

## **COVID-19 Living Evidence Profile #2**

(Version 4: 6 July 2021)

### **Question**

What is known about preventing and managing COVID-19, outbreaks of COVID-19 and about supporting renewal in long-term care homes?

### **Background to the question**

The long-term care sector has been hard hit by the COVID-19 pandemic in Canada and in many other high-income countries. This has led to many questions about how long-term care homes can improve the prevention and management of COVID-19 outbreaks throughout the duration of the pandemic. In addition, it has led to questions about renewal of long-term care homes based on lessons learned from the pandemic and challenges that preceded it. As such, there are many activities that crisis management and renewal plans will need to consider, which we summarize in the framework below. We use this framework to organize key findings from evidence documents and experiences from other countries and from Canadian provinces and territories. We have not made any changes to the framework since the first version of our LEP.

### **Organizing framework**

- **Preventing infections**
  - Vaccinating staff and residents (e.g., allocation rules, communications, administration, and monitoring)
  - Adhering to infection-prevention measures (e.g., washing hands, wearing masks, physical distancing, temporal distancing, and disinfecting surfaces)
  - Adjusting resident accommodations, shared spaces

### **Box 1: Our approach**

We identified research evidence addressing the question by searching the COVID-END [inventory of best evidence syntheses](#) and the COVID-END [guide to key COVID-19 evidence sources](#) in the 23-30 June 2021 period. We also searched: 1) [HealthEvidence](#); and 2) [Health Systems Evidence](#) (see Appendix 1 for the search terms used). We identified jurisdictional experiences by searching jurisdiction-specific sources of evidence listed in the same COVID-END guide to key COVID-19 evidence sources, and by hand searching government and stakeholder websites. We selected eight countries (Australia, France, Germany, Finland, The Netherlands, New Zealand, and United Kingdom, United States) that are advanced in their thinking or are good comparators given Canadian provincial and territorial approaches to long-term care.

We searched for guidelines, full systematic reviews (or review-derived products such as overviews of systematic reviews), rapid reviews, protocols for systematic reviews, and titles/questions for systematic reviews or rapid reviews that have been identified as either being conducted or prioritized to be conducted. Single studies were only included if no relevant systematic reviews were identified.

We appraised the methodological quality of full systematic reviews and rapid reviews that were deemed to be highly relevant using AMSTAR. Note that quality appraisal scores for rapid reviews are often lower because of the methodological shortcuts that need to be taken to accommodate compressed timeframes. AMSTAR rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. It is important to note that the AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to systematic reviews pertaining to delivery, financial or governance arrangements within health systems or to broader social systems. We appraised the quality of the highly relevant guidelines using three domains in AGREE II (stakeholder involvement, rigour of development, and editorial independence) and classified guidelines as high quality if they were scored as 60% or higher on each domain.

This update of the living evidence profile was prepared in the equivalent of two days of a ‘full-court press’ by all involved staff, and will continue to be updated every two months to provide evidence updates that can support preventing and managing COVID-19, outbreaks of COVID-19 and about supporting renewal in long-term care homes.

- and common spaces (e.g., single-occupancy rooms, no or minimally shared bathrooms, meals taken in rooms not dining hall, and improvement to HVAC systems)
- Adjusting service provision (e.g., cohorting residents and staff and providing PT/OT services in resident rooms rather than clinics)
  - Restricting and screening staff and visitors (e.g., visitor policy changes, approach to and frequency of screening)
  - Testing of residents and staff (e.g., approach to and frequency of testing)
  - Isolating suspected or confirmed cases among residents (within same or different facility) and staff (at home or in alternative settings like hotels)
  - Contact tracing among staff and visitors
  - Supporting staff and residents (e.g., phones/tablets and internet connections for online interactions between residents and their families and caregivers, financial support to staff who must quarantine or isolate)
  - **Managing outbreaks**
    - Adding or replacing administrators and staff (e.g., secondment of hospital administrators and medical or IPAC ‘swat’ teams, rotating in staff to avoid burn-outs)
    - Adhering to infection-control measures (e.g., donning and doffing personal protective equipment)
    - Making additional spatial, service, screening, testing, isolation and support changes
    - Transferring residents when their care needs exceed capacity in the home
  - **Renewing delivery, financial and governance arrangements**
    - Improving access to care (e.g., number of homes and beds, waitlist management)
    - Improving safety and quality of care, and more generally improving quadruple-aim metrics (e.g., quality standards, regular resident/family and staff surveys)
    - Changing service-delivery models (e.g., case management and care coordination; regular primary-care services, referral services)
    - Improving physical infrastructure (e.g., private rooms only, rooms grouped into ‘pods’ with dedicated staff, improving common areas and greenspace access, modern HVAC systems, and internet access for residents and staff)
    - Altering funding arrangements (e.g., overall funding model, targeted payments and penalties based on performance, and changes to covered providers, services and products)
    - Adjusting governance arrangements (e.g., licensure provisions, including whether for-profit entities can be licensed, accreditation standards, and reporting and auditing requirements)
    - Supporting greater integration of long-term care with other sectors (e.g., collaborative leadership and pooled funding for an attributed population)
  - **Renewing supports for residents (and their families and caregivers) and staff (and volunteers)**
    - Engaging residents, families and caregivers in self-management, care choices, care delivery, and organizational and policy decision-making (e.g., shared decision-making about care, patient, family and caregiver advisory councils, complaints-management processes)
    - Ensuring culturally appropriate living among residents (e.g., for Black, Indigenous and other people of colour)
    - Supporting technology-enabled living among residents (e.g., communication with family and caregivers, with staff, and with outside providers)
    - Ensuring an adequate supply of staff (e.g., staffing ratios, recruitment and retention initiatives, contracts with external agencies)
    - Optimizing skill mix among staff (e.g., training; task shifting or substitution, role expansion or extension, multi-disciplinary teams)
    - Ensuring the safety and satisfaction of staff and volunteers (e.g., workplace safety assessments, workplace violence-prevention initiatives, interventions to reduce burn-out)

- Supporting technology-enabled care by staff (e.g., interoperable electronic health records, telehealth services, eConsultations and eReferrals)
- Remunerating staff (e.g., remuneration models for different types of staff, including full-time employment offers, reasonable wages, and paid sick leave, wage parity or other approaches to avoid unnecessary staff movements between sectors)
- **Promoting alternatives to long-term care**
  - Engaging residents, families and caregivers in shared decision-making about whether to enter long-term care
  - Enhancing the breadth and intensity of home- and community-care services to delay or avoid entry to long-term care
  - Supporting technology-enabled care at home (e.g., telehealth, remote monitoring systems, patient reminders)
  - Providing financial supports to avoid or delay entry into long-term care (e.g., retrofitting homes, expanding family and caregiver benefits)

We do not include in our findings topics that are well covered by other COVID-END-supported living evidence products, such as the living behavioural-science syntheses to support vaccine confidence and uptake (among healthcare workers as well as citizens), the living evidence synthesis about vaccine effectiveness in general and against variants of concern, and the living evidence profile about vaccine roll-out. Of particular interest to those reading this LEP may be the LEP on lessons learned from the COVID-19 pandemic in Canada and the complementary LEP on lessons learned from the COVID-19 pandemic in other countries. Both documents include a lessons learned about long-term care. The most recently updated versions of each of these documents can be found [here](#).

### **What we found**

We identified 28 new evidence documents since the last update of this LEP, of which we deemed 19 to be highly relevant. Of these, one primary study was published during or prior to the last version of the LEP, but was not captured in it. As a result we have included the document in this version and explicitly noted its status as an older document. The newly added highly relevant evidence documents are:

- one guideline that met our minimum requirements for a guideline (i.e., includes explicit recommendations and an explicit process for developing them);
- one rapid review;
- six protocols for full systematic reviews or rapid reviews; and
- 11 new single studies that provide additional insights.

This LEP also includes evidence documents from the previous version that we deemed to still be highly relevant, for a total of 185 highly relevant documents.

We outline key themes that have emerged across the organizing framework in this and previous versions of the LEP in the synthesis below, and have **bolded** those themes that emerged from highly relevant evidence documents included in this version (version 2.4). Table 1 provides detailed insights from highly relevant evidence documents and jurisdictional scans included in this version of the LEP. In Table 2, we provide findings from still-relevant evidence documents and jurisdictional scans from the previous version of our LEP. We also outline the type and number of all documents that were identified in Table 3.

For those who want to know more about our approach, we provide a detailed summary of our methods in Appendix 1. In addition, we provide highly relevant evidence documents identified from

the updated searches in this LEP version in Appendix 2a, and all highly relevant documents that were identified in previous versions in Appendix 2b (including their relevance to the categories in the organizing framework, key findings, and when they were conducted or published). We also provide detailed summaries of preventing and managing COVID-19, outbreaks of COVID-19, and about supporting renewal in long-term care homes from other countries in Appendix 3, and from Canadian provinces and territories in Appendix 4. Documents excluded at the final stages of reviewing are provided in Appendix 5.

## **Thematic analysis of evidence documents and experiences from this LEP and previous versions**

### *Cross-cutting insights*

Relatively few documents or experiences have provided cross-cutting insights, however two themes were identified:

- **jurisdictions that responded early to the COVID-19 pandemic with state-of-emergency declarations, non-essential visitor restrictions, and single-site restrictions for staff, among others, had lower rates of morbidity and mortality in long-term care homes** (two primary studies - [1](#), [2](#)); and
- available guidance for long-term care homes focused on what staff should do, but provided little information about how best practices should be implemented, making them hard to follow (one rapid review - [1](#) AMSTAR 3/9).

### *Preventing infection*

The majority of the highly relevant evidence documents and experiences from Canada and other countries included in our LEP relate to preventing COVID-19 infection. Key findings from these documents highlight that:

- **prioritizing staff and residents of long-term care homes for vaccinations successfully reduced the incidence of COVID-19 in long-term care homes, however, some hesitancy towards vaccinations among long-term care staff has been reported** (two guidance documents- [1](#), [2](#); nine primary studies – [1](#), [2](#), [3](#), [4](#), [5](#), [6](#), [7](#), [8](#), [9](#));
- adhering to prevention measures has been critical to reducing morbidity and mortality including:
  - **ensuring sufficient supply of personal protective equipment as well as its proper donning and doffing, including universal masking** (four guidelines -[1](#), [2](#), [3](#), [4](#); full systematic review - [1](#) with AMSTAR 6/9; four rapid reviews – [1](#) with AMSTAR 7/9, [2](#) with AMSTAR 5/9, [3](#) with AMSTAR 5/9, [4](#) with AMSTAR 7/9),
  - **implementing mass testing of residents and staff** (three rapid reviews – [1](#) with AMSTAR 7/9, [2](#) with AMSTAR 2/9, [3](#) with AMSTAR 2/9; three primary studies – [1](#), [2](#), [3](#)),
  - establishing surveillance and monitoring systems for new admissions, staff and visitors (three guidelines – [1](#), [2](#), [3](#); one full systematic review - [1](#) with AMSTAR 6/9; one rapid review – [1](#) with AMSTAR 7/9; one primary study - [1](#)),
  - **physically distancing or cohorting residents** (two guidelines – [1](#), [2](#); one full systematic review - [1](#) with AMSTAR 6/9; four rapid reviews – [1](#) with AMSTAR 7/9, [2](#) with AMSTAR 7/10, [3](#) with AMSTAR 5/9, [4](#) with AMSTAR rating 2/9; and one primary study - [1](#)),
  - hiring additional staff to allow those who are ill to isolate (one full systematic review - [1](#) with AMSTAR 6/9; one rapid review - [1](#) with AMSTAR 5/9; ), and
  - promoting hand hygiene and enhanced cleaning measures (one guideline - [1](#); one rapid review – [1](#) with AMSTAR 7/9);
- **having families and caregivers play a role in the care of residents in long-term care homes is critical and implementing a ban on visitors in the early stages of the pandemic led to a**

**reduction in the quality and quantity of care provided, and had an overall negative effect on the health and well-being of residents;** (one rapid review - [1](#) with AMSTAR 0/9; four primary studies - [1](#), [2](#), [3](#), [4](#));

- having a larger facility size, greater number of beds, reliance on multi-person rooms, staff who work in multiple care homes, and the inability to isolate residents were all associated with higher rates of COVID-19 (three rapid reviews - [1](#) with AMSTAR 7/9, [2](#) with AMSTAR 0/9, [3](#) with AMSTAR 2/9; and one primary study -[1](#)).

In addition to these, select evidence documents and experiences also point to upgrades to long-term care homes that could improve the prevention of COVID-19, including modernizing HVAC systems (one guideline – [1](#)).

### *Managing outbreaks*

Several approaches to controlling outbreaks in long-term care homes were highlighted as important in the highly relevant evidence documents we identified and from experiences in Canada and other countries. These include:

- putting in place low thresholds for the declaration of an outbreak to be able to trigger early actions to manage potential outbreaks (one full systematic review – [1](#) with AMSTAR 9/11; one rapid review – [1](#) with AMSTAR 3/9);
- partnering with other health-system supports, including local hospitals, physicians, public-health specialists and logistics expertise, first responders, and in rare cases, military or defense personnel (two guidelines - [1](#), [2](#); one rapid response - [2](#) with AMSTAR 5/9; one primary study - [1](#));
- deploying separate staff to care for residents who have or have been in contact with COVID-19 (one guideline - [1](#));
- testing asymptomatic and symptomatic residents and staff (two rapid reviews – [1](#) with AMSTAR 3/9, [2](#) with AMSTAR 8/10; one primary study - [1](#));
- enhancing personal protective equipment worn by staff (one rapid review - [1](#) with AMSTAR 8/10);
- implementing comprehensive contact tracing for both staff and residents (one rapid review - [1](#) with AMSTAR 8/10; one primary study – [1](#)); and
- limiting movement of staff between long-term care homes (two rapid reviews – [1](#) with AMSTAR 2/9, [2](#) with AMSTAR 8/10).

### *Changing governance, financial and delivery arrangements*

This part of the framework shifts from what can be done to prevent and manage COVID-19 to how long-term care can be renewed.

We identified highly relevant evidence documents and experiences from Canada and/or other countries about renewing financial arrangements and delivery arrangements, but not about governance arrangements in long-term care. The main theme from documents and experiences related to renewing financial arrangements emerged from the discrepancy in infection rates between for-profit and non-for profit or public homes. Homes with a for-profit status were associated with increased odds of COVID-19 infections and worse outcomes following an outbreak (one rapid review – [1](#) with AMSTAR 2/9; and primary study – [1](#)).

With respect to delivery arrangements, two themes were found that could contribute to the renewal of long-term care:

- models of care and interventions that make dementia care, oral care, exercise, mobility services, and appropriate medication use readily available to residents improves quality of life, quality of care, and health outcomes for those living in long-term care homes (two rapid reviews – [1](#) AMSTAR rating 7/9, [2](#) AMSTAR rating 5/9); and
- **outdated physical infrastructure including older designs of rooms and common spaces, poor ventilation, multi-bed rooms, and larger homes were all found to contribute to a higher incidence rate of COVID-19** (two full systematic review – [1](#) AMSTAR 5/9, [2](#) AMSTAR rating 8/10; one rapid review – [1](#) AMSTAR rating 7/9; one primary study - [1](#)).

Given these issues, many jurisdictions, both Canadian and international, have committed funds since the beginning of the pandemic towards upgrading this infrastructure.

### *Renewing supports for residents and staff*

Five themes emerged related to renewing supports for residents and staff:

- shared decision-making with residents and their families or caregivers was found to have positive outcomes for residents, however, it requires an investment in staff training to ensure it is delivered effectively (two full systematic review – [1](#) with AMSTAR 8/11, [2](#) with AMSTAR 8/10);
- **COVID-19 has challenged staff and managers at long-term care homes, with many reporting job strain, emotional exhaustion and burn-out, and it has led jurisdictions to invest in accelerated training programs for additional staff as well as providing incentives to those who choose to work in long-term care** (four primary studies – [1](#), [2](#), [3](#), [4](#));
- supports for those working in long-term care homes following the pandemic should be tailored based on their roles and sources of stress (one primary study -[1](#));
- a variety of professionals working at long-term care homes, including advance-practice nurses, extended-care paramedics, consulting physicians, and care coordinators, can be beneficial by providing higher-quality care and helping to avoid transfers and hospital admissions (one full systematic review - [1](#) with AMSTAR 7/9; one rapid review – [1](#) with AMSTAR 7/10; five primary studies -[1](#), [2](#), [3](#), [4](#), [5](#)); and
- **interoperable electronic health records may enhance quality of care as well as the improved management of clinical documentation, however, some homes have been slow to adopt them and to put in place training and processes to support their use** (three full systematic reviews – [1](#) with AMSTAR 5/9, [2](#) with AMSTAR 4/9, [3](#) with AMSTAR 4/9; one primary study – [1](#)).

### *Promoting alternatives to long-term care*

Two themes emerged from highly relevant evidence documents and experiences. The first theme is that providing additional supports in the community, including enhancing the use of technologies at home and expanding at-home palliative-care services, can help older adults to remain at home longer and empower older adults and their families to choose if and when to enter long-term care (three full systematic review – [1](#) with AMSTAR 5/9, [2](#) with AMSTAR 8/11, [3](#) with AMSTAR 5/9; and one primary study - [1](#)). The second theme is that following the pandemic, countries as well as the Canadian federal government and Canadian provinces and territories have made funding commitments to expand home and community-care services.

Table 1: Highlights from new highly relevant evidence documents and experiences

Preventing and managing COVID-19, outbreaks of COVID-19, and supporting the renewal in long-term care homes	New evidence documents	New experiences
<b>Cross-cutting</b>	No new evidence documents were identified	No new cross-cutting experiences were identified
<b>Preventing infections</b>	<p><i>Vaccinating staff and residents</i></p> <ul style="list-style-type: none"> <li>Two primary studies <a href="#">found reductions in infection rates of COVID-19 in long-term care homes following widespread vaccinations of staff and residents</a>, as well as <a href="#">reductions in emergency-department visits and hospital admissions among long-term care homes with higher vaccinations rates</a></li> </ul> <p><i>Adhering to infection-prevention measures</i></p> <ul style="list-style-type: none"> <li>Guidance for workers in long-term care homes emphasized <a href="#">minimum standards for personal protective equipment when providing direct personal care, when within two metres of physical space, and when carrying out domestic duties within the home</a> <ul style="list-style-type: none"> <li>The same guidance also provides recommendations on <a href="#">changes to personal protective equipment for vulnerable residents, those with mental health challenges or dementia, and those who have been vaccinated</a> (last updated June 2021; low-quality AGREE II rating; Public Health England)</li> </ul> </li> <li>One primary study of a long-term care home in Japan found that once implemented, <a href="#">infection-prevention measures, such as limiting contact, monitoring symptoms of staff and residents, and using information and communication technology, reduced hospitalizations of residents back to their pre-COVID-19 levels</a> (last updated May 2021)</li> <li>One primary study found <a href="#">Japan’s long-term care policies resulted in a low incidence of COVID-19 transmission in</a></li> </ul>	<p><b>Key insights from preventing and managing COVID-19, and renewing long-term care in other countries</b></p> <p><i>Vaccinating staff and residents</i></p> <ul style="list-style-type: none"> <li>In the U.S., the federal Pharmacy Partnership for LTC Program has ended with a total of 7.88 million doses having been administered to LTC staff and residents</li> </ul> <p><i>Adhering to infection-prevention measures</i></p> <ul style="list-style-type: none"> <li>In Australia, aged care facilities have gone into lockdown and added infection-prevention measures in the Northern Territory</li> <li>In the Australian Capital Territory, staff, visitors and volunteers are required to wear a mask in aged care facilities</li> </ul> <p><i>Restricting and screening staff and visitors</i></p> <ul style="list-style-type: none"> <li>In the U.K., the guidance on admission and care of people in care homes has been updated to clarify and provide additional information on testing protocols, visiting policy for residents attending medical appointments out of care homes, the role of essential caregivers during a resident’s isolation period, and removing the requirement for new residents to isolate for 14 days upon admission provided they satisfy the criteria set out in the guidance</li> <li>As part of the changes made to aged care facilities in the Northern Territory, Australia, no visitors will be permitted to enter unless attending for end-of-life support</li> </ul>

	<p><a href="#">long-term care homes compared to European and North American counterparts</a></p> <ul style="list-style-type: none"> <li>○ The same study attributed this success <a href="#">to early implementation of lockdown procedures, support from community-based public-health agencies, and existing use of face masks and other personal protective equipment</a> (last updated May 2021)</li> <li>● One primary study found <a href="#">excellent adherence to infection-prevention measures in Brazilian long-term care homes, however lower adherence rates were recorded in larger long-term care homes for screening visitors for COVID-19 and for isolating patients until they have had two negative tests</a> (last updated June 2021)</li> <li>● One primary study found that <a href="#">implementing a bundle of supports, including monitoring vital signs of staff and residents, frequent clinical follow-ups and ramped up PCR testing, reduced the COVID-19 infection rate in long-term care homes</a> (last updated May 2021)</li> </ul> <p><i>Restricting and screening staff and visitors</i></p> <ul style="list-style-type: none"> <li>● One primary study found that <a href="#">isolation and social restrictions during the pandemic aggravated existing conditions among both residents and their families</a> (last updated May 2021)</li> </ul>	<p><b>Key insights from preventing and managing COVID-19, and renewing long-term care in Canadian provinces and territories</b></p> <p><i>Vaccinating staff and residents</i></p> <ul style="list-style-type: none"> <li>● On 31 May 2021, Ontario became the first province in Canada to mandate that long-term care homes have COVID-19 immunization policies for staff, and long-term care homes must have these immunization policies implemented by 1 July 2021</li> <li>● A 23 April 2021 directive from the Ministry of Health and Social Services in Quebec states that all long-term care residents are to be prioritized for receiving a second dose, and states that all eligible residents are to be offered their second dose by 8 May 2021</li> </ul> <p><i>Adhering to infection-prevention measures</i></p> <ul style="list-style-type: none"> <li>● On 30 May 2021, when Saskatchewan moved into Step 1 of its Re-opening Roadmap, all residents of long-term care and personal care homes where 90% of residents have been fully vaccinated and three weeks have passed since the last second dose vaccinations are allowed to welcome an unlimited number of visitors indoors <ul style="list-style-type: none"> <li>○ all care home residents will also no longer be required to quarantine upon their return from outings</li> </ul> </li> <li>● In Ontario, Directive #3 from Ontario's Chief Medical Officer of Health was updated on 4 May 2021 to allow homes to safely resume communal dining and indoor events and gatherings with precautions in response to high vaccination rates in long-term care homes</li> <li>● A 4 June 2021 directive from the Ministry of Health and Social Services in Quebec establishes COVID-19 safety guidelines for long-term care homes based on the public-health alert level of the facility (green – level 1 alert, yellow – level 2 alert, orange - level 3 alert, red - level 4 alert, or grey - preventive isolation or outbreak)</li> </ul>
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		<p>monitoring and contact-tracing systems to long-term care homes</p> <ul style="list-style-type: none"> <li>• The B.C. CDC released detailed guidance on COVID-19 infection prevention and control for long-term care and assisted-living settings</li> </ul>
<b>Managing outbreaks</b>	No new evidence documents were identified	<p><b>Key insights from preventing and managing COVID-19, and renewing long-term care in other countries</b></p> <p><i>Adhering to infection-control measures</i></p> <ul style="list-style-type: none"> <li>• In the U.K., guidance documents on the admission and care of residents in a care home during COVID-19 and overview of adult social-care guidance on corona virus (COVID-19) have been updated to reflect changes to admissions based on vaccination status, and updates on guidance for outbreaks in care homes in which a variant has been identified, respectively</li> </ul> <p><b>Key insights from preventing and managing COVID-19, and renewing long-term care in Canadian provinces and territories</b></p> <p><i>Adhering to infection-control measures</i></p> <ul style="list-style-type: none"> <li>• On 14 June 2021, Alberta Health Services updated operational and outbreak standards for licensed supportive living, long-term care, and hospice settings, including advice for residents based on vaccination status</li> <li>• In Ontario, restrictions limiting long-term care staff to work at a single site was lifted for staff who have been fully vaccinated</li> <li>• On 16 June 2021, the Government of Nova Scotia published a COVID-19 Management in Long Term Care Facilities directive that includes outbreak management of COVID-19 in long-term care facilities</li> </ul>
<b>Renewing delivery, financial and governance arrangements</b>	<p><i>Changing service-delivery models</i></p> <ul style="list-style-type: none"> <li>• One single study provides recommendations to federal policymakers on long-term care reform based on a commission by the Centre for Medicare and Medicaid Services, including <a href="#">ensuring 24/7 registered nurse coverage and adequate compensation to maintain total staffing levels</a></li> </ul>	<p><b>Key insights from preventing and managing COVID-19, and renewing long-term care in Canadian provinces and territories</b></p> <p><i>Improving safety and quality of care</i></p>

	<p><a href="#">that are based on residents' acuity and care needs, and supporting care delivery models that strengthen the role of the registered nurses for quality resident-centred care</a> (last updated April 2021)</p> <p><i>Improving physical infrastructure</i></p> <ul style="list-style-type: none"> <li>• One single study found <a href="#">the probability of an outbreak within a long-term care home increased with rising community incidence, greater number of beds within the home, and if another nursing home was in close proximity</a> <ul style="list-style-type: none"> <li>○ The study found <a href="#">no association between the probability of an outbreak and whether the long-term care home was publicly or privately operated</a> (last updated May 2021)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The final report of Ontario's Long-term Care Commission indicated that involving nurse practitioners in long-term care homes was valuable in strengthening quality care during the pandemic, as well as the establishment of mobile community palliative-care units and the creation of person-centred care models</li> </ul> <p><i>Improving physical infrastructure</i></p> <ul style="list-style-type: none"> <li>• The federal government announced an investment of \$99.4 million for 95 infrastructure projects to improve long-term care homes in Ontario</li> <li>• The final report of Ontario's Long-term Care Commission indicated that as long-term care demand continues to increase, the province must address existing facility design and overcrowding issues</li> <li>• Ontario is investing \$9 million more in specialized long-term care beds for vulnerable residents</li> <li>• On 15 May 2021, new requirements for air conditioning in long-term care homes came into effect, and the Ontario government has indicated that all 626 homes meet requirements</li> </ul>
<p><b>Renewing supports for residents and staff</b></p>	<p><i>Ensuring the safety and satisfaction of staff and volunteers</i></p> <ul style="list-style-type: none"> <li>• One primary study found that <a href="#">staff within a Chinese long-term care home experienced different sources of stress and used different coping strategies depending on their roles</a> <ul style="list-style-type: none"> <li>○ The study found that <a href="#">managers experienced stress caused by challenges in leading staff in unfamiliar circumstances and with limited resources, while nurses and nursing assistants reported stress stemming from heavy workloads and concerns about increased risk of exposure</a></li> <li>○ <a href="#">Coping mechanisms also varied between staff with managers seeking help from colleagues and senior leaders, while nurses sought out additional education and training</a> (last updated May 2021)</li> </ul> </li> </ul> <p><i>Optimizing skill mix among staff</i></p> <ul style="list-style-type: none"> <li>• One rapid review that was conducted earlier in the year found <a href="#">long-term care homes with high staffing levels and</a></li> </ul>	<p><b>Key insights from preventing and managing COVID-19, and renewing long-term care in other countries</b></p> <p><i>Engaging residents, families and caregivers in self-management, care choices, care delivery, and organizational and policy decision-making</i></p> <ul style="list-style-type: none"> <li>• As of 29 June 2021, the Australian Government will provide emergency leave for permanent aged care residents during the period of 1 April 2020 until 30 June 2022 without requiring that residents use their social leave entitlements or pay their aged care provider additional fees to secure their place</li> </ul> <p><i>Supporting technology-enabled living among residents</i></p> <ul style="list-style-type: none"> <li>• In the U.K., as part of the COVID-19 winter 2020 to 2021 support plan, NHSX (a joint unit with collaboration of teams from the Department of Health and Social Care and National</li> </ul>

	<p><a href="#">low staff-to-resident ratio helped to reduce the spread and mortality of COVID-19</a> (last updated January 2021)</p> <ul style="list-style-type: none"> <li>• One primary study provided recommendations to federal policymakers based on the findings from a commission for the Centres for Medicare and Medicaid Services, including <a href="#">ensuring all registered nurses working in long-term care homes have geriatric nursing and leadership competencies</a> (last updated April 2021)</li> </ul> <p><i>Supporting technology-enabled care by staff</i></p> <ul style="list-style-type: none"> <li>• One primary study identified <a href="#">lack of clear communication between staff, limited technology trouble shooting, and reliance on existing methods as barriers to implementing telemedicine in skilled-nursing facilities, however these barriers may be overcome by clearly communicating expectations to staff, and training staff to use the technologies and to differentiate when different modalities may be most appropriate</a> (last updated June 2021)</li> </ul>	<p>Health Services) gifted 11,000 iPads to care homes to help residents stay connected to loved ones and receive ongoing care</p> <p><b>Key insights from preventing and managing COVID-19, and renewing long-term care in Canadian provinces and territories</b></p> <p><i>Optimizing skill mix among staff</i></p> <ul style="list-style-type: none"> <li>• On 14 May 2021, the Ontario government announced that it is investing \$35 million to increase enrolment in nursing education programs across the province</li> <li>• In Nova Scotia, a recent provincial budget included \$3.5 million devoted to workplace safety education and equipment for the continuing-care sector</li> </ul> <p><i>Remunerating staff</i></p> <ul style="list-style-type: none"> <li>• The Government of Manitoba announced on 11 May 2021 that Manitoba workers will be allowed to take a three-hour paid leave for COVID-19 vaccination appointments</li> </ul>
<p><b>Promoting alternatives to long-term care</b></p>	<p>No new evidence documents were identified</p>	<p><b>Key insights from preventing and managing COVID-19, and renewing long-term care in Canadian provinces and territories</b></p> <p><i>Enhancing the breadth and intensity of home and community-care services to delay or avoid entry to long-term care</i></p> <ul style="list-style-type: none"> <li>• In Quebec, the Ministry of Health and Social Services issued a 19 May 2021 directive directed at those who support the elderly, managers of living environments for the elderly, and elderly home-care providers that requires them to implement measures to prevent deconditioning/frailty</li> <li>• These measures aim to support older adults living in the community as well as those living in long-term care homes</li> </ul>

**Table 2: Key findings from highly relevant documents identified in previous versions related to one or more COVID-19 vaccine roll-out elements**

Preventing and managing COVID-19, outbreaks of COVID-19 and supporting the renewal in long-term care homes	Evidence from previous versions	Experiences from previous versions
General/cross-cutting	<ul style="list-style-type: none"> <li>• One primary study examined policies implemented in long-term care homes in five provinces, which included <a href="#">declaring a state of emergency, restricting non-essential visitors, restricting staff to working in one location, and deploying the Canadian Armed Forces to long-term care facilities</a> (last updated April 2021)               <ul style="list-style-type: none"> <li>◦ The same study found <a href="#">provinces that were slow to respond with some of these policy mandates were hardest hit by COVID-19</a> (last updated April 2021)</li> </ul> </li> <li>• One rapid review examines the range of guidance for long-term care homes across various jurisdictions in comparison to guidance that in Ireland with some variations noted between the guidance documents, including <a href="#">differences in asymptomatic testing, differences in monitoring systems for residents with symptoms, and changes in visitation rules in long-term care homes following vaccinations, among others</a> (AMSTAR rating 2/9)</li> <li>• One rapid review conducted earlier this year of government and expert guidance documents aimed to produce research-based tips to respond to questions and concerns emerging in the long-term care sector during the early stages of the COVID-19 pandemic, however the review <a href="#">revealed gaps in research evidence which found that available guidance provided details on what staff should do, but very little guidance was provided on how they should do it</a> (Last updated October 2020; AMSTAR rating 3/9)</li> </ul>	No cross-cutting experiences were identified
Preventing infections	<p><i>Vaccinating staff and residents</i></p> <ul style="list-style-type: none"> <li>• One primary study conducted earlier this year found that <a href="#">after eight weeks of the vaccination program in long-term care homes in Ontario</a></li> </ul>	<p><i>Vaccinating staff and residents</i></p> <ul style="list-style-type: none"> <li>• Australia and New Zealand began administering vaccines to long-term care staff and residents, and all</li> </ul>

	<p><a href="#">there was an 89% reduction in COVID-19 incidence and 96% reduction in mortality from COVID-19</a> (published March 2021)</p> <ul style="list-style-type: none"> <li>• One primary study examined the short-term impact of vaccinations in 280 long-term care homes and found that <a href="#">early vaccinated facilities had 2.5 fewer COVID-19 infections per 100 at-risk residents in the first week than what was predicted in modelling data, with rates declining there after</a> (published 16 April 2021)</li> <li>• One primary study found that <a href="#">once 70% of residents in nursing homes in Catalonia were vaccinated, detectable transmission was reduced up to 90%</a> (published 12 April 2021)</li> <li>• One primary study of townhalls with staff from long-term care homes reported that <a href="#">hesitancy about the vaccine stemmed from concerns about the timeline for its development and reported side-effects related to pregnancy</a> (published March 2021)</li> <li>• Another primary study of vaccine hesitancy among staff at long-term care homes found that <a href="#">staff reported feelings of hesitancy due to concerns about safety and effectiveness related to the speed of vaccine development as well as personal concerns about pre-existing medical conditions, and lack of trust in government</a> (last updated March 2021)</li> <li>• <a href="#">Canada's phased approach to immunization will prioritize residents and staff of congregate-living arrangements including long-term care homes</a> (last updated December 2020; Public Health Agency of Canada)</li> <li>• <a href="#">Prioritization of COVID-19 vaccination in a guideline from the Department of Health and Social Care in the U.K. is given to residents in care homes for older adults and their carers</a> (last updated 6 January 2021; Department of Health and Social Care)</li> <li>• A cohort analysis in one primary study of residents in a long-term care home found that <a href="#">partial vaccination with Pfizer-BioNtech COVID-19 vaccine was 63% effective against infection, however pre-existing immunity may strengthen the response to a single dose</a> (last updated March 2020)</li> <li>• One primary study of staff in Liverpool long-term care homes found that <a href="#">the mean staff vaccination rate was 51.4% per home with commonly cited reasons for not receiving the vaccine being: concerns about the lack of vaccine research, staff being off-site during</a></li> </ul>	<p>other countries have continued vaccine roll-out in these populations</p> <ul style="list-style-type: none"> <li>• In Germany, vaccine delays have resulted in mobile units that visit long-term care homes operating at only 67% capacity</li> <li>• In The Netherlands, extra vaccines allocated to long-term care homes are being provided to designated caregivers to support safe and regular visits</li> </ul> <p><i>Adhering to infection-prevention measures</i></p> <ul style="list-style-type: none"> <li>• In Finland, the government published a plan on 9 April 2021 to lift societal restrictions, including those affecting visitor policies in long-term care homes, in June and July following a reassessment of the epidemiological situation in the country</li> <li>• During March 2021, the Aged Care Quality and Safety Commission in Australia performed 2,924 visits to long-term care homes as part of an infection control monitoring program</li> </ul> <p><i>Restricting and screening staff and visitors</i></p> <ul style="list-style-type: none"> <li>• In France, although lockdown measures have been extended until 11 May 2021, visits in long-term care homes have continued</li> <li>• In the Netherlands, fully vaccinated residents can receive two visitors instead of one at the same time (while still adhering to physical distancing and universal masking)</li> <li>• The U.K. has continued to update its visiting guidelines for long-term care homes</li> <li>• As vaccine roll-out continues, the U.K. and U.S. have continued to update guidance documents for admitting residents to long-term care homes and visitations in long-term care homes</li> </ul>
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[vaccination sessions, pregnancy and fertility concerns, and concerns about allergic reactions](#) (last updated March 2021)

- The same study suggested [methods to combat hesitancy which included providing evidence and literature to staff to dispel misinformation, as well as hosting meetings and one-on-one conversations with staff](#) (last updated March 2021)
- One primary study found [no significant increase in vaccine effectiveness among residents between the first and second doses of the Pfizer-BioNTech vaccine](#), however vaccine effectiveness increased to 52% from days 0-7 after the second dose and 64% from seven days after the second dose (last updated March 2021)
- One primary study evaluated the transmission of the COVID-19 variant B.1.1.7 and found [that the ongoing successful surveillance, testing and vaccination of residents in long-term care homes curtailed the variants spread in long-term care homes in Israel](#) (last updated February 2021)

*Adhering to infection-prevention measures*

- [Guidance from the Centres for Medicare and Medicaid](#) emphasize working with state and local health departments to ensure a continuous supply of PPE for long-term care homes, as well as implementing requirements for staff to wear personal protective equipment and residents to wear masks that cover the nose and mouth (when it is safe to do so) whenever they are in shared spaces (last updated April 2020)
- [WHO guidance recommends ensuring standard infection prevention is practised, including wearing PPE, hand hygiene, enhanced cleaning, and in areas with known or suspected transmission of COVID-19 to implement universal masking policies for staff, visitors and residents](#) (last updated January 2021)
- [Mixed results were found for the implementation of hand hygiene and personal protective equipment among older adults in long-term care settings, however the authors note that the absence of evidence does not imply that these measures should not be implemented during the pandemic](#) (last updated March 2020; AMSTAR rating 3/9)
- The most common recommendations in clinical practice guidelines on the prevention and control of COVID-19 include: [establishing surveillance and monitoring systems; mandating the use of personal](#)

**Key insights from preventing and managing COVID-19, and renewing long-term care in other Canadian provinces and territories**

*Vaccinating staff and residents*

- As of 19 February 2021, more than 30,000 residents (91%) of long-term care homes in B.C. have received at least a first dose of a COVID-19 vaccine
- As of 2 March 2021, in Saskatchewan, 91% of all long-term facility residents have received at least one dose of a COVID-19 vaccine
  - Although Saskatchewan extended the interval between first and second doses of COVID-19 vaccines to up to four months, as of 5 March 2021 [long-term care staff and residents are exempt](#) and will receive second doses as originally recommended
- In Alberta and New Brunswick, a first dose of a COVID-19 vaccine has been administered to all long-term care homes

*Adhering to infection-prevention measures*

- In April 2021, [additional guidance was released on ventilation and filtration to reduce aerosol transmission of COVID-19](#) in long-term care homes, which includes information on how to enhance and improve ventilation, and use of fans and single-unit air conditions in facilities where this is not possible
- In April 2021, the [Public Health Agency of Canada released a second edition of the federal/provincial/territorial public health response plan for the ongoing management of COVID-19](#) which includes considerations for long-term care homes, such as:
  - Updating the guidance for the clinical management of patients with moderate to severe COVID-19 and care of residents in long-term care
  - Optimizing testing platforms for healthcare staff in long-term care facilities

	<p><a href="#">protective equipment; physically distancing or cohorting residents; environmental cleaning and disinfection; promoting hand and respiratory hygiene among residents, staff, and visitors; and providing sick-leave compensation for staff</a> (last updated July 2020; AMSTAR rating 6/9)</p> <ul style="list-style-type: none"> <li>• <a href="#">Surveillance, monitoring and evaluation of staff and resident symptoms and the diligent use of PPE were found to mitigate the risk of outbreaks and mortality within long-term care homes, as were other interventions including the promotion of hand hygiene and enhanced cleaning measures</a> (last updated November 2020; AMSTAR rating 7/10)</li> <li>• <a href="#">Significant reductions in the prevalence of COVID-19 infection among staff and residents were attributed to the use of PPE</a> (last updated October 2020; AMSTAR rating 5/9)</li> <li>• <a href="#">Education and training in proper wearing of PPE, ensuring an adequate supply of PPE, and adhering to strict hand hygiene were best practices for support staff in long-term care homes</a> (last updated October 2020; AMSTAR rating 5/9)</li> <li>• The effectiveness of infection-control measures is dependent upon several factors and a combination of strategies, with the most significant being: access to hand hygiene facilities in the workspace; restricting visitation; rapid identification of cases among both staff and residents through testing; environmental decontamination; allocating staff to one facility for reducing spread across several locations; and providing psychosocial support for staff (internal document published June 2020 – available upon request; AMSTAR rating 0/9)</li> <li>• <a href="#">Most clinical practice guidelines for adults aged 60 years and older in long-term care settings recommended hand hygiene practices, wearing personal protective equipment, social distancing or isolation, disinfecting surfaces, droplet precautions, surveillance and evaluation, and using diagnostic testing to confirm illnesses</a> (published March 2020; AMSTAR rating 7/9)</li> <li>• <a href="#">The National Institute on Ageing (NIA) in Canada recommends an 'Iron Ring' set of actions including requiring the use of appropriate PPE by care providers and residents, and providing training to support its use</a> (last updated April 2020; National Institute on Ageing)</li> <li>• One rapid review conducted last year mapped the evidence related to isolation measures imposed in long-term care homes as a result of the</li> </ul>	<ul style="list-style-type: none"> <li>• Providing a federal Safe Long-Term Care Fund, including carrying out infection-prevention and control-readiness assessments, making improvements to ventilation and hiring and training additional staff</li> <li>• Several provinces have developed tiered protocols for the operation, patient trajectory and/or visitation policies of long-term care homes based on regional COVID-19 alert levels (Quebec and New Brunswick) or vaccination rates (Prince Edward Island)</li> <li>• Nova Scotia published a <a href="#">resource index regarding infection prevention and control for the long-term care sector</a>, and conducted a <a href="#">review of infection-prevention and control measures during the first wave of the pandemic</a> (from March to September 2020) across six domains: <ul style="list-style-type: none"> <li>○ Access to infection-prevention and control expertise in long-term care</li> <li>○ Access to infection-control and prevention education and tools</li> <li>○ On-site systems, standards and processes</li> <li>○ Equipment and material resources</li> <li>○ Monitoring and reporting mechanisms</li> <li>○ Infrastructure and space design</li> </ul> </li> <li>• In Manitoba, long-term care home employees and staff who have received at least one dose of the COVID-19 vaccine can request an exemption to the Single Site Staffing Order</li> <li>• A <a href="#">29 March 2021 directive</a> from the Ministry of Health and Social Services in Quebec establishes COVID-19 safety guidelines for long-term care homes based on the public-health alert level of the facility (orange - level 3 alert, red - level 4 alert, or grey - preventive isolation or outbreak) <ul style="list-style-type: none"> <li>○ The Ministry of Health and Social Services has published an information sheet regarding <a href="#">the measures applicable to caregivers and visitors to residents of private retirement homes</a>, with measures</li> </ul> </li> </ul>
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COVID-19 pandemic and found that [despite significant discussion of their negative impact, few specific solutions to mitigate the negative effects of isolation were mentioned](#) (last updated August 2020; AMSTAR rating 2/9)

- One primary study documented the range of infection-prevention measures put in place in a Taiwanese long-term care home that were found to [reduce COVID-19 transmission](#)
  - These included measures for those entering the facility, those entering wards, staff working in wards, and residents in wards, such as education for staff and residents about COVID-19, regular hand sanitizing, cleaning of frequently used equipment, universal masking, and having specific vehicles and staff responsible for medical visits and acute-care transfer (last updated March 2021)
- One primary study implemented [a three-part infection prevention and control assessment](#) consisting of a screening tool, telephone checklist, and a COVID-19 video assessment that found observations that would have been missed using other approaches, including personal protective [equipment that was not easily accessible, redundant or improperly donned and doffed](#) (last updated March 2021)
- One primary study used a game to test willingness to make behavioural infection, prevention and control changes and found that [factors underlying the willingness to change included the feeling of playing an important role in fighting the epidemic, the information given in the training materials, the probability of infecting a relative, and the obligation to follow procedures](#) (last updated March 2021)
- One primary study explored adherence to prevention and control guidelines in 484 long-term care homes in China and found [an average rate of 80% compliance](#) (last updated January 2021)
- The same study found [compliance was associated with the number of medical staff, the education level of the manager, long-term care home size, and establishment of a quarantine room/unit](#) (last updated January 2021)
- One primary study evaluated changes in social distancing restrictions in long-term care homes nationally in the United States and found that [strong social distancing measures were associated with lower weekly rates of COVID-19 cases and related deaths among staff and residents](#) (last updated February 2021)

*Adjusting resident accommodations, shared spaces and common spaces*

stratified based on the public-health alert level of the region

- In February 2021, the Canadian Association for Long Term Care released a summary of recommendations including a call for the federal government to provide \$93.2 million to support the recruitment and retention of infection prevention and control experts in care homes
- Shared Health Manitoba maintains a [library of COVID-19 resources](#), including informational posters, FAQs and tools, for healthcare providers working in long-term and personal-care homes during the pandemic
- New Brunswick published a [COVID-19 management guide for adult residential homes and nursing homes](#)

*Restricting and screening staff and visitors*

- On 8 April 2021, [Ontario entered into a province-wide stay-at-home order](#) and visitors are no longer allowed in long-term care homes
- In Nunavut, as of 15 April 2021, visiting long-term care homes in Iqaluit is restricted, with any exemptions assessed on an individual basis
- In Saskatchewan, [visitor restrictions will begin to ease](#) if 90% or more of the residents in a long-term care home have been fully vaccinated (three weeks past the second dose)
- In B.C., long-term care homes will be allowed up to two visitors at a time while adhering to public health measures such as masks and sanitization practices as of 1 April 2021
- Nova Scotia has released [guidance for long-term care visits](#), including social visitors and designated caregivers
- As of 12 March 2020, visiting restrictions for long-term care homes have been limited to one essential visitor, and group/external activities have been suspended in P.E.I. and Newfoundland and Labrador

	<ul style="list-style-type: none"> <li>• A low-quality guideline produced by the Public Health Agency of Canada recommends <a href="#">putting in place the highest-efficiency particular filter that the HVAC system is capable of handling, ensuring that the room has adequate air exchanges, and whenever possible taking advantage of natural ventilation by opening windows to reduce aerosol transmission of COVID-19</a> (Public Health Agency of Canada, last updated 2021) <ul style="list-style-type: none"> <li>○ <a href="#">The same guideline notes that where HVAC systems cannot be upgraded, facilities should consider: high-quality portable HEPA filters, increased natural ventilation (when weather permits) and use of “other ventilation appliances...such as heat recovery ventilation (HRV) and energy recovery ventilation (ERV) systems,” but it is cautioned that localized fans or single unit air conditioners should be positioned carefully to avoid creating direct air flow between breathing zones</a> (Public Health Agency of Canada, last updated April 2021)</li> </ul> </li> <li>• <a href="#">Social distancing and cohorting of residents may help to mitigate the risk of outbreak and mortality in long-term care homes</a> (last updated November 2020; AMSTAR rating 7/10)</li> <li>• <a href="#">Increased facility size, greater number of beds and number of staff (and who work in multiple homes) were associated with an increase in the probability of COVID-19 cases and size of outbreak</a> (last updated November 2020; AMSTAR rating 7/9)</li> <li>• <a href="#">Increases in the prevalence of COVID-19 infection among staff and residents was associated with inability to isolate infected residents, and infrequent cleaning of communal areas</a> (last updated October 2020; AMSTAR rating 5/9)</li> <li>• <a href="#">Further measures that can be effective at preventing future outbreaks, hospitalizations, and deaths from COVID-19 in long-term care homes include disallowing three- and four-resident rooms while increasing temporary housing to support crowded homes</a> (last updated January 2021; AMSTAR rating 0/9)</li> <li>• <a href="#">Guidelines describe using single rooms when available, and to cohort patients with positive cases of COVID-19 into units, floor, or a wing</a> (last updated April 2020)</li> <li>• <a href="#">Avoid shared activities within the same space, but if this is not possible, residents and staff should perform hand hygiene before,</a></li> </ul>	<p><i>Testing of residents and staff</i></p> <ul style="list-style-type: none"> <li>• Saskatchewan’s Health Authority’s <a href="#">move-in policy for new residents entering long-term care or personal-care homes</a> requires a COVID-19 test at least 48 hours before the move-in date, and if a potential resident tests negative but displays symptoms, move-in must be delayed for at least 48 hours after symptoms significantly resolve <ul style="list-style-type: none"> <li>○ All residents who test negative must be placed under droplet/contact precautions for 14 days</li> <li>○ If a potential resident tests positive and is hospitalized, the resident can be moved in 14 days following symptom onset</li> </ul> </li> <li>• If the resident is not hospitalized, they can be moved in 10 days following symptom onset, and if they are asymptomatic and/or immunocompromised, the resident can be moved in 10 days after the positive test date</li> <li>• Released on 12 March 2021, Manitoba’s <a href="#">infection prevention and control guidance for personal-care homes</a> states that testing for COVID-19 is recommended for all newly admitted or readmitted residents upon entry, except for those who have tested positive within the last 90 days</li> <li>• In Ontario, according to a <a href="#">directive of the Minister of Long Term Care effective 15 March 2021</a>, every licensed long-term care home must ensure that caregivers, staff, student placements, and volunteers working in or visiting a long-term care home take a COVID-19 antigen or PCR test at specific frequencies</li> </ul>
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	<p><a href="#">during and after activities, with adequate spacing between residents</a> (last updated March 2020; Vancouver Coastal Health Authority)</p> <ul style="list-style-type: none"> <li>• <a href="#">During meal times, residents should be distanced at least two metres apart and not facing each other, and when this is not possible, consider tray service or providing meals in shifts with appropriate sanitization between residents</a> (last updated March 2020; Vancouver Coastal Health Authority)</li> <li>• <a href="#">Seating in TV/media lounges should be arranged in theatre style with maximum spacing between chairs (two metres on each side is ideal)</a> (last updated March 2020; Vancouver Coastal Health Authority)</li> <li>• <a href="#">Long-term care homes should consider designating different zones including a transition zone for residents going to an acute-care facility, a COVID-19 free zone, and a COVID-19 positive zone (if patients are being cared for within the facility) each with their own patterns of traffic and a hand sanitizing station between</a> (last updated June 2020)</li> </ul> <p><i>Adjusting service provision</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Increase in the prevalence of COVID-19 infection among staff and residents was associated with hiring temporary staff and not assigning staff to care separately for infected and uninfected residents</a> (last updated October 2020; AMSTAR rating 5/9)</li> <li>• <a href="#">Ensuring adequate staff-to-patient ratios (though no estimate is provided), limiting staff work locations, and cohorting of staff and residents are all best practices to prevent infection in long-term care homes</a> (Last updated October 2020; AMSTAR 5/9)</li> <li>• <a href="#">Key aspects of palliative care were largely unaddressed in guidance provided to long-term care homes during the COVID-19 pandemic, including protocols for holistic assessment and management of symptoms and needs at the end of life (including stockpiling medications), education of staff concerning palliative care, referral to specialist palliative care or hospice, advance-care planning communication, support for family including bereavement care, and support for staff</a> (last updated May 2020; AMSTAR rating 7/9)</li> <li>• <a href="#">A rapid review described the need to support advance-care planning and provide psychological care for residents with dementia by, for example, providing information and explanations if concern is expressed, using reminders and visual instructions to explain the current situation, using reassuring language and gestures to help</a></li> </ul>	
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	<p><a href="#">residents follow safety regulations, ensuring frequent interactions with residents and taking time to listen to how they are doing, maintaining consistent schedules whenever possible, stimulating movement and exercise, and avoiding the use of negative language related to the pandemic</a> (last updated September 2020; AMSTAR rating 7/9)</p> <ul style="list-style-type: none"> <li>• <a href="#">National Institute on Ageing recommends limiting movement of LTC care providers to one care setting wherever possible, and simultaneously introducing incentives to do so, such as top-ups on pay</a> (last updated April 2020; National Institute on Ageing)</li> </ul> <p><i>Restricting and screening staff and visitors</i></p> <ul style="list-style-type: none"> <li>• One primary study of long-term care facilities in Denmark found that <a href="#">while re-opening the homes to visitors would increase the well-being of residents and their family members, there were concerns around potential risk of infection resulting in an increased workload for staff and further emotional exhaustion</a> (last updated April 2021)</li> <li>• <a href="#">Guidance from the Centres for Medicare and Medicaid suggest using symptom screening for every individual that enters a long-term care facility</a> (last updated April 2020)</li> <li>• <a href="#">WHO guidance recommends the use of symptom surveillance and/or regular laboratory testing of all staff, residents and visitors in areas with cluster or community transmission</a> (last updated January 2021; World Health Organizations)</li> <li>• <a href="#">Guidance from the Government of Canada for Indigenous long-term care homes recommends active screening for any new admissions or re-admissions, as well as any visitors and staff entering the building</a> (last updated April 2020)</li> <li>• <a href="#">No evidence was found to suggest that visitors have introduced COVID-19 infections to care homes, however this finding may reflect that most care homes did not allow visitors during peaks of the pandemic</a> (last updated November 2020; AMSTAR rating 0/9)</li> <li>• <a href="#">It was found that there was a severe impact on the well-being of residents in care homes during the period of visitor bans as demonstrated by high levels of loneliness, depression, and worsening mood of residents</a> (last updated November 2020; AMSTAR rating 0/9)</li> <li>• <a href="#">Visitor restrictions should balance the risks of COVID-19 infection with the risks of well-being and quality of life of the resident, and</a></li> </ul>	
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[should be frequently and transparently communicated to all residents and family members](#) (last updated August 2020)

- [Measures to minimize the introduction of COVID-19 infection during visitations from relatives and caregivers should be implemented and may include requiring the wearing of masks and testing visitors if local incidence is high \(more than 50/100,000 per week\)](#) (last updated January 2021)
- Another primary study conducted last year examining the consequences of COVID-19 measures found [high levels of loneliness, depression and a significant exacerbation in mood and behavioural problems during the implementation of a ban on visitors](#) (last updated September 2020)

*Testing of residents and staff*

- [There is emerging evidence that early detection of index cases through systematic testing of all residents and staff can support the prevention of outbreaks in long-term care homes](#) (last updated December 2020; AMSTAR rating 3/9)
- [Mass testing was a primary measure implemented in long-term care homes to reduce COVID-19 transmission, and the effect on morbidity and mortality of residents, staff, and visitors](#) (Last updated 3 November 2020; AMSTAR rating 7/9)
- One study found that [the comprehensive use of PCR testing in long-term care homes on all residents and staff following the identification of a single case and strict cohorting of residents who tested positive were effective in controlling the COVID-19 outbreak](#) (last updated March 2021)
- One study conducted last year evaluated current testing pathways in long-term care homes and identified that [swab-based testing was organizationally complex and resource intensive, requiring additional staff who were familiar to residents, whereas point-of-care tests could give homes greater flexibility](#) (last updated January 2021)
- One primary study found that [the use of routine weekly COVID-19 PCR testing among staff in Israeli long-term care homes prevented hospitalizations and mortality](#) (last updated January 2021)

*Isolating suspected or confirmed cases among residents and staff*

- [WHO guidance recommends isolating suspected or confirmed cases of COVID-19 into single rooms, or if not possible, to cohort residents](#)

	<p><a href="#">with other confirmed cases as well as a 14-day quarantine for any staff who have been exposed</a> (last updated January 2021)</p> <ul style="list-style-type: none"> <li>• <a href="#">Residents who are suspected or confirmed to have COVID-19 should be isolated into separate wards</a> (last updated December 2020; AMSTAR rating 3/9)</li> <li>• <a href="#">Though no research evidence was found in a rapid review on the effectiveness of cohorting residents, expert opinion suggests cohorting suspected or confirmed cases of COVID-19 when single rooms are not available</a> (last updated June 2020; AMSTAR rating 8/10)</li> <li>• <a href="#">Significant reduction in the prevalence of COVID-19 among residents and staff were attributed to self-confinement of staff who were suspected to have contracted COVID-19</a> (last updated October 2020; AMSTAR rating 5/9)</li> <li>• <a href="#">Isolation of staff suspected of contracting COVID-19 alongside promoting and enforcing sick leave with adequate compensation is a best practice for support staff in long-term care homes</a> (last updated October 2020; AMSTAR rating 5/9)</li> <li>• <a href="#">The National Institute on Ageing recommends implementing testing and isolating procedures that include staff and residents who may be asymptomatic or have atypical presentations</a> (last updated April 2020; National Institute on Ageing)</li> <li>• <a href="#">Guidance from the European Geriatric Medicine Society recommends isolating those infected or have been in contact with those that are infected with COVID-19</a> (Last updated November 2020; European Geriatric Medicine Society)</li> </ul> <p><i>Contact tracing among staff and visitors</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Digital technologies for contact tracing systems, including wrist-worn technologies, have shown to be promising in reducing infection rates and mortality</a> (last updated December 2020; AMSTAR rating 3/9)</li> </ul> <p><i>Supporting staff and residents</i></p> <ul style="list-style-type: none"> <li>• One primary study from China found providing additional supports to residents and staff was necessary, including <a href="#">ensuring targeted training for all staff on future pandemics and emergencies, and delivering additional services to support mental well-being in their own rooms</a> (published April 2021)</li> </ul>	
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- One primary study reported [a loss of social life, freedom, stimulation, and autonomy among residents during the COVID-19 pandemic, as well as cognitive and physical decline](#) (last updated March 2021)
- [Prior to the pandemic there was evidence of substantial provision of unpaid care by volunteers in care homes, suggesting that visitor bans and restrictions may have resulted in a reduction in the quality and quantity of care provided to residents during the pandemic](#) (last updated November 2020; AMSTAR rating 0/9)
- [The National Institute on Ageing \(NIA\) in Canada recommends an 'Iron Ring' set of actions including implementing flexible admission and discharge policies for LTC settings to give residents and their families the flexibility to defer a placement offer, or leave and return to a care setting quickly based on what would best support their overall health and well-being](#) (last updated April 2020; National Institute on Ageing)
- [The National Institute on Ageing encourages staff and family members to look for safe ways to engage with residents without entering the home, such as using tablets to communicate with residents or visiting residents through the window of their rooms](#) (last updated April 2020; National Institute on Ageing)
- One rapid review found that [during lockdowns residents in long-term care homes with dementia experienced worsened neuropsychiatric symptoms, cognitive decline and a greater use of antipsychotics](#) (last updated February 2021; AMSTAR rating 5/9)
- One primary study found that [long-term care home outcomes worsened for residents on a broad array of measures, including: increased prevalence of depressive symptoms; increased share of residents with unplanned substantial weight loss; significant increases in episodes of incontinence; and significant reductions in cognitive functioning](#) (last updated March 2021)
- One primary study conducted in 2020 found [significant weight loss among both COVID-19-positive and COVID-19-negative residents in a long-term care home population after a widespread COVID-19 outbreak, suggesting that long-term care homes should proactively ensure residents receive adequate mealtime support, symptoms management, weight monitoring, and comprehensive nutrition assessments](#) (last updated November 2020)

	<ul style="list-style-type: none"> <li>• One primary study suggested roles that clinical students can undertake in long-term care homes during the COVID-19 pandemic that can provide mutually beneficial and safe opportunities, including <a href="#">gardening and general grounds beautification, record transfer, resident biography, and window entertainment</a> (last updated March 2021)</li> </ul>	
Managing outbreaks	<p><i>Adding or replacing administrators and staff</i></p> <ul style="list-style-type: none"> <li>• <a href="#">The American Geriatrics Society recommends authorizing the Department of Defense to work with the federal and state governments to coordinate the delivery and sharing of scarce resources across states, as well as working with local hospitals to provide additional supports to long-term care facility staff</a> (last updated 29 April 2020; American Geriatric Society)</li> <li>• <a href="#">Access to infection prevention and control specialists and outbreak response teams were found to reduce the size of outbreaks in long-term care homes</a> (last updated October 2020; AMSTAR rating 5/9)</li> <li>• <a href="#">Guidance from the European Geriatric Medicine Society recommends appointing an infection prevention and control focal point in each long-term care facility</a> (Last updated November 2020; European Geriatric Medicine Society)</li> </ul> <p><i>Adhering to infection-control measures</i></p> <ul style="list-style-type: none"> <li>• No highly relevant synthesized evidence identified</li> </ul> <p><i>Making additional spatial, service, screening, testing, isolation and support changes</i></p> <ul style="list-style-type: none"> <li>• One rapid review found <a href="#">key infection control measures in long-term care homes included daily cleaning of most-touched surfaces, allocating staff to one facility, and restricting visitation to only emergency and critical cases</a> (AMSTAR 2/9; last updated 14 April 2021) <ul style="list-style-type: none"> <li>○ The same review found that <a href="#">implementation challenges to effectively putting these in place included maintaining adequate staffing, supplies, and difficulty controlling movement for certain residents</a> (AMSTAR 2/9; last updated 14 April 2021)</li> </ul> </li> <li>• One primary study of outbreak management in a long-term care home in Sao Paulo found that <a href="#">mass testing for all asymptomatic residents and staff in long-term care once a case was detected was critical to preventing outbreaks</a> (last updated March 2021)</li> </ul>	<p><b>Key insights from preventing and managing COVID-19, and renewing long-term care in other countries</b></p> <p><i>Adding or replacing administrators or staff</i></p> <ul style="list-style-type: none"> <li>• All Australian long-term care homes that are government-funded require an infection-prevention and control lead and the Department of Health will dispatch a case manager when an outbreak is declared</li> </ul> <p><i>Making additional spatial service, screening, testing, isolation and support changes</i></p> <ul style="list-style-type: none"> <li>• Australia developed the <a href="#">Victorian Aged Care Response Centre</a> to help adequately respond to COVID-19 outbreaks in long-term care homes</li> <li>• Australia has developed emergency response teams to support long-term care homes if a COVID-19 outbreak occurs</li> </ul> <p><b>Key insights from preventing and managing COVID-19, and renewing long-term care in Canadian provinces and territories</b></p> <p><i>Adding or replacing administrators or staff</i></p> <ul style="list-style-type: none"> <li>• If an outbreak occurs in New Brunswick, a Provincial Rapid Outbreak Management Team will be deployed to work with facilities to implement outbreak response plans and ensure continuing care for residents</li> <li>• An <a href="#">inspection report from a British Columbia long-term care home</a> which was hard hit by COVID-19 found staffing shortages throughout the pandemic and inadequate cleaning led to the outbreaks experienced</li> </ul> <p><i>Adhering to infection-control measures</i></p>

	<ul style="list-style-type: none"> <li>○ The same study highlighted <a href="#">that long-term care homes should engage in active surveillance by conducting surveys assessing symptoms of COVID-19 among residents</a> (last updated March 2021)</li> <li>● One primary study of 139 long-term care homes in Michigan found that <a href="#">65.5% of respondents experienced a shortage of supplies during the pandemic and 63% reported experiencing staff resignations and a resulting shortage in available staff</a> (last updated March 2021) <ul style="list-style-type: none"> <li>○ The same study also found that <a href="#">many respondents expressed that they relied heavily on rapidly changing guidance from multiple sources which occasionally conflicted</a> (last updated March 2021)</li> </ul> </li> <li>● One primary study conducted earlier this year found that <a href="#">the relationship between front-line staff and managers or senior administrators was critical to setting a positive workplace culture and staff morale</a> <ul style="list-style-type: none"> <li>○ The same study found that <a href="#">additional supports and external assistance was needed during outbreaks, including training in infection, prevention and control procedures, relief staffing and public-health and logistical support</a> (last updated March 2021)</li> </ul> </li> <li>● <a href="#">Guidance from the Centres for Medicare and Medicaid recommend using a separate team of staff when caring for residents who are suspected to have or have been in contact with COVID-19, as well as separating and moving residents into COVID-suspected and COVID-negative cohorts</a> (last updated April 2020; Centres for Medicare and Medicaid)</li> <li>● <a href="#">Advance-care planning should be undertaken with residents who have been diagnosed with COVID-19 and should include discussions about preferences for mechanical ventilation, and prescriptions to support pain management in a palliative approach should be made in advance for the problems that may arise (including that sub-cutaneous forms of prescription drugs as oral dosages may not be possible)</a> (last updated March 2020)</li> <li>● A guideline developed using a robust process provides <a href="#">guidance for public-health units on case, contact and outbreak management of all confirmed cases of COVID-19 and for variants of concern with priority given to variants of concern in efforts to interrupt transmission to the community</a> (last updated February 2021; Ontario Ministry of Health)</li> </ul>	<ul style="list-style-type: none"> <li>● The <a href="#">Saskatchewan government recommends</a> that operators of long-term and personal-care homes have conversations to prepare for scenarios in which following the protocols for managing outbreaks may be challenging</li> <li>● In Manitoba, <a href="#">all residents with suspected or confirmed COVID-19 infection</a>, or high-risk contacts of an infected person, are cared for in a single room with a dedicated toilet and sink or in a bed space that is at least two metres apart and separated by a curtain if a single room is not available</li> <li>● New Brunswick published a <a href="#">COVID-19 management guide for adult residential homes and nursing homes</a>, which addresses outbreak management</li> </ul> <p><i>Transferring residents when their care needs exceed capacity in the home</i></p> <ul style="list-style-type: none"> <li>● Nova Scotia Health released a <a href="#">clinical pathway for COVID-19 patients from long-term care homes</a> to guide patient management and transfers</li> </ul>
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- One full systematic review found that [residents of long-term care homes had on average a single-facility attack rate of 45% and a case fatality rate of 23% points to the need for early identification and rapid diagnostics of cases within homes](#) (last updated September 2020; AMSTAR rating 9/11)
- One full systematic review suggested that [genomics can help to understand the initial seedings and routes of transmission in outbreaks at long-term care homes, though most were found to link to a single strain and likely a single introductory source](#) (last updated November 2020; AMSTAR rating 5/9)
- One rapid review compared the impact of initial government policies for long-term care homes between the U.K. and Australia and found [that while both prioritized hospital resourcing over long-term care homes, early lockdown and availability of viral testing to the public contributed to lower absolute number of fatalities](#) (last updated March 2021; AMSTAR rating 3/9)
- One rapid review summarized evidence on strategies that can be implemented to mitigate the risk of COVID-19 outbreaks in long-term care homes, including: [comprehensive surveillance, monitoring and evaluation of staff and resident symptoms; limiting movement into and between long-term care homes; physical distancing; proper provision and use of personal protective equipment; cohorting of residents; and infection-control auditing](#) (AMSTAR rating 8/10)
- One rapid review examined the continued use of asymptomatic testing in long-term care homes and found [that given the high rates of protection from vaccines, the harms and challenges of routine asymptomatic testing may outweigh the benefits when all staff and residents have been vaccinated](#) (last updated March 2021; AMSTAR rating 2/9)
- One primary study conducted earlier in the year described [the successful control of a COVID-19 outbreak in a long-term care home through the use of general screening and consistent cohorting of residents who tested positive](#) (last updated January 2021)
- One primary study describes the [treatment plan implemented in response to a COVID-19 outbreak in a large long-term care home in Johannesburg](#) which included: repeatedly enforcing preventive measures; ensuring high-protein nutritional supplementation; monitoring residents' levels of oxygen saturation; educating staff on

	<p>the importance of consistent vital checking; educating staff on frailty; continuous hydration of patients; and encouraging residents to have an advance directive and care plan (last updated February 2021)</p> <p><i>Transferring residents when their care needs exceed capacity in the home</i></p> <ul style="list-style-type: none"> <li>Limited evidence was found about the effectiveness of moving residents to hospital during a long-term care outbreak, though two countries (Canada and Taiwan) and two geriatric societies (Canada and U.S.) have recommended moving residents to hospital or other setting when isolation is not possible in a long-term care home in the event of a COVID-19 outbreak (internal document published November 2020 – available upon request; AMSTAR rating 0/9)</li> </ul>	
<p>Changing governance, financial and delivery arrangements</p>	<p><i>Improving access to care</i></p> <ul style="list-style-type: none"> <li>No highly relevant synthesized evidence identified</li> </ul> <p><i>Improving safety and quality of care and more generally improving quadruple-aim metrics</i></p> <p>No highly relevant synthesized evidence identified</p> <p><i>Changing service-delivery models</i></p> <ul style="list-style-type: none"> <li><a href="#">Implementing end-of-life supports within long-term care homes and condition-specific pathways such as for pneumonia and dehydration, were found to reduce hospitalizations and emergency-department admissions among residents</a> (last updated February 2019; AMSTAR rating 7/9)</li> <li><a href="#">A rapid review identified a variety of models of care and interventions to improve quality of life, quality of care, and health outcomes for residents living in long-term care homes, which included many studies on dementia care, oral care, exercise/mobility, overall resident care, and optimal/appropriate medication use, and relatively fewer studies on hearing care, vision care, and foot care</a> (last updated June 2020; AMSTAR rating 5/9)</li> </ul> <p><i>Improving physical infrastructure</i></p> <ul style="list-style-type: none"> <li><a href="#">Long-term care facility characteristics such as non-profit status, rural homes and homes with a higher percentage of private rooms may be associated with higher quality of life</a> (last updated March 2012; AMSTAR 4/9)</li> <li><a href="#">The most important risk factors for outbreaks in long-term care homes were the incidence rates of infections in the surrounding communities of the homes, older design of certain homes, chain</a></li> </ul>	<p><b>Key insights from preventing and managing COVID-19 and renewing long-term care in other countries</b></p> <p><i>Improving safety and quality of care and more generally improving quadruple-aim metrics</i></p> <ul style="list-style-type: none"> <li>In Australia, the Royal Commission into Aged Care Quality and Safety published a <a href="#">report with 148 recommendations to support fundamental and systemic long-term care reform</a></li> </ul> <p><i>Altering funding arrangements</i></p> <ul style="list-style-type: none"> <li>The <a href="#">Australian National Aged Care Classification</a> (AN-ACC) funding model was approved by the Government of Australia as a means of potentially replacing the existing Aged Care Funding Instrument <ul style="list-style-type: none"> <li>The new AN-ACC model will bring about changes to funding, and introduce a case-mix classification and an AN-ACC assessment</li> </ul> </li> <li>In Finland, healthcare and social services are included in the draft of the Sustainable Growth Program for Finland which related to the national recovery and rehabilitation plan financed through the EU recovery instrument</li> <li>The investment plan is currently under preparation and will be submitted to the European Commission in the Summer, however long-term care homes are expected to be a source for investment</li> </ul>

[ownership, and crowding](#) (last updated January 2021; AMSTAR rating 0/9)

*Altering funding arrangements*

- One systematic review found published earlier this year that [providing public long-term care insurance improved the physical health of beneficiaries, reduced economic-welfare losses, and reduced length of stay in hospitals among residents compared to private funding models](#) (AMSTAR 5/9; last updated April 2020)
- [The American Geriatrics Society recommends increasing payment to nursing homes caring for residents with COVID-19 and providing tax relief for nursing homes that provide paid family leave to homecare workers and support staff caring for older adults and people with disabilities](#) (last updated April 2020; American Geriatric Society)
- [For-profit nursing homes were found to have worse outcomes in both employee and client well-being compared to not-for-profit nursing homes](#) (last updated October 2015; AMSTAR rating 7/9)
- [For-profit status long-term care homes had increased odds of case outbreaks than non-profit status long-term care homes](#) (last updated November 2020; AMSTAR rating 7/9)
- A full systematic review found that [for-profit ownership was not consistently associated with a higher probability of a COVID-19 outbreak, however it did find evidence that these homes had worse outcomes for cumulative infections and mortality following an outbreak in the long-term care home](#) (last updated January 2021; AMSTAR rating 8/10)
- The same review found that [for-profit owned homes were associated with shortages of personal protective equipment which may have contributed to increased infection and deaths in these homes](#) (last updated January 2021; AMSTAR rating 8/10)
- One guidance document published earlier this year and developed using some type of evidence synthesis and/or expert opinion provides guidance for people leaving hospital and being transferred to care homes, including [testing residents 48 hours prior to hospital discharge, those who are likely to be infected with COVID-19 are to be discharged to an isolation facility for 14 days, and long-term care homes should have been designated by the Care Quality Commission](#)

- On 14 March 2021, Australia announced an additional \$1.1 billion to support the national COVID-19 response strategy, a portion of which will be allocated to supporting long-term care homes
- Commencing in April 2021, Australian residents gaining admission into government-funded long-term care homes will be mandated to complete an assessment to facilitate the transition to a new funding model, pending government approval

**Key insights from preventing and managing COVID-19, and renewing long-term care in other Canadian provinces and territories**

*Improving safety and quality of care*

- In Quebec, the [provincial policy on long-term living and care services](#), which sets guidelines for all long-term accommodation facilities (including long-term care homes), established a new approach for long-term care settings in Quebec with five pillars:
  - Developing a patient-centred focus that responds to their unique needs and life history
  - Engaging and supporting the close friends and family of patients
  - Offering multidisciplinary and high-quality care, and supporting health and social-care providers
  - Developing healthy, inclusive, and evolving living environments
  - Strengthening community ties and building citizen awareness of long-term care settings
- Nova Scotia commissioned a [report on the large COVID-19 outbreak at the Northwood Long-Term Care Facility](#) in Halifax and made recommendations to improve the quality of care during COVID-19, and more generally for the short and long term
  - The Quality-Improvement Committee made 17 recommendations for the facility, the Department of

	<p>(last updated February 2021; NHS England, Public Health England, and Care Quality Commission)</p> <p><i>Adjusting governance arrangements</i></p> <ul style="list-style-type: none"> <li>• No highly relevant synthesized evidence identified</li> </ul> <p><i>Supporting greater integration of long-term care with other sectors</i></p> <ul style="list-style-type: none"> <li>• No highly relevant synthesized evidence identified</li> </ul>	<p>Health and Wellness, and the Government of Nova Scotia</p> <ul style="list-style-type: none"> <li>○ Four driving forces of the outbreak were identified: staffing challenges, community transmission, structural/infrastructural constraints, barriers to cleaning (in addition to inconsistent cleaning)</li> <li>• The province introduced the '<a href="#">Continuing Care Assistants Registry Act</a>' on 7 April 2021 to improve workforce planning, particularly in the long-term care and home-care sectors <ul style="list-style-type: none"> <li>○ The legislation defines and protects the title of continuing-care assistants and requires workers to register annually</li> <li>○ The legislation also enables greater data collection and use, for example to verify that continuing-care assistants have completed required trainings</li> <li>○ The act sets out provisions related to compliance</li> </ul> </li> <li>• In <a href="#">February 2021</a>, the Canadian Association for Long Term Care released a summary of recommendations for system planning, which included mandating a standardized system for collecting residential and financial performance data in long-term care homes as part of the Canada Health Accord agreements signed with each of the provinces and territories</li> <li>• On 29 March 2021, the Ontario government announced that it will invest <a href="#">\$77 million to help long-term care homes improve their technologies for medication safety</a></li> <li>• <a href="#">The</a> Institut national de santé publique du Québec submitted a memo about '<a href="#">Preventing maltreatment for healthy aging</a>' as part of the 'Governmental action plan to combat maltreatment against elderly people 2022-2027'</li> </ul> <p><i>Improving physical infrastructure</i></p> <ul style="list-style-type: none"> <li>• The Canadian Association for Long Term Care called on the federal government to expand projects eligible for infrastructure funding to include seniors housing, which includes long-term care, to invest in the</li> </ul>
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		<p>construction, renovation and retrofit of 780 long-term care homes so that they meet current design standards by 2025, and to increase capacity by committing to fund an additional 42,000 new long-term care resident beds across the country by 2025</p> <ul style="list-style-type: none"> <li>• The Ontario government announced on 24 March 2021 that it is making <a href="#">additional investments in long-term care</a> to improve existing infrastructure and access to care</li> <li>• On <a href="#">11 March 2021</a>, the Northwest Territories government announced an additional investment of 169 beds by 2034 in its revised projections for this sector</li> </ul> <p><i>Altering funding arrangements</i></p> <ul style="list-style-type: none"> <li>• <a href="#">The federal budget</a> allocated \$3-billion over the next five years to help provinces implement new standards for long-term care</li> <li>• On 12 April 2021, the <a href="#">Government of British Columbia tabled its Throne Speech</a> which included hiring thousands of additional long-term care workers and capital funding for public long-term care homes</li> <li>• The <a href="#">2021-22 provincial budget</a> proposed by the Saskatchewan government on 6 April 2021 allocates funding for long-term care in the province: <ul style="list-style-type: none"> <li>○ Approximately \$6 million will be spent to hire 100 continuing-care aides to assist long-term care residents</li> <li>○ A budget allocation of \$7.6 million for the 80-bed La Ronge long-term care facility and \$3.6 million for another future long-term care facility in Grenfell</li> <li>○ <a href="#">More than \$1 million will also be invested</a> for future planning of long-term care facilities in Regina, Watson and Estevan</li> </ul> </li> <li>• The government of Manitoba's <a href="#">proposed 2021 budget</a> allocates \$9.3 million for personal-care home expansions that will add more than 120 beds</li> <li>• The Ontario government will ensure that <a href="#">long-term care homes will be fully funded until the end of the summer</a></li> </ul>
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		<p>regardless of how many residents they have or how badly they were hit during the pandemic</p> <ul style="list-style-type: none"> <li>• The occupancy agreement will protect homes from suffering a significant financial loss, including for-profit homes that saw nearly half of their residents pass away from COVID-19</li> <li>• Northwest Territories has allocated an additional \$406,000 in funding in the <a href="#">2021-2022 Budget</a> to help support the increasing needs of the long-term care sector</li> <li>• Budget 2021 further includes \$1.1 million to help train and support personal-support workers and nurses</li> </ul>
<p>Renewing supports for Renewing supports for residents and staff</p>	<p><i>Engaging residents, families and caregivers in self-management, care choices, care delivery, and organizational and policy decision-making</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Practical interventions to support shared decision-making were found to have good outcomes for persons living with cognitive impairments, although implementing these types of resources in extended care environments such as long-term care homes would require workers to be given the time and authority to develop the skills to use these types of aids</a> (last updated October 2016; AMSTAR 8/11)</li> <li>• <a href="#">Family caregivers value their role in decision-making and want to maintain this role even when individuals are placed in a residential setting; critical to this is frequent communication between staff and health professionals at the long-term care homes</a> (last updated 2013; AMSTAR 8/10)</li> </ul> <p><i>Ensuring culturally appropriate living among residents</i></p> <ul style="list-style-type: none"> <li>• No highly relevant synthesized evidence identified</li> </ul> <p><i>Supporting technology-enabled living among residents</i></p> <ul style="list-style-type: none"> <li>• No highly relevant synthesized evidence identified</li> </ul> <p><i>Ensuring an adequate supply of staff</i></p> <ul style="list-style-type: none"> <li>• One primary study conducted earlier this year in a long-term care home in Ireland found <a href="#">a 189% increase in physician interventions needed during the pandemic, pointing to the need for adequate staffing and the availability of medical care in long-term care homes</a> (last updated March 2021)</li> <li>• <a href="#">No consistent evidence was found in examining the relationship between staffing levels and quality of care, with the exception of</a></li> </ul>	<p><b>Key insights from preventing and managing COVID-19, and renewing long-term care in other countries</b></p> <p><i>Ensuring adequate supply of staff</i></p> <ul style="list-style-type: none"> <li>• The Netherlands has assigned medical students and interns to help relieve pressure in long-term care homes</li> </ul> <p><b>Key insights from preventing and managing COVID-19, and renewing long-term care in other Canadian provinces and territories</b></p> <p><i>Engaging residents, families and caregivers in self-management, care choices, care delivery, and organization and policy decision-making</i></p> <ul style="list-style-type: none"> <li>• The Nova Scotia Health Authority and the Palliative and Therapeutic Harmonization Program published <a href="#">guidance on and a worksheet about goals-of-care discussions with residents' substitute decision-makers during the COVID-19 pandemic</a></li> </ul> <p><i>Ensuring adequate supply of staff</i></p> <ul style="list-style-type: none"> <li>• In <a href="#">February 2021</a>, the Canadian Association for Long Term Care released a summary of recommendations for long-term system planning, which included calling on the federal government to include private designated learning institutions that offer recognized and equivalent training programs for healthcare aides as eligible</li> </ul>

[pressure ulcers where an increase in staff led to fewer ulcers among residents regardless of the staff member delivering care](#) (last updated April 2013; AMSTAR rating 6/10)

- [An association was found between low staffing levels and increased job strain and emotional exhaustion, as well as between a poor work environment \(both physical infrastructure and job culture\) and staff burnout](#) (last updated August 2017; AMSTAR rating 4/10)
- [Evidence suggested that the mix of licensed vocational nurses, registered nurses and licensed practical nurses, and total nursing staff had no significant relationship with quality of life](#) (last updated March 2012; AMSTAR 4/9)
- [At the organizational level, increased staffing, particularly registered nurse \(RN\) staffing was consistently associated with reduced risk of COVID-19 infections](#) (last updated November 2020; AMSTAR rating 7/10)
- One primary study described [a new model of long-term care homes that operate with fewer residents \(maximum 140\) and uses a flat staffing model that relies on a group of universal workers as well as nurses who provide about an hour of care a day to each of the residents](#) (last updated March 2021)

#### *Optimizing skills mix among staff*

- [The use of advance-practice nurses and extended-care paramedics in long-term care homes to respond to acute-care issues were found to reduce hospitalizations and emergency-department visits among residents](#) (last updated February 2019; AMSTAR 7/9)

#### *Ensuring the safety and satisfaction of staff and volunteers*

- One primary study reported on staff experiences in long-term care homes during the COVID-19 pandemic and found that [staff reported feeling unprepared to care for residents due to a lack of information on the pandemic, limited personal protective equipment, and a reorganization of work leading to task-shifting and increased workloads](#) (last updated March 2021)
- [Empowerment and autonomy at work as well as facility resources \(such as the equipment and supplies available for caring\) and staff workload were all factors associated with job satisfaction and burnout among staff at long-term care homes](#) (last updated May 2013; AMSTAR rating 7/10)

programs under the Post Graduate Work Permit, and in the upcoming micro-credentials program through Employment and Skills Development of Canada

- The [Ontario government plans to invest](#) \$4.9 billion over four years to increase the average direct care per long-term care resident from 2.75 to four hours a day
- \$121 million will also be spent on accelerated training for nearly 9,000 personal-support workers, and financial grants will be offered to attract personal-support workers and nurses to work in long-term care homes
- Despite the province's efforts to incentivize employment in long-term care, the Ontario Long-Term Care Association has indicated that [long-term care in Ontario is losing staff](#) to other industries

#### *Ensuring safety and satisfaction of staff and volunteers*

- The Government of Australia invested a total of \$12.4 million in its [grief and trauma response](#) to support the aged care sector
  - Supports will include counselling, training and advocacy assistance
- In Finland, new agreements concerning work arrangements for long-term care home staff now allow for greater flexibility for breaks and working times

#### *Remunerating staff*

- [Saskatchewan launched a Temporary Wage Supplement Program](#) in March 2020 to financially support health workers who care for vulnerable citizens, including workers at long-term care homes, at the rate of \$400 every four weeks
  - Applications for the latest phase of this program were [closed after 15 February 2021](#)
- On 18 March 2021, the Government of Saskatchewan [amended legislation to allow for paid time off from work](#) for employees when they are getting vaccinated for

	<ul style="list-style-type: none"> <li>• One primary study conducted interviews with managers of long-term care homes in the U.S. and found <a href="#">an association between the perceived pandemic-specific and general demands of the job and intention to leave the profession</a> (last updated March 2021)</li> <li>• The same study found that <a href="#">the association was significantly stronger in the second round of interviews later in the pandemic</a> (last updated March 2021)</li> <li>• Interview data from one primary study conducted earlier this year found that <a href="#">administrators working in long-term care homes described the challenge of tracking and implementing confusing and sometimes contradictory guidance from different agencies, while care staff described being fearful of infection and experiencing feelings of burnout due to increased workloads, staffing shortages, and the emotional weight of caring for residents facing isolation, illness and death</a> (last updated January 2021)</li> </ul> <p><i>Optimizing skills mix among staff</i></p> <ul style="list-style-type: none"> <li>• One primary study published earlier this year described the <a href="#">introduction of a new role of a geriatric liaison in long-term care homes in Madrid during the pandemic who were responsible for the coordination of care between hospital, long-term care homes, and other members of a resident's care team</a> (Last updated January 2021)</li> <li>• One primary study identified four roles that nurse practitioners can play to support resident care during the pandemic: <a href="#">containing the spread of COVID-19; stepping in where additional staff are needed; supporting staff and families; and establishing links between fragmented systems of care by acting as a liaison</a> (last updated February 2021)</li> </ul> <p><i>Supporting technology-enabled care by staff</i></p> <ul style="list-style-type: none"> <li>• One systematic review found that <a href="#">the use of telehealth in long-term care homes reduced hospital admissions and exposure to COVID-19, as well as improved access to specialists including geriatricians, psychiatrists, and palliative-care providers</a> (AMSTAR rating 5/9; last updated October 2020)</li> <li>• <a href="#">Electronic health records demonstrated enhanced quality outcomes, improved management of clinical documentation and facilitated better decision-making</a> (last updated April 2017; AMSTAR rating 4/9)</li> </ul>	<p>COVID-19, including staff of long-term and personal-care homes</p> <p><i>Supporting technology-enabled care by staff</i></p> <ul style="list-style-type: none"> <li>• Quebec released a guide about the <a href="#">use of telehealth under the health emergency act</a> that states that telehealth must be complementary to in-person care for patients in long-term care <ul style="list-style-type: none"> <li>○ Professionals are to use their judgment and patient needs when determining the optimal modality for service delivery (e.g., telephone, videocall, in-person)</li> </ul> </li> <li>• Nurses, who plan and coordinate care in long-term care homes, are highlighted as having an important monitoring role during telehealth service delivery</li> </ul>
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	<ul style="list-style-type: none"> <li>• <a href="#">Facilitators to the adoption of electronic health records in long-term care homes include access and transfer of resident information and reduced errors, while barriers include the initial investment cost and professional push-back on implementing a new s</a>(last updated 2014; AMSTAR 4/9)</li> <li>• <a href="#">Health information technology has been increasingly adopted by long-term care homes, but many homes do not employ systematic processes to implement health information technology, under-invest in staff training, and lack necessary infrastructure to implement the technology</a> (last updated 2018; AMSTAR rating 3/9)</li> <li>• <a href="#">Health information technology may facilitate teamwork and communication, but does not appear to have an impact on quality of care or resident health outcomes</a> (last updated 2018; AMSTAR rating 3/9)</li> <li>• One primary study conducted earlier this year described <a href="#">volunteers' shift to online tools to support visiting with residents of a long-term care home, and reported that they were generally well received, though a few residents reported challenges hearing while others felt uncomfortable using the technology</a> (last updated January 2021)</li> </ul> <p><i>Remunerating staff</i></p> <ul style="list-style-type: none"> <li>• <a href="#">One of the most common recommendations in clinical practice guidelines on the prevention and control of COVID-19 was providing sick-leave compensation for staff</a> (last updated July 2020; AMSTAR rating 6/9)</li> <li>• <a href="#">Fewer staff sick-leave days were associated with the probability of COVID-19 cases</a> (last updated November 2020; AMSTAR 7/9)</li> <li>• <a href="#">Significant reductions in the prevalence of COVID-19 infection among staff and residents were in part attributed to sick pay to staff</a> (last updated October 2020; AMSTAR rating 5/9)</li> </ul>	
Promoting alternatives to long-term care	<p><i>Engaging residents, families and caregivers in shared decision-making about whether to enter long-term care</i></p> <ul style="list-style-type: none"> <li>• <a href="#">Dyadic counselling and communication tools such as talking mats can help to facilitate discussions and decision-making about older adults with dementia entering long-term care homes</a> (last updated August 2018; AMSTAR rating 5/9)</li> </ul> <p><i>Enhancing the breadth and intensity of home- and community-care services to delay or avoid entry to long-term care</i></p>	<p><b>Key insights from preventing and managing COVID-19 and renewing long-term care in other countries</b></p> <p><i>Enhancing the breadth and intensity of home- and community-care services to delay or avoid entry to long-term care</i></p> <ul style="list-style-type: none"> <li>• The Government of Australia is aiming to develop a <a href="#">Single In-Home Care Program</a> to replace the pre-existing Commonwealth Home Support Program and Home Care Packages Program</li> </ul>

- One systematic review conducted earlier this year found that [community-based housing models to support older adults to 'age in place' improved individuals' sense of self and autonomy through intentional design of the housing models](#) (AMSTAR rating 5/9; last updated 2019)
  - One primary study found [that nurses working in a "household model" may face role overload and strain especially related to organizational barriers and ongoing training and communication](#) (last updated 16 April 2021)
  - [Having a multidisciplinary home palliative-care team, early referral to palliative care, and an expressed interest to die at home increased the likelihood of individuals dying at home, as did early referral to palliative-care services](#) (last updated 2013; AMSTAR rating 8/11)
  - [When comparing those receiving home-based care services and those in long-term care, there was significant overlap in the distribution of physical and cognitive function, indicating that people could be cared for using either approach](#) (last updated March 2012; AMSTAR 9/10)
  - [Little evidence was found on how primary care and community nursing services for older adults can adapt during a pandemic, however findings suggested the need for timely communications of protocols and infection-prevention measures among the care team, need for psychosocial, financial, and emotional support, training and skills development, and debriefing with staff to ensure resilience](#) (last updated June 2020; AMSTAR rating 3/9)
- Supporting technology-enabled care at home*
- [Older adults living at home can benefit from combining virtual visits with in-person visits to remain at home longer and to enhance feelings of independence, social inclusion and medication compliance](#) (Last updated April 2013; AMSTAR rating 5/9)
  - One primary study conducted earlier in the year described [a rapid-response and treatment service that uses technology and the hospital-at-home model to provide short-term, targeted interventions at the acute hospital level within the home, and was found to support older adults to remain in their own homes throughout the duration of their illness](#) (last updated December 2020)
- Providing financial supports to avoid or delay entry into long-term care*
- No highly relevant synthesized evidence identified

- The new program will focus on patient-centred care for older adults living at home and/or in the community
- In Australia, permanent aged care residents are permitted to take an “[emergency leave](#)” until June 2021
  - This temporary stay allows residents to live with their family during the COVID-19 pandemic
- Programs to support residents transitioning from long-term care facility to community care have been established in three countries (Australia, Finland, U.S.)
- Financial supports or professional respite services for family caregivers were established throughout the COVID-19 pandemic (Germany, The Netherlands, U.K.)
- While New Zealand continues accepting referrals to long-term care homes during COVID-19, specific protocols have been developed to delay admission to long-term care homes and instead provide care through home support agencies and/or community nursing services while waiting for COVID-19 test results
- The U.K. developed a number of supports to strengthen the home and community-care workforce, including advice to local health authorities and NHS to support home-care provision during COVID-19, remote training programs for paid and volunteer social care workers, and better supporting live-in-care, care-room (support for discharged patients by approved home owners in the community), and assisted-living models of care

**Key insights from preventing and managing COVID-19 and renewing long-term care in Canadian provinces and territories**

*Enhancing the breadth and intensity of home- and community-care services to delay or avoid entry to long-term care*

- Quebec has introduced a provincial [informal caregivers' policy](#) aimed at recognizing and supporting the role of informal caregivers across four areas:

		<ul style="list-style-type: none"> <li>○ Recognizing the importance of informal caregivers for society and responding to their needs</li> <li>○ Identifying and responding to caregivers' (and people surrounding caregivers') information and skill needs, and supporting research</li> <li>○ Evaluating caregivers' needs for, and appropriately adopting, health and social services while acknowledging the needs to establish a partnership with the caregiver and the person they care for</li> <li>○ Maintain and improve the living conditions of informal caregivers, notably protecting them from financial insecurity</li> <li>● Quebec has launched a call for projects as part of the existing <a href="#">provincial program aimed at developing age-friendly municipalities</a> <ul style="list-style-type: none"> <li>○ The call for projects enabled individuals or groups to request financial or technical support to develop or implement municipal policies or programs that support seniors</li> </ul> </li> <li>● In Quebec, the Ministry of Health and Social Services' <a href="#">'Programme Action Aînés du Québec'</a> (Quebec Elderly Action Plan) is offering financial support to groups that work to support elderly people in the community, prevent social isolation, and prevent the deconditioning of elderly people living in the community</li> <li>● In New Brunswick, the <a href="#">Home First</a> program supports seniors to stay in their homes and remain engaged with their communities by focusing on three pillars for success: healthy aging; appropriate supports and care; responsive, integrated and sustainable system <ul style="list-style-type: none"> <li>○ Seniors (and their caregivers) are given personalized education and connected to the programs and services that can benefit them in their community</li> <li>○ A minor home repairs grant of up to \$1,500 that can be put towards safety enhancements is available as part of the program</li> </ul> </li> <li>● The Government of New Brunswick and the Public Health Agency of Canada have committed \$75 million</li> </ul>
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		<p>towards the <a href="#">‘Health Seniors Pilot Project’</a> to support applied research projects focused on one of the following challenge areas:</p> <ul style="list-style-type: none"> <li>○ Challenges related to COVID-19 and older adults</li> <li>○ Social isolation and loneliness</li> <li>○ Needs of informal caregivers</li> <li>○ Enabling aging in place</li> <li>○ How to make better use of supportive technologies</li> </ul> <ul style="list-style-type: none"> <li>● In Nova Scotia, <a href="#">Support for home-based elder care in Nova Scotia</a> is delivered via the following programs and services: <ul style="list-style-type: none"> <li>○ A caregiver benefit of \$400 per month</li> <li>○ A specialized health equipment loan program</li> <li>○ Home-based nursing and personal-care services</li> <li>○ Home oxygen service</li> <li>○ Financial assistance for personal alert-assistance services</li> <li>○ Affordable facility-based respite care</li> <li>○ Self-managed care for individuals with physical disabilities to develop individualized care plans</li> <li>○ A wheelchair loan program for low-income seniors</li> <li>○ Up to \$1,000 per month for individuals with cognitive impairments to access home support services</li> </ul> </li> <li>● On <a href="#">2 March 2021</a>, the Yukon announced that it will be establishing affordable housing for older adults who are not able to live independently, but still are not yet ready to move into continuing care <ul style="list-style-type: none"> <li>○ This project, Normandy Manor, will comprise of an 84-unit building, of which 10 units will be provided to the Yukon Housing Corporation to serve as housing units for the elderly</li> <li>○ It is scheduled to open in 2022</li> </ul> </li> <li>● In September 2020, the federal government announced a commitment to work with provinces and territories to help people stay in their homes longer</li> </ul>
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		<ul style="list-style-type: none"> <li>• Several provinces (B.C., Alberta, Manitoba, Ontario) have provided additional support for home and community care services</li> <li>• In Alberta, a private model of care called Community Care Cottages houses 10-12 residents to provide around-the-clock care</li> <li>• The Manitoba government has invested \$250 million to improve access to health services including moving 21,000 days of care from acute homes into local communities</li> <li>• In Newfoundland and Labrador, the Centre for Health Information has expanded their telehealth care services during the pandemic</li> <li>• Although \$2.88 billion in funding was provided to home care in Ontario in the 2019-20 budget, <a href="#">according to the Ministry of Health and Long-Term Care</a>, there was no similar funding allocated in the proposed 2020-21 <a href="#">budget</a></li> <li>• In Quebec, The Ministry of Health and Social Services has published <a href="#">guidance regarding how to adapt the delivery of home-based care to the COVID-19 pandemic context</a> <ul style="list-style-type: none"> <li>○ The guidance is stratified based on the public-health alert level of the region</li> </ul> </li> <li>• General infection-prevention and safety measures are outlined, as well as specific measures for adapting service delivery</li> </ul>
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**Table 3: Overview of type and number of documents related to preventing and managing COVID-19, outbreaks of COVID-19, and about supporting renewal in long-term care homes \***

Type of document	Total (n= 277)**	Preventing infections (n= 163)	Managing outbreaks (n=59)	Renewing delivery, financial and governance arrangements (n= 44)	Renewing supports for residents and staff (n= 58)	Promoting alternatives to long-term care (n= 15)
Guidelines	27	23	8	4	4	-
Full systematic reviews	28	4	2	15	20	6
Rapid reviews	39	26	8	8	3	3
Protocols for reviews that are underway	30	14	9	3	10	2
Titles/questions for reviews that are being planned	7	5	-	-	-	2
Single studies that provide additional insight	146	91	32	14	21	2

\*The table includes all newly identified evidence documents and all highly relevant evidence documents identified in previous versions of this LEP that continue to be deemed highly relevant.

\*\*Some documents were tagged in more than one category so the column total does not match the total number of documents.

Waddell KA, DeMaio P, Wilson MG, Bain T, Wang Q, Al-Khateeb S, Alam S, Sharma K, Whitelaw S, Gauvin FP, Lavis JN. COVID-19 living evidence profile #2 (version 2.4): What is known about preventing and managing COVID-19, outbreaks of COVID-19, and about supporting renewal in long-term care homes? Hamilton: McMaster Health Forum, 6 July 2021.

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