McMaster University | HEALTH FORUM

COVID-END COVID-19 Evidence Network to support Decision-making ... in Canada

Appendices for COVID-19 Living Evidence Profile #2

(Version 1: 26 February 2021)

Appendix 1: Methodological details

We use a standard protocol for preparing living evidence profiles (LEP) to ensure that our approach to identifying research evidence as well as experiences from other countries and from Canadian provinces and territories are as systematic and transparent as possible in the time we were given to prepare the profile.

Identifying research evidence

For each LEP, we search our continually updated inventory of best evidence syntheses and guide to key COVID-19 evidence sources for:

1) guidelines developed using a robust process (e.g., GRADE);
2) full systematic reviews;
3) rapid reviews;
4) guidelines developed using some type of evidence synthesis and/or expert opinion;
5) protocols for reviews or rapid reviews that are underway;
6) titles/questions for reviews that are being planned; and
7) single studies (when no guidelines, systematic reviews or rapid reviews are identified).

For the first version of this LEP, we also searched Health Systems Evidence (www.healthsystemsevidence.org) and HealthEvidence (www.healthevidence.org), to identify any relevant evidence documents that might have relevance to the COVID-19 vaccine roll-out, but were produced before the pandemic, given that the other sources searched were specific to COVID-19. In Health Systems Evidence, we searched for overviews of systematic reviews, systematic reviews of effects, systematic reviews addressing other questions, and protocols for systematic reviews, that may provide insights about vaccine-delivery systems by searching for 'vaccine' using the filters for 'public health' (under health-system sectors). In HealthEvidence, we searched using the categories for 'Immunization' and 'Policy and Legislation' under the intervention strategy filter combined with 'Communicable Disease/Infection' category under the topic filter.

Each source for these documents is assigned to one team member who conducts hand searches (when a source contains a smaller number of documents) or keyword searches to identify potentially relevant documents. A final inclusion assessment is performed both by the person who did the initial screening and the lead author of the rapid evidence profile, with disagreements resolved by consensus or with the input of a third reviewer on the team. The team uses a dedicated virtual channel to discuss and iteratively refine inclusion/exclusion criteria throughout the process, which provides a running list of considerations that all members can consult during the first stages of assessment.

During this process we include published, pre-print and grey literature. We do not exclude documents based on the language of a document. However, we are not able to extract key findings from documents that are written in languages other than Chinese, English, French or Spanish. We provide any documents that do not have content available in these languages in an appendix containing documents excluded at the final stages of reviewing.

Identifying experiences from other countries and from Canadian provinces and territories

For each LEP, we collectively decide on what countries to examine based on the question posed. For other countries we search relevant sources included in our continually updated guide to key COVID-19 evidence sources. These sources include government-response trackers that document national responses to the pandemic. In addition, we conduct searches of relevant government and ministry websites. In Canada, we search websites from relevant federal and provincial governments, ministries and agencies (e.g., Public Health Agency of Canada).

While we do not exclude countries based on language, where information is not available through the government-response trackers, we are unable to extract information about countries that do not use English, Chinese, French or Spanish as an official language.

Assessing relevance and quality of evidence

We assess the relevance of each included evidence document as being of high, moderate or low relevance to the question. We then use a colour gradient to reflect high (darkest blue) to low (lightest blue) relevance.

Two reviewers independently appraise the methodological quality of systematic reviews and rapid reviews that are deemed to be highly relevant. Disagreements are resolved by consensus with a third reviewer if needed. AMSTAR rates overall methodological quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. High-quality reviews are those with scores of eight or higher out of a possible 11, medium-quality reviews are those with scores between four and seven, and low-quality reviews are those with scores less than four. 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 health-system arrangements or to economic and social responses to COVID-19. Where the denominator is not 11, an aspect of the tool was considered not relevant by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, a review that scores 8/8 is generally of comparable quality to a review scoring 11/11; both ratings are considered 'high scores.' A high score signals that readers of the review can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the review should be discarded, merely that less confidence can be placed in its findings and that the review needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7 (Suppl1):S8.

Preparing the profile

Each included document is hyperlinked to its original source to facilitate easy retrieval. For all included guidelines, systematic reviews, rapid reviews and single studies (when included), we prepare a small number of bullet points that provide a brief summary of the key findings, which are used to summarize key messages in the text. Protocols and titles/questions have their titles hyperlinked given that findings are not yet available. We then draft a brief summary that highlights the total number of different types of highly relevant documents identified (organized by document), as well as their key findings, date of last search (or date last updated or published), and methodological quality.

Appendix 2: Key findings from evidence documents that address the question, organized by document type and sorted by relevance to the question and COVID-19

Type of document	Relevance to question	Key findings	Recency or status
Guidelines developed using a robust process (e.g., GRADE)	• Preventing infections ○ Vaccinating staff and residents	• The National Advisory Committee on Immunization is suggesting that key populations be prioritized which includes those at high risk of severe illness and death due to advanced age or other high-risk conditions, and those who are most likely to transmit COVID-19 to those at high-risk of severe illness • Other consideration including the reduction of health inequities and how to engage systematically marginalized are being considered in the roll out of the vaccine Source (Government of Canada)	Published December 2020
	• Preventing infections ○ Vaccinating staff and residents	• The priorities for the COVID-19 vaccination program should be the prevention of COVID-19 mortality and the protection of health and social-care staff and systems • Secondary priorities should include vaccination of individuals at increased risk of hospitalization and increased risk of exposure, and to maintain resilience in essential services • Based on the proposed guidelines, the order of priority of COVID-19 vaccinations begins with residents in a care home for older adults and their carers • Immunization advice and communication programs should be tailored to mitigate inequalities. Specifically, programs should be tailored to Black, Asian and minority ethnic groups who have higher rates of infection, morbidity and mortality	Published 6 January 2021

		Source (Department of Health and Social Care, Government of the United Kingdom)	

	• Preventing infections
	  ○ Adhering to infection-prevention measures
	  ○ Restricting and screening staff and visitors
	  ○ Quarantine of exposed or potentially exposed residents
	• Managing outbreaks
	  ○ Adhering to infection-control measures
		• Long-term care homes are high-risk settings for the transmission of COVID-19 to and among residents and staff
		• The following should be in place to prevent control COVID-19 irrespective of whether infection has occurred:
		  ○ ensure the existence of an infection prevention and control (IPC) focal point;
		  ○ implement standard IPC precaution for all residents;
		  ○ in areas with known or suspected transmission of COVID-19 implement universal masking for all health workers, caregivers, professionals, visitors and residents;
		  ○ ensure physical distancing;
		  ○ ensure adequate ventilation; and
		  ○ ensure adequate staffing levels and staff organization, appropriate working hours and protection for staff from occupational risks
		• The following are critical to ensure early detection of COVID-19:
		  ○ implement symptom surveillance and/or regular laboratory testing of staff and residents;
		  ○ ensure appropriate management of exposure among health workers;
		  ○ expand testing to all staff and residents when a positive case of COVID-19 is identified;
		  ○ test residents upon admission or re-admission to long-term care homes in areas with community or cluster transmission
		• When a resident is suspected or confirmed of having a COVID-19 case, the following should be implemented immediately:
		  ○ follow specific procedures for environmental cleaning and disinfection, waste and laundry management;
			Last updated 8 January 2021

		○ isolate suspected or confirmed cases of COVID-19 in single rooms or, if not possible, cohort residents with other cases; ○ conduct careful clinical assessments of patients and include early treatment as appropriate and evaluation of resident transfer if needed; and ○ quarantine all contacts of confirmed cases of COVID-19 for 14 days Source	
	• Preventing infections ○ Adhering to infection-prevention measures ○ Restricting and screening staff and visitors ○ Quarantining of exposed or potentially exposed residents and staff ○ Testing of residents and staff ○ Supporting staff and residents • Supporting residents and staff ○ Engaging residents, families and caregivers in self-management, care choices, care delivery, and organizational and policy decision-making	• This guidance is applicable to care home residents across all four nations of the United Kingdom; the intended audience includes, but is not limited to, care home staff, primary care teams including general practitioners (GPs), community teams providing care for older people including Hospital At Home teams, hospital discharge teams, and those providing advice on infection control to care homes • This guidance covers the following issues about managing COVID-19 in a care home environment: ○ infection control ○ staff and resident testing ○ admissions to care homes ○ family visiting ○ diagnosing COVID-19 in care homes ○ management and treatment of COVID-19 in care homes ○ advance care planning ○ end of life care ○ continuing routine healthcare Source (British Geriatrics Society)	Last update 18 November 2020
	• Preventing infections ○ Adhering to infection-prevention measures ○ Restricting and screening staff and visitors ○ Quarantining of exposed or potentially exposed residents and staff ○ Testing of residents and staff	• This guideline is provided to assist public health authorities, residential care services, healthcare workers and carers by providing best practice information for the prevention and management of COVID-19 outbreaks in residential care homes (RCF) in Australia	Last update 29 July 2020

	○ Supporting staff and residents • Managing outbreaks ○ Adding or replacing administrators and staff ○ Adhering to infection-control measures • Supporting residents and staff ○ Ensuring an adequate supply of staff	• This guideline presents a flowchart for COVID-19 management in RCF, which includes the following aspects: ○ develop a facility management plan (e.g., plan for a surge workforce) ○ vaccinate all residents and staff against influenza ○ infection control preparedness (e.g., staff training, early detection by screening and testing) ○ risk management for COVID-19 ○ manage a suspected or confirmed case of COVID-19 ○ manage a suspected outbreak of COVID-19 • This guideline provides a COVID-19 outbreak preparedness checklist and a COVID-19 outbreak management checklist • Standard precautions are a group of infection prevention practices always used in healthcare settings and must be used in RCF with a suspected or confirmed COVID-19 outbreak, which consist of: ○ hand hygiene ○ the use of appropriate personal protective equipment ○ respiratory hygiene and cough etiquette ○ regular cleaning of the environment and equipment Source (The Communicable Diseases Network Australia)	
	• Preventing infections ○ Adhering to infection-prevention measures ○ Restricting and screening staff and visitors ○ Quarantine of exposed or potentially exposed residents ○ Contact tracing among staff and visitors ○ Supporting staff and residents • Managing outbreaks	• WHO provides eleven policy objectives to mitigate the impact of COVID-19 across long-term care: ○ include long-term care in all phases of the national response; ○ mobilize adequate funding for long-term care to respond to and recover from the pandemic;	Last updated 24 July 2020

	○ Adhering to infection-control measures ○ 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 safety and quality of care and more generally improving quadruple-aim metrics ○ Changing service-delivery models ○ Altering funding arrangements ○ Adjusting governance arrangements ○ Supporting greater integration of long-term care with other sectors • Supporting residents and staff ○ Engaging residents, families and caregivers in self-management, care choices, care delivery and organizational and policy decision-making ○ Supporting technology-enabled living among residents ○ Ensuring an adequate supply of staff ○ Ensuring the safety and satisfaction of staff and volunteers	○ ensure effective monitoring and evaluation of the impact of VOID-19 on long-term care and ensure efficient information channelling between health and long-term care systems to optimize responses; ○ secure staff and resources including adequate health workforce and health products; ○ ensure the continuum and continuity of essential services for people receiving long-term care; ○ ensure that infection prevention and control standards are implemented and adhered to in all long-term care settings; ○ prioritize testing, contact tracing and monitoring of the spread of COVID-19 among people receiving and providing long-term care; ○ provide support for family and voluntary caregivers; ○ prioritize the psychosocial well-being of people receiving and providing long-term care; ○ ensure smooth transition to the recovery phase; ○ initiate steps for transformation of health and long-term care systems to appropriately integrate and ensure continuous, effective, governance of long-term care services Source (World Health Organization)	
	• Preventing infection ○ Adhering to infection-prevention measures ○ Restricting and screening staff and visitors	• In addition to general guidance related to education, sanitation, wearing of PPE, and self-monitoring for symptoms, guidance for long-term care homes and nursing homes in Indigenous communities emphasized: ○ Notifying the First Nations and Inuit Health Branch regional medical officer, provincial or territorial chief public health officer should there be suspected or confirmed cases;	Last updated 14 April 2020

		○ active screening procedures for new and re-admissions as well as any visitors entering the facility; ○ restricting to essential visitors only which include compassionate care visits and those who are essential to care and wellbeing Source (Government of Canada)	
	• Preventing infection ○ Adhering to infection-prevention measures ○ Restricting and screening staff and visitors	• Guidance for Centres for Medicare and Medicaid emphasized: ○ working with state and local health departments to ensure stable supplies of PPE; ○ symptoms screening for every individual that enters the long-term care home; ○ ensure the proper wearing of PPE among staff and increased PPE if COVID-19 transmission occurs ○ use separate staffing wherever possible and designate a COVID negative and COVID positive team Source (Centres for Medicare and Medicaid)	Last updated 2 April 2020
	• Managing outbreaks ○ 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 • Supporting residents (and their families and caregivers) and staff (and volunteers) ○ Ensuring an adequate supply of staff ○ Remunerating staff	• This guideline from the American Geriatrics Society (AGS) provides recommendations for US federal, state and local governments on decision-making for care of patients with COVID-19 in nursing homes (NH) and long-term care (LTC) homes • Recommendations for the federal government include: ○ Using the full force of the Defense Production Act to increase production of personal protective equipment, testing kits, laboratory supplies, and supplies for symptom management and end-of-life care ○ Proactively monitoring the supply of medications and equipment used for patients at the end of life to prevent any future gaps in supply	Published 29 April 2020

		○ Authorizing the Department of Defense to work with the federal and state governments to coordinate the delivery and sharing of scare resources within and across states and to help prioritize congregate living settings and home healthcare agencies so that they can get the resources they need ○ Building capacity, in collaboration with states, to provide hospital-level care in the home for patients with COVID-19 after hospital discharge ○ Ensuring access to paid leave for all health professionals and direct care workers on the frontlines of the pandemic ○ Increasing payment to NHs caring for residents with COVID-19 and providing tax relief for NHs that provide paid family leave to homecare workers and support staff caring for older adults and people with disabilities • The AGS also recommends that the Centers for Disease Control (CDC) develop guidelines for transferring presumed or confirmed COVID-19 positive residents from nursing homes to an emergency department • Recommendation for state and local governments include: ○ Restricting the transfer of COVID-19 positive individuals to a NH unless the facility can safely and effectively isolate the patient from other residents and follows appropriate IPAC protocols, including the use of PPE by staff and residents ○ Coordinating pandemic response planning with important stakeholders such as geriatrics health professionals, NH leadership teams, and hospice and palliative care experts	

		○ Collecting and using data to model hotspots, supply of beds, and PPE and improve pandemic response planning ○ Including NHs in emergency personnel distribution deployment considerations to ensure adequate staffing • According to the AGS, NHs should implement procedures to regularly screen NH staff for possible infection and ensure that they are trained in infection control, the use of PPE, and recognition of COVID-19 symptoms Source (American Geriatrics Society)	
Full systematic reviews	• Preventing infections ○ Adhering to infection-prevention measures	• The review identified evidence on infection protection and control measures for adults aged 60 years and older in long-term care settings • There were mixed results for increasing hand hygiene and personal protective equipment, and no significant results for social distancing • The authors indicated that the absence or mixed evidence does not imply that these measures should not be employed during an outbreak Source (AMSTAR rating 3/9)	Published 28 March 2020
	• Renewing delivery, financial and governance arrangements ○ Improving physical infrastructure • Supporting residents and staff ○ Supporting technology-enabled care by staff	• Health information technology (HIT) has been increasingly adopted by long-term care homes, but many homes do not employ systematic processes to implement HIT, underinvest in staff training and lack necessary technology support and infrastructure • No evidence was found to suggest that HIT increases staff turnover and evidence about whether HIT affects staff productivity was mixed • HIT may facilitate teamwork and communication but does not appear to impact quality of care or resident health outcomes • In order for HIT to impact productivity and quality of care, initial investments to train	Published 2018

		workforces and implement HIT systematically is necessary • Policy incentives should be developed to encourage better preparation for HIT, develop supporting infrastructure, train staff to use HIT and engage LTC facility staff in the design and implementation of HIT Source (AMSTAR 3/9)	
	• Renewing delivery, financial and governance arrangements ○ Altering funding arrangements	• The review found that for-profit nursing homes have worse outcomes in both employee and client well-being compared to not-for-profit nursing homes • Policymakers should weigh the benefits and drawbacks on the financial arrangement of long-term care homes (for-profit or non-for-profit) Source (AMSTAR rating 6/9)	Literature last searched 2015

	• Renewing delivery, financial and governance arrangements
	  ○ Improving physical infrastructure
	• Supporting residents and staff
	  ○ Ensuring an adequate supply of staff
	  ○ Ensuring safety and satisfaction of staff and volunteers
		• Studies found low-to-moderate levels of burnout, moderate levels of depersonalization, and moderate-to-high levels of personal accomplishment among staff in a long-term care homes working with older adults with dementia
		• An association was found between low staffing levels and increased job strain and emotional exhaustion
		• A positive association was found between a poor work environment (both physical and cultural) and staff burn out and stress, however four studies found that perceived support from colleagues protected against burnout and stress
		Source (AMSTAR rating 4/10)
			Literature last searched 10 August 2017

	• Renewing delivery, financial and governance arrangements
	  ○ Changing service-delivery models
	• Supporting residents and staff
	  ○ Optimizing skill mix among staff
		• An increasing number of frail older adults are transferred from long-term care centres to hospitals to receive acute care but these are often avoidable
		• The review identified five programs/interventions which all demonstrated a decrease in
			Literature last searched 26 February 2019

		hospitalizations or emergency department visits, these include: ○ Advance nursing within long-term care homes who can visit and manage patients with chronic diseases as well as complete assessments and monitor changes in health status; ○ INTERACT program which consists of seven tools aimed to prevent hospital admissions and focused on early management of conditions in the long-term care sector; ○ End of life supports including implementing a palliative care framework and sets of tools to support good palliative care; ○ Implementing condition specific pathways; ○ Extended care paramedics who respond to calls for acute issues in long-term care centres and who may be able to provide supports for residents without transferring them to hospital Source (AMSTAR 7/9)	
	• Renewing delivery, financial and governance arrangements ○ Improving physical infrastructure • Supporting residents and staff ○ Ensuring an adequate supply of staff	• 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 • One study suggested that Green House with individualized care had better quality of life than conventional long-term care homes • No evidence suggested that mix of Licensed Vocational Nurses, Registered Nurses and Licensed Practical Nurses and total nursing staff had no significant relationship with quality of life • The limited evidence in this review does not allow strong conclusions but raises questions about whether long-term care facility structure can improve resident quality of life Source (AMSTAR 4/9)	Literature last searched 31 March 2012

	• Supporting residents and staff ○ Engaging residents, families and caregivers in self-management, care choices, care delivery, and organizational and policy decision-making	• Shared decision-making is a critical element of providing person centred care • People living with cognitive impairment often have the desire and ability to participate in shared-decision making about their everyday cause but their ability to contribute is frequently underestimated by staff • 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 care working to be given the time, authority and develop the skills to use these types of aids Source (AMSTAR rating 8/11)	Literature last searched October 2016
	• Supporting residents and staff ○ Engaging residents, families and caregivers in self-management, care choices, care delivery, and organizational and policy decision-making	• Family caregivers value their role in decision-making and want to maintain this role even when individuals are placed in a residential settings • Time with staff and discussions with staff at a long-term care facility are critical to support effective participation of family in care decisions • Family caregivers use a range of information and sources of information in their decision making which include both information provided by health professionals as well as the values, wishes and quality of life of the resident Source (AMSTAR rating 8/10)	Literature last searched 2013

	• Supporting residents and staff
	  ○ Ensuring the safety and satisfaction of staff and volunteers
	  ○ Remunerating staff
		• The review examined factors that led to job satisfaction by nonprofessional nursing care providers in long-term care homes and were organized into individual factors and organizational factors
		• Important individual factors were empowerment and autonomy at work, while organizational factors included facility resources (such as the
			Literature last searched 1 May 2013

		equipment and supplies available for caring) and workload • Interestingly, both satisfaction with salary/benefits and job performance were not associated with greater overall job satisfaction • Source (AMSTAR rating 7/10)	
	• Supporting residents and staff ○ Ensuring an adequate supply of staff	• No consistent evidence was found in examining the relationship between staffing levels and quality of care, with the exception of for pressure ulcers where across all included studied more staff led to fewer ulcers regardless of the staff member delivering care Source (AMSTAR rating 6/10)	Literature last searched April 2013
	• Supporting residents and staff ○ Supporting technology-enabled care by staff	• Facilitators associated with electronic health record (EHR) adoption in long-term care include: access and transfer of resident information, long-run cost savings, error reduction (largely in prescription errors and patient allergy alerts), clinical and administrative efficiency, user perceptions, facility characteristics, and staff retention • Barriers to the implementation of EHRs include: initial investment cost; professional push-back on a new system; little training on the use of a new system; and a lack of time for implementation and understanding Source (AMSTAR rating 4/9)	Literature last searched 2014
	• Supporting residents and staff ○ Supporting technology-enabled care by staff	• Long-term care (LTC) homes have slower adoption of electronic health records (EHRs) than other areas of the health care industry despite providing care to the fastest-growing group of the population • EHRs demonstrated significant improvement in documenting and managing LTC homes and enhanced quality outcomes	Literature last searched 24 April 2017

		• Implementing EHRs in LTC homes can improve management of clinical documentation and facilitate better decision making Source (AMSTAR rating 4/9)	
	• Promoting alternatives to long-term care ○ Engaging residents, families and caregivers in shared decision-making about whether to enter long-term care	• The qualitative review found that making decisions related to when to enter a long-term care facility can be extremely challenging and were often centred on one of three reasons: concern for safety of the resident at home; reaching a breaking point in caregiving; and lacking the supports necessary for caregiving • Hesitation about placing family members in long-term care often stemmed from guilt of abandonment and needing reassurance and validation about the decision • Select interventions can help to facilitate discussions with people with dementia, their caregivers and their care teams to improve the decision-making experience, these include: dyadic counselling and the use of communication tools such as talking mats, however additional research is needed to identify others Source (AMSTAR rating 5/9)	Literature last searched August 2018
	• Promoting alternatives to long-term care ○ Enhancing the breadth and intensity of home and community care services to delay or avoid entry to long-term care	• Although most Canadians die in hospital, many prefer to die at home • Factors associated with increased likelihood of home death included having multidisciplinary home palliative care, preference for home death and early referral to palliative care • Knowledge of these determinants can inform care planning about the feasibility of dying in the preferred location among healthcare providers, family members and patients • Early referral to palliative care and multidisciplinary home palliative care teams may improve the likelihood of patients dying in their preferred location	Literature last searched 2013

		Source AMSTAR (8/11)	
	• Promoting alternatives to long term care ○ Enhancing the breadth and intensity of home and community care services to delay or avoid entry to long-term care	• Long-term care (LTC) facility residents generally have more physical and cognitive limitations than home and community-based services (HCBS) and assisted living (AL) care recipients • There was insufficient and low-quality evidence to compare outcome trajectories of HCBS or AL care recipients • Low-strength evidence suggested no differences in outcomes for physical function, mental health, cognition and mortality • Low-strength evidence suggested that HCBS recipients experienced higher rates of certain harms, while LTC facility residents experienced higher rates of others Source (AMSTAR 9/10)	Literature last searched March 2012
	• Promoting alternatives to long-term care ○ Supporting technology-enabled care at home	• The findings from the review suggest that older home-dwelling patients can benefit from virtual visits to enhance feelings of independence, social inclusion and medication compliance • Service users found virtual visits satisfactory and can be used in combination with in-person visits to maintain care at home for longer, even among complex older adults Source (AMSTAR rating 5/9)	Literature last searched April 2013

Rapid reviews	• Preventing infections
	  ○ Adhering to infection-prevention measures
	  ○ Adjusting resident accommodations, shared spaces and common spaces
	  ○ Restricting and screening staff and visitors
	• Managing outbreaks
	  ○ Adding or replacing administrators and staff
	  ○ Adhering to infection-control measures
		• This review assessed the risk factors and death rates associated with COVID-19 outbreaks in Ontario's long-term care homes (LTCH) and what measures have been and can be used to support public health interventions and policy changes in these settings
		• 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, the occurrence of long-term care staff infections, older design of certain homes, chain ownership, and crowding
			Last update 26 January 2021

		• Public health interventions and policies implemented in Ontario to mitigate risk factors for outbreaks included:
		  ○ a public order to restrict long-term care staff from working in more than one long-term care homes during the first wave
		  ○ incorporating emerging evidence on outbreaks and deaths into the provincial pandemic surveillance tools
		  ○ making attempts to restrict occupancy in long-term care homes to two residents per room
		  ○ requiring residents to designate a maximum of two essential caregivers who can visit without time limits
		• Further measures that can be effective at preventing future outbreaks, hospitalizations, and deaths from COVID-19 in long-term care homes are improving staff working conditions, implementing measures to reduce the risk of community transmission around the LTC homes, and disallowing three- and four-resident rooms while increasing temporary housing for crowded homes
		• Other measures suggested included enhancing infection prevention and control procedures in homes, improved prevention and detection of COVID-19 infection in LTC staff, strategies to promote vaccine acceptance amongst staff and residents, and improving data collection on LTC homes during the pandemic
		Source (AMSTAR rating 0/9)	

	• Preventing infections
	  ○ Adhering to infection-prevention measures
	  ○ Adjusting service provision
	  ○ Restricting and screening staff and visitors
	  ○ Testing of residents and staff
	• Promoting alternatives to long-term care
	  ○ Supporting technology-enabled care at home
		• There is emerging evidence on prevention measures, including early detection of index case, systematic testing of all residents and staff, removal of high-risk contacts from the facility, and isolating cases into separate wards	Published 10 December 2020

		• Digital technologies for contact tracing, early detection, and remote monitoring have shown promising evidence Source (AMSTAR rating 3/9)	

	• Preventing infections
	  ○ Adhering to infection-prevention measures
	  ○ Restricting and screening staff and visitors
	  ○ Testing of residents and staff
	  ○ Contact tracing among staff and visitors
	  ○ Supporting staff and residents
		• The following risk factors were associated with COVID-19 infections, outbreaks and mortality in long-term care (LTC) homes
		  ○ Incidence in the surrounding community was found to have the strongest association with COVID-19 infections and/or outbreaks in LTC settings (moderate certainty of the evidence)
		  ○ Several resident-level factors including, racial/ethnic minority status, older age, male sex, receipt of Medicaid or Medicare were associated with risk of COVID-19 infections, outbreaks and mortality; severity of impairment was associated with infections and outbreaks, but not mortality (low certainty of the evidence)
		  ○ At the organizational level, increased staffing, particularly Registered Nurse (RN) staffing was consistently associated with reduced risk of COVID-19 infections, outbreaks and mortality while for-profit status, facility size/density and movement of staff between homes was consistently associated with increased risk of COVID-19 infections, outbreaks and mortality (low certainty of the evidence)
		• The following strategies were found to mitigate the risk of outbreaks and mortality within LTC
		  ○ Most guideline recommendations include surveillance, monitoring and evaluation of staff and resident symptoms, and use of PPE (low certainty of the evidence)
		  ○ Other interventions include the promotion of hand hygiene, enhanced cleaning measures,
			Literature last searched 30 November 2020

		social distancing, and cohorting (low certainty of the evidence) ○ Technological platforms and tools (e.g., digital contact tracing, apps, heat maps) are being developed and show potential for decreased transmission through the efficient case and/or contact identification (very low certainty of the evidence) Source (AMSTAR 7/10)	
	• Preventing infections ○ Adhering to infection-prevention measures ○ Adjusting service provision ○ Restricting and screening staff and visitors ○ Testing of residents and staff	• The review identified measures implemented in long-term care homes to reduce COVID-19 transmission, and the effect on morbidity and mortality of residents, staff, and visitors • Interventions included mass testing, use of personal protective, symptom screening, visitor restrictions, and infection-prevention measures (e.g., hand hygiene, droplet/contact precautions, resident cohorting) • Mass testing residents with or without staff testing was the primary measure to reduce COVID-19 transmission • Increased facility size, greater number of beds and number of staff (and who work in multiple homes), fewer staff sick leave days, and reduced availability of PPE were associated with the probability of COVID-19 cases and size of outbreak • For-profit status long-term care homes were identified more commonly with increased odds of case outbreaks than non-profit status long-term care homes Source (AMSTAR rating 7/9)	Pre-print (Last update 3 November 2020)
	• Preventing infections ○ Restricting and screening staff and visitors • Supporting residents and staff	• This review assesses the impacts of visitor policies in care homes during the COVID-19 pandemic • There was no evidence found so far to suggest that visitors have introduced COVID-19 infections to care homes	Last update 1 November 2020

	○ Engaging residents, families and caregivers in self-management, care choices, care delivery, and organizational and policy decision-making	○ However, this finding may reflect that most care homes did not allow visitors during peaks of the pandemic • It was found that the wellbeing of residents in care homes was severely impacted during the period of visitor bans as demonstrated by high levels of loneliness, depression, and worsening mood of residents • 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 Source (AMSTAR rating 0/9)	
	• **Preventing infections** ○ Adhering to infection-prevention measures ○ Adjusting service provision ○ Testing of residents and staff	• Based on five observational studies and one clinical practice guideline, infection prevention measures included social distancing and isolation, PPE use and hand hygiene, screening, training, and staff policies • Significant reduction in the prevalence of COVID-19 infection among staff and residents were attributed to the use of PPE, screening tests, sick pay to staff, self-confinement of staff, maintaining maximum residents' occupancy, training and social distancing • Increase in the prevalence of COVID-19 infection among staff and residents were associated with hi ring temporary staff, not assigning staff to care separately for infected and uninfected residents, inability to isolate infected residents, and infrequent cleaning of communal areas Source (AMSTAR rating 5/9)	Published 30 October 2020
	• Preventing infections ○ Adhering to infection-prevention measures ○ Adjusting service provision ○ Restricting and screening staff and visitors ○ Testing of residents and staff	• The review provides a summary of best practices for support staff when re-opening of long-term care homes during the COVID-19 pandemic, which include:	Published 27 October 2020

	• Promoting alternatives to long-term care ○ Supporting technology-enabled care at home	○ Education, training, and adequate PPE for staff ○ Active screening and surveillance of staff, residents, and visitors ○ Use of PPE and strict hand hygiene ○ Mandate droplet precautions ○ Adequate staff-to-patient ratio ○ Staff and resident cohorting (e.g., designating staff to care for specific cohorts) ○ Coordination and consultation with primary care providers ○ Access to IPC specialists or outbreak response teams ○ Promote and enforce sick leave with adequate compensation ○ Limit staff work locations ○ Increased use of electronic devices and technologies to streamline care • Most of the literature described the need for adequate PPE, staffing ratios, training for staff on IPC protocols Source (AMSTAR rating 5/9)	

	• Preventing infections
	  ○ Adhering to infection-prevention measures
	  ○ Adjusting service provision
	• Supporting residents and staff
	  ○ Engaging residents, families and caregivers in self-management, care choices, care delivery, and organizational and policy decision-making
	  ○ Ensuring the safety and satisfaction of staff and volunteers
		• The review provides extensive and detailed practical recommendations specifically for patients with dementia and nursing staff and leadership in long-term care homes related to COVID-19, which is categorized into the following: 1) advanced care planning; 2) physical aspects of care; 3) psychological aspects of care; 4) social aspects of care; 5) spiritual aspects of care; 6) care of the dying; 7) bereavement care; 8) ethical aspects of care; 9) and structural and processes of care
		• Most of the included studies described advance care planning and psychological care, but limited practical recommendations on spiritual care, care of the dying and the bereaved, and ethical aspects
		Source (AMSTAR rating 7/9)
			Published 24 September 2020

	• Preventing infections
	  ○ Adhering to infection-prevention measures
	  ○ Supporting staff and residents
		• This rapid review identified and examined nine clinical practice guidelines (CPGs) for infection prevention and control of COVID-19 or other coronaviruses in adults 60 years or older living in long-term care homes (LTCF)
		• The most common recommendation in the CPGs was establishing surveillance and monitoring systems followed by mandating the use of personal 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
		• There are significant gaps in the current recommendations, especially related to the movement of staff between LTCF, as well as an overall lack of guidelines specific to managing highly virulent outbreaks in LTCF
		Source (AMSTAR rating 6/9)
			Literature last searched 31 July 2020

	• Preventing infections
	  ○ Adhering to infection-prevention measures
	  ○ Restricting and screening staff and visitors
	  ○ Testing of residents and staff
	  ○ Supporting staff and residents
	• Renewing delivery, financial and governance arrangements
	  ○ Supporting greater integration of long-term care with other sectors
		• Key findings were identified in relation to aspects of infection prevention and control, the need for regional coordination/organizational networks, and pandemic management guidance for the long-term care sector
		• 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 homes 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
		  ○ providing psychosocial support for staff
		(Internal document) (AMSTAR rating 0/9)
			Published 24 June 2020)

	• Preventing infections ○ Isolating suspected or confirmed cases among residents and staff	• There is no research evidence that described the effectiveness of cohorting residents with COVID-19 to shared rooms in long-term care homes • Isolation in single rooms and cohorting when single rooms are not available are recommended based on other infection control recommendations and expert opinion Source (AMSTAR 8/10)	Published 12 June 2020
	• Preventing infections ○ Adhering to infection-prevention measures	• Aside from hand hygiene, there was no high-quality evidence identified on what works to prevent respiratory virus introduction and spread in care homes • Measures recommended by clinical guidelines appear to be based predominantly on expert opinion Source (AMSTAR rating 3/9)	Literature last searched 28 April 2020

	• Preventing infections
	  ○ Adhering to infection-prevention measures
	  ○ Adjusting service provision
	  ○ Restricting and screening staff and visitors
		• The review identified infection protection and control recommendations from 17 clinical practice guidelines (CPGs) for adults aged 60 years and older in long-term care settings
		• Most of the CPGs recommended hand hygiene, wearing personal protective equipment, social distancing or isolation, disinfecting surfaces, droplet precautions, surveillance and evaluation, and using diagnostic testing to confirm illnesses
		• Only some CPGs recommended other infection control measures such as policies and procedures for visitors, residents, and/or staff, cough etiquette, providing supplies, staff and/or resident educations and communication, communication, involving health professionals, ventilation practices, and cohorting equipment
		Source (AMSTAR rating 7/9)
			Published 16 March 2020

	• Managing outbreaks	• The rapid review presented the definitions for COVID-19 'outbreaks' in long-term care homes for the following eight Canadian provinces: British Columbia, Alberta, Saskatchewan, Manitoba,	Published 1 February 2021

		Ontario, Quebec, Nova Scotia, and New Brunswick (Internal document; AMSTAR rating 0/9)	

	• Managing outbreaks
	  ○ Transferring residents when their care needs exceed capacity in the home
		• This rapid review discussed moving COVID-19-positive long-term care (LTC) residents to other settings
		• Limited information was identified about moving measures and their effectiveness within the LTC sector
		  ○ Six jurisdictions (i.e., Ontario, British Columbia, Alberta, United States, Spain, and South Korea) have established moving measures for LTC homes that can be implemented if required
		  ○ As of August 2020, New South Wales (Australia) has not permitted moving of residents into hospitals
		  ○ The Government of Canada, the Royal Society of Canada, American Geriatrics Society, and Taiwan recommend transferring LTC residents to a hospital or other setting if isolation is not feasible in the event of a COVID-19 outbreak
		(Internal document; AMSTAR rating 0/9)
			Published 30 November 2020

	• Renewing delivery, financial and governance arrangements
	  ○ Improving safety and quality of care and more generally improving quadruple-aim metrics
		• Long-term care home (LTCH) inspections are generally supported by national or state-level legislation (i.e., Acts or regulations) and/or by a legal body (i.e., national government)
		• Inspection approaches generally include an inspection guideline that is used by an inspecting body to assess whether LTCHs are complying with LTC legislative standards; and may include the following focus areas:
		  ○ administration
		  ○ resident services
		  ○ human resources an
		  ○ environment
		• This rapid review also discussed the following aspects of LTCH inspections:
			published 29 January 2021

		○ frequency of inspections ○ types of inspections ○ inspection timelines ○ methods/tools used in inspections ○ inspecting bodies ○ inspection process ○ post-inspection (Internal document; AMSTAR rating 0/9)	
	• Renewing delivery, financial and governance arrangements ○ Changing service-delivery models	• The review identified 366 peer-reviewed publications on optimal models of care and interventions that improve quality of life, quality of care, and health outcomes for residents living in long-term care homes • 274 implementation strategy studies described supporting multidisciplinary teams, targeting specific conditions or risk factors, or a combination of both • The literature had more studies on dementia care, oral care, exercise/mobility, overall resident care, and optimal/appropriate medication use, with fewer studies on hearing care, vision care, and foot care • 92 studies assessed healthcare service delivery studies, with 37 studies evaluating allied health care teams and 10 studies evaluating models of direct patient care • There was limited information on interventions involving care aides and PSWs even though they are responsible for 90% of direct resident care Source (AMSTAR rating 5/9)	Published 10 June 2020
	• Renewing delivery, financial and governance arrangements ○ Changing service delivery models • Supporting residents and staff ○ Engaging residents, families and caregivers in self-management, care choices, care delivery, and organizational and policy decision-making	• This review reports on documentary and content analysis of international and country-specific guidance on palliative care in nursing homes in the context of COVID-19 • Palliative care themes that emerged from the guidance included end-of-life visits, advance care planning, clinical decision-making. However,	Published 10 May 2020

		international documents lacked guidance specifically for palliative care and focused primarily on COVID-19 infection prevention and control • This review highlights the lack of attention and recommendations on key aspects of palliative care, such as symptom management, staff education and support, and referral protocols Source (AMSTAR 7/9)	
	• Promoting alternatives to long-term care ○ Enhancing the breadth and intensity of home and community care services to delay or avoid entry to long-term care	• There is limited available evidence on how primary care and community nursing services can adapt during a pandemic • Key findings included the need for consistent and timely communications of protocols and infection prevention measures, need for psychosocial, financial, and emotional support, training and skills development, and debriefing with staff to ensure resilience Source (AMSTAR rating 3/9)	Published 4 June 2020

Guidelines developed using some type of evidence synthesis and/or expert opinion	• Preventing infections
	  ○ Vaccinating staff and residents
	  ○ Adhering to infection-prevention measures
	  ○ Adjusting resident accommodations, shared spaces and common spaces
	  ○ Restricting and screening staff and visitors
	  ○ Quarantining of exposed or potentially exposed residents (within facility) and staff (at home)
	  ○ Testing of residents and staff
	  ○ 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
	• Managing outbreaks
	  ○ Adhering to infection-control measures
	  ○ Making additional spatial, service, screening, testing, isolation and support changes
		• Recommendations included in this guideline for the prevention of COVID-19 infections in LTC homes were:
		  ○ Providing sufficient PPE for staff and residents as well training on use of PPE
		  ○ Designation of a leader in each LTCF to support implementation of preventative measures
		  ○ Regularly testing staff (at least once using a rapid antigen test)
		  ○ Avoid overcrowding of residents in the homes
		  ○ Ensure adequate access to external consultation services for healthcare of residents
		  ○ Establish procedures for (re)admission of residents recuperating from COVID-19 related symptoms
		  ○ Implement measures to minimize the introduction of COVID-19 infection during
			Published 15 January 2021

	○ Transferring residents when their care needs exceed capacity in the home	visitations from relatives and caregivers, such as requiring the wearing of masks and testing visitors if local incidence is high (more than 50/100,000 per week) ○ Develop procedures for residents who test positive for COVID-19 and/or display symptoms and for their contacts ○ Have break rooms and changing rooms for staff ○ Inform staff, residents and their relatives about vaccination and encourage them to consent to vaccination • Recommendations for providing medical treatment for asymptomatic COVID-19 patients include: ○ Isolating the patient for 10 days ○ Providing counseling and social support ○ Considering vitamin D and zinc replacement if needed ○ Checking for vital signs and symptoms regularly ○ Encouraging the patient to remain mobile, if possible, through physical exercises • These recommendations also apply for medical treatment of symptomatic COIVD-19 patients but with the following caveats: ○ Following 10-day isolation, the patient must be symptom-free for at least 2 days in order to end isolation ○ Providing medical treatment to address COVID-19 symptoms ○ Checking regularly for indications for hospital admission and prepare all useful information for the admission in case needed Source	
	• Preventing infections ○ Adhering to infection-prevention measures ○ Quarantining of exposed or potentially exposed residents and staff	• European Geriatric Medicine Society (EuGMS)'s guidance pulls from authors from different European countries with prior experience of COVID-19 outbreaks in long-term care homes	Published 3 November 2020

	○ Testing of residents and staff ○ Isolating suspected or confirmed cases among residents and staff • Managing outbreaks ○ Adhering to infection-control measures	and is aimed to provide expertise for long-term care prevention and transmission of COVID-19 • The guidance is to be used alongside existing local, regional, or national recommendations and outlines a list of measures that requires an assessment of the risk-benefit ratio on a case-by-case basis • Recommendations include: ○ Infection prevention and control focal points should be set up in every long-term care facility ○ Residents, staff members and visitors should undergo routine testing, even those that are asymptomatic ○ Isolation of those infected or have been in contact with those that are infected with COVID-19 Source	
	• Preventing infections ○ Adjusting resident accommodation, shared spaces and common spaces	• A designated member of staff should be assigned to lead epidemic preparedness and response within the long-term care facility • Enhanced traffic control bundling should be implemented which includes restricting entry to visitors during community outbreaks, assessing all entrants for symptoms, and universal masking requirement for everyone within the facility • The long-term care homes should designate transition zones, clean zones, and where necessary COVID-19 positive zones with checkpoints for hand disinfection between each zone Source	Published June 2020
	• Preventing infections ○ Adhering to infection-prevention measures ○ Adjusting service provision	• No published primary or systematic reviews were identified, but key recommendations came from government and international agencies • All the guidelines described using single rooms when available, and then cohort patients with positive cases of COVID-19 into units, floor, or a wing	Published April 2020

		• Some guidelines described that patients with suspected COVID-19 cases should only be cohorted with other suspected cases Source	

	• Preventing infections
	  ○ Adhering to infection-prevention measures
	  ○ Restricting and screening staff and visitors
	  ○ Testing of residents and staff
	  ○ Isolating suspected or confirmed cases among residents (within same or different facility) and staff
	  ○ Supporting staff and residents
		• The National Institute of Ageing (NIA) in Canada recommends an 'Iron Ring' set of collective actions that can be taken to protect long-term care home and retirement home residents during the COVID-19 pandemic:
		  ○ Restricting all non-essential visits in order to reduce the risk of introducing the coronavirus into the home
		  ○ 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
		  ○ Requiring the use of appropriate personal protective equipment by care providers and residents and providing training to support its use
		  ○ Implementing testing and isolating procedures that include staff and residents that may be asymptomatic or have atypical presentations
		  ○ Implementing flexible admission and discharge policies for LTC settings to give residents and their families the flexibility to defer a placement offer, leave and return a care setting quickly based on what would best support their overall health and well-being
		• The NIA 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
		• This guideline reports on the uptake of the 'Iron Ring' guidance across Canadian provinces as of 21 April 2020
		Source
			Last updated 21 April 2020

	• Preventing infections
	  ○ Adhering to infection-prevention measures
	  ○ Adjusting resident accommodations, shared spaces and common spaces
	  ○ Adjusting service provision
		• Recommendations provided in this guideline on physical distancing in long-term care homes and assisted living homes include:
		  ○ Avoid sofas and instead use individual chairs facing away from each other for seating, separated by a minimum of 1 meter apart
		  ○ Avoid shared activities within the same space and if this is not possible, residents and staff should perform hand hygiene before, during and after activities, with adequate spacing between residents
		  ○ Seating in tv/media lounges should be arranged in theatre style with maximum spacing between chairs (2 meters on each side is ideal)
		  ○ Ensure that all congregate settings receive enhanced infection control cleaning and consider removing or replacing communal seating (e.g. benches)
		  ○ During mealtimes ensure that residents are distanced at least 2 meters 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
		Source (Vancouver Coastal Health Authority)
			Published 31 March 2020

	• Managing outbreaks ○ Making additional spatial, service, screening, testing, isolation and support changes	• 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 a pain management in a palliative approach should be made in advance for the problems that may arise (including sub-cutaneous forms of prescription drugs as oral dosages may not be possible) Source	Last updated March 2020
	• Preventing infections ○ Restricting and screening staff and visitors	• This guidance document reviewed the emerging nursing home visitor policies that have been	Published 3 August 2020

	○ Supporting staff and residents	issued in Canada's 10 provincial and 3 territorial governments as well as international policies and guidance for evidence-informed recommendations to support the re-opening of Canadian nursing homes • There are 6 core principles and planning assumptions that were identified to be made to current and future guidelines, that include: ○ Policies should differentiate between family caregivers and general visitors ○ Restricted access to visiting must balance the risks of COVID-19 infection with the risks of well-being and quality of life of the resident ○ Visitor policies should prioritize equity ○ Transparent, regular and accessible communication and direction of policies should be made by governments, public health authorities and nursing homes ○ Robust data related to re-opening should be collected and reported ○ A feedback and rapid appeals mechanism should be implemented Source	
Protocols for reviews that are underway	• Preventing infections ○ Supporting staff and residents	• Identifying measures to support staff, residents and bereaved family members in the context of COVID-19 related death Source	Anticipated completion date 10 March 2021
	• Preventing infections • Managing outbreaks	• Identifying and evaluating the effectiveness of infection control measures adopted in long-term care homes to prevent COVID-19 introduction and transmission during outbreaks Source	Anticipated completion date 30 March 2021
	• Preventing infections • Managing outbreaks	• Identifying the control measures that were taken to prevent, control and manage the spread of COVID-19 in nursing homes or long-term care homes in European countries	Anticipated completion date 30 December 2021

		• Determining whether the control measures implemented depended on national guidelines, the magnitude of the outbreak, or both Source	
	• Preventing infections • Managing outbreaks	• Evaluating the measures taken by nursing homes to minimize transmission of COVID-19 Source	Anticipated completion date 26 February 2021
	• Managing outbreaks	• Appraisal of the incidence, infection and mortality rates across for-profit, public and non-profit care homes for the elderly Source	Anticipated completion date 1 March 2021
	• Preventing infections • Managing outbreaks	• Examining the evidence on prevention, mitigation, preparedness, response, and recovery plans for long-term care homes affected by viral respiratory infection pandemics Source	Anticipated completion date 31 January 2021
	• Managing outbreaks	• Identifying the global epidemiological burden of COVID-19 in long-term care homes • Examining the clinical manifestations of COVID-19 outbreaks and the risk factors associated with adverse outcomes of COVID-19 outbreaks in residential care homes Source	Anticipated completion date 30 October 2020
	• Preventing infections • Managing outbreaks	• Identifying measures to reduce the transmission of COVID-19 in long-term care homes and limit its impact on morbidity and mortality Source	Anticipated completion date 31 August 2020
	• Preventing infections • Managing outbreaks	• Assessing the strategies previously and currently used by care homes to prevent and control the spread of COVID-19 and other infectious and contagious diseases Source	Anticipated completion date 31 March 2021
	• Supporting residents and staff ○ Ensuring the safety and satisfaction of staff and volunteers	• Assessing the effectiveness and feasibility of workplace health promotion for employees in long-term care homes • Source	Anticipated completion date 1 March 2021

	• Supporting residents and staff ○ Supporting technology-enabled living among residents	• Identifying technology-based interventions designed for nursing home residents and investigating their efficacy for nursing home residents and homes Source	Preprint (Last update 14 December 2020)

Titles/questions for reviews that are being planned	• **Preventing infections**
	  ○ Adhering to infection-prevention measures
	  ○ Adjusting service provision
		• Identifying infection prevention and control interventions, programs, infrastructures at reducing infections in long-term care homes
		Source
			Last update April 2020

	• Preventing infections	• Effectiveness of interventions to reduce transmission of COVID-19 in care homes Source	Registered April 2020
	• Preventing infections	• Effective measures to reduce spread of COVID-19 in care homes Source	Registered March 2020
	• Promoting alternatives to long-term care	• When and in what circumstances do we palliate elderly/frail patients at home? Source	Registered March 2020

Appendix 3: Preventing and managing COVID-19, outbreaks of COVID-19 and about supporting renewal in long-term care homes in other countries

Country	Preventing infections	Managing outbreaks	Renewing delivery, financial and governance arrangement	Supporting residents and staff	Promoting alternatives to long-term care
Australia	• On 18 March 2020, visiting restrictions for residential aged care homes were implemented to prevent those who: 1) travelled overseas; 2) have been in contact with a confirmed case of COVID-19 in the past 14 days; or 3) display symptoms of COVID-19 (e.g., fever, cough, shortness of breath, sore throat) from visiting ○ On 1 May 2020, guidelines were amended to ensure that all visitors now have also been vaccinated against the influenza virus prior to their visit ○ As of February 2021, visitation restrictions to residential aged care homes adhere to the Escalation Tiers framework • On 11 March 2020, Australia's Department of Health invested $101.2 million to fund staffing and infection control support in residential care homes • On 27 May 2021, the Government of Australia launched online COVID-19	• The Department of Health has released an information document to help assist in the management of COVID-19 outbreaks in residential care homes • The Communicable Diseases Network Australia has developed national guidelines to provide authorities, administrators, and staff with the best practices to ensure preparedness, prevention, and early detection against COVID-19. ○ Preparedness consists of staff training, sufficient personal protective equipment supply, and an outbreak management plan (e.g., cohorting and communication) ○ Prevention consists of staff education, hand hygiene, and screening ○ Early detection includes routine	• In August 2020, the Government announced an investment of $560 million to fund long during the COVID-19 pandemic • Between 14 and 22 September 2020, the Royal Commission into Aged Care Quality and Safety held a hearing to review the aged care sector in Australia, including financing and sustainability of improvements, funding models, and provider regulations	• The Australian Government announced an aged care workforce retention bonus to encourage staff employment during the COVID-19 pandemic ○ Payment will vary depending on the number of weekly hours logged by staff in the four-week period prior to the application date ○ Staff are eligible to receive up to three "bonus" payments if they were employed and provided direct care to residents between the months of June and November 2020 • Two grants are available to support aged care providers	• A $71.4 million investment to the Commonwealth Home Support Programme was made in order to support the transition of residents who re-locate from residential care to community living

	infection control training modules for those working in health care, including staff in residential aged care homes
	• On 3 November 2020, national guidelines for COVID-19 infection prevention and control were put forth by the Infection Control Expert Group
	  ○ This document provides recommendations related to the isolation of suspected or positive COVID-19 cases, precautionary measures, and general principles of infection prevention and control
	• According to Australia's National Rollout Strategy, COVID-19 vaccine administration will be prioritized for all residential aged care staff and residents in Phase 1A.
	  ○ Pfizer Hubs will serve as a vaccine distribution site; it is projected that 240 homes in over 190 towns and suburbs will administer COVID-19 vaccines for this priority population group
	  ○ The first set of COVID-19 vaccines for aged care residents and staff was administered on 22 February 2021
		monitoring and testing
		• In November 2020, the Australian Government published their Updated National COVID-19 Aged Care Plan
				during the COVID-19 pandemic:
				  ○ Aged Care Support Program; and
				  ○ Support for Aged Care Workers in COVID-19
				• In July 2020, the Fair Work Commission introduced a two-week paid pandemic leave for aged care home staff
				• The Australian Government has announced a Pandemic Leave Disaster Payment of $1,500 to support staff that are not able to work due to COVID-19 (e.g., self-isolate, quarantine, or serve as a caregiver)	

	• The National Medical Stockpile delivers personal protective equipment to residential aged care homes to assist with infection prevention; as of 16 February 2021, this included: ○ 20 million masks; ○ five million gowns; ○ 11 million gloves; ○ four million face shields and goggles; ○ 90,000 hand sanitizer bottles; and ○ 165,000 waste bags				
France	• The Ministry of Health provides daily information to the general public about the epidemiological situation, which includes an update about hospitals as well as about morbidity and mortality in long-term care homes ○ This is collected through a daily online reporting survey provided to all long-term care homes. • In March 2020, the Government restricted all visitors in long-term care homes but as of April 2020 they were allowed under strict sanitary protocols which includes no physical contact with the resident • Wide antigenic testing campaigns were put in place in November for the weekly	• Regional health agencies have been placed in charge of contact tracing outbreaks detected in congregate homes (e.g., long-term care homes, schools) • During the height of outbreaks, nursing homes were asked to minimize visits from ambulatory care professionals to minimize contagion risk, however there were then concerns with the lack of medical capacity • To alleviate this, nursing homes are asked to contract with community-based physicians and nurses working in their own	• The government has committed to providing an additional 475 million euros to long-term care homes to cover the extra costs of protective equipment for staff among other expenses incurred • Act on Adapting Society to an Aging Population is the most recent piece of legislation governing quality in long-term care ○ Regulatory instruments used to ensure quality include standards, surveillance, enforcement and	• Bonuses of between 1000 and 1500 euros were provided to health professionals and staff working in areas that were particularly affected by COVID-19 (including long-term care homes) ○ In addition, local areas that have been hard hit by COVID-19 have increased the allowances of nursing and assistant nursing students to back-up trained health professionals • To contend with workforce shortages	

	testing of staff and residents at long-term care homes. However, there has been some concern about the lack of capacity within medical laboratories to keep up with this demand. • Vaccine campaign began in December in France, with residents and staff of nursing homes being the first to receive the Pfizer/BioNtech vaccine • Additional information related to vaccinations in France can be found in a living evidence profile dedicated to vaccinations	practice or in health centres	data collection for quality monitoring	throughout the upcoming summer, the Ministry of Health has launched an online platform where volunteer health professionals and hospital employees can apply to provide support to health or social care organizations, including in long-term care homes • To reduce provider burnout, psychological hotline services were set up to support healthcare professionals working in hospitals, community-based settings, and long-term care homes	
Finland	• Priority for administering vaccination are first to staff and residents of long-term care homes, however the country initially experienced delays due to challenges importing the vaccine • Visits from family and friends to long-term care homes were initially banned, however residents are now allowed to meet family and friends	• Though many long-term care homes were successful in avoiding COVID-19 outbreaks, there have been several examples of very severe outbreaks where the operation of the home was transferred to the municipal health and social care association • Where outbreaks have taken place, residents are		• Legislation governing care for older adults is under reform and will include changes in light of COVID-19, which include among others a minimum number of nurses (0.7) per client in long-term care homes	• Care for those over the age of 75 is primarily offered at home rather than in long-term care homes o Instead, sheltered housing (or supportive living) has largely replaced institutional long-term care homes

	outside with a two-meter distance between them ○ However, given the governance arrangements in the sector, this guidance was not uniformly implemented across regions • National guidelines to prevent infections in long-term care homes include: ○ screening staff upon entry to homes; ○ reducing staff turnover wherever possible; ○ limiting transfers between care sites, and when unavoidable quarantining the resident in a single room; ○ designating a contact person within each unit to ensure compliance to hygiene; ○ requiring staff to wear personal protective equipment including gloves, surgical nasal protection and goggles, protective sleeve or apron, and ensuring hand hygiene before putting on PPE and after removing it; ○ restricting the use of common areas when a unit has a symptomatic resident; ○ testing all asymptomatic staff and residents if the unit reports a single symptomatic resident; and	cared for in their own rooms by staff using additional PPE including surgical mouth and nose protection, eye protection, and a protective jacket.			

	○ provide guidance and training to staff on infection prevention and control practices • To contend with staff shortages and burnout during the pandemic, care managers from other municipal services such as day care centres, libraries and early childhood education centres have been dispatched to support care for older adults ○ In addition, retired care staff, who are not members of the risk group themselves, and students have been recruited as needed				
Germany	• The Ministry of Health announced a funding and support package to help institutions during the COVID-19 pandemic, including: ○ funding for PPE for staff, contact tracing, as well as to support homes in additional hiring to meet care needs; ○ suspension of quality assessments for ambulatory and residential care as well as changes to assessment and waiving of obligatory advisory visits to people with care needs; ○ reimbursement of institutions providing care	• Once infection has been detected in a long-term care facility, RKI has described that the following measures should be taken: ○ moving residents that have tested positive or are suspected of having COVID-19 into independent rooms, with their own bathrooms ○ restricting activities among other residents to avoid further spread; ○ designating three separates areas within		• The Ministry of Health announced an increase in minimum wage for nursing assistance until April 2022 as well increasing the vacation days that workers are legally entitled to • The Bavarian Minister of Health announced that catering for all staff working in healthcare settings would be subsidized • An additional pandemic pay of	• The Senate Administration for Health, Care and Equality Berlin has developed communications to support caregivers around preventing COVID-19 infections • As of September 2020, family carers can receive support money for up to 20 paid days in situations where a gap in community care is experienced, an increase from the

	that incur additional costs or loss of revenue due to the COVID-19 outbreak; and ○ institutional care settings were permitted to deviate from certain rules and operational frameworks around staffing levels. • Regional health authorities and managers of care homes were asked to work together to develop plans for the prevention of COVID-19, these plans were to, at a minimum, include: ○ designate a for specific responsibilities including hygiene, communication and acquisition of materials; ○ develop a plan to inform residents, their relatives and staff of new protective measures; ○ training staff in using protecting equipment; ○ organizing measures to reduce the number of contacts within the institutional settings; ○ setting and implementing rules for visitors and external providers including hair dressers, chiropodists, and people in pastoral care; ○ implement regulations around staff absences; and ○ designating staff to work in small independent teams.	the institution, one for those without symptoms and without contacts of affected people, one for those with suspected cases, and one for those who have tested positive for COVID-19; ○ designating a set of staff to work in each of the three areas above; ○ increased PPE for staff caring for residents with suspected and confirmed cases including FFP2 masks, protective gowns, safety goggles and single use gloves; ○ enhanced cleaning and disinfection of the facility; and ○ contact tracing with the regional health authorities		1500 euros was provided to staff members working in long-term care homes as part of the July pay period • A 'care reserve' has been developed across federal states where people with care qualifications can register, including individuals who have qualified abroad, and may be called on to help reduce burnout among staff ○ Those who do not have the necessary qualifications to be put directly into care settings are eligible for a one-year care apprenticeship during which they are provided with a regulated training allowance ○ However, apprenticeships in long-term care homes remain unregulated.	usual 10 days that are available. • A review of the Family Care Leave Act is being undertaken to include more flexibility for carers throughout the duration of the pandemic

	• Additional preventative recommendations from Robert Koch Institute (responsible for the monitoring of infectious and non-communicable diseases in Germany), include:
	  ○ daily monitoring of staff health status through symptom checks;
	  ○ recording of staff symptoms;
	  ○ quarantine or isolation of staff following contact with an infected person;
	  ○ weekly staff testing in collaboration with the regional health authority and more frequent testing in particularly high-risk institutions (i.e., with dense populations or high-incidence of COVID-19)
	• Staff and residents of long-term care homes are in the top priority group to receive vaccines				

Netherlands	• In the Netherlands, nursing homes have had significant discretionary power to make decisions related to the COVID-19 pandemic and as a result there is significant variation across the country • With respect to roll-out of vaccinations, staff at nursing homes were prioritized first, followed by nursing home residents	• All residents suspected of having COVID-19 should be put into quarantine and cared for in isolation ○ In addition, depending on regional infection rates, quarantine is recommended for newly admitted clients in areas of the country where there have been	• Reimbursement scheme has been established for long-term care homes that have experienced a revenue loss as of March 2020 as a result of efforts to prevent infection and maintain continuity of care		• Free PPE has been made available for information caregivers of vulnerable people • Professional caregivers have been made available to replace family caregivers if they get sick or experiencing more pressure and

	• Creation of an 'iron ring' around long-term care homes, including:
	  ○ development of crisis management teams who are responsible for making quick top-down policy decision;
	  ○ re-introduction of the use of client councils (which were on hold during the first wave of the pandemic) in supporting crisis management decision making and organizational policy;
	  ○ wearing a mask at all times for staff working within the long-term care facility; and
	  ○ regular testing of staff and residents.
	• After a full ban on visitors was implemented during wave one, the government acknowledged that this resulted in many residents experiencing distress at not being able to see relatives
	  ○ As a result, a new law has been implemented that clients must be able to receive visits from at least one family member or next of kin
	• All nursing home residents suspected of being infected with COVID-19 can be tested, with same day results available
		high rates of COVID-19
		• If an infection is detected in a long-term care facility, both staff and residents will be tested once a week
			• Government has provided a one-time net bonus of 1000 euros to healthcare personal
			• Development of 'Extra Hands for Healthcare' database to match skill-sets to needed staff positions as well as the 'Duty Calls' campaign which aims to support employers with employees that have healthcare backgrounds but are not currently practicing to support the delivery of care during the second wave
			• The National Health Care Class was developed to provide a one week crash course to those without any healthcare or limited background experience to be able to provide focused support, at present 120 people are trained each week
					distress as a result of the COVID-19 crisis

New Zealand	• 3 March District Health Boards (DHBs) were contacted by the Ministry of Health (MOH) to understand how they were supporting aged residential care (ARC) homes with infection prevention and control (IPC) support and training
	• On 11 June 2020 the MOH commissioned an independent review of COVID-19 clusters in ARC homes
	  ○ Recommendations from the review included developing 1) a national outbreak management policy; 2) a regional ARC Incident Management Team; 3) psychosocial supports for staff wellbeing; 4) psychosocial support for residents' wellbeing; 5) national IPC standards specifically for the ARC sector; 6) a pandemic management workbook/guidance specific to the ARC sector
	• The Health Quality and Safety Commission (HQSC) updated its Guidance for Preventing and Controlling COVID-19 outbreaks in New Zealand Aged Residential Care on 24 July 2020
	  ○ The report covers roles and responsibilities for ARC
		• Throughout the pandemic, HQSC has released Guidance for Preventing and Controlling COVID-19 outbreaks in New Zealand Aged Residential Care including:
		  ○ 3 April 2020 Outbreak log
		  ○ 24 April 2020 Guidance on cleaning aged residential care homes following a suspected, probably or confirmed case of COVID-19
		  ○ 10 July 2020 Outbreak plan for influenza-like illness
		• 16 November 2020 MOH updated its COVID-19 specific guidelines for aged care providers
		  ○ This includes guidance for managing staff and residents with COVID-19 infection
			• On 30 July 2020, the MOH announced seven workstreams to be undertaken as part of MOH's action plan for the recommendations of the Independent Review of COVID-19 Clusters in Aged Residential Care Facilities including:
			  ○ Developing a National Outbreak Management Policy to develop policies for communication and reporting requirements, decision-making and escalation pathways, supported clinical rotations or placements in ARC to build capacity and rapid formation of response teams (Workstream 1)
			  ○ Establishing continuous learning supports across the sector to enable easy access to information on quality
				• As part of MOH's action plan for the recommendations of the Independent Review of COVID-19 Clusters in Aged Residential Care Facilities, workstreams are currently underway to better support residents and staff in ARC homes
				  ○ The National Outbreak Management Policy will be responsive to Māori and include psychosocial support policies to protect staff, resident, whānau and communities (Workstream 1)
					• 14 August 2020 the MOH released COVID-19 Guidance for admissions into residential care homes
					  ○ Although ARC services continue to be operating as essential services and are accepting referrals from community and hospital, protocols have been developed to screen new admissions and, if necessary, delay admission
					  ○ Home support agencies and/or community nursing services will support the person at home while waiting for test results

	homes, public health units, and DHBs to prepare for and prevent COVID-19 outbreaks as well as manage COVID-19 outbreaks when suspected cases arise • On 11 August 2020, the COVID-19 and Long-Term Care in Aotearoa New Zealand Report was released by the International Long Term Care Policy Network ○ The report discusses MOH guidelines for the 4 alert levels in relation to ARC services and their implications for new admissions, current residents, PPE and visitors • On 16 November 2020, the MOH updated its COVID-19 specific guidelines for aged care providers, including for PPE use, screening, managing staff and residents with COVID-19, visiting policies, transfers and other guidance for preventing and controlling COVID-19 outbreaks • The New Zealand Aged Care Association (NZACA) released advice to rest homes on COVID-19 Alert levels 3 and 4 on 13 February 2021 and Alert levels 1 and 2 on 14 February 2021 • New Zealand has three separate vaccination roll out		improvement initiatives (Workstream 5) ○ Aligning expectations for ARC with regulatory and contractual obligations in relation to IPC and pandemic planning (Workstream 6)		

	scenarios depending on the level of community transmission of COVID-19 ○ High-risk frontline health workforce, such as those working in ARC homes, are prioritized in the first and second groups across all three scenarios, while those at greatest risk such as older adults living in care homes are prioritized in groups 1, 2 or 3 depending on the presence of outbreaks in ARC homes or community ○ Vaccination roll out is scheduled to begin 20 February 2021				
United Kingdom	• On 2 April 2020 (last updated 29 January 2020), the Department of Health and Social Care released guidance on the admission and care of residents in a care home during COVID-19 • On 22 July 2020 (last updated 12 January 2020) Department of Health and Social Care released guidance on visiting care homes during COVID-19 • On 25 August (last updated 22 January 2021) The Department of Health and Social Care released an overview of adult social care guidance on corona virus (COVID-19) ○ The guidance covers infection prevention and	• The Department of Health and Social Care's guidance 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) include advice for managing outbreaks including: ○ Help with infection control ○ What to do in the event of a suspected outbreak ○ Reporting outbreaks ○ Steps to take following a COVID-	• On 18 April 2020, the UK government announced £1.6 billion in new funding for councils, bringing the total funding provided to councils to £3.2 billion since March 2020 ○ Councils can use the funds to address challenges related to COVID-19 including adult social care ○ An additional £850 million in social care grants to help with cashflow	• The Department of Health and Social Care released an overview of adult social care guidance on corona virus (COVID-19) includes information for social care providers on mental health and wellbeing and financial support • The United Kingdom Government's document on the admission and care of residents in care homes during	• The overview of adult social care guidance on corona virus (COVID-19) includes advice for increasing flexibility to use direct payment for activities at home and payment of family carers or close friends if a personal assistant is not available during COVID-19 • The Department of Health and Social Care also provides advice (updated 2 February 2021) for local authorities and

	control in care homes, reporting procedures, handling care home patients discharged from hospital, visits to care homes and testing care workers and residents in care homes • The British Geriatrics Society developed a guidance document for the COVID-19 pandemic in care homes for older people, which included distinct sections covering: ○ Infection control measures such as ensuring effective personal protection equipment use, appropriate training for staff, and the development of strategies to enable the safe quarantine of residents who become COVID-19 positive ○ Staff and resident testing, which included asymptomatic testing of staff and residents ○ Admission to care homes, which included not accepting admissions from the hospital or community until they know the COVID-19 status of the resident and quarantining all admissions to care homes for 14 days after admission ○ Family visiting, which included working with local authorities to establish safe	19 related death of a person who worked in adult social care ○ Care protocols for residents depending on their COVID-19 status and personal needs • Outbreaks in long-term care homes are monitored through the government's Capacity Tracker, which is a portal for publishing vacancies in care homes and additional information to support care home managers linked with the COVID-19 pandemic	○ On 14 May 2020, an additional £600 million was provided as part of an infection control fund to support adult care providers by reducing the rate of transmission in and between care homes and improve workforce resilience ○ On 16 January 2021, £120 million was provided to help local authorities manage workforce pressures caused by COVID-19 in the social care sector • The Department of Health and Social Care's overview of adult social care guidance on corona virus (COVID-19) includes guidance on managing care workers during COVID-19, securing PPE and necessary supplies • A population analysis of 189 long-term	COVID-19 recommended that care home managers review sick leave policies and occupational health support for staff and support unwell staff to stay at home ○ The document also recommended that care homes restrict the movement of staff between homes and health care settings, take steps to limit the use of public transport by staff members and to consider providing accommodation to staff who proactively choose to stay separately from their families to limit contacts outside of work • In November 2020, the United Kingdom government released new guidance to support safe care home visits during	NHS to support home care provision during COVID-19 • The Department of Health and Social Care is working with Skills for Care to provide funded training programs to build social care workforce (paid and volunteer) capacity through remote training during COVID-19 • Live-in care, where a care worker moves into an individual's home, has reported a surge in interest since the COVID-19 pandemic ○ The United Kingdom Home Care Association estimates that between 7,000 and 10,000 people are using live-in services at any one time, and most of the individuals self-fund this care ○ Some providers of live-in care are introductory agencies that arrange contracts

	visiting policies, and mandating testing of all visitors ○ Diagnosing COVID-19 in care homes, which included testing residents immediately if infection is suspected and isolating any suspected residents ○ Management and treatment of COVID-19 in care homes, which included ensuring infection control zones within the homes and ensuring that staff have the skills and equipment to manage patients with COVID-19 • In April 2020, a report by Amnesty International provided recommendations to prevent infection in long-term care homes which included ensuring full access for residents, staff and visitors to regular testing, adequate supply of personal protective equipment, developing adequate mechanisms to assess the capacity of care homes to deliver infection prevention and control, and limiting the movement of staff between care homes • The UK government released advice in December 2020 prioritizing residents of care		care homes in the United Kingdom published in the Lancet found that the size of care homes was strongly associated with COVID-19 outbreak and thus, recommended that homes be reconfigured or discrete, self-contained units be created within care homes comprising smaller numbers of staff and residents ○ High movement of staff, including agency workers, cooks and maintenance workers, was also thought to be a key factor in infection transmission prompting care home operators to establish infection control procedures for all staff • To improve long-term care facility quality, the NHS Enhances Health in Care Homes Framework	lockdown and recommended that measures be put in place to provide COVID-secure opportunities for families to meet using visiting arrangements such as floor to ceiling screens or visiting pods ○ It was also recommended that outdoor and window visits be considered, when feasible and that further support for virtual visits be provided to care homes • 11,000 iPad tablets were expected to be delivered to care homes across the United Kingdom in early 2021	between an individual and a self-employed care worker and thus, are not regulated by the Care Quality Commission • Care Rooms, where approved homeowners provide bed, board and companionship to people coming out of hospital are also gaining popularity ○ Care Rooms currently have more than 600 approved hosts and plan to increase to more than 2,000 through formal agreements with local councils ○ However, Care Rooms are suspended under current COVID-19 pandemic restrictions • Extra Care Communities, also known as retirement communities, where older adults have their own apartment

	homes and their carers in the first priority group
	• In September 2020, the United Kingdom government announced that $546 million would be dedicated to care homes to try and reduce COVID-19 transmission
	  ○ The money would be used to help pay workers full wages when self-isolating and to ensure staff only work in one care home
			emphasized the importance of homes having access to a named general practitioner who is linked to a wider community health team
			  ○ A more integrated team, with a paramedic and a nurse who is a go-to person for care homes has also been suggested to improve care home quality
					with communal homes and on-site care support are another potential alternative for some older individuals

United States	• The Centers for Disease Control and Prevention (CDC) state that all long-term care (long-term care) homes should assign a minimum of one individual with training in infection prevention and control (IPC) to provide on-site management of COVID-19 prevention and response activities
	  ○ IPC programs should include developing IPC policies and procedures, provide training to healthcare personnel, infection surveillance and auditing adherence to recommended practices
	• The CDC provides education using case-based scenarios
		• The CDCs recommendations, education and training provide guidance for managing outbreaks in the context of long-term care homes
		• The CDC's guidance on Post-Vaccine Considerations for Residents of long-term care homes includes recommendations that aim to balance the risk of unnecessary testing and IPC precautions for residents with only post-vaccination signs and symptoms with the risk of inadvertently allowing residents with COVID-
			• Medicare, Medicaid and private insurers must cover the COVID-19 vaccine at no charge to their beneficiaries
			• CMS released toolkits for states, insurers, and providers to increase the number of providers available to administer the vaccine and facilitate appropriate reimbursement
			• 30 April 2020 the Trump Administration issued temporary new rules and regulatory waivers during the
				• On 22, 26 and 28 January 2021, the CMS Office of Minority Health hosted listening sessions to discuss the impact of COVID-19 on populations who face health disparities
				  ○ The goals of these sessions were to 1) better understand the challenges and needs of long-term care homes and staff to serve these populations as COVID-19
					• In November 2020 CMS launched a toolkit to help develop state Medicaid infrastructure to better support transitions of its beneficiaries from long-term care homes to community-based services

	about how to apply IPC guidance for long-term care homes in response to COVID-19 and a Nursing Home Infection Preventionist Training Course that allows participants to earn continuing education credits or an overall certificate of completion ○ The training course targets the individual(s) responsible for IPC programs in long-term care homes. • The Centers for Medicare and Medicaid Services (CMS) developed Nursing Home Reopening Guidance for State and Local Officials. The guidance was initially released on 18 May 2020 and was subsequently updated on 29 September 2020 • On 19 November 2020, CMS launched a Nursing Home Resource Center to provide COVID-19 related information, data and guidance as well as resources such as payment policy information, training and facility inspection reports • On 13 December 2020, the CDC released Post-Vaccine Considerations for Residents of long-term care homes and on 23 December 2020 it launched a toolkit about	19 to expose others at the facility • CMS's Nursing Home Reopening Guidance for State and Local Officials and Toolkit on State Actions to Mitigate COVID-19 Prevalence in Nursing Homes provide guidance on managing outbreaks in long-term care homes, including for reporting, patient transportation and infection control protocols	emergency declaration to provide greater flexibility to respond to the COVID-19 pandemic ○ The new rules and regulatory waivers cover new rules for temporary transfers of residents at an long-term care facility who are COVID-19 positive without the need for a formal discharge ○ The long-term care facility is still formally considered the provider and is responsible for reimbursing the other provider that accepted its resident(s) during the emergency period	progresses, 2) learn about the emerging best practices to address these challenges for Medicare and Medicaid beneficiaries, 3) understand the needs of long-term care homes for support and resources related to COVID-19 outreach and 4) help plan outreach around COVID-19 vaccines.	

	COVID-19 vaccines for long-term care homes • CMS maintains a Toolkit on State Actions to Mitigate COVID-19 Prevalence in Nursing Homes (last updated in February 2021) • On 1 December 2020, recommendations from the CDC based on the Advisory Committee on Immunization Practices (ACIP) placed healthcare personnel and long-term care facility residents in the highest priority group				

Appendix 4: Preventing and managing COVID-19, outbreaks of COVID-19 and about supporting renewal in long-term care homes in Canadian provinces and territories

Province/ territory	Preventing infections	Managing outbreaks	Renewing delivery, financial and governance arrangement	Supporting residents and staff	Promoting alternatives to long-term care
Pan-Canadian	• In April 2020, Canada's Chief Science Advisor convened a task force to provide advice on infection prevention and improving outcomes for residents of long-term care homes • The task force assembled a report, which identified priority areas for immediate attention and options aimed to ensure adequate care capacity in long-term care homes. They included: (1) ensuring sufficient human and physical resources are available for residents' care; (2) ensuring staff with the right skills are deployed at the right place and the right time; (3) enhancing support for the long-term care homes from local health and hospital systems and; (4) enhancing infection prevention training and control for long-term care staff • On 04 December 2020, it was announced that the Government of Canada and partners invested $1.8 million towards strengthening pandemic preparedness in	• The Government of Canada's interim guidance on the care of residents in long-term care homes during the COVID-19 stated that outbreak management protocols should be in place with the following considerations: (i) long-term care homes should refer to jurisdictional authorities for definitions and directives on case reporting and outbreak management; (ii) a single confirmed case of COVID-19 in a resident or staff member is justification to apply outbreak measures to a unit or home; (iii) when an outbreak occurs, an emergency	• The long-term care task force's report identified five systemic issues of the present in long-term care homes in Canada, and provided options of actions to deal with these issues ○ The first identified issue was that in the last few decades, little societal priority and attention was put towards long-term care in Canada. Potential options to address this issue include creating a national agenda for older adult's care, including long-term care, with tracking mechanisms and launching a national campaign to fight ageism and promote discussions about healthy ageing ○ The second identified issue was that long-term care residents are highly vulnerable, relatively voiceless and without strong advocacy. Potential options to address this issue include	• The Royal Society of Canada's Covid-19 and the future of long-term care report stated that the following principles should be used to guide efforts to improve safety and quality of life for long-term care residents and staff: (i) Quality of care in nursing homes is fundamental and intimately linked to quality of life; (ii) Routine evaluation of performance must occur, including performance measures that are important to residents and families; (iii) Funding for nursing homes must be tied to evaluating and monitoring of indicators of quality of care, resident quality of life, staff	• In September 2020, the federal government's Speech from the Throne included a commitment to work with provinces and territories to establish national standards for long-term care, and to take strategic actions to help people stay in their homes longer

	long-term care and retirement homes ○ Research teams will partner with long-term care and retirement homes to study the effectiveness of practices, interventions and policy options to keep residents, their families and staff safe from COVID-19 • In April 2020, the Canadian Centre for Policy Alternatives released a report that stated that in the short term to prevent infections testing should be provided to all those living in, working in, or visiting long-term care homes, hands-on-training should be provided for all those entering the homes, protective equipment should be utilized, the skills of everyone paid to provide care should be assessed, what staff who are not trained are allowed to do should be limited and transfers from hospitals should be severely limited	operations team should be set up for the affected home and other support with testing, personal protective equipment acquisition, staffing and communications should be obtained and; (iv) once a case has been identified contacts should be isolated and tested, and confirmed positive residents should be moved to single rooms or placed separately from suspected and negative residents	creating a national long-term care strategy that emphasizes person-centered, humane and holistic care, developing an older adult's bill of rights and creating older adult protection services ○ The third identified issue was that a fragmented continuum of care and heterogeneous operational models make it hard to provide equal and consistent access to services for older adults based on their care needs as they age. Potential options to address this issue include creating a policy framework to guide the development of standards for the structures, processes and outcomes of care for older adults in care homes, promoting healthy aging at the national level to ensure Government's investments are having the intended impact, and defining a national approach to ensure alignment and consistency between private and public sectors	quality of work life and resident and family experiences; (iv) Relationships must be collaborative among stakeholders, homes and the input of people who live and work in the homes should be included; (v) Home environments and plans, protocols and resources for delivering care must meet the complex medical and social needs of residents • The Royal Society of Canada also reported that long-term care workers must have full time work with equitable pay and benefits including mental health supports ○ The "one workplace" policy that has been implemented in long-term care homes should be considered as a permanent policy • To further support residents, the Royal Society of Canada	

			○ The fourth identified issue was that long-term care sector resources are not at the levels necessary to enable the quality of health and social care required. Potential options to address this issue include developing and implementing new ways of funding long-term care homes such as long-term care public insurance schemes implemented in many European and Asian countries, implementing a coordinated or centralized model of health human resource management at regional levels and improving person-centered care by improving access to appropriate services and support ○ The fifth identified issue was that the built environment often challenges the ability to protect the well-being of older adults. Potential options to address this issue include developing and implementing restrictions on maximum number of residents per	also stated that long-term care homes must include measures so that technology and other means are employed to connect residents with family and friends, and so that at least one family member can safely visit	

			room and implementing standards for shared spaces • In April 2020 the Canadian Centre for Policy Alternatives issued a report which recommended that the privatization of long-term care homes be stopped and non-profit ownership be ensured, contracting out of food, housekeeping and laundry services be stopped, surge capacity into the physical structure of homes and labour force planning me developed, minimum staffing levels and regulations be enforced, and new homes be designed to protect residents and staff while also allowing the community to safely enter • In September 2020, the Government of Canada announced the Safe Restart Agreement which included $740 million dollars for long-term care, home care and palliative care to support one-time costs during the pandemic		
British Columbia	• On 27 March 2020, British Columbia's Public Health Officer enacted restrictions to long-term care workers	• British Columbia's Centre for Disease Control website maintains an up-to-	• On 22 October 2020, a third party prepared a response review for the British Columbia's Ministry	• On 22 October 2020, a third party prepared a response review for the British	• In April 2020, Health authorities stated that they are in the process of

	movement across multiple health care organizations under the province's Emergency Program Act and Public Health Act • On 30 June 2020, The British Columbia Ministry of Health released an interm guidance document on infection prevention and control measures for long-term care which required passive screening (signage), active screening for COVID-19 symptoms for all staff, screening of residents who exhibit symptoms, increased monitoring procedures for residents suspected of having COVID-19, physical distancing of residents and staff, and enhanced training of staff on proper use of protective and preventative measures • On 22 October 2020, a third party prepared a response review for the British Columbia's Ministry of Health and Long-term Care which stated that specific policy orders from the provincial health officer were interpreted differently by health authorities and that there were gaps in infection prevention and control and emergency preparedness	date list of outbreaks at long-term care homes in the province • British Columbia established a rapid respond paramedic team, which is a specialized team that supports the local paramedic teams, to respond to outbreaks or high-levels of COVID-19 positive patients • British Columbia's COVID-19 visitation policy outlines rules for visitors, and states that social/family visitors are only permitted if there is no current outbreak and if there is an outbreak the management at the home decides whether essential visitors are allowed	of Health and Long-term Care which recommended that as new long-term care homes are built practice considerations should include single beds, reduced shared spaces, updated ventilation systems and designs to support residents with complex cognitive and physical needs • The British Columbia government has paid out $120 million to long-term care home operators to hire more staff, and intends to hire 7,000 more people to increase care and manage COVID-19 infection risk	Columbia's Ministry of Health and Long-term Care which recommended that employment pathways for long-term care home staff should be redesigned in ways that attract, train and retain staff. Staff should be supported within the long-term care section to gain new skills and develop specialized expertise so that these positions can be a career role rather than a steppingstone, which may help to reduce high turnover rates • Beginning the week of 02 February 2021, teams from the Red Cross will be helping staff and residents at long-term care homes by delivering meals, light cleaning and arranging and facilitating virtual meetings with family members ○ The Red Cross is preparing to work with First Nations	repatriating publicly funded home support back into the public sector ○ Additional funding will also be directed towards supporting seniors living at home

	• In January 2021, a private care home in Abbotsford is the first in Canada to be involved in a pilot project involving COVID-19 contact tracing, which involves all residents and staff wearing a 'smart wearable device'. When an infection is reported, administrators can use a real-time dashboard to contact trace and subsequently isolate and test individuals			health authorities to help in similar ways, if required • The province announced a $4 top of raise for front-line workers, including long-term care workers, during the pandemic	
Alberta	• On 10 April 2020, the Chief Medical Officer released a guidance document for COVID-19 infection prevention which stated that all staff, students, service providers and volunteers should be actively screened prior to the start of their worksite shift and passively screened with self-checks twice daily during their shift • Long-term care staff are limited to working within one long-term care home • Alberta Health Services' Guidelines for COVID-19 outbreak prevention, control and management in care homes recommended placing symptomatic residents in single rooms and if not possible, cohorting residents with similar infection statuses	• Outbreaks in long-term care homes are publicly reported on the Alberta Health website, and updated twice per week • On 10 April 2020, the Chief Medical Officer released a guidance document for outbreaks in long-term care homes • The document stated that the Alberta Health Services COVID-19 Response Team must be contacted with the first symptomatic person in a long-term care home,	• On 03 February 2021, it was announced that Alberta's auditor general would review the province's COVID-19 response in long-term care homes, and the province would utilize this review to make changes to the procedures and delivery of long-term care • On 19 May 2020, the Government of Alberta announced $14 million per month, or $170 million for the year to help long-term care operators and residents impacted by the COVID-19 pandemic ○ The funds will cover increased staffing needs, costs for cleaning supplies and loss of accommodation	• From August to October 2020, Health Quality Council of Alberta conducted surveys and interviews to gather information from residents and family members about their experiences living in long-term care during the COVID-19 pandemic ○ The information gathered will be used to understand what has worked well and what could be improved in continuing care during Alberta's pandemic	• Community Care Cottages, also known as personal care homes, house between 10-12 residents and seniors are able to live together with around-the-clock care • These homes are private, and at present are not subsidized by the province • Expanded home care services, such as Home Instead Senior Care, would make home care a more accessible option for seniors • These home care services do not function as much

	○ The guidelines also recommended implementing contact and droplet precautions, using signage outside of resident's rooms to indicate infection status and wearing personal protective equipment at all times • To prevent infections, each long-term care home resident may identify up to 2 designated support persons who are essential to maintaining resident mental and physical health who can visit ○ Non-designated persons may be allowed to visit depending on resident health circumstances and the risk tolerance assessment of the home	and once the Response Team has been informed and a COVID-19 outbreak has been declared, the Alberta Health Services Zone Medical Officers will lead the outbreak response • If an outbreak is confirmed, additional resources to manage the outbreak and provide safe care, services and a safe workplace for staff must be deployed • Staff should be cohorted to exclusively provide care/service for residents who or not in quarantine or isolation or exclusively provide care/service for residents who are in quarantine or isolation • Alberta Health Services' Guidelines for COVID-19 outbreak	revenues due to vacant beds and rent freezes	response and beyond • In April 2020, the province announced that it would be temporarily suspending parking fees for health care workers and the general public at all Alberta Health Services homes, which included long-term care homes	on a task-driven model, and provide seniors with the varying support they need each day

		prevention, control and management in care homes stated that transfers to care homes must be stopped if an outbreak is confirmed			

Saskatchewan	• Residents and staff of personal care homes (PCH) in Saskatchewan are part of the Phase 1 priority groups for COVID-19 vaccination in the province
	• The province has a target of vaccinating all individuals in Phase 1 groups by the end of March 2021
	• In a press conference on 16 February 2021, the Premier of Saskatchewan said that 1 in 5 residents and staff in long-term care homes have been fully vaccinated against COVID-19
	• A Public Health Order was issued by the Chief Medical Officer of Saskatchewan on 17 April 2020 to restrict the movement of long-term care homes and PCH staff to only one facility
	• In April 2020, a temporary Letter of Understanding between employers and all healthcare unions in Saskatchewan was signed to support the creation of a
		• The government of Saskatchewan maintains a data table on outbreaks in long-term care homes (long-term care homes) and personal care homes around the province on their website
		• According to the SHA, when a COVID-19 outbreak is declared in a long-term care homes, cases are immediately investigated, contact tracing takes place, all residents and staff are tested onsite for COVID-19, and control measures are put in place, including isolation of residents, limiting
			• On 16 June 2020, the Saskatchewan government announced that it would invest more than $80 million in long-term care homes across the province, which includes:
			  ○ $73 million for two new long-term care homes
			  ○ $7.2 million for 82 priority renewal projects in 51 long-term care homes
			• These new investments are in addition to the $15.7 million included in the 2020-21 budget for the construction of a 72-bed long-term care homes in Meadow Lake, SK
			• Approximately $24 million was made available through the 2020-21 Life/Safety and Emergency Infrastructure grant to support maintenance in long-term care homes
				• To provide support and socialization for residents during an outbreak, long-term care homes have played music and also used technology such as Facetime to help residents connect with their loved ones
				• 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
				• Since its launch, this program has been expanded and continues to be active
					• The government of Saskatchewan provides a list of services available through the government for people who can no longer live independently on their website, including home care services provided through the SHA
					• Home care program participants or their guardian can receive individualized funding based on assessed need to give them more choice and flexibility in home care

	Labour Pool and cohorting of healthcare staff
	• Effective 19 November 2020, visitor/family presence has been limited to only compassionate reasons in all long-term care homes and PCHs in Saskatchewan under the following rules:
	  ○ Only one visitor/family member is allowed in the facility at a time
	  ○ For end-of-life/palliative care residents, two visitors can be present at one time if physical distancing can be maintained throughout the visit
	  ○ During an outbreak in a long-term care homes or PCH, only end-of-life visitations are permitted
	• Visitors must be screened before entry into a long-term care homes but are not required to have a negative COVID-19 test
	• On 16 February 2021, the Saskatchewan Health Authority (SHA) said in a statement that rapid tests will be rolled out to all long-term care sites during the month of February as part of an ongoing surveillance program for residents and staff
		visitations, and cancelling all group activities
		• If a healthcare worker is working at a long-term care homes with a COVID-19 outbreak and experiences a breach in PPE usage, they are required to self-isolate for 14 days after exposure
		• According to local news, the Saskatchewan government issued a tender on 16 February 2021 to recruit an emergency response staffing team to support personal care homes experiencing COVID-19 outbreaks at short notice			

Manitoba	• Both healthcare workers who work in long-term care homes	• To increase the workforce in	• The Manitoba government provided about $7.7 million	• Nurses in Manitoba were provided with	• In November 2019, the Manitoba

	(long-term care homes) and residents of licensed personal care homes (PCH) and high-risk congregate living homes are included in the Stage 1 priority groups for COVID-19 vaccination in Manitoba ○ Vaccination of stage 1 priority groups began in January 2021 • As of 1 May 2020, personal care homes were moved to a single site staffing model to restrict nurses and support staff to working at one PCH for a period of six months • Resident visitations are allowed in Manitoba PCHs if a designated visitation area is in place and strict guidelines are followed: ○ one general visitor is allowed at a time ○ visits must be arranged by appointment only ○ visitors must be screened upon entry ○ both visitor and resident that are visiting must wear facility-provided procedure masks for the duration of the visit ○ physical distancing and IPAC protocols are followed • PCH sites are working with residents to identify up to two designated family caregiver(s)	personal care homes, a new healthcare support training program was launched by Red River College in November 2020 ○ Graduates have since been deployed to personal care homes • The Red Cross has also provided staffing support to long-term care homes in Manitoba with outbreaks during the pandemic • The Manitoba government signed an agreement with the Manitoba Nurses Union in December 2020 that allowed nurses to be redeployed in personal care homes with increased pay • Based on a January 2021 agreement between the Manitoba Nurses Union and Shared Health, all health system operators in	in funding to health authorities to support management and prevention of outbreaks in personal care homes for the first two quarter of 2020-21, with more funding being provided in the remaining quarters • In 2020, Manitoba Health conducted modified reviews of all 125 licensed personal care homes in the province to ensure that they met minimum standards of care and safety	additional pay during redeployment to personal care homes in accordance with the agreement between the Nurses Union and the Manitoba government	government pledged to invest $250 million in a Made-in-Manitoba clinical and preventive services plan that will fund initiatives to improve access to healthcare services and reduce wait lists for Manitoba patients over five years by: ○ moving 21,000 days of care from acute homes into local communities ○ providing a secure patient service portal that will give access to lab results ○ preventing the need for 2,500 patient transports to Winnipeg ○ providing 50,000 additional in-person home care visits ○ giving 800 Manitobans access to remote

	○ Family caregivers are supported with appropriate IPAC and PPE training • To protect vulnerable residents and staff in PCHs, the government of Manitoba's Protocols for personal care homes recommends several measures: ○ ensuring residents with symptoms stay in their rooms, with delivered meals and access to a bathroom ○ putting droplet/contact precautions in place ○ enhancing environmental cleaning and disinfection ○ conducting contact tracing immediately of staff and residents with potential exposure ○ cancelling group activities and social gatherings ○ increasing active screening of COVID-19 symptoms in residents and staff ○ implementing resident and staff cohorting if required ○ restricting visitations if necessary • Each PCH has developed a plan to address COVID-19 that involves working with public health officials and IPAC specialists to prevent spread of the virus • A rapid test pilot program for asymptomatic testing of staff at	Manitoba, including personal care homes, are required to ensure that staff working with COVID-positive and suspect patients are able to access an N95 respirator • Shared Health Manitoba restricts the admission of new residents into PCHs with confirmed or suspected COVID-19 outbreak unless the resident has already been confirmed COVID-positive ○ all new admissions require 14-day isolation upon arrival ○ there are no restrictions on admitting COVID-19 recovered patients to PCHs if beds are available • The Winnipeg Regional Health Authority, which is			monitoring of chronic conditions ○ extending Manitoba's acute care electronic record system to 800,000 patients

	personal care homes in Manitoba began on 21 December 2020 for four weeks and has since expanded • Manitoba has put an automated contact tracing follow-up system in place for healthcare workers who have been tested for COVID-19 and require self-isolation	responsible for managing the health response of Manitoba's largest heath region, is working to establish a dedicated staffing pool for personal care homes as an ongoing measure to support their outbreak management support			
Ontario	• Long-term care home (and high-risk retirement home) residents, staff and essential caregivers were identified as highest priority groups for COVID-19 vaccination in phase 1 of the province's vaccination plan • Ontario had set a goal to vaccinate all long-term care residents with their first dose by 10 February 2021, however, it has yet to report if this goal has been achieved • According to a directive of the Minister of Long Term Care issued 16 February 2021, every licensed long-term care home must ensure from 16 to 27 February 2021 that caregivers, staff, student placements, and volunteers working in or visiting a long-term care home	• The Minister of Long Term Care issued a directive implemented on 9 December 2020 that required all long-term care homes to trigger an outbreak assessment when at least one resident or staff has presented with COVID-19 symptoms by: ○ isolating and testing the resident or staff ○ notifying the local public health unit	• In response to a recommendation of the Public Inquiry into the Safety and Security of Residents in the Long-Term Care System report released in spring 2020, a long-term care staffing study was conducted by the Ontario government to help inform a comprehensive staffing strategy for long-term care. Findings of the survey revealed: ○ inadequate staffing levels and working conditions that contributed to staff burnout and shortages ○ workplace culture based heavily on compliance, which can create a	• The Government of Canada and the Ontario government reached a five-year agreement with 3M to provide 50 million N95 respirators annually, beginning in early 2021 • Temporary pandemic pay was provided by the Ontario government for frontline healthcare staff who worked in congregate care settings between 24 April and 13 August 2020 at the rate of $4 per hour on top of their existing hourly wages	• On 30 October 2020, the Minister of Long-Term Care announced that the Ontario government is investing up to $5 million to launch the Community Paramedicine for Long-Term Care program to help support seniors on long-term care waitlists with enhanced at-home care, including access to 24/7 in-home and remote health services and ongoing monitoring of changing or

	take a COVID-19 antigen or PCR test at specific frequencies: ○ an antigen test three times within a 7-day period, on non-consecutive days; ○ a PCR test every 14 days in green and yellow zones or every 7 days in orange, red, grey, and shutdown zones; or ○ one PCR and one antigen test within a 7-day period • These testing frequencies may be adjusted or extended after 27 February 2021 • The directive also indicates that general visitors are not allowed in long-term care homes in orange, red, grey, and shutdown zones in the province • Visitors are allowed in long-term care homes in green and yellow zones once they have received a negative antigen test on the day of their visit • All individuals admitted or transferred to a long-term care home in Ontario must be isolated in a single room for 14 days ○ When this is not possible, individuals may be placed in a room with no more than one other resident who should then also be isolated	○ testing close contacts of the resident or staff ○ adhering to the long-term care home's cohorting plan ○ enforcing enhanced screening measures • When an outbreak is declared in a long-term care home in Ontario by local public health, the Outbreak Management Team (OMT) is activated and all non-essential activities are discontinued ○ If residents are taken out of the home by family, they will not be readmitted until the outbreak is over • The province's Long-term Care Incident Management System (IMS) structure was initiated in April 2020 and	punitive environment for staff ○ an overly complex funding model for long-term care that requires high levels of documentation and takes away potential staff time from residents • On 19 May 2020, the Ontario Government launched an independent commission into Ontario's long-term care system to better understand the province's response to COVID-19 in long-term care homes ○ Two interim reports have been produced by the commission in October 2020 and December 2020 ○ The commission is expected to produce a final report in April 2021 • During the first wave of the COVID-19 pandemic, 15 residents in a Toronto nursing home that required end-of-life care were decanted to an acute care hospital due to the severity of critical staff shortages within the home • The Ontario government has committed to increasing the hours of	○ Frontline staff who worked at least 100 hours in a designated 4-week period were also eligible to receive an additional lump sum payment of $250 for that period ○ Employers were responsible for facilitating payment but some support workers were reportedly not paid until January 2021 • Ontario launched a Health Workforce Matching Portal in April 2020 to facilitate staff matching for long-term care homes	escalating conditions through local paramedic services ○ The program will first be implemented in phases in five communities in Ontario and be operationalised in partnership with local municipalities • Seniors are provided with a list of health care programs and services in their communities to support their care on Ontario's website

	• All long-term care homes in Ontario are required to have a plan for staff and resident cohorting in the event of a COIVD-19 outbreak	reconvened in September 2020 to monitor data and support efforts to make rapid decisions for long-term care homes in need during the first and second waves of COVID-19 outbreaks	direct care for each long-term care homes resident to an average of 4 hours per day by 2025 ○ The province has taken the first steps to achieve this goal by recruiting 3,700 frontline workers in fall 2020 • In its second interim recommendations released 2 December 2020, Ontario's independent Long-term Care Commission recommended the re-introduction of annual Resident Quality Inspections (RQI) for all long-term care homes in Ontario, as well as a requirement that all inspections carried out in response to a COVID-19 outbreak include an IPAC program review ○ Increased funding for hiring and training inspectors and enhanced enforcement measures were also included as measures to improve quality inspections • In September 2020, the government of Ontario released over half a billion dollars to support the protection of vulnerable seniors in long-term care		

			homes, which included funding for ○ addressing deficiencies in infection, prevention and control, staffing support, and additional supplies and PPE ○ conducting minor repairs and renovations in long-term care homes ○ hiring and training staff ○ extending the High Wave Transition Fund ○ delivering the largest flu vaccination campaign in Ontario's history ○ providing all long-term care homes with up to 8 weeks of PPE supplies		
Quebec	• The Institut national de santé publique du Québec has published (and continues to update) guidance and recommendations for COVID-19 infection prevention and control in long-term care homes based on emerging scientific evidence and expert opinion ○ The guidance focuses on measures to be practiced at all times, measures to be practiced in the presence of a suspected or confirmed case of COVID-19, management of exposed persons, and measure to apply when there are	• The Institut national de santé publique du Québec has published (and continues to update) guidance and recommendations for COVID-19 infection prevention and control in long-term care homes based on emerging scientific evidence and expert opinion ○ The guidance focuses on	• A coroner's inquest into COVID-19 deaths at seven long-term care homes in Quebec has been organized and should publish findings by fall 2021 • Co-management in long-term care homes has been implemented to ensure stable operations and enable agile decision-making that can have an impact on the quality of services and well-being of residents ○ Co-managers in long-term care homes are meant to bring medical and/or administrative	• The Quebec Immunization Committee recommended against giving a high vaccination priority to close aids/caregivers of long-term care residents but recommended including them in the priority group of essential workers ○ The rationale is that high vaccination coverage among long-term care	

	multiple confirmed or suspected cases in the same living unit • An 8 February 2021 directive from the Ministry of Health and Social Services 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) ○ Policies and procedures for caregivers and visitors entering long-term care homes are defined ○ Policies and procedures for external professionals, volunteers, cleaners, and all other visitors the long-term care homes are defined ○ Guidelines for what residents are permitted to do inside and outside of long-term care homes are defined ○ Long-term care staffing guidelines are defined • Mask wearing protocols have been established for healthcare workers and patients in healthcare settings ○ Workers are expected to wear an ASTM level 2 mask at all times ○ Patients (including long-term care residents) are	measures to be practiced at all times, measures to be practiced in the presence of a suspected or confirmed case of COVID-19, management of exposed persons, and measure to apply when there are multiple confirmed or suspected cases in the same living unit • Interdisciplinary medical intervention teams have been established to support the existing medical staff of homes ensure the continuity of health services in long-term care homes when there are outbreaks ○ These teams are constantly on-call and able to be deployed rapidly (within 24 to 48 hours	expertise to enable effective and quick adaptations ○ Co-management arrangements exist at the level of individual long-term care homes as well as at for defined health and social service territories (to communicate directives, manage the distribution of medical resources, and respond to emerging needs across a region) • The Ministry of Health and Social Services has published a guide for medical care of residents of long-term care homes during the COVID-19 pandemic ○ This guide focuses on vaccination, management of medical services, clinical activities, testing indicators, managing patients with suspected or confirmed COVID-19 infection, managing cardiac arrest, statements of death, and psychological support	residents and staff would significantly lower the risk of outbreaks in these settings and lower the marginal benefit of vaccination caregivers early • The health ministry has established a return-to-work protocol for healthcare workers who may have been infected by or exposed to COVID-19 in situations where health service delivery may be compromised • Staff at long-term care homes must only work in a single facility and a single unit ○ Agency contracted workers are only to be used as a last resort and only if they have been trained in infection prevention and control ○ Workers must change clothes before and after every shift	

	expected to wear an ASTM level 1 mask whenever they are within two metres of another person • The health ministry published guidance regarding reorganizing medical services in long-term care homes given the alert level of the facility (levels one to four and outbreak alert) ○ This guide emphasizes an individualized risk management approach, assessing patients' needs, prioritizing activities based on the vulnerability of patients, and remaining vigilant of patients whose service provision may have been limited ○ This document provide guidance for how to ensure continuity of medical service provision at various alert levels and example of clinical activities to maintain or withdraw at various alert levels • A directive was published to establish additional infection prevention measures in long-term care setting during the 9 January 2021 to 8 February 2021 lockdown in Quebec ○ The directive reiterates the importance of basic public health and hygiene measures	notice of an outbreak) ○ These teams help ensure the medical needs of long-term care homes are met and prevent transfers to hospital • The Ministry of Health and Social Services has published an algorithm to guide the continuity of medical services in the case of COVID-19 outbreak in a long-term care facility		• The Ministry of Health and Social Services published a directive regarding measures to be taken to stabilize human resources in establishments such as long-term care homes ○ Three sets of measures are defined: on-going/preventive measures, measures in response to a health emergency, and measures in response to a 'warm zone' or 'hot zone' (i.e., when staff have tested positive for COVID-19 or staff absences risk impacting service delivery)	

	○ One caregiver at a time (and a maximum of two per resident) was allowed to access homes if they were known to the staff, practiced public health measures while in the facility and outside the facility, and only spent time in the resident's living quarters ○ Residents were not allowed to leave the facility, except for excursions confined to the grounds of the facility ○ The Ministry of Health and Social Services has published a directive regarding the operation of long-term care homes during the COVID-19 pandemic that covers a range of topics including admission of new residents, infection prevention and control, staffing, care and service delivery in homes, personal protective equipment, and temporary residents				
New Brunswick	• The Office of the Chief Medical Officer of Health of New Brunswick adapted the Public Health Agency of Canada's "Infection prevention and control for COVID-19 interim guidance for long-term care homes" to produce a guidance document for	• The Office of the Chief Medical Officer of Health of New Brunswick adapted the Public Health Agency of Canada's "Infection prevention and	• Facilities are encouraged to consider virtual options for residents' (non-emergency) medical appointments	• Workers in nursing homes and adult residential homes are able to request a COVID-19 test every two weeks via an online booking portal • The province provided iPads to	• The New Brunswick Extra-Mural Program provides services and supports to senior patients and their families to enable them to live independently at

	preventing and managing COVID-19 in long-term care homes ○ This document outlines case reporting procedures, infection prevention and control, admissions and movement of residents, outbreak management, and environmental considerations for homes • Outbreaks at adult residential homes are declared whenever one resident or staff member tests positive for COVID-19 • The Office of the Chief Medical Officer of Health of New Brunswick produced a guidance document for adult residential homes ○ This document outlines case reporting procedures, infection prevention measures, testing and screening, outbreak control and ill resident management, public health and hygiene measures, staffing, resident admissions and management in homes, and homes' environmental considerations • The province produced a visitation guidance framework for adult residential homes and nursing homes which enables facility managers to create operational plans based on the	control for COVID-19 interim guidance for long-term care homes" to produce a guidance document for preventing and managing COVID-19 in long-term care homes • The province produced a summary document of measures and restrictions for homes in outbreak ○ The document outlines admissions and facility access considerations, screening and infection prevention requirements, resident assessments and mobility considerations, reporting requirements, services and visitation for residents, environmental considerations for homes,		nursing homes, to enable residents to virtually connect with family and to facilitate virtual healthcare ○ One iPad was provided for every ten residents in nursing homes • Staff working in a red alert facility or a facility in outbreak are restricted to working in one facility, while those in orange or yellow alter homes are recommended to only work in one facility	home and manage there health conditions ○ The Extra-Mural Program provides acute, palliative, maintenance and supportive care and coordination of support services to all eligible New Brunswick residents and enables them access to an interdisciplinary care team • During the COVID-19 pandemic, Extra-Mural healthcare professionals are only entering patients' homes for essential reasons and employing enhanced precautions

	provincial alert level of their facility ○ Guidance is provided regarding outdoor visitation, indoor visitation, palliative visitation, designated support people, non-essential service providers and volunteers, general visitors, and offsite outings	charting requirements, and care of deceased bodies			
Nova Scotia	• Nova Scotia Health published "Infection prevention and control guidelines for long-term care settings" in September 2020 which outlines several screening and triage, visitor, infection prevention and control, and outbreak management protocols • The Chief Medical Officer of Health has released a COVID-19 management in long-term care homes directive which focuses on preventing the introduction of COVID-19 into long-term care homes, identifying cases of COVID-19, and control measures for laboratory-confirmed COVID-19 • Nova Scotia Health released infection prevention and control requirement for COVID-19 units in long-term care homes which makes recommendations regarding engineering and administrative controls, additional	• Nova Scotia Health published "Infection prevention and control guidelines for long-term care settings" in September 2020 which outlines several screening and triage, visitor, infection prevention and control, and outbreak management protocols ○ A plan of care for residents with suspected or confirmed COVID-19 is defined as well • Nova Scotia Health has produced a clinical pathway for managing long-term care residents	• The Nova Scotia Health Authority released guidance for handling cardiac arrest in residents with clinical suspicion or confirmed COVID-19 in long-term care settings • Nova Scotia Health released guidance for the transport of long-term care residents with suspected or confirmed COVID-19 within homes and with emergency medical services • Nova Scotia Health released guidance for medication management of long-term care residents during the COVID-19 pandemic which addresses the storage and dispensing as well as the scheduling of medications • Nova Scotia Health implemented temporary measures to provide external medical support for long-term care medical	• The Nova Scotia Health Authority has published a COVID-19 toolkit for families, support people, and caregivers who may be visiting patients receiving inpatient or outpatient care • Resident of long-term care homes and their designated caregivers as well as staff in long-term care homes are part of phase one of the province's COVID-19 immunization plan • The province released a note about ethics messaging in long-term care during the COVID-19 pandemic which emphasized the importance of	

	precautions, and required supplies • Nova Scotia Health released infection prevention and control guidance for the living environments of long-term care residents which addresses personal protective equipment, disinfection, linen management, and waste receptacles • Nova Scotia Health has produced guidance for handling deliveries of gifts or belongings to long-term care residents during the COVID-19 pandemic • Nova Scotia Health has released infection prevention guidance for aerosol generating medical procedures in long-term care homes • A memo from the Nova Scotia Department of Health and Wellness on 11 April 2021 established a mask mandate for healthcare worker in long-term care homes	with COVID-19 which includes a care algorithm as well as information on how to engage with public health authorities	directors, physicians, and nurse practitioners to help mange patient care during the COVID-19 pandemic ○ Support services include prognostication of goals of care, acute medical management advice, and coordination of care ○ The medical support is provided by a team with expertise in general internal medicine, geriatric medicine, and palliative care • The Nova Scotia Health Authority released recommendations for the use of CPAP and BiPAP therapy in long-term care homes during the COVID-19 pandemic	stewarding healthcare resources, being responsive to individuals' goals of care, the physiology of patients, and being responsive to the emerging evidence about the pathology of COVID-19 ○ This note also mentions that the Nova Scotia Health Ethics Network can provide support to long-term care homes during the pandemic • The Nova Scotia Health Ethics Network released guiding principles for decision-making for long-term care homes during the COVID-19 pandemic which outline general principles as well as a checklist to support robust decision-making • Nova Scotia Health required all long-term care homes to identify, and report back to them,	

				minimum staffing requirements to meet patient care needs on 9 October 2020 ○ This measure was taken to assist in preparing for a potential second wave	
Prince Edward Island	• As of 16 February 2021, visitation guidelines for long-term care homes include: ○ up to three designated "Partners in Care"; ○ up to six additional designated visitors, of which, only two may visit at one time; ○ a total of three visitors for residents in end-of-life care at once; ○ one-hour visit times; and ○ adherence to all public health measures while on-site (e.g., wearing a mask, physical distancing, appropriate hand hygiene) • On 11 June 2020, the Department of Health and Wellness published their guidelines for infection prevention and control in long-term care homes ○ This document details routine practices, preparedness, and control measures	• As of 17 November 2020, if long-term care staff travel outside of the province, they are no longer eligible for work-isolation and must isolate for 14 days prior to returning to work • If a long-term care home reports a COVID-19 outbreak, the facility must: ○ post a sign at the facility entrance ○ record and forward their "line list" to the Chief Public Health Officer ○ suspend the transfer and admissions of residents	• As part of their share of the Safe Restart Agreement, Prince Edward Island will invest a portion of its funding into supporting the provision of care in private and public long-term care homes within the province	• The Government of Prince Edward Island purchased a "Zoom for Healthcare" license for long-term care homes such that health care providers can meet with residents during the pandemic • Health PEI has partnered with Rendever to provide long-term care home residents with virtual reality (VR) technology to combat social isolation during the COVID-19 pandemic	

	• As of 25 June 2020, long-term care home staff are no longer permitted to work in multiple homes • Staff and residents within long-term care homes have been named as one of the priority population groups in Phase 1 of the vaccine rollout plan ○ As of 22 January 2021, Prince Edward Island has administered the vaccine to all publicly funded long-term care home residents and staff				
Newfoundland and Labrador	• On 11 February 2021, the Government of Newfoundland and Labrador released their most updated guidance document on infection prevention and control in long-term care homes • As of 12 February 2020, visiting restrictions for long-term care homes has been limited to one essential visitor • In accordance with the National Advisory Committee on Immunization, the province of Newfoundland and Labrador has categorized staff and residents of congregate living settings (e.g., long-term care) as a priority population group in Phase 1 of their vaccine rollout plan	• Residents that exit the care facility premises must be screened prior to re-entry and monitored for 14 days post re-admission	• No relevant information was found pertaining to renewing delivery, financial and governance arrangements in Newfoundland and Labrador	• During the COVID-19 pandemic, the province introduced the Newfoundland and Labrador Essential Worker Support Program, which allows essential workers (e.g., long-term care staff) to receive additional compensation for working during the Alert Level 4 and Alert Level 5 stages ○ Wage top-up will vary based on the total number hours worked during a 16-week period	• The Newfoundland and Labrador Centre for Health Information has accelerated the use of their telehealth care services during the pandemic to connect residents with their health care providers through virtual platforms (e.g., call or videoconference)

	• Utilizing the funding from the Safe Restart Agreement, the government of Newfoundland and Labrador is investing in the recruitment of infection control practitioners for long-term care homes				

Yukon	• Visitation to long-term care homes during the COVID-19 pandemic follow a phased approach:
	  ○ A designated essential visitor is permitted entry into and outside of the care home only if the resident is in palliative care or the visitor's presence is required to assist with the resident's needs
	  ○ Up to four general visitors may be designated by the resident or substitute decision maker (this includes the two essential visitors)
	  ○ In the event of an outbreak, all visitation permittance will be suspended
	• Long-term care home residents and staff form one of the priority population groups in Yukon's COVID-19 Vaccine Strategy
	  ○ Vaccine delivery to this group began on 4 January 2021
	  ○ As of 20 January 2021, Yukon has successfully
		• In June 2020, the Yukon Communicable Disease Control published their COVID-19 Outbreak Guidance for Long-Term Care Homes in order to support homes and provide them with the best practices and recommendations in the case of an outbreak	• As part of the Safe Restart Agreement, Yukon will dedicate a portion of its funding from the federal government to improve care delivery in long-term care homes by addressing staffing issues, employing on-site clinicians, and increasing support services	• Long-term care homes in Yukon are supporting the use of virtual and telephone visiting alternatives to combat social isolation during the COVID-19 pandemic	• No publicly available or relevant information was found pertaining to promoting alternatives to long-term care in Yukon

	administered the first of two doses of the COVID-19 vaccine to all long-term care residents and staff that have consented				
Northwest Territories	• Visitation guidelines to long-term care homes are regularly monitored by the Health and Social Services Authority; current restrictions include: ○ two designated essential visitors per resident (must be aged 18 years and older); ○ one visitor per visit; and ○ visitors must adhere to appropriate public health measures (e.g., wearing a medical mask, physical distancing, and practicing hand hygiene), and screening and temperature checks • The Government of Northwest Territories has implemented the federal government's interim guidance as the minimum standard for infection prevention and control in long-term care homes ○ This includes physical distancing, screening, mandatory masking, disinfecting frequently used areas, and temperature checks • The initial prioritization of the Moderna COVID-19 vaccines	• The Government of Northwest Territories published an interim guidance document to assist long-term care homes with managing a COVID-19 outbreak ○ This covers outbreak control measures, including resident movement, cohorting, managing visitors, and waste management	• No publicly available or relevant information was found pertaining to renewing delivery, financial and governance arrangements in the Northwest Territories	• The territorial government has supporting the implementation of technology-enabled care and living in long-term care through the purchasing of iPads; these will be used to communicate with: ○ health care providers; and ○ family members • According the stage one response as part of the Pandemic Response Plan for Health Services, each long-term care home will increase staffing with the addition of two licensed practical nurses and two personal support workers	• No publicly available or relevant information was found pertaining to promoting alternatives to long-term care in the Northwest Territories

	includes residents and staff of long-term care homes ○ As of 3 February 2021, the Northwest Territories has successfully administered the first dose of the Moderna vaccine to their entire long-term care home population				
Nunavut	• As part of the Nunavut's approach to "Moving Forward during COVID-19", the Chief Public Health Officer evaluates and implements necessary public health measures to assist with infection prevention and control in the long-term care sector ○ On 6 April 2020, all visitation to long-term care homes in the province was suspended ○ This guideline was amended on 29 June 2020, which permitted the entry of one to two immediate family members per resident ○ With a surge in COVID-19 cases in the province in November 2020, all visitation to long-term care homes was tentatively restricted for a two-week period ○ As of 27 January 2021, all visitation to long-term care homes have been suspended in Arviat	• No publicly available outbreak management guidelines were identified for long-term care homes in Nunavut	• As part of the Safe Restart Agreement, the territory of Nunavut will utilize its funding to combat COVID-19, of which, a portion will be dedicated to improving care services and staffing issues in long-term care homes	• The Government of Nunavut introduced the Nunavut Essential Workers Wage Premium, a program which enabled long-term care homes, among other organizations, to support their staff with additional compensation during the COVID-19 pandemic ○ Premiums varied based on the hourly wage of the employee ○ This program ended on 30 September 2020	• During the COVID-19 pandemic, Nunavut continues to support the use of technology-enabled care at home through telehealth services for community visits ○ Long-term care homes have adopted telehealth for non-clinical sessions

	○ As of 5 February 2021, visitation restrictions in long-term care homes in Baffin, Kitikmeot, Chesterfield Inlet, Baker Lake, Coral Harbour, Naujaat, Rankin Inlet, and Whale Cove consist of a maximum of two visitors (must be part of resident's immediate family) • Vaccine administration to long-term care home residents and caregivers will be prioritized under Nunavut's COVID-19 vaccine rollout plan				

Appendix 5: Highly relevant primary studies that provide additional insights

Relevance to question	Hyperlinked title	Recency or status
• Preventing infections • Managing outbreaks • Renewing delivery, financial and governance arrangements	Nursing home oversight during the COVID-19 pandemic	Published 12 February 2021
• Preventing infections	Successful multimodal measures preventing coronavirus disease 2019 (COVID-19) outbreaks without universal frequent testing within long-term care units in the Midwestern Veterans' Health Care Network	Published 11 January 2021
• Preventing infections	Evaluation of a multi-sectoral intervention to mitigate the risk of SARS-CoV-2 transmission in long-term care facilities	Published 5 January 2021
• Preventing infections	Association between nursing home crowding and COVID-19 infection and mortality in Ontario, Canada	Published 9 November 2020
• Preventing infections	Building long-term care staff capacity during COVID-19 through just-in-time learning: Evaluation of a modified ECHO model	Published 2 November 2020
• Preventing infections	Implementation of an algorithm of cohort classification to prevent the spread of COVID-19 in nursing homes	Published 22 October 2020
• Preventing infections	Temperature screening for SARS-CoV-2 in nursing homes: Evidence from two national cohorts	Published 20 October 2020
• Preventing infections	A cross-sectional survey assessing the preparedness of the long-term care sector to respond to the COVID-19 pandemic in Ontario, Canada	Published 20 October 2020
• Preventing infections	Learning by experience and supporting the care home sector during the COVID-19 pandemic: Key lessons learnt, so far, by frontline care home and NHS staff	Published 9 October 2020
• Preventing infections • Managing outbreaks • Renewing governance, financial and delivery arrangements	COVID-19 in long-term care homes in Ontario and British Columbia	Published 30 September 2020
• Preventing infections • Managing outbreaks	Stemming the tide of COVID-19 infections in Massachusetts nursing homes	Published 21 September 2020
• Preventing infections	Family communication in long-term care during a pandemic: Lessons for enhancing emotional experiences	Published 12 September 2020

• Preventing infections • Managing outbreaks	Management of COVID-19 in a nursing home: The role of a mobile multidisciplinary medicine team	Published 11 September 2020
• Preventing infections	Combating heightened social isolation of nursing home elders: The telephone outreach in the COVID-19 outbreak program	Published September 2020
• Managing outbreaks • Renewing governance, delivery and financial arrangements	Staffing levels and COVID-19 cases and outbreaks in U.S. nursing homes	Published 8 August 2020
• Preventing infections	COVID-19 in long-term care facilities for the elderly: Laboratory screening and disease dissemination prevention strategies	Published 28 August 2020
• Preventing infections • Managing outbreak	Increased risk of SARS-CoV-2 infection in staff working across different care homes: Enhanced COVID-19 outbreak investigations in London care homes	Published 28 July 2020
• Preventing infections	Dying from COVID-19: Loneliness, end-of-life discussions and support for patients and their families in nursing homes and hospitals. A national register study	Published 25 July 2020
• Preventing infections	Lessons from mass testing for coronavirus disease 2019 in long-term care facilities for the elderly in San Fransisco	Published 20 July 2020
• Preventing infections	COVIDApp as an innovative strategy for the management and follow-up of COVID-19 cases in long-term care facilities in Catalonia: Implementation study	Published 17 July 2020
• Preventing infections	Initial and repeated point prevalence surveys to inform SARS-CoV-2 infection prevention in 26 skilled nursing facilities	Published 10 July 2020
• Preventing infections • Managing outbreaks	Long-term care, residential facilities, and COVID-19: An overview of federal and state policy responses	Published 4 July 2020
• Preventing infections	Hospital affiliated long term care facility COVID-19 containment strategy by using prevalence testing and infection control best practices	Published 2 July 2020
• Preventing infections	COVID-19 in seniors: Findings and lessons from mass screening in a nursing home	Published 26 June 2020
• Preventing infections • Managing outbreaks	COVID-19 epidemic: Regional organization centred on nursing homes	Published 17 June 2020
• Preventing infections	Allowing visitors back in the nursing home during the COVID-19 crisis: A Dutch national study into first experiences and impact on well-being	Published 15 June 2020
• Preventing infections	COVID-19 in the long-term care setting: The CMS perspective	Published 12 June 2020
• Preventing infections	Combating heightened social isolation of nursing home elders: The telephone outreach in the COVID-19 outbreak program	Published 5 June 2020

• Preventing infections • Supporting residents and staff	A structured tool for communication and care planning in the era of the COVID-19 pandemic	Published 4 June 2020
• Preventing infections	COVID-19 collaborative model for an academic hospital and long-term care facilities	Published 25 May 2020
• Preventing infections • Managing outbreak	Coronavirus disease 2019 in geriatrics and long-term care: The ABCDs of COVID-19	Published 16 April 2020
• Preventing infections	Practical steps to improve air flow in long-term care resident rooms to reduce COVID-19 infection risk	Published 10 April 2020
• Preventing infections	Detection of SARS-CoV-2 among residents and staff members of an independent and assisted living community for older adults — Seattle, Washington	Published 10 April 2020
• Managing outbreaks	Implementation and evaluation of an IPAC SWAT team mobilized to long-term care and retirement homes during the COVID-19 pandemic: A pragmatic health system innovation	Published 1 February 2020
• Managing outbreaks	Response to a massive SARS-CoV-2 infection in a nursing home transformed into a caring center	Published 28 January 2021
• Managing outbreaks	Partnering with local hospitals and public health to manage COVID-19 outbreaks in nursing homes	Published 14 October 2020
• Managing outbreaks	Responding to a COVID-19 outbreak at a long-term care facility	Published 17 September 2020
• Managing outbreaks	Real-time digital contact tracing: Development of a system to control COVID-19 outbreaks in nursing homes and long-term care facilities	Published 25 August 2020
• Managing outbreaks	Effectiveness of a on-site medicalization program for nursing homes with COVID outbreaks - 19	Published 1 August 2020
• Managing outbreaks	A hospital partnership with a nursing home experiencing a COVID-19 outbreak: Description of a multiphase emergency response in Toronto, Canada	Published 13 June 2020
• Managing outbreaks	Efficacy of a test-retest strategy in residents and health care personnel of a nursing home facing a COVID-19 outbreak	Published 11 June 2020
• Managing outbreaks	Can post-exposure prophylaxis for COVID-19 be considered as an outbreak response strategy in long-term care hospitals?	Published 17 April 2020
• Renewing governance, financial and delivery arrangements	COVID-19 and Long-Term Care Policy for Older People in Canada	Published 20 April 2020

Appendix 6: Evidence documents of medium and low relevancy to the questions but that may provide additional insights

Type of document	Relevance to question	Hyperlinked title	Recency or status
Guidelines developed using a robust process (e.g., GRADE)	• Preventing infections • Renewing delivery, financial and governance arrangements	Guidelines for the management of diabetes in care homes during the Covid-19 pandemic	Published 5 May 2020
Full systematic reviews	• Preventing infections	Effectiveness and core components of infection prevention and control programmes in long-term care facilities: A systematic review	Literature last searched 2019
	• Preventing infections	Infection prevention in long-term care: A systematic review of randomized and nonrandomized trials	Literature last searched 2011
	• Renewing delivery, financial and governance arrangements	Inpatient transfer to a care home for end-of-life care: What are the views and experiences of patients and their relatives? A systematic review and narrative synthesis of the UK literature	Literature last searched February 2017
	• Renewing delivery, financial and governance arrangements	The safety and effectiveness of on-site paramedic and allied health treatment interventions targeting the reduction of emergency department visits by long-term care patients	Literature last searched 26 February 2019
	• Renewing delivery, financial and governance arrangements • Supporting residents and staff	Electronic medication administration records in long-term care facilities: A scoping review	Literature last searched 2016
	• Renewing delivery, financial and governance arrangements	Financing institutional long-term care for the elderly in China: A policy evaluation of new models	Literature last searched 2016
	• Renewing delivery, financial and governance arrangements • Supporting residents and staff	Social-professional networks in long-term care settings with people with dementia: An approach to better care?	Literature last searched 2014
	• Renewing delivery, financial and governance arrangements	Practice change interventions in long-term care facilities: What works, and why?	Literature last searched 2014

	• Renewing delivery, financial and governance arrangements	Case managed community aged care: What is the evidence for effects on service use and costs?	Literature last searched 2013
	• Renewing delivery, financial and governance arrangements • Supporting staff and residents	A systematic review of integrated working between care homes and health care services	Literature last searched 2009
	• Supporting residents and staff	What keeps you strong? A systematic review identifying how primary health-care and aged-care services can support the well-being of older Indigenous peoples	Literature last searched 2016
	• Supporting residents and staff	Family involvement in decision making for people with dementia in residential aged care: a systematic review of quantitative literature	Literature last searched 2014
	• Supporting residents and staff	Burnout intervention studies for inpatient elderly care nursing staff: Systematic literature review	Literature last searched 2014
	• Supporting staff and residents	Staff experiences within the implementation of computer-based nursing records in residential aged care facilities: A systematic review and synthesis of qualitative research	Literature last searched 2013
	• Supporting residents and staff	Enhancing nursing leadership in long-term care: A review of the literature	Literature last searched 2007
	• Promoting alternatives to long-term care	Telephone communication between practice nurses and older patients with long term conditions	Literature last searched 2015
Rapid reviews	• Preventing infection	COVID-19 infection risk related to visitors in long-term care facilities: Synopsis of reference search results	Published 11 November 2020
	• Preventing infections	Should healthcare personnel in nursing homes without respiratory symptoms wear facemasks for primary prevention of COVID-19?: A rapid review	Published June 2020
	• Preventing infection	Video calls for reducing social isolation and loneliness in older people: A rapid review	Published 7 April 2020
	• Preventing infections	Guidelines for preventing respiratory illness in older adults aged 60 years and above living in long-term care	Literature last searched March 2020

	• Preventing infections	Preventing respiratory illness in older adults aged 60 years and above living in long-term care	Literature last searched March 2020
	• Supporting residents and staff	COVID-19 outbreak in nursing homes: What can be learned from the literature about other disasters or crisis situations?	Literature last searched 2020
	• Supporting residents and staff	Social connection in long-term care homes: A scoping review of published research on the mental health impacts and potential strategies during COVID-19	Literature last searched July 2020
Guidelines developed using some type of evidence synthesis and/or expert opinion			
Protocols for reviews that are underway	• Preventing infections	COVID-19 in long-term care facilities: A systematic review and meta-analysis of the literature	Anticipated completion date 16 August 2021
	• Preventing infection • Managing outbreaks	Mortality and morbidity rates of COVID-19 in nursing home residents: A meta-analysis study	Anticipated completion date 16 March 2021
	• Preventing infections	Systematic review of COVID-19 cases and outbreaks in aged care and long-term care facilities	Anticipated completion date 30 December 2020
	• Renewing delivery, financial and governance arrangements	A systematic review on the key financial and organizational aspects of care transition in the long-term care systems in the EU member states	Anticipated completion 15 April 2021
	• Supporting residents and staff	The impact of nursing staffs' working conditions on the quality of care received by older adults in long-term residential care facilities	Anticipated completion date 30 January 2021
	• Supporting residents and staff	Choosing a long-term care facility	Anticipated completion date 12 December 2021
	• Supporting residents and staff	A qualitative systematic review exploring the experiences of people from ethnic minority backgrounds living in care homes and long term care facilities	Anticipated completion date 01 November 2021

	• Supporting residents and staff	Communication experiences of older people from ethnical minority groups in residential care: A meta-synthesis of qualitative studies	Anticipated completion date 30 April 2021
	• Supporting residents and staff • Promoting alternatives to long-term care	A systematic review of technology-based health solutions for nursing home residents: Implications for nursing home practice above and beyond the influence of COVID-19	Anticipated completion 30 September 2020
	• Promoting alternatives to long-term care	Homecare versus residential aged care: A systematic review of cost-effectiveness and quality of life	Anticipated completion date 31 August 2021
Titles/questions for reviews that are being planned	• Preventing infections	Use of telephone/video consultations in palliative care and the impact on physical/psychological social and spiritual well-being during COVID-19	Not yet completed
	• Promoting alternatives to long-term care	What can enable or hinder patients in the community to make or update advance care plans in the context of Covid-19?	Not yet completed
Single studies that provide additional insight	• Preventing infection	Impact of a public policy restricting staff mobility between nursing homes in Ontario, Canada during the COVID-19 pandemic	Published 25 January 2021
	• Preventing infections	Willingness of long-term care staff to receive a COVID-19 vaccine: A single state survey	Published 28 December 2020
	• Preventing infections	COVID-19 infection prevention and control adherence in long-term care facilities, Atlanta, Georgia	Published 28 December 2020
	• Preventing infection	Enablers and barriers to implement COVID-19 measures in long-term care facilities: A mixed methods implementation science assessment in Chile	Published 11 December 2020
	• Preventing infection	Intergroup 'Skype' quiz sessions in care homes to reduce loneliness and social isolation in older people	Published 11 November 2020
	• Preventing infections	Community coronavirus disease 2019 activity level and nursing home staff testing for active severe acute respiratory syndrome coronavirus 2 infection in Indiana	Published 28 October 2020
	• Preventing infection	Evaluating the effect of COVID-19 pandemic lockdown on long-term care residents' mental health: A data-driven approach in New Brunswick	Published 26 October 2020
	• Preventing infections	Added value of anti-SARS-CoV-2 antibody testing in a Flemish nursing home during an acute COVID-19 outbreak in April 2020	Published 18 October 2020
	• Preventing infection • Managing outbreaks	Family members' concerns about relatives in long-term care facilities: Acceptance of visiting restriction policy amid the COVID-19 pandemic	Published 4 September 2020
	• Preventing infection	Assessment of infection prevention and control protocols, procedures, and implementation in response to the COVID-19 pandemic in twenty-three long-term care facilities in Fulton County, Georgia	Published 15 August 2020

	• Preventing infections	Coronavirus disease 2019 outcomes in French nursing homes that implemented staff confinement with residents	Published 3 August 2020
	• Preventing infections	Mitigation of a COVID-19 outbreak in a nursing home through serial testing of residents and staff	Published 20 July 2020
	• Preventing infections	Widespread severe acute respiratory coronavirus 2 laboratory surveillance program to minimize asymptomatic transmission in high-risk inpatient and congregate living settings	Published 16 June 2020
	• Preventing infections	Allowing visitors back in the nursing home during the COVID-19 crisis: A Dutch national study into first experiences and impact on well-being	Published 15 June 2020
	• Preventing infections	Reducing social isolation of seniors during COVID-19 through medical student telephone contact	Published 5 June 2020
	• Preventing infections	Point-of-care chest ultrasonography as a diagnostic resource for COVID-19 outbreak in nursing homes	Published 25 May 2020
	• Preventing infections	Anti SARS CoV 2 antibodies monitoring in a group of residents in a long term care facility during COVID-19 pandemic peak	Published 2020
	• Managing outbreaks	Rapid telehealth-centered response to COVID-19 outbreaks in post-acute and long-term care facilities	Published 9 July 2020
	• Managing outbreaks	Nursing home characteristics associated with COVID-19 deaths in Connecticut, New Jersey, and New York	Published 01 July 2020
	• Managing outbreaks	Efficacy of a test-retest strategy in residents and health care personnel of a nursing home facing a COVID-19 outbreak	Published 11 June 2020
	• Renewing delivery, financial and governance arrangements	An advance care planning long-term care initiative in response to COVID-19	Published 12 February 2021
	• Renewing delivery, financial and governance arrangements	Mortality rates from COVID-19 are lower in unionized nursing homes	Published 10 September 2020
	• Renewing delivery, financial and governance arrangements	The effect of state regulatory stringency on nursing home quality	Published 4 September 2014
	• Supporting residents and staff	Front-line nursing home staff experiences during the COVID-19 pandemic	Published 1 January 2021
	• Supporting residents and staff	Employment of telemedicine in nursing homes: Clinical requirement analysis, system development and first test results	Published 18 August 2020
	• Supporting residents and staff	Essential long-term care workers commonly hold second jobs and double- or triple-duty caregiving roles	Published 24 May 2020

Appendix 7: Documents excluded at the final stages of reviewing

Type of document	Hyperlinked title
Guidelines developed using a robust process (e.g., GRADE)	
Full systematic reviews	
Rapid reviews	
Guidelines developed using some type of evidence synthesis and/or expert opinion	
Protocols for reviews that are underway	Housing with support for older people: a mixed-methods systematic review protocol
Titles/questions for reviews that are being planned	
Single studies that provide additional insight	"I trust in staff's creativity"-the impact of COVID-19 lockdowns on physical activity promotion in nursing homes through the lenses of organizational sociology
	Achieving safe, effective, and compassionate quarantine or isolation of older adults with dementia in nursing homes
	An illustration of SARS-CoV-2 dissemination within a skilled nursing facility using heat maps
	Association between nursing home crowding and COVID-19 infection and mortality in Ontario, Canada
	Association between statin use and outcomes in patients with coronavirus disease 2019 (COVID-19): a nationwide cohort study
	Asymptomatic carriage rates and case fatality of SARS-CoV-2 infection in residents and staff in Irish nursing homes
	Asymptomatic SARS-CoV-2 Infection and COVID-19 Mortality During an Outbreak Investigation in a Skilled Nursing Facility
	Atypical clinical presentation of COVID-19 infection in residents of a long-term care facility
	Characteristics of U.S. nursing homes with COVID-19 cases
	Clinical characteristics and predictors of mortality associated with COVID-19 in elderly patients from a long-term care facility
	Clinical characteristics, frailty, and mortality of residents with COVID-19 in nursing homes of a region of Madrid
	Clinical outcomes of early treatment with doxycycline for 89 high-risk COVID-19 patients in long-term care facilities in New York
	Clinical suspicion of COVID-19 in nursing home residents: Symptoms and mortality risk factors
	COVID-19 and long-term care policy for older people in Hong Kong
	COVID-19 infections and deaths among connecticut nursing home residents: facility correlates
	COVID-19 transmission in a psychiatric long-term care rehabilitation facility: An observational study
	Epidemiology of Covid-19 in a long-term care facility in King County, Washington
	Expanding frontiers of risk management: care safety in nursing home during COVID-19 pandemic

	Factors associated with racial differences in deaths among nursing home residents with COVID-19 infection in the US
	For-profit long-term care homes and the risk of COVID-19 outbreaks and resident deaths
	COVID-19 related mortality and spread of disease in long-term care: First findings from a living systematic review of emerging evidence
	Bedside wireless lung ultrasound for the evaluation of COVID-19 lung injury in senior nursing home residents

Waddell K, DeMaio P, Wilson MG, Wang Q, Bain T, Bhuiya A, Alam S, Sharma K, Gauvin FP, Whitelaw S, Lavis JN. Appendices for COVID-19 living evidence profile #2 (version 1): What is known about preventing and managing COVID-19 outbreaks and about supporting renewal in long-term care homes? Hamilton: McMaster Health Forum, 26 February 2021

The COVID-19 Evidence Network to support Decision-making (COVID-END) is supported by an investment from the Government of Canada through the Canadian Institutes of Health Research (CIHR). To help Canadian decision-makers as they respond to unprecedented challenges related to the COVID-19 pandemic, COVID-END in Canada is preparing rapid evidence responses like this one. The opinions, results, and conclusions are those of the evidence-synthesis team that prepared the rapid response, and are independent of the Government of Canada and CIHR. No endorsement by the Government of Canada or CIHR is intended or should be inferred.

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