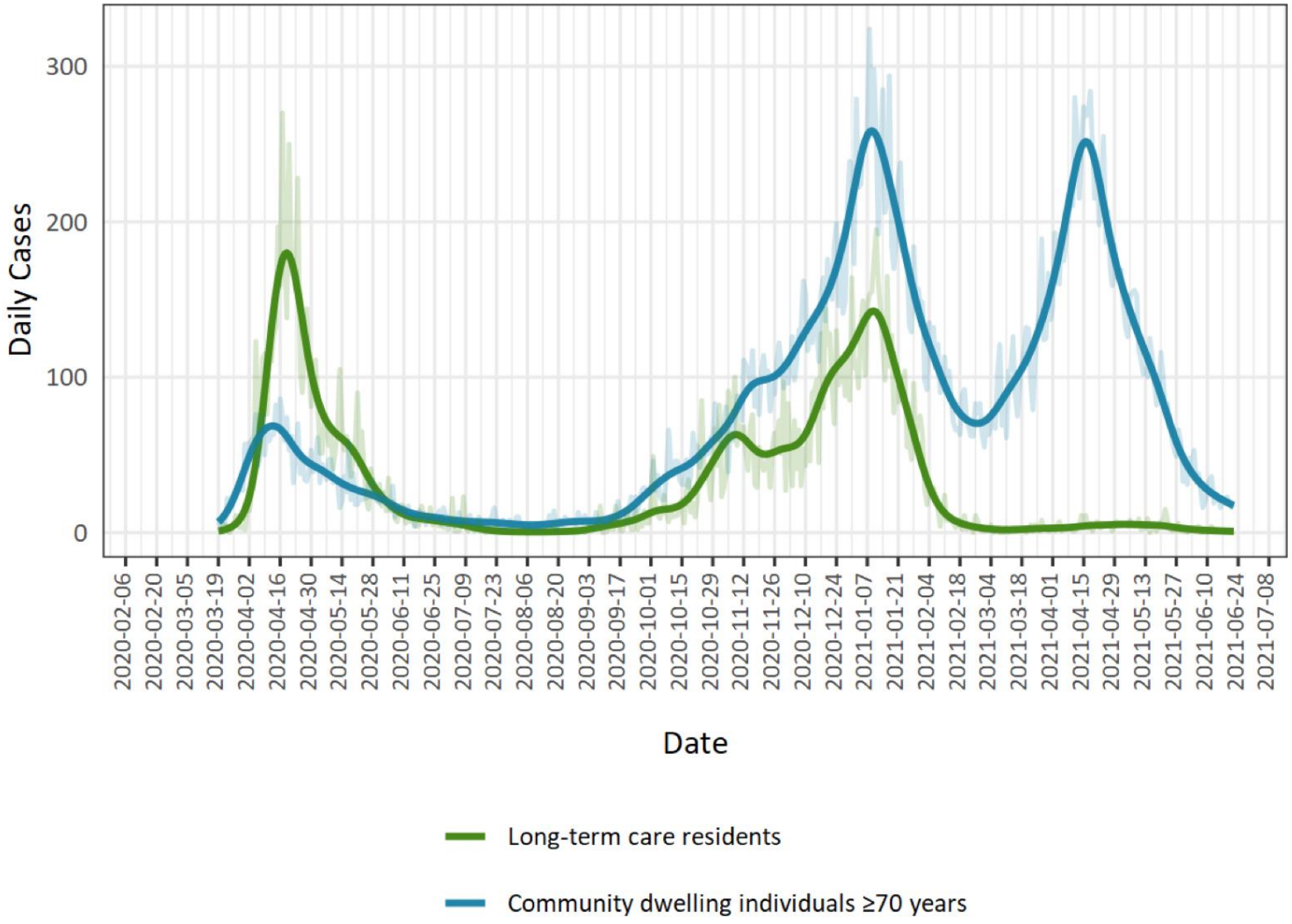
Last Updated: June 09, 2020

Re-Opening Homes to Family Presence

1. Defining an "family caregiver"	· Residents, substitute decision makers and their families must retain the authority and autonomy to determine who is essential to support them in their care and designate their own family caregivers.[4] · Governments, public health authorities and homes must not define who is a … dividual's caregiving involvement and role prior to the pandemic or by identifying tho… private duty caregiver.
2. Allowable number of designated family caregivers	· A resident may designate at least two family caregivers. · Similar to guidance from Alberta Health Services, a resident may identify a… family caregivers are unable to perform their roles for a period of time; the… but to enable a replacement, when required.[36]
3. Allowable number of family caregivers in the LTC home at one time	· One family caregiver per resident should be allowed in the home at a tim… · Under extenuating circumstances (i.e., end-of-life), this allowable numbe…
4. Allowable locations within the LTC home	· As essential partners in care, family caregivers should have access to are… must maintain physical distancing from other residents and staff. They … must abide by all IPAC and PPE requirements and procedures concerni…
5. Allowable access during a COVID-19 outbreak	· In order to promote relational continuity and meet the ongoing needs… during a COVID-19 outbreak, as long as the following conditions are m… - The family caregiver attests that they understand and appre… increased risk of COVID-19 infection - They must be trained in IPAC procedures and the proper use… members of the home.
6. Allowable frequency and length of time for family caregiver presence	· No restrictions as long as it does not negatively impact the care of o… support.
7. Screening and testing requirements	· As partners in care, family caregivers should be subjected to the sa… COVID-19 testing is recommended, family caregivers should be pr…
8. IPAC and PPE requirements	· As partners in care, family caregivers should receive an orientation and be e… staff members of the home, including remaining masked at all times.[3] The … www.youtube.com/watch?v=GkAYc5wcn0c&feature=youtu.be · Family caregivers can only enter one LTC or congregate care setting within a 14-day pe… · Homes must maintain ample PPE supply to enable family caregivers' participation in care. · Failure of family caregivers to comply with these procedures could be grounds for loss of their rights to participate in care as family caregivers, … appealable.



Ontario COVID-19 Epidemic Curve by Age and LTC Residence



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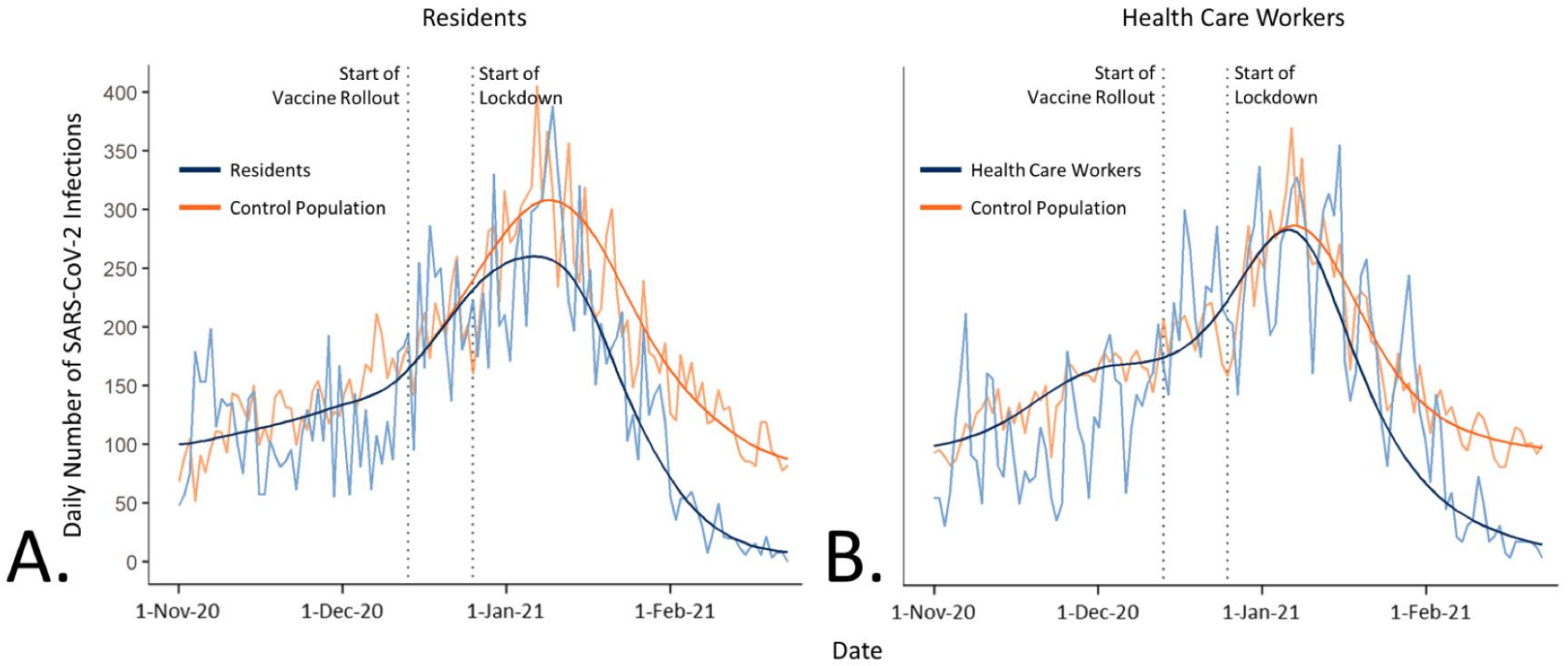
Early impact of COVID-19 vaccination in LTC

- As of February 23, 2021, >64,000 Ontario LTC residents (92%) received at least one dose of a COVID-19 vaccine, with >46,500 of residents having received both doses.
- Over 55,000 Ontario LTC staff (55%) also received at least one dose of a COVID-19 vaccine, with >44,600 having received both doses.



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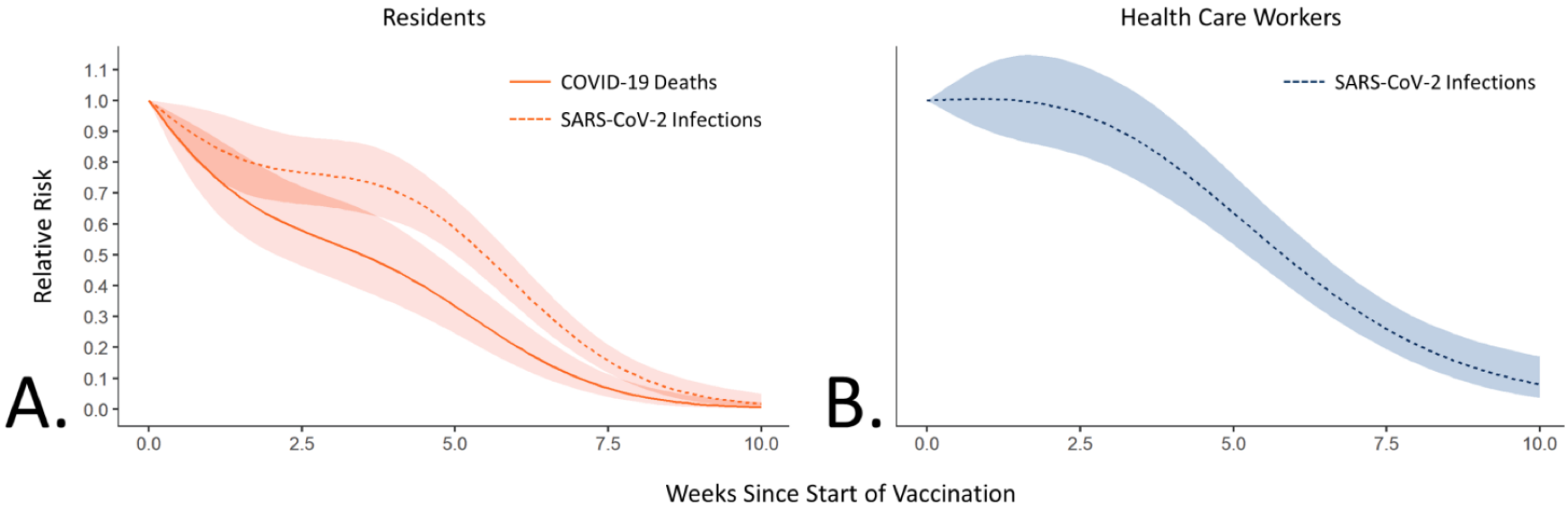
Early impact of COVID-19 vaccination in LTC



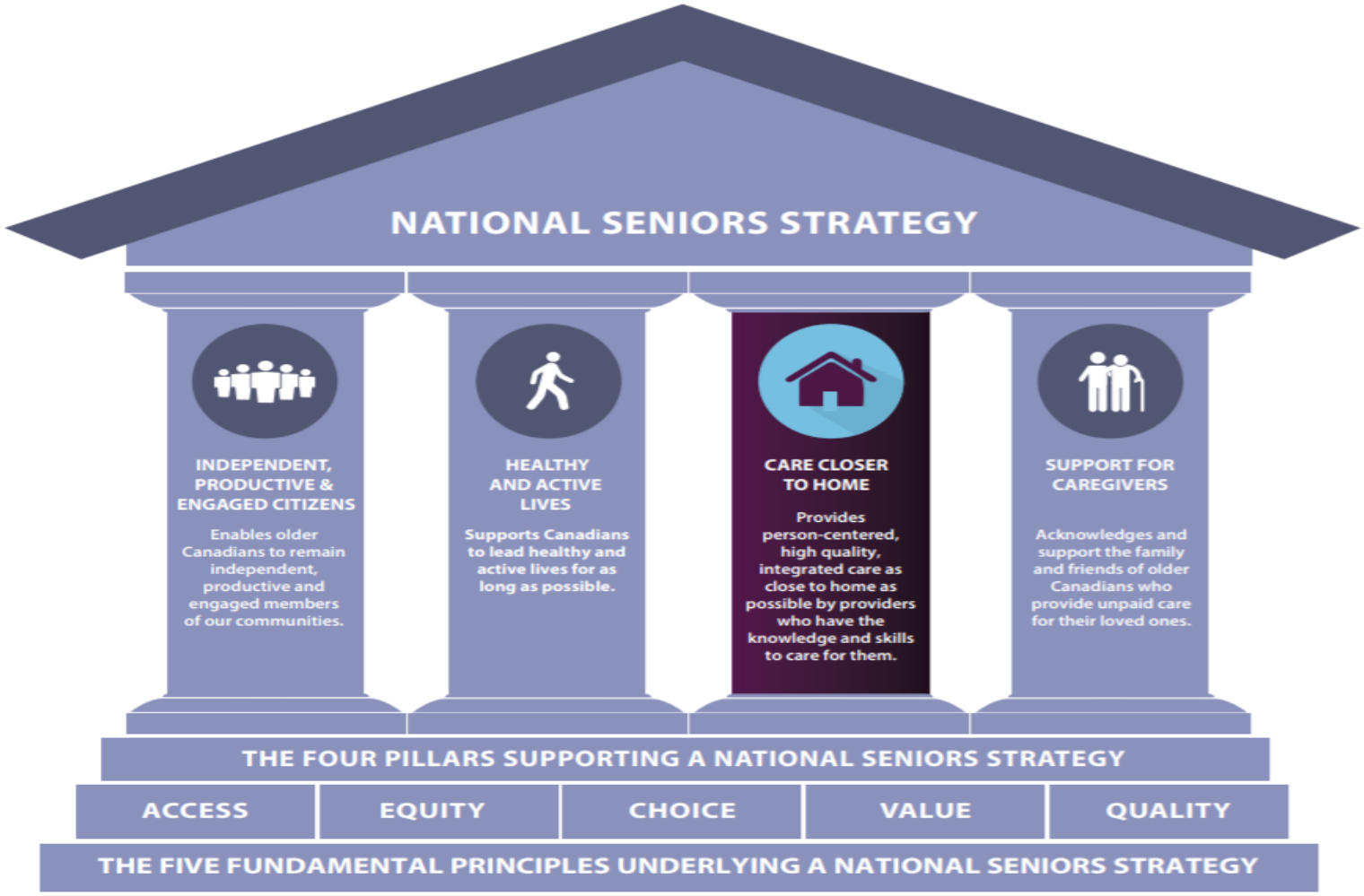
- Estimated relative reduction in the risk of SARS-CoV-2 infection was 89% among LTC residents and 79% in healthcare workers
- The estimated relative risk reduction of COVID-19 deaths was 96% among LTC residents

Lessons To Date

- **COVID-19 Was Not the Only Thing to Viral in Canada…Ageism Did Too**
- Older Canadians have represented 95% of Canada's Pandemic Deaths
  - The de-prioritization of those living in LTC Settings, and now community-dwelling older Canadians continues to be reflected in Canada's death statistics.
- Older Canadians are most interested now in getting vaccinated, and after that want Canada's LTC shortcomings finally addressed
- COVID-19 has shifted our perspectives:
  - 78% of Ontarians further said they would prefer to receive homecare for themselves and their loved ones over care in a LTC home
  - 60% of Canadians, and almost 70% of Canadians 65 years of age and older, further reported that COVID-19 has changed their opinion on whether or not they'd arrange for themselves or an older loved one to live in a nursing or retirement home.
  - 57% of Ontarians do not believe they'll have access to good quality Long-Term Care when they need it
- We need to ensure we use what we have learnt as an opportunity to no longer foster responses that deprioritize older persons.

Long-Term Care is at a Crossroads

Enabling the Future of Geriatrics and Long-Term Care in Canada



Why Long-Term Care Matters

- **It is the LARGEST form of hands-on care that is NOT covered under the *Canada Health Act***.
- Coverage levels, qualifying criteria, and design standards vary significantly across provinces and territories.
- There is a growing value of these services to meet the *long-term care* needs of an ageing population effectively and sustainably.
- The current demand for long-term care services is already unprecedented and is only expected to grow as the population ages.
- The system has been challenged by longstanding systemic vulnerabilities when it comes to its health human resources and physical design and redevelopment approaches that favour the institutionalization of older Canadians.

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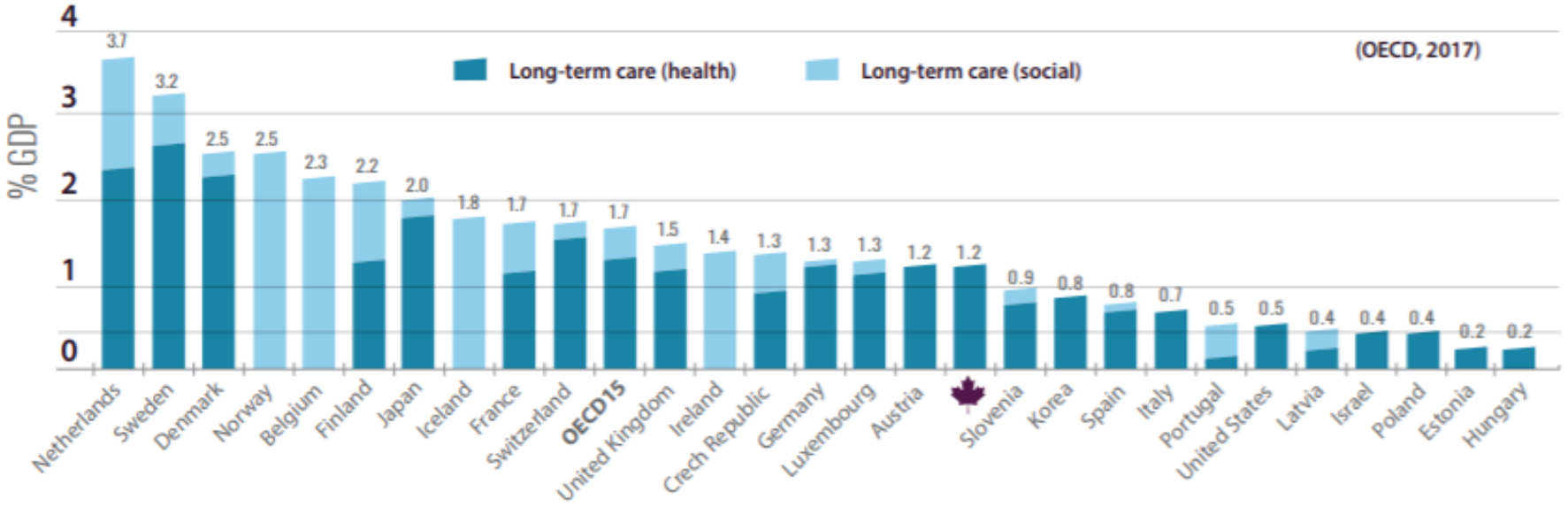
Over **430,000** Canadians currently have unmet home care needs, while **40,000** are on nursing home wait lists.

(Gilmour, 2018b)

Comparing Canada to Other OECD Nations, Canada Spends LESS on Average of its GDP on the Provision of Long-Term Care

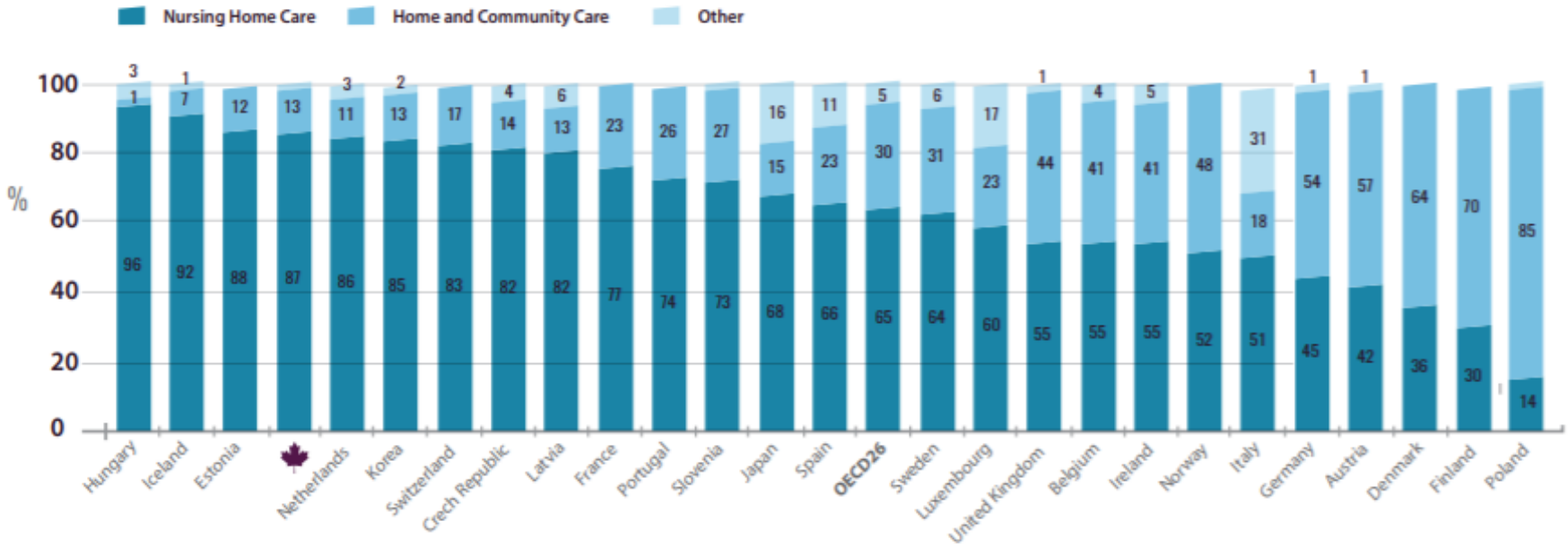
Figure 2: Long-Term Care Expenditure (health and social components) by Government and Compulsory Insurance Schemes, as a Share of GDP, 2015 (or nearest year) Across OECD Nations



Note: The OECD average only includes the 15 countries that report health and social LTC. Source: OECD Health Statistics 2017.

Comparing Canada to Other OECD Nations, Canada Spends far LESS on Home and Community Care than on Nursing Home Care

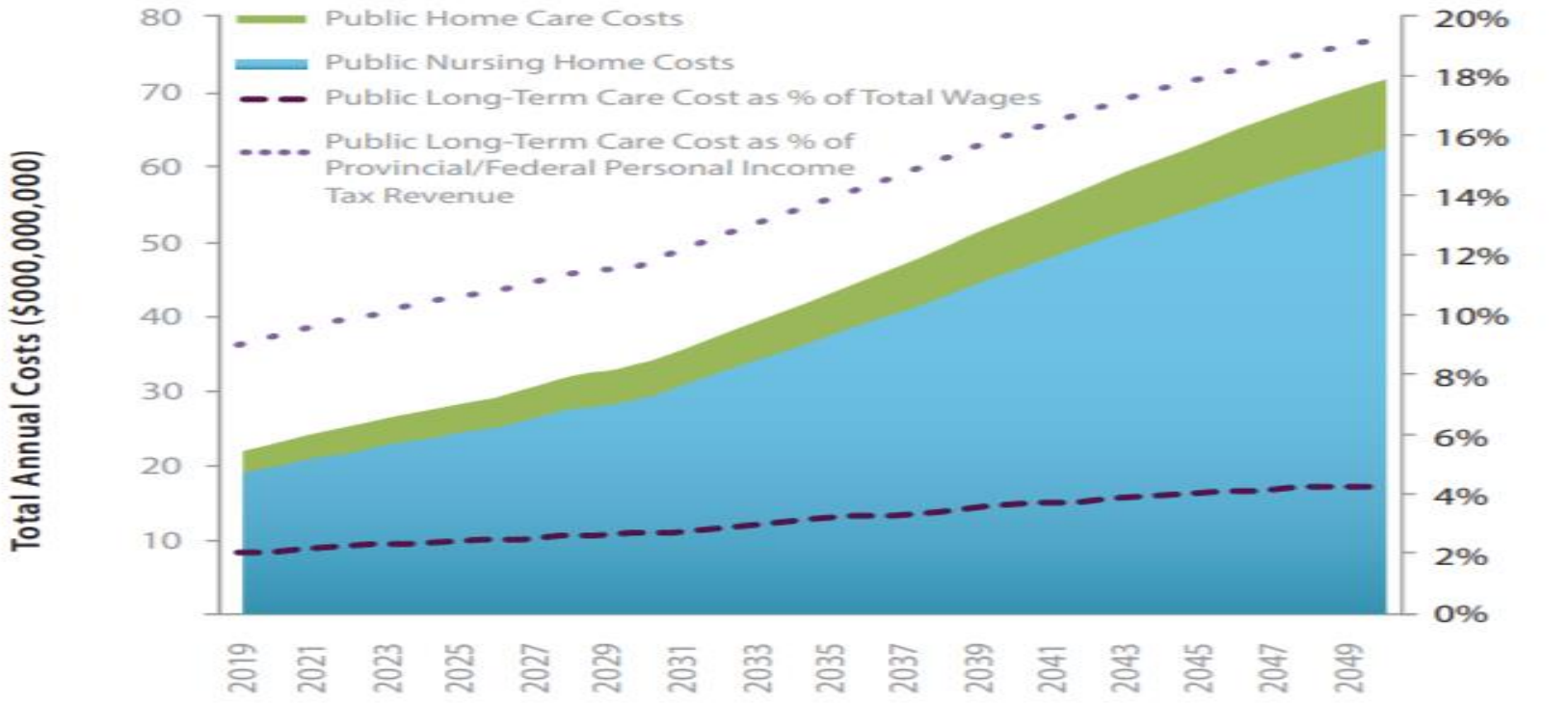
Figure 3: Government and Compulsory Insurance Spending on LTC (health) by Mode of Provision, 2015 (or nearest year) Across OECD Nations



Note: "Other" includes LTC day cases and outpatient LTC. Source: OECD Health Statistics 2017.

(Adapted from OECD, 2017)

Public Long-Term Care Costs to Maintain Our Current Service Levels over the Next 30 Years



Notes: Publicly-funded long-term care cost to maintain current coverage (nursing home/home care aggregate by the blue/green and left axis) and publicly-funded long-term care cost as percentage of (1) total personal income tax revenue (provincial and federal; dotted purple line and right axis) and (2) total wages (dashed purple line and right axis). 2019 constant dollars.

Source: Authors' *LifePaths* projections

Between 2019 and 2050, there will be approximately **30%** fewer close family members available to provide unpaid care.

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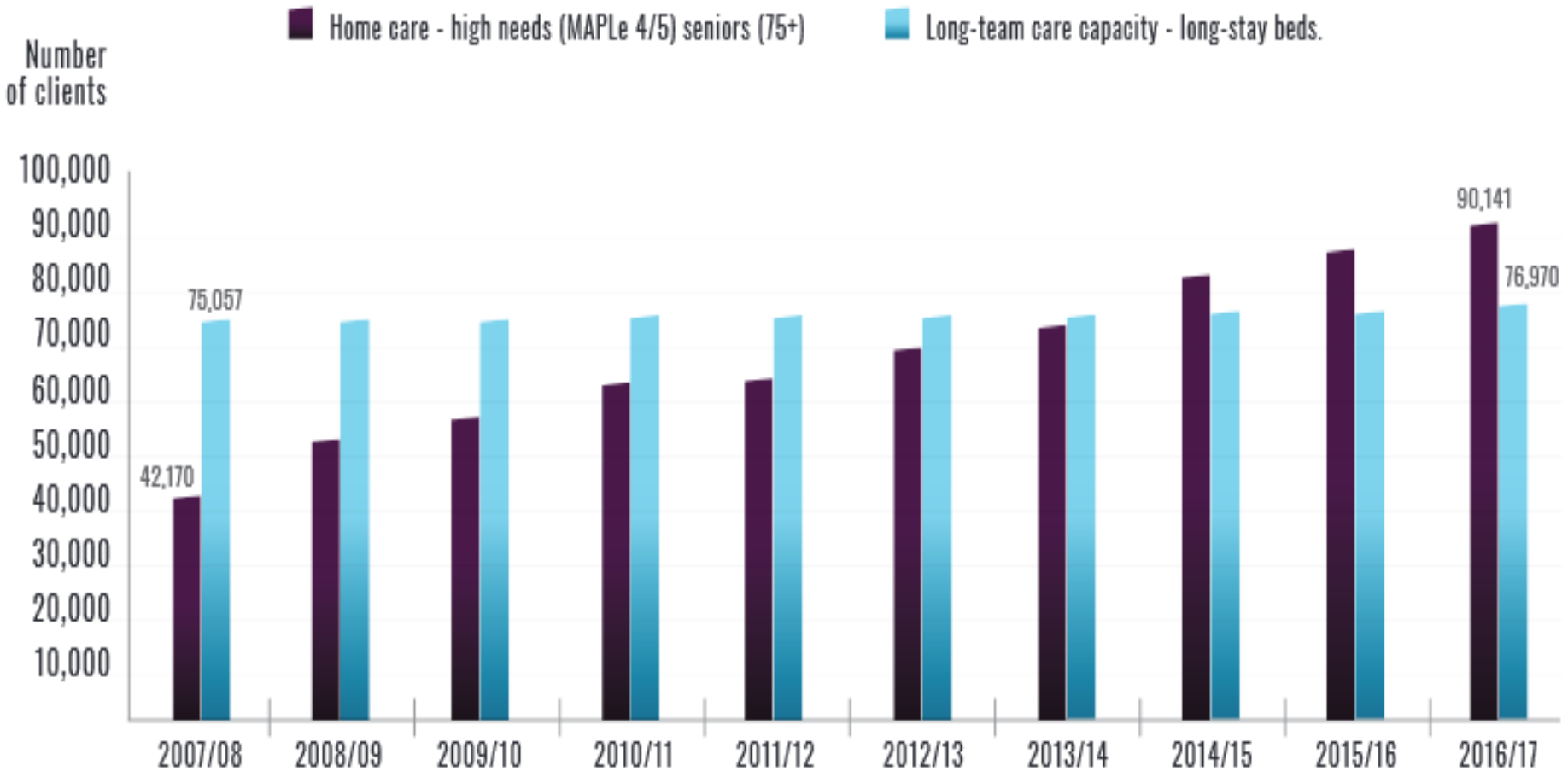
We Have Choices and Options…

- One Day Waiting in Hospital to Go Elsewhere Costs ~ $750
- One Day in Long-Term Care (LTC) Costs ~ $200
- One Day of Home Care for an LTC Equivalent Person Costs ~ $103
- Denmark avoided building any new LTC beds over two decades, and actually saw the closure of thousands of hospital beds, by strategically investing more in its home and community care services.
- The Ontario government while freezing its hospital and physician budgets has committed to at least an annual 5% increase in the Home and Community Care Budget from 2011 through to 2018.

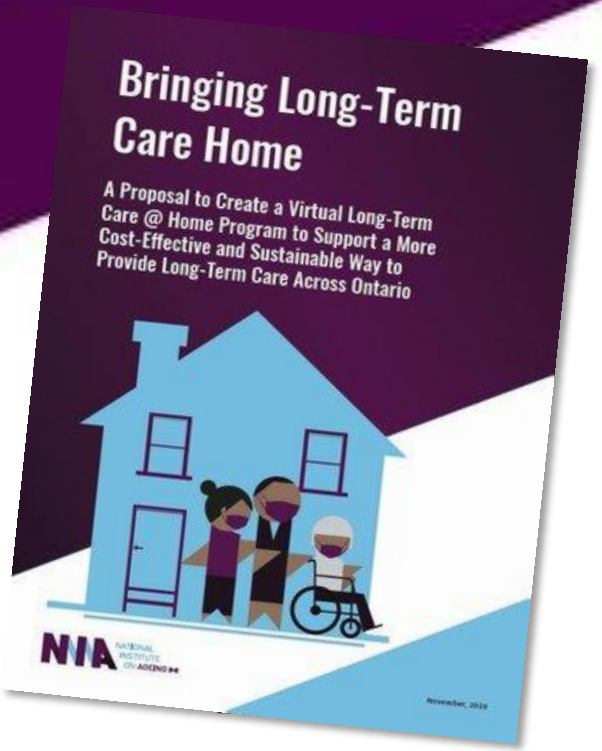
Figure 3: High-Needs Older Ontarians (75+) Cared for with In-Home Care versus existing LTC Capacity between 2007-08 to 2016-17[7]



1 in 12 (8%) of newly admitted nursing home residents in Ontario could instead have been cared for at home with the right supports in place.

Older Canadians living in rural areas are **50%** more likely than urban dwellers to be admitted to nursing homes when they could have been cared for at home.

Source: Canadian Institute for Health Information, 2020



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The Value Proposition of Better Home Care…

The estimated capital infrastructure costs alone of building **30,000** new nursing beds and redeveloping **30,000** existing beds in Ontario will be between **$12-$16 Billion** (in 2020 dollars).

Source: National Institute on Ageing, 2020

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What Should We Demand for Long-Term Care?

- We need to stop underfunding our LTC Systems. This means higher wages and better resources and facilities
- We need to prioritize the care of Canadians in their homes first and foremost with more flexible ways of organizing services and supports for caregivers that will be cheaper for many than existing institutional care models.
- We need to ensure that whatever we do is client/resident centered and acknowledges and supports the needs of unpaid caregivers and paid care providers
- It needs to be accountable and one that uses high quality data to support quality improvement and better resource allocation to support care.
- It needs to be sustainable to meet our needs as we age.

Thank You!
Questions?

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