

COVID-19, OLDER ADULTS AND THE AGEING SOCIETY

Suhita Chopra Chatterjee and Debolina Chatterjee



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COVID-19 has brought unprecedented challenges in the care of older adults. During the first surge of the pandemic, governments all over the world struggled with high disease severity and increased mortality among older adults.

This work documents the impact of the pandemic by collating information from different countries and by synthesizing inputs from several knowledge domains—Sociology, Gerontology, Geriatrics, Medicine and Public Health. The impact on older adults is examined primarily with respect to three main issues—pervasive ageism, spread of infections in care homes worldwide, and the unintended harm of public health measures on geriatric population in different care settings. The complex tensions between epidemic control and the need to respond to social and economic imperatives are investigated with respect to disadvantaged and vulnerable older adults. The book also critically examines international ageing policies with the intention of identifying gaps in pandemic response in particular, and approaches to older adult care in general. In the light of the evidence presented, lessons are drawn which might improve aged care and strengthen emergency preparedness. Finally, considering the evolving nature of the pandemic, new international responses to older adult care and pandemic management are presented as an epilogue.

It is anticipated that the book would help nourish critical thinking and implement new solutions to older care during and beyond the pandemic.

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1 Introduction

“Please do not leave the house. Ask your domestic aide to bring groceries for you and leave them outside the door. If possible, shop online.” It was March 2020. The young man seemed overtly anxious on the phone call from Seattle, where the first case of COVID-19 in the United States of America (USA) was diagnosed on 20 January 2020 in neighbouring Snohomish County. On 28 February 2020, a skilled senior living facility near Seattle reported its first positive COVID-19 test result from a resident, and by 18 March 2020, a total of 167 confirmed cases affecting 101 residents, 50 healthcare personnel, and 16 visitors were found to be epidemiologically linked to the facility. 34 residents and 1 visitor died.¹ “I wish you had picked up the know-how for online shopping the last time I visited you,” he expressed concern while talking to his mother in India. “The coronavirus is sparing the young but killing older people. Unfortunately, all my loved ones are over 60 with comorbidities—diabetes, asthma, hypertension, lung and heart disease, cancer. All of you are at risk.”

Early pandemic trends in coronavirus fatalities indicated that age was the strongest predictor of an infected person’s risk of dying. Reliable estimates of the infection fatality ratio (IFR) or the probability of dying once infected, based on data from mainland China, revealed that the virus was more lethal among older adults.² Also, those with chronic conditions suffered from health deterioration and death from COVID-19. As per an initial report of the World Health Organization (WHO)-China Joint Mission submitted on 28 February 2020, among those who died globally, 13.2% had cardiovascular problems, 9.2% diabetes, 8.0% chronic respiratory disease, 8.4% hypertension and 7.6% cancer.³ Evidence to this effect started pouring in from different countries. The USA-Center for Disease Control and Prevention (CDC) reported that 38% of the 7,162 patients with COVID-19 had an underlying health condition. Among those admitted to Intensive Care Units (ICUs), 78% had comorbidities; and among patients hospitalized but not admitted to an ICU, it was 71%. An Italian study published in March 2020 reported that of hospitalized patients with COVID-19 infections, 98.5% had a pre-existing condition, and almost 50% of them had multiple morbidities. In the United Kingdom (UK), among people who died of COVID-19 in March and April 2020, 90% had at least one pre-existing condition.⁴

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Before the boy hung up, he warned his mother again, “Self-preservation, not altruism! You need not worry for me, though,” he said, as he drew her attention once more to differences in immune responses among people of different age groups. “The infection appears to be mild in younger people. There is an evolutionary advantage for the young. However, in older people it leads to serious consequences.” He pleaded again after a pause, “If you fall sick, I am not sure how I will travel to India. And even if I do, I am not sure how I will return to the States again.”

Travel restrictions were still not in place and the WHO had not yet declared the outbreak a pandemic. Between 10 and 12 January 2020, it published a comprehensive package of guidance documents for countries, covering topics related to outbreak management of the new disease. This included guidelines on infection prevention and control, laboratory testing, national capacities review tool and risk communication. There were also advisories on community engagement, surveillance and travel among other issues. On 11 and 12 February 2020, a Global Research and Innovation Forum on the novel coronavirus was convened by WHO and was attended in person by more than 300 experts and funders from 48 countries, and by 150, virtually. Participants came together to assess the level of knowledge, identify gaps and accelerate and fund priority research equitably. Topics covered by the Forum included the origin of the virus, natural history, transmission and diagnosis. Epidemiological studies, clinical characterization and management, infection prevention and control were discussed. Research and development for candidate therapeutics and vaccines, ethical considerations for research and integration of Social Sciences into the outbreak response were also part of the deliberations. The global community was cautioned as to the need for high-quality, non-pharmaceutical public health measures, such as case detection and isolation, contact tracing and monitoring/quarantining and community engagement.⁵ The WHO, on 7 March 2020, issued a consolidated package of guidance covering preparedness, readiness and response actions for four different transmission scenarios: no cases, sporadic cases, cluster of cases and community transmissions. On 11 March 2020, the outbreak was officially declared as a pandemic. Soon countries locked their borders and subsequently clamped shutdowns and lockdowns within their national territories to combat the COVID-19 pandemic.⁶

The first surge of the pandemic in many countries of the world occurred in the winter and spring of 2020. This wave substantially ebbed during the summer, followed by an emergence of a second wave in the fall of the same year. Many international organizations involved in tracking the trajectory of the disease used the end of June 2020 as cut-off for the first wave.⁷ Initially, governments, despite being aware of the existence of the virus in other countries, failed to anticipate the risks in their own national boundaries. As a result, sporadic and cluster of cases gave way to community transmission. With gradual cognizance of the growing infections, governments had to impose national lockdowns and travel restrictions. By April 2020, about half of the world's population with more than 3.9 million people across more than 90 countries was under some form of lockdown, directed to stay

at home by their governments.⁸ Research evidence demonstrated that lockdowns were effective at reducing the spread of COVID-19 and related mortalities.^{9,10,11,12}

COVID-19: The Making of a Pandemic

In late December 2019, a cluster of pneumonia cases of unknown origin shook Wuhan in China. On 31st of the month, when an alert was issued by the Wuhan Municipal Health Commission, a rapid response team was sent there by the Chinese-CDC and WHO was notified. Epidemiological investigation suggested that the virus might have originated in Wuhan's Huanan seafood wholesale market. Accordingly, it was shut down and disinfected, and active case detection and tracing started. On 7 January 2020, the causative pathogen was identified as a novel coronavirus, and genomic characterization and test method development ensued. Under an electron microscope, it seemed to have a crown-like surface and was responsible for two outbreaks of new diseases in recent history—Severe Acute Respiratory Syndrome (SARS) in 2003 (that resulted in around 1,000 deaths) and Middle East Respiratory Syndrome (MERS) in 2012–2013 (that resulted in 862 deaths), although not considered a pandemic.¹³ The virus was found to be distinct from both (SARS-CoV and MERS-CoV) coronavirus, yet closely related. Early cases suggested that COVID-19 (the new name for disease caused by the novel coronavirus) was less severe than SARS and MERS. However, the rapid onset of illness and mounting evidence of human-to-human transmission suggested that this virus was more contagious than the earlier ones.¹⁴

Globally, as on 30 June 2020, WHO received data pertaining to 10,185,374 cases and 503,862 deaths from national authorities. Region wise, Africa reported 297,290 cases and 6,010 deaths; Americas reported 5,136,705 cases and 247,129 deaths; Eastern Mediterranean countries reported 1,058,055 cases and 24,423 deaths; Europe reported 2,692,086 cases and 197,254 deaths; South-East Asia reported 784,931 cases and 21,593 deaths and Western Pacific reported 215,566 cases and 7,440 deaths. There were also 163,865 new confirmed cases and 3,946 new deaths in the last 24 hours of the reported date.¹⁵ By 31 July 2020, the figures had increased to 17,106,007 total confirmed cases and 668,910 deaths. Americas were badly affected and the number of cases stood at 9,152,173 with a death toll of 351,121. USA had 4,388,566 total confirmed cases and 150,054 deaths with an average of 60,000 cases being recorded per day. Europe fared no better. There were 3,333,300 confirmed cases of COVID-19 across the whole of Europe since the first confirmed cases in France on January 25. Russia and UK were worst hit with 839,981 and 302,305 cases, respectively. Fatality rates were however higher in UK with 45,999 deaths. Italy, which was once the epicentre of the virus, was overtaken by Spain during July with 285,430 cases and 28,443 deaths. Among Eastern Mediterranean countries, Iran had 301,530 confirmed cases and 16,569 deaths, while India, among South-East Asian countries, recorded 1,638,870 cases and 35,747 deaths. The Western Pacific Region appeared better, with Singapore having 51,809 cases and 27 deaths, Japan having 34,372 cases and 1,006 deaths and China reporting 87,956 total cases and 4,666 deaths. The situation in some countries was much better. New Zealand had 1,210 confirmed cases and 22 deaths, while Vietnam had 510 cases and no deaths at all.¹⁶

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The pandemic revived traumatic memories of past outbreaks—Swine flu (2009–2010), Hong Kong flu (1968–1969), Asian flu (1957–1958) and the Spanish flu (1918–1920). The Spanish flu was the most severe pandemic in recent history, although a comparison of excess deaths in New York City during the beginning of the COVID-19 outbreak with excess deaths from the peak of the influenza outbreak found COVID-19 mortality rates to be higher.¹⁷ Caused by an H1N1 virus with genes of avian origin, not much is known of how and where Spanish flu originated. According to estimates, about 500 million people or one-third of the world's population became infected with this virus and 50 million died worldwide.^{18,19} A unique feature of the Spanish flu was that the mortality was high in young and healthy people in the age group of 20–40 years.²⁰ But it was not clear what made the 1918 H1N1 so devastating. In the absence of vaccines and antibiotics to treat infections, control measures were restricted to non-pharmaceutical interventions (NPIs) such as isolation, quarantine, good personal hygiene, use of disinfectants and limitations of public gatherings.²¹ This is understandable since medical science was in a nascent stage. The first antibiotics and flu vaccine were developed in 1928 and 1940, respectively, i.e., many years after the deadly flu. Lockdown, social distancing and masks saved the world then. It was seen that closure of public places like churches, schools and theatres significantly reduced the number of deaths in comparison to those places where lockdowns or physical distancing were not enforced. Doctors also discovered that recuperation under direct sun and in open air helped patients recover faster than in cooler indoor places. The only positive side to a dark period was the new global organizational attempt to improve welfare—the League of Nations, a precursor to the United Nations (UN), which founded the Health Organization in 1923. This later came to be known as the WHO in 1948. The WHO went on to play a crucial role in health matters both prior to and during the pandemic. Many advances in antivirals, vaccines, diagnostic tests and modern surveillance techniques were spearheaded in close collaboration with other agencies and national and regional institutions. In 1952, WHO launched the Global Influenza Surveillance Network with 26 collaborating laboratories around the world. It was renamed in 2011 as the Global Influenza Surveillance and Response System (GISRS). The 66-year-old network comprises of 153 institutions in 114 countries. It monitors influenza virus causing seasonal outbreaks in people, zoonotic outbreaks and potential pandemics and makes vaccine selection decisions twice a year. Countries with National Influenza Centres share virus samples and data to support this continuous monitoring. GISRS is considered to be in the frontline in the fight against influenza.²² Unfortunately, COVID-19 caught the world unprepared to tackle the outbreak.

The Therapeutic Void: Non-Pharmaceutical Interventions to the Rescue

A hundred years later when the COVID-19 struck, frantic attempts were made to search for safe and effective pharmaceutical agents for preventing or treating coronavirus. From early 2020, several pharmaceutical companies, biotechnology

firms and university research groups engaged themselves in developing therapeutic candidates for COVID-19 disease. They were in various stages of pre-clinical or clinical research. As early as March 2020, the WHO, European Medicines Agency, USA-Food and Drug Administration (FDA) and the Chinese government and drug manufacturers coordinated with academia and industry researchers to speed-develop vaccines, antiviral drugs and post-infection therapies.^{23,24,25,26} The International Clinical Trials Registry Platform of the WHO recorded 536 clinical studies to develop post-infection therapies for COVID-19 infections.^{27,28,29,30,31} In March, the WHO also launched the “Solidarity Trial” in ten countries to make a quick assessment of the potential efficacy of existing antiviral and anti-inflammatory agents on COVID-19 infected people.³² But drug development was not an easy process. There were serious controversies regarding various potential therapeutic and repurposed drugs for COVID-19. Hydroxychloroquine, and passive immunization with convalescent plasma, invited serious controversies. This is illustrated by the fact that two elite journals—*The Lancet* and *The New England Journal of Medicine* retracted two high-profile papers after the underlying data for both were refused for an independent audit. The Lancet paper which highlighted the possible adverse impact of antimalarial drug on COVID-19 patients had a global repercussion and led to halting of trials of one of the drugs.³³ Information about the biological and epidemiological characteristics of SARS-CoV-2 was also shrouded in mystery with uncertainty around nearly all parameters. For example, estimates of case fatality ratios had several biases, including high numbers of asymptomatic cases, under-reporting of both symptomatic cases and COVID-19 associated deaths, and delay between case reporting and death reporting. Regional variability in testing practices, reported incidence and outcomes of interest further confounded estimates.³⁴

Along with search for the right therapeutic agents, the initial response was heavily skewed in favour of the technological, even in low- and middle-income countries (LMICs). Mechanical ventilators were in huge demand for people with respiratory distress. As countries struggled with the pandemic, national supremacy in the war against COVID-19 began to be measured by a country’s ventilator utilization and ability to donate the technology to other less-resourced nations. Many countries received donations from governments who wished to prove that they were still leading the global coronavirus response (despite high fatality rates) and were the “king of ventilators.”³⁵ In one such move, nearly 8,000 ventilators were dispatched by USA for foreign countries even while public health experts worried over the machines crowding out more urgently needed aid. Ability of countries to use ventilators safely and appropriately were not assessed, thus wasting donations or risking patients’ lives. It was alleged that donations were made based on glamour of high-tech equipment rather than on use value and some even described this as resulting in medical graveyards without people having the knowledge and skills to use them. Many such countries which received donations were more in need of oxygen supplies and funding for nurses and doctors.³⁶

During the first surge, research for vaccine development was also accelerated in many countries, particularly in China, Russia and USA. As pressure on healthcare

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systems and economies mounted, unprecedented measures were put in place. In USA, a project, Operation Warp Speed, was initiated for funding and developing an effective vaccine. The European Commission also funded several candidates. At a virtual summit in May 2020 hosted by the European Union, about 8 billion USD were pledged for vaccine research. The WHO and other multilateral institutions such as the World Bank focused on financing and manufacturing COVID-19 vaccines for global use and their fair allocation among countries. In June 2020, the WHO-CEPI (Coalition for Epidemic Preparedness Innovations) and GAVI (The Global Alliance for Vaccines and Immunizations) launched COVAX, a global initiative aimed at distributing two billion vaccine doses by the end of the following year. As of 30 June 2020, there were over 125 vaccines in preclinical testing, 11 in Phase 1 (safety trials), 8 in Phase 2 (expanded trials), 3 in Phase 3 (efficacy trials) and 1 which got approval for limited use. These vaccines were of different types—Genetic-vaccines, Viral-vector vaccines, Protein-based, Whole-virus vaccines and Re-purposed vaccines.³⁷

The first human trial in USA began in Seattle in March 2020 with a vaccine by Moderna, Inc., which got approval for emergency use in the country, and by several others in Europe after large-scale trials found it to be highly effective. By 30 April 2020, Oxford University's Jenner Institute entered into partnership with British-Swedish Company AstraZeneca for COVID-19 vaccine development and distribution. Pfizer, Inc. based in New York and German company BioNTech in collaboration with Chinese drug maker Fosun Pharma started their Phase 3 clinical trials in July 2020. Johnson & Johnson announced start of Phase 1/2 trials in July 2020. Beijing approved four vaccines which were used later by other nations. In an attempt to accelerate vaccine development, Russia approved vaccines even before large clinical trials were completed. In May 2020, the Gamaleya Research Institute of Epidemiology and Microbiology announced that it had developed the vaccine without serious side effects. Phase 1 safety trial began on 18 June 2020 for Sputnik V.³⁸ Meanwhile, India's indigenous inactivated vaccine, Covaxin by Bharat Biotech, developed in collaboration with the Indian Council of Medical Research (ICMR)—National Institute of Virology, was approved for Phase 1/2 clinical trials by the Drug Controller General of India on 29 June 2020.³⁹

In a rush to develop vaccines, it was alleged by vaccine sceptics and anti-vaccine groups that the efficacy of the proposed interventions on older population was being neglected. There were also doubts about how nations would resolve the tension in allocating them across different age groups. While governments dismissed such concerns and got busy putting political pressure to accelerate vaccine development and their availability to the public, alarm was raised about the potential harm if they were not properly vetted. The concerns were justified given the fact that vaccine development is an arduous process, normally taking about 10–15 years on average to accomplish their stated objective.⁴⁰ The fastest vaccine to control mumps was developed in 1967 and took four years. By contrast, COVID vaccine development was expedited at an alarming speed. In USA, public health and medical experts expressed concerns that the FDA might approve vaccines that were not properly vetted under political pressure to make them available to

the public, and an unsubstantiated and hasty release could affect future vaccine development projects.⁴¹ The net effect of such controversies and doubts was to shatter the confidence on science. There was concern that the field of medicine was gripped by a “superinfection of sorts” which was resulting in forgetting of longstanding principles of evidence-based medicine, abandonment of logic and clear-headedness, and lowering the bar for adopting unproven standards of care.⁴² Controversies around hydroxychloroquine and convalescent plasma, seemed to reduce COVID-19 to an “anecdotal epidemic” which was further amplified by news, media, medical journals and political leaders to make sense of the illness.⁴³

The therapeutic void thus left the medical and public health community with only NPIs to contain the COVID-19 disease transmission both locally and globally, and included bans on public gatherings, compulsory stay-at-home policies, closure of schools and non-essential businesses, masking regulations, quarantine and *cordon sanitaire* (a defined quarantine area from which those inside are not allowed to leave), among others. The reliance on NPIs stemmed from theoretical studies conducted on influenza pandemic, and also based on historical and observational data analysis. Findings showed that rapid implementation of NPIs after detection of a new contagious pathogen could considerably reduce transmission.^{44,45,46} Early evidence was provided in a study published in *(The) Journal of the American Medical Association (JAMA)*, which showed positive epidemiologic outcomes associated with NPIs during the COVID-19 outbreak in Wuhan.⁴⁷

In the absence of clinical and pharmaceutical solutions, large-scale population testing and associated quarantines became inevitable and essential strategies to control the outbreak. However, there were variations in countries’ testing capacities depending upon strategy, logistics, capacity and regulatory measures adopted by governments. Two months after each country reached ten deaths per million population, the cumulative number of tests per 1,000 population varied substantially across countries, and ranged from less than 20 in Croatia, France and the Netherlands, to more than 100 in Denmark, Luxembourg, Lithuania, Iceland and Malta. At the beginning of the outbreak, Italy and France, decided to restrict testing to serious patients only, while in Iceland, a large-scale testing was implemented. From mid-March, Iceland started mass screening based on voluntary self-referrals to identify community transmission. Some countries tested people near to their community and residence. For instance, mobile points for testing were set up by municipalities in Lithuania to reach out to people in remote areas. Digital technologies were also used for surveillance in several other OECD (The Organization for Economic Co-operation and Development) countries.⁴⁸ Extraordinary measures of physical distancing and mobility control were introduced in many parts of the world. Quarantine-like restrictions on movement included curfews, stay-at-home orders, shelter-in-place and shutdowns or lockdowns. Almost all countries enforced some form of lockdown with the exceptions of South Korea and Taiwan, which rapidly and consistently implemented highly organized mass testing, contact tracing, public messaging and selective quarantine to identify and isolate outbreaks.^{49,50} Another exception was Japan, where people stayed at home according to advice, but the state did not enforce a

lockdown or penalize non-compliance.⁵¹ In the European Union, Sweden did not follow the lockdown strategy.^{52,53}

The strategy of quarantine evoked mixed responses. Even prior to the outbreak, it was considered by some as an overly aggressive and reactionary measure of limited effect, untethered to an evidence-based, scientific approach to the biological and epidemiological profile of a disease.^{54,55} In some places, emergency powers used by the state to restrict crowding and movement were considered as authoritarian and undemocratic, and concerns were raised over centralization of power by political leadership in countries like Hungary, Poland, China and Cambodia.^{56,57} Among the 31 European countries analysed during the first wave pandemic, 16 adopted formal stay-at-home orders with varying degrees of stringency, lasting an average of 47.5 days, ranging from 26 days in Poland to 76 days in Lithuania. Some countries adopted targeted measures for specific population groups. In UK, older adults and those with poor health were subjected to more stringent isolation and confinement measures in comparison to the general population. In almost all countries, except Sweden, public spaces such as non-essential stores, bars or restaurants were closed for average duration of 56 days. In some countries, the duration was short, as in Austria (28 days), Denmark (33 days) and Switzerland (34 days), while it was longer in other places like Ireland (120 days). Except Sweden and Iceland, primary schools were closed for an average of 68 days. In seven countries (Bulgaria, Ireland, Italy, Latvia, Poland, Portugal and Spain), they were closed until the start dates of their school summer holidays. For secondary schools, all European countries opted an average of 69 days closure. Austria and Luxembourg reported short secondary school closure (48 days), while in Bulgaria, Finland, Ireland, Italy, Latvia and Spain, closures were maintained until the summer break. Higher education institutions were closed in all countries until the new academic year. To curb the spread of infection, governments also implemented travel restrictions, including bans on non-essential travel.⁵⁸ Among the South-East Asian countries, the Indian lockdown was one of the largest where the entire 1.39 billion population was ordered to stay at home beginning 24 March till 31 May 2020.⁵⁹

Physical distancing emerged as the governing strategy to safeguard humanity from the virus. The WHO recommended a distance of 3.3 feet or more to avoid droplet-based transmission. While some countries adopted physical distancing policy as per this guideline, in others, a larger distance of 6–6.6 feet was advised. New norms of social interaction required that one maintains distance from other people, not gather in groups and avoid crowded places and mass gatherings. In addition, quarantine was also used, urging the infected to self-isolate from the healthy public. Guidelines on hand hygiene and cough etiquette were also issued.

The use of face masks for nose and mouth cover advised during COVID-19 was also a part of traditional sanitary practices against contagious diseases, popularized by surgeons to keep germs away in the operating room.⁶⁰ This strategy emerged important again together with hand washing and physical distancing to prevent transmission of the infection from the wearer to others (source control) and to protect healthy wearers (prevention). In early 2020, the WHO had only

recommended medical masks for people with suspected infection and respiratory symptoms, their caregivers and those sharing living space and healthcare workers.^{61,62} In April 2020, it reaffirmed the importance of medical masks to contain the spread, but cautioned against a false sense of security and neglect of other necessary preventive measures among mask wearers.⁶³ It again revised its mask guidance in June 2020, acknowledging having overlooked asymptomatic or pre-symptomatic spread in its earlier advisory.⁶⁴ The updated advice recommended the use of non-medical fabric masks where there is known or suspected widespread transmission and where physical distancing is not possible. Vulnerable people like those in the age group of 60 years and above or with underlying health risks, people with COVID-19 symptoms, their caregivers and healthcare workers were advised to use surgical or procedure masks.⁶⁵

Recommendations on face masks varied across different countries. Early in 2020, the USA-CDC did not recommend masks for general public.⁶⁶ However, this advice was changed on 3 April 2020, and people were recommended to wear cloth face coverings in public settings, especially when distancing measures were difficult to maintain.^{67,68} It admitted that its initial advice did not take into account disease transmission from pre- and asymptomatic individuals.^{69,70,71} Most European countries subsequently introduced masking regulations for public places. On 8 April 2020, the European-CDC published its masking recommendations, encouraging its use in busy, closed spaces.⁷² In UK, its role for health professionals was acknowledged but benefit for the public was downplayed. So was the case in Germany. Mask use was common in East and South East Asia and was recommended by the government. Hong Kong recommended wearing a surgical mask when taking public transport or staying in crowded places only. Singapore recommended use specifically if one had respiratory symptoms, such as a cough or runny nose. China divided people according to level of risks and different type of face masks—surgical, disposable or cloth masks were recommended for different people. Face mask use was compulsory in public in Wuhan. Japan did not strongly endorse mask use in open environment but considered them useful for poorly ventilated spaces.⁷³ Some countries like USA and France saw enormous public demand for face masks as a result of which national stocks and supplies were diminished in March and April 2020, forcing them to depend on China for supplies. There were also allegations of redirecting limited supplies to healthcare, leaving the social sector crying for help. Among the general population, there was a feeling that optimal allocation was not being done and that availability of masks needed to be prioritized among older adults and those who were diagnosed as infected. Despite all these variations in response to mask use, eventually, it became widely acceptable and faced with mask shortages, and some countries had to increase mask production.⁷⁴

Different countries showed varying levels of compliance, perhaps according to levels of individualism and other cultural factors hitherto not well understood or explored in public health. In some countries, face masks got a political dressing. In Uganda, political actors used this opportunity to distribute masks with their party's colours and symbols. This drew mixed reactions from the public with some

opposing the move, due to evidence of government monopolizing space for politicking.⁷⁵ In USA, the likelihood of wearing masks was governed largely by political affiliation, with Democrats showing greater adherence than Republicans.⁷⁶ Masks led to cultural conflict between social groups and a struggle ensued for dominance of their values, beliefs and practices.⁷⁷ According to a Pew Research Center survey conducted between 4 and 10 June 2020, race and ethnicity influenced masking adherence. In sum, 62% of White adults said they wore a mask in stores or other businesses all or most of the time in the past month, compared with 69% Black adults, 74% Hispanics and 80% Asians. There was also an educational gap spanning racial groups.⁷⁸

There were many who questioned the science behind it and felt it violated their freedom or exaggerated the risk. One study in April 2020 found masks to be ineffective, but it was retracted in July 2020. Another, published in June, supported the use of masks but several scientists criticized it for its methodology.⁷⁹ Among those who opposed the mask mandate, some even began looking for a way to bend rules asking doctors for medical excuses to opt out of wearing one. The opposition sometimes grew strong with the founding of anti-mask organizations like Freedom to Breathe Agency.⁸⁰ In a study to understand the profile of mask wearers and resisters and mask-wearing behaviour, shoppers entering retail stores during periods of June, July and August 2020 were observed. Approximately 41% of the June sample (5,517 observations) wore a mask. At that time, the odds of an individual wearing a mask increased significantly with age and was also 1.5 times greater for women than men. Masks were seen at a higher percentage in older than middle-age (+16.1%) and young (+19.8%) individuals.⁸¹ In other countries, there were protest rallies against masking mandates. In Canada, “March to Unmask” protests took place, while in UK, the official announcement that masking will be compulsory in shops invited protests.^{82,83} In Czech Republic too, there were violent anti-masks protests.⁸⁴

Older Adults at the Centre of the COVID Storm

As mentioned earlier, the first wave of COVID-19 put the aged population in greater risk of severe illness and death. The vulnerabilities of the older persons were well established with the outbreak of the disease on board the Princess Cruises’ ship called the Diamond Princess. On 5 February 2020, shortly after arriving in Yokohama, Japan, the cruise ship which hosted 3,711 people had to be quarantined for two weeks when a passenger was found with COVID-19 after disembarking at Hong Kong. As on 20 February, 634 out of the 3,063 persons tested on board were found to be infected. Of these, 476 were 60 years and older and belonged to 28 countries, mostly nationals of Japan and USA.⁸⁵

The importance of age became initially evident in the first major report released by health officials in China based on 72,314 patient records and 44,672 confirmed cases. As on 11 February 2020, it was found that the fatality rate gradually increased with age. Out of the total number of confirmed cases, 1,023 deaths were recorded, equating to a Case Fatality Rate (CFR) of 2.3%. There were no

deaths among children below nine years of age, while it stood at 0.2% for people between 10 and 39 years. It increased to 3.6% in the 60–69 age bracket and rose to 8% among those aged 70–79 years and 14.8% among people in their 80s or older.⁸⁶ Data based on the number of confirmed cases and deaths in each age group reported by national agencies like the Chinese CDC, Spanish Ministry of Health, Korean CDC and the Italian National Institute of Health showed high CFR for older people. Despite geographical variations, a consistent and clear pattern of an age-based exponential increase in fatality rate was noted.^{87,88} According to the Korean-CDC, the overall CFR was 2.37% in 11,344 patients with confirmed cases on 28 May 2020, but it was much higher among the older people (10.9% in patients aged 70–79 years, and 26.6% in patients of 80 years and above). In the report released by the Higher Institute of Health of Italy, the overall CFR on 26 March 2020 was 9.2%, but the pattern of increasing fatality with age was similar to that in Korea and China. The CFR was less than 1% in the age group below 50 years and rapidly increased in the age group of 60 years and above, and still higher—16.9% and 24.4% in the age group of 70–79 years and 80 years and above, respectively. Among COVID-19 patients in USA from 12 February to 16 March 2020, estimated case-fatality rates were highest for adults aged 85 years and older. Younger people appeared to have milder symptoms, and there were no deaths reported among persons aged 19 years and under. Due to high CFR and symptomatic infection rate, elder patients had a higher mortality in most countries affected by the outbreak. Approximately 80% and 90% of deaths occurred in patients aged over 70 and 60 years and above in Korea and Italy, respectively. The time from hospitalization to death and viral clearance also showed the impact of age. Similar patterns of age-based increase in fatality were observed in New York City (as of 11 May 2020) and UK (as of 8 May 2020).⁸⁹

The vulnerability of older population was attributed to immunosenescence, differences in ageing immunity, increase in average number of comorbid conditions, institutionalization in long-term care (LTC) facilities and impact of congregate housing. There were countries like India with younger population where older adults were less significantly affected during the first wave. Global data revealed that the institutionalized aged population faced a higher risk of dying from COVID-19. The pandemic had a serious impact on older residents in LTC settings like care homes around the world. It was estimated that 60% of all coronavirus deaths in some countries were linked to those facilities. 64% of all deaths from COVID-19 were linked to care homes for the elders in Norway, 57% in Canada and 55% in Ireland, 49% in both Belgium and France, 20% in Singapore and 14% in Australia as on 17 April 2020.⁹⁰ In sum, 78% of COVID-19 related deaths in USA occurred among older adults aged 65 and over. In UK, close to half of COVID-19 related deaths happened in care homes; in USA, about one-fifth of deaths occurred in nursing homes.⁹¹

The book examines the impact of the COVID-19 pandemic on older adults during the first surge (outbreak of the pandemic till July 2020). Issues related to growing ageism, infections and deaths in care homes, and the unintended impact of public health measures are documented with respect to different care settings. Next, a critical examination of already existing institutional frameworks and

policies related to ageing is undertaken to locate and identify gaps in implementation which accentuated the impact of the calamity. In the light of the evidence presented, lessons are drawn which might help improve the global response to population ageing and emergency preparedness. Finally, considering the evolving nature of the pandemic, some recent trends aimed at improving the well-being of older population are presented.

Geographic delimitation has been attempted by focusing mostly on OECD countries rated highly on health and older care infrastructure prior to outbreak of the pandemic. These countries have a past record of relatively good health infrastructure in conformity with WHO guidelines on older adult care which facilitates a critical analysis of pandemic responses. Where the debate warrants, relevant examples are also cited from other countries to ensure that the discourse has a global coverage.

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2 Rearing Its Ugly Head

Ageism and COVID

Louise Aronson, a Geriatrician and Professor of Medicine at the University of California, in an interview, succinctly explained ageism with a short anecdote:

“A 97-year-old man with the painful left knee went to a doctor who takes a history and does an exam. There’s no sign of trauma, and the doctor says, ‘Hey, the knee is 97 years old. What do you expect?’” And the patient says, “But my right knee is 97 and it doesn’t hurt a bit.” “That’s ageism...dismissing an older person’s concerns simply because the person is old. It happens all the time ...”¹ (para 10)

Ageism increased along with the spread of the coronavirus, systematically stereotyping and discriminating against older people. In the initial phase of the first surge pandemic, international organizations and governments, alarmed by the increasing fatalities among the aged, drew an image of older adults as a unitary group—vulnerable and “at-risk.” This distorted society’s response to COVID-19 and contributed to dysfunctional health policies and medical practices.² It also accentuated existing inequalities, particularly with respect to access to medical services.^{3,4,5} Most importantly, it dismissed the existing claim of Social and Behavioural scientists that ageing is highly variable and context-dependent, and older adults constitute an extremely heterogeneous group with myriad genetics, health histories, cultural backgrounds and life experiences.^{6,7} The diversity in older age arising from the cumulative impact of people’s physical and social environments, as well as by their personal characteristics such as sex, ethnicity and the family has also been emphasized by WHO. These shape opportunities and health behaviours and lead to health inequities across the life course.⁸ However, this understanding has been largely overlooked.

Containing COVID: Constructing Older Adults as a “Risk Group”

Categorization of at-risk population is a common and frequently used strategy in Epidemiology. In the past, this strategy has been used in many similar attempts to control infectious diseases. This has been so, despite criticism from many

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quarters, particularly medical professionals and social scientists, who claim that risk identification and intervention lead to unsubstantiated anxiety, and that the concept of risk is not useful at individual level. During the pandemic, older adults were constructed as a risk-group bearing in mind their comorbid conditions which resulted in high CFR. In April 2020, the WHO declared that more than 95% of people who died of coronavirus in Europe have been aged over 60 years.^{9,10} Later on, as the pandemic progressed, infections spread to people below 60 years and among young adults, also. It was then realized that they too were not really immune. However, the acceptance of the aged as being more risk-prone served to strengthen the already entrenched ageism in society, a common feature of daily procedures and treatments in medicine.

This ineffective injurious approach to care had the unintended effect of obscuring the heterogeneity within a population group. As doctors concentrated on group characteristics, it often resulted in distorted ways of handling the infection. Older adults were reduced to mere bundles of morbidities and comorbidities and this influenced treatment decisions and most importantly, decisions to initiate acute care interventions. The medical perception of frailty was most problematic and contributed to older adults being regarded solely as a collection of deficits and incapacities. The claims of social gerontologists who encouraged understanding of intra-cohort differences among the aged, ontogenetic fallacy and aged heterogeneity were largely forgotten.¹¹ The role of gender in the COVID-19 outbreak was grossly underplayed although it had a measurable impact on people's health. More men than women died in 41 of 47 countries, and the overall case-fatality ratio was approximately 2.4 times higher among men than among women. In most cases, men were older and more likely to be hospitalized, with a higher prevalence of hypertension, diabetes, coronary heart disease, obstructive pulmonary disease, nicotine dependence and heart failure.^{12,13}

Governments and health authorities, unfortunately, did not take these issues into consideration for infection management and a homogenous "risk category" was constructed. Despite such construction, doctors failed to take stock of atypical presentations among them and continued to concentrate on the usual symptoms of COVID-19: a fever, an insistent cough and a shortness of breath (dyspnoea). Lumping of older people with adults prevented noticing how the virus behaved differently in older bodies, and the particular presentations, needs and risks of this group. Identification of atypical presentations also became difficult due to limited availability of testing during the initial phase of the pandemic. This came in the way of developing targeted therapies, adequate precautionary measures, laying down norms of identification and management, and also developing adequate post-discharge care for cured older adults.^{14,15,16} Geriatricians were in the forefront of those who warned that looking at typical presentations would not suffice for the aged. In many countries, they complained about lack of elder-specific guidelines and protocols to adequately address infections among them. Concerns were expressed that while clinical protocols for children and adults were developed, those for older adults were not. In USA, the CDC did not create a COVID-19 web

page directed to older adults until mid-March of 2020. Doctors just continued to look the other way.

Ongoing research indicated that there was a probability of older adults not showing presence of classical symptoms and the epidemiological risk as per case definitions developed by WHO. Infections often presented atypically, mystifying identification and management. “With a lot of conditions, older adults don’t present in a typical way, and we’re seeing that with COVID-19 as well,” said the Section Chief of Geriatrics and Gerontology at Emory University.¹⁷ (para 4) Physicians reporting atypical presentations also warned that seniors might seem “off,” not acting like themselves, show weakness or dehydration, inactiveness or drowsiness or seem confused in the absence of any respiratory symptoms or fever. Such atypical presentations were disproportionate to the perceived predictability or severity of the disease, thus clouding diagnosis. This was amply illustrated by an Atlanta-based geriatrician who described a man in his 80s treated by her in March 2020. For several days, the patient with heart disease became incontinent and profoundly lethargic without any symptom of fever or cough, except sneezing on and off. When paramedics were called on two occasions by his wife, they only checked his vital signs and declared he was fine. It was only after observing that there was no sign of improvement in his condition did the doctor suggest that he be hospitalized. It was then found that he was positive for COVID-19.¹⁸ The case illustrated that while typical presentations included the usual signs and symptoms of COVID-19, in older adults there might not be any of these characteristics. Worse still, caregivers and health staff failed to identify symptoms among those with cognitive impairment.¹⁹ The Regional Geriatric Program of Toronto also noted a range of atypical presentations in older adults, acknowledging that 70%–80% of geriatric patients might not present typical symptoms like fever.²⁰

Physicians dealing with older patients gradually began reporting a range of symptoms such as changes in their usual status, delirium, falls, fatigue, lethargy, low blood pressure, painful swallowing, fainting, diarrhoea, nausea, vomiting and abdominal pain. They warned that it could also entail changes in central nervous systems, conjunctivitis, anorexia, increased sputum production, dizziness, headache, rhinorrhoea, chest pain, haemoptysis, nasal congestion and anosmia, tachypnoea, unexplained hypoxia and tachycardia.^{21,22} In a retrospective analysis of 112 infected older persons admitted to an acute geriatric unit in UK between 1 March and 24 April 2020, the typical symptoms were fever and hypoxia. However, 40% was in the atypical category, 36% of whom presented complaints like fall, another 36% of reduced mobility or generalized weakness and 22% of delirium. Patients in this group had worse outcomes than those presenting symptoms, with a mortality rate of 50% and 38%, respectively.²³

The possible cause of atypical illness presentations in older adults was traced to age-related physiologic changes, interactions of chronic conditions with acute illnesses and also underreporting of symptoms. For those older adults with comorbid conditions such as heart and lung disease, diabetes, dementia and associated polypharmacy, the manifestations of symptoms were

often obscure or even unrecognizable. Disruption of normal activities and interruption in treatment for chronic illnesses also resulted in changed orientations which inhibited diagnosis. A case study showed how aged patients with chronic kidney disease and those on renal replacement therapies were potentially susceptible to infection, given the concentration of the risk factors and comorbidities. A 56-year-old African-American woman with a history of end-stage renal disease on peritoneal dialysis since a year, presented only gastrointestinal symptoms without any respiratory distress. Owing to the patient's low-grade fever, occupational history of working in a group home, and pulmonary infiltrates as revealed in X-ray, SARS CoV-2 was suspected. The authors suggested that understanding elder-specific responses to the virus as differentiated from paediatric and adult responses was critical in developing targeted therapies.²⁴ Another case study described a 94-year-old man with well-controlled schizoaffective disorder, who presented with non-specific and atypical symptoms such as delirium, low-grade pyrexia and abdominal pain. He was initially prescribed routine antibiotics and later treated for community-acquired pneumonia, despite which, there was oxygen desaturation and tachypnoea. A repeat chest X-ray showed right upper and lower zone airspace opacification. On the fifth day of his admission and treatment in three different wards, the patient died and the post mortem throat swab identified COVID-19 infection.²⁵ Similar cases which came to be frequently reported, led to rethinking COVID specific clinical guidelines about screening, assessment and isolation of frail older people.

Rationing COVID Treatment: Using Age as a Criterion

As the coronavirus spread rapidly, it brought fiscal and commodity crises in almost all countries. Hospitals were unable to handle the surge with a mounting number of patients. There was often little time on hand for physicians; lives had to be saved quickly since symptoms deteriorated rapidly. Ventilators had to be used but they were in short supply. Under such conditions, age-based criterion was used to decide who should get access to acute treatment. That appeared as the easiest and pragmatic solution. Amidst scenes of scarcity, ageism reared its ugly head again. In Netherlands, media reports of doctors advising older patients to think before agreeing to COVID-19 treatment in hospital ICUs drew criticism of what seemed to be an attempt to ration scarce ICU beds. Such claims were, however, dismissed by top official authorities, including the Dutch College of General Practitioners representing 12,000 physicians, who looked upon these issues as common to conversations on Advance Care Planning (ACP) and decision-making between doctors and patients with acute care needs, rather than any response to shortage of beds and age-based rationing.²⁶

Italy witnessed an implicit adoption of age-based criterion in decisional algorithms amidst fear of scarcity of resources. During the early crisis, the Società Italiana di Anestesia, Analgesia, Rianimazione e Terapia Intensiva (SIAARTI) or Italian Society of Anesthesia Analgesia and Intensive Care, released clinical

ethics recommendations for age-based allocation of treatment in exceptional resource-constrained situations, including setting an age limit for the admission to the ICU based on the probability of survival and life expectancy with a rationale to maximize the benefits for the largest number of people.^{27,28} Such age-based rationing invited criticism from geriatricians and ethicists who argued that in triage decisions for intensive care, chronological age alone is not suitable for allocating medical and care resources. Archard and Caplan called it arbitrary and as devaluing older people. They claimed that while the fair innings argument, namely, that selective care and resource distribution be done to prioritize those who have yet to live that length of life over those who have already managed to do so, may sound reasonable, there remains no consensus as to what counts as fair innings in the first place. Many who have had their fair innings may still have much to offer the world compared to others who have not.²⁹ Cessari and Proietti, in this regard, regretted that non-inclusion of principles of geriatrics in pandemic planning contributed to an ageist approach and suggested replacing the age criterion for allocation of resources with a more robust parameter that takes into account key factors beyond age in decisional algorithms in medicine.³⁰

In other parts of the world too, there were reports of prioritizing younger patients with perceived chance of survival or refusal of treatment of older adults. HelpAge International reported that in Cox's Bazaar refugee camp in Bangladesh, health workers were afraid to treat older people with seasonal flu, mistakenly thought of as COVID-19.³¹ There was also a report of an old person dying in Democratic Republic of Congo, after being taken off a ventilator to make way for another patient. A 68-year-old man was hospitalized by his granddaughter, for suspected COVID-19, and put onto a ventilator for stabilizing his breathing. After half an hour of getting him admitted, she had left for home to get food for him. During this time, the man died because a hospital staff member took him off the ventilator as it was required for someone younger and the other two ventilators in the hospital were also in great demand. In Cameroon, an old disabled man from Koa village who was suffering from pneumonia, developed cough and weakness. But when his sister took him to hospital, they were told that there is no bed for people like him.³² Some critics considered such denial of medical treatment of older persons as worrisome, unethical and irrational on the grounds that a healthy young person admitted to a hospital for a short stay might potentially stay longer and thus consume more resources. Alternatively, some with a higher chronological age, or immunosenescence might have more robust immune systems. There were instances where even very old people responded well to aggressive treatment. Indian media reported multiple stories of nonagenarians recovering from COVID after prolonged hospital stays.^{33,34} The fact that age need not be considered a criterion for treatment was shown by Caplan who cited a work published by surgeons at Stanford University. The paper showed significant benefits from surgery among patients with early-stage lung cancer who were relatively healthy at even 90 years of age. It was found that 33% of them lived much longer and with good quality of life. In addition, about 20% of patients benefited from drug treatment,

as opposed to those who did not undergo treatment and died quickly. Thus, access to healthcare may be decided not by age or treatment costs but by the perceived benefit and treatment outcome, even if it entails aggressive healthcare. Anti-cancer treatments which are surgically based are expensive but can be efficacious for some older persons.³⁵

But one need not assume that age as an important factor in rationing decisions emerged as an exclusive response to scarcity during the pandemic. In fact, medicine has long debated on issues centred around age. Do we need to have a cut-off age to limit medical interventions that elders access? What constitutes a “serious problem” for which care would be imminent and delivered instantly? On what basis should the age criterion be fixed? These and similar issues have for long, plagued western medicine with disturbing implications since Robert N. Butler’s pioneering work in geriatric medicine: *Why survive? Being old in America*. He was the first in 1968 to identify and describe the phenomenon of age prejudice, defining it as a systematic stereotyping of and discrimination against people because they are old. Later, bioethicist Daniel Callahan raised the issue of rising costs to healthcare because of older adult care. The ball was set rolling by his assertion that there is no such a thing as a natural life span or a full life. He wrote that it may not always be wise to keep older people with chronic diseases expensively alive and that the idea of age-based limits on medical care needed serious consideration.^{36,37} Critics argue that this does not evoke an ethical response for a group already vulnerable. In fact, it thwarts the potential opportunities that life could offer to older adults. More importantly, such exclusion fails to take into account the life course perspective and how one’s life history and cumulative life events shape experiences of old age. Age, thus, cannot necessarily be equated with physical ability.³⁸

Ageism in medicine has grown exponentially with increasing medicalization of old age which in turn has spurred the need for greater access to medical and health resources.^{39,40} There is a growing investment in medical care and technology as primary determinants of good health in old age. At times, specialized medical services are directed to older population at the expense of providing a broader range of social and supportive services to younger persons with varying levels of needs. This has contributed to growing cynicism towards older people. A doctor working in an Emergency Department (ED) reports how ageism gets reflected in everyday language. ED practitioners refer to their cases as “Train wrecks” and use similar phrases like “Disaster waiting to happen,” “Nightmare on a stretcher,” “Dotty old guy in bed three,” “Gramps down the hall,” “Sweet old lady.”⁴¹

Aronson holds that most physicians have little or no specific training in anatomy, physiology, pharmacology and special conditions and circumstances of old age although older adults are most likely to be adversely affected by hospital care and medications. In the context of ageism in USA, she shows that the National Institutes of Health did not provide a mandate for inclusion of older adults in medical research till 2019. Until 2018, the California Department of Public Health counted flu deaths only for children and adults under 65 years. According to her, medicine does not always recognize elderhood as differentiated from young

adulthood or middle age. But elderhood is the third major and distinct phase of our lives after childhood and adulthood, and lasts for 20–40 years, depending on our life span. This stage deserves greater recognition than it has got at present.⁴² Chang et al. show that older adults' exclusion from healthcare research is heavily permeated by ageism.⁴³ Healthcare providers are more likely to withhold life-sustaining treatments from older adults, in comparison with their younger counterparts. In addition, their review suggests that older adults are frequently excluded from clinical trials in medical areas such as cardiology, neurology, psychiatry, internal medicine, nephrology, urology, rheumatology, preventive medicine and oncology. They cite existing research to show that health-care providers' perceptions of frailty, which involves physical weakness, incapacity and vulnerability, also impact their interactions with older adults during medical interactions. Such negative assumptions remain particularly high among older women, who may encounter ageist and sexist discourses simultaneously.⁴⁴ As a result of such deeply embedded ageism, the neglect of older adults' concerns during the pandemic became starkly evident. While there was increasing attention to various domains of immune function, there was scarce evidence-based research on underlying reasons for older people's greater susceptibility, their response to the disease, and vaccine. There was little by way of explanation to account for the high lethality among this group.⁴⁵

Older Adult-Specific Care Needs: The Dismissed Agenda in COVID Care

There are certain services which are especially beneficial for older adult care but were dismissed as unimportant during the pandemic. Two major approaches to care received poor priority in the mad rush to put patients on ventilator—palliation and equitable compassionate, safe and dignified End-of-Life Care (EoLC). These were desperately needed by those older adults who could not access healthcare or could not get life-saving critical care. Caplan lamented over the excessive emphasis on ventilators. He argued that high-quality palliative care could be beneficial in those cases where sudden deterioration of seriously ill COVID-19 patients take place and for those who would not benefit/survive even with critical care. Where respiratory support is not available, there is progressive decline of patient until final demise. The patient may suffer from severe hypoxemia, cardiac failure, acute respiratory failure and sepsis. Prior to death, the patient suffers from dyspnoea, chest pain and delirium and becomes moribund and immobile. In such situations palliation helps. Unfortunately, doctors treated these patients aggressively to handle inflamed, atypical form of acute respiratory distress syndrome. Older patients were hooked to high levels of oxygen and high ventilator settings without any advance care planning to assess their preferences, i.e., whether they desired aggressive treatment or palliative care. Many developed pneumothorax or collapsed lungs because of the high pressures needed to deliver oxygen and the prolonged time on ventilation.⁴⁶ There was little by way of empathetic communication and holistic psychosocial support for patients and

family members.⁴⁷ A geriatrician and an octogenarian's daughter emphasized on end-of-life care planning. She spoke of many happy, engaged elders in the age group of 70s and above, including her mother, who would not want to be put on a respirator in case of being critically ill from COVID-19. Sadly, their care preferences were overlooked in a frantic attempt to put most patients on ventilators. The absence of such planning merely increased suffering at the end of life.⁴⁸ In those countries like the Netherlands where doctors did discuss and advise older adults against the dangers of COVID-19 treatment in hospital ICUs, much criticism was levied amidst fears that this is tantamount to an attempt to ration scarce resources. The fears were propelled by a healthcare system unable to meet the surge in patient numbers. It may be mentioned that there have long been lesser number of ICU beds in Netherlands than in neighbouring European countries, ranking the country in the bottom five in a 2012 study published in the *Intensive Care Medicine Journal*.⁴⁹

Palliative care did not figure importantly in the initial phase as part of national and international pandemic response plans. It is unfortunate that while WHO issued guidance on how to maintain essential health services like immunization, maternal care, emergency care and chronic diseases among others, it neglected palliative care. This was a serious oversight. People failed to appreciate the full dimension of suffering caused by the disease—physical illness and death, stress and anxieties associated with quarantine and financial and social instability brought about by lockdowns. Alleviation of such whole person suffering could have been handled by people trained in palliative principles. Also, prolonged post-infection rehabilitation required supportive care that palliation provides. The felt need for palliation is illustrated in the case of a 77-year-old man in Seattle, who for almost a month, clung to life on a ventilator in an ICU. After 46 days of hospitalization for COVID-19 infection, he made progress in an inpatient rehab. The rehab staff estimated that he would have to spend 10–14 days in their programme. Recovery time of those infected with COVID was very long.⁵⁰

A similar neglect took place with respect to Physiotherapy which was considered as non-essential and an optional service in some countries like USA. This is unfortunate, given the fact that those living with disability and frailty were especially affected due to inactivity, physical distancing, social isolation often leading to deconditioning and sarcopenia. In all these cases, Physiotherapy was needed to prevent further decline in long term functional ability. There is evidence to support that home and community-based Physiotherapy is critical during the COVID-19 pandemic, particularly during the post-recovery phase. However, during lockdown, work-related travel outside the home was limited to only those performing essential jobs and thus, Physiotherapists could not reach their patients.⁵¹ This affected many older adults for whom physical therapy interventions enabled them to stay at home by minimizing the need for nursing home level care where risk of exposure would have been higher. It may be reiterated that physical therapists are trained to be a first point of contact in the healthcare system. Closing outpatient clinics and defining rehabilitation as non-essential eliminated this opportunity for community-dwelling patients.

The importance of Physiotherapy is also illustrated by the fact that many patients, particularly older adults undergo a long convalescence period after COVID treatment during which Physiotherapy may help. A Critical Care specialist at New York University School of Medicine described how some patients who come off the ventilator may go through a longer recovery period as they undergo tracheostomy, a hole in the neck through which a tube is placed to deliver oxygen after about two weeks. By this time, they become susceptible to ICU-acquired weakness and muscle wasting, debilitating mobility and weakened respiratory muscles due to ventilation. A number of small studies in Hong Kong and China, as well as studies of SARS patients' recoveries, have promoted speculation about the possibility of long-term damage to lungs and other organs from COVID-19. In all these cases, physiotherapy may be needed.⁵²

The Worsening Crisis of Pervasive Ageism

According to Stall and Sinha, COVID-19 saw a worsening of ageism. It influenced how COVID-19 was presented, which in turn, affected the preventive behaviour among the young in the initial days. Most did little to adopt preventive behaviour assured by reports that the serious infections were confined among older people. In Canada, despite public health messages, they forged ahead with March-break travel plans and celebration of St. Patrick's Day. College students jammed beaches for spring break justifying that they were young and so out of risk. When WHO declared it as a global pandemic, they started panic buying, leaving shelves barren for the older adults.⁵³ There were similar reports of flouting restrictions in other countries during the initial phase of the first surge.^{54,55} In government advisories and scientific writings also, a higher susceptibility of older adults compared to other age groups was presented without showing corresponding figures for younger groups.⁵⁶ This led to a widespread misperception about the global impact of the outbreak, and also came to confine older adults within a zone of social exclusion. The net effect was to heighten discriminatory attitudes towards older adults, which in turn increased their trauma.

Media showcasing of the disease through news and visuals further reflected a heightened pervasive culture of ageism and ageist stereotypes. Ayalon and colleagues provided illustrations of older adults' portrayal as helpless, frail and unable to contribute to society. They showed how ageist discourses were reported almost everywhere, for example: "During COVID-19, ask seniors to stay home—but don't abandon them" (Canada); "Texas' lieutenant governor suggests grandparents are willing to die for US economy" (USA); "DJ says older adults people should sacrifice themselves to coronavirus to save the economy" (USA); "Spain warns older adults to keep away from grandchildren as COVID-19 cases soar" (Spain); "In Italy's coronavirus crisis, the older adults are left to die. Will Trump let America follow?" (Italy).⁵⁷ There were other ageist representations and positioning of older persons which raised concerns. In social media, the phrase #BoomerRemover had been trending, often accompanied with ageist, disparaging and devaluing memes.^{58,59} Media coverage and online discussions and commentaries about

rationing of treatment for older people suggested the idea that they were more expendable than others and that the death of older people somehow was not as important as loss of lives of those younger. Such negative stereotypes and expressions of disvalue may have had huge and unforeseeable negative effects on older people and the health system at large. Many findings suggest that negative age stereotypes express themselves in somatic illnesses and functional ill health, besides affecting the psychological level of the person.^{60,61} They result in inflammatory processes that are closely associated with multiple health conditions, including cardio-vascular disease and severe loss of cognitive performance.⁶²

It is not clear why such representations and meanings were used. Perhaps, people actively make sense of their social realities through construction and adoption of stereotypes.⁶³ During times of uncertainty, human beings naturally seek explanations for the behaviour of themselves and that of others.⁶⁴ Rudolph and Zacher, in trying to understand why construction of “generations” by way of labelling groups of people as “Baby Boomers” or “Millennials” took place, feel that it offers a way in which people comprehend their social worlds, particularly when they attempt to make sense of the inherent complexities of the process of aging and development. According to them, generational narratives were applied to explain a variety of social and economic phenomena surrounding the pandemic.⁶⁵

Ageism also contributed to not-reporting or under-reporting of fatalities in LTC facilities such as care homes which was akin to saying, “Older adults don’t matter.” Moreover, absence of systematic policy of testing resulted in uncoordinated data collection and reporting lags. Netherlands, Spain and Britain did especially poorly in reporting deaths in care homes. When care home deaths were added to official deaths, a huge spike was noted in many countries. In Britain, when care home casualties were added to the official death toll, figures jumped by almost 4,000 in a day in the month of May 2020. The missing cases dramatically skewed the national death count in other countries as well. When France started reporting mortalities from some of its nursing homes, the daily fatality figures almost doubled.⁶⁶ As the pandemic progressed, for a long time the government in USA did not require nursing homes to report numbers of presumed and confirmed cases and deaths to the CDC. The Associated Press conducting its own survey in USA, found there had been nearly 11,000 COVID-related nursing home deaths across the country as of 24 April 2020, with only 23 states publicly reporting them. Variations were found in how and where tests were performed and also in the criteria of counting only proven cases and not presumptive ones, leading to major under-estimation of the death toll.⁶⁷

Age-based restrictions on mobility of community dwelling older adults were introduced in several countries. In a Canadian city, people over 70 years of age were encouraged to sign up for the “vulnerable person registry.” In another province, many healthy older adults were targets of patronizing attitudes when they were out for a walk, and were told that they should not be outside.⁶⁸ In India there was a health advisory from the government for older persons to stay indoors, avoid meeting visitors at home and if meeting is essential, maintain a

distance of one meter. They were considered as being at higher risk of COVID-19 infection due to their decreased immunity and body reserves, as well as multiple associated comorbidities. The advisory warned that the course of disease tends to be more severe in case of elders resulting in higher mortality. However, no special provisions were announced by the government to take care of their health or day-to-day needs such as delivering groceries and vital medications while confined in homes, especially for those staying alone or those without family and relying on voluntary services.⁶⁹ The 2011 government's flagship programme, the National Programme for the Health Care of the Elderly which aims to deliver comprehensive, affordable and quality geriatric care services at primary and secondary levels, remained dormant throughout the pandemic. In other countries as well, social disconnection put older adults at greater risks of loneliness and anxiety.^{70,71} Those who were quarantined or locked down with family members or personal assistants were also at higher risks of violence, abuse or neglect.⁷² In an American study aimed to estimate the incidence, risk and resilience factors related to community-based older adults during stay-at-home orders, it was found that one in five out of a total of 191 respondents faced elder abuse, an increase of 83.6% from prevalence estimates before the pandemic.⁷³

Measures to isolate older adults resulted in denial of healthcare for conditions unrelated to COVID-19; neglect and abuse in care facilities; an increase in poverty and unemployment; dramatic impact on well-being and mental health and the trauma of stigma and discrimination. The suggestion that older adults need to volunteer to die or self-isolate further victimized this group.⁷⁴ Many younger carers were hesitant due to fear of contracting a virus from the older adults, who, in turn, got scared of isolation and age-based rationing of health resources. In western India, a sad story emerged where staff at an old age home fled on hearing that the people they were attending to were vulnerable to viral attack. The owners of the facility who had two more such institutions were left stumped in the middle of the lockdown and were compelled to move residents to other facilities, which in turn, became too crowded to maintain the norms of physical distancing.⁷⁵ Fear of contracting infection from the elders resulted in the avoidance or denial of healthcare for older adults with dementia. The World Alzheimer Report by the Alzheimer Disease International (ADI) 2019 stated that 42.9% of people living with dementia in LMICs were already experiencing unfair treatment by health or medical staff (23.8% for high and 25% for upper-middle-income countries).⁷⁶ In the UK, there were numerous reports of people living with dementia who were denied access to hospital or were told that they have to sign "Do Not Attempt Resuscitation" (DNAR) orders. In several countries, care home staff encountered barriers when attempting referrals of persons with dementia to hospitals.

Those living in refugee camps, informal settlements and prisons were particularly at risk due to overcrowded conditions, limited access to health services, water and sanitation facilities, as well as potential challenges accessing humanitarian support and assistance.^{77,78} HelpAge International reported the case of a

72-year-old person living in a refugee camp in central Gaza who suffered from diabetes, high blood pressure, lung disease and other morbidities, which exacerbated due to the stress of living in chronic poverty and insecurity. He used to visit the chest and respiratory department in the hospital every two weeks for oxygen but that was no longer possible during the COVID-19 outbreak. He could not afford to buy his own cylinder but borrowed one from a neighbour. Before he could procure it, lack of oxygen caused a breathing crisis and further complicated his health condition. He reported how people were going without food and drink and putting their lives at risk to pay for the cylinders. He found himself “a prisoner in his own home,” scared of contracting the virus.⁷⁹ In India, older people were rendered vulnerable due to either a lack of a universal national pension or a very low amount. Many older people who earned money through petty trade became entirely dependent on their families and overwhelmed with feelings of helplessness.⁸⁰

Ageism in combination with racism and sexism may have put greater stress on older prisoners. Although recidivism rates are almost negligible for older adults, individuals who have served long-term sentences were not released by several governments during the pandemic.⁸¹ In USA, during May 2020, older male prisoners were transferred to the isolated Adirondack prison by shifting the young incarcerated people out of the facility—a move considered as a matter of deep concern by family members and justice advocates because it made them more isolated.⁸² Some Asian countries adopted a more lenient response towards the release of older prisoners. Afghanistan confirmed the early release or parole of nearly 10,000 prisoners; in particular those aged over 55 years and those with critical illnesses. In other countries like India, which released prisoners during the pandemic, the decisions were based more on seriousness of offences or risks of absconding and recidivism rather than on considerations related to age, gender and morbidities.^{83,84}

Combating the Culture of Ageism during Pandemic

The above sections on ageism need not dismiss counter-attempts to combat negative images. In many places attempts were made to promote intergenerationalism. Several community art collectives and projects had a positive influence. Mosaic Home Care Services in Toronto and Markham reached out to new graduates of theatre and acting colleges, and created short films that promoted empathy. Interesting ideas were generated to motivate community members including artists, musicians and other storytellers to communicate effectively with older adults who were isolated and confined in LTC facilities without visitors and family members. In Greater Manchester, Ageing Hub worked to promote real stories from older adults. Exclusive sharing of the “extraordinary” circumstances of older adults, gave way to everyday stories involving residents who created knitted headbands for themselves and for staff and other residents. These types of uplifting stories were encouraged to generate a positive impact on the community. Efforts were made to present stories on older adults recovering from the virus and care

homes which were taking adequate steps in caring for them. There were also reports of involvement of non-profit organizations and community groups helping older adults. The Spanish Red Cross, with more than 200,000 volunteers across around 1,400 towns, launched an information campaign aimed at 400,000 people identified at risk including older persons and those with chronic diseases. In Ireland, local-level sporting clubs and community groups extended their support by telephoning local older people on a regular basis, collecting their shopping and dropping them at the doorsteps. Such invaluable support helped thousands of families across the country.⁸⁵ Similar structured telephone calls were made to community-dwelling older adults by an ageing agency in Maryland to identify their nutrition, caregiving and other needs. A 13-item screener, Upstream Social Isolation Risk Screener was used through telephonic interviews to measure social isolation risk level among older adults and link them to appropriate resources, services and programmes. There was also virtual delivery of evidence-based programmes like The Program to Encourage Active, Rewarding Lives (PEARLS), a home-based collaborative care model developed in 2000–2003 by the University of Washington Health Promotion Research Center. This was used to reach older and marginalized persons for managing chronic physical and mental health conditions and providing access to up-to-date COVID-19 information and essential services.⁸⁶ Initiatives were also reported in various countries for engaging older adults in long-term residential facilities for reducing stress and feelings of isolation.⁸⁷

The UN reminds us that efforts to protect older persons need not overlook their incredible resilience and positivity. There were reports of centenarians who were admitted to hospital for COVID-19 and made complete recovery. Vervaecke and Meisner argued that it is necessary to recognize the diversity of aging experiences and think critically about ageism in its multiple and varied forms. Although older adults are from frequently objects of our concern and targets of good-intentioned help, many in fact, value their agency to remain the subjects of their own decisions and lives. Not all are vulnerable and dependent or even seek care. Some do not want, or appreciate help. In this context the authors refer to the Caremongering movement as a case study example to illustrate how compassionate ageism is equally harmful like negative or hostile stereotyping of older adults.⁸⁸ The movement which started in Canada because of COVID-19 is essentially driven by social media to reach out to individuals affected by the pandemic.⁸⁹ As suggested by Gerken, it is positioned as an antithesis of COVID-19 scaremongering. Caremongering groups are designed to help those who are (or are perceived to be) at highest risk of infection. Through social media, younger and more able-bodied individuals self-organize into many caremongering groups, internationally. On media platforms, such as Facebook, people could post “in search of help” (i.e., caremongerees) or “help offer” services they were willing and able to provide (i.e., caremongerers). The help requested and received via caremongering groups include deliveries of groceries, home cooked meals and prescriptions, as well as calling isolated individuals and creating care packages. It is thus described as a grassroots service provided to “anyone who needs it.” Despite

numerous encouraging stories from both caremongerees and caremongerers, videos and tweets began to illustrate the potentially hurtful and damaging outcomes of the performative aspects of caremongering. It could have contributed further to compassionate ageism aimed at older individuals who did not need or want help. Some older adults appreciate the helping behaviours that result from such social movements, but others do not.⁹⁰ In Italy, for instance, many older people demonstrated high civic sense and helped society to fight the pandemic. Retired physicians and nurses, scientists and researchers came back to work and helped communities in different ways.⁹¹ Thus, the case illustrates the need for recognition of the full diversity of those within the older persons' category and their multiple roles as volunteers and community leaders needs to be acknowledged. We must also recognize their important contribution as health workers and caregivers who helped others even at the risk of exposure to the virus. This is especially true of older home-based carers, mostly women, who provided care for older persons.

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3 Care Homes

The Neglected Cinderella Sector

Care homes which accommodate a large number of older adult population across Europe and USA were ravaged by the first surge of the pandemic.^{1,2,3} Also known as Long-Term Care (LTC) in some countries, they include living arrangements which provide residential care to a group of residents and include both residential homes and nursing homes. Residential homes provide personal care, such as washing, dressing, taking medication and going to the toilet. Residents rely on primary healthcare services and general practitioners (GPs) for healthcare and referral to specialist services and secondary care. Nursing homes provide personal care through care assistants and also employ registered nurses for assistance. A majority of residents admitted in LTC are towards the end of the ageing process, and suffer from frailty and multiple age-related physical, cognitive or learning disabilities. LTC settings are thus designed to ensure that people with significant loss of physical and mental abilities are able to maintain their functional capacities in accordance with their basic rights of human freedom and dignity.⁴

The demand and availability of the LTC facilities is likely to significantly escalate in the coming decades with the growing number of people in a situation of dependence. Eurostat 2016 estimates the population of 70 years and above in Europe to increase by 64% between 2015 and 2040 and those aged 80 years and above to rise from 4.9% in 2016 to 13% in 2070. The old-age dependency ratio is also estimated to grow from 29.6 in 2016 to 51.2 in 2070.⁵ The dependency ratio in USA has increased to 53.7 in 2019 from 49.0 in 2010 owing to around 34% increase of 65 years and above population.⁶ A considerable surge in the demand for LTC services among older adults in USA and Canada is also projected.⁷ Reduction in family sizes, rise in dual earning households and changing residence preferences of the older adults and their caregivers, which make caregiving difficult to be addressed solely by informal home care providers, further heighten the demand for such services.

In UK, USA and other countries, care homes operating at the boundaries between health and social sector are either self/state-funded or a mix of both. However, the care sector has been under increasing capacity and financial strains.⁸ In many countries, there has been a history of political and policy neglect over issues in financing, organizing and delivering affordable and quality services for those in need.⁹ Moreover, scarce, fragmented and non-comparable datasets for

care homes have posed a challenge in assessing the types of services received, outcomes for care home residents and their levels of satisfaction.^{10,11} In OECD countries, for instance, there has been an expansion of this sector without much serious review of policies and services towards the aged. When COVID-19 struck, the exact type of facilities under LTC included in the infection and fatalities data for each country differed. There were variations in case definitions, reporting formats and update frequencies.¹²

The pandemic had a disproportionate effect on older people who lived in LTC facilities.¹³ COVID-19 worsened the neglect towards older adults accommodated in these institutions and culminated in delayed and inadequate action during the first surge. Care homes became “hubs,” “besieged castles” and epicentres/high-risk settings experiencing large outbreaks due to rapid transmission of the virus, putting an already vulnerable and imperfectly monitored population at severe risk.¹⁴ Data revealed that up to half the deaths due to the first surge of COVID-19 in Europe took place in care homes. The WHO cited the situation as an “unimaginable human tragedy” and “deeply concerning.”^{15,16} A report based on data of 26 OECD countries published on 26 June 2020 by International Long Term Care Policy Network (ILTCPN) mentioned that on average, the share of COVID-19 deaths in care home residents was 47%. The share of care home deaths was mostly proportional to that of the larger population and ranged from 0.04% in New Zealand, 0.3% in Austria, 0.4% in Germany and 1.5% in Canada, to 2.0% in Sweden, 2.4% in France, 4.9% in Belgium, 5.3% in UK and 6.1% in Spain. Some countries such as Hong Kong, Jordan and Malta did not report any infection or fatality among care home residents.¹⁷

The Historic Neglect: The Cinderella Sector

The condition of LTC sector in UK was grim when the pandemic struck. The country has around 12 million people aged 65 years and above. It is estimated that by 2030, one in five people in UK (21.8%) will be aged 65 or over, 6.8% will be aged 75+ and 3.2% will be aged 85+.¹⁸ There are approximately 11,300 residential care homes and nursing homes in UK, Scotland and Ireland accommodating around 410,000 older adults. This number is almost thrice the number of persons occupying hospital beds. Admissions to acute hospitals from them are far higher than they are from among those of the same age living in the community.¹⁹

In England, the Department of Health and Social Care has the overall responsibility for health and social care policy. The National Health Service (NHS) Act, which came into force in 1948, established the NHS as a centralized, tax-funded free public service and subsequent revisions of structure were made through the NHS 2006 and the Health and Social Care Act 2012. The Care Quality Commission (CQC) monitors, inspects and regulates care homes to ensure they meet minimal standards of quality and safety. However, social care has remained local and privately funded under the auspices of the local authorities or under independent providers contracted by them.²⁰ Most of the care homes are reported to be outsourced to and run by private and third sectors. While

healthcare is provided free at any point of delivery, the social care responsibility is shared among national and local governments as well as individual providers depending on pre-specified levels of assets of individuals. In England, those with assets or savings worth more than 22,250 GBP are required to pay for themselves.

Providing quality care in care homes has become a challenge owing to multiple factors. Describing the facilities, David Oliver, former President of British Geriatrics Society (BGS), cautioned that despite their importance, social care funding and support for carers has been cut since 2010. Though it is estimated that around 1.5 million older adults in England are in need of social care, there has been almost a reduction of 12% between 2010 and 2018. Private care homes are caught in a dilemma between cutting costs by decreasing the quality of service or taking risks by increasing prices in a competitive market. The Laing Buisson report showed that 51% of care homes' income comes from private payers or self-funders, even though they make up to 45% of residents.²¹ It was estimated that adult social care services in England is likely face a 1.5 billion GBP funding gap in 2020–2021, and 6 billion GBP by 2030–2031, which is feared to increase to an extra 6.6 billion GBP owing to the pandemic.²² Thus, there arises a necessity to subsidize funding when costs to users have escalated with rising private provisions.

When the pandemic struck, there was already a need for greater investments, good governance and integration of health and social care sectors.^{23,24} There was little sharing of resources between the two. While the NHS had a valued cultural identity in British public imagination and enjoyed greater resources and political clamour, the care sector was in a state of neglect. The latter operated as the “Cinderella service,” a poor cousin of the NHS that survived on overall structural deficits in resources and capacities of local authorities and service delivery mechanisms. Care England considered it as having been “kicked into the long grass by governments of all stripes.” (p. 12)²⁵ The state of social care sector was labelled as a national shame by David Jolley, a Psychiatrist.²⁶ In a BGS blog, replying to a debate that ensued on whether hospitals or care sector needs to be prioritized, Oliver said, “I just want to caution against polarizing schism in our multidisciplinary speciality which pits advocates for prevention, community primary care and care homes versus acute or elective hospital care. We need them all and have value to add in every one of them and not a ‘hospital bad, community good’ or vice versa narrative.”²⁷ (para 8)

In Spain, the dependent older adult population over 65 years of age accounts for 72.2% of all beneficiaries of the system, and those over 80 years old for 54.5%. Aging projections indicate that in 2030 and 2050, older adults would represent 24.1% and 32.4% of the Spanish population, respectively.²⁸ The Spanish LTC system is essentially financed by taxes and co-payments by beneficiaries according to their incomes and assets, and the type of service received. Since the establishment of the System for Promotion of Personal Autonomy and Assistance for Persons in a Situation of Dependency (SAAD) in the end of 2006, there has been a move towards universal coverage for older dependents and improvement of the LTC sector. Regions or Autonomous Communities led by regional governments

are responsible for regulating, financing, providing services and guaranteeing care quality with a limited role of local authorities, which mostly engage in home care.²⁹ The central government does not take on any regulatory functions, but it does dictate the financial functions for the LTC. Thus, both national and regional regulations on social care have to be accommodated. The lack of adequate financial commitment of the central administration, regional variations and gaps in institutional coordination between social and health services have posed challenges in implementation of services. Reports also mention a rollback during 2011–2015 with a freeze in the expansion of coverage.³⁰ The state of neglect of the LTC sector is evident by the fact that despite an escalation in cost of providing care, the 50% of funding to be provided by the government has remained static, as a result of which out-of-pocket expenditures of older adults, especially for those with medium and high incomes, has increased. Though gradual marketization led to an expansion of care facilities, quality of services has been compromised due to inadequate staff-resident ratio, limited training and professional accreditation, poor working conditions, low wages and lack of social security guarantees. The monthly cost per staff member in the sector is 1,410 EUR, 67% of the average wage per worker in Spain.³¹ It can be said that the LTC services were overall in need of structural integration when the COVID struck.

The Italian LTC sector has also been complex and fragmented, and multiple legislative interventions over the years were not successful in developing a comprehensive model. This left the country without a clear national and strategic vision to support its growing older adult population. Although 22.4% of the population in Italy is over the age of 65 years and older adults acutely dependent on care homes, they have an estimated waiting list of around 100,000.^{32,33} With no single ministry in charge of the LTC sector, regions implement the dual policies laid by the Ministry for Labour and Social Policy and the Ministry of Health while local health authorities and municipalities manage services and interventions at the local and individual levels. An insufficient level of coordination among different sectors involved in LTC supply chain and inadequate coverage of services due to budgetary constraints have resulted in a diversified and heterogeneous distribution of nursing homes throughout the national territory. LTC services are not available in some regions and families are forced to provide care themselves or resort to their incomes and savings for professional private services for care workers and family assistants.³⁴

The generic term for care homes in USA is Long Term Services and Support (LTSS). The sector has been fragmented, marginalized and unregulated for decades and has also faced an overall decline in funding. Nursing homes have faced decreasing occupancy despite an aging population.³⁵ In 2016, about 65,600 paid, regulated service providers in five major sectors served over 8.3 million people.³⁶ Despite major regulatory policies, including the Federal Nursing Home Reform Act of 1987 which laid down extensive standards for resident-focused and outcome-oriented care with an emphasis on residents' assessments and rights, the quality of care has remained deficient. Around 15% of persons aged 65 years and above own a private LTC insurance policy. Publicly funded care, mostly provided

through the Medicaid program, generally pays for low-income individuals with limited assets.³⁷ However, services, especially of assisted living are not always available. Medicare is their primary health insurance for the majority in USA but the funds for LTC are temporary and partial, covering mostly nursing home-based rehabilitation after a hospital discharge, due to which the costs comprise a large proportion of total out-of-pocket costs for Medicare beneficiaries.³⁸

David Gabrowski, Professor at Harvard Medical School voiced several concerns about transparency and quality regulations in LTC, including high turnover and burnout among nursing home staff leading to chronic staffing shortages due to low wages, inadequate sick leave or health insurance and unfavourable working conditions. This also translates to poor quality of life and low satisfaction with care among residents. Primary care physicians are generally “missing in action” and rarely come for on-site visits. Off-hour delivery models involving telemedicine are rare.³⁹ Studies have also reported nursing homes staff facing difficulties in decision-making with respect to feeding residents and monitoring and controlling their behavioural symptoms. Inappropriate usage of practices such as urethral catheterization, physical restraints, psychotropic medication use and pressure ulcers leading to long-term physical and mental deterioration have been major concerns.^{40,41} Many nursing homes are reported for abuse and neglect by staff, lack of criminal screening, investigating and reporting, and gaps in developing and implementing safety measures.^{42,43}

Ground Zero and the “Perfect Storm” for the Pandemic: European Care Homes

Residents in LTC facilities were at high risk for COVID-19 infection due to their advanced age, frailty and chronic comorbidities and various degrees of disability, which often made it challenging to recognize typical symptoms.⁴⁴ This, along with already existing gaps and difficulties in implementation of appropriate infection prevention measures to manage the outbreak on the part of LTC authorities, resulted in a high number of infections and deaths in several European countries during the first surge of the pandemic. Unfortunately, in England, while the NHS received regular briefings and preparatory guidelines for the expected surge of COVID-19 patients during the initial phase of the pandemic, care homes were neglected.⁴⁵ Retired staff were called to return to the NHS service and private health providers were asked to arrange for extra beds. The 13.4 billion GBP of NHS providers’ debt was also written off on 1 April 2020. The social care sector, however, did not receive clear public health directives. There was less clarity on use of face masks and testing of residents and care staff. The Department for Health & Social Care published an action plan for the first time on adult social care only on 15 April 2020.⁴⁶ Until then, there was no mandatory instruction to test all patients discharged from hospital for COVID-19 and up to a maximum of five symptomatic residents were to be tested in a care home in order to confirm an outbreak. Meanwhile, the NHS directed the rapid discharge of all medically fit patients with COVID-19 with a desire to maximize in-patient and critical care

capacity in hospitals. Care homes merely became the receiving ends of discharge channel, admitting patients released from hospitals. Many of them were not tested and this became a key reason for the spread of the virus. The Director of Amnesty International -UK, said, “The Government made a series of shockingly irresponsible decisions which abandoned care home residents to die. Discharged without being tested, thousands of older people were sent to care homes at great risk to themselves and other residents and to staff. The appalling death toll was entirely avoidable—it is a scandal of monumental proportions.”⁴⁷ (para 9–12) It was after discharging 25,000 people from hospitals to care homes between 17 March and 15 April 2020 and the growing evidence of asymptomatic nature of the corona virus that the new policy of testing everyone prior to admission to care homes was issued. From 28 April 2020, all care home staff were made eligible for tests by the Department of Health and Social Care with a capping of 30,000 tests for care home staff and residents.

The government’s main slogan repeated ubiquitously on all public information channels from early March to 10 May 2020 “Stay Home-Protect the NHS-Save Lives” also symbolized the avoidance of the social care sector in the policy response to the pandemic. The change in the message from 11 May 2020 to “Stay Alert-Control the Virus-Save Lives” also did not specifically give care homes any recognition and in the process, the term “carer” came to be appropriated for care in a health setting and not those involved in social care. While care homes received patients from hospitals, they were not allowed to transfer seriously ill COVID patients to hospitals. This accounted for high fatality in care homes. They were heavily criticized for allegedly adopting a blanket DNAR approach. In a care home in Cumbria, the son of a deceased resident was quoted in a report, “From day one, the care home was categoric it was probably COVID and he would die of it and he would not be taken to hospital. He only had a cough at that stage. He was only 76 and was in great shape physically. He loved to go out and it would not have been a problem for him to go to hospital. The care home called me and said he had symptoms, a bit of a cough and that doctor had assessed him over mobile phone and he would not be taken to hospital. Then I spoke to the GP later that day and said he would not be taken to hospital but would be given morphine if in pain... He died a week later.”⁴⁸ (para 22)

The number of first-time outbreaks in individual care homes peaked at 1,009 in early April 2020. As per a Guardian report published on 18 April 2020, Care England, Britain’s largest representative body for care homes, estimated that up to 7,500 care home residents may have died of the virus.⁴⁹ Between 9 March and 17 May around 5,900 care homes, equivalent to 38% of care homes across England, reported at least one outbreak. The Vivaldi study, a large-scale survey among older persons with dementia across 9,081 care homes in England, was conducted by the Department of Health and Social Care between 26 May and 20 June 2020. It estimated that over half of the facilities have had at least one confirmed case of COVID-19. In all, 20% of residents and 7% of staff tested positive, with London and West Midlands reporting rapid transmission and high CFR.⁵⁰

In England and Wales, 27.3% of the 45,899 deaths among care home residents around March and April 2020, were related to COVID-19. As per the Amnesty

report, between 2 March and 12 June 2020, 28,186 “excess deaths” were recorded in care homes in England, with over 18,500 care home residents confirmed to have succumbed to the virus.⁵¹ Overall, care home residents accounted for 40% of all COVID-19 registered deaths in UK. As per Office of National Statistics, between 2 March and 12 June 2020, there were 66,112 deaths of care home residents, of which 19,394 (29.3%) had a mention of COVID-19 and occurred either in a care home or in a hospital. Dementia and Alzheimer as a primary pre-existing condition was involved in almost half of such deaths.⁵²

Spain was also one of the worst hit countries and COVID-19 caught the care homes unprepared to tackle it. At the beginning of March 2020, Spain recorded the second highest rate of infections at 342,813 after Russia. Early reports of infections were reported from Castilla-Leon and Castilla La Mancha, and subsequently from the Catalonia region and Madrid. Initially, the measures only focused on the isolation of symptomatic residents with no clarity on coordination of responsibilities; management, procurement and usage of PPE; diagnostic testing and eligibility issues among departments across various administrations. An overall organizational unpreparedness on the part of care homes to adhere to initial protocols was observed owing to inadequate medical support, poor staff and managerial incompetence. The double occupancy in Spanish care homes also prevented zonal regulations for infection control. Faced with an alarming increase of infections and deaths, on 5 March 2020, the central government issued protocols for preventive measures, including visitation limitations and defining actions if a staff or resident became symptomatic. However, many lives were already lost in the span of nine days between the first officially diagnosed case and the release of the initial guideline.

In the care home, Monte Hermoso in Madrid, 10 out of the 70 infected residents already died as early as 14 March 2020. The Defence Minister admitted that the Spanish military had care home residents “completely abandoned” and even “dead in their beds.” The fatality reached to nearly 6,000 in nursing homes in Madrid by April end as per BBC report.⁵³ A report by Amnesty International Spain indicated that the measures taken by the authorities to respond to the COVID-19 pandemic in Catalonia and Madrid were inefficient and inadequate and violated human rights of the care home residents. “A health emergency is no excuse for not providing adequate care for older people. Care homes are not car parks for elderly people. Human rights, including the right to health, cannot depend on the degree of dependency. The authorities must protect them, a spokesperson was quoted.”⁵⁴ (para 5) As on 26 May 2020, a total of 19,194 fatalities in care homes were recorded in Spain, which included both the deaths of people who had been diagnosed with COVID-19 and those symptomatic but undiagnosed.⁵⁵ There were multiple sources of information and confusions on certifying deaths of infected people in care homes. Between March and the end of July 2020, there was an estimated excess mortality of 35,120 among people registered in the public LTC system, representing 76% of the total excess mortality estimated in Spain.⁵⁶

The silent massacre was also observed in care homes of Italy which became isolated citadels, with minimal contact with the outside world. In the province

of Bergamo, more than 600 nursing home residents, from a total capacity of 6,400 beds, died between 7 and 27 March 2020. Nursing homes in other administrative regions of Lombardy, Veneto and Emilia-Romagna also reported an average of three to four daily fatalities. In a survey of 3,292 out of the 4,629 nursing homes in Italy, the National Institute of Health (Istituto Superiore di Sanità/ISS) confirmed 41% of the deaths (3,772 out of 9,154) between 1 February and 5 May 2020 as COVID-19 related.⁵⁷

It is to be mentioned that the first operational guidelines were released after the country's total lockdown on 9 March 2020, while the first COVID-19 case was registered in Italy on 30 January. The guideline required care homes to suspend visitations and was later updated on 25 March, which almost left it to each nursing home to respond, relying on its capacity and willingness to cope with the extraordinary conditions. There was hardly any coordination with external agencies, other health actors in acute care and GPs. Efforts were mostly directed towards ensuring safety and resilience of acute hospitals. In many regions, including Lombardy, transfers from nursing and care homes to hospitals were blocked, providing guidelines to treat severe or emergency cases of older adults without access to the Italian National Health Services, *de facto* limiting their access to hospital.⁵⁸ On the other hand, many nursing homes were forced through official mandates to accept patients transferred from hospitals, despite staff reluctance, thereby worsening the situation. Staff transfer across settings as well as voluntary shifting to NHS for better working conditions accentuated staff shortages in nursing homes. As a result of such lopsided measures, deaths in care homes were incredibly high. Some nursing homes registered mortality peaks among their patients, double the rate of previous years. The ISS in a dedicated survey to collect evidence found that of the 1,356 nursing homes which responded to the survey, an overall mortality of 9.1% between 1 February and 5 May took place, which included both who were officially tested positive and those who had symptoms and together accounted for 41% of the total 9,154 COVID-19 related deaths in the country.⁵⁹

Similar to many other European countries, the LTC institutions in Sweden were overwhelmed by the pandemic. The National Board of Health and Welfare estimated 108,523 individuals living in care homes during 2019, while Eurostat 2018 mentioned 140,979 LTC beds in nursing and residential care facilities.⁶⁰ In early May 2020, more than 500 nursing homes had reported cases of COVID-19. Among people aged 70 years or older, half of those who died had been living at a nursing home. A 30% "excess mortality" was observed at Swedish nursing homes during the pandemic, with more than 5,500 deaths around mid-July, corresponding to around 550 deaths per million inhabitants. The lack of testing facilities and unpreparedness of nursing homes during the early phase of the outbreak led to high fatalities. The Public Health Agency did not issue directives on using face-masks and shields while treating older adults until 7 May 2020. It recommended their use for suspected or confirmed COVID-19 residents only on 25 June 2020.⁶¹ It was also alleged that care homes did not transfer patients to hospitals and some instead, initiated palliative care on a routine basis. Liberal strategies suggested by

the state epidemiologist later led the government to admit that it could not save the older adults, particularly those in care homes.⁶² An estimate reveals a share of 47% of all deaths among care home residents. The city of Stockholm which has 18% of all care homes was the worst hit with two-thirds of its care homes infected and 7% of residents dead. This accounted for more than 40% of total fatalities in the country.⁶³

Better But Still Not Well: American and Canadian Long-Term Care

The situation in USA resonated with that of the European LTC institutions. It may be mentioned that 2.1 million, representing 0.62% of the country's population, reside in nursing homes and assisted living facilities.⁶⁴ According to (The) Nursing Home COVID-19 Public File, as on 21 May 2020, at least 35,000 deaths were reported from nursing homes or other LTC facilities.⁶⁵ As on 30 May 2020, LTC facilities accounted for over four-fifths of total COVID-19 deaths with 56% of total deaths in nursing facilities, 22% in assisted living facilities, 3% in memory centres and only 19% in community settings. As on 18 June 2020, reports available from 47 states in USA, 9,822 facilities were infected with a total number of 240,138 cases and 50,185 deaths. Residents in LTCFs represented 14% of the cases and 45% of the mortality.^{66,67}

One of the first cases of coronavirus was identified in a healthcare worker of a LTC skilled nursing facility in King County, Washington on 28 February 2020, following which 76 of 82 residents were tested. It was found that 30.3% had tested positive, approximately half of whom were asymptomatic or pre-symptomatic on the day of testing. On 10 March 2020, the Governor of Washington implemented mandatory screening of healthcare workers and visitor restrictions for all licensed nursing homes and assisted living facilities. A total of 30 King County facilities with at least one confirmed COVID-19 case was identified by 18 March, and as of then, a total of 167 confirmed cases affecting 101 residents, 50 healthcare personnel and 16 visitors were found to be epidemiologically linked to one of the facilities in city of Kirkland. Most cases among residents included respiratory illness consistent with COVID-19; however, in seven residents, no symptoms were documented. Hospitalization rates for facility residents, visitors and staff were 54.5%, 50% and 6%, respectively. The CFR for residents was 33.7%. Surveys and on-site visits revealed factors such as staff working with symptomatic residents or in or more facility; inadequate supply, knowledge and usage of PPE and sanitizers; limited availability of testing and difficulty and delay in identifying cases.⁶⁸

In a study of 9,395 nursing homes in USA, findings suggested facilities having high percentage of African-American residents being more impacted. It was also revealed that while smaller facilities were less likely to have outbreaks, those with higher patient turnover had greater infection rates and affected more patients per bed.⁶⁹ Maximum overall and LTC mortalities were concentrated in Minnesota's cities of Minneapolis and St. Paul, especially among racial and ethnic minorities.⁷⁰ Nursing homes and assisted living facilities in Massachusetts and Connecticut

were also hit hard, with COVID deaths per 10,000 residents reported to be 703 and 827, respectively.⁷¹

There were concerns of American nursing homes receiving inadequate revenue stream from Medicaid, forcing them to lobby for federal aid to meet basic health, safety and staffing standards set by the government. Although the federal health agencies pushed the “Treat in place” mantra on the grounds that hospitals were risky for older people, it did not prove to be congenial for nursing homes as they were not equipped with treatment procedures to stop the spread of infection. The Governor of New York city was criticized for allegedly mandating nursing homes to admit COVID-19 patients to reduce overcrowding of state hospitals. Only on 10 May 2020, after deaths of nearly 3,000 residents of nursing homes and assisted living facilities were the orders rescinded. As on 2 June 2020, New York had the maximum nursing home deaths, with the figure standing at 2,948. Absolut Care, in the village of East Aurora, New York which was trying to recover after going bankrupt in September 2019, was literally devastated by the pandemic. In sum, 153 residents of the 310-capacity nursing home were found to be infected. 61 succumbed to the virus as on 31 May 2020. *The Washington Post* mentioned how the infection spread like wildfire with cross-contamination throughout the facility, as described by a registered nurse of the facility. Faced with acute shortage of PPEs, staff even obtained disposable ponchos from the Maid of the Mist, the tourist boat tours at Niagara Falls to take immediate measure to prevent spread of infection.⁷² Care facilities in Oregon, Portland, New Mexico were also in news for staff not receiving training for enforcing practices of infection control leading to fatalities.

Some states fared better. Florida managed the pandemic by putting nursing homes and assisted living facilities at an at least equal level of priority as hospitals, disallowing movement of older adults from hospitals to nursing homes to reduce spread of infection, reducing visits of family members and also ensuring availability of PPE. Other states, including California, adjusted their policies on discharging COVID patients to nursing homes in response to industry concerns about potentially spreading the deadly disease. A *Forbes* report quoted a member of Florida’s Agency for Healthcare Administration, “Every day on these calls [with hospitals], I would hear the same comments and questions around, ‘We need to get these individuals returned back to the nursing home.’ We drew a hard line early on. I said repeatedly to the hospital, to the CEOs, to the discharge planners, to the chief medical officers, ‘I understand that for 20 years it’s been ingrained, especially through Medicare reimbursement policy, to get individuals in and out. That is not our focus today. I’m not going to send anyone back to a nursing home who has the slightest risk of being positive.’ What we said constantly is let’s not have two cases become 20 or five become 50. If you don’t manage this individual as you return them back, you will have far more being transferred back to the hospital.”⁷³ (para 17)

The neighbouring country of Canada did well in controlling corona virus in the community, but its response within care homes was nothing but “borderline abusive.”⁷⁴ As per the 2016 Census, 425,755 Canadians lived in LTC, retirement homes or assisted living facilities.⁷⁵ The first outbreak was reported at Lynn Valley

Care Centre in Vancouver in the province of British Columbia on 5 March 2020, where a staff member tested positive for COVID-19, followed by the death of a resident three days later.⁷⁶ Gradually, a vast majority of cases came to be reported in Alberta, Quebec and Ontario. On 2 May 2020, the Public Health Agency of Canada reported a total of 3,566 deaths, out of which over 60% were nursing home residents. A subsequent report by the Canadian Institute for Health Information mentioned 81% of novel coronavirus-related fatalities occurring in LTC institutions. As of 1 June 2020, ILTCPN country report of Canada mentioned that 4.1% of approximately 425,755 residents of LTC and retirement home had been infected with COVID-19. Out of the estimated 17,246 infected residents, 6,236 of them died, accounting for a CFR of 36%.⁷⁷ Ontario had the second highest number of confirmed cases among residents in care homes, which stood at 28,709 as on 1 June 2020. Based on official numbers produced by Public Health Ontario, the cumulative number of confirmed cases in nursing home residents and staff were 5,158 (18%) and 1,825 (6%), respectively. Armies had to be deployed in Quebec and Ontario who encountered rotten food, cockroaches and residents in soiled diapers, a situation expressed as “gut-wrenching” and “shocking” by the Ontario Premier.⁷⁸ The province of Alberta also reported total of 830 cases (comprising both residents and staff) in LTC as of 1 June 2020. Nova Scotia reported 267 confirmed cases among residents, accounting for 25% of the 1,057 confirmed cases in the province. The Northwood LTC facility in Halifax became the epicentre of the COVID-19 outbreak in Nova Scotia. It may be mentioned that 13% of the total health budget of 2020–2021 was allocated for LTC. Lack of intensive pandemic planning for care homes was pointed out by the Director of the Nova Scotia Centre in an interview in May 2020, “It’s just a symptom of how we put a lot of emphasis in one area and the long-term care system ends up being that poor cousin that has to survive on far less resources.”⁷⁹ (para 5)

Getting Responses Right

South Korea was one of the few countries which can be said to have responded more effectively to the pandemic situation. From 20 January to 20 April 2020, three LTC facilities in Korean metropolitan areas reported COVID-19 cases.⁸⁰ The Korean National Health Insurance Services released a response manual for all welfare and LTC facilities against COVID-19 on 20 February 2020. The government took aggressive approaches to contain the spread in all types of care settings. Nationwide monitoring and inspections of Long-Term Care Hospitals (LTCHs) were made to restrict visitors and exclude care workers with travel histories to infected regions or those with symptoms, without being subject to payment cuts. Cohort quarantines were introduced in select facilities with relatively greater number of confirmed cases, in addition to other preventive and supportive measures such as temporary reimbursement packages and supplies of masks for care workers at a relatively low cost.⁸¹

New Zealand also received global acclaim for successfully combating the pandemic to a large extent. The Aged Residential Care (ARC) sector comprises of

over 650 facilities with around 38,000 beds. LTC provision is publicly funded as part of a universal healthcare system and involves the provision of medical, nursing and social services for elder population with the New Zealand Aged Care Association supporting over 90% of residential aged care facilities. As on 10 June 2020, there were 22 deaths out of a total of 1,504 cases. The mortality in ARC facilities accounted for 72.2% of all COVID-19 related fatalities in the country. The number of deaths in care facilities represented 0.04% of all beds. The country's borders were closed to non-citizens and non-residents on 19 March 2020. Based on the Ministry of Health definition of case clusters as ten or more cases who are not part of the same household, there were 153 cases and 16 deaths linked to five ARC clusters across three regions, accounting for 10.2% of total cases and 72.7% of all deaths in the country. Healthcare workers accounted for more than half of these cases, though no staff mortality was reported. The success of the Prime Minister in implementing early preventive measures to check the spread of the disease has been described as “crushing the curve.”⁸² New Zealand's Director-General of Health said that the country's strategy was based on speedy testing, contact tracing and isolation, while rigorously adhering to public health guidance. The Government called on the entire population to unite as a “team of 5 million to protect their families, friends and neighbours.”⁸³ (para 11) In the first week of March 2020, the ministry issued guidance on the use of PPE, infection-prevention and management of outbreak, and rules related to transfers and visitations in ARC facilities. Subsequently, an announcement of a country-wide alert system, similar to the existing fire warning systems—prepare, reduce, restrict and lockdown—was made with the objective to enable the public make sense of the level of risk and associated restrictions for containing the virus.⁸⁴ All facilities were encouraged for a negative COVID-19 test result and 14 days isolation for all new admissions, use of surgical masks and restriction on non-urgent professional visits during lockdown alert.

Although care home fatalities were reported in Germany too, certain governmental measures were able to keep the numbers of deaths relatively low. Germany has a social insurance model for providing universal support for the cost of long-term services through a self-funding and social insurance approach.⁸⁵ According to the German Federal Statistical Office (*Destatis*), in 2017, there were 3.4 million people with LTC needs. With around 12,000 care facilities, LTC is organized through care providers and financed largely through the long-term care insurance that requires mandatory payments from the working population, though they do not always cover all care related costs. When COVID-19 struck, the government put a ban on public assembly. The Robert Koch Institute (RKI) issued guidelines and norms for monitoring and controlling infections. On 27 March, the German Ministry of Health announced a service package for hiring additional carers and reimbursing additional costs. During April and May 2020, minimum wage, eligibility for bonus and extra allowances for nursing assistants were announced. RKI reported on 3 May 2020 that out of 6,649 total COVID-19-related deaths, 2,401 affected residents were living in communal settings (which include homeless shelters, facilities for asylum-seekers or other mass

accommodation). This resulted in a 36.1% share, which was lower than in other countries with a similar number of deaths.⁸⁶

Thus, overall, the first surge of the pandemic disproportionately affected the oldest and frailest residing in LTC arrangements in several countries. Unprepared care homes and nursing homes already engulfed in underinvestment, staffing and safety issues emerged as COVID-19 hotspots, affecting not only the residents but also the care workers.

Caring Without Being Cared For: Challenges in Residential Aged Caregiving

The staff in LTC in several countries had been working under financial, staffing and operational constraints before the pandemic.^{87,88} Some of the common challenges included lack of alignment in organization and governance between health and social care systems, with the latter facing underfunding and consequent rationing of public funded services.^{89,90} Except in countries like Japan, which had opened district-wise community integrated care centres, with care managers collaborating with teams of various aged care services, the LTC staff of majority of the countries were unable to coordinate with other health professionals in prioritizing prevention and safety mechanisms and monitoring chronic conditions. LTC staff generally comprised of a female workforce who struggled with poor working conditions and low wages. Care workers earned much less than those working with similar qualifications in other parts of the healthcare sector. The median hourly wage for LTC workers across 11 OECD countries was EUR 9 per hour in 2014, compared to EUR 14 for hospital workers in the same occupation.⁹¹ Job insecurity, lack of sick pay provisions and demanding physical and psychological work conditions rendered their caregiving jobs extremely stressful. The vast majority of LTC workers in USA were women (82%); and a disproportionate share were Black (26%). Nearly one-third lived in a family with income below 200% of the poverty level, and nearly 39% had a high school diploma or less. The Kaiser Family Foundation also pointed out that nearly four in ten were 50 years or older (38%), including 7% who were 65 and older.⁹²

When the pandemic struck, planning discussions related to carer health and well-being were often overlooked. There was lack of structured and integrated approaches to staff management for meeting increased care needs. Guidelines issued on rotation and allocation of duties, maintaining essential stockpiles, cleaning and environmental disinfection, waste, laundry and PPE reuse were inadequate. Care workers had to learn and grapple with new and changing policies on incorporating hand hygiene, zoning of care homes to ensure movement within as well as of visitors, preventing cross-infection among positive and negative residents and receiving new or returning residents into a care home from either hospital or community. Training on surveillance and regular reporting, taking contact history, temperature, reducing avoidable hospitalizations and hand hygiene were not always provided. Also, the architectural layouts of most care homes were such that they lacked rooms which could permit respiratory

isolation during COVID-19. Maintaining physical distancing and isolation norms thus became very challenging for the care workers.⁹³

Care workers in several countries across the globe worked in fear for their own families, many of whom were living with parents or/and children at home. As mentioned earlier, the lack of sick pay provision for the staff meant that despite having symptoms, they kept working for financial viability. There was no forceful emphasis on employees to stay at homes if they showed symptoms or became ill. Thus, there were chances of overlooking the risk factor for transmission of the virus by LTC workers. Leadership and psychological support services for staff were not available which made the job of caregiving even more exhausting.⁹⁴ Many suffered a sense of loss from witnessing a sudden surge in death of residents which could not be shared with anyone because of the dwindling numbers of colleagues on duty.

In UK, many staff were not trained in geriatric conditions, patient safety and hospital discharge. Poor pay and career paths had compelled many to switch over to new jobs or opt for dual employment to supplement income.⁹⁵ During the pandemic, staff morale and confidence was seriously affected due to lack of transparency around the availability and supply of PPE. The lack of timely testing led to increased stress and absence. It is alleged that essential kits for testing were diverted to NHS though this was denied by the Department of Health and Social Care. A national officer of British Trade Union, said, "We wrote to the Health Secretary raising concerns that social care had been excluded from initial PPE guidance, excluded from regular and universal testing and denied access to full pay should workers need to be off work. They can't pretend they weren't aware."⁹⁶ (para 12) In view of the poor working conditions, neglect and underfunding, England's Medical Officer commented that he had "zero enthusiasm" for pointing the finger at care homes which were hit hard by the crisis. People working in multiple homes without paid sick leave posed a clear risk in social care settings.⁹⁷

In some countries like Italy, in contrast to the healthcare sector where the number of staff affected by the illness was collected, no equivalent data for social services staff existed, which, in turn, affected adequate measures for their safety. Local and national media reported dangerous exposure levels due to lack of testing and of PPE supplies and inadequate physical distancing measures. There was an enormous shortage of masks, gowns and tests. New PPE supplies were primarily directed to hospitals, and nursing homes were left struggling to protect their workers and residents. In Lombardy Region, the first supply of masks for nursing homes arrived only around mid-March of 2020 and staff continued to struggle with lack of medical supplies and difficulty in promptly transferring positive patients into hospitals. There were reports of exhaustion and distress among staff but few psychological support services were provided for residential care workers.⁹⁸ Due to unavailability of protective equipment, many resorted to home-made ones and struggled with donations of face masks and equipment received from charitable organizations. Staff safety was also affected due to ambiguous and at times confusing and contradictory guidelines issued by the Ministry of Health. For instance, in the beginning of March 2020, there were recommendations for use of PPE with symptomatic residents. Staff presenting with upper respiratory infection

symptoms were to be assessed by primary care services to determine whether they could remain at work or not. Later, guidelines published on 21 March stated that every worker in contact with residents were to follow recommended protection according to the level of risk they are exposed to. This allowed normal activity to be continued for those who came in contact with a possible or confirmed case, subject to merely monitoring of symptoms. Neither contact with affected residents nor exposure time was reduced. Testing of care home staff also got impacted due to lack of specific guidelines. Reeling under crisis, some staff were forced to home quarantine, while others refused to work to protect themselves and their families. Due to growing staff shortage, a resolution was published on 16 April 2020 which made the employment of care workers legal, and relaxed the norms of training. Care homes also had to employ additional staff as well as extra care workers to take control of the situation, but not all autonomous administrations announced extra payments for compensating additional costs.⁹⁹

In Sweden, the condition of care workers during the pandemic was equally poor. Around 60% of the approximately 200,000 care workers and 17,000 registered nurses in social care work in care homes, many of whom are contractual and employed by the hour and lack formal training. During the pandemic, care workers had to take in extra workload as many among them were on sick leave or in self-isolation. This also led to appointment of more casual workers without adequate formal training to ensure quality and safety in the care services. A large-scale inspection of around 1,000 care units, including 500 care homes by the Health and Social Care Inspectorate found deviances, particularly related to hygiene measures in 10% of the units. The government-initiated training of the 10,000 temporary employed care workers with limited or no formal training. Poor competency and working conditions however, accentuated negative consequences for the care workers as they struggled to meet the residents' needs. Scarcity of testing equipment, PPE and the physical layout of the homes with limited possibilities of distancing, affected their well-being as well as that of the residents. The largest care workers' union *Kommunal* demanded proper facemasks for all care workers in care homes and homecare, but the national authorities left it to the discretion of those at the local levels.¹⁰⁰

The safety of both care workers and residents in USA was also threatened by the systematic failure in the provision of PPE and inadequate testing policy.^{101,102} Even when some LTC facilities received PPE stock and equipment, the staff were not clear as to who would do the tests and on whom. Many care workers expressed concerns about the adequacy and quality of the PPE provided through shipments. In several nursing homes in USA, ultraviolet (UV) machines were eventually used to disinfect PPE supplies.¹⁰³

Residents in the Besieged Castles

LTC residents who were already lonely and at risk of depression and anxiety were severely affected by the pandemic as countries received directions from government officials and medical experts to “stay at home” and “isolate in place.”¹⁰⁴

When the pandemic first hit and lockdown was imposed, neighbourhoods of nursing homes and assisted-living facilities in several countries were isolated, with very little contact with the external environment. This led to an unprecedented loss of connectivity and senior care communities remained like besieged castles and fortresses, with “No Visitors” signs blanketing their entrances. Care homes became excluded, alienating and impersonal spaces as they struggled to secure safe spaces for residents, thereby increasing social isolation and worsening their mental health outcomes. Residents, overwhelmed with the serious magnitude of the problem, struggled with discomfort and anxiety. For example, Minnesota’s senior care facilities banned visitors on detecting COVID-19 cases and family members and relatives were only allowed to leave care packages outside locked doors and wave at residents from a distance. In an assisted-living facility, the daughter of a 91-year-old resident with dementia used to drop by the care home and talk to her mother by phone while watching her through the window. But her mother often seemed confused and upset about not meeting her in person. She was quoted as saying, “Physical touch is so important to both of us, because I don’t know how much longer my mother is going to live...It’s a painful thought to think she might die alone in lockdown without me seeing or touching her.” (para 16) Later, much to the relief of the residents around June, the government issued new guidance mandating that facilities “work with residents and their visitors to allow window visits,” provided they maintain a safe distance and wear cloth masks, some allowing to talk through screens or slight cracks.¹⁰⁵ (para 12) Some care homes also allowed socially distanced garden visits to facilitate residents, friends and family members meeting on a case-by-case basis. Although technologies like tablet computers and videos were used, these could not compensate for the physical separation and loss of connect with families, particularly for those residents with dementia and delirium.

Residents could not get adequate health assistance for COVID-19 related illnesses or other health conditions due to inadequate staff availability on account of sickness and self-isolation measures. Many suffered from physical deconditioning due to isolation and neglect and reduced mobility. Falls, increased confusion, loss of appetite, new swallowing problems or consequent refusal of food, weight loss, constipation, worsening incontinence, inability to get out of bed, drowsiness and withdrawal were reported. However, maintaining activity and interaction was not possible. Care home staff, often unable to address their own fears and vulnerability, struggled with monitoring individual emotional needs, but many signs of deterioration went unrecorded. Remedial strategies through discussion with families and friends, and visiting healthcare professionals, also got restricted. There were concerns of certified nursing assistants being uncaring, and neglecting patients in assisted living.

Family members who could not visit the homes became collateral victims of the pandemic, experiencing forced separation and an inability to share important feelings and provide comfort.¹⁰⁶ Their helplessness aggravated on hearing news that care homes were breaking down but were unable to get accurate information of their relatives and come to their redressal. The unprecedented lack of

connectivity was reinforced by the fact that the residents who died could not receive a public funeral involving relatives and local communities. This accentuated loss, grief and bereavement. One relative of an Italian care home resident was quoted in May 2020 as saying, “If I had not put my dad in the nursing home, he would still be with me and in these dramatic moments I could make him understand all my affection.”¹⁰⁷ (para 387)

Also, the emphasis on ventilators shifted attention from palliation. Patients with poor chances of survival did not receive quality palliative care due to overburdened health systems, staff shortages and lack of support for staff in care homes. Inadequate stockpiling and challenges in the supply chain of essential medications for palliative care posed a serious barrier. The lack of guidance to address medicine shortage was observed across Europe as well as in USA. Hospice workers and nursing home staff did not receive support on optimizing medication management. The unavailability of PPE also deterred the possibility of providing palliative care. Even in cases where palliative care was being recommended, care workers were not guided as to how to put these recommendations into practice when keeping themselves and others protected was of utmost priority. There was a glaring gap in COVID-19-related training for specialist palliative care staff. Access to specialist palliative care teams, GPs and other community staff was not always easy and though tele-health was encouraged to replace face-to-face consultations, there were obstacles related to reimbursement with such technological platforms. As a result, palliative care could not be provided in majority of care homes across the globe. Restrictions on visitations made end-of-life communication difficult.¹⁰⁸

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4 Geriatric Harm of Public Health Measures

The limits of medical intervention necessitated the implementation of a broad range of non-pharmaceutical public health measures to mitigate the transmission of the virus. *The Lancet* COVID-19 Commission Task Force for Public Health Measures to Suppress the Pandemic in its 2021 report categorized these interventions into institutional and behaviour-change measures. The former consists of strategies for pandemic control involving widespread community testing, contact tracing, quarantine and isolation of cases. The latter includes protective behaviours by maintaining safe physical distance, covering nose and mouth when coughing and sneezing, wearing masks, disinfecting hands and surfaces and limiting indoor gatherings. These measures which are influenced by factors operating at the individual, community and population level are implemented through restriction and coercion; persuasion and incentivization; education and training; and environmental restructuring.¹ Though effective in a public health sense, they can have profound adverse consequences for older adults. Social separation, particularly for long durations, can cause loneliness and anxieties, disrupt social and economic life, infringe upon individual rights and thus raise ethical dilemma in pandemic preparedness plans.²

Beyond Mortality and Morbidity: Increasing Loneliness, Fear and Anxieties

Ageing generally brings with it social isolation. It is a serious public health concern triggered by reduced social interactions, social networks, social support and limited engagement with wider community activities. Poor health, restricted mobility, impaired speech or hearing, cognitive decline, fragmentation of families, death of partners and friends and limited financial resources also contribute to the problem.^{3,4,5} Social isolation is one of the biggest predictors of loneliness, i.e., subjective sense of lacking connection and contact.⁶ The detrimental impact of social isolation and loneliness on older population has been known even prior to COVID-19. Studies show that increased blood pressure, heart disease, obesity, diminished immunity, depression, anxiety, poor cognitive functioning and increased risk of Alzheimer's disease are linked with social isolation and

loneliness.^{7,8} Social isolation can increase the risks of developing dementia, coronary heart disease and stroke by 50%, 29% and 32%, respectively.⁹ Much of the literature on social isolation and loneliness also shows well-established relationship with anxiety^{10,11} and depression.^{12,13,14,15,16} In conjunction with other mental health conditions it can even lead to suicide risk.^{17,18}

During COVID-19, these problems became even worse as a result of public health measures emphasizing social restrictions, lockdowns, new hygiene regulations and messages aimed at protecting older adults.^{19,20,21,22} Awareness that older people run a higher risk for severe respiratory problems and consequent hospitalization, ventilator support and even death, further escalated stress and anxiety.²³ Experts cautioned that public health messages which aimed at repeated reminder of elder vulnerability could accentuate fear and insecurity, which, in turn, may manifest in physical health problems and heightened risk of cardiovascular, auto-immune, neuro-cognitive and other problems. Santini et al. showed that older people during pandemic may have been especially vulnerable to suicide through a growing sense of disconnect with society, physical distancing and loss of opportunities for social interaction. Other stressors resulting from quarantine—boredom and fear of infection also created suicidal ideations.^{24,25,26} Psychological distress, known to increase cardiovascular event rates, could have got accentuated due to a sedentary lifestyle, increased rates of smoking and other similar factors. According to one estimate, COVID-19 pandemic could have resulted in one to two million additional coronary events directly attributable to the crisis. If patients who were avoiding seeking care are added, this could further increase the morbidity and mortality associated with cardiac disease directly linked to coronavirus.²⁷ Unfortunately, public health agencies failed to identify the prevalence of such unintended risks and mitigate it by designing suitable interventions and methods of delivering support.²⁸

Isolation of older adults and increased loneliness were most pronounced in care homes where visitation policies were put in practice in order to contain the spread of the disease and protect over-burdened health systems.^{29,30} Unintended health consequences for both residents and families followed as older adults struggled to make sense of changed circumstances due to disruption in the structure of their everyday lives. Many with poor health and functional limitations were already socially isolated and lonely. Critics called such policies “draconian” and as having failed to balance the protection of older, at-risk residents with their need for family and social connection. It is not clear how many succumbed to loneliness rather than to the infection.³¹ *The Guardian* narratives capturing the prevailing loneliness among older adults used such expressions: “Care home residents confined to their rooms and forbidden visits from loved ones are giving up on life and ‘fading away’”; “The virus won’t be the killer of these people, it’s the distress and fear of [isolation] that is doing it”; and “Residents who were giggling, happy and active before the crisis now just lie in their beds or sit alone in their rooms with their doors closed...Many now barely respond when you speak to them...Some shout for their friends and family. Others have given up entirely and are fading away.”³² (para 4–5)

Shutdown and disruption of support structures for community dwelling adults at home also created serious problems. In many less developed countries like India, older adults were badly affected due to failure of the government to provide services at home. It may be mentioned that about 6% of older adults (estimated at 116 million by 2011 census) in India live alone. Many depend on part-time helpers or paid caregivers for activities of daily living. This living pattern would have increased their distress due to disrupted routines and pandemic related curbs on movement and contact. The suspension of public transport, internal air, train and road travel made it difficult for their caregivers, children or other family members to reach them. Those with chronic conditions requiring timely check-ups and visits to doctors could not do so which might have affected their physical and mental health. Supplies of food and medicine were also impacted as a result of which stress and anxiety among both older adults and their caregivers got compounded. In some places, while physicians prescribed medicines, availability and access to them became difficult. An elder patient on psychotropic medications and anti-anxiety pills in Mumbai (India), unable to access medicines, finally posted an SOS message to a non-governmental organization known to respond to distress calls. Many volunteers tried to help but could not do so due to limited supply of psychiatric drugs and lack of clarity on e-prescriptions for pharmacists. Finally, a psychiatrist arranged the medicines with the help of a local police station. According to Agewell Foundation, a survey of its 5,000 enrolled senior members in India, showed that 44% respondents considered lack of regular supply of medicines and access to physiotherapy as the most critical health challenge. Around 55% elders asserted that the lockdown situation was affecting their health adversely.³³ HelpAge India observed that older people in urban areas are particularly vulnerable during times of crisis if they lived alone, became separated from their families, or had physical disabilities.

Mental health symptoms were reported from other parts of the world as well. Describing his experience during his stay in Italy, Diego de Leo, Professor of Psychiatry and former Director of the Australian Institute for Suicide Research and Prevention at Griffith University, pointed out that during first wave of the pandemic, there was a decline in emergency admissions related to mental disorders because of fear of contacting infection. However, after the wave, the number of such admissions increased and there was also an unusually high spike in suicides. In one week, his Foundation was contacted by eight families in the province of Padua with a recent death by suicide.³⁴ Mental health issues affected even those living with families. In India, a non-profit organization reported an increased number of distress calls from young family members who were finding it difficult to deal with their co-habiting elders due to behavioural changes such as increased levels of irritation and lack of sleep. Those families cohabiting with older adults with dementia, Parkinson's disease, cancer and other chronic conditions which require continuous attention and support suffered due to disruption of services and unavailability of care support at home.³⁵

Loneliness in the healthcare sector was equally pronounced. One particularly poignant story shared by a healthcare worker showed the desperation of a dying

father, suffering from a non-COVID related illness, who wanted to see his autistic son, one last time. Despite multiple attempts by staff to grant this dying wish, the request was ultimately denied on the grounds that a child with autism may not be able to appropriately wear a mask while in the hospital. The man died shortly afterwards without seeing his son. Another hospital staff narrated the gut-wrenching experience of not being able to obtain the updates of her isolated father who was intubated due to COVID-19.³⁶ Because hospitals limited or denied family visitations, many older adults suffered alone in disorienting, unfamiliar settings with nurses and physicians unidentifiable due to PPE. There was limited interaction with hospital staff as the latter restricted time with them to reduce risk of infection. Without family support and assistance, older adults easily became delirious and succumbed to the infection. Despite good medical care and hospital support (monitoring, intravenous medications, hemodialysis, high-flow oxygen and intubation), studies in New York estimated that 27% of patients 85 years and older, and 11% of patients within the 65–84 years age group died from infection.³⁷

The Dismissed Environmental Concerns in Public Health Measures

Residential neighbourhood characteristics are important life spaces for older adults who spend more time in there than do employed younger adults. Unfortunately, these were not central to COVID mitigation efforts. Dismissing neighbourhood characteristics could have brought unintended consequences since these are associated with poor self-assessed health, disability and mortality. Low-income communities have fewer and lower quality of medical care, higher crime rates, poor quality housing and weaker social supports.³⁸ These could have accentuated the adverse impacts of the pandemic. Many public health strategies were rolled out without keeping the environmental context of older adults in mind. This was amply illustrated in Mumbai which houses Asia's most densely packed slum settlement—Dharavi. Its estimated population density (66,000 people per square kilometre) is more than double than that of Mumbai, which is itself the fifth most densely populated city in the world, according to the UN. The inhabitants live in excessively cramped spaces across an area measuring 2.1 square kilometres, with over 57,000 shanties, huts and small flats, majority being illegal settlements. According to an officer of the municipal corporation, there are, on average, 10–12 people living in thousands of 250 square feet huts. During hot days, maintaining home-quarantine became difficult. Poor sanitation and lack of potable water supply worsened the problems. According to a local social activist, there is on average one toilet per 500 people and most residents defecate in the open. They wait in long queues to use the toilets which makes them vulnerable to infection.³⁹ Such neighbourhood features made it an uphill task to identify asymptomatic patients and quarantine the ill. New task forces were constituted involving sanitary inspector, medical officers, police personnel, the ward officer and his team of 800 community health volunteers to curb the rising infections. The impossibilities of physical distancing in such disadvantaged neighbourhoods

too became fairly evident. Most people did not have enough space to maintain physical distance thus, making the spread of novel coronavirus relatively easy. Older adults, patients with respiratory diseases and pregnant women got seriously impacted. Widespread economic desperation prevailed as families faced the prospect of spending months without wages on account of the nationwide lockdown and shutting of private business establishments. Illegal shops and establishments made it difficult to share information vital for contact tracing due to fear of economic ramifications. Counselling residents on the importance of public health measures appeared unproductive.⁴⁰ Food insecurity too, may have prevailed given the fact that prior studies on Dharavi by Tata Trust showed unmet needs for nutrition, housing and social care among older adults. Using Mid-Upper Arm Circumference (MUAC), an indicator for the assessment of acute adult under nutrition, survey data showed that a significantly high percentage (almost 37%) of older adults were undernourished.⁴¹

High rates of food insecurity were noted even among older adults in countries of the west. At the end of 2019, 14% adults in the age group of 50–80 years experienced food insecurity. A nationally representative poll of 2,048 adults aged 50–80 years in USA, found that among those who experienced food insecurity, 42% had severe food insecurity, meaning they sacrificed the quality or amount of food they consumed because they lacked sufficient resources.⁴² Given existing high rates of undernutrition and food insecurity among the aged, it is but natural to assume that during an infectious disease outbreak, malnutrition rates would have increased even more sharply, leading to adverse health outcomes, including poor physical and mental health and higher mortality. An analysis in USA shows food insecurity rates among older adults increased by 58.8% during the pandemic with 13.5% of older adults struggling to meet their daily food needs: Black and Hispanic older adults were disproportionately affected.⁴³ The UN anticipates worsening of the situation especially for those who are quarantined, isolated, without safety nets and with limited funds to access the market.⁴⁴

Besides food insecurity, there emerged pockets of vulnerability on account of environmental constraints like lack of water. Frequent handwashing with soap and water for 20 seconds was stressed as a public health measure to curb infections. But the message ignored the fact that not all communities across the world have access to this resource. A report released by the WHO and UNICEF found that as of 2017, three billion people worldwide, or 40% of the global population, lacked basic facilities at home to wash their hands with soap and water. Regional disparities were stark: in sub-Saharan Africa, 75% of the population (767 million) lacked basic handwashing facilities, followed by Central and Southern Asia at 42% (807 million) and Northern Africa and Western Asia at 23% (116 million).⁴⁵ Only a fifth of all households in India (1.3 billion) have piped running water which might have made frequent handwashing a challenge. A NITI Aayog (National Institution for Transforming India, Government of India) report on the country's ongoing water crisis found absence of piped water among 82% and 60% of rural and urban households, respectively. In such a situation, a single 20-second wash with wetting and rinsing would use at least two litres of water.

This is an unimaginable luxury for a rural family of four, where only handwashing ten times a day per person would amount to using 80 litres of water.⁴⁶

Surprisingly, the lack of piped water is not only a feature of developing countries but also of developed ones like America.⁴⁷ The non-profit organization, Dig Deep, reported a strong correlation between the spread of the virus and communities that lack water. More than two million Americans do not have indoor plumbing. Far greater numbers have issues with safety of water supplies and affordability to pay for them. Inegalitarian distribution of such resources follow underlying racial inequities as well. Black and Latino households are twice as likely as White households to lack a tap and a flushable toilet; among Native Americans, the chance of having to rely on an outhouse and a communal drinking-water source is 19 times higher. They are also more likely to suffer from diabetes, high blood pressure and obesity which put people at a higher risk of developing severe complications from COVID-19. The organization noted how water is tied up with other Social Determinants of Health (SDoH) and tracked the virus in the Deep South and in the colonies of El Paso. In these places deliveries of trucked water had dropped by 50% and some older adults and disabled people were extremely worried about welfare and job losses of younger family members who hauled water for them. Where communities rely on bottled water, drop in earnings meant poor access to water and sharp hike in pricing. Older people, the homeless and undocumented workers were hardest hit. In conditions of scarcity and conflict among water users, older adults were often left behind.⁴⁸

Public health emphasis on good air quality was equally unmindful of the long-standing population health issues related to household air pollution in many poor countries.⁴⁹ Worldwide, around 2.8 billion do not have access to clean cooking solutions and are exposed to toxic household air pollution, which contributes to over four million deaths every year from non-communicable diseases and pneumonia. Recent evidence demonstrates a higher susceptibility to infection and associated morbidity and mortality among people suffering from ailments stemming from exposure to air pollution.⁵⁰ Reduced lung functions and increase in the risk of respiratory illnesses could exacerbate the severity of COVID-19 as evident in reports from USA and northern Italy.^{51,52,53,54}

In India, household air pollution, posed a health crisis by increasing probability of risk of development of COVID-19 among vulnerable population groups like older adults of low-income families. As per Longitudinal Ageing Study in India (LASI) Wave 1, 2017–2018 report, only 52% of LASI age-eligible households use clean cooking fuel, while about 60% of rural households still depend on wood shrubs and cow dung.⁵⁵ Home-based isolation and confinement practices might have increased their exposure to indoor air pollution and susceptibility to infection. Unfortunately, the government's ongoing attempts to transition to clean fuels was hindered by the lockdowns which began on 25 March 2020. It affected access to essential goods and services, particularly in rural and remote areas. Demand and supply logistics in many sectors got affected, including energy and transportation, as a result of which uptake and sustained use of clean cooking fuels also suffered.⁵⁶ Similar threats prevailed in

other developing countries and often led to defiance of stay-at-home orders for fetching cooking fuel. In sum, 80% of the population in rural and low-income settlements of sub-Saharan Africa use solid fuels for cooking and heating. Solid fuels are typically burnt in open fires and inefficient traditional stoves and in poorly ventilated cooking spaces that pollute the entire household. Women and adolescent members of the household often leave their homes on a daily basis to fetch these fuels.^{57,58}

Lockdown and Economic Impacts on the Aged

As of 21 April 2020, 89 countries with more than one-third of the global population had experienced lockdowns due to the outbreak. This had a serious impact on the financial condition of older adults, most pronouncedly in countries which have poor social security measures in place. In rural India, older adults working as farm labourers and daily wage earners were seriously affected by the lockdown. Without social security measures and insurances, most were dependent on charity and sporadic and patchy government support. Also, when young migrants returned to the villages after the lockdown, older adults faced the risk of infection from them.^{59,60}

The UN estimates that lockdown, consequent slow economic growth and broken production cycles, combined with the fear of going out and contracting infection, increased financial pressures on older people. Although the full extent of impact from economic downturn is not available, it may be assumed that movement restrictions may have prevented many from going to work or even accessing social security, protection measures and financial support from family and friends. Older women, who globally make up 65% of people above retirement age without regular pension, might have suffered the most.⁶¹ In many cases, as the economic standing of the family got affected with loss of employment of the main breadwinner, it affected the wellbeing of the older adults as well. Reporting in the Indian context, HelpAge argues that assuming in a normal situation more than one-third of the older people in India live below the poverty line and another one-third just above it, the financial implications of lockdown might have been serious. A significant proportion among them were unskilled casual workers, earning a meagre daily wage to survive with hardly any savings. Such economic hardships would have impacted their ability to meet basic needs of food, clothing, shelter and healthcare. In a survey of a sample of 5,099 older adults almost evenly divided between rural and urban areas, 65% respondents stated that their livelihood was affected. Of these, 60% were from rural areas and predominantly male (56%), 67% were in the age segment of young-old, 28% in the old-old category and 5% in the oldest-old age group. 42% respondents reported worsening of health condition during the lockdown—61% were young-old, 31% old-old and 8% oldest-old. 78% respondents faced difficulties in accessing essential goods and services. Of these, 63% were young-old, 31% old-old and 6% oldest old.⁶² A disaggregation of the data further showed that the rural male older adults in the young-old category were most affected. The lockdown

created fear and anxiety among the old, which can be grouped into three categories: 38% feared getting infected by COVID-19 and its spreading through socializing and consequent loss of income; 34% feared economic loss, starvation and absence of work opportunity; and 12% expressed fear of travelling, fear of community spread and their low immunity levels.⁶³

Lockdown increased incidents of abuse and neglect of older people. Those living with family members or in their own homes with caregivers also faced abuse. While some older adults were trapped with their abusers, some perpetrators of abuse reluctantly found themselves in a caregiving role. Concern was also expressed about ageism and gender inequalities which worsened the risk of abuse and violence against older women. Quarantine and lockdown measures restricted access to essential services, putting many older people at risk of increased neglect.⁶⁴ The impacts were especially severe for certain disadvantaged groups among older adults. Older asylum-seekers who make up some 4% of the population of concern to the United Nations High Commissioner for Refugees (UNHCR) around the world, reported worsening of their life conditions during the lockdown. The UN Secretary-General remarked in May 2020 that the COVID-19 pandemic was causing untold fear and suffering for older people across the world. In addition to the impact on health, the pandemic accentuated poverty, discrimination and isolation among older people, particularly in developing countries. UNHCR presented the plight of several such elders—a Nicaraguan asylum-seeker in Costa Rica was unable to do the kinds of jobs he did to keep food on the table; a 68-year-old refugee in southern Nigeria unable to receive remittances from his son in China who suffered business losses; and 84-year-old Bhutanese refugee in a settlement in Nepal anxious about his health and cut off from family support so crucial in old age.⁶⁵ Thus, hardships multiplied for older refugees amidst the pandemic.

Compliance with Public Health Recommendations: Challenges for Older Adults

Many health workers attending to the older adults grew increasingly sceptical of public health measures because of their limited efficacy in protecting the aged. Maintaining social distance in LTC facilities was difficult since many older people were in need of assistance in activities of daily living which required personal contact. It is obvious that bathing, feeding and other intimate care tasks cannot be performed from a distance. Other public health recommendations like hand-washing on regular basis was difficult as many older adults were unlikely to remember proper hygiene rules. The difficulties in following a hygiene protocol were illustrated in Spain where data showed that between 9 and 14 March 2020, while 78% of those surveyed in the age group 14–24 years claimed to have strengthened their hygiene measures to prevent contagion, the number was just 55% for people above 65 years.⁶⁶ Masking regulations to help

limit the spread of infection fared no better. While health conditions prevented some from wearing masks, others did not see the point in wearing them and refused to do so. Those who suffered from Alzheimer's and dementia had a hard time remembering to wear a mask, often unable to comprehend the need for its use. Even when aided by caregivers, they were very unlikely to keep them on. Also, the adverse effect of masks on walking-safety among older adults was not taken into account in public health recommendations. Research suggests that older adults might be at risk by not being able to detect and avoid nearby hazards, or placing steps safely. Masks obstruct vision for those who wear glasses and block parts of the lower peripheral visual field which increases the chance of tripping or falling. The advice for older adults to look down while walking with masks was also flawed. Stepping errors are more likely to occur while looking downwards compared to looking ahead and maintaining balance also becomes difficult.⁶⁷ For older adults with disabilities, the use of protective masks and gloves proved challenging because they reduced their communication power. People with sensorial limitations and visual disabilities were seriously impacted since gloves affect tactile abilities necessary for reading, communicating and knowing the environment.⁶⁸

The uncritical use of other technologies too did not augur well for some. Measures like use of tablet computers to enhance care home residents' connectedness to the outside world brought negative results. In northern Italy, nursing home residents, particularly those with dementia, felt frustrated and confused when tablets were given to them and developed a hypokinetic delirium marked by refusal to eat or leave their beds.⁶⁹ Likewise, the migration to Telemedicine during the pandemic might have left older patients without care because of their unreadiness due to lack of knowledge and capacity to get online, inability to operate and troubleshoot audio-visual equipment and communicate without the cues available in person. In hospitals, Telemedicine adoption was prompted by the need to minimize the impact of service reduction. Clinic appointments were replaced with telephone or video consultations and General Practitioners were provided support through remote specialist advice from hospital consultants. However, the success was limited: even pre-COVID studies had indicated that traditional face-to-face consultations were better than these technologies when dealing with patients who had a poorer grasp of English or lower health literacy.⁷⁰ Many older adults were unable to negotiate this technology.⁷¹ A cross-sectional study was conducted among 4,525 community dwelling adults in USA using 2018 data from the National Health and Aging Trends Study, which is nationally representative of Medicare beneficiaries aged 65 years or old. It was estimated that 13 million (38%) of all older adults were not ready for video visits. Despite help from others in setting up a video visit, an estimated 10.8 million (32%) older adults were still unready. Although it is easier to reach through telephone visits, none the less, an estimated 20% of older patients were unready because of difficulty in hearing, communicating or dementia. Telemedicine unreadiness was more prevalent in older, unmarried men of Black or Hispanic origin, who resided

in non-metropolitan areas and had less education, lower income and poor self-reported health status. Altogether, 72% of adults who were 85 years or older met criteria for unreadiness.⁷²

Portraying Hospitals as Warzones: Public Health Impacts of Fear and Delayed Treatment

Due to morbidities in old age, older adults need to frequently access hospitals. For many, hospitalization becomes necessary when they are unable to manage their symptoms and needs at home.⁷³ In England, socio-economically disadvantaged and marginalized people more frequently use healthcare. Emergency services are often used for routine care because of difficulty in accessing General Practice and other community services. But during the pandemic, Emergency Department (ED) attendances dropped by almost 44% during 11 March 2020, compared to the previous year. Possibly, patients were being deterred by increasing COVID-19 hospitalizations and death rates, fear of hospital-acquired infections and concerns about overburdening the hospital sector. Public messaging may also have played a part, for example: “To protect others, do not go to places like a GP surgery, pharmacy or hospital. Stay at home.”⁷⁴ In other parts of the world too, images of hospitals as warzones created negative feelings and they avoided accessing and receiving healthcare during the pandemic due to fear of contracting the virus during hospital admissions. In USA, non-COVID-19 care was also significantly disrupted and there were declines in ED and outpatient visits and inpatient admissions. In some states, declines in ED volume were over 40% between January and April 2020.⁷⁵ Likewise, outpatient visits too declined by nearly 60% between February and April 2020.⁷⁶

This avoidance, in turn, affected timely treatment, particularly for those suffering from cardiovascular problems. Doctors tried unsuccessfully allaying the fear of hospitalization by showing that the risks associated with cardiac events could be much greater and outweigh the risk of infection from COVID-19 in the hospitals. The mean risk of death from the virus was stated to be less than 1%, whereas the probability of dying of myocardial infarction without evidence-based treatment could be more than 30%. In a study by the global clinical research platform, TriNetX, among 101,533 patients who were admitted in USA hospitals with non-COVID related symptoms (between January and June 2020), only 44 patients (0.043%) were tested positive within 14 days of discharge. This was 24.1 times higher in the general population compared to hospitalized patients. Such research implies that proper use of PPE and appropriate precautionary measures could reduce the risk of transmission of COVID-19 during hospitalization and elders need not have deferred treatment of other conditions or surgeries.⁷⁷ The hazards associated with delayed treatment were obvious. Patients with myocardial infarction who were not being treated with timely reperfusion therapy, ran the risk of sudden death, stroke and mechanical complications. In New York, the number of emergency calls for cardiac arrests increased quite substantially during COVID-19. Doctors warned that persisting anxieties and physical distancing

measures were likely to increase morbidity and mortality associated with myocardial infarction. It was thus important to provide appropriate medical care to patients who needed it while encouraging the general public to stay at home.⁷⁸

The COVID-19 pandemic posed especially difficult problems for evidence-based management of cancer which is primarily a disease of older adults. Age and cancer significantly resulted in adverse outcomes of infection. Evolving clinical experience suggested that cancer patients with COVID-19 had more serious complications, such as intensive care admission from severe pneumonia or sepsis and a greater CFR.⁷⁹ In one study, the median age of patients with cancer and COVID-19 was 66 years, and 56% were aged 65 years and older. Mortality was found to be closely associated with age, with patients aged 65–74 years and over 75 years having a relative risk of death of 11% and 25%, respectively, compared to 6% for patients below the age of 65 years. Initially, there were no standard guidelines or individual hospital data regarding methods or policies to guide clinicians. Later, the International Society of Geriatric Oncology constituted an expert panel to develop consensus recommendations on several aspects of cancer care during the pandemic.⁸⁰

In UK and USA, there were decrease and delays in cancer diagnosis and treatment due to COVID-19 restrictions and cancer patients themselves avoiding and deferring diagnosis and treatment out of fear of contracting the virus. This is estimated to have led to enormous increase in cancer deaths within a year.^{81,82} In India, the pandemic had considerable impact on the delivery of oncology services. In a cohort study at 41 cancer centres across the country between 1 March and 31 May 2020, compared with the same time period in 2019, it was found that there was 54% reduction in new patient registrations, 46% reduction in follow-up visits and 36% reduction in hospital admissions. There was a 37% and 23% decrease in those assessing outpatient chemotherapy and radiotherapy, respectively. The number of major and minor surgeries decreased 49% and 52%, respectively. There was also reduction in pathological and radiological diagnostic tests (38% and 43%, respectively) and palliative care referrals (29%).⁸³

That the delay in hospitalization due to fear of COVID-19 may have had similar significant health consequences for many other clinical conditions requiring timely treatment, is evident in a retrospective analysis of data from patients admitted to non-COVID wards in Italy. The findings showed a reduction of hospitalization by 50.7% while the intra-hospital mortality rate was nearly doubled (from 7.68% in 2019 to 13% in 2020). The hospital stay of deceased patients was tangentially shorter during the lockdown period in comparison to the same period in 2019. More than 90% of deceased patients during the lockdown period were above 70 years of age and the main cause of death were diseases and disorders of the nervous, respiratory and circulatory systems. The data suggested an indirect impact of pandemic on general mortality that was even greater than the COVID-19 related mortality. The registered deaths that mainly occurred during short hospital stay suggest a greater severity of the condition at the time of hospitalization. An inadequate home management for conditions which require tight physician-patient cooperation may also be the cause.⁸⁴ In another study in

Northern Italy, it was found that there was a sudden drop of ED visits and hospitalizations of non-COVID-19 patients of all ages during the lockdown period, and a concurrent increase in out-of-hospital mortality.⁸⁵ Hospitalization fear among older adults was also triggered by fear of aggressive, sometimes undignified death. Although chances of a healthy recovery from COVID-19 were not bright for the aged who needed hospital care, most were aggressively put on ventilators. However, it is well recognized that older the people are, and the more associated medical problems they have, the smaller their chances of survival. Chances of iatrogenic illnesses are also very high for hospitalized older adults in ICUs.⁸⁶

The Darwinian Struggle: Aged at the Margins—Racial and Ethnic Minorities, Migrants, Refugees, Homeless and Incarcerated

The efficacy of any public health measure rests on an equitable society. The outbreak of infections exposed pre-existing challenges which converged with the pandemic leading to disastrous results. In many countries, existing health disparities based on racial characteristics had adverse impacts on the older population. In USA, they shaped the impact of COVID-19 by heightening the risk for communities of colour. Although data disaggregation by race and ethnicity in COVID-19 mortality is not available, even across the existing data, Black Americans were 2.4 times more likely to die from the virus than the general population.⁸⁷ The Washington Post had a new map tool that identified neighbourhoods in the community that were most vulnerable to COVID-19, based on metrics such as overcrowding, lack of medical insurance and chronic health issues. These areas were also places where minorities lived, illustrating in clear, bold lines how the virus was taking advantage of America's racial inequalities.⁸⁸ In a large Louisiana cohort of patients at Ochsner Health, researchers found that 76.9% of COVID-19 hospitalized patients and 70.6% of fatalities were Black although they comprised only 31% of the healthcare system's population. However, Blacks were not independently associated with higher mortality than Whites after adjustment for differences in socio-demographic and clinical characteristics on admission. The study emphasized the role of multiple factors—Black race, older age, lack of public insurance, residence in a low-income area and obesity with higher odds of hospital admission.⁸⁹ Data for 220 hospitalized and 311 non-hospitalized COVID-19 patients from six metropolitan Atlanta hospitals and associated outpatient clinics also found that although older age was independently associated with hospitalization, men of Black race, without insurance and history of diabetes, smoking and obesity were at greater risk.⁹⁰

These studies show that hospitalization and fatality rates among older population in general might underplay the distinctive impacts on racial groups like older Black Americans. According to the Director of the Program for Research on Black Americans at the University of Michigan's Institute for Social Research, "People are talking about the race disparity in COVID deaths, they're talking about the age disparity, but they're not talking about how race and age disparities

interact: They're not talking about older Black adults."⁹¹ (para 5) A Kaiser Health News analysis of data from the CDC further underscores the extent of vulnerability. It found that deaths from COVID-19 among African-Americans in the age group of 65–74 years was five times more than of Whites. In the 75–84 years age group, the death rate for Blacks was three and a half times greater. Among those 85 and older, Blacks died twice as often. In all three age groups, death rates for Hispanics were higher than for Whites but lower than for Blacks.^{92,93} Many other factors contributed to the heightened risk for older Blacks during the pandemic. Weakening social networks due to restricted church gatherings created a feeling of isolation. They had fewer financial resources and fewer community assets (such as grocery stores, pharmacies, transportation, community organizations that provide aging services) to rely on. While poor housing, low literacy and racist prejudices contributed to their vulnerability, their fear of outsiders and deep distrust of government and healthcare institutions, complicated efforts to mitigate the pandemic's impact.

Drawing attention to widespread reports of disproportionate impact of the COVID-19 pandemic among already vulnerable communities, an open letter was submitted to the UN in April 2020, calling for ethical global leadership to develop equitable response and mitigate the unfair health and socio-economic burden on disadvantaged populations. The letter was co-signed by more than 120 diverse entities, representing more than five million public health practitioners, scientists, academics, healthcare professionals and advocates, including the World Federation of Public Health Associations, Latin American Alliance for Global Health, Inter Academy Partnership, World Federation of Critical Care Nurses and American Academy of Paediatrics. The letter was also endorsed by former heads of state and ministers, as well as an array of advocates for the right to health from more than 50 countries representing different cultures.⁹⁴

Similar to the situation in USA, in Britain, Public Health England and the Office for National Statistics found that people from minority ethnic communities had faced a higher risk of death from coronavirus than their white British counterparts. BAME (Black, Asian and Minority Ethnic) care home residents in England were more vulnerable.⁹⁵ They make up 17% of the English population. The Office for National Statistics revealed that in England and Wales, from the start of the pandemic until 15 May 2020, 4,326 BAME people died from infections, and almost three quarters (73.5%) of those people were aged 65+. COVID-19 was responsible for 54% of deaths among Black people living in care homes compared with 44% among White people, according to data released by the CQC following a request by the Guardian.⁹⁶ Although most BAME populations are younger on an average than the White population, they have a greater risk of catching coronavirus and exposing their family members to it because of their engagement in key worker roles. They also live in larger, multigenerational, overcrowded households in densely populated areas, thus putting their older dependent family members at higher risk. All these factors contributed to poor outcomes for BAME people. It was found by The Intensive Care National Audit

and Research Centre, which collects information on seriously ill infected hospital patients across England, Wales and Northern Ireland, that 34% of people who were admitted to critical care were BAME. They also found that BAME people were more likely to die in critical care. In sum, 45% of Asian people and 42% of Black people died compared to 39% of White people.⁹⁷

In other countries too, older migrants were found vulnerable during the pandemic. A study exploring the condition of older Chinese migrants in Belgium and the Netherlands indicated that one in five experienced more loneliness. Reduced social participation and financial insecurity led to higher than pre-pandemic loneliness levels.⁹⁸ In India, the plight of older internal migrants was really heart wrenching.^{99,100} Although generally, internal migrants are young, the number of older migrants has been increasing due to new demand for particular products and services. During the nationwide lockdown in various phases from 25 March to 31 May 2020, internal migrant workers lost their jobs and earnings and did not have enough resources to survive at the place of stay. Older migrants in most states were in pitiable and distressing state. In the city of Hyderabad (India), a case draws attention to their plight. A 77-year-old migrant worker who used to work in a bar was found dead on the roadside with his body unattended for over 12 hours. The police recovered COVID-19 test slips in the deceased's pockets. He had managed to reach a Primary Health Care (PHC) centre for tests but before he could be transported to a dedicated COVID hospital, he stepped out and died on the road, uncared for and neglected. The police said that they struggled to reach out to the COVID-19 team to take care of the body.¹⁰¹ It may be mentioned that India has a huge internal migrant population of 450 million as per 2011 Census, thus accounting for 37.7% of the total population. At least 2.6 million migrant workers were stranded across the country, according to the Chief Labour Commissioner's Office. At least one million returned home during the COVID-19 crisis. During the mass exodus, men, women and children were seen returning to their native places on foot. Several died while returning to their hometowns which shook the public conscience. It was only later that special trains (*Shramik* trains), buses and private vehicles were arranged to ferry them home. Without food and scope for physical distancing, the overcrowded transport facilities became death traps. Although the Government was in a denial on their distress and death, Indian Railways confirmed at least 80 deaths on *Shramik* trains some of which included older people.^{102,103}

In many other parts of the world, the consequences of the pandemic may have been much more damaging for older refugees. UNHCR reports deteriorating health, deepening economic hardship and isolation among older refugees, who comprise 4% of the forcibly displaced population, worldwide. It provided them financial assistance to retain their accommodation by paying back their rents. In USA, Africa and Asia, many reported an already difficult life getting even harder as the pandemic grinded on. According to UNHCR, the pandemic put older people at greater risk of poverty, discrimination and isolation. The lack of remittances from family members, work opportunities and isolation multiplied the hardships of older migrants.¹⁰⁴

Issues centring on migration often contribute to housing insecurity and homelessness in old age. Homelessness among ageing populations is mounting all over the world in terms of numbers, as well as proportion of the homeless population. Older adults experiencing such conditions were particularly vulnerable to infection and death from COVID-19 since they have more medical needs than housed older adults, and experience geriatric medical conditions (such as decreased mobility and cognitive decline) at a much younger age than their housed peers.¹⁰⁵ The COVID-19 pandemic put this already vulnerable population further at risk of serious health complications. Among the homeless in migrant and asylum shelters, measures to flatten the curve of transmission by self-isolation, physical distancing and improving hand hygiene became difficult. It seems public health measures had somewhat taken for granted that everyone has a home and can retreat into it during the pandemic as their pivotal, if not their last, infrastructure of care.^{106,107,108}

A major public health challenge involved safeguarding the health of older prisoners during the pandemic.¹⁰⁹ Globally, there has been a phenomenal increase in the number of old people behind bars. In Britain, the number aged over 60 has jumped by 243% since 2002, to 5,176 in March 2020; they make up 6% of the prison population. Today, 20% of Japan's inmates are 60 years or older, double the proportion in 2002. The American Civil Liberties Union estimates that by 2030, one-third of all those imprisoned in America will be older than 55 years. They already make up a larger share of the prison population than do people aged 18–24. Being a closed community, prisons presented a unique infection-control challenge for rapid viral spread because of overcrowding which is common in both developed and developing nations. They suffer from long-standing neglect in terms of overall infrastructure, environmental conditions and human resources, and were therefore ill-prepared to even initiate basic prevention and control measures associated with a pandemic. Due to paucity of health services, many older prisoners were already in poor health. Humanitarian groups therefore lobbied governments to free them. But not all governments were keen to release older prisoners during the present pandemic. In Philippines, there were only 409 older prisoners out of a total of 21,000 prisoners who were released between April and July 2020. Britain let out only 275 prisoners of all ages, but government documents focused on pregnant women, not the old. By May 2020, Bolivia had freed only two inmates in total.¹¹⁰

Public Health and the Legal Imbroglia: Disquieting Issues in the Care of the Aged

As mentioned in the preceding sections, public health measures for curbing the pandemic were not received well in different parts of the world. Many considered them as downright ageist and this resulted in a global ethical debate over prioritizing the young over the old. In Bosnia, the Federation and the Serb Republic imposed night curfew and put restrictions on older people and those less than 18 years from leaving their homes to slow the spread of infections. This was not

received well by a group of citizens, and an appeal was made. The Constitutional Court concluded that there had been a violation of the appellant's right to freedom of movement under the European Convention for the Protection of Human Rights and Fundamental Freedoms.¹¹¹

In USA, where a large number of older adults died in care homes, enraged families and consumer advocates wanted justice for their loved ones, citing apparent negligence by administrators and executives of nursing homes. On the other hand, the nursing home industry clamoured for legal immunity on the grounds that liability protections are essential for under-resourced nursing homes fighting against COVID-19. A member of the Kaiser Family Foundation, said, "The liability issue is exposing a longstanding tension between consumer advocates, who want to see the standards enforced, and owners, who are worried about the financial implications of a lawsuit."¹¹² (para 3) But some felt that although the nursing home sector badly needed reform measures to overcome deficiencies which stemmed from a broken business model, it had never the less struggled in the face of a pandemic and served as "the safety net" for vulnerable people during public health crisis. It may be mentioned that in USA, nearly 70% of nursing homes are for-profit, and the industry has a reputation for lacklustre performance around infection control. Even when not in the grip of a pandemic, in all LTC facilities, (which include nursing homes), somewhere between 1 million and 3 million serious infections are contracted annually and many people die from infections each year, according to the CDC.¹¹³ In sum, 19 states enacted some form of immunity for hospitals and nursing homes during the pandemic. Unfortunately, these were states which had reported greater number of deaths. An analysis asserted that more than three-quarters of total nursing home deaths from COVID-19 came from states that had granted corporate immunity to healthcare facilities.¹¹⁴ The report found that out of the ten states with the highest fatality rates, eight had corporate immunity and represented 93% of all fatalities, or 63,187 deaths. It also indicated that states with corporate immunity saw more than three times the absolute number of fatalities than states without such immunity. The average rate of death was 7.5 times higher in states with corporate immunity than states without. In all, the report concluded that 77% of total deaths came from states that gave immunity to corporations who owned nursing homes and healthcare facilities and 76% of total nursing home deaths were reported from states that had legal immunity status for these facilities. According to Ron Kim (author of the bill to repeal corporate immunity law), providing immunity to corporations in care work was poorly conceived since nursing homes with COVID-19 positive patients were then under less compulsion to implement life-saving procedures.¹¹⁵

In Spain, where homes for the aged and disabled had borne the brunt of the pandemic, relatives were upset and angry at inadequate equipment, refusals and delays in hospitalizing patients. Families initiated hundreds of civil and criminal claims seeking compensation. Prosecutors investigated about 430 complaints against nursing homes. Cremades & Calvo-Sotelo, a firm which specializes in collective actions, represented a lobby group of about 80 families seeking an average of 130,000 EUR for deaths in Catalonia—one of the worst hit areas, and in

the capital, Madrid. It was reported to be coordinating with another 40 firms from around Europe, including Britain, France, Italy and Germany, on similar potential action elsewhere. Catalonia filed a lawsuit against the regional government seeking 150,000 EUR for the death of a woman, which the family claimed due to delayed care and negligence. Several civil movements, unions, families and law firms also planned suits despite the fear of being stymied by a defence of *force majeure* or circumstances beyond authorities' control. But, President of the Dependency Business Association, which represented care homes defended them and in fact, blamed the health service for turning their back on them. "The homes have acted well, and have done what they could with the means they had," he told Reuters. When hospitals were swamped, regional authorities applied tough restrictions to prevent more patients coming from care homes.¹¹⁶ (para 7)

Another ethico-legal issue centred on the older prison population. Over 80 social and racial justice organizations signed a letter resenting the transfer of 96 older male prisoners being transferred in the month of May 2020 to the isolated Adirondack prison rather than freeing them during the pandemic. This move was seen to be a gross violation of principles of public health, racial and criminal justice and nothing less than a threatening replication of the crisis experienced in nursing homes in New York. It may be mentioned that the Adirondack Correctional Facility because of its location in the mountainous North Country of New York made it harder for relatives to meet their loved ones. Critics also imputed racist overtones since majority of the people moved belonged to Black communities. Several organizations called on the Governor to grant clemency to those confined at the Adirondack facility, and to minimally commute their sentences. Advocates also pleaded for parole evaluations, timely reviews and fair-decision procedures for geriatric prisoners to allow them a chance of release.¹¹⁷

Notes

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5 Revisiting the Ageing Carescape

The year 2018 marked the 100th anniversary of the deadly 1918 influenza pandemic known informally as the Spanish flu. Merely two years later, COVID-19 created a far greater catastrophic public health crisis. As humanity struggled with the new virus, it became quite evident that governments had not learnt their lessons from the past. For over a hundred years, little effort had been made in capacity-building to cope with a viral epidemic. Far less was done with a view to improving the lives of the aged.

There has been lack of pandemic preparedness arising from viral infections. This is unfortunate, given the fact that a large number of people, especially older adults, die of influenza attacks in many western countries every year. Winter flu outbreaks (from October until mid-May) in some seasons claim large number of lives. According to WHO, although most people do not take influenza symptoms seriously and confuse headaches, runny nose, cough and muscle pain with common cold, up to 650,000 people die every year from it.¹ In sum, 152,000 people in Europe died of influenza in the winter of 2017–2018.² In USA, CDC estimates that between 50% and 70% of seasonal flu-related hospitalizations and between 70% and 85% of seasonal flu-related deaths have occurred among people 65 years and older.³

Thus, despite a foreboding of the impending disaster, adequate research and mitigation strategies were never developed with serious earnest. Dr. Wenqing Zhang, Manager of WHO's Global Influenza Programme, warned, "Another pandemic caused by a new influenza virus is a certainty. But we do not know when it will happen, what virus strain it will be and how severe the disease will be, uncertainty makes influenza very different to many other pathogens."⁴ (para 4) Despite such warnings, improvements in global capability for prevention, detection and response to infectious disease threats have been very slow. In November 2019, the Global Health Security (GHS) Index, considered as the first comprehensive assessment of global health security capabilities in 195 countries, showed that national health security was fundamentally weak around the world when the coronavirus pandemic struck. The average overall GHS Index score was found to be 40.2 out of a possible 100. While high-income countries reported an average score of 51.9, the index showed that collectively, global preparedness for epidemics and pandemics was very weak. Most countries were found unprepared and lacked

foundational health system capacities vital for epidemic and pandemic response. Important gaps were yet to be addressed, and there was very little evidence that countries had even tested important health security capacities or found out whether they would be functional in a crisis. Worse still, many had not allocated funding from national budgets to fill identified preparedness gaps.⁵

The Grand Vision on Older Adult Care: Why Ageing Frameworks Failed in Practice?

Lack of pandemic preparedness had a direct bearing on the aged because of their vulnerable health conditions. COVID-19 also signalled the failure of grand policy discourses on older adult care which were being developed over the past few decades, albeit slowly. Most advanced countries, in tune with international policies, were trying to meet the health needs of the ageing population by improving public health infrastructure. Measures were being aimed at gearing health systems towards populations and whole communities, emphasizing on prevention of chronic diseases, adopting health promotion paradigms, devising interventions based on environment, human behaviour and lifestyle modifications, improving nutrition and skills in policy development and assessment. Universal access to healthcare was added to the list of ambitious goals.

The WHO's website is an imposing arena addressing the concerns of an ageing population. Building on earlier international policy instruments—the MIPAA (2002) and *Active Ageing: A Policy Framework* (2002), WHO developed a fresh conceptualization of Healthy Ageing as being much more than the absence of disease. It offered a comprehensive guidance to countries and development partners on how to foster the functional ability of older people which was considered to comprise of intrinsic capacities, relevant environmental characteristics and the interaction between them. Healthy Ageing emphasized the need for action across multiple sectors enabling older people to remain a resource to their families, communities and economies. The key considerations in Healthy Ageing were recognizing diversity and preventing inequity. It stressed the need to recognize that a large proportion of diversity in capacity and circumstance observed in older age is the result of environments which are shaped by factors such as family background, sex, ethnicity, level of education and financial resources. WHO's work strategy on ageing for 2016–2030 set forth five objectives to achieve these goals. These included a call for countries to commit to action to develop age-friendly environments; align health systems to the needs of the older populations; and to develop sustainable and equitable systems of LTC. It also emphasized on the importance of improved data, measurement and research and involving older people in all decisions that concern them.^{6,7}

A special emphasis was placed on LTC systems to enable older people who experience significant declines in capacity to receive the care and support of others consistent with their basic rights of freedom and dignity. These were intended to help reduce inappropriate use of hospital resources, lessen the financial burden on families and allow more time for women, who are mostly the primary

caregivers, to have broader social roles. Three approaches were identified as crucial: establishing the foundations necessary for a system of LTC, building and maintaining a sustainable and appropriately trained workforce and ensuring the quality of LTC. To support these approaches, WHO suggested developing evidence-based guidelines to expand and improve the quality of services particularly in less-resourced settings; providing technical assistance and support to countries that are in beginning to introduce LTC services; and developing tools and training packages to strengthen formal and informal caregivers.⁸ A Global Network on Long-Term Care (GNLTC) was also established to provide strategic and technical advice related to LTC to achieve Healthy Aging—a mantra for the entire decade. Multidisciplinary, multiinstitutional networks of experts were to provide strategic and technical advice to WHO on developing norms and guidelines necessary for implementation of the WHO Global Strategy and Action Plan on Ageing and Health. They were entrusted to suggest ways to create equitable and sustainable LTC models for older people with a focus on optimizing functional ability and achieving Healthy Ageing while innovatively looking into financing mechanisms.⁹

Acknowledging the fact that existing health systems were fragmented and lacked coordination, WHO also framed the Integrated Care for Older People (ICOPE) in 2017. Given the fact that health systems are often better designed to respond to sporadic rather than to chronic and more complex health needs that tend to arise with increasing age, it suggested that there was an urgent need to develop and implement comprehensive and coordinated primary healthcare approaches that can prevent, slow or reverse declines in intrinsic capacity, or at least help older people to compensate in ways that maximize their functional abilities. Community-based integrated care approaches designed around the needs of the older persons rather than the providers were suggested for effective coordination with LTC systems. WHO emphasized on comprehensive assessment and care plans and treatment goals shared with all providers; community outreach and home-based interventions; support for self-management; comprehensive referral and monitoring processes; community engagement and caregiver support. The ICOPE package of tools offered to help key stakeholders in health and social care to understand, design and implement a person-centred and coordinated model of care, thereby promising a transformation in the way health systems are designed and operate. By providing evidence-based tools and guidance, ICOPE showed potential to help health systems to support Healthy Ageing by maximizing older people's intrinsic capacities and functional abilities. In other words, interventions were to be adapted to individual needs and capacities. Emphasis was put on incorporating the heterogeneity of experiences in older age and involving older adults in framing key issues that they considered suitable for themselves rather than being imposed upon by the caregivers.¹⁰ Other international organizations like the United Nations Development Programme (UNDP) also clearly acknowledged the importance of such preparations as vital to the achievement of an integrated 2030 Agenda for Sustainable Development due to the fact that ageing affects goals on poverty eradication, health promotion, gender equality, economic

growth and decent work and equality and sustainable cities. Therefore, it suggested that we need to address the exclusion and vulnerability of older persons and intersectional discrimination against them. We need to also recognize them as active agents of societal development in order to achieve truly transformative, inclusive and sustainable development outcomes.¹¹

Despite such grandiose policies and strategies described above, older people suffered and many met undignified ends during the first surge of COVID-19. What is most perplexing is that such a scenario unfolded even in those countries which had made some progress in addressing the needs of the aged along the suggestions of international agencies. As mentioned above, in tune with international guidelines, many developed countries with ageing population were trying to build a physical and social infrastructure to foster health and well-being of the older adults. Reforms for cost-effective health structures were being introduced, along with public health strategies to promote LTC institutions and strengthen home care. The failure of the recommended structures and consequent high fatality rates among older adults during the first surge is an obvious testimony to the fact that implementation strategies were weak. It is also possible that in addition to implementation issues, there were intrinsic gaps in conceptualization of Healthy Ageing, and in designing how the social sector for the older persons may be positioned vis-a-vis the health sector, and in developing the structure and organization of LTC. In fact, much prior to the COVID-19 outbreak, there was growing scepticism of WHO's Decade of Healthy Ageing and its inability to address long pending global response to population ageing. Priorities identified for Healthy Ageing—creating age-friendly communities, promoting person-centred healthcare and providing LTC appeared commendable, but the suggestions for aligning healthcare to needs of ageing population did not ensure integration between health services and LTC and ran the risk of deepening the divide by creating a sense of being complementary rather than a single integrated system.¹²

Hiatus Between Words and Practice: Locating the Gaps

Policy formulations mean a little unless governments display the will to implement them. Paper-programmes on older adult care do not create positive impacts unless broader social patterns and conditions that make it difficult for older people to enjoy a healthy old age are removed. One of the main barriers in implementation of Healthy Ageing policy has been lack of sufficient capacity in many countries. Accessibility to LTC services still remains the main issue. Almost half of the global population is not covered by any type of nationally legislated provision of services, and only around 6% of people worldwide are covered by legislation that provides LTC coverage for all.¹³ Many countries, particularly developing ones, do not even have national programmes on older persons, as was revealed in the 2017 review of the implementation of the MIPAA in Africa.¹⁴ Information from those countries with national programmes on Healthy Ageing was in some ways sparse, generic and lacking an eye for detail and specificity. Although some countries such as Ghana, Mozambique, South Africa, Uganda, Kenya, Tunisia,

Egypt and Tanzania did ratify national policies on the ageing population, meagre resources were allocated to their implementation.¹⁵ In other countries, the time lag from legislation to implementation was found to be very long, as governments failed to prioritize these.¹⁶

Given the dismal state of older adult care, it is not surprising that when COVID struck, older adults were the first casualty and LTC facilities emerged as the hot-spots for infection transmission. As the pandemic progressed, WHO provided eleven policy objectives to mitigate the impact of COVID-19 across LTCs. These involved including them in all phases of national response to COVID; ensuring effective monitoring and evaluation and adequate information channelling between health and LTC; securing staff and resources, including adequate health workforce and health products; ensuring continuum and continuity of essential services—including promotion, prevention, treatment, rehabilitation and palliation; implementation of infection control and prevention control standards; prioritizing testing, contact tracing and monitoring the spread among people receiving and providing support; ensuring a smooth transition to recovery phase and initiating steps to transform health and LTC sector for integration and effective governance of services. It also laid importance on support for family and voluntary caregivers and prioritizing psychosocial well-being of care providers.¹⁷ These policy objectives were well intentioned and meaningful but by the time they were formulated, the damage was done. Moreover, as in the case of other WHO proposals and recommendations, the determining factors for a successful intervention were based on national- and local-level interventions. There were not many countries where elder-specific policies during COVID were implemented in good spirit.

Globally, very few examples of best practices emerged. In those cases where strict adherence to these objectives were made, commendable results were achieved in preventing fatalities in LTC facilities. In Germany, the Bavarian approach during the crisis serves as a good case study. It caters to a population of about 150,000 residents and 140,000 personnel in care homes. Bavaria was able to implement several policy objectives that were recommended by WHO. It opted for a coordinated and concerted approach and set up a governance and implementation structure with a focus on both immediate outbreaks and prevention. Its immediate step during the outbreak peak was to announce *Katastrophenfall*—the “State of Emergency” on 16 March 2020 which allowed for centralization of the main executive authority for COVID-19 related matters. This was done to tackle shortage of health personnel at the local public health facilities. It also emphasized on a coordinated implementation of the regulations. After the first reported outbreaks and deaths in care homes, the authorities deployed the Bavarian “Task Force Care Homes” which was active from 6 April, and consisted of 60 highly qualified professionals with multidisciplinary backgrounds from the Medical Service of Health Insurance unit and 15 staff from Bavarian Health and Food Safety Authority. The Task Force seconded by the Health Reporting, Epidemiology and Social Medicine unit offered support to all facilities, especially those classified as being at-risk. In all, 2,199 LTC facilities (66.1%) within

1,591 missions were provided support. It also provided outbreak support to local authorities through Mobile Teams to ensure timely conduct of tests and management of hygiene protocols. It initiated immediate testing of all residents and personnel to facilitate contact tracing; monitoring the spread of infection within and around the facilities; ensuring implementation of hygiene and infection control standards; securing staff and resources in care homes to deliver quality LTC service (despite staff shortages) as preventive measures. The focus of consultations and support varied over time with the evolution of the pandemic. As a result of these strategies, Bavaria was able to introduce the first seven policy objectives out of eleven spelled out by the WHO which made it possible to efficiently contain the spread of COVID-19 in care homes, and protect the aged and people with disabilities.¹⁸ The Bavarian example shows that concepts do not easily make a smooth transition to practice. They require reprioritization by government agencies, good leadership, political will, funding mechanisms and most important a mind change. While pandemic response does depend on healthcare resources and preparedness, it also relies largely on leaders' ability to mobilize actors and take correct, appropriate and speedy decisions.

Inadequacies in Evolution of the Long-Term Care

As discussed in [Chapter 3](#), many care homes turned out to be COVID hotspots. Over the years, there had been a high dependence on LTC facilities particularly in the OECD region, with countries like Australia and France having high shares of the older adults in institutionalized settings (45% and 41%, respectively). Yet, little was done to improve conditions in this sector with the result that nursing homes in some countries like France, Italy, Spain and USA witnessed a high mortality rate. In France and Belgium, about 50% of total COVID-19 deaths were estimated to be in nursing homes and LTC facilities.¹⁹

Steinberg, a Geriatrician associated with several nursing homes in Southern California drew analogy of a cruise ship while illustrating the problems with long-term facilities. Cruise ships like the Diamond Princess provided early evidence that crowded, confined spaces housing the aged could cause rapid spread of the virus. However, he cautioned that the comparison needs to take into account the fact that while it is possible to quarantine people to their rooms and minimize interaction with staff and other residents, this is not feasible in nursing homes where residents require help with activities of daily living.²⁰ Also, the pandemic required different caregiving capacities which were lacking. Many of these limitations were already identified and anticipated by the WHO. Poor staffing and funding mechanism, and inadequate training created catastrophic effects. But more importantly, there was lack of structural integration at various levels. Underlying these failures were what Sherlock et al., identified as an obsolete paradigm geared towards a binary distinction between health-service provision and social care for frail older people. According to them, "This paradigm reflects fixed notions about how things are done—settings where care is provided, and the types of people who provide it—rather than intrinsic differences in user needs.

It is more helpful to think of a spectrum of needs (from acute episodes to more complex, chronic conditions) and a spectrum of responses (from single treatments to more continuous support) where distinctions between health needs and social care needs are largely meaningless.”²¹ (para 4)

It is undeniably evident that instead of an integrative approach, the social sector had been long cinderallized in relation to healthcare. This resulted in a total neglect of quality considerations which would have surfaced sooner or later. Thus, the President of the International Psychogeriatric Association felt that the conventional wisdom which holds that COVID-19 has caused all sorts of mayhem in the delivery of elder care may not be true. He said, “I would suggest that the pandemic has not caused many of the problems we talk about, it’s actually revealed problems that have always been there under the surface. For example, many older people, even before COVID-19, were socially isolated, socially distant. They had difficulty connecting with their relatives, difficulty accessing transportation to get to the store to buy food and see their doctors, and to interact with other older people.”²² (para 2) He pointed to problems of severely crowded facilities and compromised quality of life among residents due to staffing and funding issues even prior to the pandemic. Inadequate training not only in infection prevention and control, but in all other aspects of care further make it challenging to provide the kind of quality of life that residents demand.²³

Despite WHO’s emphasis on the need for adequate work force in LTC facilities, there was poor staffing pattern which compelled even sick members to report for jobs or take up multiple jobs in different facilities, thus increasing the risk of infection. Employment issues of the care staff were not prioritized. The neglect of the carers in both health and social sector comes as a shock given the fact that they are a major source of employment. In 2018, they accounted for 130.2 million jobs worldwide, constituting 3.9% of total global employment. More than two-thirds of these workers (90.6 million) were women, while men numbered 39.6 million. Many care occupations are viewed as an extension of women’s unpaid care work within their own homes and communities. As a result, they carry with them low status, lack of social recognition and low pay.²⁴ Non-standard employment (e.g., shift, part-time or temporary work) was common in this sector. Temporary employment is frequent and although this brought flexibility to both employers and workers, it also contributed to job insecurity, lower social protection and lack of continuity for patients. On an average, half of LTC workers across 20 OECD countries engaged in shift work (e.g., working mornings or afternoons only) which was associated with a wide range of health risks, such as anxiety, burnout and depressive syndromes. LTC workers in these countries earned much less than those working with similar qualifications in other parts of the healthcare sector. The median hourly wage for LTC workers across 11 OECD countries was 9 EUR per hour in 2014, compared to 14 EUR for hospital workers in the same occupation. Low wages were one of the reasons for the high turnover in LTC.²⁵

Pre-COVID, virtually all countries were facing challenges in recruiting, deploying and retaining sufficient numbers of well-trained health workers. Almost

two-thirds of OECD countries identified LTC workers' retention as one of the highest policy challenges. The average tenure was two years lower in the LTC workforce than in the overall workforce. There were more workers looking for another job in this sector than in the hospital workforce, reflecting either dissatisfaction with the work or lack of job prospects. High turnover and attrition rates among health workers in many countries were mainly due to poor satisfaction with working conditions, including low salaries, long work hours, work overload and poor career prospects.

Knowledge, competencies and skills of LTC carers were also misaligned with the needed services. Unfortunately, little was so far known about carers in LTC and their care tasks. It was only in June 2020 that OECD provided a comprehensive mapping of their tasks and functions and a comparative overview of how these varied across OECD countries. It was found that 90% were women, over 20% were foreign-born and over 70% of LTC workers were personal carers with low entry requirements into the job, with 56% of workers being in institutions and the rest working in individual homes. The overwhelming participation of women in the LTC workforce was observed in 2011. LTC jobs are traditionally considered to be feminine and, while this perception may be changing slowly, stigma is still attached to men performing them. This is in contrast to the share of women in more skilled health occupations such as physicians, where under half are female across OECD countries. The report also showed that LTC jobs were more complex than often portrayed. They required workers to spend significant time delivering more complex tasks than basic care. In more than two-thirds of OECD countries, workers performed activities such as health condition monitoring, communication with families and professionals and case management. In over 90% of surveyed countries, they were found to actively collaborate with healthcare professionals, while in 80% of the countries, personal care workers' key tasks were reported as communicating with older people and their families to understand people's expectations, culture and habits in order to stimulate them and prevent their social isolation. They also played an important role in communication with informal caregivers of disabled older adults, who often used a mix of formal and informal care. Providing psychological support through conversation was a common task reported for personal care workers.²⁶

Despite engaging in such complex tasks, education and initial training requirements were low for personal care workers who were more likely to have lower education levels. While some countries did provide training, these did not guarantee the skills and competencies required to ensure quality of LTC provision. Only few countries like Canada, Denmark, Germany and Korea have developed a career structure for LTC workers which could be problematic when workers are asked to perform tasks beyond basic care, such as medication administration. Less than half of the OECD countries required that personal care workers hold a minimum level of education level or furnish official certificates, and few guaranteed that personal care workers receive sufficient training. In most countries, almost anyone could become a personal care worker, as a result of which LTC workers did

not always have enough training on geriatric conditions, interpersonal skills, care after hospital discharges and management of emergencies or bereavement, all of which hampered the quality of care delivered.²⁷

Continuum of Care: Problems of Structural Integration

In addition to the dismal staffing conditions prevailing in LTC facilities, poor structural integration too played an important part in the tragedy that unfolded during the pandemic. Coordination with different health systems was limited and poorly implemented in most countries. A regional or national framework was almost absent everywhere. LTCs were not in continuum with private family homes which were largely unregulated, underserviced and fragmented. When COVID struck, the family home emerged as a significant space in healthcare as a result of official appeals to stay-at-home. Its significance in healthcare was asserted over and over again in public health messages. Home was simultaneously portrayed as a private sanctuary from the deadly virus circulating in public spaces (thus saving one's own life), and an extension of the space of public regulation and responsibility where people are quarantined for suspected infection or confined due to territory-wide lockdown (thus saving other's lives).²⁸ But despite its growing importance, it continued to remain distanced in terms of both social and medical support.

Not much was done to improve the integration of family homes and their partnership with other health systems. Most importantly, they were not partnered with nursing homes—the “ground zero” for COVID-19 with the result that family members who were growing apprehensive about the isolation and health of their loved ones, could not bring them back home. The problem was anticipated well by Gabrowski during the initial days of the viral surge—“My sense is that, in the majority of instances, it's going to be very challenging for family members to take an individual out of a nursing home. We've certainly heard of cases where that's working well. But in the majority of instances, I think this is going to be about partnering with the nursing home—really working with them to make certain that your loved one is actually safe in that nursing home.”²⁹ (para 4) For those who were confined to their own private homes, the disjuncture between healthcare and public health created additional problems as public agencies, community organizations, healthcare and other service providers failed to provide essential functions to meet their needs. A poor level of engagement of social and voluntary services, accentuated their feelings of loneliness, isolation or seclusion. Mitigation measures were not effectively timed to prevent COVID-19 associated affective disorders for the lonely. The state of technology prior to COVID-19 was not developed. So when online technologies were harnessed to provide social support networks, there were obvious disparities in access to digital resources.

Dementia care was also underdeveloped. Globally, most dementia patients live at home where they are generally supported by family members. In LMICs, it is estimated that 95% of people with dementia live at home, compared to 69% in high-income countries. In UK and Ireland, 61 and 63% of people who have

dementia are living in the community. In USA, 70% of all people with dementia live in the community. In Italy, it is estimated that 90% of non-self-sufficient older persons (included those with dementia) live at home with family and carers. These patients, and their family caregivers were especially vulnerable during the pandemic as they struggled alone without the usual home care services. A survey of 1,307 family carers in Ireland (not specific to dementia) found that 14% of carers surveyed had cancelled home care provision to reduce the risk contracting COVID-19 and 47% were unable to access PPE. In Ireland, home care staff became scarce since they were redeployed in the care home sector.³⁰

Families employing paid carers had to make difficult choices on whether to continue paid home care or not, specifically, where care workers failed to use PPE. Since paid home care is often characterized by numerous different carers entering the home, many reported feeling fearful of their transmitting infection and anxious over dropping quality of care. But discontinuing paid carers strongly impacted their own lives and created an additional layer of burden, stress and fear of taking on extra caring responsibilities that they did not feel qualified for. Since admission to hospitals also created fear of risk, they attempted to manage health concerns at home. They were also anxious of not being able to re-obtain paid care, post-COVID, if they cancelled the support at present. There were other practical problems of getting access to food since persons with dementia were not classified as a “vulnerable” group, thus limiting access to priority shopping slots.³¹

Like the isolated family homes, prior to the outbreak, hospitals too were operating as fragmented, stand-alone units without effective horizontal integration with other care settings. This accentuated the problem during the pandemic in almost all countries. In Italy, for instance, all efforts were focused on trying to preserve their safety and resilience. In many regions, hospitals refused transfers from LTC facilities even for emergency cases. In some places as in Italy, in order to safeguard hospitals, patients were transferred to nursing homes, thus exposing them to infections.³²

In addition to issues of horizontal integration, there were little efforts over years to improve vertical integration, e.g., integrating health sector with the technological and manufacturing sector. There was a complex supply chain with heavy reliance on global sourcing which despite lowering costs, had created many vulnerabilities. Hospitals were already reporting persistent shortages of products like PPE, essential medicines and medical devices prior to the pandemic. Several developed countries had depleted domestic reserves and were outsourcing supplies which contributed to supply chain vulnerabilities during the pandemic. Like most other sectors of the economy, healthcare organizations had adopted a “just in time” approach to ordering supplies. That philosophy failed during the crisis. Many governments, by and large, failed to ensure that country’s policies provide for an efficient and sufficient supply of safety equipment. This resulted in major supply chain disruptions during the pandemic. There were also pre-existing health workforce challenges, including shortages (estimated at 18 million globally), maldistribution and misalignment of needs and skills.³³ Staffing shortages posed a serious obstacle to the development of surge capacity for COVID-19; it

exacerbated existing challenges caused by absenteeism of sick health professionals and burnout.

As a combined result of these constraints, improper methods of handling surges in patient numbers, triage issues and poor management of scarce resources were noticed globally when COVID-19 struck. Hospitals and clinics showed scant ability to respond quickly by way of establishing effective protocols and guidelines for outpatient clinics, dialysis centres and other medical services. To meet the crisis and adapt for surge capacity, hospitals reduced or cancelled non-emergent surgeries and minimized admission of non-COVID-19 patients. While freeing up bed space and staffing resources enabled hospitals to accommodate surges in infected patients, these unfortunately reduced profitable service volume.

A serious challenge in responding to COVID-19 was meeting staff shortages and protecting healthcare workers from nosocomial infection. This needed prompt changes in hospital administrative approaches, engineering controls, special training of hospital staff, which were mostly absent. As a result, physicians and nurses caring for COVID-19-infected patients were at high risk of contagion and mortality. On 15 April 2020, an internet search found that 278 physicians died with COVID-19 infection. Older physicians were most affected. The average age of the physicians was 63.7 years and 90% were men. The lack of PPE was cited as a common cause of death.³⁴ There was considerable mental and physical stress caring for patients with COVID-19.^{35,36} Incidents of suicide of physicians began to be reported from France, USA and other countries.^{37,38} Several stories showed the desperation of care professionals.^{39,40,41,42} A global study on healthcare workers revealed a total of 152,888 infections and 1,413 deaths until May 2020. Though infections were more among women, majority of fatalities were reported among male members. Limited data suggested that GPs and mental health specialists were most adversely affected. There were 37.2 deaths reported per 100 infections for healthcare workers aged over 70 years. Europe had the highest absolute numbers of reported infections (119,628) and deaths (712), but the Eastern Mediterranean region had the highest number of reported deaths per 100 infections (5.7) followed by South-East Asia (3.1 deaths per 100 infections). Indian subcontinent and Africa reported a relatively low number of infections and deaths.⁴³

Improving the working condition of the carers in the health sector is important since it eventually influences the quality of care. Patient outcome indicators such as morbidity and mortality are closely associated with staffing levels and stability, and education levels of health workers. Research across nine European countries shows that when a hospital nurse's workload is increased by one patient, it increases the risk of in-patient mortality by 7%; Inversely, every 10% increase in the proportion of nurses with a bachelor's degree brings about 7% decrease in patient mortality. Studies in the Republic of Korea similarly found an association between a low level of staffing and an increased risk of patient mortality. Thus, sustainable health workforce and quality care are related: improved employment and working conditions attract and retain health workers, which, in turn, enabled good care outcomes.⁴⁴

Health Status and Functioning of Older Persons: Poor Conceptualization and Data on Ageing

One reason why the grand vision on older adult care failed was lack of crucial information on the health status and functioning of older people. Many countries did not have reliable information on demographic and health characteristics of the older population. Although most European and North American countries had relatively more basic information, they did not capture differences in ageing experiences and social characteristics. Harmonization of data has been difficult.⁴⁵ Ageing surveys from most Asian and Pacific countries were not available.⁴⁶ Longitudinal ageing surveys and ageing-related surveys were non-comparable due to different nomenclatures. Assessment of (The) European Innovation Partnership on Active and Healthy Ageing frailty project revealed lack of consistency between partners in methods of defining, screening and measuring frailty and pre-frailty.⁴⁷ Survey on the implementation of MIPAA in African countries showed that there were limited age and sex disaggregated data on various indicators and only one-third of the countries surveyed could provide it.⁴⁸

The lack of adequate and comparable data has been reported by WHO in its Decade of Healthy Ageing Baseline Report (2020). It has admitted considerable difficulty in measuring Functional ability to measure and track progress in Healthy Ageing. Out of the five domains of Functional ability (ability to learn, grow and make decisions; be mobile; build and maintain relationships; contribute to society; and meet basic needs), only the ability to meet basic needs, could be computed.⁴⁹ Only 37 out of 52 studies included in the analysis had some comparable data to measure basic needs. Subject to national sampling strategies, the studies did not include older people living in LTC facilities or other institutions. Moreover, there were comparable items on only some aspects of basic needs (ability to get dressed, take medication and manage money), but other items such as adequate housing or diet could not be captured. WHO admits that there may be more older people in each country who are unable to meet their basic needs than reported. As a result of paucity of data, the effectiveness of interventions, which rely on prompt screening and identification of older people's status and needs, suffered.

Inadequate Capacity for Delivering Quality Palliative and End-of-Life Care

Prior to the pandemic, governments had done little to consider quality palliative and EoLC as a global public health and health systems problem.⁵⁰ The 2017 Lancet Commission on Palliative Care and Pain Relief described the widespread lack of access to inexpensive and effective interventions as a travesty of justice.⁵¹ There was little progress to strengthen capacity to deliver quality end-of-life care and systematic data on these aspects were, by and large, lacking in many countries. This may be considered as a gross neglect, given the fact that an ageing society needs not only an age-friendly environment for healthy and active living

but also a sound strategy for good, dignified dying which palliative and end-of-life care offer. This is possible when ageing and dying are looked as part of a single continuum.^{52,53,54} The lack of funds, skills and inadequate frameworks prevented their integration with medical care.^{55,56} In many countries, while it was available in large hospital-based systems, home-based palliative care was still underdeveloped and contributed to a shift towards the inpatient sector at the end of life. In some settings like care homes, residents received fewer palliative services. Hospice development was also slow with the exception of UK, where in the last 150 years since the opening of St. Christopher's Hospice, there has been a slow but steady growth in programmes. There are now approximately only 25,000 hospice or palliative care service units worldwide. Outside North America, Europe and Australia, access to quality palliative care continues to be minimal even though 76% of the need is in LMICs.⁵⁷ The reasons for its underdevelopment include lack of legislations or regulations, chronic underfunding, high staff turnover, recruitment challenges, lack of training opportunities and career prospects.

In the last few decades, WHO has been recommending a public health model of palliative care that emphasizes policy, education, medication availability and implementation. In reality, prior to COVID, in most countries, there was little government policy or support for palliative care. A review of the current global status of palliative care policy development found only 55 countries with any national plan for palliative care. Despite growing body of research, training was lacking. Medication availability was also poor: over 80% of the world's population lacked adequate access to opioid medications for pain control. Australia, Canada, New Zealand, USA and several European countries accounted for more than 90% of the global consumption of opioid analgesics while LMICs consumed only 10% of global opioids. Palliative care programme development was uneven internationally, despite being correlated with Human Development Index levels, Universal Health Coverage and World Bank Income Group. In the absence of adequate policy for palliative care and funding mechanisms, its growth was mainly dependent on the initiative of few individuals, charitable and civil society organizations. It has been estimated that only about three-quarters of those who need palliative care in the population as a whole receive it, with around half receiving specialist palliative care and 25% from generalist providers such as GPs and care home staff.⁵⁸

The levels of palliative and EoLC provision in care homes specifically are unknown. Not all LTC facilities had preparedness in initiating EoLC, especially those which had rehabilitation as a goal. EoLC planning was generally done in acute care settings and pre-hospital ACP was not done. In USA, while about 60% of hospitals offered specialist palliative care, in care homes the figures were much lower and many hospices were overburdened according to the National Hospice and Palliative Care Organization. In Canada and Australia, about 3%–4% of care home residents received specialist palliative care. In some European countries like France, Sweden and Switzerland, palliative care availability at end of life was better in care homes but rates were 20% or lower in Iceland, Austria and Spain and less than 5% in many Eastern European countries. These figures

are, however, difficult to interpret as data is often only available for specialist palliative care. Many care homes, especially nursing homes offered some forms of care that were palliative in nature. There could be also variations in concept and terminology around types of care and treatment provided by specialist and generalist providers. But variations apart, it can be said that there was a large unmet need.⁵⁹ In America, only a few facilities had contracts with hospices to serve residents meeting the admission criteria for hospice. Integrating the two presented many challenges, chief among which were lack of education in palliative care among physicians, licensed nurses and certified nursing assistants. A study of 164 licensed nurses from 24 LTC facilities in Texas found them deficient in their knowledge of palliative care.⁶⁰ Similar findings are reported from Canada. Examining utilization of hospice care among persons residing in LTC facilities in 2015, it was observed that only a small proportion of residents received hospice care due to challenges in end-stage prognosis and narrow eligibility criteria for hospice.⁶¹

If palliative services were underdeveloped, the unifying competence of Geriatric Palliative Care (GPC) was still rarer. As a field of inter-specialty which collaborates and unifies competences from geriatric medicine and palliative care, GPC responds to challenges of older adults with severe and life-limiting conditions.⁶² It may be stressed that geriatric patients present symptoms different from that of younger ones: they have increased frequency of anorexia, anxiety and nausea, as well as different patterns and expressions of pain. Those living with dementia often need greater assistance with medical decision-making. Also, recommendations to withhold or withdraw advanced life-sustaining treatments and communication-intensive palliative care consultations are required more frequently for older patients. Families and surrogate decision-makers too require greater support.⁶³

Despite its relevance for ageing societies, GPC has faced several challenges due to poor recognition, lack of specific funding programmes and academic endeavours, and poor dissemination of knowledge. Evidence based procedures have been difficult due to exclusion of multi-morbid geriatric patients from pharmacological trials. There are also methodological difficulties in dealing with cognitively impaired patients which complicates informed consent, gatekeeper effects and result in high drop-out rates. End-of-life decision-making process is also complex due to barriers in communication, cognitive deficiencies and problems in recollection. Doctors face challenges in interpreting non-verbal behaviour of older patients who often lack decision-making capacity.⁶⁴ Accurate death prognostication and definite identification also becomes difficult. Expression of physical symptoms, anxiety and depression among older patients often presents clinical challenges for diagnosis, which needs to account of both ageing induced physical changes as well as psychosocial conditions.⁶⁵

As a result of these long-standing challenges with systems of palliative care provision particularly in care homes, death became especially painful during the pandemic. There were reports of people dying without dignity, with unrelieved pain and other symptoms and without emotional and spiritual support. Most care

homes were poorly prepared to provide effective palliative care to their residents. Attention was placed more on prevention or control of COVID-19 infection. In many care homes across the world—in Canada, UK, USA and Italy among others, shortages of morphine and other essential medication for palliative care patients was noted. There was little guidance on stockpiling. A review of 21 documents issued by government bodies and professional associations found that comprehensive international COVID-19 guidance on palliative care for nursing homes was by and large, lacking. The focus was primarily on infection prevention and control. Palliative care themes most frequently mentioned across documents were end-of-life visits, ACP documentation and clinical decision-making towards the end of life (focusing on hospital transfers). Key aspects of palliative care—symptom management, staff education and support, referral to specialist services or hospice, and family support, did not find adequate attention. In UK and USA, care homes were advised to initiate ACP discussions promptly and as a matter of urgency, but there was no guidance on how to achieve this objective when staff shortages and time pressures were high and quick decisions had to be made due to rapid decline in the condition of patients. At times, certain treatment options were not available because of pandemic circumstances, or for other reasons.⁶⁶

For those who were dying from COVID-19, the possibility of holding an end-of-life discussion and chances of dying with someone present was actually remote. A Swedish study was aimed to make a comparative assessment of provision of EoLC discussions for COVID affected patients in nursing homes and hospitals, and bedside availability of others at the time of death. The findings indicated that fewer end-of-life discussions took place with patients as compared with those in 2019. In nursing homes, relatives and staff were present at time of death in only 13% and 52% of the cases; in hospitals, the figures stood at 24% and 38%, respectively. This implies that a considerable number of those admitted to hospitals died alone.⁶⁷

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6 First Surge COVID Lessons for an Ageing World

With advances in medicine and social welfare, our ability to prolong life has increased considerably. But COVID-19 has once again brought glaring focus on the vulnerability of older adults and is compelling us to think about both ageing and dying in more realistic terms. Are we really capable of sustaining a large ageing population? As per UN World Population Ageing Report 2019, there were 703 million persons aged 65 years or over in the world. The number of older persons is projected to double to 1.5 billion in 2050. Globally, the share of the population aged 65 years or over increased from six percent in 1990 to nine percent in 2019. That proportion is projected to rise further to 16% by 2050, so that one in six people in the world will be aged 65 years or older.¹ According to WHO estimates, between 2015 and 2050, the proportion of the global population older than 60 years will nearly double from 12% to 22% (from 900 million to two billion). What makes these figures extremely alarming is that in 2050, 80% of older people will be living in LMICs where health sector capacities and social security are not adequate.² In these countries, pandemics like the present one is likely to bring disastrous impacts. Presently, Japan, Finland and Italy have highest number of oldest populations. Greece, Korea, Poland, Portugal, Slovenia and Spain are the fastest ageing countries in the OECD and Brazil, China and Saudi Arabia among the non-OECD countries.³

Along with rising age, the number of those who would be dependent on others will also increase since increasing number of years do not guarantee optimum health outcomes. Contrary to widespread assumptions, the World Report on Ageing and Health, 2015 found that there was very little evidence that the added years of life have led to improved health compared to previous generations.⁴ This is clearly evident in Healthy Life Expectancy (HALE)—a summary measure of population health combining mortality and morbidity which is an outcome indicator endorsed in the decade. HALE reflects the extent to which years of life are spent in good health and is considered highly relevant for healthy ageing. The difference between Life Expectancy (LE) and HALE reflects time spent in ill health. Based on WHO global estimates between 2000 and 2019, LE increased faster than HALE for both men and women which indicates an increase in the number of years in ill-health. In 2000, at age 60, the gap was 4.1 years for men and 5.3 years for women. By 2019, this increased to 4.7 for men and 6.0 years for

women. Between 2000 and 2019, for men and women combined, this increased to almost 14% at birth and about 15% at age 60.⁵

Poor population health contributed to rising infections during the pandemic. People living with chronic conditions were at higher risk of severe COVID-19 symptoms. Early investigations in China, USA, Italy and UK showed that older patients and those with chronic ailments were likely to experience severe to critical conditions, deteriorating health and death from COVID-19. In fact, the Editor-in-Chief of *The Lancet*, speaking at FICCI Health 2020 virtual annual conference made an interesting comment that COVID-19 is not a pandemic, but a synthesis of epidemics—SARS CoV-2 and non-communicable diseases, putting people with pre-existing diseases at risk.⁶ But, irrespective of whether there is a pandemic or not, increasing morbidities among the aged indicate that they are in need of greater attention. This scenario is somewhat unfortunate given promises of robust active and healthy ageing programmes by international bodies. With few exceptions, it is almost certain that at least nearer the dying trajectory, people would require considerable care. In years to come, with an ageing population, the care sector and those who provide care would need considerable attention from governments, societies and civil organizations. Care has to be central to all we do.

Reconfiguring the Care Sector

Globally, care workers have faced dire challenges during the first surge pandemic. They not only struggled with burnout and stress due to long working hours but also risk of infection to themselves and their family members. Faced with inflexible work schedules, low wages, non-standard employment, poor skills and low motivation levels, they could not have fared better. Therefore, the most important lesson that COVID-19 has offered is that the care needs of the older population cannot be adequately met unless improvements in the staffing pattern of the LTCs and working conditions of the carers improve.

In years to come, the demand on the LTC sector is likely to escalate in OECD countries where people over 80 years will climb (from over 57 million in 2016) to over 1.2 billion in 2050. Unfortunately, there would not be many carers around. In three-quarters of OECD countries, although the number of older people has grown between 2011 and 2016, there has been no corresponding growth in the number of LTC workers. To keep the current ratio of five LTC workers for every 100 people aged 65 and older across OECD countries, the number of LTC workers would need to increase by 60% by 2040—equivalent to an additional 13.5 million workers. However, the scenario as it unfolded during the first surge pandemic clearly showed that the LTC sector had not increased its workforce since 2011. Only half of the countries had implemented policies or reforms to enhance worker recruitment. The carers' profile too had remained unchanged and most facilities were finding it difficult to attract or retain good level workers, especially those aged 50 years and over in the workforce due to poor working conditions and career paths. It is not surprising that a major issue during the pandemic was their inability to handle patients due to low level of skills and competencies. There is an urgent need, therefore,

to increase workforce, bring improvements in training, working conditions, devise appropriate workloads, introduce flexible work hours and provide decision-making authority to care staff. Improved career opportunities are needed while prioritizing care quality and safety for the staff. A large number of people employed in LTCs are women: on an average across countries, women represent more than 90% of the LTC workforce. Therefore, gender parities would need special attention.⁷ Given the complex tasks performed by care workers, programs geared towards improving health literacy, communication skills and geriatric knowledge would be empowering strategies. Most important of all, their work needs to be valued and appreciated to prevent high turnover and low motivation which impedes good care.⁸ It has been found that valuing care work and increasing their integration with the clinical team leads to improved job satisfaction and reduces turnover.⁹ Besides issues related to care workers and their working conditions, the pandemic exposed serious underfunding of the care sector in much of the west. It goes without saying that if WHO programmes on LTC are to be pursued in serious earnest, more investments would be needed to improve infrastructure, architectural design and infection management strategies among other things.

The paucity of palliative and hospice care during the pandemic was stark and real. Care homes would do better with greater funding to support palliative care through national and regional policies, programmes and guidelines. There is a need to implement measures to harmonize payment and regulate standards to include palliative care and develop contracts between care homes and hospice agencies and other external palliative care providers. Most important of all, monitoring of care homes need to include palliative care standards. All these measures would undoubtedly require improved government stewardship of the care market and close examination of provider-financier arrangements that can work best under specific country policies and conditions. Systems for measuring, enforcing and improving quality of care across all types of care homes, improving information flow and better integration between social and medical care are urgently required.

It is estimated that 56 million people need palliative care globally but this would require a major increase in the professional and para-professional workforce trained in at least basic or primary palliative care. The Worldwide Hospice Palliative Care Alliance has estimated that approximately two million health-care workers, including approximately 400,000 palliative care community health workers would be needed to care for a daily census of over 5.6 million patients at the end of life, mainly in LMICs. This assumes 25.7 million patients receiving an average of 80 days of palliative care. At present, it is estimated that there are approximately 400,000 healthcare workers engaged in delivering palliative care out of a total of 43.5 million worldwide, including 20.7 million nurses and midwives. Volunteers also help with hospice services and palliative care and bring the community dimension into compassionate care. There are over 1.2 million people volunteering in palliative care around the world.¹⁰

Care homes also need fresh investments for re-designing new layout patterns. An important realization during the pandemic was that health and well-being are connected to the built environment. Poorly ventilated, and overcrowded spaces in care homes might have contributed to super-spreading events. Physical layouts and

designs of traditional care homes created an inflexible set-up which prevented adequate response to the spread of infection. Architects in UK felt that care homes were overcrowded and had shared bathrooms which might have accentuated the effect of the pandemic. Updating of care homes standards were not done for a long time and only required a minimum of one bathroom per eight residents—a norm which needs revisiting. Possibly, homes that provide multiple bed occupancy with shared bathrooms could be reconfigured to ensure that single rooms are available to all residents. In USA, such physical environmental cause of vulnerability was also addressed carefully to arrive at sustainable design strategies which could serve as architectural solutions to infection control. In other words, the connection between infectious diseases and architectural space needs close examination. Experts specializing in Medical Architecture suggest creating environments that support the wellbeing and safety of residents while providing adequate spaces to deal with a pandemic.¹¹

Also, the crisis reinforced the idea that the risk of infection is more pronounced in closed spaces and that access to open air has a positive effect on health and well-being. There were media coverage of families standing in gardens to communicate with their loved ones which seemed to suggest that changes in lay out planning and new design consideration could provide safer ways for family visitations, avoiding single entry from the main building. Smaller units of residents and staff could make physical distancing easier and a range of flexible shared spaces, including smaller breakout spaces along corridors, could increase opportunities to physically distance, if necessary. In several parts of the world, architects emphasized on separation in terms of distance as opposed to isolation to cut down loneliness and depression. Future care home projects need to be mindful of these architectural challenges, carefully containing infection while avoiding overreaction and quarantinable buildings. They would need to seek solutions to safely maximize interaction with the outside world even during a quarantine situation and enable and facilitate better and safer management during pandemic situations.^{12,13} In Canada, which suffered from a high proportion of deaths in LTC settings, architects were left wondering if it is possible to connect the biological science with building science. The challenge in Canada, as elsewhere, was to strike the correct balance between designing care homes as residential settings, and providing the clinical conditions necessary to ward off infections. Architects observed that while existing building stock for care homes across the country met current government standards, there were many which required three to four residents to share a room and bathroom and had small and crowded congregating spaces. In such traditional care homes, physical isolation, providing oxygen and other emergency responses were not possible and they need to adapt to current scenario with considerable government support.¹⁴

Improving Home Care: A Pillar of Healthcare System

During the first surge pandemic, home care emerged as a pillar of the healthcare system for supporting old people, as well as those with confirmed or suspected COVID-19. It thus requires increased public health and clinical attention.¹⁵ Older people were asked to stay at home for an extended period of time in self-isolation.

Among them, many had chronic conditions involving heart and lung ailment, diabetes or weak immune systems, including cancer, and suffered from mental disorders or disabilities which require essential life-sustaining care, health maintenance support and supplementary care. Unfortunately, despite its strategic importance, home services were disrupted in many parts of the world. Additionally, disruption of routine health services, interruption of medicine supply, depleting social and public services created problems for family and informal home carers looking after older people. They were highly neglected during the pandemic, although being particularly vulnerable to the consequences of the pandemic. They received comparatively less attention than the LTC sector.¹⁶ Many struggled with troublesome situations as they cared for the aged. Research released by Care UK found that carers lost, on an average, 25 hours of support a month they previously had from services or family and friends before the pandemic. More than one-third of people caring for family members or friends felt unable to manage their caring role. In sum, 72% of carers had no breaks from their caring role during the pandemic. For those caring and supporting people with dementia, the closure of services such as day care or reduced access to home help, as well as help from other family members who live outside the household, increased their own care load. Work-from-home arrangements resulted in additional stress due to closure of schools and offices. Many were ill equipped to tackle caring tasks.¹⁷ In years to come, with the threat of possible future infections looming large, such older population groups receiving care at home and their family carers need to be well supported and provided with secure updated care plans, pathways for accessing services, including rehabilitation and palliative care services, supplies and equipment, surveillance of medication compliance, transportation and support for self-management. The crisis has shown that the role of the family caregivers will remain important in many countries. They are a crucial human resource that augment community's healthcare capacity, especially in underserved regions. They need more support and assistance from governments and policies and programmes that aim at improving the well-being of older people. Home carers also need additional support, either financial or through replacement care services, to safeguard their own mental, physical health and financial condition as they care for older kin. Since many are not equipped for caring tasks, appropriate support models that improve health literacy, disease knowledge, psychological readiness and medical care abilities need to be developed.¹⁸

Given the importance of home care, OECD suggests that the development and expansion of formal home-based programmes need to be taken more seriously because of their potential for reducing the risk of COVID-19 transmission while maintaining care continuity for other patients.¹⁹ Of course, this has to be augmented by research and data to monitor, evaluate and strengthen their capacity to meet the needs of older persons, and those with disabilities. Supporting home care means doing away with the fragmented care delivery involving better coordination between health and LTC sectors and between formal and informal carers. It is expected that adequate provisions for home care may eventually cut down the excessive reliance and dependence on institutional care. Over the past

few decades, many countries have in fact, supported a de-institutionalization of their LTC systems. This is the case in the Czech Republic, which increased its efforts to develop home-based care in order to match older people's preferences for home-based ageing and contain LTC spending. More than half of OECD countries have started to move LTC out of residential facilities into the community.²⁰ De-institutionalizing of the LTC sector would obviously require greater attention to LTC carers at home. Home-based workers and nurses often represent a small share of carers and are also a neglected lot. They too would require better working conditions and protection, information and material resources, mental health support, improved salary package, leave provisions and flexible workplace policies.

In many parts of the world, paid caregiving has a great role to play in LTC system. For instance, in Italy prior to the COVID-19 emergency, it was estimated that more than eight million informal caregivers were involved in the assistance of family members. More than one million paid care workers existed. Called *badanti*, they form a parallel and unorganized system of delivering LTC services. Unfortunately, nearly 60% have no professional contracts or formal appointments. Most care workers are middle-aged women of non-Italian origin (predominantly from East Europe or Central America countries, often without legal permission of residency in the EU), and do not possess any professional training. They provide round-the-clock care by living in the households of people they are caring for. COVID-19 had an enormous impact on such informal caregiving systems. With some regional exceptions, no compensation or support was provided. As of 30 April 2020, no specific measures at national or regional level were undertaken regarding them. Media coverage showed that around 30% simply lost their jobs and were replaced by family members, forced to remain at home by the lockdown. Some continued moving between households to provide assistance without having any training or access to PPE, thus probably increasing the risks of infection. Because of their irregular working status, they were excluded from any form of income support.²¹

During the pandemic, problems of care workers involved in such transnationally organized live-in care models drew further attention to the fragility and inequality inherent in this care system. Similar to the situation in Italy, in Germany, Austria and Switzerland, the model is based on a neo-liberal care strategy wherein mostly female workers from Central and Eastern European countries provide round-the-clock care for older person(s) in their homes. Typically, two (or more) carers alternate in shifts of two to twelve weeks and commute between their workplace and homes in Poland, Romania or Slovakia. There are agencies which serve as brokers for these care workers and frequently organize transportation, collection of payments and other tasks. During COVID-19 lockdown and associated travel restrictions, various measures were implemented by governments like extending working shifts and work permits, re-establishing transnational mobility by ensuring movement through closed borders and special transportation plans. But it is alleged that these merely ensured caregiving support of German, Austrian and Swiss seniors without looking into the plight of live-in care workers whose living and working conditions became more precarious and

put them in difficult situations. They could either prolong their stay and work in the households of their clients, which led to extended separation from their own homes, families and friends, or expose themselves to risks of contagion on their transnational journeys. The third option was to stay at home, which often led to financial deprivation. No matter what their decisions were like, their needs were not taken into account in pandemic relief measures. The live-in care model thus needs re-look into deeper issues related to transnational differentials in wages and in economic opportunities within Europe, characterized by poor pay and working conditions and circular migration that dislodge care workers from their families due to long commuting time to reach workplace, often up to 30 hours every few weeks.²²

Supporting older people at home thus is a complex proposition. In addition to formal systems, it requires community engagement. The WHO Regional Director for Europe, in an appeal said, “I urge you all to take bold action, create societies and caring environments that foster healthy ageing: something all of us deserve in peace time and war time.”²³ (para 30) There is a need to increase community engagement. It may be recalled that in some parts of the world, community health workers did play an important role during the first wave of the pandemic to ensure patients could get access to needed care. In New York, community health workers helped in several ways: making home visits, conducting wellness checks, improving self-care abilities for chronic conditions, enrolling patients in online patient portals and preparing them for tele-health appointments. They served as support in navigating healthcare systems, and mitigating fear and correcting misinformation in disadvantaged communities.²⁴ In times to come, integrating community health workers in primary healthcare services could be beneficial during health emergencies. Moreover, greater coordination with primary care centres and strengthening of community nursing may help to overcome the fragmented service delivery. A strong, well-trained cadre of frontline community health workers can raise awareness, counter social stigma as well as assist self-management of chronic diseases.²⁵ For this, community workers also need to be supported, equipped and empowered. India provided a shocking example of neglect of its ASHA (Accredited Social Health Activist) workers despite their enormous contribution during the pandemic. In normal times, ASHAs are enrolled on a voluntary basis and receive honorariums and incentives in lieu of their work. Generally, they have core responsibilities in reproductive health issues and in tuberculosis control but in some states, they have been trained in palliative care and to look after geriatric population. During the COVID-19 crisis, they had to take up additional duties of contact tracing, providing information and creating awareness on preventive methods, ensuring adherence to quarantine protocol among incoming migrant workers, reporting suspected cases and procuring medicines for older adults. Unfortunately, a survey of 306 ASHA workers conducted by Oxfam (India) to understand their working conditions in four states of India showed that 64% had not received incentives for COVID related responsibilities undertaken by them. Only 43% were receiving their monthly honorariums on a regular basis: 25% ASHA workers had no masks and 38% had no gloves to perform their

duties.²⁶ A similar neglect of community health workers was observed in Brazil where they were no guidelines for their protection, and only 9% received infection control training and personal protective equipment.²⁷

Home-based care and community care systems to work well, need to be embedded in an ethos of intergenerationalism based on respect, responsibility and reciprocity. This is also at the heart of sustainable development issues which tend to work, among many things on intergenerational equity. Although intergenerationalism is beginning to be addressed in housing and educational projects, it is slow in implementation in the healthcare sector. Universal access to healthcare will not be possible without showing solidarity for those older people who are on the fringes of society. This necessitates a fresh identification of the role of ageing and generational identity. COVID-19 has made us reaffirm the need for appreciating the value and needs of all at the levels of families, communities and nations. An intergenerational or multigenerational appreciative inquiry can help further understand and mitigate ageism which the pandemic has distinctly exposed.²⁸

Rethinking Health Delivery Patterns

In the last few decades, a critique of medicalization has succeeded in de-medicalizing ageing and dying to some extent. Paradoxically, during the initial surge, many older adults and their families were left clamouring for greater medical support and struggling for rights of access to medical care. The importance of medical care got magnified once again, thus creating the basis for its high demand. It strengthened the centrality of the hospital setting through reinforcement of ICUs and EDs. The priority was to isolate COVID patients (and/or suspect cases) as soon as possible, hospitalize them and offer prompt respiratory support. But the scarcity of medical resources, particularly availability of ICUs and ventilators resulted in age-based rationing in some countries, evoked ageist responses and raised issues over entitlement. Such issues, however, are not new. They have been going on since a long time and show no hope of resolving. Each country therefore needs to address this as early as possible according to its own assessment of capacity, health and human resources, prevailing cultural values on age and ageing and also individual patient considerations. Needless to say, some of the most widely accepted central tenants of human rights like universality may emerge as highly contentious during a pandemic. Ethical values ingrained in maximizing benefits faced by scarce resources, treating people equally, and giving priority to the worst off, often lead to confusing choices and outcomes in emergency situations. In other words, various circumstances and interventions may lead to differing judgments on what constitutes a fair and consistent allocation procedure for clinicians.

Amidst these confusing situations, while some older people were denied access to critical care, others were provided aggressive treatment without their consent. In a situation of rapid clinical deterioration and loss of decision-making capacity, such patients were placed in “competition” for scarce healthcare resources with others who do desire, and who could have even benefitted more from the

treatment. While it cannot be denied that during a public health crisis, saving lives matters, and that too speedily, but there is also a need to be attentive to quality of lives saved and not dismiss issues of patient autonomy towards end of life. It is well known that administering critical care to very old and fragile people may not bring desired results for many. Hospitalization and critical care may not be good choices for frail older adults due to a baseline decline in physiological reserves. Substantial research has associated frailty with adverse health outcomes, including admission to the hospital and mortality. In such cases, providing excellent supportive and person-centred palliative care could have been a better option. In this sense it may even be considered as a deliberate action, and not simply a philosophy of avoiding ventilators.²⁹ Therefore, Caplan recommended planning ahead with seriously ill, very old patients, putting due emphasis on existing and future support scenario involving family members. He was against use of aggressive technologies and nurturing false hopes. Rather, he encouraged the idea of clinicians preparing to talk to patients and families about the possibilities. Advance care planning is an urgent priority and integral part of the health systems and needs to be incorporated in COVID-19 response strategy. It may curtail ventilator use if frail older patients choose supportive or palliative care. In fact, this might further public health goals by reducing pressure on society's limited pool of critical care.³⁰ With this end in view, in many places like in British Columbia, the healthcare system launched resources for clinicians to engage in proactive advance care planning discussions, and provided enhanced support and options to residents of LTC facilities, particularly for frail older adults. If the pandemic truly overwhelms the healthcare system, frailty provides a fair and evidence-based means of triaging patients for critical care and could be included into ventilator allocation frameworks.³¹

Frailty apart, the issue of optimal utilization of health resource is very real during resource scarcity. A way out of the quagmire may probably be provided by the current emphasis on value-based medicine. So far rationing solutions and other measures like closure of departments, reducing staff, etc., have been used to contain healthcare expenditures and enable costs shifting operations. But these have not taken into account the health effects of such measures. Value-based medicine, the new buzzword, aims to rebuild healthcare systems with a data-driven approach and avoids reactive decision-making. It aligns decisions in healthcare with patient's health and quality of life, considered as a value. In this approach, doctors and patients through their respective scientific societies and associations, actively participate in defining quality and developing relevant and quantifiable indicators in clinical practice to attain the best possible relationship between optimal result of the treatments and the expense incurred to generate that result. Of course, this approach relies heavily on a built-in capability to collect and analyse outcome and costing data.³²

Apart from these, broader systemic changes in favour of a robust primary healthcare system are urgently needed. While hospitals provide episodic care and respond to acute care needs, a stronger investment in prevention and primary and community care services is also imperative to provide regular, preventive and

patient-focused care and build longitudinal patient–care–provider relationships. It may be reiterated that the pandemic deeply affected the health of many older people who were not infected with COVID-19 but suffered from disruptions to their regular care routines—cancer diagnoses, chemotherapy appointments and visits to ambulatory practices all decreased. Therefore, a comprehensive strategy is needed to address the diverse needs—physical, mental and social of all sub-groups within the older adult population, directly or indirectly affected by COVID-19. While it is generally believed that a strong primary healthcare is more geared towards chronic diseases, the pandemic showed that it also acts as first line of care in communities during the acute phase of a health crisis, while helping maintain continuity of care for people with chronic conditions. It also reduces pressure on health systems by providing comprehensive and preventive care during and after the crisis.³³ Thus, OECD recommends that primary healthcare is the most inclusive, effective and efficient way to protect the health of people and communities, particularly for the older people. It should be the cornerstone of global response and recovery from current and future public health emergencies. When integrated with community health services, it can respond more urgently to crisis situations. It goes without saying that when structures for continuous and comprehensive care management support exist, crisis management becomes easier. In fact, the WHO's guidelines for ICOPE also laid sufficient emphasis on this. During the pandemic, many countries, notably France, Iceland, Ireland, Slovenia and UK, in fact, strengthened primary healthcare services and even reorganized delivery by establishing team practices and developing a strong link with community services. In Canada, Spain and USA, among others, home-based programmes were expanded to care for all patients during the crisis, thus alleviating pressure on hospitals.³⁴

There is also a need for leveraging of digital tools and systems such as e-Health and Telemedicine. In several countries changes were made by bringing in new legislation (e.g., Estonia, Poland), initiating new Telemedicine services (e.g., Canada, the Slovak Republic) and issuing new guidelines and regulations (e.g., Belgium, France, Japan).³⁵ Digital tools helped maintain continuity of care for people with chronic conditions and to triage, support and treat patients remotely, thus containing the spread of the virus. In France, health authorities positioned GPs at the centre of outbreak management. This was accompanied by relaxed legal decrees which allowed GPs to perform teleconsultations. More than 600,000 teleconsultations were performed in 28 days which prevented hospitals from reaching a saturation and avoiding risk of infections.³⁶

COVID-19 also drew attention to the need for site-of-care flexibilities and stronger inputs for change in patterns of care capable of protecting both highly fragile and immune suppressed patients and also ensuring safety of healthcare professionals. During the pandemic, most hospitals lacked the flexibility to accommodate the sudden surge of patients and ran out of space and resources to treat COVID-19 patients with varying levels of symptoms—some severe and others with mild and often asymptomatic appearances who could infect health-care workers and other patients. Many older adults and those suffering from other

non-COVID related illnesses were also denied access. In future, hospitals may need to be more flexible and even become “liquid.” It is in such a context that Hospital-at-Home (HaH) units can be especially useful for elders with chronic diseases and disabilities. These units can play a major role in the reorganization of hospitals and serve as cost-effective growth capacity alternatives to conventional hospitalization. They can prevent unnecessary admission to hospitals, ensure early discharge logistics for patients or optimize discharge for non-complicated post-surgical patients admitted in the hospital and provide post-hospitalization care. Overall, literature supports that they provide better outcomes in terms of health recovery and costs.^{37,38}

Such alternatives to hospital-based care prompt us to examine other ways of supporting COVID-affected older adults by improving and re-configuring existing nursing homes and inpatient rehabilitation facilities with better infection control strategies. There have been suggestions for integrating clinical care with social services, housing and other non-clinical services to address social determinants of health. Several other alternatives to hospitals may be developed like public housing institutions, to overcome adverse impacts of hospitalization. Some hospitals may also incorporate wider range of services related to wellness, rather than providing only clinical services. Many managed care organizations and community clinic systems are already diversifying in this way, with some even providing education and employment training through partnerships.³⁹

A good example of a new care delivery approach is provided by an integrated care model—Central Health Model of Care in Singapore. Relying heavily on value-based care, this model allows patients to be cared for beyond the hospital, stay safe in the community, be healthy and age well in place. The focus is on supporting people to lead healthier and more meaningful lives. In 2017, Singapore reorganized its public healthcare system into three integrated clusters, each responsible for providing comprehensive care across the care continuum for the population in their respective region. Tan Tock Seng Hospital is part of The National Healthcare Group integrated cluster to serve the central-northern region of Singapore where residents are comparatively older than elsewhere in the country; 17% are aged over 65 years compared to the national average of 14%. About one-fifth of the older population there live with mild to severe frailty, and the needs for fall prevention, dementia care and palliative care are growing. An integrated care network delivers seamless care for residents in a holistic and concerted manner. The convention of facility and episodic-based care is broken down and residents’ needs are considered in totality to promote relationship and neighbourhood-based care, thus, providing better value of care. A common vision and shared goals guide the collaborations amongst care partners who use common assessment tools. Central Health aims to establish a population-based financing model that aggregates, aligns and anchors on the health eco-system and population values. What has resulted is a model in which social and environmental determinants of health are incorporated in care mechanism. This model has proved efficacious for the aged even during the pandemic. By enabling closer collaboration with primary

and community care partners, it has freed up bed capacity for the hospital's outbreak response, and has helped to shift care to the community.⁴⁰

Reorganizing Hospital-Based Care

Although hospitals were at the centre of all organizational efforts to mitigate the impact of the COVID-19, often at the point of implicitly reducing resources to other units of the health system, they nevertheless reached a saturation in many parts of the world and at least, in public opinion, became sites for fresh infections. The problems faced by hospitals draw attention to the need to evolve proper plans for managing patient load, identify and demarcate spaces that can be converted to quarantine zones to provide medical care, disease monitoring and other activities. In future, emergency preparedness measures would require scaling-up hospital capacities and building resilience to recover from and adapt to health shocks such as COVID-19. In particular, future hospitals need to have more flexibility for pandemics and other outlier events that create temporary surges in demand: they need to be able to expand and contract. A few such examples do exist even in present times. For instance, in wartime, Rambam Hospital in Haifa, Israel can convert its underground parking garage into a 2,000-bed hospital. Rush University Medical Center in Chicago, can expand capacity of emergency department and isolation rooms when needed. During normal operations, 40 negative-pressure rooms help prevent the spread of potentially infectious diseases. The negative pressure compared to the outside hallway, allows air flow from the hallway into the room, which then exits the hospital through a high efficiency particulate air filter. The hospital can also convert an additional wing into a negative-pressure ward capable of accommodating an additional 32 patients. The ED also has three 20-bed units called pods that can each be isolated for infection prevention. In March 2020, as the number of COVID-19 patients rose in the Chicago area, Rush switched one of its pods to negative pressure. Patients arriving in the ED's ambulance bay were screened to immediately put suspected patients in isolated units of the hospital.⁴¹

Barring such interesting examples, hospitals, by and large, were considered as sites of infection for the immunosuppressed, particularly older adults. They were also risk-sites for healthcare workers, especially those who were directly involved in patient-facing tasks. Many healthcare professionals, especially the older ones were exposed to infection as they struggled with increasing workload and poor support from healthcare system. In a large register-based cohort study, comprising of the entire Scottish healthcare workforce to compare the risk of COVID-19 related hospital admission between patient-facing and non-patient facing workers, it was found that during the first three months of the pandemic, patient-facing healthcare workers were three times more likely to be admitted with COVID-19 than non-patient facing healthcare workers.⁴²

It may be mentioned that a large number of older nurses and physicians with decades of prior experience reported back for work during the pandemic and suffered risk of exposure. In Britain as many as 65,000 retired nurses and doctors were recalled to help combat the coronavirus.⁴³ In Ireland, a national "call" for

retired healthcare staff (doctors, nurses) was made. The “Be on call for Ireland” initiative, received 24,000 applications in three days.⁴⁴ In America too, a similar involvement of older healthcare workforce was seen. It may be mentioned that a substantial portion of hospital and non-hospital-based registered nurses, and physicians are 55 years of age or older. Among the nation’s nearly 2 million registered nurses employed in hospitals, an estimated 370,000 (19%) are aged 55–64 years, and an estimated 55,000 (3%) are aged 65 years or older and, thus, at even greater risk of complications and mortality from COVID-19. It was estimated that of the approximately 1.2 million registered nurses employed outside of hospital settings, who could be called in to assist as hospital needs increase, 24% are aged 55–64 years and 5% aged 65 years or older. The physician workforce is older still: of the approximately 1.2 million physicians in USA, an estimated 230,000 (20%) are in the age group of 55–64 years and an estimated 106,000 (9%) are above 64 years. These clinician leaders, many with past experience with disasters, triaging, decision making and managing staff were an essential and vital component of many organizations.^{45,46} While it is reassuring that older nurses and physicians were caring for patients during the pandemic, many like their younger counterparts, experienced symptoms of stress, depression and anxiety. A study on the COVID-19 epidemic in Hubei, China, involving 493 physicians and 764 nurses, found that almost 50% showed symptoms of depression and anxiety and 70% psychological distress. Many also reported insomnia. Women and nurses were more affected. Stressful conditions also compromised the quality of care for patients.⁴⁷

In order to curb infections among health professionals and patients, adoption of virtual technologies becomes important. In fact, Telemedicine did help to replace face-to-face interactions. In many countries, it helped people with mild symptoms to access medical consultations from their homes, thus reducing the spread of infection and overcrowding in hospitals which could focus on more critical cases. Overall, as of June 2020, Telemedicine services were made available in 23 countries during the pandemic.⁴⁸ However, there were many older adults for whom Telemedicine unreadiness was high, especially for those suffering from dementia, and those in social isolation and without any one to help them negotiate technologies. To encourage this shift in health delivery mechanism, policies may be needed to bridge the digital divide. Older and less educated patients and their families would need to be supported to ensure that they are not left behind. Availability of neighbourhood broadband internet, affordability of such services and equipment, as well as education and assistance with technologies is required to overcome gaps in technology engagement among older adults.⁴⁹ Also, medical reimbursing strategies need to be developed to entitle telephone visits at rates matching in-person and video visits, and adjusting reimbursement plans for those who cannot use video visits.⁵⁰

Where Telemedicine is not possible, in order to create safe environments for both patients and health workers, there is a need to redesign adequate spaces to avoid shared rooms and other service facilities. Hospital designs need to change to reduce cross-infections by improving ventilation systems, increasing naturally ventilated spaces and reducing overlaps of function between different departments by providing buffer zones.⁵¹ Futuristic hospital designs would need

to provide adequate spacing in waiting areas for physical distancing, corridors, hallways, stair and entrance lobby, enlarge area per bed and opt for stand-alone buildings to meet quarantine needs. Careful planning of rooms for staff changing, steaming and sterilizing beds, mattresses and effluent treatment plant would go a long way in infection control. There needs to be judicious use of materials that reduce infections (such as use of copper alloys that have antimicrobial properties for high-touch surfaces like door handles, bed rails, cart clutch handles) and improved designs such as hands-free wash basins, urinals and toilet seats. Pre-engineered buildings may help erect such hospitals in short time to meet emergency needs. Overall, coordinated team work with healthcare workers, consultants, engineers and architects would be needed to deliver best care in pandemic times. Architects and engineers would benefit from training in public health so that they can integrate infection control strategies in early stage of design, specification writing and construction. In other words, making hospital accessibility safe is fundamental during pandemic.⁵² Historical and contemporary proof supporting influence of design features in decreasing the threat of infection in healthcare facilities is found in Florence Nightingale's experience in the Crimean War of 1853–1856 which established basis for healthcare with pavilion models that provide ventilation, circulation of patients, lighting and hygiene. These improved the chance of patient recoveries and lowered infections rates. In the military hospital in Turkey, deaths from nosocomial infections were more than those due to injuries sustained in battle. This led to her understanding the association between environmental/space factors and healing: death rates were drastically reduced from 42% to less than 3%.⁵³

Rethinking Knowledge-Making: Diversification of Evidence Base

COVID-19 has highlighted the need for integrative frameworks and has exposed the deep fragmentation at the level of knowledge-making. Even during normal times, there has been a growing imbalance among multitude of specialists which has resulted in exaggerated polypharmacy, conflicting recommendations, burdensome interventions, hospitalizations and ED visits for older adults. Professional voices which matter for elder care are often considerably side-tracked. These include Geriatricians, Palliative Practitioners and Physiotherapists. The former do not enjoy much importance in the health system and play a marginal role in the planning and organization of care. During the first surge of the pandemic, because of their background as Internists, they were employed at the frontline against COVID-19, but major concepts used and emphasized in Geriatric medicine (e.g., multidimensionality, frailty, functional ability, continuity of care) were underplayed on the pretext of emergency conditions. Poor diffusion of Geriatric knowledge and inadequate collaboration with other specialities fed rampant ageism, and affected capacities of health systems caring for older persons. Lack of care coordination especially impeded good Geriatric palliative care and contributed to wasted resources, weakening the health system and reducing quality of

care.^{54,55} In future, Geriatric medicine needs to be reinforced across all healthcare settings, particularly in primary healthcare. Geriatricians have a critical role in connecting the hospital on one hand and the community on the other.^{56,57}

Diversification and integration of knowledge base is desperately needed if healthcare is to be oriented to specific needs of older population. So far, the predominant voice globally, has been that of Biomedicine. Although it is generally assumed that medical education draws from a large number of disciplines and research domains, interdisciplinarity in medical education research is in fact a myth rather than a reality. In a study using bibliometrics, a citation analysis of 1412 references from research articles published in 2017 in top five Med Ed journals was undertaken. Findings showed that medical education research drew predominantly from two knowledge clusters: the Applied Health Research cluster (made of clinical and health services research), which represents 41% of the references, and the Med Ed research cluster, which represents 40% of the references. The quasi-hegemonic position held by these research clusters relegates other sources of knowledge to a peripheral role. The neglect of Communication studies, so important to public health may be cited as an example. An interdisciplinary area, it draws inputs from multiple disciplines of applied risk communication, cognitive and social psychology, sociology and public policy, and can guide pandemic communication strategies to minimize harm, and increase compliance with government recommendations.⁵⁸ Needless to say, correct and precise government messaging is important for informing public attitudes and inducing desirable behaviours. This is not an easy task because culture, social identity, age, gender and access to resources influence people's response to public health information and messaging. Therefore, framing of vital public health information has to be sensitive to and tailored towards specific social groups and communities. It has been found that messaging focused on COVID effects on older individuals may exacerbate generational divides, and lead to less concern about the virus among younger generations.⁵⁹

It is understandable and obvious that drawing from a narrow range of subjects, knowledge sources, methods and approaches, a comprehensive understanding of the complex interplay of factors in ageing population has defied understanding during the pandemic. The health impacts of the virus on ageing bodies call for a more a holistic understanding which is characteristic of indigenous and traditional medical systems. Traditional medicine has been used since a long time for health maintenance and rejuvenation, disease prevention and treatment, particularly for older people and other immune suppressed patients. Unfortunately, it has not commanded much interest and respect. In only few cases worldwide, efforts were made during the pandemic to develop pluralistic frameworks and integrate indigenous medicine with the protocol of clinical management of COVID. Since older adults are often predominant users of alternative medicine and possess the knowhow, this may have negatively impacted their self-care abilities. It is important to appreciate the fact that older adults across the world have diverse beliefs about health and well-being and these may be dramatically different from health systems based on or oriented towards typical European and North American norms and values.

The neglect of traditional and indigenous medical systems during the pandemic is unfortunate given the fact that according to the WHO Traditional Medicine Strategy (2014–2023) midterm review report (based on inputs from 179 countries), 88% of the 194 WHO member states had acknowledged the use of traditional and complementary medicine.⁶⁰ Despite this, when the pandemic struck, there was no systematic effort globally or nationally, except in China, to explore the potential of traditional and integrative healthcare practices. China was among the few countries where traditional medicine was integrated into the protocol for clinical management of COVID-19 with good results. Among the 564 patients with COVID-19 admitted to *Jiangxia Fangcang* Traditional Chinese Medicine (TCM) Hospital, 482 were cured, and the rest 82 with complications were transferred to designated hospitals. During the treatment, there was no deterioration in the condition of patients, and nurses and doctors did not contract the infection. Thus, TCM played an indispensable role and its therapeutic schedule was included in the guideline on diagnosis and treatment of COVID-19.⁶¹ A systematic review and meta-analysis indicated Chinese Herbal Medicine's (CHM) beneficial role in improving clinical symptoms, shortening the course of disease and reducing the number of severe COVID cases. Besides, no severe adverse effects were identified after use of CHM. The review suggested that CHM could be used as potential candidate for COVID-19.⁶²

Like China, India too has a very rich tradition of indigenous medical system. Unfortunately, with few regional exceptions, the use of India's Ayurvedic system of medicine was very slow despite evidence that clinical profiling of COVID-19 from an Ayurvedic perspective is possible.⁶³ Studies suggesting pragmatic treatment protocols and Ayurvedic treatment outcomes in a COVID-19 patient were published as a case report pointing out the potential of Ayurveda's holistic approach for COVID-19 patients.⁶⁴ However, absence of official access and clinical exposure to such patients made it difficult for Ayurvedic physicians to develop a comprehensive treatment strategy based on Ayurvedic principles.⁶⁵ Furthermore, the central government failed to provide an appropriate directive on whether or not to permit AYUSH doctors to discharge clinical duties in allopathic hospitals during the pandemic. It was only in the months of September and October, 2020 that the government released COVID-19 management protocol based on Ayurveda and Yoga that listed dietary measures, Yoga and Ayurvedic herbs and formulations for prevention and treatment of mild and asymptomatic cases. Some state governments permitted AYUSH doctors to practice in hospitals—a move opposed by medical associations and termed the Ostrich Syndrome.⁶⁶ Amidst numerous allegations, claims and counter claims, an opportunity to explore the potential of culturally sensitive, integrative healing method in pandemic management was lost. It would not be an overstatement to suggest that the hegemonic presence of biomedicine needs to change to enable people make their own health choices. Among the states which encouraged the uses of integrated medical systems was Kerala in the southern part of India. During the first surge, Kerala integrated cultural measures in public health by recommending indigenous medicine to augment lifestyle factors, boost immunity and provide supportive care. The government even set up a State Ayurveda COVID-19 Response Cell (SACRC), to work

on Ayurvedic formulations and drugs, some of which were specifically geared to protect older adults. It also formed specialized clinics at all Ayurvedic dispensaries and partnered with scientific organizations to develop natural value-added products for COVID-19 management.⁶⁷

In a recent and a belated move, the Regional Expert Committee on Traditional Medicine for COVID-19 formed by the WHO, the Africa CDC and the African Union Commission for Social Affairs endorsed a protocol for phase III clinical trials of herbal medicine for COVID-19 as well as a charter and terms of reference for the establishment of a data and safety monitoring board.^{68,69} Engaging traditional healers can have beneficial effect since their social capital and networks are vital for improved case referral, case surveillance and communication of prevention messaging and building of trust. It may be recalled that in the 2018–2020 Ebola epidemic in the Democratic Republic of Congo, traditional healers were the first point of contact for most individuals.

Improving Social Determinants of Health for Pandemic Preparedness

During the pandemic and in normal times, older adults suffer from different forms of discrimination based on gender, social status, functional ability, economic class, race, ethnicity, nationalism, migration and religion. At least 142 million older persons worldwide, currently lack the ability to meet their own basic needs. Gender-based and socio-economic inequalities contribute to differences within and across countries. After 80 years of age, more women are less able to meet some of their basic needs than men, with the gap widening with increasing age.⁷⁰ COVID-19 exacerbated existing chronic inequities for older people in many countries and magnified long-standing disparities in healthcare quality, access and outcomes across racial and ethnic groups, socioeconomic strata and geographies. Lockdown measures left millions without their livelihoods. In order to help these vulnerable people, governments would have to strengthen their social protection systems that link them with policies and investments across complementary sectors—infrastructure, education, health and nutrition. In other words, additional focus on SDoH would be needed to address the environmental drivers of health inequity (e.g., housing, food security, economic stability, social and community support). Emphasizing on the urgency of addressing SDoH over and above healthcare, PwC Health Research Institute aptly stated “But treatment alone won’t ensure that the level of human health improves; it may not even guard against its decline. The reality is that our systems are not built or designed to truly achieve health for societies. If healthcare organizations and governments do not take greater account of the social determinants of health, nations will not fully realise the tremendous potential of those medical advancements. Bold action is required to rethink how all players in the healthcare ecosystem can work together not just to treat diseases, but to address the root causes of disease.”⁷¹ (p.11)

Improving the SDoHs would require prioritizing disproportionately affected groups, such as older prisoners, older informal workers, migrants, internal displaced

persons and refugees. It may be mentioned that migration has become a major component of population change in some countries. Between 2010 and 2020, 14 countries or areas were expected to see a net inflow of more than one million migrants. Ten countries were expected net outflow of similar magnitude driven by the demand for migrant workers (Bangladesh, Nepal and the Philippines) or by violence, insecurity and armed conflict (Myanmar, Syria and Venezuela). Belarus, Estonia, Germany, Hungary, Italy, Japan, the Russian Federation, Serbia and Ukraine were expected to experience a net inflow of migrants over the decade, offsetting population losses caused by an excess of deaths over births. Strengthening protection systems to cover all older people within such marginal groups is likely to be a huge challenge. Already social protection systems are under strain with a falling proportion of working-age population. The potential support ratio, which compares numbers of persons at working ages to those over age 65, is falling around the world. In Japan, it stands at a low of 1.8. 29 countries, mostly in Europe and the Caribbean, already have potential support ratios below three which is further likely to reduce by 2050 in 48 countries, mostly in Europe, Northern America and Eastern and South-Eastern Asia. These low values underscore the potential impact of population ageing on the labour market and economic performance, as well as fiscal pressures that many countries will face in the coming decades as they seek to build and maintain public systems of healthcare, pensions and social protection for older persons.⁷²

Added to these ageing-induced pressures are financial stressors posed by the pandemic. Unemployment is already skyrocketing in many countries and hours worked in all countries and regions are estimated by the ILO to have fallen dramatically by 10.7% in the second quarter of 2020 relative to the last quarter of 2019, which is equivalent to 305 million full-time jobs (assuming a 48-hour working week). Labour market vulnerabilities are worsening. There is a need to make workplaces safer for older adults, improve possibility to participate in labour markets despite their inability to physically go to their workplace, strengthen capability-building measures and develop sustainable social protection mechanisms. To cope with the twin challenges of health and economy, a transformative approach towards inclusive, caring economies, instead of conventional market-led, growth-focused development models are needed, which value and support people's essential well-being, socio-economic needs, livelihoods and the relationships. Addressing the needs of an ageing society in grip of both chronic and infectious diseases would necessarily involve doing away with deep structural differences and vulnerabilities linked not only to age but also gender, class, ethnicity, disability, geography and more.⁷³

Refining Data for Inter-Country Comparability

One of the major problems in understanding what works and what does not, is lack of clear analysis of the problems and challenges in older adult care both at a national and global level. A more complete picture of transmission, presentation and outcome of COVID-19 by age is necessary. Within age as a construct,

further disaggregation of data by younger-old, older-old and oldest-old categories and breakup by gender, race, ethnicity and geographical characteristics may help in displaying differential symptoms and underlying inequities that led to missed diagnosis or missed opportunities for care. The lack of continuous monitoring of age and sex disaggregated data limited the effectiveness of pandemic responses. For instance, early data from China and other preliminary analyses indicated that men were at greater risk of death from COVID-19 than women possibly due to higher prevalence of smoking and comorbidities among them and a stronger biological immune response in women. But no early assumptions could be made due to paucity of sex and age-disaggregated data and the observed variability across countries. Results were highly influenced by transmission patterns; immunological differences, variability in presence of comorbidities or other risk factors such as smoking and exposure to higher levels of air or household pollution; frequency of exposure and the viral load; and the rate of and access to testing and case detection. As stipulated by WHO, countries have an obligation to share comprehensive and accurate data disaggregated by age and sex and to apply inter-sectional gender-based analysis to strive continuously for better understanding of the evolving pandemic. Unfortunately, nations have failed to gather and share adequate evidence to guide COVID-19 responses. As of 22 September 2020, only 27% of 31,038,914 confirmed cases of COVID-19 had been reported to the WHO with data on sex and age.⁷⁴ Only when refined data is systematically available that mitigation measures can be adjusted and tailored to local requirements and innovative interventions can be designed. Standardization of age groupings for health statistics will also be critical to ensure consistency in reporting. At present, even the nomenclature for LTC facility is complex and varied, with different countries having varied models, services and care strategies.

The lack of data comparability affected an inter-country comparison which could have proved useful in sharing insights. Also, many developing countries had limited testing capacities and lacked reliable and robust health information management systems. As a result, the quality of data generated was poor and unreliable. In some countries, COVID-19 deaths were probably hidden under comorbidities among those over 60 years of age and providers for older adults were unable to resolve problematic posed by “Died from” or “Died with” COVID-19.⁷⁵ Many countries had extremely poor Cause of Death Reporting Systems. For instance, experts questioned shortcomings and lack of clarity in vital registration, testing practices and classification of COVID-19 in India. In rural areas, since most deaths happen at home, there were delays in registration. According to an Epidemiologist at the Public Health Foundation of India, only 22% of the deaths registered under the civil registration system are medically certified nationally with Cause of Death. As a result, many states have been compelled to review their COVID-19 mortality data due to mounting public pressure and media allegation of undercounting.⁷⁶

Specifics besides, there was overall fuzziness around measurement indices which point to a need for sharpening data gathering mechanism. This is evident from the anomalies thrown open when comparing the Global Health Security

(GHS) Index with the newly constructed COVID-19 Safety Index. In March 2020, the Deep Knowledge Group (a consortium of profit and non-profit organizations) released the COVID-19 Safety, Risk and Treatment Efficiency Framework and Indices to cover 150 countries. The Safety Index included four quadrants: Quarantine efficiency, Government management efficiency, Monitoring and detection and Emergency treatment readiness. Overall, Israel, Germany and South Korea topped the 2020 COVID-19 Safety Index. One would assume that the top performers in the November 2019 GHS Index would also perform best in terms of responses based on the preliminary results from the COVID-19 Safety Index. However, as on 15 April 2020, data on both indices available from 43 countries revealed no correlation in the GHS ranks and COVID-19 Safety ranks. While a few countries like Australia and South Korea ranked well on both indices, the two top performers in the GHS, UK and USA, were not in the top 40 countries in the COVID-19 Safety Index. Other OECD countries that were in the top 20 in the 2019 GHS index such as France, Spain or Sweden were also not in the top 40 COVID-19 Safety ranks. By contrast, countries such as Austria, China, Hungary, Israel, Japan, New Zealand, Singapore and the United Arab Emirates performed better on the COVID-19 Safety Index than what could be predicted by their GHS ranks. Germany ranked only 14th on the GHS index while it stood 2nd on the COVID-19 Safety Index, whereas France ranked better than Germany on the GHS index but much worse on the COVID-19 Safety index (not in the top 40). Perhaps GHS framework put too little emphasis on testing and the adaptability of health systems and could not anticipate political decisions and difficult arbitrations.^{77,78} Different societal conditions and different approaches and strategies of emergency response had affected the severity of impact of the first surge pandemic. For instance, Brazil's scientific denialism and downplaying of the severity of the pandemic led to a serious health crisis resulting in 91,263 deaths as of 31 July 2020, disproportionately affecting its indigenous population.^{79,80}

Whatever be the reasons for variations in country performances, COVID-19 has sprung up several surprises. According to some, an analysis of complex intersectional dynamics during the pandemic often neglects the underlying fragmentation in the health systems and misalignment between GHS and Universal Health Coverage (UHC). Some countries had stronger investments in global health security i.e., core capacities of public health like surveillance, risk communication and coordination but did not address PHC functions, including curative services, patient management and capacity for clinical surges. Others emphasized on UHC enabling PHC systems and accessibility of health services, but neglected infectious disease threats and inadequately managed the core capacities of public health while focusing more on health insurance and individual health services. Among the health systems with stronger investments in GHS capacities was USA which failed badly in the first wave. So did several countries in Africa. Meanwhile, countries with strong UHC systems also struggled with the pandemic if they did not cohesively implement robust GHS measures. A case in point is Lombardy region in Italy. Taiwan, Vietnam, Hong Kong, South Korea with their roots in UHC ensured swift control of the pandemic. Taiwan's 99.9% coverage

of national health insurance enabled comprehensive epidemic prevention, integrated medical data, unified information platforms and safety nets for vulnerable populations.⁸¹

In addition to these global policy indicators, a look at the pandemic from the standpoint of sheer demographic characteristics and older care structures provides some interesting but confusing aspects which need careful investigation. In some countries age-profile of the population significantly affected countries' overall death rate. Italy has the oldest population in Europe (with about 23% of residents, 65 or older) and the second most in the world after Japan. The median age in the country is 47.3, compared with 38.3 in the USA. Many of Italy's deaths were among people in their 80s, and 90s, according to *The Local*.⁸² Lack of primary healthcare also proved costly. Many family doctors at Lombardy did not have protective gears. Faced with high patient load, they failed to visit patients at home. As a result, people were left to die at their residence. Virus spread in people's homes; entire families got affected with no one to look after them. Physicians could not make home visits in such large numbers.⁸³

Some other countries/regions despite having high elder population, fared considerably well using speed and correctness of the interventions, among other measures. In India, the state of Kerala had several demographic features going against it when the infection surfaced. The state has a very high share of older population and has the largest incidence of non-communicable diseases in India. The 71st National Sample Survey on Morbidity in 2016 showed that while 89 out of every 1,000 persons surveyed reported illness during the 15-day period of survey across India, this proportion was 310 out of 1,000 in Kerala. Among the 60-plus population, it was 276 per 1,000 for India and 646 per 1,000 for Kerala. Broken up by residence, 19% of Kerala's rural population and 22% of its urban population reported ailments during the 15-day reference period, as compared to 9% of India's urban population and 12% of the rural population. Despite all this, Kerala's good healthcare infrastructure, particularly robust PHC and its commitment to broad social protection through investments in education and UHC came to the rescue. Due possibly to high literacy levels, Keralites have good health seeking behaviour which helped during the outbreak. In addition, a strong political leadership with government involvement in different tiers of bureaucracy and local community helped. There was active involvement of all stakeholders. Over 30,000 health workers were deployed in the emergency measures—early detection, expansive contact-tracing, risk communication and community engagement. To complement, the state put up temporary shelters for stranded migrant workers, provided meals for people in need, increased internet capacity and advanced pensions. The state was lauded during the first surge across the globe for its effectiveness in combating the pandemic. The UN during its celebration of the Public Service Day applauded it for effectively tackling infections. In fact, the term “Kerala model” is often being used to acknowledge the success of this state to prove that the overall mortality rate need not always depend on the demographics of a population.⁸⁴

Japan which has an ageing population reacted more quickly than other countries to developments in nearby China, swiftly tightening controls on staff and

visitors at its care homes. The predominance of a culture of elder care, already existing sound infection control measures, dedicated staff and good health of the residents with less preponderance of diabetes and obesity all combined to provide a better scenario for Japan. As of 31 July 2020, Japan had recorded 1,006 deaths.⁸⁵ The country gives a high priority to elder care and there is a social stigma around the idea of placing relatives in a nursing home, although this changed after 2000, when a long-term insurance was introduced with a tax levied on everyone over the age of 40 to pay for elder care. But there is still a normative social expectation that older people should be well cared for and that care homes should be closely regulated.⁸⁶ Unlike Japan, demographics played an important role in keeping elder fatalities low in Russia which has fewer older adults. Russia recorded 9,320 deaths as on 30 July 2020.⁸⁷ Life expectancy in Russia collapsed after the fall of Soviet Union, leaving very few aged people. Only 14.6% of Russians are over the age of 65, compared with 23% in Italy and 19.3% in Spain.⁸⁸

Contextually Appropriate Responses: Some Cases where Things Worked Well

The cross-cutting of many different variables seem to make a clear understanding of reasons difficult even within a country. In Sweden which did rather poorly, there were almost 60 municipalities which have had better success. Commenting on this, Head of Social Affairs in the Ale municipality very rightly suggested that the debate on the flaws in elder care has been lacking nuance. Sufficient efforts have not been made to figure out why in some regions infections have been more in comparison to others.⁸⁹ It would thus be important to look at some cases where things worked well. In USA, which fared very poorly in elder care, Baltimore Pastor of The Maryland Baptist Aged Home had kept his small nursing home free of infections. It is the oldest black-owned nursing home in the state serving predominantly low-income, older Black and Latino adults who are demographically the most vulnerable. Most of the 40 employees are also people of colour, and many live near the nursing home, where the median household income is less than \$40,000 a year. Despite shortage of funds, it had hired a full-time infection control nurse even before the pandemic and did not have a prior history of a single infection control deficiency. When the COVID struck, it barred visitors, stopped communal meals, ordered protective gears and initiated extra vigilance and testing. The working environment allowed a strong we-feeling and identity with the facility and its residents and this helped a united front against COVID-19.⁹⁰

In Japan, at the Cross Heart Home in Kawasaki, south of Tokyo, controls were tightened in early February 2020 as soon as the crisis unfolded in Wuhan. Staff and visitors followed disinfection and temperature protocols and shared their recent medical history before accessing the cafe and administration facilities on the ground floor. Access to residents on the second floor was very closely controlled. Even close family members were denied access except in cases where a patient was very critical and nearing death. Prior experience with influenza outbreaks also helped to draw clear cut strategies. “The very basic principle of elderly

care is washing your hands at each step of your work: Take care of someone, wash your hands, do another job, wash your hands. But now it is even more thorough.”⁹¹ (para 16) said the chief caregiver in mid-March 2020 when a team of *The Washington Post* visited the centre. Staff avoided wearing face masks because of difficulty in communicating with dementia patients. Instead of emphasizing on mask usage, the focus was on preventing infections in the first place. At the Life and Senior House Ichikawa, run by Haseko Senior Holdings, the staff showed exemplary courage and dedication to ensure that the infection did not enter the facility. Their manager gratefully acknowledged their deep sense of responsibility.⁹²

In Canada, while LTC facilities reeled under infections and death, a few promising stories suggest that right measures saved lives. Good management and not age was important as indicated by an attending physician and medical director of Belmont House (with 140 Long-Term Care residents) in Rosedale and Chester Village (203 residents) in Scarborough. Both the homes quickly restricted visitors. Since infections could spread through physicians engaged in multiple jobs, the protocol was changed to have one on-site doctor on a rotating position for each facility while others continued to care for residents through virtual rounds. Chester Village worked out an excellent partnership with other health networks and hospitals like the East Toronto Family Practice Network and Michael Garron Hospital, which were able to provide masks for the staff and helped with Nurse-Led Outreach Teams (NLOT). These teams expanded their hours to assist in interventions not normally handled by care homes like starting IVs. Efforts were made to connect with hospital-based specialists through an app called Hypercare, which enabled the site doctor to receive instant guidance from specialists. This helped to avoid hospitalizing the residents. Later, hospitals in Toronto were assigned such partnerships with LTC homes to avail similar support. On the slightest suspicion, residents were isolated and a nasopharyngeal swab done and monitored. Staff members wore masks and practised hand hygiene. As a result, there were no positive cases at Chester Village. Only one staff member tested positive, but was isolated and all residents of the floor monitored for two weeks. They all tested negative, and the staff member recovered.⁹³

Swedish care homes were subjected to much criticism due to a large number of temporary staff, often working in multiple facilities with low pay and no sick-leave. But there were certain care homes which were more successful in containing spread of infection than others. Care homes in Vastra Gotaland, for example, made sure that employees who showed COVID symptoms stayed at home during the initial first surge which coincided with spring school holidays. The care homes also promptly procured and stocked up protective clothing and equipment from the warehouses. This increased the perceived confidence, sense of safety and security of the staff and residents during the crisis. The Head of older adult care at the umbrella association for Sweden’s municipalities and regions told *The Local* that “It was a challenge, but protective equipment gives a feeling of security. You can’t expect staff to go out and do their job well if they’re scared. We put a lot of money into this in Ale. We did an evaluation and decided that was the right thing to do.”⁹⁴ (para 13) Some care homes had on their own banned

visits prior to the April 2020 official bans which saved a number of lives. Also, widespread testing of staff and residents in care homes, multilingual information campaigns about the coronavirus from an early stage, and hiring of specialized hygiene nurses helped in checking the spread of the virus in these care homes.⁹⁵

In Australia, Baptist Care Dorothy Henderson Lodge experienced a COVID-19 outbreak in March 2020. Due to its apt handling of the outbreak, it could quickly contain the infection. By 7 May 2020, NSW Health declared the outbreak was over. Out of 68 residents under its care, only six of the residents died. When on March 3 2020, a staff member tested positive, the Lodge immediately hospitalized the staff member and isolated all those who were in contact with the infected person. The infected wing was also isolated and visitors were not allowed. The focal point of its handling the outbreak was its ability to work closely with government authorities—NSW Health, the Australian Government Department of Health and the Aged Care Quality and Safety Commission, and activation of its own Crisis Management Response team. When faced with staffing problems, it drew support from an emergency surge workforce provided through Healthcare Australia, which was also responsible for reimbursing the surge workforce cost. This workforce cared for residents when staff were isolating. There was also close cooperation with district and local authorities and the Clinical Excellence Commission for expert advice on infection prevention and control. An infectious diseases physician assisted the care home and emergency supplies of equipment were procured from government agencies. Training with health authorities and infection control specialists through online and on-site sessions were made mandatory. Monitoring of infection control practices and on-site audits were also undertaken. Apart from its ability to draw support from the government, the Lodge also put prime emphasis on good communication by establishing a centralized hotline. A new Connections Coordinator was appointed to connect families with their loved ones via safe visiting spaces, video or phone calls.⁹⁶

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7 Older Adults Amidst a Persisting Pandemic

An Epilogue

It has been over one-and-a-half years since the conversation between the young man and his mother took place. Since then, globally, as on 8 July 2021, 6:18 pm CEST, there has been 184,820,132 cases of COVID-19, including 4,002,209 deaths.¹ The Lancet estimated a case fatality of 4.5% in people over 60 years of age, and a high ratio of 13.4% among those above 80 years. In comparison, it was 1.4% among those in the younger age group.² During the first wave which peaked between 6 March and 20 April 2020, higher aggregate COVID mortality was found in Europe, North and South America, and the adjoining Central Asian, Middle-Eastern and North African regions as compared to Asia and the rest of Africa. The second wave peaked in several countries between 6 December 2020 and 2 January 2021. There were, however variations in the time of spread and peak of the infection of the two waves. The Americas as well as Europe had an extended first wave that folded into a second wave. By June 2021, the second wave was well past its peak in Western Europe and North America, but still raging in Eastern Europe, South America, Turkey, Iran, Tunisia and India.³

This monograph has been devoted to impacts on older adults during the first surge. There were three main issues which drew our attention—the resurgence of ageism, high infections and fatality rates in care homes in the West, and the unintended public health impacts on older adults, globally. These provided an urgent need for a critical analysis of not only COVID-19 specific issues, but also policies and programmes on ageing and dying in general. In several countries that fared very well in the first wave, e.g., Singapore, Australia and Iceland, evidence suggested that there were less infections and deaths among older people, and nursing homes and LTC facilities were not contributing to many fatalities.⁴ An opposite pattern was seen in countries with high mortalities, where nursing homes were badly infected during the first wave.⁵ Deaths among institutionalized older people shocked the societal conscience. The incidence of COVID-19 in care homes after the first wave of the pandemic has apparently been lower.⁶

As a result of the higher risk factors associated with age during the first surge, older adults were not only advised to remain largely indoor and maintain physical distance, but they were also excluded in some countries from accessing scarce intensive care services. These measures were considered to be discriminative and as dismissive of the heterogeneity among older population. While in [Chapter 2](#),

the opinion of those who condemned this as outright ageist has been presented, a counter argument put forth by some commentators may be considered as equally plausible. Avid geriatricians and spokespersons against ageism admitted that the measures taken to ration access could be considered as legitimate and had a clear rationale to avoid overcrowding of acute care hospitals which were already struggling and unable to cope with high patient surge. Also, these were intended to avoid hospitalization which may have resulted in a higher risk of an unpleasant death from respiratory distress syndrome.⁷ In a similar vein, others argued against ageism, but considered age as valid criterion when supported by facts which indicate a diminishing chance of survival of the aged patient. Age does matter in rationing when resources are scarce and when the intention is to save maximum number of lives. Also, chronic morbidities in old age compromise the efficacy of scarce acute care resources, and older age itself influences the response a patient is capable of making.⁸ Whatever be the ethical position one adopts, it is possible that ageist perspectives, among many other factors, might have led to neglect of care homes, resulting in overcrowded, underfunded and understaffed conditions, which in turn, predisposed older people to high infections and death during the pandemic.

The situation is improving after the first surge, with several governments like those in USA, Canada and Sweden admitting failure, and starting an enquiry into possible reasons for the tragedy. In November 2020, Sweden's Health and Social Care Inspectorate said there were "serious shortcomings" in older adult care. Among the cases reviewed, in only 6% of COVID-19 patients in nursing homes, doctors had physically examined the patient. The Swedish Prime minister admitted that the country failed to shield older adults.⁹

As a result of such revelations, internationally, there has been renewed interest in resolving long-pending issues of the LTC sector pertaining to quality, workforce and living conditions. But however negative be our portrayal of the care sector in [Chapter 3](#), it is difficult to dismiss the fact that these institutions have been caring for the aged despite underfunding and poor work conditions and helping in technological de-scaling, de-medicalizing of old age and supporting families in normal times. In July 2020, WHO released a policy brief on preventing and managing COVID-19 in LTC facilities and acknowledged the role of LTC workers in saving and protecting lives.¹⁰ On 23 July 2020, WHO issued a guidance on COVID-19 for the care of older people and people living in LTC facilities, other non-acute care facilities and home care providing general principles for infection prevention, community preparedness and self-care for wellbeing for older adults, families and caregivers.¹¹ In several countries, governments are also beginning to think about ways to reduce divisive measures and bring in more integrated methods to restructure LTC. Data, guidelines and policies are evolving at the global, national and regional levels. The UK government declared support package for care homes through Adult Social Care Infection Control Fund by Public Health England.¹² The Surveillance Report of COVID-19 in LTC facilities in the EU/EEA (European Union/European Economic Area) was released presenting a review of death cases that took place across facilities and guidelines

were issued on syndromic surveillance, data collection, testing procedures, staff health and safety.¹³ Revised admission and care protocols of care home residents during COVID-19 were published which called for mandatory testing of all residents prior to their admission to care homes and on discharge from hospital. Measures were suggested to expand outbreak testing to include all symptomatic residents, those discharged from hospital or interim care facilities to the care homes, and isolation of new residents admitted from the community. Also, online portals were recommended for use for daily monitoring, issuing test kits, consulting health protection team and for referral. The NHS “mutual aid” was advised to support care home professionals with specific equipment and training, e.g., appropriate use of PPE, and specialist advice for handling patients with cognitive impairments and those with end-of life care needs.¹⁴ The CQC also developed portals to answer general queries about equipment, food, regulation of homes and information, testing, hospital discharges, emergency support frameworks, etc. The BGS matched these efforts by publishing a practice guide termed COVID-19: Managing the COVID-19 pandemic in care homes for older people in March and November 2020. In USA, the CDC made recommendations to guide federal, state and local governments on tackling the virus in nursing homes and other LTC facilities through new tools for testing, guidelines for clinical care and infection control, use of telemedicine and staff management for protecting healthcare personnel, patients and community. Similar guidelines were made available by American Geriatrics Society.¹⁵ The Society also released policy briefs on COVID-19 in Nursing Homes and Assisted Living Facilities.¹⁶ Amidst concerns about architectural barriers to infection control, fresh suggestions were being considered for reconceptualizing them as less institutional and more home-like settings which could be accessible and affordable in comparison to existing nursing home models. The Green House Project in America which partners with senior living providers is drawing renewed interest in person-directed, relationship-rich living environments.¹⁷

As a result of such attempts, care homes are by and large, in a better position to face the crisis. But in some places, as in New York, despite strict visitation restrictions and improved testing of staff and residents, nursing homes are still vulnerable. Between 25 October and 29 November 2020, nursing home residents accounted for one-fourth of all COVID-19 fatalities state-wide, despite making up less than 0.5% of the population.¹⁸ The dilemma posed by continuing infections, though on a smaller scale, is compounded by the fact that during the first surge, the western discourse on improving care management for older adults as a method to combat the rising infections and fatalities had little empirical evidence in some LMICs where older adults despite living in poor shabby conditions fared reasonably well. In India, 51.2% of the mortality due to COVID-19 has been in people over 60 years of age, as reported by the Government of India on 30 April 2020.¹⁹ But there were no serious outbreaks reported in old age homes. It may be mentioned that the LTC sector is relatively underdeveloped and only a poor substitute of these exists in the form of old age homes which show little professionalization and medicalization. During the second wave, deaths per million

in India exceeded those in Western Europe and North America. However, the older population has not been as severely affected as in the West during the first surge. Evidence suggests that there is a sharp rise in the deaths in the age group of 30–49 years. In the second wave, India has been one of the most seriously impacted countries. The wave began in February–March 2021 and almost half the COVID deaths in India to date have occurred during the six weeks ending 6 June 2021. It also accounted for about a quarter of global and 90% of Asian COVID deaths during this period. This is also the first six-week period of the pandemic which saw a decline in the deaths in the age group of people above 60.²⁰ There are no data of sufficient quality to assess rigorously why COVID-19 outcomes among older adults have varied so significantly between countries, cities and regions. Also, it is not clear what accounts for the immense resilience of the older adults who have little social security, suffer from poor nutrition and stay in compromised housing conditions. However, this is not to dismiss the need to improve older adult care and resolve inequities faced by the older adults.

In western countries, the first wave drew attention to growing inequalities in the distribution of the SDoH which affected COVID outcomes, and concern was raised over enormous racial and ethnic disparities in death rates.^{21,22} In several countries, attempts are being made to redress the situation. Since inequities get accentuated with age, governments have been alerted to ensure that there are well-designed social policies to provide older adults' access to medical care, transportation networks, workplace safety and income security. In USA, many health systems are screening patients for non-medical but critical needs (e.g., food or housing insecurity), and are likewise collaborating with pharmacies as well as non-medical organizations like food banks and housing agencies to provide services.²³ Following the tragic deaths of George Floyd, Breonna Taylor and other Black Americans, many health systems have reaffirmed their commitment to combat health inequities by launching anti-racism and social justice focussed task forces. For example, 39 of USA's largest health systems pledged in September 2020 to address healthcare disparities and structural racism in their organizations.^{24,25,26}

Of all the transformative changes suggested and implemented, those in health delivery systems have been most impressive. Several governments, after the first surge, are trying to lessen the fragmentation with renewed attempts to strengthen and reconfigure primary healthcare which are expected to especially benefit community dwelling older persons. In many OECD countries, new responsibilities have been charted out for community pharmacists to minimize the number of medical consultations and allow doctors to focus on complex cases. In France, Ireland, Portugal, USA, Canada and Scotland, pharmacies are authorized to extend prescriptions and deliver medications at home, thus easing the sort of disruptions which elders faced during the first wave.²⁷

As discussed earlier, the problem of healthcare workforce was very serious during the first surge of the pandemic. In order to redress the problems of caregivers, WHO has introduced a range of measures which are likely to help an ageing society. These policy measures consolidate COVID-19 guidance for health managers and policy-makers at national, sub-national and facility levels to design,

manage and preserve the workforce necessary to support essential health services.²⁸ There have been suggestions to move away from fee-for-service or capitation payment-based traditional remuneration systems to add-on payments which remunerate specific activities and provide adequate compensation for primary healthcare providers. In several OECD countries, new Medicare benefits have been introduced, billing codes are expanded and reimbursement practices for PHC-teleconsultations are initiated.²⁹

The pandemic put importance on home and need for comprehensive home-based options for care. Home-based programmes have expanded in many countries like Canada, Spain and USA to improve access to care and alleviate pressure on hospitals. Hospital-at-Home has also picked up and expanded in many countries like France, Spain, Slovenia, USA, and this is a great help for safe and effective care of elders with chronic illness, non-severe COVID-19 conditions and for those who have overcome the acute phase of COVID-19 infection.^{30,31,32} The French government is converging the primary healthcare team with secondary care to organize hospital-at-home for COVID-19 patients in need of oxygen therapy and drug administration. Caring for dementia patients at home has been especially challenging during the pandemic. In 2019, ADI estimated that there were over 50 million people living with dementia globally, which is likely to increase to 152 million by 2050. In response to the COVID-19 outbreak, ADI has addressed the difficult problems and decisions related to hospital admission and triage, and has provided guidance to people with dementia, their families and carers.³³

One of the major health sector innovations concerns a greater push towards digitization. But despite apparent benefits, it continues to be a great challenge for older adults. In one post of MedCity Influencers program, it was reported that the average age of their patients was 79 years. Moderate or severe hearing loss was found among 30% of all the patients, while 20% were visually impaired and 25% had dementia. Fewer than half of the patients had a smart phone and were comfortable using one.³⁴ Many older people did not have any prior experience in the use of internet. In 2019, of the 4 million people in the UK who had never used the internet, 94% were aged 55 and over, 84% were over the age of 65 and 62% were over the age of 75. Given their unfamiliarity with these technologies, they need help and support. Unfortunately, things are not as bright as they need to be. There is still a bias towards developing technological solutions for the aged. This is illustrated by the fact that in UK when digital solutions were being awarded under the TechForce19 challenge³⁵ to help vulnerable and isolated people during the corona virus outbreak, out of 18 digital solutions, there was just one that specifically catered to older people, Just Checking—which concerns activity monitoring systems used by local authorities involved in social care to help with assessment of older people in their homes.³⁶

Among digital solutions, both older adults and clinicians continue to face barriers in adapting to the changes brought by Telemedicine. In a large, urban safety-net hospital network serving publicly-insured and low-income county residents, almost 60% of clinicians surveyed were uncomfortable with the diagnostic

safety of telephonic healthcare services and 35% about diagnosing patients via video, citing technical and logistical issues they have faced. Almost 35% and 40% mentioned the lack of internet facility and lack of access to video and phone services. Even when these technologies were available, problems due to language or knowledge barriers were mentioned by 40% of the clinicians surveyed, while 44% mentioned speech, hearing and cognitive barriers.³⁷ The issue of digital inclusion of older people, thus, remains a major challenge and it needs to be seen whether older adults would emerge as active users of technology or remain only passive recipients. In some places as in Rome, digital experts in collaboration with medical specialists are assessing the possibility of using Telehealth platform data to offer insights into predicting infection trends and guide preventive strategies. This can possibly complement traditional surveillance activities.

In several chapters, mention has been made of the marginal role played by Gerontologists and Geriatricians. Now, several national and international associations for Gerontology and Geriatrics are disseminating recommendations for protecting the older population, thus overcoming their marginal status. There is now a greater recognition of their role amidst concerns that the older adults who have survived the first wave would continue to require an augmented need for healthcare. Delays in elective surgeries and medical attention for existing health conditions have resulted in a disability debt—functional disability and psychosocial disorders and some have been exposed to a heightened risk of traumatic events, including falls. In other words, those who have not been infected are still more fragile, malnourished and more ill than during the pre-COVID-19 era, while the infected continue to encounter permanent disabilities including neuropsychiatric consequences.^{38,39}

A major feature since 2020 has been the development and roll out of several vaccines. Since April 2020, the ACT-Accelerator partnership launched by WHO and its partners has provided support to what has come to be seen as the fastest and most successful global effort in the history to accelerate development, production, and equitable access to tests, treatments and vaccines. Around 76 nations including Japan, Germany and Norway have committed themselves to joining a global COVID-19 vaccine allocation plan to help buy and fairly distribute the shots. COVID-19 Vaccines Global Access, abbreviated as COVAX, was founded in April 2020 with an aim to accelerate the development and manufacture of vaccines, and to guarantee fair and equitable access for every country in the world. (The) Strategic Advisory Group of Experts on Immunization (SAGE) was also formed in June 2020 to advise WHO on the allocation and prioritization of COVID-19 vaccines among countries. It assists in vaccine technology, research and development and delivery of immunization and its linkages with other health interventions. WHO SAGE Values Framework offers guidance to policy makers and expert advisors at the global, regional and national level.⁴⁰

Allaying fears about vaccine distribution among different population groups, it has been seen that globally, care home residents and older people have been amongst the first to be vaccinated. Data on vaccination by age show that as on

30 July 2021, most European countries have done fairly well. Among the 70–79 age group in Austria, around 85% were vaccinated. It was around 99% in Denmark and 84% and 89% in Italy and Israel, respectively.⁴¹ Unfortunately, the safety and efficacy in older people is not well established since these patient groups are usually excluded from clinical trials. Except for AstraZeneca, vaccine trials recruited few older people. Sparse data from the second phase of trial suggest a reduction in both antibody responses and mild to moderate adverse events in older people compared to younger participants. Many of the Phase III trials have deliberately recruited older adults. Pfizer and Moderna vaccine in their interim analysis made press releases announcing high degrees of efficacy. However, older people with comorbidities and frailty were largely excluded and there is inadequate evidence on safety and efficacy in this group.⁴²

Post-vaccination, several evidence claims and counter claims are emerging about the efficacy of the vaccines for older people. Reports from London suggest that although elder COVID-19 patients are being hospitalized and dying after having a first dose of Pfizer's or AstraZeneca's vaccines, they are very small in number and are mainly frail. Data presented to the UK's Scientific Advisory Group on Emergencies during April end 2021 and published online by SAGE in May 2021 showed that among just over 52,000 hospitalized COVID-19 patients studied, 526 had been vaccinated with a first dose of either the AstraZeneca or Pfizer shot at least three weeks earlier. Of those, 113 died.⁴³ Older people appear to be at more risk of catching infection again after recovering from a previous bout of the virus. While most people are unlikely to get the disease again for at least six months, older people are more prone to re-infection, as per results published in the *Lancet*. The study of test results in Denmark in 2020 showed that those below age 65 who had COVID were about 80% protected from getting it again. Protection dropped to 47% for those 65 and older. The authors of the study warned that those who have had the virus should still be vaccinated and that natural protection can't be relied upon, particularly for the aged, who are most at risk of severe disease.⁴⁴

Other real-world evidence shows that COVID-19 vaccine—AstraZeneca markedly reduced the likelihood of fatality, hospitalization and new infections caused by the disease even in older people. Between December 2020 and end of April 2021, a PHE study estimated that the vaccination programme in England had prevented at least 11,700 deaths in individuals aged 60 years or older. This included 9,900 deaths prevented in individuals aged 80 years and older, 1,500 in those aged 70 to 79 years and 300 in those aged 60–69 years.⁴⁵ Risk of hospitalization was also reduced. Up to the end of April 2021, at least 33,000 hospitalizations were prevented in those aged 65 years and older in England. The study included both the AstraZeneca and Pfizer-BioNTech vaccines. In a UK surveillance project, a single dose of AstraZeneca was 80% effective in averting hospitalization in older-old category of frail individuals with wide-ranging comorbidities. Data from the national surveillance system for COVID-19 hospitalizations in England between December 2020 and April 2021, showed that people aged 80 years and over who received a single dose of the AstraZeneca vaccine were 73% less likely

to be hospitalized and that vaccination is likely to reduce demand for intensive healthcare services for COVID-19 infection.⁴⁶ There were also reports from UK community surveillance study of the chance of infection being reduced by 65% for vaccinated individuals aged 16 years and older compared to those unvaccinated.⁴⁷ A single dose of AstraZeneca vaccine reduced the likelihood of COVID-19-related hospitalization by 94%, in a Scotland based large, national population-level study, where maximum vaccine recipients were over 65 years and the effects were comparable across all age groups.⁴⁸ The Italian Institute of Public Health reported a 90% reduction in risk of hospitalization across genders and all age groups at 35 days after vaccination with either AstraZeneca, Pfizer-BioNTech or Moderna vaccines. The chance of new hospitalizations was also reduced. Thus, though vaccines may still be considered as one of the most effective therapeutic interventions against infectious diseases, some researchers consider them to be less immunogenic in older adults than in young adults. The search for new vaccine formulations would need to address the factors that lead to decline in immune competence with ageing.^{49,50}

Apart from issues of vaccine efficacy, vaccine accessibility is also emerging as a cause for concern. In many parts of the world, even in high-income countries like USA, technological illiteracy is causing barriers. The New York Times emphasized the difficulties in obtaining COVID-19 vaccine for older people due to complicated online registration system. Seniors faced problems despite the city's Commissioner for the Department for the Ageing claiming that 290 participant organizations were making over 60,000 calls per week to older adults to let them know about the vaccine and help them schedule visits. Senior services complained that the vax systems were not sufficiently organized ahead of time nor help taken in distribution from the existing ageing services network whose remit is to reach the poorest, oldest and least capacitated people. Many older people had to turn to friends and family for support which created frustrating feelings of dependency; some missed out on the vaccine entirely.⁵¹ In Scotland, because of the failure to adapt the vax programme to the needs of older adults, thousands of vaccination slots in newly opened vaccination centres were vacant, with older patients unable to complete the bookings requiring a digital identification system. As a result, slots earmarked for them were passed on to younger patients. The Head of the Swedish Pensioners' Association expressed anger and disappointment for missed information about vax by Stockholmers aged 65.⁵²

COVID-19's impact on financial well-being has received less attention in comparison to health impacts, resulting in a neglect of issues related to the world of work. The pandemic has been threatening older peoples' jobs, retirement savings and pensions. Lockdowns and other restrictive measures to contain the pandemic have had a devastating impact on already weak labour markets, as well as on production and consumption patterns. In countries which have weak or absent social protection systems, large number of people have been left without an income.⁵³ Unemployment rates are high in many places and hours worked in all countries and regions are estimated by the ILO to have fallen dramatically by 10.7% in

the second quarter of 2020 relative to the last quarter of 2019, which is equivalent to 305 million full-time jobs (assuming a 48-hour working week).⁵⁴ In June 2020, UN and ILO expected that the income and employment impacts on older people would be large given that at a global level there has been an increasing participation of older people. The share of older persons in the labour force had increased by almost 10% in the past three decades due to economic compulsions: less than 20% of older persons of retirement age receive pension in several developing countries. Losing this option in the wake of the pandemic will lead to increases in old-age poverty.⁵⁵

Under such circumstances, the impact on older people is likely to be severe. Some older adults who are otherwise active and healthy are choosing to exit the workforce through retirement in order to avoid contracting the virus. In USA, unemployment rates are higher than the unemployment rates during the Great Depression.⁵⁶ There is also a concern that when unemployment situation stabilizes, older workers would be hardest hit in their attempt to re-enter the workforce to make up for lost income and retirement savings. The participation rate of men and women 65 years and older (with no disability) declined to 23.5% in April 2020, almost the lowest level since December 2014.⁵⁷ There is also an alternate scenario where some have a harder time re-entering the workforce.⁵⁸ Drawing on findings from a survey of more than 18,000 adults age 65 and older in 11 high-income countries, the 2021 International Health Policy Survey of Older Adults has revealed that COVID-19 has affected the economic security of older adults. Those in USA have suffered the most economically.⁵⁹ Data for USA suggests that as of July 2020, about 13% of people aged 65 and older (about 1.1 million people) have lost their jobs during the pandemic. Although unemployment rates for older people are somewhat higher than among those aged 30–64 years, among older people of Asian, Hispanic or Latino descent, there are high rates of job loss.⁶⁰ Re-entering the workforce may thus be affected by age discrimination and organizational need to cut budgets to survive and regain financial footing in the recovery period. According to ILO, around 68% of the world's total workforce, including 81% of employers, are currently living in countries with recommended or required workplace closures.⁶¹

Although it is not clearly known how retirement savings are affected by income loss and financial market declines, it may be assumed that they would be hard hit.⁶² As the situation improves after the second wave, efforts to modify workplace environments, policies and practices are going on. But in a new working environment, it is anticipated that employers with large applications may make hiring decisions which are ageist in nature and work to the disadvantage of older adults. To minimize the adverse impact of the crisis on workers and businesses, governments and international organizations have taken a range of measures for a more inclusive sustainable and resilient world. Over 170 countries, for example, have allocated a total of \$9 trillion to fiscal stimulus plans.⁶³

As we collectively struggle to build a new society after the disastrous first surge through these re-structuring efforts, we need to ensure that the models we choose

are rooted in older peoples' preferences. In other words, concepts, designs and implementation processes have to be closer to older people and their caregivers' needs. We need to ask: how do older adults experience and perceive care, what makes them feel safe and reduces suffering and what evokes feeling of trust/mistrust? Due to the poor handling of the situation during the first surge, there has been enormous loss of trust among older adults towards the very institutions that were designed to look after them. This has impeded, to a certain extent, cooperation in crisis response and recovery measures. In one meta-analysis using data from 27 countries, it was found that older people's compliance to preventive measures was no better than fellow citizens in their 50s and 60s.⁶⁴ This is, of course, a useful piece of research which could benefit from probes into possible reasons behind non-compliance. Understanding the subjective meanings and putting importance on human agency requires a phenomenological perspective which needs to be synthesized with quantitative approaches to develop a sustained approach to pandemic management. The multidimensional and interlocking nature of impacts centred around the older people—health, social relationship, family, education, work, career and migration—have proved once again that the need of the hour is to transcend the limitations of disciplinary and sectoral boundaries and allegiances to singular theoretical frameworks to comprehend the complex life-world of the aged. For instance, the emphasis on age cohorts in Lifecourse theoretical perspective is equally important for an understanding of pandemic impacts as Political Economy of Ageing emphasizing on power relations, ideologies and value systems that have affected decision making, service delivery, social policies and programmes during the outbreak. Nothing short of a radical reorganization is needed at all levels, including our relationship with the older population. Commenting on this, WHO Emergencies Chief made a call in September 2020 for rethinking our relationship with elders and urgency to see the needs of older generation as a rights issue—the right to be cared for, the right to social contract.⁶⁵

COVID-19 seems to have turned the hands of the clock back. It may be recalled that since a couple of decades, developments in medicine and public health had moved away from an infectious model of disease prevention to management of chronic conditions. Various programmes and recommendations by international organizations which have invited much criticism during present times, were positioned on this epidemiological transition which has accompanied demographic changes in high-income countries. With the present infectious outbreak, public health and other disciplines would need to again re-align goals with changing realities. In particular, the field of medicine is poised for greater transformations. There is no denial of the fact that life extension has been accompanied by prolonged suffering and decay, weak bodies and immune responses. The pandemic has just reminded us of the need to reprioritize the aims and aspirations of medicine by putting greater emphasis on care.

To conclude, the COVID-19 pandemic has been considerably tamed, but is far from over. Despite a better understanding of the disease, an observational study of COVID-affected patients aged 70 years and above admitted in 159 ICUs in

14 European countries, showed greater mortality in the second surge compared to the first.⁶⁶ Although more evidence is needed to understand these unexpected results, it nevertheless raises serious concern. There is a disturbing thought as coronavirus keeps mutating and different strains rapidly upset the gains achieved: what if we have, in our naivety, ignored our ontological inadequacy, overlooked biogenetic limits to the length of human life, and natural selection which works to the disadvantage of the weakest? As an ageing society continues to struggle with COVID-19, there is a sobering reminder of the presence of death and finitude of human existence.

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