

COVID-19 and Aging Populations

What Do We Know? What Can Be Expected Based on Evaluation Findings?

Independent Evaluation Group | March 1, 2021

Several key messages of the Independent Evaluation Group (IEG) evaluation of World Bank Support to Aging Countries acquire new resonance under the current COVID-19 pandemic. This note draws lessons on how societies can reallocate resources and rethink services to better meet the needs of their aging populations based on the emerging scientific and policy literature and the evaluation findings. (Because the pandemic happened as the evaluation was concluding, IEG did not collect primary data in this area but relied mostly on a desk review of the literature. This note is also published as an appendix to the IEG evaluation.)

Message 1

The elderly are disproportionately vulnerable; health systems must adapt and prepare for greater care needs with consideration for their population's age structure and chronic disease profile.

The IEG evaluation found that the World Bank helped client countries adapt their health systems to their changing demographic structure through projects aimed at improving primary health care. However, much work still needs to be done when it comes to addressing the specific needs of elderly populations and strengthening public health programs and health promotion and prevention policies that incentivize healthy behaviors for a healthier old age.

Older people are most at risk for severe illness and death from COVID-19. Globally, the case fatality rate for those under age 60 has been measured at 1.4 percent, jumping to 4.5 percent for those over 60 and 13.4 percent for those over 80. In general, the older the age cohort, the higher the fatality rate, though reported rates vary significantly by country (Cummings et al. 2020; Ferguson et al. 2020; McNeil Jr. 2020; Santessmasses et al. 2020; Verity et al. 2020;). In the United States, from February 12 through March 16 of 2020, according to the Centers for Disease Control and Prevention, the highest percentage of severe outcomes was among those ages 85 and older. Only 31 percent of total US cases over that time period occurred among those older than 65, but the 65+ age group made up 45 percent of hospitalizations, 53 percent of admissions to intensive care, and 80 percent of deaths (Garg et al. 2020; Resnick 2020). As of late November, in the United

States, people ages 75 to 84 were eight times more likely to have been hospitalized and 220 times more likely to have died due to COVID-19 than those ages 18 to 29; for those ages 85 and older, hospitalization is 13 times more likely, and death 630 times more likely (Centers for Disease Control and Prevention 2020). From August through mid-November, the same dynamic continued to hold across Europe, where 90 percent of COVID-related fatalities were among people over 60 (Douglas 2020). Richer countries tend to have older population age structures than poorer ones. This pattern helps explain the extent to which more economically developed countries have, thus far, suffered disproportionately from the pandemic (Economist 2020b).

The biological mechanism of COVID-19 infection has been shown to affect older people more severely than those in younger age cohorts. The scientific community's understanding of coronavirus is still evolving. It is commonly assumed, however, that immune system functioning declines with age, making older people more vulnerable to initial infection (Lloyd-Sherlock and Bachmann 2020). Furthermore, the gene expression of angiotensin-converting enzyme 2 (ACE2), the SARS-CoV-2 receptor, has been found to grow in the lung with age (with the exception of subjects on a ventilator; Santessmasses et al. 2020; Koff and Williams 2020). In addition, after an infection sets in, the antibodies created naturally by the body can go into overdrive, causing white blood cells to produce molecules called cytokines. The resulting "cytokine storm" may impact one person severely and another hardly at all, but in many older people it promotes an acute inflammatory response—basically, an overreaction to the virus—attacking the lungs and causing acute respiratory distress syndrome, low blood pressure, circulation collapse, and multiorgan failure (Begley 2020).

The prevalence of risk factors and co-morbidities associated with increased severity of illness and death from COVID-19 increases with age. Preexisting high blood pressure, obesity, and diabetes appear to increase the severity of illness and risk of requiring hospitalization; similar but weaker effects are noted for heart disease, kidney disease, and chronic respiratory illnesses (Garg et al. 2020; Jordan and Adab 2020; Kluge et al. 2020; Wang et al. 2020;). A study of hospitalized patients in New York between March 1 and April 4 found that nearly all hospitalized COVID-19 patients had at least one major chronic health condition, and 88 percent had at least two (Rabin 2020). Only 6 percent had no underlying comorbidity. Of the 105 patients in Italy who had died by March 5, two-thirds had three or more preexisting conditions (Irfan and Belluz 2020). These co-morbidities are more prevalent among the elderly (Aranco and Garcia forthcoming), and some studies suggest that comorbidity factors—especially obesity—are even more powerful than age as predictors of complications and death among COVID-19 patients (Christensen 2020; Gjerstad and Molle 2020). Some evidence is emerging that the age-mortality curve is flatter in developing countries due to residential crowding, labor informality, higher prevalence of preexisting conditions, and more

limited access to hospital intensive care (Chauvin, Fowler, and Herrera 2020). There is also emerging evidence of longer-term health damage faced by COVID-19 survivors. Permanent effects have already been observed to the lungs, heart, liver, kidneys, and other organs. It is unclear how these effects will interact with existing health conditions in older patients.

Older women appear to be less severely medically impacted by COVID-19 than older men. In the New York study, fewer women were hospitalized, and of those that were, survival was more likely. Age increased the risk of dying for all patients, but that risk “climbed faster and higher for men” (Rabin 2020). The reasons for this sex differential are not yet well understood, though one study suggests that variation between men and women in the number of cytokine-producing cells may be partly responsible (Begley 2020).

Age-related considerations have presented policy makers, health care providers, and regulators with difficult ethical challenges. Human rights concerns emerged early in the pandemic. The imperative for triage in some health systems overloaded with COVID-19 patients has led to ethically controversial calls for automatically excluding some patients from care based on age (Coker 2020; D’Cruz and Banerjee 2020; Summers 2020; United Nations 2020). Some government strategies for managing the pandemic have implicitly devalued the lives of older persons, favoring keeping economies open over the safety of vulnerable elderly populations (Donnelly 2020). At least 48 countries have adopted discriminatory age-based measures that maintain restrictions only for those over a set age threshold as their economies reopen, even in moderate- and low-risk areas for COVID-19 (Sleep 2020). As coronavirus vaccines start to become available, countries are faced with politically charged decisions about prioritizing scarce vaccine access for the elderly. A focus on mortality reduction would prioritize older adults, but an immediate goal of slowing transmission of the virus would put younger adults at the front of the line (Neimark 2020).

Overall, COVID-19 presents a unique set of age-related challenges to health care systems and providers. A growing body of evidence suggests that presentation of COVID-19 symptoms may vary by age, with older patients exhibiting delirium, falls, fatigue, lethargy, low blood pressure, among other issues, in addition to—or even instead of—the standard markers like fever, dry cough, and shortness of breath (Graham 2020). Furthermore, age-related decline in ability to fight infection means that, even with development of an effective vaccine, older adults may not be able to mount a strong immune response; effective countermeasures to the COVID-19 pandemic must also find ways to improve the immune function of the elderly (American Federation for Aging Research 2020). Vaccine developers have recognized these issues of age-related immunosenescence (the gradual deterioration of the immune system as individuals get older) and frailty by conducting clinical trials specifically among the elderly (Andrew and McElhaney 2020; Mahase 2020).

The evaluation found, however, that too many health systems still fail to invest adequately and effectively in measures that could prevent and manage obesity, high blood pressure and diabetes—risk factors that increase with age and have been associated with increased severity of illness and death from COVID-19. More emphasis on prevention, promotion of healthy behaviors, and increased use and access to primary care would help people age healthier and address these conditions when they're younger, which would make them less vulnerable as they age, keep them out of hospitals (or hospitalized for shorter periods of time), decrease their exposure to infectious diseases like COVID-19 and improve their overall well-being.

Message 2

Loneliness and other mental health challenges are common among the elderly—as discussed by the IEG evaluation. COVID-19-driven physical distancing measures have unique and disproportionate impacts on older adults. Health and social support systems must anticipate these needs and respond.

Older people may suffer disproportionately large impacts from isolation and physical distancing measures put in place to prevent the spread of coronavirus. A host of demographic factors, including families having fewer children, an increase in childlessness, and young adult migration to urban areas, have increased the extent to which aging parents no longer live near adult children and grandchildren. Even when family members live nearby, older people, especially older women, increasingly reside alone (National Institute on Aging 2007; United Nations 2020). Separation from loved ones and caregivers who cannot visit regularly under physical distancing restrictions can lead to or exacerbate prior patterns of loneliness and depression. Confinement and the resulting disruption of regular routines and social support networks add to this tension. Regular places of socialization, including parks, neighborhoods, community meetings, places of worship, and day centers, may have become suddenly inaccessible. Older people who live with their families may be relatively better off in this respect, but younger family members may also shoulder additional strains during the pandemic and therefore lack sufficient time or resources to devote to elder care (Girdhar, Srivastava, and Sethi 2020). Physically separated family and friends are increasingly relying on video connections to maintain social relationships, but older people are less likely to take advantage of such avenues for socialization; in the United States, the share of people reporting in late March 2020 that they had used an internet-connected device to talk by video with others over the previous two weeks was 71 percent for those ages 30–49, but only 38 percent for those over age 65 (Cubanski 2020). Overall, mental health conditions are often underdiagnosed and under-treated among older adults, and social and psychological isolation among the elderly during the

pandemic can contribute to worsening mental health, though there is some emerging evidence that from a mental health perspective, older adults have been more resilient during the pandemic than other age groups (El Hayek et al. 2020; Vahia, Jeste, and Reynolds 2020).

Stress related specifically to COVID-19's disproportionate physical health impact on the elderly and their status as high-risk individuals may cause additional anxieties, especially if they are exposed repeatedly to disturbing news about the pandemic, or if friends or family have fallen ill or died (Lee, Jeong, and Yim 2020; Moutier 2020). Where older people live together with younger family members, it may be necessary to implement physical distancing within households to prevent the spread of infection to those of more vulnerable age, causing inconvenience and added stressors; this is particularly challenging in low and middle-income countries, where living conditions are often cramped and overcrowded (Lloyd-Sherlock et al. 2020b; United Nations 2020). Older people may experience fear of contracting the infection, fear of quarantine or hospitalization, fear of abuse by caregivers (in home or residential facility settings), or fear of being isolated in a health facility after becoming infected or ill. Calls to helplines from older people reporting domestic abuse during quarantine have increased in multiple countries (Sleep 2020).

Older people's physical health may be disproportionately affected by nonclinical interactions between comorbid conditions and COVID-19, driven in part by isolation. Isolation may make older adults less likely to access medical care for chronic conditions, adhere to prescribed regimens of medication, or seek help for non-COVID-19-related acute health problems that may arise (Khim 2020). Constraints on older people's ability to engage in physical exercise are particularly noteworthy, given that people in older age cohorts may be expected to continue to self-isolate even as lockdown measures are relaxed. Evidence is mounting of increased illness and death due to conditions other than COVID-19 because people are reluctant to access health services, or because those services have become less available (Center for Infectious Disease Research and Policy 2020; Kaiser Family Foundation 2020; Lloyd-Sherlock and Bachmann 2020). One account referred to these excess deaths as a result of people being "not COVID positive, but COVID phobic"; another called coronavirus a "virus of fear" because of the number of people who are dying at home due to reluctance to seek formal medical care (McFarling 2020). Health systems face the challenge of helping older people access treatment and medications for non-COVID-19 conditions, including management of chronic disease, without exposing them to the risk of infection in health facilities.

Food security and access to essential medications is a particular concern for isolated older persons. For those elderly who live alone, home and community services have likely been disrupted. Public agencies (senior centers and food banks) and service providers who deliver meals and

other goods may be experiencing interrupted or reduced operations. Older people may have limited funds or transportation options to access alternative suppliers. Food insecurity also heightens health risks, especially for older adults, many of whom require special diets to maintain their general health (Bencivenga, Rengo, and Varricchi 2020; Goger 2020).

Older people may face challenges obtaining accurate information about ways to protect themselves from COVID-19 and access relevant services. These challenges may include age-related cognitive limitations, language barriers for speakers of minority languages, illiteracy, or technological issues. Many older people rely disproportionately on television, newspapers, and even radio as their primary sources of information (Zhang and Song 2020). A study of people over age 60 living by themselves in Minas Gerais, Brazil, found that being male, being 80 years of age or older, and having fewer years of schooling were associated with having less knowledge about COVID-19 preventive measures (Tavares et al. 2020). Effective pandemic-related communication with older people requires clear messaging, pitched carefully to their level of understanding and technological sophistication, delivered through channels easily accessible to them. The elderly are also disproportionately vulnerable to online counterfeits and scams; the US Food and Drug Administration has warned, for example, about fake online pharmacies claiming to sell prescription medicines at discounted prices (Alliance for Aging Research 2020).

As the internet and digital technologies become a primary channel for connection with family, friends, and essential services under pandemic-related restrictions on physical interaction, many older people are at risk of exclusion. As the pandemic has continued, several studies have demonstrated that the use of technology to maintain social connections has helped some older adults withstand strains on mental health (McLean Hospital 2020). In the United States, however, one-third of adults over age 65 say they have never used the internet, and half do not have home broadband services. In the United Kingdom, more than half the adults who have never used the internet are age 75 or older (Cubanski 2020; United Nations 2020). The technological challenges for older people are even more pronounced in less developed countries. This age-related digital gap puts older people at disadvantage as online shopping, telemedicine, and the use of technology for social engagement and even facilitation of physical activity become increasingly important (Vahia et al. 2020). Even in situations where telehealth visits can be established, older patients may require monitoring via specific equipment such as blood pressure cuffs, heart rate monitors, and pulse oximeters; distribution and training patients on the use of these devices presents another set of challenges.

Message 3

COVID-19 exposed multiple weaknesses of facility-based long-term care—including issues of service quality, government regulator and stewardship roles, and elder abuse—and calls for improved approaches that the World Bank needs to internalize. The IEG evaluation noted that aging countries need to start planning for the rapidly increasing care needs of their population. Older people have specific social vulnerabilities and care needs that, depending on their living conditions, may be intensified by COVID-19 and require special attention from caregivers.

Many long-term care (LTC) facilities, few of which were intended to provide care or treatment for something like COVID-19, have become incubators of coronavirus infection. Even before COVID-19, infection control was a problem for LTC facilities; an estimated 1.6 million to 3.8 million infections have occurred annually in the 16,000 nursing homes in the United States alone (Pyrek 2017). Studies of care homes in the United Kingdom have shown that respiratory tract infection outbreaks have been more frequent than other types of infections and have spread more quickly across resident populations (Kishkouei, Abel, and Pilbeam 2020). However, LTC facilities are neither designed nor equipped to treat patients with moderate to severe respiratory infection or COVID-19. Their staff are not trained in this area. They do not have the necessary equipment, including personal protective gear, or the physical capacity to isolate patients properly (Gardner, States, and Bagley 2020; Lai et al. 2020). In low- and middle-income countries, LTC facilities are often unregulated, even operating on the fringes of legality, and often provide care of suboptimal quality (Lloyd-Sherlock et al. 2020b; Redondo 2020). Their access to information and resources related to infection control and pandemic response is limited. Nevertheless, as COVID-19 has swept through some LTC facilities, and the surge has overloaded local hospital capacities, some LTC institutions have had to provide palliative care to COVID-19 patients for whom hospital beds have not been available, or who have chosen not to transfer to a hospital. In the United States, as of June 2020, 11 percent of all reported COVID-19 cases and more than 43 percent of fatalities were linked to LTC facilities; in 24 states, a majority of deaths were in or associated with nursing homes (Conlen et al. 2020). As of November 2020, more than 100,000 residents and staff in United States LTC facilities had died of COVID-19, representing 40 percent of all COVID-19 deaths (Chidambaram, Garfield, and Neuman 2020). A Brazilian study estimated that 44.7 percent of all COVID-related deaths in that country, totaling over 107,000 people, would occur in care homes in 2020 (Machado et al. 2020). The emergence of LTC institutions as COVID-19 “hot spots” has placed their residents and staff at the top of most priority lists as vaccines become available. Some regulators, however, have raised concerns about the lack of clinical trial data specifically for people who are in LTC; LTC residents have a high rate of medical events under any circumstances, but if these events are per-

ceived as side effects from vaccination, overall confidence in the vaccines could be undermined (Branswell 2020).

Maintaining adequate staffing in LTCs during the COVID-19 pandemic is uniquely challenging. Staff are at high risk when those under their care become infected with coronavirus. Many of these low-paid staff work at more than one facility, creating cross-contamination. If workers become infected, they must be quarantined. They face heightened stress, anxiety, and other mental health challenges due to the pandemic. Some staff members may refuse to continue reporting for their shifts for fear of becoming ill. Others have parenting or other caregiving responsibilities at home that may prevent them from coming to work. The staffing shortages resulting from all of these factors may produce declining levels of care for residents, further raising the risk of spread of infection or neglect of non-COVID-related needs (Sedensky and Condon 2020).

Residents of LTC facilities may present heightened care needs during the pandemic. Older people who were already experiencing cognitive decline or dementia, or who were highly care-dependent, may become more “anxious, angry, stressed, agitated, and withdrawn” during isolation (United Nations 2020). Residents may be distraught or confused about changes in visitation or by the sudden and ubiquitous wearing of masks among staff. Facility policies on visitation and care face the challenge of balancing the protection of residents with the need for social connection with family and loved ones. Restrictions on visitation may present a “medical problem in its own right” due to residents’ feelings of abandonment and confusion, and concomitant depression, weight loss, or disruptive behavior (Gardner, States, and Bagley 2020).

LTC facilities are now faced with the immediate task of enhancing infection control procedures to cope with the pandemic, and government regulators must respond to intensified needs for control. These measures include designation and training of additional infection control officers; enhancing training and equipment for hand hygiene (including hand sanitizers) and use of barrier precautions and personal protective equipment (gloves, gowns, and masks); increased and more intensive disinfection of surfaces; limitations on staff entry and reentry, including nurses and aides working across a number of locations; and provisions for physical isolation of potentially infected residents and staff (Crotty, Watson, and Lim 2020; Koshkouei, Abel, and Pilbeam 2020).

The World Bank has drawn lessons from the immediate crisis in LTC with an eye toward longer-term strengthening of social and elderly care systems and a focus on the important role of the state. It has highlighted, for instance, the needs to strengthen the health and safety of the social and aged care systems for the frail elderly and for persons with disabilities; to improve government stewardship of the care market; and to use technological solutions to ensure continuity of

care and combat isolation (Rutkowski 2020). An analytic note reviews measures that have been taken internationally in the areas of prevention, control, resources, coordination, management, reporting, communication, and planning to safeguard the elderly living in residential facilities during COVID-19, with specific attention to implications for Malaysia having to do with strengthening of cross-sectoral linkages, resource mobilization, clarity of guidelines and procedures, and capacity development (World Bank 2020). Such measures are particularly important in developing countries, where LTC facilities are predominantly operated by the private sector, and many remain inadequately covered by coherent, coordinated regulation and quality assurance (Lloyd-Sherlock et al. 2020).

Message 4

The economic impact of the COVID-19 pandemic will reverberate for a long time. In particular, the negative impact for pension systems and implications for those who need to collect their pensions soon should not be underestimated. The IEG evaluation underscored that many aging countries have labor markets with a significant share of workers who are in informal and precarious jobs or have intermittent work histories (such as women), and therefore unable to save for later in life. Ensuring coverage and adequacy of pensions will require promoting longer working lives, incentivizing private savings but also establishing social assistance and noncontributory pensions to complement traditional contributory pension systems. COVID-19 will further disrupt pension accumulation and likely widen economic inequalities.

Older adults are particularly vulnerable to the economic impacts of the COVID-19 pandemic. Because the risk of severe illness from the disease increases with age, older workers may experience a relatively large incidence of pandemic-related sick leave compared with younger age groups. This was the case in the United States from January through September 2020, with the greatest losses at the lower end of the occupational earnings distribution (building and grounds cleaning and maintenance, food service, and personal care services) (Li 2020). Pandemic-related shutdowns have forced businesses to close and lay off workers, reducing tax revenues and shrinking public finances. A HelpAge India survey of over 5,000 people age 60 and above in 17 states and four Union Territories of India, for example, found that 65 percent had experienced income loss due to lockdown during the first half of 2020 (HelpAge India 2020). As financial markets around the world contract, aging investors are financially vulnerable if the pandemic leads to a sustained drop in their income and retirement savings (Neuman and Koma 2020). Older adults with savings in stocks or other volatile investments have fewer years than younger counterparts to recover lost savings after this economic downturn, and their retirement funds are more likely to be negatively

impacted. In addition, older workers who lose their jobs as a result of business shutdowns—especially the large number of elderly workers in informal, temporary, irregular jobs—may have a more difficult time than their younger counterparts finding alternative or replacement employment, especially at their previous level of pay. Many may be forced to collect public pension payments at an earlier age than they had planned, to offset lost wage earnings, but this may (depending on the structure of the pension scheme) result in lower benefit payments for the rest of their lives. Many may turn to jobs with unsafe working conditions and inadequate infection control procedures. Retirees may have more difficulty accessing emergency financial protection schemes if those measures target current workers, or if they require the use of bank accounts for depositing payments. All of these problems are exacerbated in developing countries with higher levels of informality.

COVID-19's unprecedented stress on local and national economies may impact the sustainability of public pension plans. Reductions in tax revenue have pushed public pension plans in many countries and localities to low funding levels even as demand for health, welfare, and public safety services have increased, "requiring more government resources at a time when states and localities can ill afford it" (Biggs and Norcross 2020). The World Bank has highlighted four key policy questions for governments dealing with the pandemic's impact on pension systems: how to alleviate the impact of a sharp drop in returns on financial assets; how to provide immediate support to pensioners; whether or not to maintain pension contributions in the immediate term; and whether or not to use pension savings to support younger workers (Rutkowski and Mora 2020). Questions around the sustainability of public pension schemes have increased anxiety among the elderly about future benefits. In Argentina, for example, an announcement in early April that banks would temporarily reopen for just a few hours to enable pensioners to collect benefits resulted in long queues, exposing older people to coronavirus infection among those crowds (Redondo 2020).

Message 5

The COVID-19 pandemic magnifies existing inequalities, including those related to gender. Older women may be experiencing lower mortality rates directly from COVID-19, but they are more exposed along other dimensions. Caregivers are mostly women, most often working in low-paid, informal, or nonpaid capacities. Younger women are particularly impacted from a socioeconomic perspective and due to existing gender norms. These consequences carry across women's entire lifetimes, into their older years. The IEG evaluation highlighted that population aging unevenly impacts different groups of people. Women in particular are negatively impacted because of vulnerabilities that COVID-19 has deepened even further.

Older women are disproportionately vulnerable to the social risks COVID-19 presents to older adults. On average, women live longer than men. Older women are therefore more likely to live alone than older men, less likely to be cared for by a coresident family member as they lose the capacity to care for themselves, and more likely to become resident of a care home. As a result, older women are at heightened risk of isolation and loneliness during pandemic-related restrictions on mobility and social interaction. They also have less access to the technologies commonly being used to replace face-to-face interactions during government-mandated lockdowns.

The COVID-19 pandemic exacerbates multiple dimensions of women's economic vulnerability across their life spans. Women are already more likely than men to be in jobs with lower pay and less security, and less likely to have access to financial tools such as credit and banking. In contrast to other recent financial crises (such as the 2008 financial crisis that hit construction and manufacturing hardest), COVID-19-related confinement and distancing measures are disproportionately impacting female-dominated industries, including retail, hospitality, travel/tourism, and food/beverage services. Over the longer term, women's employment in industries farther down the supply chain, especially the garment industry, may be slow to recover (Queisser, Adema, and Clarke 2020). Women also make up about two-thirds of the health workforce worldwide, affecting them differently depending on their specific circumstance: those directly involved with COVID-19 patient care are considered to be essential workers and therefore face long work hours, child care challenges in an environment where many day cares have closed, and ongoing risk of infection; many more not directly involved with pandemic-related health care are experiencing job loss due to contraction in demand for nonessential health services (Torry and Evans 2020). Job disruption and loss among younger women during the pandemic affects not only their current earnings but also their savings and pension contributions and therefore their longer-term financial security as they reach old age.

Women's health is negatively affected by COVID-19. As governments and health systems reallocate policy priority and resources to addressing the immediate needs of the pandemic, other health care needs, including sexual, reproductive, and maternal health, may become marginalized (United Nations 2020). Furthermore, isolation measures are increasing reported incidence of gender-based violence, as women may be confined in the same spaces with their abusers, and support services for survivors are disrupted or inaccessible.

The COVID-19 pandemic may stall or reverse hard-won progress on gender roles. Women already bear disproportionate responsibility for child and family care and household upkeep. With school closures forcing many families into unexpected round-the-clock childcare and home schooling tasks, as well as possible increased needs for elder care, women's hours spent on this unpaid

labor are increasing, already leading many to exit the paid labor force (Grown and Sánchez-Páramo 2020). High levels of informality had rendered women's unpaid labor relatively invisible in the developing world even prior to the pandemic, taking a toll on their economic, physical, and emotional health (Menon 2021). Unless caregiving occupies a central role in plans for social and economic recovery from COVID-19, it is not an exaggeration to speculate that "across the world, women's independence will be a silent victim of the pandemic" (Lewis 2020; see also Gates 2020).

Challenges related to LTC disproportionately impact women. Women are highly overrepresented among those who provide both paid and unpaid care for older adults, "often under inadequate and exploitative conditions" (UN Women 2017). The unpaid care work done by women—including the "spouses, daughters, or daughters-in-law who form the backbone of all LTC systems"—is enormous, valued for the United Kingdom alone, when calculated at market rates, at over \$70 billion in 2014 (UN Women 2017). Many of these unpaid caregivers experience socioeconomic stress as they cut back on paid work to tend to family members. The paid LTC workforce encompasses a wide variety of circumstances, from domestic workers with no formal training to highly skilled geriatric professionals employed in hospitals and LTC facilities. Across this spectrum of skill, status, and remuneration, women account for the majority of personnel, making up 90 percent of the workforce in OECD countries (OECD 2020). Many caregivers are themselves elderly. Under pandemic conditions, these women face compounding challenges and risks, including to their physical health; in the United States, as of early May, one-third of all COVID-19 deaths have been among nursing home residents or workers (Yourish et al. 2020).

Message 6

The COVID-19 pandemic highlights the importance of data for better preparedness. Data gaps complicate country responses and planning. The IEG evaluation highlighted important gaps in available data on the health and overall well-being of older people, especially in developing countries. The evidence on the links between aging and health is especially thin on: (i) the determinants of healthy aging; (ii) the evolution of health and functionality as people age; (iii) the changes in health inequalities among older adults over time and across and within countries; and (iv) the needs and preferences of older adults regarding health care and LTC services. More granular and specialized data are needed on disability, functional dependency, cognitive status, mental health, and use of health care services. The World Bank has a role to play to improve collection, standardization, access, and use of these data to support countries to better plan for population aging, including responding to health emergencies like the current pandemic.

Although some data collection efforts are ongoing, there are significant holes and inconsistencies in the available information on aging adults' experiences during the pandemic and the multiple, intersectional impacts of the pandemic on aging populations. The impact of coronavirus on older people's physical and psychological health, on delivery of geriatric health care and social services, and on survivors' health in the longer term is far from well understood (OpenSAFELY Collaborative 2020). Data on the pandemic's social and economic effects should be disaggregated by age so that the specific impact on older adults can be analyzed. It will also be important to collect behavioral data on how older populations have complied and coped with lockdown and physical distancing requirements, and what health care services they have foregone (Lawson 2020).

Data gaps are particularly pronounced in LTC facilities. For a variety of reasons, many COVID-19 deaths in care homes have gone unreported (Economist 2020a). Key data collection efforts will center around LTC facilities' infection control and preparedness efforts before, during, and after the pandemic, including patterns of physical access and staffing, availability and accuracy of coronavirus testing, communications with residents and families, and interactions with health and regulatory authorities.

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