The Elderly Care Response to Covid-19:

A Review of International Measures to Protect the Elderly Living in Residential Facilities and Implications for Malaysia

Malaysia Covid-19 Social Protection and Jobs Note No. 2

Abstract

This note presents an international picture of measures in response to the COVID-19 pandemic specifically for the elderly living residential facilities as a particularly vulnerable setting. For this purpose, the note reviews information available from selected economies and international organizations and NGOs that have introduced guidance or actionable measures. The note argues that significant and proactive efforts in the areas of prevention, control, resources, coordination, management, reporting, communication, and planning are needed to safeguard the elderly living residential facilities (long-term care homes, residential care homes, nursing homes, welfare homes, etc.) in response to the spread of COVID-19. While many measures that have been introduced internationally are of wide relevance, the note also pays specific attention to implications for Malaysia. This may include the following areas for policy consideration: (a) strengthening the linkage between the elderly care response and the overall response; (b) issuing clear guidelines and operating procedures for all residential facilities; (c) mobilizing resources for prevention and control; (d) implementing consistent measures with government support for both licensed and unlicensed residential facilities; (e) strengthening coordination between the social sector and the health sector and between residential facilities, health agencies and hospitals; and (f) building capacities for both a short-term emergency response and the medium-term regular health and safety management for residential facilities.

This note is the second in a series of Malaysia Covid-19 Social Protection and Jobs Notes. It was produced by Dewen Wang (Senior Social Protection Economist, HEASP), Achim Schmillen (Senior Economist, HEASP), Elena Glinskaya (Lead Economist, HEASP), Amanina Binti Abdur Rahman (ETC, HEASP), Alyssa Farha Binti Jasmin (STC, HEASP), Linghui Zhu (ETC, HEASP), and Maria Iglesia Gomez (STC, HECHN) in close coordination with the World Bank's global aging team led by Gustavo Demarco (Lead Economist, HSJDR) and Elena Glinskaya (Lead Economist, HEASP) and under the guidance of Philip O'Keefe (Practice Manager, HEASP).The World Bank team thanks Yap Wei Aun for his comments and suggestions on a draft version of the note.

This version of the note is current as of April 22, 2020. To provide just-in-time assistance to the Government of the Malaysia, the team compiled as much and up-to-date information as possible. However, given that the situation is rapidly evolving on the ground, the note may be updated as needed. For further inquiry or discussion, please feel free to contact Dewen Wang (dwang2@worldbank.org) or Achim Schmillen (aschmillen@worldbank.org).

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Contents

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1. Motivation

1. This note puts together the information available from selected economies and international agencies and NGOs that have introduced guidance or actionable measures to safeguard the elderly living residential facilities in response to the spread of COVID-19. Residential facilities refer to public, private, or mixed residential care homes, nursing homes, and long-term care facilities. The purpose of this note is to present a picture of international response measures across eight important areas: prevention, control, resources, coordination, management, reporting, communication, and planning. Widely implemented measures include pandemic preparedness plans, cross-sectoral cooperation, awareness campaigns, financial support, staff training and protection, hygiene practices, social and physical distancing, testing, isolation and quarantine, and monitoring and reporting. The note does not strive to be comprehensive or exhaustive in the information that is collected but instead to present a just-in-time picture of noteworthy and actionable measures implemented during an evolving situation.

2. This note examines policy responses to safeguard the elderly who rely on residential and long-term care (LTC) from 11 economies and 3 international agencies and NGOs. The 11 economies include Australia, Canada, China (mainland), France, Germany, Hong Kong SAR (China), Japan, South Korea, Taiwan (China), the United Kingdom (UK), and the United States (US). The 3 international agencies and NGOs are the World Health Organization (WHO), the European Centre for Disease Prevention and Control (ECDC), and the HelpAge International. It is noteworthy that various names such as guidance, guidelines, checklists, assessments, and preparedness plans are adopted in relevant policy initiatives, but irrespective of the names infection prevention and control are no doubt the main purpose. The guidance from WHO, ECDC, and HelpAge International provides technical advice to audiences globally and regionally, while the guidelines or checklists from economies are more context-specific—provided as advice or assessment tools for developing preparedness plans such as in Australia and the US or a request from the government on measures that residential facilities should implement such as in mainland China. Concrete measures are reviewed and summarized in a comparable way in Appendix 1.

3. There are two key messages that this note would like to advance. Firstly, a multidimensional response or a combination of various measures taken by national and local governments, the communities, and the facilities themselves offer the best chance to protect the most vulnerable elderly dependent on residential care during the COVID-19 pandemic. Secondly, it is critically important to extend this multidimensional response not only to the formal licensed facilities, but also to the semi-formal or informal "gray" facilities that operate in many middle-income country settings and that in normal times are under the radar of the government. The importance of including informal residential facilities in the overall response is heighted by the fact that they have more limited resource availability and face more staff shortages and crowding placing their residents in an immediate danger of the COVID-19 pandemic. To address the health and safety issues for the residential facilities, emergency response measures should be taken to address the immediate needs. Building on this, the government could consider to combine the short-term emergency response with medium -term policy and institutional reforms. The need for the

medium-term planning is heighted by the dramatic changes in the resource base of many facilities that lost their inhabitants and the associated public and private funding and the experts' warning about a possibility of the second wave of COVID-19 impact in the upcoming fall and winter.

4. The multidimensional approach emerges as a good practice response. Following this approach, the most important measures are (a) ***prevention*** and (b) ***control*** to minimize the potential risks. At the same time, the government should also take supporting measures comprising (c) ***resources*** that include staffing, staff training and protection, and financial resources to support the implementation of the infection prevention and control measures***;*** (d) ***coordination*** of joint actions between the national and local governments, across sectors and among stakeholders; (e) ***management*** where care home managers, a team or an infection prevention and control (IPC) focal point at residential facilities are in charge of the implementation of infection prevention and control; (f) ***reporting*** through a real time monitoring system to share information in a timely manner and inform further actions; (g) ***communications*** carried out by various stakeholders to share information on infection prevention and control and increase societal awareness of risk management; and (h) ***planning*** which is crucial even just-in-time during the pandemic for the governments to take actions very rapidly to lead and deploy actionable plans and guidelines and mobilize resources to support the infection prevention and control actions. All those measures together comprise the key elements of the preparedness and response plan and its implementation.

5. This note is organized in four sections. Following the motivation, the second section briefly discusses why the elderly and residential facilities are at particularly high risk during the COVID-19 pandemic; the third section compares policy measures from selected economies and international agencies and NGOs and discusses their common elements in response to the COVID-19 pandemic specifically for the residential facilities; the last section draws specific implications for Malaysia. While the note does not endeavor to make specific policy *recommendations*, it suggest the following areas for policy *considerations*: (a) strengthening the linkage between the elderly care response and the overall response (b) issuing clear guidelines and operating procedures for all residential facilities; (c) mobilizing resources for prevention and control; (d) implementing consistent measures with government support for both licensed and unlicensed residential facilities; (e) strengthening coordination between the social sector and the health sector and between residential care facilities, health agencies and hospitals; and (f) building capacities for both a short-term emergency response and the longer-term regular health and safety management for the elderly care residential facilities.

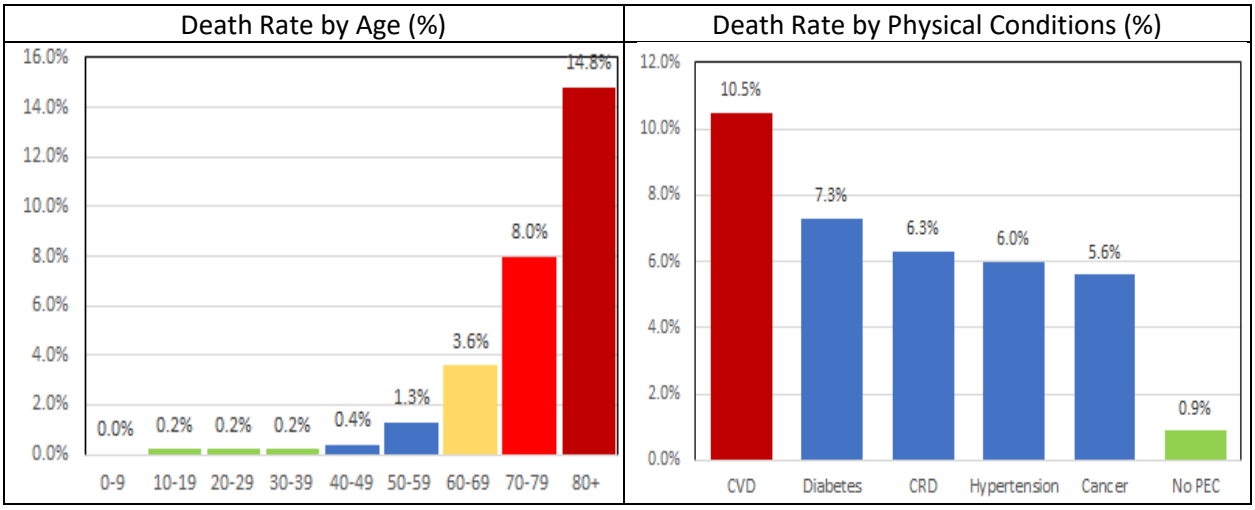
2. The Elderly and Residential Facilities at High Risk

6. The elderly population dependent on long-term care is under enormous strain in the midst of the COVID-19 pandemic, particularly those in assisted living and long-term care facilities. The increasing number of infectious cases in elderly care residential facilities in China, South Korea, Italy, Spain, the US, Canada, Australia, Germany, France, and the UK indicate that these residential facilities are at high risk facing the spread of COVID-19. Disturbing news from European countries where the disease has spread furthest report severe outbreaks in care homes with high death rates and dire staffing shortages.[1]

[1] Williamson, Lucy. 31 March 2020. "Coronavirus: The grim crisis in Europe's care homes." *BBC News. [https://www.bbc.com/news/world-europe-52094491]*

7. The population above 60 years of age has consistently exhibited higher rates of mortality to the disease, with a large jump in mortality for the older elderly. An initial study of over 44,000 Chinese cases of COVID-19 showed a mortality rate of 2.3 percent for the general population, rising to 8 percent in those aged 70-79 and nearly 15 percent in those 80 and over.[2] The Worldometer data provides further evidence that the death rates of older persons as well as those with underlying chronic medical conditions are much higher than that of people who are younger and healthier. The fatality rate increases from 3.6 percent for the 60-69 years old age group to 14.8 percent for those aged 80 years old and above. In contrast, the fatality rate is 0.2 percent for the 10-49 years old age group and almost zero for the age group below 10 years old. The fatality rates range between 5.6-10.5 percent for those with underlying chronic disease while it is 0.9 percent for those without pre-existing conditions (See Figure 1).

Figure 1: Death Rate of Covid-19 Cases by Age and Physical Conditions



Note: CVD-Cardiovascular Disease; CRD-Chronic respiratory disease; PEC-pre-existing conditions
Source: WorldoMeter, "Age, Sex, Existing Conditions of COVID-19 Cases and Deaths." February 29, 2020. https://www.worldometers.info/coronavirus/coronavirus-age-sex-demographics/.

8. The high risk for the elderly and residential facilities calls for special attention to address their vulnerability and minimize any potential risks. The reasons for the high risk include (a) the COVID-19 is a new and high contagious virus with a high fatality threat to the elderly; (b)residential facilities have a higher population density; (c) most residents have chronic diseases; (d) caregivers may be one source of the COVID-19 infection; and (e) staff and resources may be inadequate in confront of the COVID-19 pandemic. Specifically:

a) **The COVID-19 is an unknown virus with a high reproduction number and a high fatality threat to the elderly.** The infection control prior to the COVID-19 was primarily gastroenteritis (diarrhea), antibiotic resistant bugs, and respiratory illnesses like influenza and pneumococcal, for which treatment, therapies and even vaccines exist. In contrast, COVID-19 is totally a new threat without treatment, therapies or vaccines. The virus is highly contagious, those who are infected are not

[2] See, HelpAge International. "COVID-19 Is a New Disease That Presents Specific Risks for Older People." https://www.helpage.org/what-we-do/protecting-older-people-during-the-coronavirus-covid19-pandemic/

easy to identify, and some people who are virus carriers and can spread the virus have no symptoms. This contributes to challenges in the infection prevention and control.

b) **Spaces with greater population densities are more susceptible to the transmission of respiratory disease if strong infection prevention and control measures are not in place**. Residents in nursing homes and long-term care facilities live in an environment of close physical proximity, making full implementation of isolation and quarantine measures for the suspected or infected cases and of social distancing difficult. Therefore, the elderly care residential facilities must take special precautions to protect their residents as well as care workers and visitors;

c) **The long-term care dependent population is more likely to have underlying health conditions, compounding the increased risk associated with age**. Those dependents on long-term care rely on regular interactions with care workers who may unwittingly transmit the virus; they are also vulnerable to loss of access to care when infected care workers cannot work due to illness, quarantine or self-isolation;

d) **Caregivers may be one unwitting source of the COVID-19 infection.** Cases from hospitals and residential facilities show that health workers and caregivers may be one source that unwittingly cause the spread of the virus. This suggests that staff training and management would be an important element in the infection prevention and control, potentially coupled with regular (group) testing of caregivers[3];

e) **A shortage of staffing and resources including personal protective equipment (PPE) and testing resources may make care workers more vulnerable to infection and to the risk of transmitting the virus.** For instance, news reports on the UK's care homes indicate that under-resourced facilities are facing staffing shortages and are unable to obtain sufficient testing resources and PPE. Private care facilities are concerned about financial pressures as operational costs rise while the cost of borrowing increases. Some staff of long-term facilities in the UK reportedly also face an unclear position among health care staff, as many employers have failed to designate them as key essential workers.[4]

3. International Comparison of Policy Responses

9. Economies throughout the world have introduced new guidelines and policies in response to COVID-19's impact on elderly populations in residential facilities. A London School of Economics compilation of information from the International Long-Term Care Network found that the broadest-scale responses cover such areas as publication of national guidelines, funding packages for the long-term care sector, regulatory measures to facilitate expedient and effective care, staff training, prioritization of long term care staff in accessing PPE, aid in staff recruitment, and paid sick leave and support with health care costs of long-term care staff. Furthermore, many countries have implemented measures specifically for residential care and long-term care facilities, including infection prevention in care homes; measures to

[3] Research suggests that group testing is well-suited to supplement testing for asymptomatic and mild cases who would otherwise go untested, and enable them to adopt behavioral changes to slow the spread of COVID-19, see Nasa Sinnott-Armstrong, Daniel Klein, Brendan Hickey (2020). Evaluation of Group Testing for SARS-CoV-2 RNA. medRxiv. https://www.medrxiv.org/content/10.1101/2020.03.27.20043968v1

[4] Plimmer, Gill and Staton, Bethan. 26 March 2020. "Coronavirus pushes Britain's Care Homes to the Brink." *Financial Times.*

control the spread of the disease in facilities in which it has been identified; ensuring access to health care for residents who have COVID-19; and managing staff availability.[5]

10. While there are common elements to guidelines and policies in response to COVID-19, there are also differences – for instance with regard to areas of emphasis or whether there are new guidelines or policies or updates to previously existing ones. As an illustration, features of various noteworthy policy responses are summarized in Table 1. For example, it is noteworthy that some of the policies are the national level such as in China, the US, and Australia while others are at the local level such as in the Canada, Germany, France, Japan, South Korea, and the UK. In addition, there are variations in implementing the plans and guidelines across economies. Several economies have introduced guidelines to help service providers assess the degree of their preparedness for an outbreak such as in Australia and the US, while some economies have provided specific guidelines for infection prevention and control such as point-of-contact risk assessments in Canada, a checklist to evaluate how well the employees have grasped all the measures to control the infection in Taiwan (China), and on-the-ground inspections in nursing homes to identify gaps in the US. Some economies provide financial support to residential and long-term care facilities such as in Australia and China, simplify regulations to prepare for a possible outbreak of COVID-19 in aged care homes and manage the availability of caregivers during an outbreak such as in Germany, and encourage coordination and collaboration at the local level between care homes, health agencies and hospitals such as in France, Taiwan (China) and the UK. Some economies may keep their policy initiatives updated to reflect best practice learned or to meet the changing needs for infection prevention and control. For example, China has updated its national guidelines to the second edition for the elderly care residential facilities and developed specific guidelines for those residential facilities that have suspected or confirmed cases or are in a high-risk region.

Table 1: Features of Notable Policy Responses across Economies

Economies	Policy measures
Australia	The Aged Care Quality and Safety Commission (ACQSC) has created an outbreak plan and is contacting all approved providers of residential aged care services by telephone to monitor and support them in their preparation for an outbreak
Canada	Limit the burden on the healthcare system by providing detailed guidelines for point-of-contact risk assessment and by providing instructions on how to collect a swab for testing
China (Mainland)	Develop and update the national guidelines in terms of the level of risks of infection. Provide financial supports to aged-care institutions, including private-operated ones
Germany	Simplify regulations in preparation of a possible outbreak of COVID-19 in aged care homes and manage the availability of caregivers during an outbreak
France	All aged care homes are to designate spaces for suspected or confirmed COVID-19 cases. If necessary aged care homes can request support from “mobile geriatric teams” and “mobile palliative care teams”. Encourage close cooperation between aged care facilities and local hospitals both during the planning and the control stage

[5] Comas-Herrera A and Fernandez-Plotka JL (2020) *Summary of international policy measures to limit impact of COVID19 on people who rely on the Long-Term Care sector*. LTCcovid.org, International Long-Term Care Policy Network, CPEC-LSE. https://ltccovid.org/wp-content/uploads/2020/03/Summary-of-international-policy-measures-to-limit-impact-of-COVID19-on-people-who-rely-on-the-Long-Term-Care-sector-30-March-pm.pdf . Accessed on April 9, 2020.

Hong Kong (China)	Update the existing preparedness plan specifically in response to the COVID-19; provide financial fund to support care home staff and care homes; develop detailed guidelines for prevention and infection control scenarios
Japan	Provide guidelines in a soft manner, where local authorities and institutions can make decision based on their own judgements. Alternative measures to support the elderly who can receive the services through other approaches, including other back-up institutions and short-stay services if there are suspected or confirmed cases
South Korea	Rely heavily on the local actions rather than the national guidelines. The practices vary across areas to fit local needs. A thoroughly epidemiological inspection of all nursing homes was carried out in Daegu to better understand the potential risks
Taiwan (China)	A hotline (1922) to keep smooth communication between the institutions, hospitals and the government. A checklist to evaluate if the employees have well grasped all the IPC rules and regulations to control the infection
UK	Planning at the local level. Local authorities are coordinating between homes in the same area to establish plans for mutual aid, sharing of the workforce between providers, coordination and information sharing with local primary and community health service providers, and deployment of volunteers. The capacity of residential and healthcare is also coordinated at the local level, with encouraged reporting of bed vacancies at different facilities. Funding for technology to help vulnerable people who are in isolation because of COVID-19.
US	Conduct on-the-ground inspections in nursing homes to identify gaps and ensure preparedness of facilities. The Centers for Medicare & Medicaid Services (CMS, a federal agency within the United States Department of Health and Human Services) urges facilities to utilize the self-assessment tool the CMS has provided to prevent the spread of COVD-19. CMS encourages residents and families to ask how facility staff performed on its self-assessment. Provide paid sick leave and support with healthcare costs for staff working in the facilities.

Source: World Bank Staff's Compilation.

11. Many notable measures have been introduced across economies and/or recommended by international agencies (See Table 2 and Appendix 1). A study by Germany's Robert Koch Institut (RKI) that was published before the emergence of COVID-19 but continues to be relevant summarizes infection prevention measures in key developing economies and suggests a useful framework that suggests that measures should span three phases: pre-outbreak, outbreak and post-outbreak (See Appendix 2). As discussed before, measures can be categorized according the eight areas of prevention, control, resources, coordination, management, reporting, communication, and planning.

- **Prevention**. As international agencies and NGOs (WHO, ECDC, and HelpAge International) advise, the infection prevention measures would include
    - Personal hygiene. Some economies mandate increased cleaning/disinfection regimes (Australia, Hong Kong SAR / China). For instance, Australia requires that facilities ensure available stock of personal protective equipment, hand hygiene products, nose and throat swabs and cleaning supplies in anticipation of increased need.
    - Visitor restrictions. Nearly all the economies reviewed have implemented some kind of visitor restriction policy (Australia, Canada, China, France, Germany, Taiwan (China), the UK, the US). For instance, Canada only allows essential visits, which include visits for compassionate care

and visits considered paramount to resident care and well-being, such as assistance with feeding. Some economies have also limited access to facilities by contractors.

- *Screening of residents and staff's health status.* Many economies have developed guidelines for resident and staff screening and self-isolation (Canada Germany, the UK, the US). For instance, facilities in the US should screen all staff at the beginning of shift for symptoms. Related risk management measures include updating residents' health profiles (Australia).
- Social and physical distancing. physical distancing via restricting activities within care homes (Germany, Hong Kong SAR / China, Japan, Taiwan / China). For instance, in Germany most group activities (e.g. joint meals, exercise or therapy among residents) have been suspended.
- Other measures. Other noteworthy measures implemented by some economies include introducing point of care risk assessments or POCR (Canada), deploying mobile geriatric and palliative teams (France), and designating local respiratory virus isolation centers (the US).

- **Control.** According to the WHO, early identification, isolation, care and source control of COVID-19 cases are essential to limit the spread of the disease in the residential facilities. Early disease detection and testing allows facilities to respond appropriately, isolate infected and exposed patients, and know which staff to remove from care-giving responsibilities. Most jurisdictions, including Australia, Canada, China, France, Germany, Hong Kong SAR (China), Japan, Taiwan (China), the UK and the US have detection/reporting requirements or guidelines for confirmed or suspected cases. Some, such as Canada, go further and have implemented regularly scheduled screening and testing measures, on-site collection of samples for testing, contact tracing, and PCRA. Isolation and quarantine are adopted for suspected/confirmed cases and those with close contacts with suspected/confirmed cases. Some measures also stipulate that residential facilities are thoroughly cleaned and disinfected, and that waste is disposed carefully and appropriately.

- **Resources (human and financial).** These include measures such as ensuring adequate staffing and training for care workers, screening care workers regularly for symptoms and testing when possible and providing guidance and conditions for staff to be absent if infected, including adequate sick leave pay. As mentioned, newspaper reports from the UK indicate that workers whose sick leave pay is nonexistent or covers only a fraction of their wages may not be able to afford to take leave when they have early symptoms of the COVID-19 disease, placing them and the elderly population at risk.[6] Other measures that some economies have introduced include relaxed visa requirements for care workers, increased compensation for aged care workers, providing infection control and prevention training to staff, suspension of regulatory requirements regarding staffing ratios, and authorizing sharing of staff among facilities. The provision of PPE to care workers is another critical measure. In addition to direct provision, some economies have considered financial support to help residential facilities to purchase PPE for staff protection. A number of countries introduced dedicated funding packages for the long-term care sector (Australia, US, Netherlands).

- **Coordination.** International agencies and NGOs (WHO and HelpAge International) strongly recommend system and service coordination mechanisms to be in place and additional support

[6] Plimmer and Staton 2020.

(such as access to health care provision) to facilitate continuous care even if a suspected/confirmed COVID-19 case is identified in a residential facility. While most countries urge some sort of coordination, the exact nature of these measures varies because of country context and policy settings, such as the level of centralization. Some coordination measures include reporting of cases to public health or other government officials, coordination between hospitals and care facilities to safely transfer critical patients, designation of specific national and local authorities to provide leadership and coordination, designation of in-house medical care coordinators or an outbreak team, and support to coordination with family doctors. In some economies, such as Hong Kong SAR (China) and the UK, most aged care homes are privately owned and therefore interact differently with governments than public sector facilities. Some governments, such as the UK and France, use more decentralized coordination structures while others are more centralized.

- **Management.** Strengthening leadership and administration is crucial in managing the planning, coordination and implementation of measures at the facility level. Both WHO and ECDC recommend that long-term care facilities should designate an IPC focal point at the facility to lead and coordinate IPC activities, ideally supported by an IPC team with delegated responsibilities and advised by a multidisciplinary committee. HelpAge International suggests that care home managers play a leading role. Several economies (China, France, France Germany, Japan, Taiwan / China) implement a clear leadership structure in charge of implementing infection prevention and control measures.

- **Reporting.** Rapid reporting is an important part of a real-time monitoring system to share information and notify the facility management/the IPC focal point and relevant authorities of any suspected or confirmed COVID-19 cases for further actions. This measure is recommended by the international agencies and NGOs and widely adopted across economies. In addition to rapid reporting, transportation and coordination for quarantine and treatment between residential facilities, health authorities and hospitals are pre-arranged by some economies to minimize the transmission risks.

- **Communication.** Frequent communication is recommended both within facilities and in managing contact with external parties and the public at large. Risk communication measures include implementing plans to communicate with staff, residents, volunteers, and family members (Australia, China, the US), communicating with public health or other government authorities, posting signs in facilities about symptoms and hygiene (Canada, Taiwan / China, the US), and implementing awareness campaigns through care providers (Canada, Germany, Japan).

- **Planning.** Planning is an important and strategic action for the prevention and control of the COVID-19 pandemic. It requires governments to move quickly and take the lead, develop and deploy actionable plans and guidelines, and mobilize resources to support the infection prevention and control actions. Some countries, such as France and Germany, require all aged care homes to have pandemic preparedness plans. Others, such as Australia, Hong Kong SAR (China), Taiwan (China), Japan, and the UK have developed such plans for these facilities in response to the outbreak. The need for planning is heighted by the dramatic changes in the resource base of many facilities that lost their inhabitants and the associated public and private

funding and the experts' warning about a possibility of the second wave of COVID-19 impact in the upcoming fall and winter.

Table 2: A Summary of Notable Policy Measures for Preparedness and Response to COVID-19

Key Elements	Policy Measures
1.Prevention	• Inform residents, staff and visitors of following personal hygiene and social distancing requirements • Screen body temperatures and symptom signs of residents and staff daily • Adopt visitor restriction and physical distancing by following instructions from local governments and health authorities based on the assessment of the spread risks
2.Control	• Strengthen infection management by following the principle of early detection, early recognition, and early isolation and quarantine • Carry out isolation and quarantine for suspected/confirmed cases and those have close contacts with suspected/confirmed cases • Clean and disinfect residential facilities thoroughly and dispose waste with protective measures
3.Resources (human and financial)	• Train staff the steps, measures, and actions to deal with different scenarios • Purchase PPE to strengthen staff protection • Provide financial support for the infection prevention and control
4.Coordination	• Coordinate between the government agencies and between social and health sectors • Coordinate between care homes, health agencies and hospitals
5.Management	• Strengthen leadership, planning and coordination at the facility level • Assign care home managers or an IPC focal point to lead and coordinate IPC activities
6.Reporting	• Carry out daily monitoring of the infection status to keep the information publicly available • Report to local governments and health authorities and follow their instructions immediately if a suspected/confirmed case is found
7.Communication	• Awareness campaign to increase the awareness of the risks and actions to be taken • Communicate externally with visitors and family members to update the status • Educate residents to take actions for personal hygiene, social and physical distancing
8.Planning	• Develop national/local preparedness plans in preparation for a pandemic outbreak • Introduce national/local guidelines for infection prevention and control • Simply policy procedures and legislations to support rapid response • Start planning for the response to the second wave of COVID-19 impact

Source: World Bank Staff's Compilation.

4. Implications for Malaysia

12. The international measures have important implications for Malaysia in considering relevant policy measures to protect the elderly living in residential facilities. The year 2020 is an important milestone for Malaysia as it is the year that the country becomes an aging society according to international standards.[7] By the end of 2018, 2.3 million people in Malaysia were aged 65 years old and above while according to the National Health and Morbidity Survey (NHMS) 17 percent of the elderly aged 60 years old and above had functional limitation in the activities of daily living (ADL), compared with 3.8 percent for the age group of 50-59 years old. There are 1,899 elderly people who live in the public welfare

[7]By international standards, an aging society refers to a society where 7 percent or more of the population is age 65 or older. Note that policymakers in Malaysia typically use a cut-off of age 60 and above, in line with the national minimum retirement age.

homes (*Rumah Seri Kenangan* and *Rumah Ehsan*). The Private Aged Healthcare Facilities and Services Act was passed last year, aiming to oversee the private sector from a legal perspective. However, it will take time to put institutional arrangements arrangement in place for monitoring and evaluation. At present, the number of residents in private elderly care facilities is not available, and anecdotal evidence suggests that there are many unregistered facilities.

13. Several areas may deserve policy attention. The spread of COVID-19 poses enormous challenges to the elderly and public and private elderly care facilities in Malaysia. To address these challenges, Malaysia could learn from international practices and experiences, as well as recommendations from international agencies and NGOs. Considering the country context, areas that may deserve policy attention include (a) strengthening the linkage between the elderly care response and the overall response; (b) issuing clear guidelines and operating procedures for all residential facilities; (c) strengthening resources for prevention and control; (d) implementing consistent measures with government support for both registered and non-registered residential facilities; (e) strengthening coordination between the social sector and the health sector and between residential care facilities, health agencies and hospitals; and (f) building capacities for both a short-term emergency response and the longer-term regular health and safety management for the elderly care residential facilities. In more detail:

a) ***Strengthening the linkage between the elderly care response and the overall response***. Considering the vulnerability of the elderly and the impacts of COVID-19, international lessons strongly suggest that protection to the elderly should be an integral part of overall national emergency response measures, including any stimulus packages as to minimize the loss of lives and mitigate the shocks to economy and society. This will require close cooperation between the Ministry of Health and the Ministry of Women, Family and Community Development in charge of the aged care response and other ministries like the Ministry of Finance and the Ministry of Home Affairs in charge of the overall response to COVID-19. In an open economy like Malaysia, population movements within the country and even across borders will eventually resume. This may increase the risk of the spread of the virus and be a potential threat to the elderly living in residential facilities.

b) ***Issuing clear guidelines and operating procedures for all residential facilities.*** Economies across the globe have issued clear guidelines and operating procedures encompassing issues such as strengthening infection management, visitor restrictions, and screening of staff and residents. Many of these guidelines and operating procedures are available in easily digestible form – e.g. in the form of checklists – and it would be worthwhile for the Government to consider adapting such guidelines to the Malaysian context and mandating them for public welfare homes and strongly recommending them to both registered and unregistered private facilities (coupled with appropriate support in the form of resources and capacity building, see below) – irrespective whether facilities are run or supervised by the Ministry of Health or the Ministry of Women, Family and Community Development. In this context, aged care associations and religious groups could be important partners.

c) ***Mobilizing resources for prevention and control.*** Various economies have made resources available to elderly care facilities to support the emergency response to the COVID-19 pandemic, either in kind in the form of PPE or medial/diagnostic equipment or in the form of cash grants or

reimbursement of costs incurred by the facilities. Given the high risk of elderly care facilities in Malaysia it might be worthwhile for the Government to consider making such support available to elderly care facilities, in similar fashion as is already happening for hospitals, clinics and other medical facilities.

d) ***Implementing consistent measures with Government support for both registered and non-registered residential facilities.*** Malaysia's aged care sector consists of both registered and unregistered elderly care facilities. International experience suggests that during the COVID-19 pandemic longer-term considerations regarding measures to increase the share of facilities that are registered might be comparatively less important than safeguarding the health of residents at high risk. Therefore, it might be worthwhile for the Government to consider making all support available to all facilities irrespective of the registration status and use the support as an incentive for unregistered facilities to follow the national/local guidelines and report an outbreak in a timely manner in the event of a suspected case.

e) ***Strengthening coordination between the social sector and the health sector and between residential care facilities, health agencies and hospitals.*** International evidence demonstrates that coordination between the social sector and the health sector is key in winning the battle against COVID-19. Therefore, it might be worthwhile for the Government to consider strengthening relevant coordination, including through the encouragement of dedicated partnerships between elderly care facilities and local hospitals or clinics to jointly coordinate and provide expertise in the prevention and if necessary, control of COVID-19 outbreaks in elderly care facilities. The government could also consider funding and technology support for telehealth "visits" for healthcare providers.

f) ***Building capacities for both a short-term emergency response and the longer-term regular health and safety management of elderly care residential facilities***. Capacity of many elderly care facilities is relatively weak and limited to providing shelter and relatively rudimentary care services – but does not include other competencies such as basic COVID screening and infection prevention. Against this backdrop, it might be worthwhile for the Government to consider starting capacity building activities for infection prevention and control as emergency measures in response to the COVID-19 first and gradually expand to incorporate this capacity as part of regular health and safety management in the longer term. Measures during the pandemic might include the production and dissemination of posters, infographics or videos that explain basic guidelines and standard operating procedures in an easily understandable way and can be distributed electronically. Measures that have been implemented in other economies can again provide useful templates, that can be translated into the local context.

14. Elderly care response to COVID-19 should also encompass those who do not live in residential facilities. While it is beyond the scope of this note, the national elderly care response to COVID-19 should also include increasing awareness of the virus and measures for prevention and control for the elderly who live at home. In this context, it would be particularly important to provide home- and community-level social support for them (i.e. assessment by professional teams via telehealth, provision of medication refills, household cleaning, hygiene supplies and meal deliveries) when practicing physical distancing and self-isolation.

Reference

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Appendix 1. A Review of International Measures to Protect the Elderly Living Residential Facilities in Response to COVID-19

International Agencies	Items	Key Measures
WHO		
	Planning and coordination	Appoint an IPC focal point to coordinate activities; Provide training for all employees; Coordinate with relevant authorities, activate the local health and social care network, and facilitate additional support (resources, health care providers) to facilitate continuous care
	Communication and reporting	Provide information to residents and employees regularly; and Notify to relevant authorities any suspected or confirmed COVID-19 cases
	Prevention	**Rules for Personal Protective Equipment (PPE) Environmental cleaning and disinfection**: Increased hygiene rules (hands, respiratory); Support residents and visitors to respect the hygiene rules; Provide vaccination according to the local rules; Maintain high standards of hygiene and sanitation (separate guidance rules) **Physical distancing**: Restriction on number of visitors; screening for signs and symptoms; alternative to physical visits; Physical distance for activities; Physical distance between residents or close dining facilities; Avoid employees physical contact with residents (shaking hands, hugging, kissing).
	Control	**Isolation**: Take measures of isolation immediately in a single room if possible. Restrict sharing personal devices with other residents. Use specific medical clean and disinfected equipment. **Source control**: Follow the specific rules for clinical management of COVID-19; Employees should take contact and droplet precautions (follow instructions for COVID-19); Take measures for environmental cleaning and disinfection; Specific measures for Laundry; Measures of restriction of movement and transport **Care, including mental support for residents, patients and workers**: Provide practical and emotional support to Older people in isolation, with dementia or other highly dependent residents. Support healthcare workers and caregivers from stress both physical and psychological.
	Infected Cases	Not applicable
	Source	https://apps.who.int/iris/bitstream/handle/10665/331508/WHO-2019-nCoV-IPC_long_term_care-2020.1-eng.pdf
ECDC		

	Planning and coordination	**ECDC guidance**. The European Center for Disease Prevention and Control (ECDC) updates its guidance for the infection prevention and control for the care of patients with 2019-nCoV in healthcare settings, including long-term care facilities (LTCF). One purpose is to address the possible limited supply of personal protective equipment (PPE), hand hygiene materials, and environmental hygiene materials for healthcare facilities in the EU/EEA countries and the United Kingdom. It draws on interim advice produced by WHO and national agencies, and also expert opinion. **Target audience**. Hospital administrators, LTCF administrators and healthcare practitioners in EU/EEA countries and the United Kingdom
	Communication and reporting	**Awareness**. Emergency services and primary care staff should be aware of the virus situation, risk factors for infections, clinic symptoms and signs, recommended infection prevention and control measures, and procedures for reporting and transfer of persons under investigation and of probable/confirmed cases.
	Prevention	**Baseline options for infection prevention and control.** They include: • **Administrative measures:** Providing signs at all entrances, assessing new/returning residents, reducing use of transportation or attendance of public events, designating a person to lead the preparedness and response and a contact point, staff with symptoms stopping work, establishing contact with external public health teams and infection control practitioners, providing infection prevention and control training to all staff, hand and hygiene practices, etc. • **Management of residents with symptoms of COVID-19**: Single room quarantine, contacting hospital for hospitalization, using dedicated medical equipment for residents with symptoms, informing other residents of the case, protection of health workers in provision of services, and etc. • **Environmental cleaning and waste management**: Regular cleaning following by disinfection and wastes treatment in accordance with healthcare facility policies and local regulations.
	Control	**Additional options with suspected or confirmed cases**. They include: • **Administrative measures:** consult local health authorities regarding special local measures, informing all residents of the confirmed case, daily monitoring of all residents for symptoms, restricting access to LTCF, teleworking for relevant staff, no external travel or communal activities, and relocation of residents to other facilities if clinically necessary. • **Patient management:** Isolation and hospitalization

		• **Environmental cleaning and waste management**: Cleaning and waste management staff should wear appropriate PPE such as surgical mask (if there is a shortage of respirators), goggles and gown.
	Infected Cases	Not applicable
	Source	https://www.ecdc.europa.eu/en/publications-data/infection-prevention-and-control-covid-19-healthcare-settings https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-infection-prevention-and-control-healthcare-settings-march-2020.pdf
HelpAge International		
	Planning and coordination	**Pandemic preparedness plans.** Preparedness and planning should take account of the additional risks to older people. Countries are advised to act in line with WHO's global Strategic Preparedness and Response Plan which outlines how to implement public health measures to manage Covid-19. **Coordination between government, aged care providers and aged care sector.** Care home staff should maintain close contact with related institutions and local administrations or health authorities and respond promptly to changes in their local situation or advice provided. **Funding**. In the context of COVID-19, due to their increased risk older people must be explicitly identified and considered in funding allocations and decisions at all levels and in all settings. Funding must be made available to stakeholders with the right expertise, to ensure responses are targeted and meet the needs of those most affected.
	Communication and reporting	**Awareness campaigns:** Regular communications with the public and at-risk populations are important to help prevent infections, save lives and minimise adverse outcomes. Information must be provided in multiple formats and local languages to address the barriers which older people often face, related to literacy, language and disability. **Reporting:** Care home staff should keep families regularly informed of the situation, including prevention arrangements. This can be done through telephone calls, text messages and emails. Care home staff should immediately contact relevant health authorities or facilities and follow their instructions if a suspected case is found.

	Prevention	**Role of care home managers**: regularly refresh basic health education and the knowledge of the virus and provide psychosocial support for staff; prepare and manage prevention and control items such as thermometers, masks, gloves, soap, alcohol-based hand rub, tissues and paper towels; **Personal behaviours**: Staff, older residents and all visitors to care homes should follow good hygiene practices; care home staff looking after older residents who are unwell should wear masks. If possible, staff should measure the older residents' body temperature every morning and evening. **Visitors' restrictions and physical distancing**: decisions on whether visitors should be allowed to attend care homes should be based on advice from government or other relevant authorities. Visits should be discouraged where possible. In a widespread outbreak or high-risk situation, visits should be limited to emergency needs only, for example, for medical professionals if a resident is ill. Delivery of goods should be restricted to a single entrance.
	Control	**Infection management**. Care homes should establish links with their nearest health facility providing COVID-19 testing and care and discuss with the health authority and their nearest facility for instruction if a resident has symptoms. Anyone isolated because of suspected COVID-19 infection should wear a mask. If health authorities require an older person to go to a designated facility for testing or treatment, care home staff should follow their instructions immediately. Public transport should not be used. **Isolation**. Any older residents who have come into contact with someone known or suspected to have COVID-19 should be isolated from other residents. If an older resident or a member of staff feels unwell and has symptoms, they should be isolated from other residents, in a separate room. Older people whose symptoms have ended and who return to the facility should be observed in a separate room for 14 days. An isolated older resident should be given quality care and should be provided with support to maintain their mental health and wellbeing. The room where someone is isolated should be in a relatively separate, well-ventilated area. It should have a door that can be closed and an independent toilet if possible. **Protection of staff**. Any staff looking after someone suspected to have COVID-19 should wear a mask. Staff should be divided – as much as possible - between those providing care for older residents suspected to have COVID-19 or who have been in contact with those who have COVID-19, and those providing care for other older residents. After an older resident or staff member with symptoms has been transferred to a health institution, care home staff should thoroughly clean and disinfect any areas the person has been in.
	Infected cases	Not applicable
	Source	https://www.helpage.org/what-we-do/protecting-older-people-during-the-coronavirus-covid19-pandemic/

		https://www.helpage.org/what-we-do/guidelines-for-care-homes-for-older-people-in-the-context-of-coronavirus-covid19/
Economies	**Items**	**Key Measures**
Australia		
	Planning and coordination	**Market structure.** Aged care homes in Australia are under the purview of the Aged Care Quality and Safety Commission (ACQSC). The ACQSC regulates government-subsidized aged care homes, while private aged care homes are regulated by state and territory governments. However, all organizations providing aged care services in Australia are expected to comply with the Aged Care Quality Standards detailed by the ACQSC. **Preparedness plans**. The national guidelines are developed. The ACQSC is contacting all approved providers of residential aged care services by telephone to monitor and support them in their preparation of a COVID-19 outbreak. **Financial support.** On March 12, the Australian government announced AUD2.4B health package, including AUD101.2M—equivalent to 2.4 percent of total annual aged care funding in preparation of the COVID-19. This includes training of staff and extra hiring of nurses and aged care workers for both residential and home care. In a second tranche of stimulus measures announced March 22, the Australian Government has announced $444.6 million to ensure the continuity of the aged care workforce. More than half of this amount is known as 'retention bonus' to ensure the continuity of the workforce for staff in both residential and home care. **Availability and training of staff.** Training of staff on the policies and processes for all aspects of outbreak identification and management, particularly infection control which is already available online. Facilities should prepare a contingency plan in case 20-30% of staff are unable to present for work, and a plan for allocating staff to the care of residents affected by the virus. The Government have also relaxed international student visa work conditions for aged care facilities and home care providers. This will allow international student nurses and other aged care workers to work more than 40 hours a fortnight. The additional aged are funding can be used to recruit staff and provide incentives and compensation to the existing health and social care workers. **Availability of necessary health resources**. Ensuring available stock of personal protective equipment, hand hygiene products, nose and throat swabs and cleaning supplies in anticipation of increased need.

		Having a contact list for the state/territory health department and other relevant stakeholders (e.g. GPs and infection control consultants) https://www.agedcarequality.gov.au/covid-19-coronavirus-information
	Communication and reporting	**Guidelines for outbreak management in care homes.** The Australian Government will disseminate relevant tailored information to aged care and other residential facilities through approved providers and regulatory processes. Additionally, the Communicable Diseases Network Australia (CDNA) have developed national guidelines for the prevention, control and public health management of COVID-19 outbreaks in residential care facilities in Australia (https://www.health.gov.au/resources/publications/coronavirus-covid-19-guidelines-for-outbreaks-in-residential-care-facilities). Additional funding was made for My Aged Care Information website and phone services **Rapid reporting**. There should be a process to notify the facility manager and the state/territory Department of Health as soon as practicable (and within 24 hours) of when a COVID-19 case is suspected. Furthermore, it is encouraged that staff report of any COVID-19 symptoms shown by residents.
	Prevention	**Updated health profiles of residents**. Identification of residents who may be at greater risk and ensuring that health records for all residents are updated and at hand in preparation for a possible COVID-19 outbreak. There should also be an assessment of residents for respiratory illness, particularly for fever or cough (with or without fever). **Visitor restriction**. Implement appropriate arrangements to restrict visitors, including an entry ban to visitors with high risk who have just recently returned from overseas; or been in contact with a confirmed COVID-19 case; or showing symptoms; and those who have not been vaccinated against influenza (after 1 May 2020). Visitors who are permitted to enter would be subject to a short duration, with a maximum of two visitors at one time per day. Visits in private areas only and no children visits. Partial lockdown adopted by some nursing home providers over and above the national guidance. **Precautionary measures.** Increased frequency of cleaning is encouraged, liaison with contractors or hiring extra cleaners as and when necessary. Facilities should also promote the annual flu vaccine for residents and provide vaccine for staff.
	Control	**Isolating or cohorting to reduce risk of transmission**. Identify ways in which the facility will reduce the risk of transmission through isolating or cohorting (i.e. physically separate residents that are virus affected from other residents). There should also be a plan for communicating with staff, residents, volunteers, family members and other service providers (e.g. cleaners) during an outbreak.

	Infected Cases	11 residents and five staff have been infected with the virus so far in Sydney's aged care facility, where 3 residents have died after contracting COVID-19. https://www.abc.net.au/news/2020-03-24/coronavirus-cases-in-nsw-increase-and-pass-800/12080260 1 staff is a confirmed case at an aged care facility near Perth. https://7news.com.au/lifestyle/health-wellbeing/aegis-ascot-transition-care-facility-locked-down-after-staff-member-contracts-coronavirus-c-749432
	Source	https://www.agedcarequality.gov.au/assessment-contact-preparing-covid-19 https://www.agedcarequality.gov.au/covid-19-coronavirus-information https://www.agedcarequality.gov.au/media/87814
Canada		
	Planning and coordination	**Market structure.** Long-term care and assisted living in Canada is under the purview of province-level ministries of health. There are both publicly subsidized and private pay services available. **Pandemic preparedness plans.** The Canadian government will build on the existing provincial plans as its nation-wide response, and province can develop specific measures. For example, British Columbia (click here) and Ontario (click here).
	Communication and reporting	**Adequate signage for individuals not to enter if they have symptoms**. Posting of signage at all entrances to the facility reminding persons entering the facility to not enter if they have symptoms such as cough, difficulty breathing, chills, sore throat, running nose, sneezing or pink eye. Signage should provide clear instructions on how to perform respiratory and hand hygiene. There must be signage that advises anyone entering the facility with symptoms to additionally report to reception. Reception must have all visitors sign-in when entering the facility. **Reporting**. COVID-19 is a designated disease of public health significance and thus reportable under the Health Protection and Promotion Act. Regulated health professionals should contact their local public health unit to report a resident, staff, volunteer or visitor suspected or confirmed to have COVID-19. If a resident is referred to a hospital, the care facility should coordinate with the hospital, local public health unit, paramedic services and the resident to ensure safe arrangements for travel.
	Prevention	**Educate residents on hygiene practice.** All residents should be taught to perform hand hygiene if physically/cognitively feasible. Residents should be taught how to perform respiratory hygiene practices (e.g. coughing into sleeve, using tissues, wearing a mask), if physically/cognitively feasible. Residents with respiratory symptoms should wear a mask (if tolerated) when health care workers or other staff or visitors are present.

		Visitor restriction. Restrict visits only for essential visits only, which include visits for compassionate care (end of life and critical illness) and visits considered paramount to resident care and well-being, such as assistance with feeding. Families and visitors who have tested positive for COVID-19 should be told to stay away until 14 days after their illness began or once they no longer have symptoms and have had 2 negative tests taken within 24 hours apart, whichever is shorter. It may be necessary to post a staff member at the entrance to ensure compliance. Individuals with respiratory symptoms should not enter the facility unless under special circumstances and with the knowledge and pre-approval of the facility Director. **Daily screening of residents for symptoms**. Enhanced screening of residents for respiratory symptoms should be conducted. All residents should be monitored for fever, new cough, difficulty breathing, at least once per day. Phone screening and in-person questions to families and visitors about symptoms and exposure risk (i.e. travel to a place or contact with an infected person) Screening family members, visitors, service providers with direct contact with residents and residents (returning from trips/new residents) of respiratory symptoms.
	Control	**Screening twice daily and contact tracing in the event of an identified case**. In the event of an identified case of COVID-19, formal monitoring should be increased to twice daily in addition to point-of-contact risk assessment (PCRA). Implement Droplet and Contact Precautions and place in a single room if possible and consider testing all residents in the facility for COVID-19. Contact tracing should be initiated if a patient tests positive for COVID-19 and all resident(s) who share a room with the ill resident should be considered as exposed and should be monitored for symptoms at least twice per day for 14 days. Exposed roommates should not be transferred to any other room for 14 days after the last exposure. **On-site swab collection for laboratory testing**. Facilities are given guidelines to obtain a nasopharyngeal swab from any symptomatic resident to be sent for laboratory confirmation. This limits the need to transfer residents to a hospital for testing. **Point-of-Care Risk Assessment (PCRA).** This should be performed by providers prior to every patient interaction to assess the infectious risk posed to themselves, colleagues, other patients, and visitors by a patient, situation, or procedure. PCRA includes an assessment of the task/care to be performed, the patient's clinical presentation, the physical state of the environment and the healthcare setting. This information is used to assess and analyze the potential for exposure to infectious agents and identify risks for transmission. Based on the PCRA, appropriate measures to control the exposure such as the use of PPE are then selected (see Appendix B of document in link for the Point of Care Risk Assessment Tool for COVID-19).

	Infected Cases	Canada and particularly British Columbia has struggled with several cases in elderly care facilities. Specifically, 2 care homes have been particularly badly hit: Lynn Valley Care Centre (63 cases: 42 residents and 21 staff, 9 deaths - click here), and Haro Park Centre Society (55 cases: 28 residents and 27 staff - click here).
	Source	Details in this note are largely based on guidelines from the province of British Columbia. http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/clinical-care/long-term-care-facilities-assisted-living https://www.canada.ca/en/public-health/services/emergency-preparedness-response.html
China (Mainland)		
	Planning and coordination	**Market structure.** The majority of aged care facilities are public owned and pubic operated ones although the number of private or mixed (public-owned and private operated) aged care has kept increasing. The Chinese Ministry of Civil Affairs (MOCA) is responsible for the aged care sector. The National Health Commission and other ministries are involved. **Pandemic preparedness plans**. MOCA developed the national guidelines that request all aged care facilities should comply with. See the links at the source row. **Coordination between government, aged care providers and aged care sector:** MOCA takes the leadership for social care and coordinate with the National Health Commission for health care. Local Department of Civil Affairs (DOCA) is on duty for implementation and monitoring. **Financial support.** Various subsidies, waivers of rent and fees, and deferral payment of insurance were introduced to provide support for aged care facilities, including the public-owned and private-operated institutions (http://www.mca.gov.cn/article/xw/tzgg/202003/20200300025295.shtml).
	Communication and reporting	**Awareness campaign.** Aged care institutions are responsible for keeping all elderly and their family members informed of the COVID-19 and related contact arrangements by various methods including posters, phone calls, social media messages, and mails. **Reporting.** A 24-hour emergency duty is established to ensure smooth communication and timely reporting of all suspected and confirmed cases including elders and working staff. The information will be immediately reported to the relevant department according to the surveillance requirements.
	Prevention	**Leadership.** The facility's manger would be in fully responsible for prevention and control work and a management team should be formed, in charge of the emergency plan, training staffs, educating residents, communicating with residents and their family members, hygiene and sanitation etc.

		Physical distancing. In severe areas (especially Hubei province), residents are forbidden to leave from the facilities. Visits are suspended (except special vehicles for supplies and medical needs). In low and medium risk areas, unnecessary personnel's entry and exit are reduced. Registration, records of health status and travel history, temperature measurement, requirement of face masks and disinfection are required for all special visitors with certain activities prohibited. All meals deliveries are not allowed, and express delivery services are reduced. Group meals are also suspended.
	Control	**Availability of care givers.** No specific regulations on staffing at the local level, but the support for the target areas such as in Wuhan are made available from MOCA. **Availability of resources.** There are specific requirements on the guarantee of supply of daily necessities, consumables and basic medicines, and the assurance of protective equipment, hygiene products and emergency kid for immediate use. A checklist for the infection prevention and control can be found from the guidelines in Chinese.
	Infected Cases	More than 30 people were confirmed and 19 people died in the Wuhan Social Welfare Home including both residents and caregivers. An aged care home in Heilongjiang Province, there were 24 confirmed elders out of the total 48 people (including residences and staffs).
	Source	http://www.gov.cn/zhengce/zhengceku/2020-02/07/content_5475906.htm (in Chinese) http://www.mca.gov.cn/article/xw/tzgg/202002/20200200024953.shtml (in Chinese) http://www.xinhuanet.com/politics/2020-03/09/c_1125684875.htm (in Chinese)
France		
	Planning and coordination	**Market structure.** Aged care homes (EHPADs) are established through a tripartite agreement between the provider (public, private for-profit or private non-profit), the medical insurance and the local government (Departement). Health care services for residents are usually not provided by providers but by residents' family doctors. The relevant central ministry is the Ministry of Solidarity and Health. **Pandemic preparedness plans.** All aged care homes are required to have pandemic preparedness plans including aspects such as hygiene, combating the risk of isolation, and staff rationing. They are also required to have business continuity plans that guarantee the continued functioning of homes in case of absence of a large share of staff. These plans have been activated nationwide. With reference to the plans, there have also been more detailed instructions regarding hygiene practices and identification of COVID-19 cases in aged care homes. **Coordination between government, aged care providers and aged care sector.** Aged care homes are required to have (possibly part-time) medical coordinators, usually geriatricians, who in the case of an

		emergency are empowered to treat patients, write prescriptions etc. Aged care homes are also encouraged to keep close relationships with local hospitals and have them review pandemic preparedness plans and coordinate transfer of COVID-19 cases (i.e. direct admission without need to go through the emergency room).
	Communication and reporting	**Awareness campaigns.** The Ministry of Solidarity and Health has implemented various awareness campaigns on health, safety and hygiene using posters etc., though campaigns have apparently not been very much tailored to aged care facilities. While facilities are charged with informing residents, visitors and staff, their umbrella organization recommends using the material issued by the Government because the official design, seal etc. adds weight to the campaign. **Reporting.** All instances of add least two COVID-19 cases are to be reported to the regional health authorities. All instances of at least three cases are to be considered a "grouped case", see below. Authorities are working on an application that will allow direct reporting on deaths by COVID-19 in aged care facilities directly to the Ministry of Solidarity and Health, currently this only happens for deaths in hospitals.
	Prevention	**Physical distancing and visitor restriction.** Day-care centers have been closed. Residents of residential care homes are barred from leaving the facilities (if they do they cannot return). Visitors are also barred from entering, other than in the case of emergencies. Medical personnel or supplies are allowed to enter subject to temperature checks. Group activities have been suspended. New admissions have been suspended, other than in the case of emergencies. **Designation of dedicated space.** Only severe cases of COVID-19 are to be transferred to hospitals while other cases are to be treated in aged care facilities or at their families; home. Thus, all aged care homes have been advised to prepare a dedicated space for separation of confirmed or suspected cases of COVID-19. The dedicated space could would either be a floor/wing of the facility or a day-care center, if it is collocated with an aged care home. The space should be equipped with medical beds and facilities. If needed, (dedicated) staff should be assigned to it 24/7. If possible, a separate kitchen area will be set up. If not dedicated space can be set up, COVID-19 cases are to be isolated in their rooms.
	Control	**Leadership.** All aged care homes are advised to nominate a COVID-19 coordinator, who will manage both prevention and control. In addition, the medical coordinators will play a key role in the case of an outbreak, in particular by rapidly evaluating residents' health status, by advising if positive cases of COVID-19 should be treated in the aged care home, their families' home, or a hospital (the medical coordinator cannot

		directly decide on hospital admission), and by being in charge of treating and continuously monitoring COVID-19 cases in the aged core home. **Infection response.** There are guidelines for infection response in aged care facilities regarding areas such as hygiene control and infection management; these guidelines are not specific to COVID-19 but certain aspects have been reinforced or clarified such as those related to wearing of masks, washing of hands, and laundry and cleaning. If necessary, aged care homes can request support from "mobile geriatric teams" and "mobile palliative care teams"
	Infected Cases	Twenty out of 163 residents have died following the outbreak of COVID-19 in an aged care home in the Vosges region; some other outbreaks in care homes have also been reported (https://www.parismatch.com/Actu/Societe/Coronavirus-20-morts-dans-un-Ehpad-des-Vosges-1679840; https://www.lefigaro.fr/actualite-france/coronavirus-l-epidemie-franchit-les-portes-des-ehpad-20200321)
	Sources	https://solidarites-sante.gouv.fr/actualites/presse/communiques-de-presse/article/renforcement-des-mesures-pour-les-personnes-agees-11-03-2020 https://solidarites-sante.gouv.fr/soins-et-maladies/maladies/maladies-infectieuses/coronavirus/covid-19-informations-aux-professionnels-de-sante/article/covid-19-recommandations-pour-les-etablissements-medico-sociaux https://www.gouvernement.fr/info-coronavirus https://www.sf2h.net/publications/coronavirus-2019-ncov https://www.coreb.infectiologie.com/fr/alertes-infos/covid-19_-n.html https://www.fnadepa.com/articles?text=&month=all&category=all
Germany		
	Planning and coordination	**Market Structure.** The majority of aged care providers are non-governmental entities (usually non-profits) but financed to a large extent through the care insurance and regulated and supervised by the government. The relevant central ministry is the Ministry of Health. On the state level, there responsibilities differ by state – for instance Bavaria has a Ministry of Health and Care. The *Robert Koch Institut*, the federal agency responsible for disease control and prevention, monitors the spread of COVID-19, advises the government and issues recommendations to the government, the public and aged care providers. **Pandemic preparedness plans.** Germany has national and state-level pandemic preparedness plans. All aged care homes are also required to have pandemic preparedness plans. The government plans to rely

		mostly on these existing plans, with some relatively minor adjustments (e.g. a requirement to report COVID-19 cases). **Coordination between government, aged care providers and aged care sector.** Health care services for residents are usually not provided by providers but by residents' family doctors; some states have given instructions that if there are residents with COVID-19 symptoms providers are to contact family doctors immediately. **Simplification of regulations.** Both for providers and beneficiaries, regulations are being simplified on the federal level, according to a draft law. For instance, routine inspections of aged care facilities are being put on hold and care needs assessments are being conducted remotely. The objectives of these measures are to (i) lessen bureaucratic burden of providers so they can focus on health, safety and care, (ii) limit unnecessary close contacts, (iii) free up medical and care personnel employed by the authorities for care needs assessments etc. to be redeployed to the health and care sector, if needed. **Financial support.** According to the Federal Government's draft law, the Government will provide financial support to aged care facilities affected by COVID-19, both in terms of reimbursing additional expenditures for face masks, and other equipment and in terms of compensation in case available beds/spots are not used at regular capacity.
	Communication and reporting	**Awareness campaigns.** The Ministry of Health as well as state governments have implemented various awareness campaigns on health, safety and hygiene in aged care facilities using posters etc. These campaigns have frequently been implemented through providers and together with relevant NGOs, such as the *Deutscher Paritätischer Wohlfahrtsverband* the umbrella organization of non-government providers of health, care and other social services. **Reporting.** All confirmed COVID-19 cases have to be reported to local health authorities. In turn, these authorities issue reports to the state governments at least once per day which in turn issue daily reports to the *Robert Koch Institut*. There do not seem to be specific reporting requirements for aged care facilities.
	Prevention	**Physical distancing and visitor restriction.** Relevant regulations are usually on the state level. Most states have introduced restrictions for residents (sometimes) and visitors (always) of aged care homes. In some states, residents are basically barred from leaving the facilities. In many states, visitors are also basically barred from entering (this would exclude medical or care staff or close family members in emergencies). In some other states, restrictions for visitors are more lenient; e.g. each resident can have one visitor for one hour a day. Group activities (e.g. joint meals, exercise or therapy among residents) have also frequently been suspended. In addition, community-based care centers have been ordered to close in many states.

	Control	**Leadership.** According to aged care facilities' more general pandemic preparedness plans in the case of an outbreak these facilities should form an outbreak team and designate one of the team members as the team lead (such as the head of the facility or the staff responsible for hygiene). **Infection response.** There are clear but flexible guidelines for infection response in aged care facilities in the form of a check list that covers areas such as hygiene control, infection management and antiviral prophylaxis; these guidelines are not specific to COVID-19 but the same for all respiratory diseases. The checklist is used to record which measures are to be undertaken (to be decided by the facilities and/or local health authorities) and if and when thy have been undertaken (https://www.rki.de/DE/Content/InfAZ/I/Influenza/IPV/Checkliste_Respiratorischer_Ausbruch.pdf?__blob=publicationFile) **Availability of care givers.** Given the risk that care staff might be unable to work due to COVID-19 infection, regulatory requirements regarding staffing ratios have been suspended. In addition, aged care facilities have been given instructions how to ensure continued care in case of a large share of staff unable to work, either on their own or with support from the authorities (e.g. seconding staff from other facilities)
	Infected Cases (Yes or NA)	Seventeen residents have died and a further 55 residents have become infected with COVID-19 in an aged care home for elderly people with dementia in Lower Saxony (https://www.bild.de/news/inland/news-inland/corona-in-altenheim-in-wolfsburg-darum-wird-es-nicht-evakuiert-69722646.bild.html) Nine residents have died and a further ten residents and 20 caregivers have become infected with COVID-19 in an aged care home in Bavaria (https://www.br.de/nachrichten/bayern/politik-reagiert-auf-tod-von-neun-seniorenheimbewohnern,Ru1k1ev)
	Sources	https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Altenpflegeheime.html https://www.der-paritaetische.de/fachinfos/migration-und-flucht/empfehlungen-zu-covid-19-coronavirus/ https://www.biva.de/besuchseinschraenkungen-in-alten-und-pflegeheimen-wegen-corona/ https://www.bundesgesundheitsministerium.de/presse/pressemitteilungen/2020/1-quartal/gesetzespakete-corona-epidemie.html https://www.niedersachsen.de/Coronavirus/hinweise-fur-krankenhauser-pflegeheime-und-ambulante-pflegedienste-185609.html
Hong Kong SAR (China)		

	Planning and coordination	**Pandemic preparedness plans.** The preparedness plan mostly relies on the government 's requirements. **Coordination between government, aged care providers and aged care sector:** 70 percent of aged care homes are private. A few aged care homes also provide integrated health care services, but the medical treatment of IPC has to be done in hospitals. The Centre for Health Protection (CHP) of the Department of Health is leading the awareness and prevention work based on the existing infectious disease plan of the aged care homes. **Anti-epidemic Fund:** The anti-epidemic fund is meant to mitigate the pandemic but there is not a direct pillar specifically for aged-care facilities, but a pillar of wage subsidies are provided for caregivers and frontline cleansing workers, toilet attendants. https://www.info.gov.hk/gia/general/202003/20/P2020032000764.htm https://www.info.gov.hk/gia/general/202002/26/P2020022600671.htm https://hk.appledaily.com/local/20200303/WFMXKIYXS4ZPGOJZ34P6XU2GOI/
	Communication and reporting	**Awareness campaigns:** Aged care institutions are responsible for keeping close attention on the updates from the COVID-19 official website. (https://www.coronavirus.gov.hk/chi/index.html) **Reporting:** Any suspected cases with symptoms are required to be reported to the CHP immediately and sent to hospitals for treatment .
	Prevention	**Social distancing:** Social distancing is the general requirement from the government. Any unnecessary entrance and exit of the residences are suspended. Visitors except who have been abroad, confirmed or medically observed are conditionally acceptable, but registration and temperature monitoring are must. Separated meal in a single room, designated toilet and no group activities are regulated only for residents who just returned from hospital or had travel history to high risk areas in the past 14 days.
	Control	**Availability of resources**: Government has provided 1 million surgical masks for caregivers in all types of entities. **Enhanced disposal measures for suspected cases:** If blood, secretions, vomitus or excreta spillage are found, hospital-grade cleaning guideline including staff wearing PPE, the usage of forceps, medical garbage disposal and immediate hand hygiene is required. Once the case is confirmed, all wastes need to be collected by licensed Clinical Waste Collectors. **Infection response.** The government has provided a specific emergency (interim) guideline for the prevention of COVID-19 on the basis of a more general infectious disease. The guidelines include specific requires on personal hygiene, indoor ventilation and management instruction on visitors, staff, suspected

		cases and disposals. The general guideline explained better in details about the infection and transmission, symptoms and other precautious measures. (https://www.chp.gov.hk/files/pdf/advice_to_rche_rchd_on_prevention_of_nid_eng.pdf https://www.chp.gov.hk/files/pdf/guidelines_on_prevention_of_communicable_diseases_in_rche_eng.pdf)
	Infected Cases	One suspected case but tested negative https://www.hk01.com/%E7%A4%BE%E6%9C%83%E6%96%B0%E8%81%9E/442460/%E6%96%B0%E5%86%A0%E8%82%BA%E7%82%8E-%E5%AE%89%E8%80%81%E9%99%A2%E8%88%8D%E6%A5%AD%E7%95%8C-1%E6%9C%88%E8%B5%B7%E6%B8%9B%E4%B9%9D%E6%88%90%E5%AE%B6%E5%B1%AC%E6%8E%A2%E8%A8%AA-%E5%8F%A3%E7%BD%A9%E5%AD%98%E9%87%8F%E7%B7%8A%E5%BC%B5
	Source	https://www.chp.gov.hk/en/resources/346/index.html https://www.chp.gov.hk/files/pdf/guidelines_on_prevention_of_communicable_diseases_in_rche_eng.pdf https://www.chp.gov.hk/files/pdf/guideline_prevention_of_communicable_diseases_rchd.pdf
Japan		
	Planning and coordination	**Pandemic preparedness plans.** The preparedness plan is national wide but local government and the manager of the institutions can make decisions based on their own judgement (i.e. temporary closure of the entities) **Coordination between government, aged care providers and aged care sector:** The aged care institutions can be welfare facilities, nursing facilities or sanatoriums. The welfare facilities are taking up around 60% of the total number of facilities and mainly (95%) run by NPOs (social welfare corporations), while the latter two types are well integrated with health care services and mainly (80%) run by medical institutions. Different divisions of the Ministry of Health Labour and Welfare (MHLW) are collaboratively leading the IPC and corresponding units of local governments and all aged care institutions are implementing the works. **Financial support:** The Department of Care Insurance has issued the notice to waive or reduce the rate of charge, or subsidize the elders for the services packages. Moreover, the verification of the insurance has

		been temporarily extended for 12 months, which will provide more flexibility on the advances of the claims.
	Communication and reporting	**Awareness campaigns:** The MHLW has prepared the leaflets and pamphlets to local governments and institutions. All service providers are required to distribute when providing consultation services. If there are confirmed cases, the institution along with the local government is required to advocate to their family members and also all local citizens. **Reporting:** The suspected cases need to be reported by phone call to any health care centres nearby. The collected information would be reported upwards to focal points of local government and national government.
	Prevention	**Leadership:** The head of the institutions should closely report to the local focal point of the government and follow the guideline of infectious diseases and instructions from designed health workers. **Social distancing:** Keep social distances from suspected cases or their close contacts by moving to single room and suspending the visiting. Services (including meal assistance, toilet assistance, bath assistance and laundry assistance) would be kept providing but more disinfection and cleaning measures are required before and after. **Specific instructions on the services package:** Different instructions are provided to services providers by the types of care, including residential care services, short-stay services, and home care services.
	Control	**Availability of care givers:** MHLW has requested all institutions to be collectively backing up each other (at local level) in case there are shortage of staffs in any institutions. The emergency plan will be introduced if there are residents infected in an institution, and the Social Welfare Cooperation at the prefectural level will be responsible for the supporting caregivers' management and allocation. **Availability of resources:** Japanese government has prepared and distributed 20 million masks for all aged care institutions to ensure that everyone in the institutions will receive at least one mask. Moreover, the local health bureau and care insurance bureau have kept working as the counterpart in case there are any shortage of masks and disinfection supplies (i.e. alcohol). **Practical guidelines.** Different from others, the MHLW of Japan provided guidelines or instructions in a more softly manner because the local authorities and institutions' decision may vary based on their own judgement. MHLW has provided one general guideline to explain the context of COVID-19 and basic requirements for the nation, on the basis of an infectious disease prevention manual for aged-care facilities. MHLW has also provided one practical guideline in an notice to prefectural and county level authorities including the distribution of leaflets, arrangements of staffs and requirement for treatment of

		suspected cases. There are also many other notices on certain specific topics such as the requirement for various facilities, staff requirements, and requirement of preventive equipment. (https://www.mhlw.go.jp/content/10900000/000599698.pdf, https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/hukushi_kaigo/kaigo_koureisha/ninchi/index_00003.html,https://www.mhlw.go.jp/content/000605422.pdf, https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000121431_00089.html)
	Infected Cases	One caregiver was tested positive in an aged-care facility in Tokyo on 2/22. Group infection was found in an institution "Green Ars Itami" in Hyogo prefecture and there are 58 people have been confirmed by 3/26. https://mainichi.jp/articles/20200318/ddl/k28/040/259000c https://www3.nhk.or.jp/news/html/20200222/k10012297481000.html https://www.tellerreport.com/life/2020-03-26---hyogo-itami-confirmed-female-infection-in-70s-person-involved-in-outbreak-facility-.HJ7GNbQ5UU.html
	Source	https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000121431_00089.html (in Japanese)
South Korea[8]		
	Planning and coordination	**Pandemic preparedness plans.** The government provided national wide warning on COVID-19 but local government and the manager of the institutions take actions based on the individual's decisions-making. **Coordination between government, aged care providers and aged care sector:** The government of South Korea has the Ministry of Health and Welfare (MOHW) to work on the awareness campaign and the Center for Disease Control & Prevention (KCDC) to work on the knowledge support against the COVID-19. The Aged-care facilities in South Korea can be divided into different types, including residential homes, elderly medical welfare facilities, elderly leisure welfare facilities (including play centers and education centers) and short-term care centers. Under the elderly medical welfare facility category, it can be further divided into 3390 elderly care facilities and 1897 nursing care facilities national wide. https://meta.narastat.kr/metasvc/index.do?confmNo=117036
	Communication and reporting	**Awareness campaigns:** Although, the government (MOHW) has posted many news cards (graphic guidelines) on the MOHW website to advocate the awareness on COVID-19, there is no specific guideline provided for the aged-care institutions.

[8] The information for South Korea is heavily drawn from the LSE summary. Lyu Jy (2020) Report; The South Korean approach to managing COVID-19 outbreaks in residential care settings and to maintaining community-based care services. Article in LTCcovid.org, International Long-Term Care Policy Network, CPEC-LSE.

		Reporting: The MOHW has a hotline call center 1339 to respond to any inquiries about COVID-19. But the initiatives in aged-care institutions would vary across cities and facilities. For instance, the Senior Citizens with Disabilities Department in Dangjin City starts to make calls to the elderly and disabled facilities in the area from 10:00 am every day. During the night, check the facility to see if there were any problems with the nursing home or living facilities for the disabled. http://www.ohmynews.com/NWS_Web/View/at_pg.aspx?CNTN_CD=A0002625030&CMPT_CD=P0010&utm_source=naver&utm_medium=newsearch&utm_campaign=naver_news
	Prevention	**Quarantine:** South Korea has national widely suggested the self-quarantine measures and provided a graphic guideline. Employees at senior care facilities are excused from work for 14 days if they show respiratory symptoms such as a cough and fever or have a history of travel to countries of COVID-19 outbreaks. The entry of visitors is also restricted. **Social distancing in facilities:** To guarantee that self-isolation works in residential settings, any residents that display symptoms of COVID-19 should first be isolated in a separate room. Workers should then call the public health centre to ensure a test takes place. After being tested, people who need to self-isolate can enter quarantine facilities such as the Human Resources Development Institute and the English Learning Campus which are both located in Seoul. Care workers from the Seoul Public Agency for Seoul Services will be isolating with them order to provide care. To prevent the spread of the virus, most social welfare centres and care homes have banned visits in order to prevent mass COVID-19 infections. In welfare care homes in Gyungsang-do, every care home user was prevented from going out and all staff worked for two weeks without leaving the facility.
	Control	**Availability of care givers:** This initiative is not specifically in the aged-care institutions but aiming for temporary aged-care services. In order to manage workforce absences due to COVID-19, and to meet specified needs and provide additional intensive care service, the Public Health Agency for Social Service of each region is recruiting volunteers to help. In Dae-gu, the city with the most COVID-19 cases in South Korea, the government has recruited people who can provide care. This includes care givers and social workers, along with members of the general public. Their job is to provide care to disabled people who are in self-isolation, 24 hours a day for 14 days. **Availability of resources:** Local government may take different measurs. For instance, Gyungsang-do government will give additional financial incentives and the government provided masks, automatic hand sanitizer to the social workers recruited above. While the government pays their wages and provides them with masks, gloves, and protective clothing in Dae-gu

	Infected cases	As of 3/19, 64 elders at a sanatorium (welfare facilities) were confirmed in Bonghwa, Gyeongbuk. Of that total, 56 were patients, while the others were staff members and carers. According to Daegu authoritie, at least 238 cases of infection were confirmed at 10 nursing homes in Daegu and North Gyeongsang province by 3/12. Daegu has been carrying out epidemiological inspections in each of the city's 69 nursing homes, after a thorough examination it was reported that 224 people were tested positive. https://www.tellerreport.com/tech/2020-03-05---confirmation-of-36-blue-nursing-homes%E2%80%A6--gyeongbuk-welfare-facility--whole-blockade--.Hyf_PxuAN8.html (in Korean) https://newsis.com/view/?id=NISX20200324_0000968136&cID=10201&pID=10200 (in Korean) https://www.scmp.com/week-asia/health-environment/article/3075937/coronavirus-nursing-homes-emerge-south-koreas-new
	Source	http://news.khan.co.kr/kh_news/khan_art_view.html?artid=202002211715001&code=940601 https://www.mohw.go.kr/eng/nw/nw0102ls.jsp?PAR_MENU_ID=1007&MENU_ID=100703
Taiwan (China)		
	Planning and coordination	**Pandemic preparedness plans.** The preparedness plan mostly relies on the government requirements and specific guidelines. **Coordination between government, aged care providers and aged care sector:** The long-term care institutions and nursing institutions (around 1000 entities providing 60,000 beds) in Taiwan (China) are mainly for the elders who are ADLs or have dementia and they are partially financed by the long-term care insurance and government subsidies. Millions of elders have to choose home care or community care centres rather than residential care. Health care are usually well integrated with the aged-care services. The overall IPC management and responses are progressively led by the Centres for Disease Control, Department of Health and Welfare, and the Executive Office along with the outbreak of the pandemic. **Financial support:** Anti-epidemic subsidies are not directly provided to residential care institutions, but for any people who are quarantined or tested, and quarantined family members who have to look after elders of ADLs and cannot receive salaries. https://www.cdc.gov.tw/Bulletin/Detail/W7hWqmb7d3fUvMtE4DGKRQ?typeid=9
	Communication and reporting	**Awareness campaign:** Residential care centres are required to use posters to advocate the hand hygienic practices and coaching etiquette for residences and their family members, and to train staffs. Some educational manual and training materials are available from the CDC website.

		Reporting: If any residences or staffs are found with fever or coughing and any other suspected symptoms, institutional manager must dial the IPC service hotline (1922) immediately to report to CDC and send them to designated hospitals for further treatment.
	Prevention	**Leadership:** The head of the institutions are responsible for the daily monitoring and the staff managing duty. **Social distancing:** Visitors who have fever or suspicious symptoms, have travel history to high-risk regions in the past 14 days are suspended for entrance. The number of visitors once a time is limited. Registration and visiting details are also required to be recorded. Elders who have risk of being infected need to be quarantined in a single room and keeping social distancing with all others. **Specific instructions on the services package:** The CDC guideline has provided specific instructions on a variety of services in the aged-care services package not only residential care, but also home care and community care, including the suspension of assessment, suspension of all home care services (i.e. physical care, escort service and respite care) unless necessary, the suspension of infected elders' receiving of all community care but meal delivery services, and the classification and portioning of areas of the residential care centres. **Quality control of staffs' knowledge on IPC:** CDC has provided a checklist for institutions to evaluate if the employees have well grasped all the IPC rules and regulations. https://www.cdc.gov.tw/File/Get/Z3O5-nlFy07LUwbO8aXn2w
	Control	**Availability of care givers:** The emergency plan in case when staffs are infected and absent for duty is required. Supporting staffs should be planned and arranged.
	Infected Cases	One caregiver was confirmed in a nursing care institution while the residents and other staff (81 in total) were tested negative. https://www.cna.com.tw/news/firstnews/202003225007.aspx
	Source	https://www.cdc.gov.tw/Category/MPage/V6Xe4EItDW3NdGTgC5PtKA (In Chinese)
UK		
	Planning and coordination	**Coordination and planning at the local level.** Aged care is a devolved policy matter, therefore different policy and regulatory frameworks exist in the different nations: England, Northern Ireland, Scotland and Wales. In preparation of COVID-19, care homes in the UK are advised to coordinate at the local level. This includes working with local authorities to establish plans for mutual aid, sharing of the workforce between providers, coordination and information sharing with local primary and community health service providers, and deployment of volunteers (if conditions allow). Most notably, the capacity for residential

		care and healthcare is coordinated at the local level, with encouraged reporting of bed vacancies of different facilities. **Market structure.** Most aged care providers are for-profit, private companies (83%) but are regulated by Care Quality Commission, a body under the Department of Health and Social Care of the government. There are also independent quality regulators in each nation (link for more info)**.**
	Communication and reporting	**Using virtual tools for reporting.** Several virtual tools are recommended to report capacity for bed vacancies, facilitate secure transfer of information, and knowledge sharing and the soliciting of advice from general practitioners, acute care staff, local Public Health England protection teams, and community health staff. RESTORE2, a physical deterioration and escalation tool for care/nursing homes that have been rolled out in various parts of the UK should be used to measure vital signs and communicate concerns to healthcare professionals (https://www.bgs.org.uk/resources/covid-19-managing-the-covid-19-pandemic-in-care-homes). **Care home COVID-19 response pack.** Public Health England – South East has prepared a care home response pack that is sent out to all care and residential homes in the area (https://new.brighton-hove.gov.uk/coronavirus-covid-19/care-homes-vulnerable-and-older-people).
	Prevention	**Training of staff for measurement of vital health signs.** The British Geriatrics Society advices the training of staff to check the temperature of residents using a tympanic thermometer (inserted into the ear), and to measure other vital signs including blood pressure, heart rate, pulse oximetry and respiratory rate. This is to enable external healthcare practitioners to triage and prioritise support of residents according to need. Primary care clinicians should also share information on the level of frailty of residents (mild, moderate, severe frailty) with care homes to help inform urgent triage decisions. **Guidelines for self-isolation.** The UK Government has provided detailed guidelines in various scenarios (e.g. living alone, living with others, vulnerable individuals) for self-isolation for staff that are concerned that they have COVID-19 (https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection). **Measured consideration for limiting visitors.** Visiting policies are to be reviewed, asking no one who is suspected to have COVID-19 or is generally unwell to visit. Contractors on site should be kept to a minimum, and good hand hygiene is emphasized for visitors. At the same time, facilities are advised to consider the well-being of residents and the positive impact of seeing friends and family in the review of visiting policies. **Appropriate use and disposal of personal protective equipment.** Staff are required to use PPE including aprons, gloves, fluid repellent surgical masks, and eye protection for activities that bring them into close

		personal contact with residents. New PPE are to be used for each episode of care. Used PPE are to be stored securely within disposable rubbish bags. These bags should be placed into another bag, tied securely and kept separate from other waste within the room. This should be put aside for at least 72 hours before being disposed of as normal.
	Control	**Implementation of isolation precautions.** Isolation precautions are to be implemented when someone in the facility displays symptoms of COVID-19 in the same way that they would operate if an individual had influenza. If isolation is needed, a resident's own room can be used. Ideally, the room should be a single bedroom with *en suite* facilities. **Establishment of protocol for residents who are more difficult to isolate.** Care homes should have standard operating procedures for isolating residents who 'walk with purpose' (often referred to as 'wandering') as a consequence of cognitive impairment. Behavioral interventions may be employed but physical restraint should not be used. **Openness to new admissions.** Care homes should remain open to new admission as much as possible throughout the pandemic. They should be prepared to receive back care home residents who are COVID-19 positive and to isolate them on return, as part of efforts to ensure capacity for new COVID-19 cases in acute hospitals. They should follow the advice from Public Health England when accepting residents without COVID-19 back when there are confirmed cases within a home.
	Infected Cases	A care home in North Lanarkshire, Scotland has confirmed six cases of COVID-19. The home caters for about 70 elderly patients (https://www.bbc.com/news/uk-scotland-glasgow-west-51902133).
US		
	Planning and coordination	**Market structure.** Most aged care providers are for-profit companies (69.3%) that are either Medicare/Medicaid certified or regulated by state or federal government (click on link for more info). **Coordination.** A White House Coronavirus Task Force has been set up to coordinate and oversee the Administration's efforts to monitor the spread of the virus, with the U.S. Department of Health and Human Services (HHS) as the lead federal agency. **Financial support.** With the passing of the Family's First Coronavirus Response Act, veterans receiving care in aged care facilities (as well as staff) stand to benefit from the $60 million provided. Additionally, costs of care for individuals who are not insured by a federal plan will be reimbursed to their providers if the care is related to COVID-19. A further $50 million is provided to expand Telehealth platforms for nursing homes through the Advancing Connectivity during the Coronavirus to Ensure Support for Seniors (ACCESS) Act.

		Planning. Appropriate planning should be conducted on various aspects of the operation of the facility, including: (1) plans to mitigate staffing shortages; (2) plans for cohorting residents with symptoms of respiratory infection, including dedicating staff to work only on affected units; (3) implement mechanisms and policies that promote situational awareness for facility staff including infection control, healthcare epidemiology, facility leadership, occupational health, clinical laboratory, and frontline staff about known or suspected COVID-19 patients and facility plans for response. **Targeted Infection Control inspections:** Federal and state inspectors will conduct targeted infection control inspections of providers identified through Centers for Medicare & Medicaid Services (CMS) collaboration with the Centers for Disease Control and Prevention (CDC). These inspectors will use a streamlined targeted review checklist to minimize the impact on provider activities, while ensuring providers are implementing actions to protect health and safety. CMS also urges facilities to utilise the self-assessment tool provided to prevent the spread of COVD-19 and encourages residents and families to ask how facility staff performed on its self-assessment. **Designate a respiratory virus evaluation centre.** A location in the area is to be identified as a "respiratory virus evaluation center" where patients with fever or respiratory symptoms can seek evaluation and care.
	Communication and reporting	**Covid-19 Preparedness Checklist for Nursing Homes**. There is a non-mandatory checklist prepared by the CDC that aims to identify key areas that care facilities should consider and self-assess the strengths and weaknesses of current preparedness efforts (https://www.cdc.gov/coronavirus/2019-ncov/downloads/novel-coronavirus-2019-Nursing-Homes-Preparedness-Checklist_3_13.pdf) **Connection with public health authorities.** Facilities should communicate and collaborate with public health authorities. This includes designating specific persons within the facility who are responsible for communication with public health officials and dissemination of information to staff. **Signage on visitor policy.** Signs should be posted at the entrances to the facility advising that no visitors may enter the facility.
	Prevention	**Training and demonstration of competency of staff.** Staff should be provided with job- or task-specific education and training on preventing transmission of infection agents, including refresher training. Adherence to infection prevention and control measures, including hand hygiene and selection and use of PPE should be reinforced. Staff can be instructed to demonstrate competency, particularly in putting on and removing PPE. **Educate consultant personnel and volunteers.** This includes both facility-based and consultant personnel and volunteers. Including consultants is important because they often provide care in multiple facilities and can be exposed to or serve as a source of pathogen transmissions.

		Case to case decision-making on exceptional visitation rights. Decisions about visitation during an end of life situation should be made on a case to case basis, which should include careful screening of the visitor for fever or respiratory symptoms. Those visitors that are permitted must wear a facemask while in the building and restrict their visit to the resident's room or other location designated by the facility. They should also be reminded to frequently perform hand hygiene. **Screen all staff at the beginning of shift for symptoms**. Actively take their temperature and document absence of shortness of breath, new or change in cough, and sore throat. If they are ill, have them put on a facemask and leave the workplace. Healthcare personnel who work in multiple locations may pose higher risk and should be asked about exposure to facilities with recognized COVID-19 cases. **Make PPE available in areas where resident care is provided**. For example, put a trash can near the exit inside the resident room to make it easy for staff to discard PPE prior to exiting the room, or before providing care for another resident in the same room. Facilities should have supplies of facemasks, respirators (if available and facility has a respiratory protection program with trained, medically cleared, and fit-tested healthcare professional), gowns, gloves, and eye protection.
	Control	**Different resident placements depending on the nature of outbreak.** Residents with known or suspected COVID-19 should ideally be placed in a private room with their own bathroom. Room sharing might be necessary if there are multiple residents with known or suspected COVID-19 in the facility. As roommates of symptomatic residents might already be exposed, it is generally not recommended to separate them in this scenario. Public health authorities can assist with decisions about resident placement. **Restrict movement of all residents in the event of an identified case in facility.** If there are cases in the facility, restrict residents (to the extent possible) to their rooms except for medically necessary purposes. If they leave their room, residents should wear a facemask, perform hand hygiene, limit their movement in the facility, and perform social distancing (stay at least 6 feet away from others). **Transfer of residents possible if they require a higher level of care.** If a resident requires a higher level of care or the facility cannot fully implement all recommended precautions, the resident should be transferred to another facility that is capable of implementation. Transport personnel and the receiving facility should be notified about the suspected diagnosis prior to transfer. While awaiting transfer, symptomatic residents should wear a facemask (if tolerated) and separated from others (e.g. kept in their room with the door closed). Appropriate PPE should be used by healthcare personnel when coming in contact with the resident.
	Infected Cases (Yes or NA)	According to CDC data, 147 nursing homes across 27 states have at least one resident with COVID-19. At least 35 residents or staff have died at a nursing home in Washington.

		https://www.cms.gov/newsroom/press-releases/cms-announces-findings-kirkland-nursing-home-and-new-targeted-plan-healthcare-facility-inspections https://www.cnbc.com/2020/03/23/coronavirus-us-health-officials-say-147-nursing-homes-have-at-least-one-case.html
	Sources	https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/prevent-spread-in-long-term-care-facilities.html https://www.cdc.gov/coronavirus/2019-ncov/downloads/novel-coronavirus-2019-Nursing-Homes-Preparedness-Checklist_3_13.pdf

Appendix 2. RKI's Summary of Infection Prevention Measures in Care Homes from Some Developed Countries

Measures and time of implementation			Recommending institution / country					# of recommending institutions
			RKI	PHAC	CDNA	CDC	HPA	
			GER	CAN	AUS	USA	GBR	
Pre-outbreak	Pneumococcal vaccination of residents		0	0	1	1	1	3
	Influenca vaccination of staff		1	1	1	1	1	5
	Influenca vaccination of residents		1	1	1	1	1	5
	Keep records of vaccination status of residents and staff		0	0	1	1	0	2
	Instructions on hygiene for residents and staff		0	0	1	0	0	1
	Year-round testing for influenca for residents with influence-like-illnesses		0	0	0	1	0	1
Outbreak	Define case		1	1	1	1	1	5
	Report outbreak		1	1	1	1	1	5
	Form outbreak team		1	0	1	0	1	3
	Active surveillance		1	1	1	1	1	5
	Record cases		1	0	1	0	1	3
	Influenca vaccination		0	1	1	0	1	3
	Instructions	Residents	1	1	1	0	1	4
		Staff	1	1	1	0	1	4
		Visitors	1	1	0	0	1	3
	Infection control	Isolation / cohort isolation of residents	1	1	1	1	1	5
		Fixed deployment of staff to healthy/sick patients	0	0	1	1	1	3
		Limit community activities	1	1	1	1	1	5
		Limit new admissions	0	0	1	1	0	2
		Relocate residents only after informing the new care home	1	1	1	1	0	4
		Limit visitors	1	1	1	1	1	5
		Instruct sick staff to stay away	1	0	1	1	1	4
		Instruct staff without vaccination to stay away	0	1	1	0	0	2
		Warn visitors (through signs)	0	1	1	0	1	3
	Hygiene protection	Wear Face masks	1	1	1	1	1	5
		Wear protective gowns	1	1	1	1	1	5

		Wear disposable gloves	1	1	1	1	1	5
		Wear safety goggles	0	1	1	0	1	3
		Practice hand disinfection	1	1	1	1	1	5
		Practice surface disinfection	1	1	1	0	1	4
		Recommendations regarding cleaning of dishes	1	0	0	0	0	1
		Recommendations regarding cleaning of laundry	1	0	0	0	1	2
		Only use paper tissues	1	0	1	0	1	3
		Recommendations regarding properties of mattresses	1	0	0	0	0	1
	Antiviral drugs	Prophylaxis	1	1	1	1	1	5
		Therapy	0	0	0	1	1	2
Post-outbreak	Declaration of end of outbreak		0	0	1	1	0	2
	Final disinfection		1	0	0	0	0	1
	Final evaluation		1	0	1	0	0	2

Source: Robert Koch Institut. 2013. Maßnahmen zum Management von Ausbrüchen durch respiratorische Erreger in Pflegeeinrichtungen.