



Impact of COVID-19 on residents of Canada's long-term care homes — ongoing challenges and policy response

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Last updated on April 15, 2020

1. Key findings

- While there are many sources of data on the impact of COVID-19 on the Canadian population in general, timely information on the number of confirmed cases of COVID-19 in Canadian long-term care homes is less accessible.
- Based on publicly available information, we estimate that less than 2% of long-term care home residents in Canada have been diagnosed with COVID-19, but deaths in this population represent approximately 43% of all COVID-19 deaths (excluding Québec where the total number of deaths from long-term care homes has not been reported).
- Case fatality rate among residents in Canadian long-term care homes is approximately 17% (ranges between 15 to 19%, based on best estimates of available data from Ontario, British Columbia and Alberta). This is comparable to the global case fatality rate among people over the age of 80.
- Given the vulnerability of residents in long-term care homes, infection prevention is the most effective strategy to reduce overall fatality in this population.
- Policy measures to ensure adequate staffing and limit movement of healthcare workers between multiple sites is key in helping to prevent continued spread of COVID-19 and associated mortality in Canadian long-term care home residents.

2. Impact of COVID-19 on Canadian long-term care homes so far

According to the 2016 Census, over 400,000 older adults live in long-term care or retirement homes as well as assisted living facilities across Canada.¹ Much like populations in nursing homes in other countries, residents in Canada's long-term care homes are frail and at the highest risk of experiencing severe symptoms and death from COVID-19.² A recent study³ on the changes in health profile of long-term care home residents in Ontario — Canada's most populous province with 14.5 million residents — illustrated the increasing high burden of

chronic disease and frailty levels of multimorbidity in this population. Because residents in long-term care homes are more susceptible to serious infection once exposed to COVID-19, homes where infection has been introduced have suffered dire consequences. Recent reports of tragic resident deaths from rapid outbreaks in long-term care homes across several Canadian provinces — such as Pinecrest Nursing Home in Bobcaygeon, Ontario⁴, Lynn Valley Care Centre in North Vancouver, British Columbia⁵ and Résidence Herron in Montreal, Québec⁶ — further illustrate the need to protect the vulnerabilities of this population from COVID-19 exposure.

Context: Within Canada, long-term care homes are facilities that provide 24-hour functional support for people who are frail, require assistance with their daily activities and often have multimorbidity. Most residents of long-term care are over 80 years old and 70% of them have dementia. Across the provinces and territories, these facilities may be known as long-term care homes (in Ontario, Saskatchewan, British Columbia, and Yukon), nursing homes (in Nova Scotia, and New Brunswick), personal care homes (in Newfoundland and Labrador as well as Manitoba), long-term care facilities (in Newfoundland and Labrador, Prince Edward Island, British Columbia, and Northwest Territories), residential care facilities (in Nova Scotia, Alberta and British Columbia), special care homes (in New Brunswick and Saskatchewan), continuing care facilities (in Northwest Territories), or continuing care centres (in Nunavut). In the province of Québec, they are known as centres d'hébergement de soins de longue durée (CHSLD).

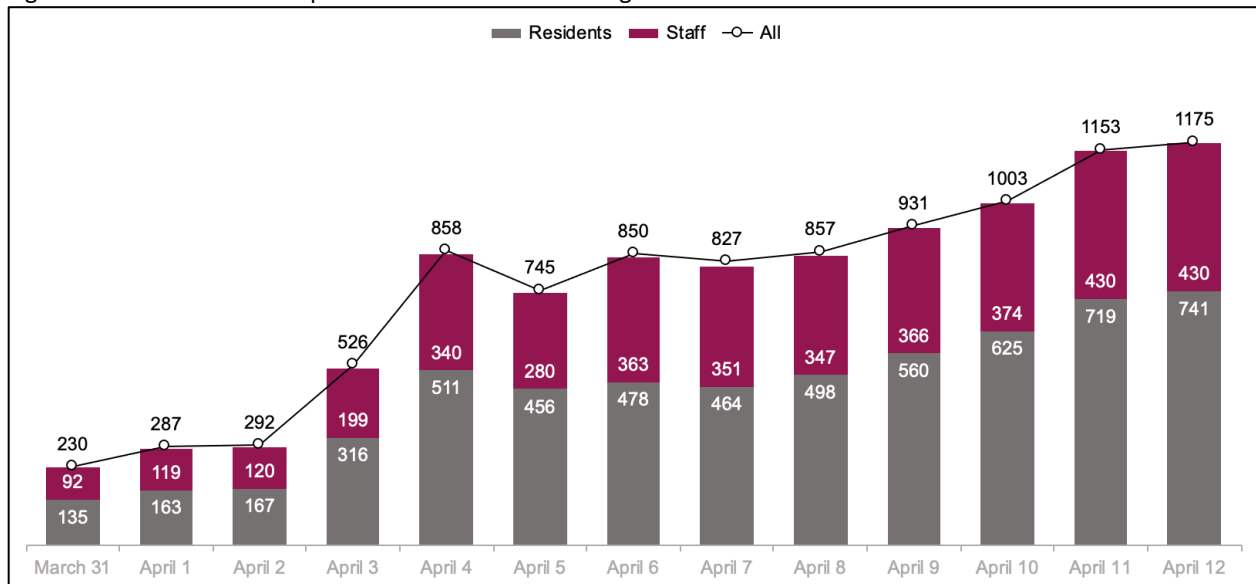
2.1 *Number of reported cases in long-term care homes*

There are continued challenges to accessing timely data on the number of confirmed cases of COVID-19 in Canadian long-term care homes. While each province's Chief Medical Officer and/or premier has provided daily updates, data that are collected by public health agencies are not always readily accessible to the public. These challenges are reflected in the numbers that are presented in this report, which were drawn from a mix of official epidemiological reports by some of the provinces (such as [the Government of Ontario](#) and the [BC Centre for Disease Control](#)), daily updates provided on websites of individual long-term care homes or their corporate office,^{7,8} and media outlets. As more information becomes available, we will update the numbers in this report and continue to reflect on the impact of COVID-19 in Canada's long-term care homes.

According to publicly available data, there are approximately 24,804 cases of COVID-19 in Canada, of which 1,036 (approximately 4%) are in long-term care home residents (as of April 13, 2020). Although fewer than 2% of Canada's 400,000 long-term care and retirement home residents have lab-confirmed COVID-19, this number is expected to rise as access to testing increases in this sector. Below is a summary of the impact of the COVID-19 outbreak in long-term care homes across Canadian provinces based on publicly available data (as of April 13, 2020).

As of April 13th, Ontario has the highest number of reported confirmed cases of COVID-19, with 1,175 cases (comprised of 741 residents and 430 healthcare workers) from 89 long-term care homes. This represents 14% of the 630 long-term care homes in Ontario.

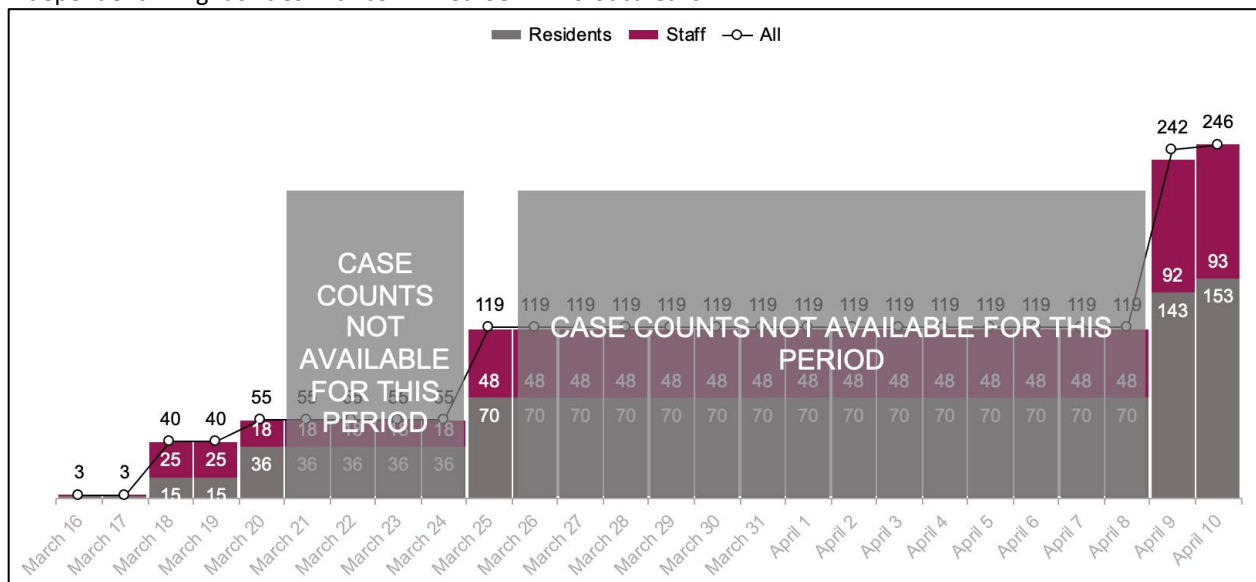
Figure 1. Total number of reported cases in Ontario's long-term care homes with confirmed COVID-19 outbreaks



Source: Derived from Daily Epidemiological Summaries produced by Public Health Ontario. Accessed on April 13, 2020 from: <https://www.ontario.ca/page/2019-novel-coronavirus>

The province of British Columbia had one of the earliest publicly reported outbreaks in long-term care homes in Canada and has the second highest number of confirmed cases.

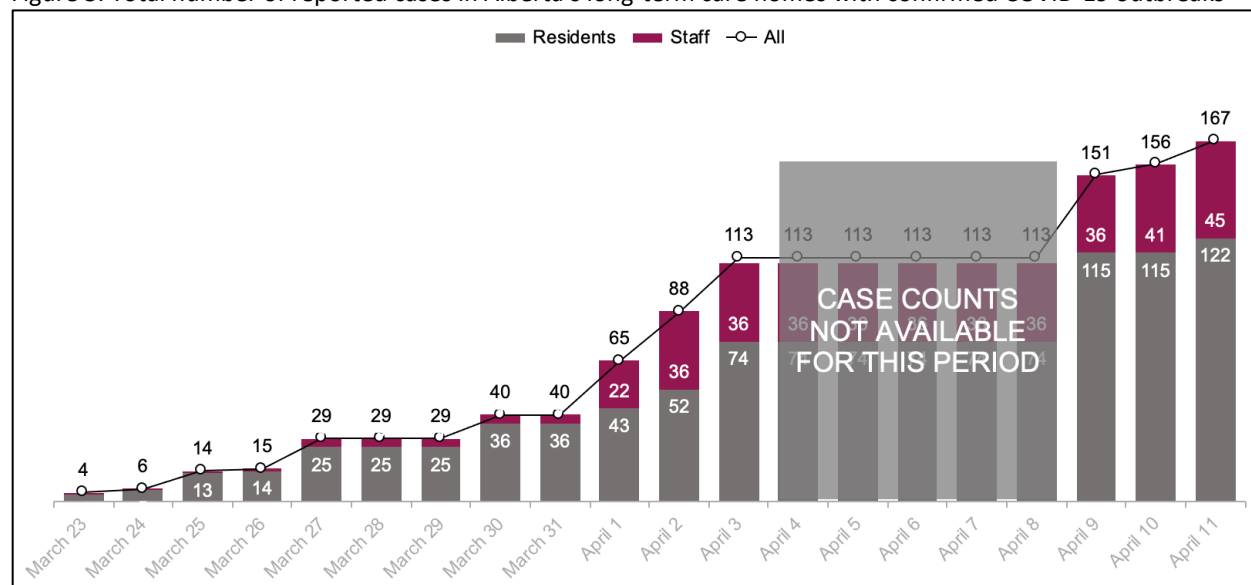
Figure 2. Total number of reported cases[†] in British Columbia's long-term care homes, assisted living and independent living facilities with confirmed COVID-19 outbreaks



[†]BC data include cases from assisted living and independent living facilities, whereas Ontario data are exclusively from long-term care homes. Sources: Estimates based on the [British Columbia COVID-19 Daily Situation report](#), updates provided by individual homes,⁸ as well as health officer and premier updates to press.

More recently, there has been a steady rise in the number of confirmed cases observed in the province of Alberta, with approximately 160 cases reported to date.

Figure 3. Total number of reported cases in Alberta’s long-term care homes with confirmed COVID-19 outbreaks



Sources: Estimates based on websites of long-term care homes,⁷ and health officer and premier updates to press.

It has been estimated that nearly one-quarter of Québec’s 2,200 long-term care homes have already detected at least one positive case of COVID-19.⁹ However, data on the precise number of cases and deaths is not available through publicly available documents or news outlets.

Based on publicly available information, most Canadian provinces and territories have reported fewer than 50 cases (including both residents and staff) in long-term care homes:

Table 1. Prevalence of COVID-19 in Canadian provinces or territories reporting fewer than 50 cases in long-term care (as of April 13, 2020)

Province or Territory	Number of Cases
Newfoundland and Labrador	1 long-term care home resident
Prince Edward Island	No reported cases in long-term care homes
Nova Scotia	18 residents and 16 healthcare workers from 3 long-term care homes
New Brunswick	1 healthcare worker from a retirement home
Manitoba	1 resident and 2 healthcare workers from 3 long-term care homes
Saskatchewan	No reported cases in long-term care homes
Yukon	No reported cases in long-term care homes
Northwest Territories	No reported cases in long-term care homes
Nunavut	No reported cases in long-term care homes

Sources: Estimates based on various sources, including provincial public documentation and health officer and premier updates to press.

2.2 Number of reported deaths due to COVID-19 in long-term care homes

Global estimates indicate that approximately 13-20% of people over the age of 80 have died if infected with COVID-19.¹⁰ This high case fatality rate is reflected in publicly available Canadian data that show a case fatality rate of 15 to 19% among residents of our long-term care homes (Table 2). This sobering case fatality rate is much higher than the 3% among the general Canadian population, where there have been 24,804 cases and 734 deaths in the whole population. A recent study of skilled nursing facilities in the U.S.,¹¹ where long-term care residents are comparable in frailty to Canadian residents, found a case fatality rate among residents of 33.7%. A possible explanation for the increased mortality among U.S. long-term care residents is that their outbreak occurred earlier in the pandemic, before appropriate infection control measures were implemented and before atypical presentations of COVID-19 in older adults were well-understood. Case fatality can only truly be determined once every infected person either recovers or dies, therefore, regional differences in rates may also be due to incomplete data on outcomes of currently infected residents.

Table 2. Best estimates of case fatality rate among residents in long-term care homes in Canada (as of April 13, 2020), by provinces and territories

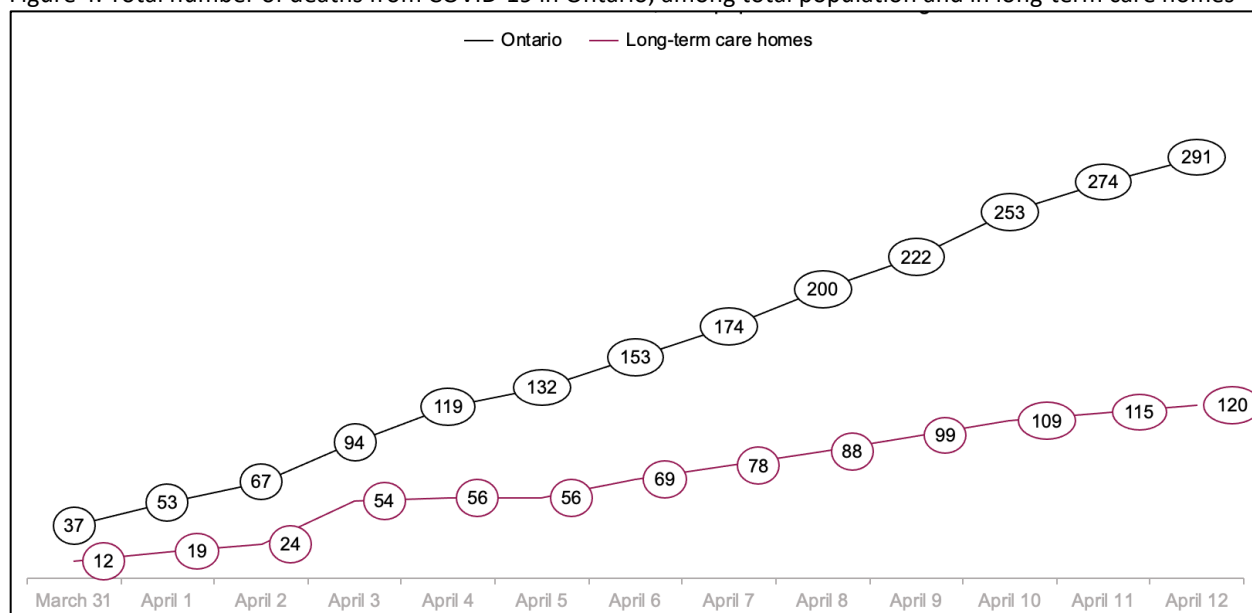
Province or Territory	Last update	Number of cases among long-term care home residents	Number of deaths among long-term care home residents	Best estimate of case fatality rate
<i>Canada</i>	<i>April 13</i>	<i>1,036</i>	<i>173</i>	<i>17%</i>
Newfoundland and Labrador	April 13	1	0	Too few cases to provide a meaningful estimate
Prince Edward Island	April 13	0	0	No reported cases in long-term care homes
Nova Scotia	April 13	18	1	Too few cases to provide a meaningful estimate
New Brunswick	April 13	0	0	No reported cases in long-term care homes
Québec	—	Unknown	Unknown	Unable to estimate
Ontario	April 13	741	119	16%
Manitoba	April 13	1	1	Too few cases to provide a meaningful estimate
Saskatchewan	April 13	0	0	No reported cases in long-term care homes

Alberta	April 11	122	23	19%
British Columbia	April 10	153	30	20%
Yukon	April 13	0	0	No reported cases in long-term care homes
Northwest Territories	April 13	0	0	No reported cases in long-term care homes
Nunavut	April 13	0	0	No reported cases in long-term care homes

Sources: Estimates based on various sources, including provincial public documentation and health officer and premier updates to press.

Since April 1st, the total number of COVID-19 related deaths in Ontario has increased fivefold in the general population, from 53 on April 1st to 291 on April 12th. Within long-term care homes, there was a steeper rise in the number of deaths from 19 on April 1st to 120 on April 12th.

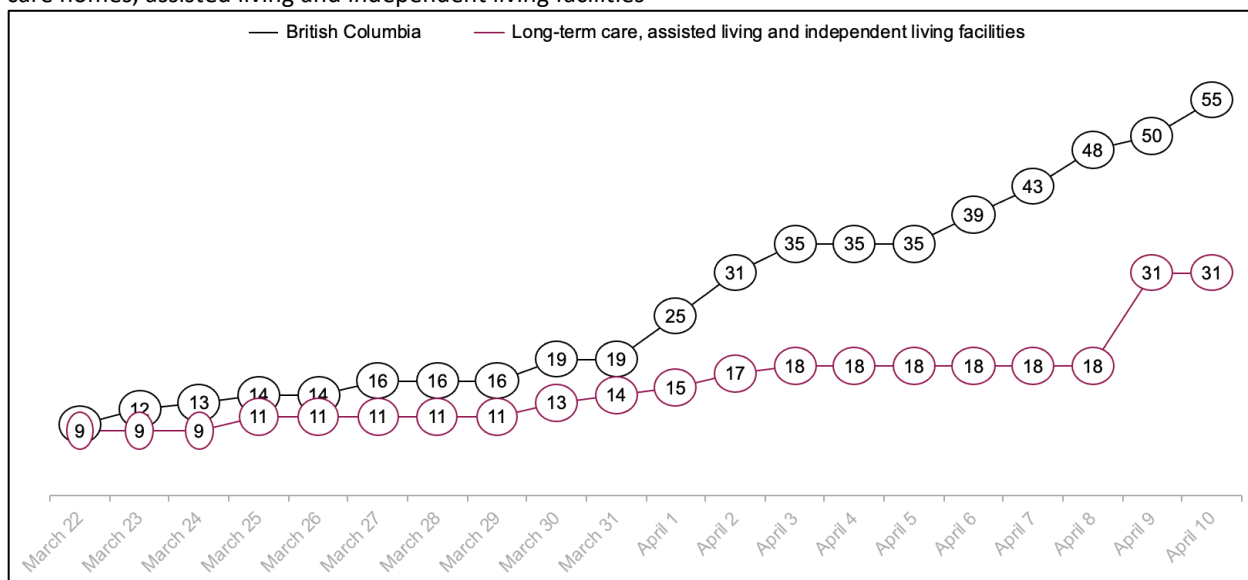
Figure 4. Total number of deaths from COVID-19 in Ontario, among total population and in long-term care homes



Source: Derived from Daily Epidemiological Summaries produced by Public Health Ontario. Accessed on April 13, 2020 from: <https://www.ontario.ca/page/2019-novel-coronavirus>

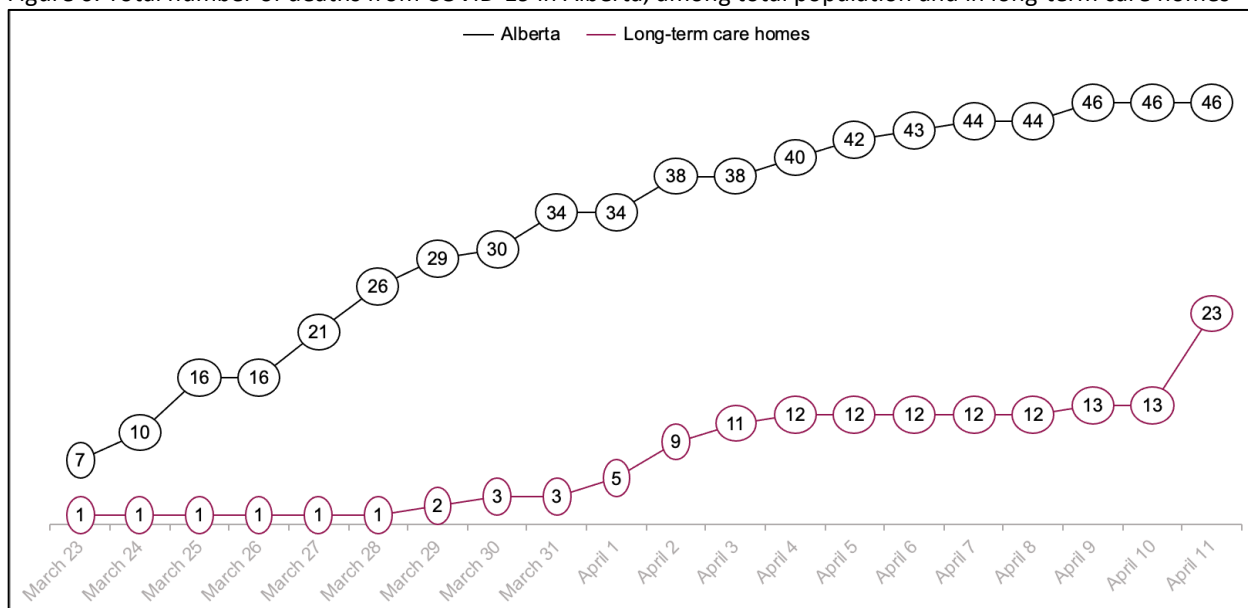
Smaller increases were observed in Alberta and British Columbia, where the number of deaths in both the general population as well as residents in long-term care homes saw a twofold increase.

Figure 5. Total number of deaths[†] from COVID-19 in British Columbia, among total population and in long-term care homes, assisted living and independent living facilities



[†]BC data include cases from assisted living and independent living facilities, whereas Ontario data are exclusively from long-term care homes. Sources: Estimates based on the [British Columbia COVID-19 Daily Situation report](#), updates provided by individual homes,⁸ as well as health officer and premier updates to press.

Figure 6. Total number of deaths from COVID-19 in Alberta, among total population and in long-term care homes

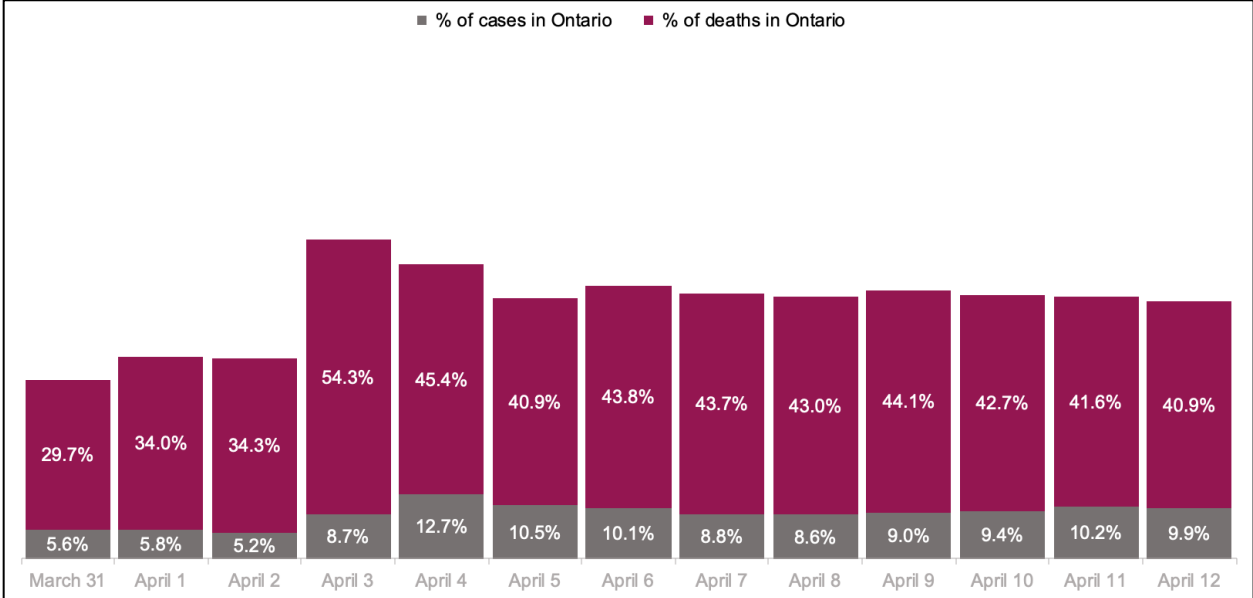


Sources: Estimates based on various sources, including the websites of long-term care homes,⁷ the [Government of Alberta website](#), as well as health officer and premier updates to press.

Deaths of cases from COVID-19 in long-term care homes are nearly all (>99%) comprised of residents receiving care in this setting and not among staff. Although residents with COVID-19 in long-term care homes represent less than 12% of the total cases in each province, they make

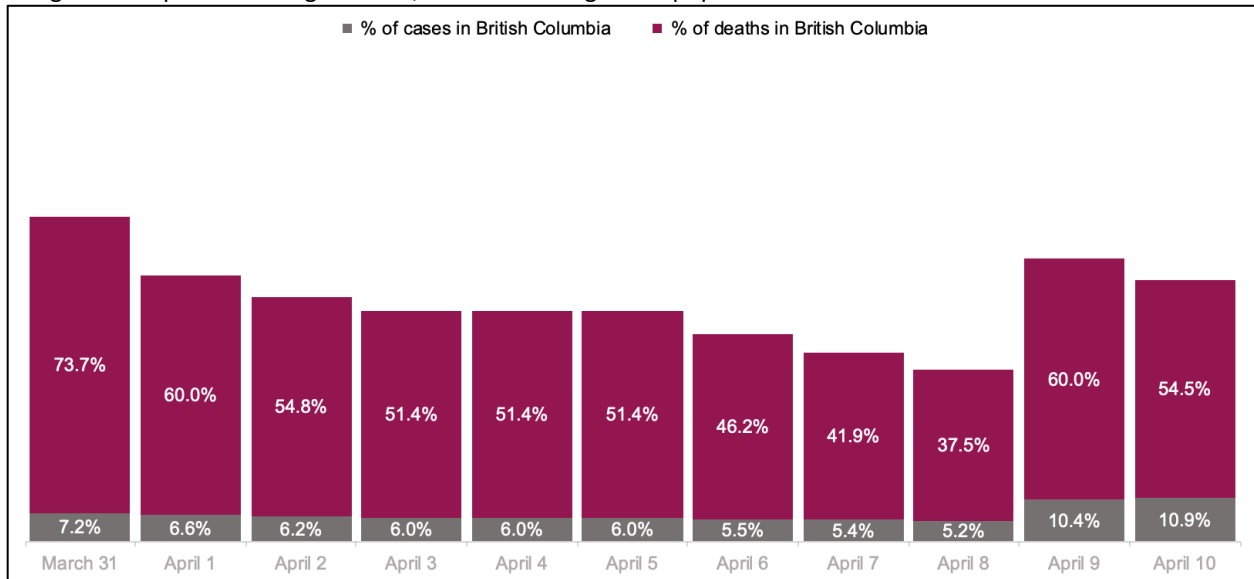
up nearly half of the COVID-19 fatalities, as demonstrated by the figures below. Though detailed data were not obtainable from the province of Québec, it has been estimated that the number of deaths in long-term care homes comprised of nearly half of the 360 deaths reported so far in the province (as of April 13, 2020).⁹ Nationally, deaths among residents in long-term care homes represent approximately 43% of all Canadian deaths from COVID-19 (approximately 173 out of 404, excluding the 330 deaths from Québec where the total number of deaths from long-term care homes has not been reported).

Figure 7. Proportion of reported COVID-19 cases and deaths among residents in long-term care homes, relative to the general population in Ontario



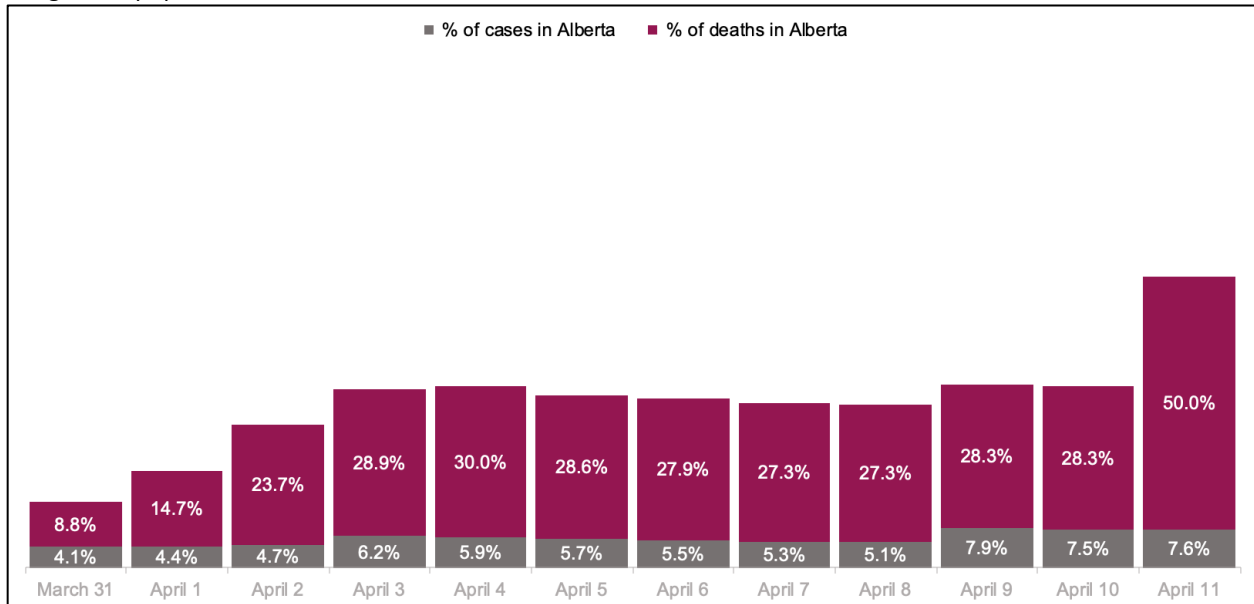
Source: Derived from Daily Epidemiological Summaries produced by Public Health Ontario. Accessed on April 13, 2020 from: <https://www.ontario.ca/page/2019-novel-coronavirus>

Figure 8. Proportion of reported COVID-19 cases[†] and deaths among residents in long-term care homes, assisted living and independent living facilities, relative to the general population in British Columbia



[†]BC data include cases from assisted living and independent living facilities, whereas Ontario data are exclusively from long-term care homes. Sources: Estimates based on the [British Columbia COVID-19 Daily Situation report](#), updates provided by individual homes,⁸ as well as health officer and premier updates to press.

Figure 9. Proportion of reported COVID-19 cases and deaths among residents in long-term care homes, relative to the general population in Alberta



Sources: Estimates based on various sources, including the websites of long-term care homes,⁷ the [Government of Alberta website](#), as well as health officer and premier updates to press.

3. Long-term care policy and practice measures

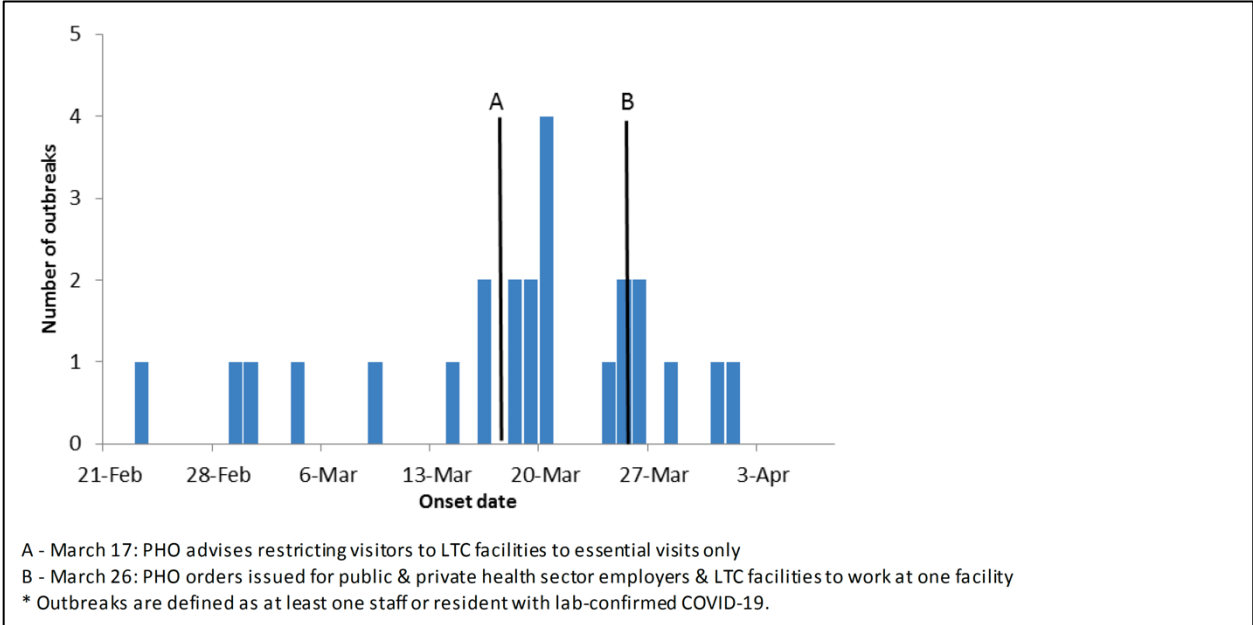
Because one in five Canadian long-term care residents who got COVID-19 have died from it, preventing infection in this population is key to Canada’s evolving COVID-19 strategy. Some of the measures implemented to date with ongoing results are described below.

3.1 Measures to prevent spread of COVID-19 infection

Early data from the U.S. show the ability of long-term care workers to spread COVID-19 between facilities where they are employed,¹¹ which may have led to one of the newest containment measures being considered across multiple Canadian provinces — the restriction of healthcare workers to employment at a single home. As low wages and part-time hours for many long-term care employees necessitate that they work at multiple homes to earn a living wage,¹⁵ infection control policies to restrict employees to work at one home must account for the staff shortages and inadequate employee wages such measures will exacerbate.

On March 27th, the Provincial Health Officer for British Columbia enacted under the province’s *Emergency Program Act* and *Public Health Act* restrictions to long-term care home workers’ movement across multiple healthcare organizations, including hospitals and long-term care homes.¹⁶ The estimated cost to support the single-site order is approximately \$10 million a month.¹⁷ Early data from British Columbia suggests the single-site order may be effective in reducing the number of new outbreaks:

Figure 10. Outbreaks in British Columbia’s long-term care homes, assisted living and independent living facilities by earliest date of onset (or reported date when onset is unavailable, January 1 to April 7, 2020 (N=24)



PHO: Provincial Health Officer. Source: The [British Columbia COVID-19 Daily Situation report](#).

Ontario^{18,19} and Alberta²⁰ and are considering implementing similar policies, though no details of these measures have been released as of April 14th.

3.2 Measures to manage staff availability

Even prior to the current pandemic, one of the greatest challenges faced by the long-term care sector is staffing shortages.¹² In times of a severe and rapid respiratory outbreak, the shortage of healthcare workers in Canada's long-term care sector has led to recent amendments to the requisites for employment and re-deployment of staff to new roles within the home. For example, as a result of reduced staffing capacity in the long-term care sector, the Government of Ontario enacted a temporary emergency order¹³ on March 23rd to "ensure personnel are properly deployed to help prevent the spread of COVID-19 to keep staff, volunteers and residents in long-term care homes safe." Under this emergency order,¹⁴ LTC homes will have the capacity to:

- Change the assignment of work among its staff, including assigning non-bargaining unit employees or contractors to perform bargaining unit work;
- Employ extra part-time or temporary staff or contractors, including for the purpose of performing bargaining unit work; and
- Use volunteers to perform work, including to performing bargaining unit work.

While emphasis has been placed on ensuring redeployed and temporary staff as well as contractors receive appropriate training and education to perform their new assignments, the rapid redeployment and broad introduction of temporary staff in the long-term care sector may have unintended consequences, specifically the rapid transmission across several homes within a short period of time.

4. Lessons learnt so far

Of approximately 400,000 long-term care and retirement home residents in Canada, less than 2% have lab-confirmed COVID-19, but they account for approximately 43% of COVID-19-related deaths in Canada. The case fatality rate of approximately 17% in long-term care home residents suggests that their chance of survival with COVID-19 is comparable to all people who are over 80 years old. This is likely due to high prevalence of frailty and chronic disease in this age group. Preventing infection with COVID-19 and its spread through long-term care homes is critical for preserving the lives of Canadians in long-term care homes.

The rapid spread of COVID-19 in Canada's long-term care homes highlights pre-existing and systemic issues — such as shared accommodations and understaffing — as well as the slow implementation of effective infection control measures at the start of the COVID-19 outbreak. Despite the higher wages of many long-term care home staff, compared to their community counterparts, chronic underfunding to the sector leading has been cited²¹ as one of the main drivers of inadequate staffing levels in long-term care homes. British Columbia's policy to ensure equitable compensation to support their employee single-site order is an important step to slowing fatalities from COVID-19 in Canadian long-term care homes. The repercussions of other provinces' attempts at increasing staffing and minimizing spread between homes are yet to be seen. Subsequent versions of this report will explore other policy changes and their impact on COVID-19 in Canada's long-term care homes.

As our global community comes together to preserve life among long-term care home residents in our countries, we must remember to carry the lessons learned from COVID-19 forward in our public policy making. Policy measures implemented during this pandemic, such as single-site work orders and adequate remuneration of long-term care employees, are likely to benefit residents of long-term care homes beyond the current pandemic. We are optimistic that the continued documentation of these effects will allow policymakers to make lasting improvements in how we care for the most vulnerable members of our society.

Suggested citation:

Hsu A. T. & Lane N. E. (2020). *Report: Impact of COVID-19 on residents of Canada's long-term care homes — ongoing challenges and policy response*. Article in LTCcovid.org, International Long-Term Care Policy Network, CPEC-LSE.

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Acknowledgements:

The authors would like to thank Dr. Heidi Sveistrup, Zsofia Orosz, Adelina Comas-Herrera and the Project Big Life team for their feedback on preliminary versions of this report.

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