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# POLICY NOTE



## OLDER PEOPLE'S HEALTH AND LONG-TERM CARE DURING COVID-19: IMPACTS AND POLICY RESPONSES



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On COVID-19 Preparedness and Response

# Older People’s Health and Long-Term Care During COVID-19: Impacts and Policy Responses

**September 2023**

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# ABSTRACT

This policy note examines the major impacts of COVID-19 on various aspects of older peoples' lives and health and long-term care (LTC) systems. It also provides a close review and analysis of public health measures and their impact in seven countries: Japan, Germany, Republic of Korea (Korea), Thailand, Vietnam, the United Kingdom (UK, specifically England), and the United States (US). Globally, older people have been one of the most affected groups during the pandemic. An adequate response to the impact was neglected or delayed in many countries, hence there is a critical need for systems to be more prepared. To better protect the increasing population of older people with complex health and care needs under the current prolonged pandemic—as well as during future ones—countries with limited resources should continue to strengthen their extant community-based care systems and foster the engagement of families and civil society in elder care. These countries also need to establish formal LTC systems and increase financial and workforce capacities of their systems. Care innovations through digitalization can provide useful tools to improve system efficiency and coverage, but better evidence and further policy efforts are necessary for effective use of these tools in the development of inclusive and integrated health and care systems resilient to future pandemics. Quality, timely, comparable data is crucial to support policy making and evaluation of aged-care systems promoting the health and well-being of later life for all.

# 1. WHY DO OLDER PEOPLE'S HEALTH AND LONG-TERM CARE (LTC) MATTER?

**Older adults (population 60 years old and above) experienced greater vulnerability to COVID-19 compared to the general population.** The COVID-19 pandemic has continued for more than three years since the first case was reported, and the pandemic has impacted various aspects of people's lives regardless of their income levels (WHO 2020a). However, the impact has not been equal, particularly among the older people, who often have high biological vulnerabilities related to aging, lower immunity, reduced pulmonary function, high infection susceptibilities associated with comorbid conditions, and long and multiple medication use (Bartleson et al. 2021, Chen et al. 2021, Farshbafnadi et al. 2021). For example, EU data suggests that 26 to 66 percent of all COVID-19 deaths were in long-term care facilities (LTCFs) (ECDC Public Health Emergency Team 2020). Early COVID-19 mortality data (up until July 2020) from 12 Organisation for Economic Co-operation and Development (OECD) countries shows that an average of 47.3 percent, 44.7 percent, and 8.0 percent of total COVID-19 deaths occurred among long-term care home residents, community-dwelling older people, and younger people, respectively (Sepulveda et al. 2020). From a public health perspective, the high intrinsic vulnerability of older people, itself, justifies making them the top priority for policy making and implementation of preventive measures.

**High fatality rates among older population can also be attributed to socioeconomic and environmental risks and social determinants of health.** Limited financial protection and higher poverty levels in older population groups are prevalent globally, which can also result in poor living conditions such as a lack of food and electricity or unstable housing, and increased health-related social needs (UNDESA 2015). The lack of physical and social safety among older people residing in the community increases their risk for COVID-19 infections and negative outcomes (Oh et al. 2021, Zhang et al. 2021). Older people with such existing socially structured risks need to be identified early and protected with health and social measures by governments aiming to minimize the negative impacts of a disease outbreak or a larger pandemic. Policy efforts for social protection, however, are often less than optimal, particularly in low- and middle-income countries, where about 80 percent of people 60 years old or older are expected to be living by 2050 (WHO 2021).

**The pandemic has not only directly affected the older population but has had an impact at the family, institutional, and community levels.** Frail older people with functional dependency often need close monitoring of their health and social care, for their daily living, from informal and formal caregivers, whose health and safety are closely affected by, and in turn also affect, frail older people. The US Centers for Disease Control and Prevention (CDC) reported COVID-19-related fatality of more than 200,000 residents and staff in nursing homes as of January 2022, accounting for approximately 23 percent of all COVID-19 deaths in the US (Chidambaram 2022). Implementing public health measures for LTCFs is inherently difficult, as most residents are often fully dependent in terms of ambulation and could also have low cognitive and communication functions.

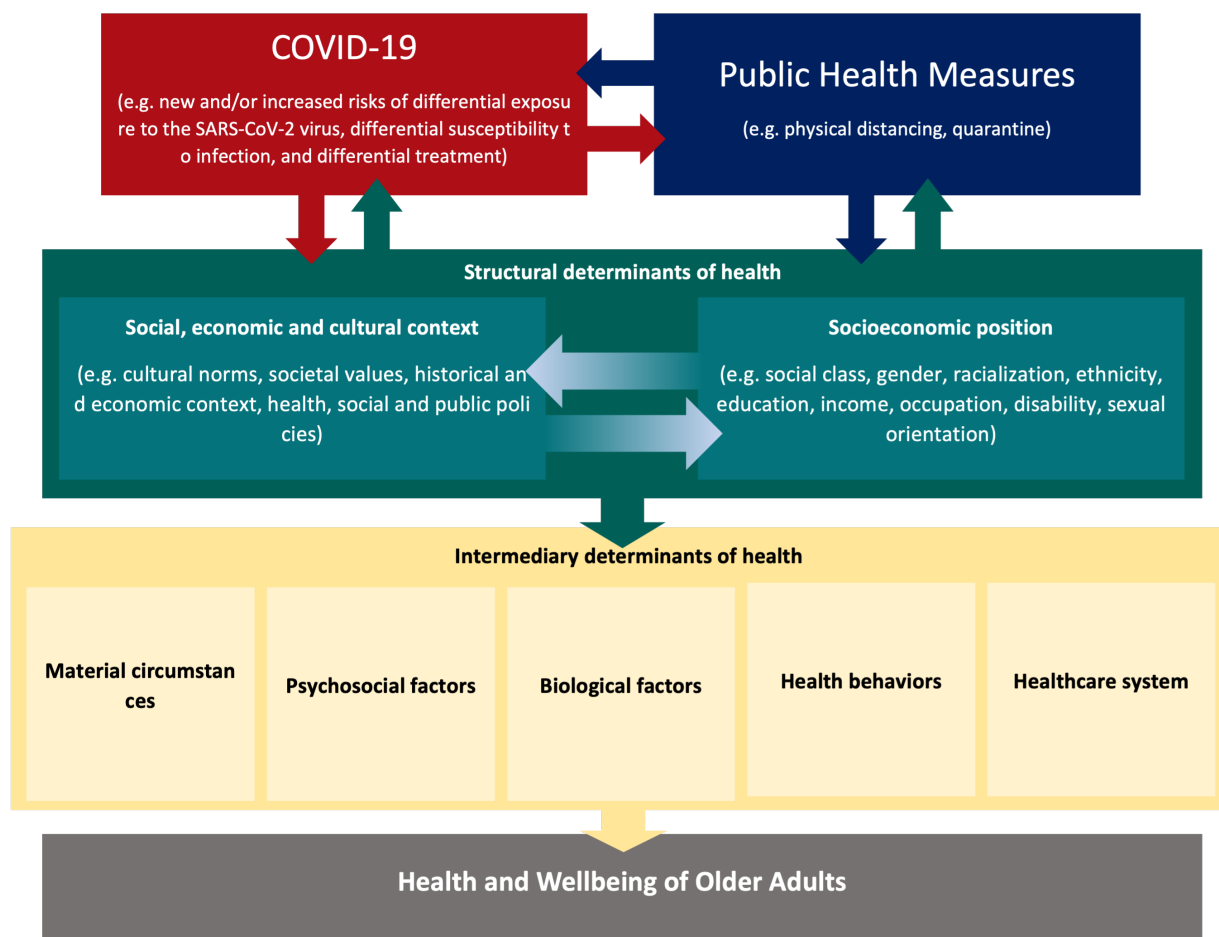
**The pandemic has tested governments' visions for, and commitment to, protecting older people's health and LTC reforms.** Long-term care is largely financed and provided publicly in most developed countries, so governments have significant roles in assuring the safety and quality of care in LTC institutions. In many low- and middle-income countries (LMICs), caring for older people is still mainly the responsibility of the family, but those countries also need to be aware of and/or develop formal LTC systems as population aging accelerates (Feng 2019). During the COVID-19 pandemic, mass infections among older residents and formal care workers in institutional care settings in high-income countries with established LTC systems have been reported, along with an abrupt discontinuity in formal home and community-based care services due to concerns about the spread of the pandemic (Chirico et al. 2022, Thompson et al. 2020). The current pandemic provides real opportunities for governments and other stakeholders to reconsider extant paths and plans for healthy aging goals, together with the effectiveness of existing policies and strategies for establishing sustainable and quality LTC systems.

# 2. METHODOLOGY

## Conceptual framework

For this policy note reviewing the impact of COVID-19 on older people’s health and policy responses to the pandemic, the conceptual framework (Figure 1) was adapted from the one developed by the Public Health Agency of Canada (PHAC 2020). The original framework is based on existing health equity models. The health and well-being of older people is affected by structural determinants of health including social and economic contexts, as well as the socioeconomic position of older people in each society. Such structural determinants of health influence intermediary determinants of health, including biological and psychosocial factors, material circumstances, health behaviors, and the health system. This has resulted in unequal health and well-being outcomes for older adults during the pandemic (Lekamwasam and Lekamwasam 2020, UN 2020b). Guided by the framework, the policy note reviews and summarizes the impacts of COVID-19 on key determinants of the health and well-being of older people.

**Figure 1:** Impacts of COVID-19 on Older People’s Health and Well-Being (Adapted from PHAC 2020)



## Selection of countries for policy responses

The impact of COVID-19 has been unequal, including among older populations. Those with long-term care needs have been the subgroup with the highest mortality rates due to COVID-19 in many countries. For a more detailed review of public health measures and policy responses, a group of countries was selected for this policy note: Japan, Germany, Korea, Thailand, Vietnam, the UK (England), and the US. These countries represent a unique



combination of characteristics in terms of the degree of population aging, formal LTC system development and features, and income levels. Japan, Germany, and Korea have public long-term care insurance models with universal coverage based on certain criteria. England and the US are countries classified as having long-term care systems with means-tested safety net schemes (OECD 2011). Thailand and Vietnam are middle-income countries with rapidly aging populations and are active in developing health and care policies and systems for their older populations. Lower-income countries tend to have relatively young populations and limited formal long-term care policies and systems; thus, little empirical evidence on them exists for this policy note.

## Review methods

For this policy note, a review was conducted of published journal articles and reports on the impacts of COVID-19 on older populations globally, including policy responses and strategies related to COVID-19 in the seven selected countries. Articles and reports were identified through database searches conducted from January 4 to January 29, 2022. Title and abstract screening and full-text review were undertaken; studies were excluded if they were interviews, case reports (focusing on a single specific institution), empirical research or review articles with a specific topic (inequality, intervention, service use, and so forth), or articles not related to older populations. An additional source of data was the LTC Responses to COVID website, an international network of LTC responses to COVID-19.<sup>1</sup>

## Limitations

One of the main limitations of this review is the limited quantum of specific data available. In the review of the impact of COVID-19 on the health of older people, the literature reviewed often did not provide specific examples and detailed statistics: The authors, experts in the field of geriatrics and gerontology, mostly reported ongoing and upcoming issues and challenges for older people, along with expected consequences, based on their expertise. In the review of the public measures and policy responses focusing on the long-term care field, the number of reports itself was relatively small. The literature also rarely specified a time period or specific dates in the policy descriptions and decisions under the rapidly changing COVID-19 situation. Detailed and valid public measures and policy tracking dedicated to the long-term care field would be valuable work, but it has not been done or at least was not open to the public for any of the selected countries when the review was conducted. In particular, a smaller number of reports for Vietnam and Thailand are publicly available. The evidence for a write-up in this section is thus rather limited, which in turn highlights the knowledge gaps and guides the next steps for future collaborative efforts on the topic.

International collaborative efforts are needed to collect and share comparable older people-specific and LTC-relevant COVID-19 statistics that can better inform policy makers in preparing for recurring and/or other pandemics in the future. The COVID-19 statistics comparing the general population and older people in each country are reported in this review at two points in time—July and December 2021. Although the pandemic is still ongoing, these points in time were selected for best representation at the time of reviewing the data and writing this thematic note.

## A note on terminology

Although there is no clear distinction in the literature between *public health measures* and *policy responses* to COVID-19, *public health measures* for this review refer mainly to activities to curb the spread of the mass infection and protect older people, and *policy responses* are policy actions taken to strengthen the long-term care system in each country, specifically addressing the building blocks of the system (for example, workforce, financing, and so forth). In this policy note, the terms *older people* and *older adults* are intentionally used throughout the title and the text instead of *the elderly*, which often has negative connotations and can lead to discrimination and negative stereotypes (Lundebjerg et al. 2017, Trucil et al. 2020).

1 The LTC Responses to COVID website is managed by the International Long-term Care Policy Network (ILPN) and Care Policy and Evaluation Centre (CPEC) at the London School of Economics and Political Science (LSE) (<https://ltccovid.org/international-reports-on-covid-19-and-long-term-care/>).

# 3. KEY FACTORS IMPACTING OLDER PEOPLE'S HEALTH OUTCOMES DURING THE PANDEMIC

COVID-19 significantly influenced the health and health care use of older people, and the health care systems' ability to cope with increasing service needs due to the pandemic. Some key areas affecting older people during the COVID-19 pandemic are described below.

- 1. Unequal access to health care:** In the face of an unprecedentedly high burden placed on health care systems and shortage of medical resources due to COVID-19, there have been reports of discrimination in the distribution of resources via triage decisions based on age or comorbidities (Farrell et al. 2020, Monahan et al. 2020, Rosenbaum 2020). This, in different ways, affected both the older and younger age groups. In such a context, violations of the right to consent to, or refuse, medical treatment among older people, such as being pressured to refuse medical treatment, has also been reported (UN 2020a). In response to such strategies for rationing service provision under the pandemic, advocates for older citizens have released position statements expressing serious concerns about ageism and calling for distributive justice de-emphasizing advanced age as a criterion for management of COVID-19 infections (Farrell et al. 2020, HelpAge International 2020a, UN 2020a). In some countries, younger age groups were provided access to vaccination later, and this also led to a discussion on unequal access, especially among the socially and economically active group (Choe 2021, see Sunohara et al. 2021 for vaccine prioritization by age).
- 2. Reduced chronic disease management:** The concentration of health care resources on COVID-19 treatment resulted in the scaling back of other health and care services, particularly those for older people, and for those needing ongoing management of a chronic illness. Services for mental health and noncommunicable diseases have been unevenly disrupted during COVID-19 due to fear of infection and/or lockdowns and lack of human and material resources for service (WHO 2020b, HelpAge International 2020b). Along with challenges related to the adequate and timely availability of health care, frail older people with LTC needs have also experienced the sudden suspension of LTC services, including home health services, day care, and dementia support, in many communities around the world (Steinman et al. 2020).
- 3. Effects on psychosocial well-being:** Prolonged periods of social distancing, and the decrease and discontinuation of social interactions, have resulted in isolation, with significant detrimental effects on the mental health of older adults (Krendl and Perry 2021, Sepulveda-Loyola et al. 2020, Wu 2020). An online survey of over 2000 older adults in Spain reported that 76 percent experienced poorer cognition, 78 percent frequent sadness, and 13 percent frequent loneliness during the lockdown (Domenech et al. 2022). Older adults with cancer, meanwhile, reported a steep increase in reported isolation, from 18 percent to 67 percent (Verma et al. 2022). Negative psychosocial well-being has been reported among community-dwelling older people living alone, and among those with low digital literacy and/or limited access to the internet and digital devices (Martins Van Jaarsveld 2020, Savage et al. 2021). Seniors who have social engagement opportunities only through regular visits to social service centers, such as senior and community centers, were also at high risk for negative mental health outcomes, as those social institutions likely closed or remained open with minimal functions during the pandemic (Kim 2020, Leland 2020). Data from Korea shows that up to 89 percent of older adults reported decreases in use of public recreational centers including senior centers and educational centers (Namkoong 2021).

During the pandemic, most countries resorted to the containment of LTC facilities due to the high numbers of vulnerable residents and the risk of mass infections. LTC residents have been disproportionately affected by such policies, as they had to cut their already diminished social networks (Ferdous 2021, Simard and Volicer 2020). Separation from family is one of the most distressing experiences for both older residents and family members (Avidor 2021). An increased risk of depression and cognitive decline are some major consequences of social disconnectedness in long-term care residents (Lekamwasam and Lekamwasam 2020).

The LTC sector is labor intensive, and its workforce is one of the lowest paid in the health care industry. It consists of primarily women, part-time staff, and often migrant workers.

- 4. Increased burden on informal caregiving:** With the cessation or limitation of formal services for older adults, the pandemic has resulted in an increased informal caregiving burden. As usage has decreased for community-based health and social care services, informal care has filled the gap (D’herde et al. 2021, Vislapuu et al. 2021). The caregiving burden has especially increased for co-residing caregivers, many of whom are older adults themselves (Vislapuu et al. 2021). Caregiving even in the best of times is associated with high levels of stress and burnout, and the pandemic has further exacerbated such outcomes through its negative impacts on emotional, economic, and health-related stress (Sheth et al. 2021, Rodrigues et al. 2021). Although a few countries implemented measures such as technology aids and financial assistance for informal caregivers, the demand remained high for caregiving support (Lorenz-Dant and Comas-Herrera 2021).
- 5. Inadequate quality in long-term care workforce:** The LTC sector is labor intensive, and its workforce is one of the lowest paid in the health care industry. It consists of primarily women, part-time staff, and often migrant workers (OECD 2020). Throughout the pandemic, the onsite staff at these facilities have been on the frontlines of the situation (Hussein 2020, OECD 2020). A survey of LTC staff in the US during the pandemic revealed high rates of fear and stress associated with infections, burnout due to staffing shortages and increased workloads, and frustration with the constantly changing and unrealistic guidelines (White et al. 2021). The pandemic revealed marginalization of the LTC workforce through reports of a lack of availability of PPE and high rates of part-time staffing, which have impacted the spread of infections (McGarry et al. 2021, White et al. 2021). In addition, migrant care workers often have unofficial and fragile employment arrangements. Reports from Europe have disclosed care shortages due to fewer migrant workers being able to work due to border closures (Leichsenring et al. 2020, Kuhlmann et al. 2020).
- 6. Increased use of innovation and technology with variations:** Information communication technology (ICT) has played a vital role in facilitating social connections and carrying out tasks during social distancing and lockdowns around the world. Emerging literature reported the benefits of older people using smartphones, videoconference applications, telemedicine, and other smart solutions to maintain their connectedness in both community and institution settings during the pandemic (Sacco et al. 2020, Elikkottil et al. 2021, Bowers et al. 2021, Choi et al. 2021, Haase et al. 2021). Although increasing proportions of older adults have adopted smart and mobile technologies in recent years, disparities persist in both access and “smart” usage of these devices, especially among lower socioeconomic groups and those with cognitive disabilities (UN 2020b, Li et al. 2021, Moore et al. 2020).

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## 4. IMPACT OF COVID-19 ON OLDER POPULATION IN SEVEN SELECTED COUNTRIES

A brief contextual overview including the health and demographic profiles and LTC systems of the selected countries is presented in Table 1. This section examines the impact of COVID-19 on the older populations in the selected countries.

**Table 1:** Profiles of the Selected Countries

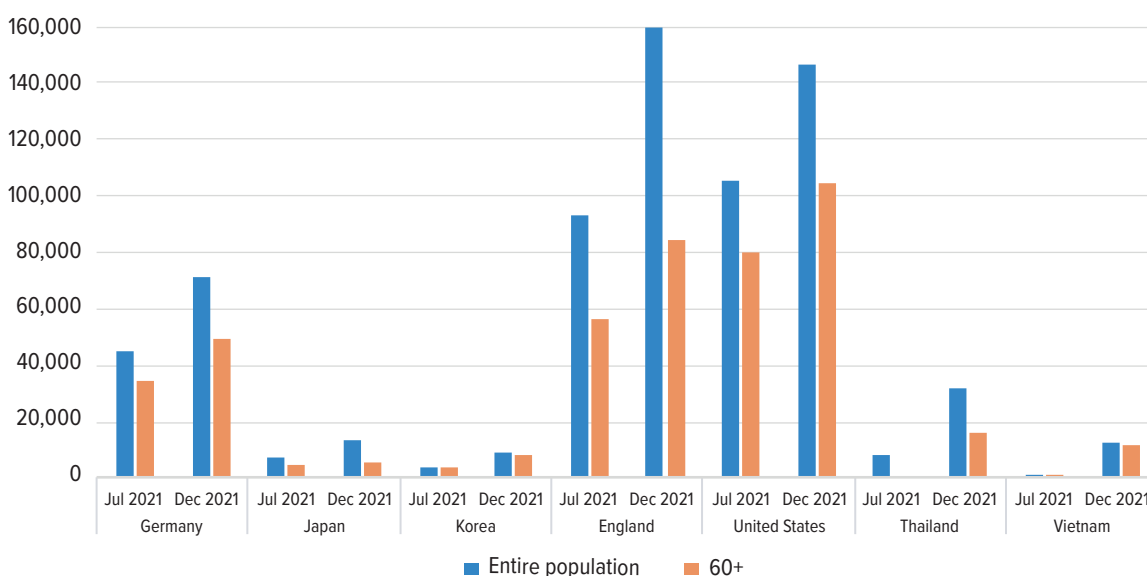
Variable	Germany	Japan	Korea	Thailand	United Kingdom (England)	United States	Vietnam
Population (Million)	83.8	126.5	51.3	69.8	67.9	331.0	97.3
People Aged 65+ (%)	21.5	27.1	13.9	11.4	18.5	15.4	7.2
Life Expectancy	81.3	84.6	83.0	77.2	81.3	78.9	75.4
Median Age	46.6	48.2	43.4	49.1	40.8	38.3	32.6
GDP per Capita, PPP (2021)	58,276	42,140	46,889	18,761	50,810	69,288	11,676
Human Dev. Index	1.0	0.9	0.9	0.8	0.9	0.9	0.7
Hospital Beds (per 1,000)	8.0	13.1	12.3	2.1	2.5	2.8	2.6

Source: Our World in Data, <https://ourworldindata.org/coronavirus>

## COVID-19’s impact on the older and general populations

The number of cumulative confirmed cases is somewhat lower in the older population than the general population in all seven countries, according to statistics from July and December 2021 (Figure 2). In April 2021, the pattern for Korea was different, but then it changed to match the other six countries (Hong et al. 2021). This may be attributed to the possibility that older people are more compliant with social distancing measures due to concerns about infection and/or their greater ease of compliance, as they are less likely to have full-time jobs involving close contact with others (Gould and Kassa 2020, Heemskerk et al. 2021). A lower testing rate in older groups can also be a factor due to difficulties accessing and using test services, potentially as a result of limitations in finances and transportation, as well as low health and digital literacy (Trevisan et al. 2021).

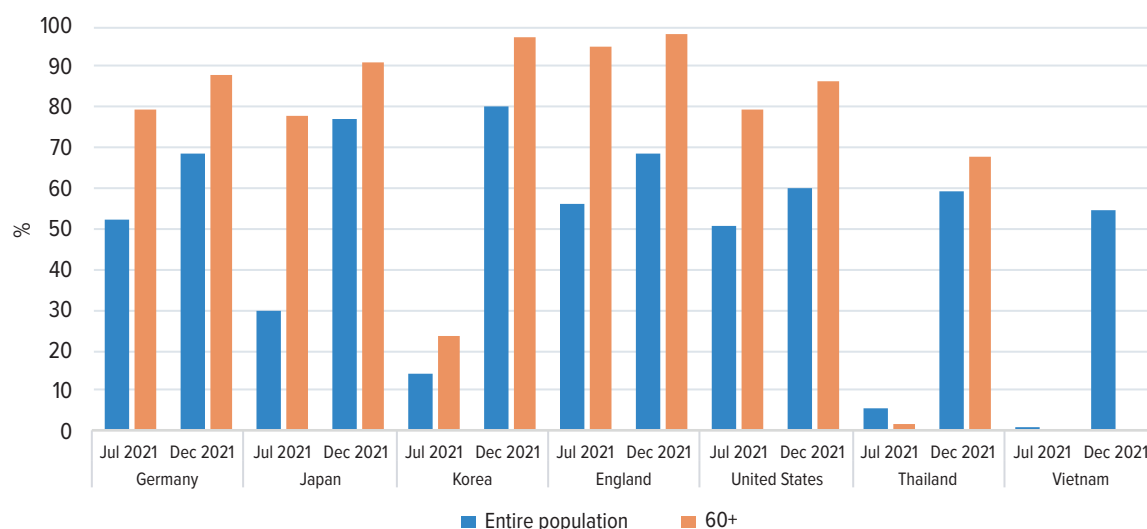
**Figure 2:** Impacts of COVID-19 on Older People’s Health and Well-Being (Adapted from PHAC 2020)



Sources: Entire-population figures are from Our World in Data, <https://ourworldindata.org/coronavirus>, and figures for the 60+ population are from the respective countries’ websites. Figures reported were collected for July 30, 2021, and December 1, 2021, or the closest date available; July data is not available for the 60+ group in Thailand.

**Countries’ public health efforts to protect their vulnerable and older populations may have led to lower infection rates.** All seven countries reported higher vaccination rates in the older population compared to the general population (Figure 3). The two-dose vaccination rate among people 60 years old and above in the five high-income countries was the highest in England (98.2 percent) and the lowest in the U.S. (86.3 percent) in December 2021. In Korea, due to low vaccine supply, the percentage of people with at least one dose was as low as 38.2 percent in the general population in July 2021, but for the older population, the rate was 80.6 percent, and the fully vaccinated rate reached 97.5 percent by the end of 2021. In Thailand, the rates for both the older (67.7 percent) and the general (59.3 percent) populations were at similar, somewhat low, levels in December 2021. For Vietnam, the full-vaccination rate was also rather low, at only 54.2 percent for the general population, with no available data for older Vietnamese people, at the same time point.

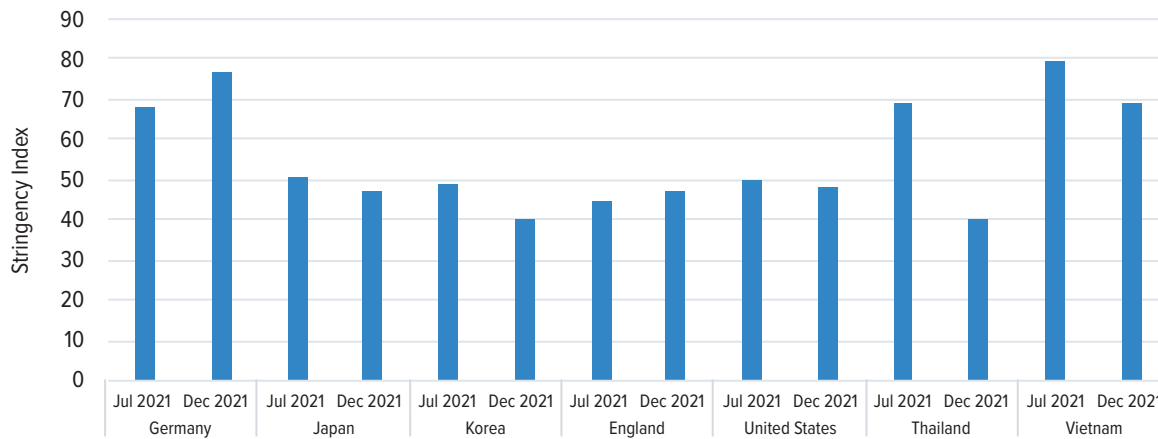
**Figure 3: Proportion of Population Fully Vaccinated Against COVID-19 for Selected Countries in July and December 2021**



Source: Entire-population figures are from Our World in Data, <https://ourworldindata.org/coronavirus>; and the figures for the 60+ population are from the respective countries’ websites. Figures reported were collected for July 30, 2021, and December 1, 2021, or the closest date available. Data is not available for the 60+ group in Vietnam; Japan and the US reported data for the 65+ population.

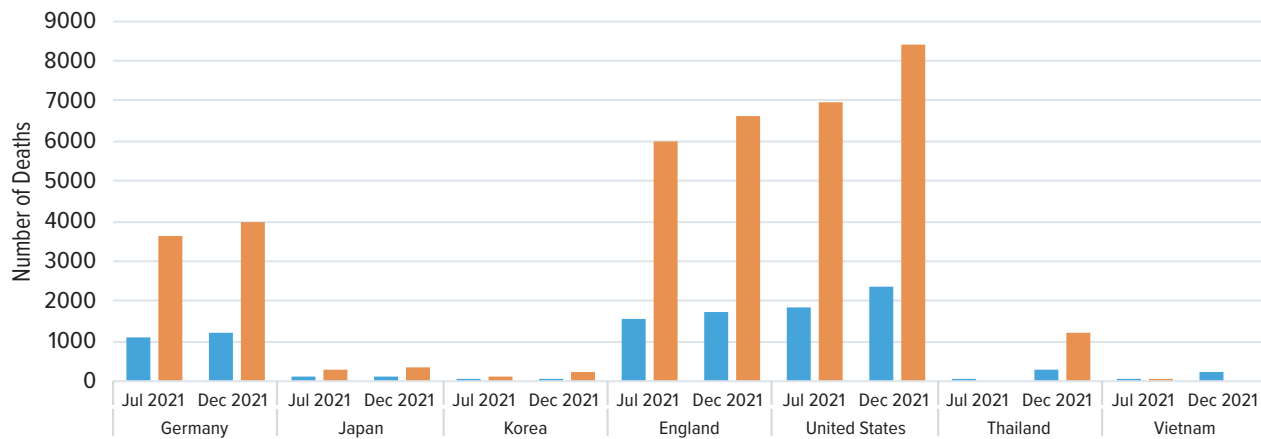
**In contrast to the confirmed case numbers, almost all the selected countries reported far higher cumulative death rates in their older population compared to the total population.** The death rate among the older population was about three to six times higher than the death rates in the total population, particularly before COVID-19 vaccination became available. A lower death rate was reported only in Vietnam in July 2021 (although no data was available for December 2021 at the time of researching this policy note). This may be due to the country’s relatively young population compared to other countries—it has the lowest percentage of old adults among the seven countries (7.2 percent). The highest is in Japan (27.1 percent), followed by Germany (21.5 percent) and Thailand (11.4 percent). Vietnam had also implemented strict public health measures (Stringency Index: 79.17; Figure 4). The difference in death rates between older and total population for the other six countries varied from 2.6 times (Japan) to 3.9 times (Thailand) higher for older people, based on the statistics for December 2021 (Figure 5). The case fatality rate (Figure 6) for the older population was much higher than that for the younger population in all seven countries. The gap was the highest in Vietnam (with older case fatality rates 10.6 times higher than total case fatality rates in July), followed by Thailand (7.4 times higher in December), and England (6.3 times higher in July and 7.1 times higher in December). In the US, the case fatality rate in the older population was consistently more than five times higher than the rates for the total population in both July and December 2021. On the other hand, the case fatality rate for the older population was less than five times higher in Japan, Korea, and Germany (4.0 to 4.8 times higher) except for Japan in December 2021 (5.8 times higher) because of a decrease in the case fatality rate among the younger population in Japan (Du 2021).

**Figure 4:** Stringency Index of Selected Countries in July and December 2021



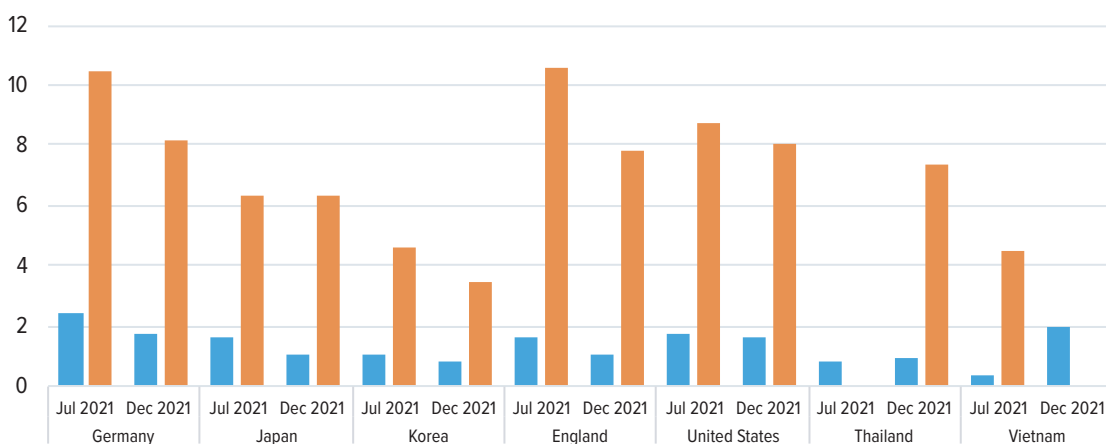
Source: Our World in Data, <https://ourworldindata.org/coronavirus>; figures reported were collected for July 30, 2021, and December 1, 2021

**Figure 5:** Cumulative COVID-19 Deaths per 100,000 Population for Selected Countries in July and December 2021



Sources: Entire-population figures are from Our World in Data, <https://ourworldindata.org/coronavirus>, and the figures for the 60+ group are from the respective countries' websites. Figures reported were collected for July 30, 2021, and December 1, 2021, or the closest date available. Data on the 60+ group was not available for Thailand (July) and Vietnam (December).

**Figure 6:** Case Fatality Rates for Selected Countries in July and December 2021



Sources: Entire-population figures are from Our World in Data, <https://ourworldindata.org/coronavirus>, and the figures for the 60+ group are from the respective countries' websites. Figures reported were collected for July 30, 2021, and December 1, 2021, or the closest date available. Data on the 60+ group was not available for Thailand (July) and Vietnam (December).

**The cross-country statistics suggest that existing LTC systems can be a critical institutional factor related to the COVID-19 response of each country.** The average ratio of older-to-total case fatality rate at the two observation points in Figure 6 was the lowest in Korea (4.3), followed by Germany (4.6) and Japan (4.9)—countries with public LTC systems with universal coverage. The ratios were somewhat higher in the U.S. (5.1) and England (6.7)—countries with LTC systems with means-tested safety net schemes, and the ratio was much higher in Thailand (7.4 in December 2021) and Vietnam (10.8, July 2021 data). The high rates of COVID-19-related deaths primarily occurred among older long-term care individuals and/or those with LTC needs (Sepulveda et al. 2020). Thus, the observed variations across countries can be also explained by the differences in financing and organization of LTC systems. Data should be interpreted with caution, as there are diverse factors that potentially contributed to the COVID-19-related death and case fatality rates, including data quality, time period of reported data during the rapidly changing pandemic situation, and higher percentage of older population.

**Despite these limitations, existing LTC systems based on social insurance and availability of acute-care hospital beds helped protect the older population.** Countries with robust LTC systems financed by a social insurance scheme include Germany, Japan, and Korea, and they performed better in protecting their older populations compared to the other countries. These three countries have established long-term care systems financed by a social insurance scheme, with eligibility based on the extent of care need. No means tests are required for care eligibility (Fischer et al. 2022). The details of the systems vary, but these social-insurance-based LTC systems share some features such as entitlement to comprehensive community- and institution-based long-term care services for all citizens who meet certain criteria; a nationwide common eligibility standard, with tests based on functional needs; and scaling of premiums and copayments according to income level, aiming to ensure access to care for low-income citizens. The three countries' public long-term care systems are also closely associated with health care systems that are financed by social health insurances with universal coverage (Fischer et al. 2022). Another factor that may contribute to the relatively low death rates in these countries is the availability of acute-care hospital beds, which is quite high compared to many other OECD countries (OECD 2021b). Even though this has been considered an issue related to potential increases in the lengths of hospital stays and health care expenditure (OECD 2021b), it was an advantage allowing a rapid response to the sudden increase in demand for inpatient care, in particular for older people, during the pandemic.

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## 5. PUBLIC HEALTH MEASURES AND POLICY RESPONSES FOR THE LONG-TERM CARE SECTOR: EVIDENCE FROM SELECTED COUNTRIES

Beyond the institutional factors shaping the LTC system and its operation in the seven selected countries, this section discusses the common key public health measures and policy responses for the LTC sector, together with a range of strategies for implementing these common measures and policies.

### Public health measures to curb the spread of COVID-19 among older people

**The provision of infection prevention and control (IPC) guidelines and standards was an essential public health measure reported by all the selected countries.** In **Vietnam**, the Ministry of Health provided guidelines for temporary chronic care management at the grassroots level for older people, including for prevention and health care for community-dwelling older adults (Tran et al. 2021). **Thailand** provided guidelines for family caregivers who play an important role in caring for older people with LTC needs (APDA 2020). The Department of Older Persons also issued a manual for all government care homes on the prevention and control of COVID-19 by ensuring social distancing (Srifuengfung et al. 2021). Japan, Germany, and Korea, countries with social long-term care insurance (LTCI), have existing quality regulation and monitoring systems for various types of LTC institutions reimbursed by their social LTCIs. In **Japan**, the Ministry of Health, Labor, and Welfare issued various guidelines for all LTC and social welfare facilities, including guidelines for cleaning and sterilizing,

identifying, and managing residents and staff suspected to be infected, and reporting COVID-19 incidents to public authorities (Estévez-Abe and Ide 2020). **Germany** provided detailed information on infection control, as well as hygiene measures and protocols for residential care settings, in order to manage suspected and confirmed cases and outbreaks (Lorenz-Dant 2020). In **Korea**, the Korean National Health Insurance Services, the single public insurer of LTC and health care, issued response manuals specific to social welfare and LTC facilities, including detailed protocols for handling suspected and confirmed cases among staff and service recipients, as well as guidelines for preventing infection transmission to the vulnerable (Lee et al. 2021).

**Making LTC and social welfare facilities a priority for testing, contact tracing, and monitoring the spread of COVID-19 was a critical strategy in preventing mass infection and saving the lives of frail older people, even though this measure can be resource intensive.** Most countries globally had a limited testing capacity and thus prioritized hospital settings at the beginning of the pandemic (WHO 2020c). With a relatively high capacity for testing, tracing, and monitoring, **Korea** proactively put vulnerable older people and their formal caregivers in a priority group, provided periodic free tests, and set monitoring systems to check LTC and social welfare facilities' compliance with the standardized guidelines for IPC (Kim 2020). The government also mandated periodic polymerase chain reaction (PCR) testing of care workers in LTC hospitals and nursing homes until March 2022; the results were also monitored closely by local public authorities. Such strict preventive measures have been beneficial to curbing the spread of the infection, while placing a high operational and psychological burden on administrators and staff (Park 2022). When the government rolled out vaccinations in early 2021, about 9 million older residents and care workers in LTC institutions were the second priority group following the 1.3 million patients and workers at medical institutions (Government of South Korea 2021). As Omicron, known to be less fatal particularly among those vaccinated, became the major variant, the Korean government loosened its intensive test-trace-treat strategy starting in March 2022, as the fully vaccinated rate among people 60 years old and above had reached almost 98 percent. This resulted in a substantial increase in confirmed cases, but the cumulative case fatality rate was the second lowest among the seven selected countries, after Japan, in August 2022 (Ritchie et al. 2022). In **Germany**, adequate testing of residents and staff at LTC facilities has been advised, especially when an outbreak or change in the local epidemiologic situation occurs (Grund et al. 2020). In the **US**, several states require testing of all residents and staff in LTC facilities (McBride 2020); and **England** announced a mandated one-off testing for all staff, older residents, and those with dementia (Comas-Herrera et al. 2020).

**All seven countries put an effort into effective monitoring and evaluation of the impact of COVID-19 in LTC settings.** **Japan** already had in place effective communication channels between public authorities and LTC facilities, the use of which contributed to the rapid implementation of various guidelines (Estévez-Abe and Ide 2021a). The country primarily relied on existing protocols for infection control and monitoring systems, with the integration of pandemic-specific measures into existing systems, rather than a new set of frameworks or protocols (Estévez-Abe and Ide 2021b). **Korea** implemented aggressive containment measures in LTC hospitals and facilities including regular symptom-monitoring checks; personal hygiene measures; entry and exit management of workers and residents; restrictions of visitors; temporary, selective cohort quarantines as a preventive measure for facilities in high-incidence regions; and periodic, nationwide inspections of long-term care hospitals (Kim 2020). Population-level measures, such as early detection through extensive testing; close tracking using information technology such as the Global Positioning System (GPS); and testing treatment at no or low cost have contributed to controlling infections in LTC settings (Kim 2020). **German** public authorities emphasized the importance of close monitoring of COVID-19-related events in institutional care settings and the role of trained care workers (Lorenz-Dant 2020). **Thailand** actively engaged civil society in managing COVID-19 (Patcharanaruamol et al. 2020); the government reached out to millions of Thais by delivering essential information through health volunteer networks.

## **Policy responses strengthening the long-term care system during the pandemic**

**Various policy efforts concentrated on securing adequate care workers and relevant resources to deliver quality LTC under COVID-19.** The Cabinet of **Thailand** approved new posts of 40 thousand civil servants, allowing the hire of nurses, direct-care health workers, and other professionals responding to COVID-19 (Patcharanaruamol et al. 2020). The **German** government announced an increase in the hourly minimum wage of LTC workers (OECD 2021a). Nursing homes could also share their staff members with one another and recruit



## In Korea, temporary reimbursement guidelines were provided for LTC institutions, along with waived staffing regulations and temporary reimbursement packages to supply PPE to care workers at a relatively low cost.

medical students with nursing backgrounds, as nursing homes were allowed by the government to deviate from certain rules and staffing levels in order to maintain care provision (Grund et al. 2020). Unpaid family caregivers received extended financial support if care interruption occurred during COVID-19 (OECD 2021a). Extended day and night care services were also provided through a care strengthening bill (Lorenz-Dant 2020). The **Korean** government and National Health Insurance Services (NHIS) increased the wages of LTC workers permanently at the beginning of the pandemic (OECD 2021a). The NHIS in Korea also temporarily adjusted reimbursement guidelines for LTC agencies in consideration of possible changes due to social distancing measures and staff shortages because of COVID-19. **Japan** extended the contracts and visas and provided special wages for foreign workers in LTC (OECD 2021a). The country also provided psychological support for care workers through free mental well-being services. **England** (UK Government 2020) and the **United States** (Daly 2020, Xu et al. 2020) increased wages in response to declining numbers of care workers in the sector while the pandemic accelerated (Xu 2020). In the US, as in other countries, various policy efforts to overcome a workforce shortage have also been implemented, including regulatory waivers; training and deployment, at the federal level, of more nursing staff to LTC facilities; and at state level, calling in retired, inactive health care workers and those from other sectors to work in nursing homes (Van Houtven et al. 2020, Chen et al. 2020).

**Additional funding designated for long-term care has been mobilized to respond to and recover from the pandemic.** The US and England, both of which have had high numbers of casualties in care homes (Comas-Herrera et al. 2021), implemented various funding strategies to respond to the pandemic. The **United States** passed the CARES Act in March 2020, and an earmarked fund of US\$100 billion was allocated to health care providers (Van Houtven et al. 2020). LTC facilities received financial support to recruit care workers independently (Denny-Brown 2021). Skilled nursing facilities (SNFs) were also made eligible to receive expedited payment for Medicare services. SNFs impacted by COVID-19 could receive three-month advance payments for Medicare services (Van Houtven et al. 2020). The Center for Medicare and Medicaid Services (CMS) also provided funding for SNFs to convert their facilities to accept residents infected with COVID-19 only. **England** allocated special funding to support local governments with service provision including adult social care (Comas-Herrera et al. 2020) and distributed personal protective equipment (PPE) to all care homes and care home providers. In **Vietnam**, free benefits, including free testing and medical care, were provided to older people. Free food was also provided to older adults residing in lockdown areas (Tung 2020). Some subsidies in the form of direct cash payments and/or free essential food were implemented. Additionally, in terms of financial support, the nongovernmental sector, including entrepreneurs and private donors, took on significant roles (Tung 2020): the Fatherland Front created charity funds to assist preventive and control measures for the pandemic, the Youth Union supplied free food to disadvantaged and lonely elderly and also helped with health education for households on how to prevent COVID-19, and the Women's Union also provided essential foods for older women without sufficient family support. Countries with social insurance-based LTC systems used their existing financing mechanisms for economic assistance to LTC providers: a series of supplementary budgets was allocated for the Medical and Welfare Service Agency in **Japan**, which could then dispense emergency loans to medical and LTC facilities (Estévez-Abe and Ide 2021b). In **Korea**, temporary reimbursement guidelines were provided for LTC institutions, along with waived staffing regulations and temporary reimbursement packages to supply PPE to care workers at a relatively low cost (Kim 2020). In **Germany**, funding and support packages assisted LTC facilities (Lorenz-Dant 2020).

**Provision of essential health services without disruption was an important policy goal in maintaining the health of older people.** The Ministry of Public Health in **Thailand** has supported health care institutions in continuing to provide essential health services and improve service delivery during the pandemic by developing policies and operational guidelines (Patcharanaruamol et al. 2020). **Vietnam** put effort into not disrupting social security schemes and continuing its social security programs; people continue to receive pensions and/or social insurance transfers (HelpAge International 2020c). Services targeting high-risk groups were implemented, including health management for older adults, chronic care management programs, and home-based medical examinations. The National Health Services (NHS) in **England** ensured that people in care homes received proper primary care and community health services (Comas-Herrera et al. 2020). The NHS also aimed to support transition from hospital discharge by announcing the expansion of the existing care home tracker system developed by the North of England Commissioning Support Unit (NECS), a tool that facilitates the search for care homes with available capacity. The Department of Health and Social Care in England gave a grant to a leading nursing charity to develop a network of social care nurses and other professionals who are infection prevention and control (IPC) champions for the adult social care sector, including both care homes and domiciliary care services. The major activities of the IPC network involved supporting care institutions in maintaining and improving IPC standards by sharing best practices via various routes, including virtual meetings, discussion forums, and a newsletter (Comas-Herrera et al. 2021). To ensure access to crucial medicines in care homes and hospice settings in England during the peak of the COVID-19 pandemic, the Department of Health and Social Care temporarily allowed the re-issuing of medicines to another resident when the resident with the original prescription no longer needed the medicine, relaxing normally strict regulations against recycling medicine, considering concerns about limited supplies.

**COVID-19 has opened wide a window of opportunity for policies relating to the digitalization of care for older people in order to increase access and continuity of care while decreasing transmission of infection.** The **US** rapidly expanded access to care by reimbursing telehealth services for older people through Medicare, increasing uptake of these services very rapidly since March 2020 (Van Houtven et al. 2020, Omboni et al. 2022). Reimbursement for remote patient monitoring was approved. Postacute telehealth visits by multidisciplinary teams were also approved, through which clinical psychologists, social workers, physical therapists, and other professionals could contact patients staying at home and provide remote evaluations and relevant treatment. People residing in the community with long-term care needs are also eligible for such support through home-based telehealth programs. In addition, behavioral or substance use disorder interventions can be delivered remotely to Medicare beneficiaries (Van Houtven et al. 2020). The NHS in **England** recommended that all general physicians (GPs) in the country provide patient triaging in a non-face-to-face manner via the internet, telephone, or video to decrease the risk of spreading infection. The NHS also advised patients to receive teleconsultations using GPs' websites and/or the NHS application (Kim et al. 2022). The Ministry of Housing, Communities and Local Government also granted funds for innovative digital solutions as part of the TechForce challenge (Comas-Herrera et al. 2020). **Japan**, which had previously used web-based information and communications technology (ICT) in the field of medicine (for example, a blood pressure monitoring system), permitted the first use of telemedicine for consultations by a physician and virtual (online) counseling on prescriptions by a pharmacist in April 2020. In June 2021, the government announced that these telehealth programs would be continued regardless of the COVID-19 situation (Omboni et al. 2022). **Germany's** state of North Rhine-Westphalia at the start of the pandemic established a state-wide teleconsultation service between regular hospitals and those providing intensive care (Omboni et al. 2022). The government also introduced telemedicine solutions to the health care sector on a broader scale and organized a joint federal committee (G-BA) to review and update regulations regarding video consultations (Omboni et al. 2022). **Korea** has also temporarily allowed online consultations and prescriptions over the phone, aiming to ensure essential care, increase care continuity, and decrease viral transmission during the pandemic (Kim et al. 2021). **Vietnam** has launched a project that aims to introduce telehealth and other alternative online and distance health services to more than 1,000 hospitals and medical facilities in the country (Nguyen et al. 2021). Hospitals that adopted telemedicine programs provided home-based medical examinations and chronic disease management during the pandemic (HelpAge International 2020c). Similarly, **Thailand's** hospitals and medical institutions have also adopted telemedicine and deliver prescribed drugs to community-dwelling older people who need refills on their medication (Patcharanaruamol et al. 2020).

# 6. CONCLUSIONS

The current pandemic offered an opportunity for the central and local governments to reassess the effectiveness of their paths and strategies in protecting and promoting the health and well-being of vulnerable older people. The pandemic increased the awareness and expectation of civil societies in terms of the role of government in ensuring better social protection for disadvantaged and older populations (WHO, UN 2021). This note reviewed public health measures and policy responses to the pandemic with a focus on the long-term care sector in seven selected countries, providing a better understanding of these countries' strategies for protecting the most vulnerable, given their individual health care system and social context.

In summary, the development and provision of guidelines and standards for infection control was a common foundational strategy in all seven countries, but the extent and target of the implementation varied by country, depending on the maturity of each country's formal long-term care system. A proactive testing-tracing-treatment approach for older people and care workers in LTC facilities in the early stages of the pandemic was an effective measure, but this approach is resource intensive and requires pre-existing capacity and infrastructure. The selected countries put effort into effective surveillance and management of COVID-19, implementing multilayer public health measures across various LTC settings.

Various policies to secure and support formal and informal care workers and resources by adding emergency recovery funds were key strategies in protecting older adults. Shortages in human resources for health care, along with poor working conditions, however, limited the effect of such efforts and highlight a need for fundamental reforms in long-term care systems (National Academies of Sciences, Engineering, and Medicine 2022, OECD 2021b). Several countries made meaningful investments in reforming their long-term care systems in order to promote better access and coverage, aiming to increase the social protection of vulnerable older people (OECD 2021b). The adequacy of timing, impact, and possible continuation of emergency financing for the long-term care sector needs to be monitored and evaluated further. Telehealth for older people with complex health and care needs was adopted in all the reviewed countries to various extents. The value and impact of these innovations and their supporting policies need to be closely monitored in terms of access, cost, and quality of care.

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# 7. LESSONS LEARNED

- 1. For countries with a relatively young population and high compliance with public health measures, the priority would be to start early in preventing community infection and provide uninterrupted essential care and chronic disease management for older people during a disease outbreak or pandemic.** This approach can be effective because community transmission in the general population is likely to drive a surge in critical cases among vulnerable elders. As observed in Thailand and Vietnam, the engagement of nongovernmental organizations and citizen volunteers and the mobilization of private and humanitarian funding can also be highly instrumental in implementing public health measures and education at the local community level, as government capacity is limited in terms of financing and service delivery under emergency pandemic situations. With such increases in general protection, a more targeted approach to protecting and treating highly vulnerable older people is more possible.

- 2. Continued efforts should be made to strengthen current community-based primary care systems and foster engagement of families and civil societies in preventive long-term care.** Given the experience of mass infections and the difficulties in operating the LTC facilities during the pandemic, de-institutionalization, a shared principle of long-term care reform even before COVID-19, is likely to be accelerated among developed countries. Lower income countries, which often still have strong family and informal caregiving cultures, should continue to strengthen community-based, family-oriented primary care systems that can promote “aging-in-place” and prevent the need for institution-based long-term care. Policy makers should consider primary care focusing on secondary prevention including disease management and long-term care as a care continuum, a recent notion recommended by the healthy aging framework of WHO (2015, 2021). Such family-, local-, and community-oriented traditions in care delivery are not only useful in implementing public health measures during a pandemic but also beneficial for building primary care-centered, civic-engaged community care systems that support system sustainability and preventive features.
- 3. It is necessary to increase financial and workforce capacities to establish formal LTC systems in order to respond to future pandemics, considering the acceleration of the aging population.** Effectiveness of public health measures and policy responses to protect older people with long-term care needs largely depended on existing institutional designs and system capacities in each country. Facing expected population aging and prolonged and potential future pandemics, countries should establish and further develop formal long-term care systems beyond their current family-based, informal caregiving systems and should make this a policy priority; to do so, earmarked funding for long-term care is needed. LTC systems should be centered around older people, their families, and the community; and the system should deliver integrated health and social services by well-trained care workers. Proper infrastructure including a secure financial scheme and good governance is the key to building a high-quality, sustainable long-term care system for all.
- 4. Innovation via digitalization of care services for older people, families, and formal care workers is expected to accelerate in the post pandemic era.** Telehealth including remote monitoring and prescriptions can be a useful tool for a value-based system redesign, especially in resource-limited settings. At present, however, evidence on its safety, impact, quality of care, and user experience is still limited in low- and middle-income country (LMIC) settings. The digitalization of care should not compromise ongoing policy efforts to strengthen traditional health and care systems and to achieve universal coverage of health and care for older people in need. Rather, policy makers should aim the innovations toward advancing current systems through improving care access/coverage and system efficiency. Overcoming the digital divide and low digital health literacy in older people and their care workers will be a shared challenge for both LMICs and high-income countries (HICs) as they seek to maximize the benefits of digitalization of care without compromise.
- 5. Building a people-centered integrated health and care system is essential groundwork to promote healthy aging at the population level in the post-pandemic era, and to also better prepare for the future.** While not all older people are equally vulnerable; they often have multiple chronic conditions (MCC) with functional limitations. This also accounts for a disproportionate share of the total health spending within a health system. Hence ensuring timely, affordable access to quality care for older people with complex needs should be a priority for health systems. In this regard, timely access to primary care, a driver for value-based care, is particularly important for older adults with MCC, because effective treatment requires coordination and follow-up. For countries that are only slowly catching up to the demographic changes in older populations, care at home and in the communities remains the most viable strategy. Proactive investment in developing community-centered LTC system aligned well with the health system will strengthen safety and wellbeing of frail older people, families, and care workers under future pandemic risks.

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# ANNEX

## Annex 1: Sources for Figures

Statistic	Country	Source
Entire population	All	<b>Our World in Data:</b> <a href="https://ourworldindata.org/coronavirus">https://ourworldindata.org/coronavirus</a>
60+ population	Germany	<b>Cases:</b> <a href="https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Daten/Altersverteilung">https://www.rki.de/DE/Content/InfAZ/N/Neuartiges_Coronavirus/Daten/Altersverteilung</a> . <b>Deaths:</b> <a href="https://dc-covid.site.ined.fr/en/data/germany">https://dc-covid.site.ined.fr/en/data/germany</a> <b>Vaccination:</b> <a href="https://www.ecdc.europa.eu/en/publications-data/data-covid-19-vaccination-eu-eea">https://www.ecdc.europa.eu/en/publications-data/data-covid-19-vaccination-eu-eea</a>
	Japan	<b>Cases:</b> <a href="https://covid19.mhlw.go.jp/en/">https://covid19.mhlw.go.jp/en/</a> <b>Deaths:</b> <a href="https://covid19.mhlw.go.jp/en/">https://covid19.mhlw.go.jp/en/</a> <b>Vaccination:</b> <a href="https://www.kantei.go.jp/jp/headline/kansensho/vaccine.html">https://www.kantei.go.jp/jp/headline/kansensho/vaccine.html</a>
	Korea	<b>Cases:</b> <a href="http://ncov.mohw.go.kr/tcmBoardView.do?brdId=3&amp;brdGubun=31&amp;dataGubun=&amp;ncvContSeq=6151&amp;contSeq=6151&amp;board_id=312&amp;gubun=ALL">http://ncov.mohw.go.kr/tcmBoardView.do?brdId=3&amp;brdGubun=31&amp;dataGubun=&amp;ncvContSeq=6151&amp;contSeq=6151&amp;board_id=312&amp;gubun=ALL</a> <b>Deaths:</b> <a href="http://ncov.mohw.go.kr/tcmBoardView.do?brdId=3&amp;brdGubun=31&amp;dataGubun=&amp;ncvContSeq=6149&amp;contSeq=6149&amp;board_id=312&amp;gubun=ALL#">http://ncov.mohw.go.kr/tcmBoardView.do?brdId=3&amp;brdGubun=31&amp;dataGubun=&amp;ncvContSeq=6149&amp;contSeq=6149&amp;board_id=312&amp;gubun=ALL#</a> <b>Vaccination:</b> <a href="http://ncov.mohw.go.kr/tcmBoardView.do?brdId=3&amp;brdGubun=31&amp;dataGubun=&amp;ncvContSeq=6151&amp;contSeq=6151&amp;board_id=312&amp;gubun=ALL">http://ncov.mohw.go.kr/tcmBoardView.do?brdId=3&amp;brdGubun=31&amp;dataGubun=&amp;ncvContSeq=6151&amp;contSeq=6151&amp;board_id=312&amp;gubun=ALL</a>
	England	<b>Cases:</b> <a href="https://coronavirus.data.gov.uk/details/cases?areaType=nation&amp;areaName=England">https://coronavirus.data.gov.uk/details/cases?areaType=nation&amp;areaName=England</a> <b>Deaths:</b> <a href="https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales">https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales</a> <b>Vaccination:</b> <a href="https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-vaccinations/covid-19-vaccinations-archive/">https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-vaccinations/covid-19-vaccinations-archive/</a>
	United States	<b>Cases:</b> <a href="https://data.cdc.gov/Case-Surveillance/COVID-19-Case-Surveillance-Public-Use-Data/vbim-akqf">https://data.cdc.gov/Case-Surveillance/COVID-19-Case-Surveillance-Public-Use-Data/vbim-akqf</a> <b>Deaths:</b> <a href="https://data.cdc.gov/Case-Surveillance/COVID-19-Case-Surveillance-Public-Use-Data/vbim-akqf">https://data.cdc.gov/Case-Surveillance/COVID-19-Case-Surveillance-Public-Use-Data/vbim-akqf</a> <b>Vaccination:</b> <a href="https://data.cdc.gov/Vaccinations/COVID-19-Vaccinations-in-the-United-States-Jurisdi/unsk-b7fc">https://data.cdc.gov/Vaccinations/COVID-19-Vaccinations-in-the-United-States-Jurisdi/unsk-b7fc</a>
	Thailand	<b>Cases:</b> <a href="https://cdn.who.int/media/docs/default-source/searo/thailand/2021_12_17_tha-sitrep-214-covid-19.pdf">https://cdn.who.int/media/docs/default-source/searo/thailand/2021_12_17_tha-sitrep-214-covid-19.pdf</a> <b>Deaths:</b> <a href="https://cdn.who.int/media/docs/default-source/searo/thailand/2021_12_17_tha-sitrep-214-covid-19.pdf">https://cdn.who.int/media/docs/default-source/searo/thailand/2021_12_17_tha-sitrep-214-covid-19.pdf</a> <b>Vaccination:</b> <a href="https://ddc.moph.go.th/vaccine-covid19/getFiles/10/1629029468150.pdf">https://ddc.moph.go.th/vaccine-covid19/getFiles/10/1629029468150.pdf</a> <a href="https://ddc.moph.go.th/vaccine-covid19/getFiles/10/1641441573738.pdf">https://ddc.moph.go.th/vaccine-covid19/getFiles/10/1641441573738.pdf</a>
	Vietnam	<b>Cases:</b> <a href="https://www.who.int/docs/default-source/wpro---documents/countries/viet-nam/covid-19/viet-nam-moh-who-covid-19-sitrep_1aug2021.pdf?sfvrsn=5474472c_5">https://www.who.int/docs/default-source/wpro---documents/countries/viet-nam/covid-19/viet-nam-moh-who-covid-19-sitrep_1aug2021.pdf?sfvrsn=5474472c_5</a> <a href="https://www.who.int/docs/default-source/wpro---documents/countries/viet-nam/covid-19/viet-nam-moh-who-covid-19-sitrep_12dec2021.pdf?sfvrsn=17569785_5&amp;download=true">https://www.who.int/docs/default-source/wpro---documents/countries/viet-nam/covid-19/viet-nam-moh-who-covid-19-sitrep_12dec2021.pdf?sfvrsn=17569785_5&amp;download=true</a> <b>Deaths:</b> <a href="https://www.who.int/docs/default-source/wpro---documents/countries/viet-nam/covid-19/viet-nam-moh-who-covid-19-sitrep_1aug2021.pdf?sfvrsn=5474472c_5">https://www.who.int/docs/default-source/wpro---documents/countries/viet-nam/covid-19/viet-nam-moh-who-covid-19-sitrep_1aug2021.pdf?sfvrsn=5474472c_5</a>





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