



# The Aging Readiness & Competitiveness Report 2021

## Enabling Innovation for Healthcare and Wellness

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# Table of Contents

<b>Executive summary</b>	<b>3</b>
<b>I. Introduction</b>	<b>7</b>
<b>II. Innovations and pioneering practices</b>	<b>11</b>
A. Ensuring access to healthcare services for all older adults	<b>11</b>
B. Strengthening long-term care provision and support for caregivers	<b>16</b>
C. Supporting aging in place through community-centered care	<b>20</b>
D. Caring for older adults in crisis settings	<b>22</b>
<b>III. Enabling environment, replication and scale</b>	<b>26</b>
A. All stakeholders have a role to play	<b>26</b>
B. Stakeholder collaboration is essential: breaking down silos drives innovation	<b>28</b>
C. Socioeconomic context as an important mediator	<b>30</b>
D. Legal and policy environments undergird innovation	<b>31</b>
E. Facilitating replication and scaling of innovations and pioneering practices	<b>33</b>
<b>IV. Call to action</b>	<b>36</b>
<b>Appendix I. Methodology</b>	<b>40</b>
<b>Appendix II. Select innovations</b>	<b>41</b>
<b>References</b>	<b>63</b>
<b>Acknowledgements</b>	<b>71</b>

# Executive Summary

As the world enters the UN's Decade of Healthy Ageing, amid global covid-19 vaccination efforts, the need to increase support for the wellbeing of older adults has never been so clear. Older people comprise a growing share of the global population. This trend will persist over the coming decades, and not just in high-income countries. By 2050 an estimated 80% of older adults will be living in low- and middle-income countries. Yet disparities for older adults are ubiquitous, with fundamental gaps in the ability of global health systems to protect and provide care for them. Even in the highest-performing systems, older adults still face barriers accessing care. Marginalization based on features like class, race, ethnicity, sexual orientation and ability further exacerbate unequal access. The covid-19 crisis has publicly exposed vulnerabilities in health systems' capacity to serve older people while intensifying disparities.

Given the renewed focus on older adults kindled by these failures during the pandemic, there is a unique opportunity to reimagine existing paradigms and develop innovative approaches to promote healthy aging. Another driving force comes from efforts like the Decade of Healthy Ageing (2021-30), established by the UN in December 2020 with the goal of improving "the lives of older people, their families, and the communities in which they live".

Seizing on this moment, The Aging Readiness and Competitiveness (ARC) initiative 3.0—developed by Economist Impact (formerly The Economist Intelligence Unit) and AARP—has explored challenges in healthy aging and solutions developed to address them.<sup>1</sup> First launched in 2017, ARC aims to provoke a rethinking of older adults' roles in communities and economies and prompt innovative action from governments, firms, civil society and other stakeholders to enable more independent, engaged and productive older populations. Building on the previous work under the health and wellness pillar of the ARC initiative—one of four categories—this report centers on key challenges and policy trends around health and wellness identified in those previous studies, taking a pragmatic stance toward improving the future of healthy aging.

Through an extensive literature review and expert interviews, this report:



Highlights innovations from diverse geographic, economic and social contexts that are emblematic of broader trends and promise a healthier and more equitable future for older adults around the world.



Examines the elements that enable innovation and scale-up and provides actionable insights for stakeholders seeking to promote and support healthy aging.



Shares early lessons and experiences from the covid-19 pandemic, which have broader implications for crisis response in general.

## Enabling Innovation for Healthcare and Wellness

Innovative and pioneering practices are imperative to address current and future challenges in supporting adults as they age. Four key issue areas have been identified based on findings from previous ARC studies and interviews with experts, highlighting selected innovations developed to make progress in each of the following domains:

### Ensuring access to healthcare services for all older adults

Years of inadequate planning and allocation of resources, alongside fragmented health systems, have resulted in limited access to quality health services for older adults, particularly in less developed countries and rural areas. Outdated models of care and a global lack of healthcare providers for older adults are two of the greatest challenges health systems face. Innovations have emerged to improve access by redesigning health systems to place more emphasis on preventive care and chronic care pathways, as in Singapore's aging-friendly health system. In regions with greater challenges providing healthcare in rural areas, pioneering practices have increased training for and the spread of primary care providers and geriatric specialists. Still others, like Kaaro Health in Uganda, focus on deploying technology to improve rural health access through telehealth.

### Strengthening long-term care (LTC) provision and support for caregivers

Globally, only 6% of older adults live in countries with no coverage deficits in LTC based on national legislation—with family carers taking on a greater share of the caregiving responsibility. To expand access to professional LTC services, countries are undertaking national-level policy reform, such as in Uruguay, as well as targeted training programs to increase the LTC workforce, as seen in China. Reducing the family caregiving burden is also a top priority for many countries which are undertaking a variety of efforts to address this challenge. Interesting practices have emerged through reforms such as those in the UK, where integrated financing is used to support carers' wellbeing.

### Supporting aging in place through community-centered care

As older adults continue aging in place (referring to the ability to remain living in one's home or community as long as possible), existing structures to support this desire are overwhelmed or even nonexistent. Aging in place is further complicated by changing migration patterns and norms of caring for a parent or loved one. To support aging in place, stakeholders have developed intergenerational community-centered care in the form of outreach and self-help in Vietnam, as well as neighborhood centers in Croatia to ensure all physical, mental and social needs are met. Technology also improves the ability to age in place through novel monitoring and diagnostic tools and maintains high-quality care through practices like hospital-at-home, which allows older adults to receive hospital-level services in the comfort of their home.

### Caring for older adults in crisis settings

As the covid-19 pandemic has shown, older adults are among the most vulnerable during natural disasters, humanitarian crises and disease outbreaks. Crisis response tends to overlook this population, which is at higher risk of adverse health outcomes, gender-based violence and elder abuse. To adequately care for older adults in such times, stakeholders have established partnerships for volunteer response programs in the UK and Peru. In Ireland, social workers have developed novel guidelines to support mental and social health, while other stakeholders have adapted existing programs to respond to the most immediate needs of older adults.

## Enabling Innovation for Healthcare and Wellness

In addition to understanding the challenges that innovations and leading practices seek to address, it is also important to unravel how they came to be. Examining the enabling environments revealed key elements that facilitate the creation, replication and scale-up of these innovations and practices:

### All stakeholders have a role to play

Building on their respective strengths, stakeholders—whether from the public, private or “third” (ie, civil society and advocacy) sector—can support healthy aging. National and subnational governments are particularly instrumental, but healthcare and academic institutions are critical for implementation and research. The third sector is uniquely versatile, while the private sector offers dynamism and means to scale.

### Breaking down silos drives innovation

Many actors play roles in the lives of older adults. Finding common interest within and between these stakeholder groups is pivotal for innovation, knowledge-sharing and implementation.

### Socioeconomic context is an important mediator

This aspect mediates specific roles that different actors play, with private sector firms more active in innovation in high-income countries, for instance. In addition, resource-constrained environments can lead to creative uses of what is available, but this cannot substitute for systematic expansions in access to care.

### Legal and policy environments undergird innovation and pioneering practice

There is frequently a direct line between legislation around the protection or care of older adults and innovations that follow. Even when this relationship is less direct, the legal and policy environment serves as an important influence on the types and forms of innovations that emerge.

### Top-down and bottom-up processes facilitate replication and scaling of innovations and pioneering practices

Knowledge-sharing and networks drive bottom-up and top-down efforts to replicate and scale innovations, although innovations must be adaptable. Governments play a uniquely important role in this process.

Improved understanding of innovations and their enabling environments are valuable for innovators and policymakers, but this understanding is meaningless without actions. Progress on the Decade of Healthy Ageing and Sustainable Development Goal (SDG) 3 to ensure healthy lives and promote wellbeing for all at all ages requires ongoing global commitment, but more can be done to ensure this commitment leads to impact.



## Enabling Innovation for Healthcare and Wellness

A whole-of-society approach is imperative for promoting innovation throughout the life course. Understanding the need for social inclusion and engagement with community, innovations that focus on the interconnected nature of mental health, physical health, and the social determinants of health are likely to result in the greatest impact. Engaging the most important stakeholders, older adults, is paramount for establishing innovative practices with a common vision among all stakeholders that meet this population's needs. While efforts to improve the lives of older adults continue, ongoing, focused work is needed to develop and expand the evidence base of novel or leading practices and establish meaningful, adaptable impact measures. Implementation plans with clear goals and objectives, particularly those designed with active feedback loops and accountability measures, can help to alleviate challenges that arise in practice.

There is a unique opportunity for current momentum to initiate meaningful change on behalf of older adults worldwide. That it has taken the tragedy of the covid-19 pandemic to generate this momentum is unacceptable, but this is a pivotal moment nonetheless. As this report has laid out, through concerted effort now, the coming decades can be healthier and more fruitful for older people, and as a result, for society too.



# I. Introduction

Global aging is perhaps the most important demographic trend of our time. By 2050 a sixth of the world's population will be over 65.<sup>2</sup> As improved healthcare has decreased mortality rates around the world,<sup>3</sup> population aging is taking place in countries of all income levels: by 2050 an estimated 80% of older adults will be living in low- and middle-income countries (LMICs) (Figure 1).<sup>4</sup> Health is essential to an individual's experience of older age and the wellbeing of their family members. However, few societies are sufficiently prepared to meet the basic needs of all older adults, let alone sustain their healthy aging (Box 1).

**Figure 1. By 2050, one-sixth of the world's population will be over 65, and 80% of them will be living in LMICs**



**Access to quality care for older adults remains a barrier around the world.** Not only do large disparities remain between countries regarding care for older adults, but every country individually still faces challenges providing care for its own older adults.<sup>6</sup> The World Health Organization (WHO) estimates that at least 142 million adults ages 60+ are unable to meet their basic needs.<sup>7</sup> Many countries are working toward

universal health coverage (UHC) to expand both access and coverage of health services—including for older adults. One of the ultimate aims of a successful UHC system is to reduce barriers to care for all members of society, thereby reducing health inequity. UHC has been on the global health agenda for some time, but a concerted effort began in 2012 when the UN passed a landmark resolution endorsing UHC.<sup>8</sup> Three years later, the UN included UHC in the SDGs as a target for 2030.<sup>9</sup> The focus on UHC in these global movements signifies its importance and also reaffirms the necessity of health and social system change to achieve both access and coverage of care for all populations.

However, barriers to access persist even where coverage is broad. One recent study suggests that for the highest-performing health systems offering universal care, 11% of older adults still face access challenges.<sup>10</sup> The numbers are even starker elsewhere. Even with full coverage and access, older adults may face lower quality and unaffordable care,<sup>11</sup> with these deficits extending to LTC, which generally refers to the care for people needing daily living support, both at home and within dedicated facilities.

Difficulties accessing quality care for older adults are exacerbated by fragmented healthcare systems, lack of dedicated healthcare resources, and failure to plan for future disease burdens (diseases that become more prevalent as one ages), all of which challenge even the best-performing healthcare systems. Negative attitudes and discrimination compound the difficulties, as does ageism in the healthcare sector. Take, for instance,

## Box 1. What is healthy aging?<sup>5</sup>

The World Health Organization defines healthy aging as “the process of developing and maintaining the functional ability that enables wellbeing in older age.” Functional ability in this context means being able to meet basic needs; continuing to learn, grow and make decisions; maintaining mobility; building and maintaining relationships; and contributing to society. Crucial to healthy aging is “creating the environments and opportunities that enable people to be and do what they value throughout their lives.”



triage policies during covid-19, which in countries like Italy, Spain and Switzerland have explicitly considered age, with many others prioritizing younger rather than older patients in “tiebreaker” situations.<sup>12,13,14</sup> Any consideration of age in triaging can inherently become “double-weighted”, since this is already an indirect factor in any assessment of overall health because of older people’s higher rates of chronic medical conditions.<sup>15</sup> Because of these barriers, innovative solutions are needed to ensure healthy aging and achieve the promise of age-friendly health and social systems (including benefits packages) for all older adults.<sup>16</sup>

**The urgent need for new solutions has been underscored by the covid-19 crisis**, which has laid bare fundamental gaps in the ability of global health systems to protect and provide care for older adults. Covid-19 leads to worse outcomes for patients with comorbidities that are common among older people,<sup>17</sup> which means it has disproportionately impacted older adults. The risk of death from covid-19 for adults over age 80 is over 13-fold than that of adults in their 50s.<sup>18</sup> In the US alone, less than 1% of the population lives in LTC facilities, yet that subgroup accounts for 35% of the nation’s deaths (in the period from May 2020 to February 2021).<sup>19</sup> The pandemic has also delayed treatment for older adults for other conditions.

**35%** In the US alone, less than 1% of the population lives in LTC facilities, yet that subgroup accounts for 35% of the nation’s covid-19-related death

On top of these challenges, during the covid-19 pandemic social isolation and loneliness have adversely affected the mental health of older adults worldwide (in addition to many others, such as young adults),<sup>20</sup> as they have been particularly isolated. But they have simultaneously demonstrated resiliency. Evidence suggests that a proportion of community-living older adults have been less negatively affected by pandemic-related mental health outcomes than younger adults, especially older adults with social connections and access to mental health care.<sup>21</sup> These issues have prompted policymakers and other stakeholders to think about how health systems should be run, care delivered and older adults protected during future periods of crisis or strain.

The pandemic has challenged the ability of health systems to innovate while raising public awareness of the urgent need for solutions. Many health

systems around the world, particularly in LMICs, were fragile before covid-19,<sup>22</sup> and the pandemic has only further stressed the sector. These systems are already at or over capacity, with immediate needs that must be met, so finding the time, workforce or energy to make structural shifts in care delivery is extremely difficult. Necessity, however, is the mother of invention. Awareness of the need to care for and protect older adults is likely as high as it has ever been globally, thanks to extensive media coverage. The particular vulnerability of older adults in the pandemic, along with this awareness, has led to a wave of attempts to use what resources and systems are available to support their health and wellbeing, whether through community support, mutualism or government resources. In this way, even as the burden across many health systems has decreased capacity for innovative activities, the pandemic has still facilitated innovation and made its need more apparent.

**Immediate and concerted multisectoral action is needed to support healthy aging and ensure every older adult’s access to health services.** International organizations are taking the lead on this action. In December 2020 the UN declared 2021-30 the Decade of Healthy Ageing (“the Decade”). Led by the WHO, the Decade is aimed at galvanizing international action and catalyzing collaboration among stakeholders across sectors and countries.<sup>23</sup> It calls for actions in four key areas:<sup>24</sup>

1. Change how we think, feel and act toward age and aging.
2. Facilitate the ability of older people to participate in and contribute to their communities and societies.
3. Deliver person-centered integrated care and primary health services that are responsive to the needs of the individual.
4. Provide access to high-quality LTC in home- and community-based settings for older people who need it.

With two of these action areas focused on health services and LTC, the Decade emphasizes the importance of these issues to achieving sustainable and prosperous aging societies. Moreover, the WHO envisions four enablers of these action areas: meaningful engagement with older people, families and caregivers; building



capacity for integrated action across sectors; linking stakeholders to share experience and learn from each other; and strengthening data, research and innovation.

**The ARC initiative is well positioned to contribute to this global effort.** Since its inaugural report in 2017, the ARC initiative has been at the forefront of rethinking aging and

the roles of older adults in their communities—particularly through building a knowledge base for global aging policies and innovations. In response to the urgent need for effective actions to support healthy aging and in support of the Decade, ARC has focused its 2020-21 study on innovative and pioneering practices to ensure and improve health and care services for older adults (Box 2).

### Box 2. The ARC initiative and how it can contribute to the UN Decade

Launched in 2017, the Aging Readiness and Competitiveness (ARC) initiative aimed to provoke rethinking the roles of older adults in communities and economies and prompt innovative stakeholder action to enable more active, engaged and productive older populations.

The initiative developed a four-pillar conceptual framework—community social infrastructure, productive opportunity, technological engagement, and healthcare and wellness for older adults—that aligns with the key actions outlined in the UN’s Decade initiative.

There are three iterations of ARC to date:

- The inaugural report in 2017 established a baseline understanding of the state of global aging policies, with in-depth assessments of 12 major economies.
- In 2018 ARC shifted focus to ten small economies around the world that are leading their regions in responding to aging.
- Taking a thematic approach, in 2021 ARC is focused on innovations and pioneering practices driving improved health services and care delivery.

ARC has established a knowledge base, including a large portfolio of innovations from diverse stakeholders. It has also identified a range of effective practices utilizing person-oriented, interdisciplinary, holistic, bottom-up and/or evidence-based approaches. As such, it provides actionable insights for stakeholders to support healthy aging. In particular, it contributes to efforts to “strengthen data, research and innovation to accelerate implementation”, one of the four “enablers” identified by the Decade of Healthy Ageing initiative.<sup>25</sup>



This ARC report, developed by Economist Impact and AARP, builds on the previous work of the health and wellness pillar of the ARC initiative. It is centered on key challenges and policy trends identified in previous studies, including access to quality care, support for aging in place, formalizing LTC and person-centered integrated care, among others. In particular, the research team took a closer look at these and other challenges—such as mental health risk—in the context of the coronavirus pandemic.

Through interviews with experts around the world and structured literature reviews, Economist Impact has identified innovative or pioneering practices (Box 3) operating in a diverse range of geographic, economic and social contexts (see Appendix 1 for methodology). Given the rapid pace of global innovation and the breadth of approaches to healthy aging, the research team has been selective in the innovations highlighted in this report, and

there are undoubtedly many more that did not emerge in this research. Regardless, the selected innovations illustrate broader trends and forward-thinking approaches to healthy aging. Particular focus has been placed on the environments that enabled these innovations and pioneering practices to emerge, facilitated their implementation, and in some cases, advanced their replication and scaling up. In doing so, this report:

- Showcases practices that promise a healthier and more equitable future for older adults around the world, in which they continue to be active participants and contributors to society.
- Improves understanding of the elements that enable innovations and their scaling and provides actionable insights for stakeholders.
- Shares early lessons and experiences from the covid-19 pandemic that have broader implications for crisis response in general.

### Box 3. Defining innovative or pioneering practices

Economist Impact has relied on a broad definition of innovation that accounts for both novel practices to address the health and wellbeing of older adults in any context, as well as innovation in application, where preexisting or newly established innovations are adapted or applied in new contexts. This definition draws largely from the World Health Organization's definition of health innovation, which states: "Health innovation identifies new or improved health policies, systems, products and technologies, and services and delivery methods that improve people's health and wellbeing. Health innovation responds to unmet public health needs by creating new ways of thinking and working with a focus on the needs of vulnerable populations."<sup>25</sup>



## II. Innovations and pioneering practices

Innovative and pioneering practices are imperative for addressing current and future challenges to support adults as they age. New approaches are needed to ensure access to healthcare services for all adults, strengthen LTC provision, support caregivers and enable aging at home or in communities. Innovations during the pandemic also present models for building resiliency in future crises. This section offers a structured, in-depth look at these four areas, highlighting innovations developed to improve each domain.

### A. Ensuring access to healthcare services for all older adults

Life expectancy and healthy life expectancy (the number of years one can expect to live in good health) have improved globally over the last two decades,<sup>27</sup> thanks in part to advances in science and medicine, as well as expanded access to care.<sup>28</sup> However, the benefits of these advances are not felt equally in communities around the world. Inequity exists in access to quality health services, leading to different outcomes across all age groups, including older adults. As adults age, genetics account for only 25% of the differences in health and function.<sup>29</sup> The bulk of disparities in health outcomes in older age are attributable to socioeconomic factors, including inequities in the healthcare system itself as well as broader societal forces.<sup>30</sup>

**75%** of the differences in health and function as adults age are due to modifiable factors, rather than genetics

The intersectionality of factors such as age, race, gender, immigration status and physical and cognitive ability level compounds the disparities older adults often experience.<sup>31</sup> And the covid-19

pandemic has further demonstrated the damaging effects of inequities in healthcare. Comorbidities and other risks for the virus are intertwined and cumulative, which compounds the burden and increases its negative effects. In the US, for example, Black Americans ages 65+ have died of covid-19 at a rate three to five times greater than their White counterparts, amplifying the already outsized risk of death for older adults in general.<sup>32</sup>

Gaps in health literacy for older adults create additional barriers to healthy aging by preventing them obtaining, processing and understanding the basic health information and services needed to make appropriate health decisions, which has been even more critical during the covid-19 pandemic.<sup>33</sup>

Although there is no silver-bullet solution, working toward equitable policies and services in healthcare can lead to improved health outcomes for everyone, particularly for vulnerable groups like older adults.

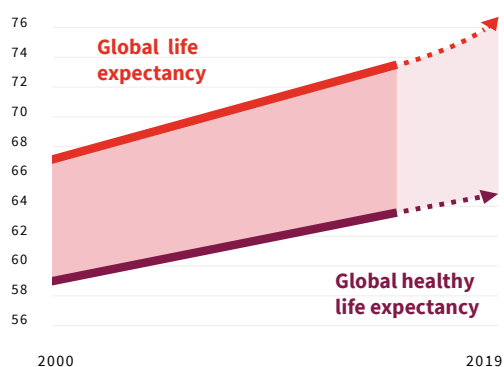




## Reimagined models of care are long overdue

Existing healthcare systems do not accommodate the special needs of older adults. Many health systems are designed to treat acute illness, while the majority of older adults have chronic conditions (such as heart disease, cancer and/or osteoporosis) that require more continuous (and often more expensive) monitoring and care.<sup>34</sup> Progress on expanding healthcare coverage for chronic conditions stalled in 2010-19, despite the disproportionate burden of chronic diseases globally.<sup>35</sup> Although life expectancies have been increasing, evidence shows that healthy life expectancies have not kept pace (even as a proportion of total life expectancy), meaning older adults are living longer but with a chronic condition or disability (Figure 2).<sup>36</sup> This gap is expected to grow over the coming years,<sup>37</sup> due in large part to the disease burden shifting from infectious to chronic conditions, which has taken place in high-income countries and is currently taking place in LMICs.<sup>38</sup> This means that older adults are living longer, but with higher rates of chronic disease and disability. By maintaining outdated paradigms of healthcare provision, countries are neglecting challenges that will persist long into the future.

**Figure 2. Forward estimates through 2025 expect the gap between life expectancy and healthy life expectancy will continue to grow in the near term**



Better tailoring and targeting health systems toward older adults' needs will mean developing new approaches to care delivery. The WHO's World Health and Ageing Report in 2015 identified a public health framework for action that calls for integrated, patient-centric, team-based and health-centered reform of healthcare delivery

systems.<sup>39</sup> **Singapore** was among the first to offer a model aligned with this framework while moving away from traditional patterns of providing acute healthcare, and is an exemplar of targeted coordination across the whole of government of care services for older adults. Starting in 2012 the country developed an integrated aging-ready health system to shift from care for specific diseases to more holistic care provided at the local level.<sup>40</sup> Regional healthcare systems coordinate care, with an increased focus on prevention and health promotion at all levels of health and care needs, including self-management of chronic disease and support for families. Initial results indicate more streamlined care processes, faster patient recovery and shortened lengths of hospitalization (Appendix II-1).<sup>41</sup>

While some innovative programs focus on reforming health systems, others work on specific disease areas within the current systems to enable a quicker response. **Fracture liaison services (FLS)** are one such program model to address gaps in care for older adults who have suffered a fragility fracture (Appendix II-2). Globally, there is no dedicated clinical specialty for bone health, so FLS was designed to coordinate pre- and post-fracture care for older adults with poor bone health. Care coordination gives older individuals greater access to preventive and therapeutic services. Countries around the world have adopted the model because it can be adapted to their specific health system while ultimately keeping older adults healthy, mobile and independent. Most recently, a best-practice framework and corresponding map of best practice have been developed by the International Osteoporosis Foundation to showcase effective FLS around the world while providing tangible goals for health centers working to launch or improve their FLS.<sup>42</sup> This project demonstrates the ongoing spread of FLS globally, not only in high-income countries, but increasingly middle-income economies—with multiple new FLS established in locations like the Philippines, Egypt, Brazil and South Africa.

Just as important to health system reform and improved service offerings is the development of treatment options for older adults with chronic conditions. In the EU, the MID-Frail study has worked to expand chronic disease treatment modalities for older adults, emphasizing the value of multimodal treatments, which link the efforts of multiple health-science disciplines. Reimagining healthcare for older adults entails changes at every level of the health system, but significant coverage expansion cannot be achieved unless these reforms are designed with older adults and their unique needs in mind.



## Twofold lack of access to healthcare

The widening healthcare gap for older adults is a twofold issue: first, there is a global lack of geriatric or gerontological care providers relative to other medical specialties; and, second, where these services do exist, there is not equitable geographic access. The shortage of providers trained in geriatrics is not a new phenomenon and only expected to grow in the coming decades.<sup>43</sup> There is also a growing deficit at the primary care provider level, which presents a major barrier to care for older adults who frequently rely on essential health services from these practitioners.<sup>44</sup> Reggie Williams, vice president of International Health Policy and Practice Innovations at The Commonwealth Fund, explained that, amid the discussions of covid-19 and older adults, “there’s another issue hiding there, which is the strength and robustness of primary care systems. Do countries have the systems in place to meet people’s needs? The primary care setting has the ability to triage more effectively and manage chronic disease—things that if you manage early you can get better outcomes over the long term.”

“The primary care setting has the ability to triage more effectively and manage chronic disease—things that if you manage early you can get better outcomes over the long term.”

**Reggie Williams**  
Vice president of International Health Policy and Practice Innovations, The Commonwealth Fund

Nearly two-thirds of the world’s population over 60 years of age lives in developing countries, but there is not a corresponding availability of geriatric care.<sup>45</sup> Inconsistent geriatric medical education and training further exacerbate this gap.<sup>46</sup> To address these issues, programs have emerged that are building out geriatric care capacity through educational initiatives, like one in **Ghana**. In 2016 the Ghana College of Physicians and Surgeons established Ghana’s first geriatrics training fellowship (Appendix II-3). These educational programs typically involve the partnership of

a medical school with an established geriatrics program or geriatrics experts (in this case, based in the US, at the University of Michigan) with a medical school in the country where geriatric training is sparse, or with a program led by a local expert who has received international training. The aim is to create a steady pipeline of experts. Once the first students are trained, they can then instruct their peers and future generations of doctors.

The lack of availability of primary care providers, geriatricians and gerontologists is not the only barrier to care. Often, specialists congregate in larger urban areas with denser populations, where there are newer hospitals and care centers, more availability for research, and a constant supply of patients.<sup>47</sup> This is particularly dangerous for older adults who live in rural areas and cannot easily travel long distances. In many countries this movement of physicians has resulted in a “brain drain”, in which skilled physicians move to a higher-income country to practice medicine. These effects are detrimental for LMICs; one study suggests that there is significant excess mortality in LMICs that can be attributed to physician migration.<sup>48</sup>

Both high-income and lower-income countries face this shortfall of providers, prompting actions from various stakeholders. In the **EU**, for example, the **Alpine Space Programme** is a transnational cooperation initiative to facilitate economic, social and environmental alignment across seven neighboring countries (Appendix II-4). In 2015 this entity developed **COMMUNITY Nurse Supporting Elderly iN a changing SOciety (CoSENSo)** to attract care providers to rural areas. This multi-country initiative trains and supports nurses who travel to rural areas and provide care to older adults and establishes a three-way engagement between the older adult receiving care, the health services they need and the social services they might also require. The program thus fosters care coordination through integrated services. In addition to the positive impact on older adults, the program has also developed a policy guidelines toolkit to establish effective training programs. While a single program like this can never significantly expand coverage on its own, it is an effective method to assure quality care to older adults no matter where they live.

In LMICs, there is a severe lack of trained providers for older adults in remote areas and less developed regions, and access to specialist geriatric care is even more sparse.<sup>49</sup> Areas outside major cities frequently miss out on the benefits of novel technologies, such

as sophisticated telehealth platforms, because of structural factors like an absence of broadband. In **Uganda**, one pioneering company, **Kaaro Health**, is seeking to overcome such obstacles (Appendix II-5). The original mission of Kaaro was to help small clinics acquire medical and solar equipment to improve their service offerings range. That initial model has evolved into a more sophisticated “clinic-in-a-box” system that provides high-quality primary care through remote access to available doctors. The program also provides the country’s only software-supported drug refill system, crucial to get older adults the medication they need to self-manage their conditions. Kaaro Health offers a powerful illustration of what individual entities can do to further healthcare coverage nationwide, with the ability to secure international funding, partner with local non-government organizations (NGOs) to identify a community’s most vulnerable older adults and continuously improve their service offerings.

One burgeoning set of technologies—artificial intelligence (AI) and machine learning—shows great promise for increasing access to healthcare services (Box 4).<sup>50</sup> AI-based services and products can be rapidly scaled to serve large populations, whether directly or through existing healthcare delivery pathways, though there is a notable risk of discrimination towards older adults. Even where these services cannot increase care capacity, they can help to more efficiently direct resources and support. As Dr Sarah Graham, clinical studies research writer at Lark Health and former research fellow at the Stein Institute for Research on Aging, explained, “there are a lot of exciting use cases around AI for older adults, including efforts that help the user to be more autonomous and better manage their health. For example, AI can offer automated services and reminders and help to meet older adults’ daily self-care needs. We find that older adults are receptive to these technologies. The clinical aspect is very exciting too.”

### Box 4. AI-based cognitive and behavioral assessment

Many trials have already demonstrated the potential of artificial intelligence (AI)-based cognitive and behavioral assessment to support the healthcare of older people.<sup>51,52</sup> Researchers around the world are using AI tools to improve the quality and ease of cognitive assessment of older adults, relying on data from sociodemographics, imaging, electronic health records, genomics and other ‘omics’, and other sources.

Population-based screening through community health services holds particular potential for improved access. In one South Korean trial, easily obtainable data (through community health workers and institutions) made two-year predictions of cognitive impairment with a high degree of accuracy.<sup>53</sup> The trial explicitly focused on using data that could be obtained at a low cost, increasing the likelihood that this model could be useful in lower- and middle-income countries. In a smaller trial in India, sociodemographic and morbidity data were used to accurately predict depression among older adults living in an informal settlement.<sup>54</sup> These screening services can help identify at-risk older adults early and ensure that resources are made available, even where there may be a dearth of specialist care services.

Ethical and legal challenges remain.<sup>55,56</sup> AI tools risk perpetuating existing biases when data are used that reflect these biases<sup>57,58</sup>—further marginalizing already vulnerable groups. However, carefully designed AI tools can not only mitigate<sup>59</sup> but actively address societal biases, working toward more equitable healthcare systems. This will require constant vigilance. As Sarah Graham, clinical studies research writer at Lark Health and former research fellow at the Stein Institute for Research on Aging, noted: “When we develop AI algorithms, we have to be conscious of context and the sources of data. Continued human oversight, or combining artificial and human intelligence, is essential to make sure these technologies are responsible and ethical. From a clinical perspective, AI is not a replacement for human-provided care, but instead, a complement that can improve the reach, scalability, and effectiveness of care.”



## Ageism within healthcare continues to slow progress

Despite advances made toward health equity, ageism persists in the health system and broader society, preventing improved care provision for older adults. While attitudes toward older adults are complex, perceptions of this group are more negative than those of younger adults.<sup>60</sup> Globally, 60% of all adults report that older people are not respected, with particularly high rates of ageist attitudes in Africa and Southeast Asia according to the WHO's *Global Report on Ageism* (Figure 3 shows a further regional breakdown).<sup>61,62</sup> Stereotypes portray older adults as fragile, cognitively impaired and unable to engage in society, which contributes to the dangerous perception that poor health is inevitable as one ages.<sup>63</sup>

Structural ageism in healthcare has increased over time, with costly and harmful effects on older populations.<sup>64</sup> Planning and providing care for older populations often overlook the unique barriers they face, revealing these ageism-perpetuating structures. For instance, the premature mortality indicators set forth in the SDGs only count a death as premature when it happens below the age of 69. This calculation contributes to ageism by devaluing the life of individuals above a certain, and seemingly arbitrary, age limit.<sup>65</sup> Policies such as these threaten

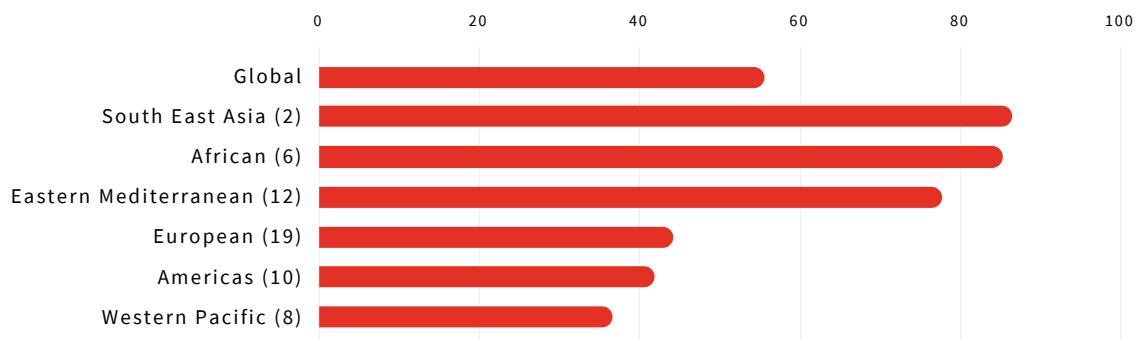
the collaborative and inclusive agenda of UHC.

Ageism rears its head throughout healthcare systems, from national policies to individual interactions between providers and patients. Facing this challenge, **Taiwan** has established a system for accrediting **age-friendly hospitals** (Appendix II-6). This national program awards a special accreditation to hospitals that meet certain criteria for providing high-quality care to older adults. Beyond the specific health outcome targets, it gets at the root of ageist practices by requiring health providers to focus on, for instance, the intrinsic capacity of older adults and community partnerships to establish age-friendly cities.<sup>66</sup>

The program is part of a growing movement of accreditation or recognition of healthcare facilities that support older adults, such as The John A. Hartford Foundation and the Institute for Healthcare Improvement's Age-Friendly Health Systems initiative in the US, which has recognized 546 hospitals and healthcare practices.<sup>67</sup> It has inspired similar programs around the world and continues to evolve within the country to include primary health centers. This accreditation program aligns health system priorities with principles of equality, dignity and respect for older adults. The Taiwanese example demonstrates the value of government incentives and offers a creative route to high-quality care for older populations country wide.

**Figure 3. Global ageism remains an issue**

Prevalence of population holding moderately or highly ageist attitudes by WHO region, %



Source: World Health Organization. Note: The percentages apply only to the pooled data of the countries included in the analysis for each region (eg. the 12 countries in the WHO Eastern Mediterranean Region).

## B. Strengthening long-term care provision and support for caregivers

LTC services help individuals live as independently and safely as possible and are essential to the wellbeing of older adults and their families; yet access to such services is lacking across the world.<sup>68</sup> Globally, as of 2015 over 48% of older adults were not covered by any type of formal LTC legislation, and another 46% were excluded from government coverage based on narrow qualification criteria, leaving global LTC coverage based on national legislation at around 6% (Figure 4).<sup>69</sup> The global shortage of LTC workers (there were around 13.6 million as of 2015) contributes to this lack of coverage. As a result, relatives and family friends—often referred to as family caregivers—continue to absorb responsibilities to fill this gap.<sup>70</sup> Until system-wide change in health and social care occurs, national and regional policies and the capacity to support them are urgently needed to alleviate the economic, physical and emotional burden placed on older adults and their relatives, while providing the care they deserve.

### Professional caregiving faces extreme deficits

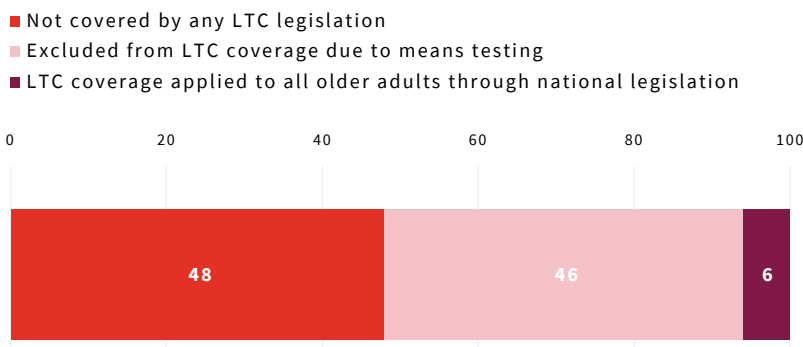
The relentless covid-19 crisis has highlighted the structural inadequacies of formal LTC systems and the reasons this understaffed sector is experiencing such hardship at the moment, including the fact that population growth has outpaced the number of LTC workers.<sup>71</sup> Strategies among OECD countries to improve LTC workforces

fall into four main categories: recruiting workers from the traditional pool (health or social care students or former LTC workers); improving the sector’s image to attract nursing and social care students; recruiting outside the traditional pool by targeting men, unemployed people or those looking to change careers; and increasing the recruitment of foreign-born workers.<sup>72</sup> More than improved recruitment strategies, countries need both adapted policies for the LTC sector and better support for LTC workers at the individual level.

**Uruguay** is an example of a country that has reshaped its approach toward LTC and built a first-of-its-kind integrated care system in Latin America. Starting development in 2010 and launching in 2015, the **National Integrated Care System**, which has been continuously developed since, aims to expand access to government-provided LTC services for older adults (Appendix II-7). The new system’s offerings range from permanent care for older adults with severe disabilities to shorter-term options like day-care services. Training provided to LTC workers, increased funding for medical alert services and the like, and lines of credit for residential homes to improve quality make these expanded offerings possible. According to the Inter-American Development Bank—which has been expanding its efforts to support healthy aging in Latin America and the Caribbean<sup>73</sup>—the system has “served to revitalize the private provision of [long-term support] services and revalue work in care.” The reform also promotes gender equity since women frequently bear the responsibility for caregiving, and older women are less likely to receive care.<sup>74</sup>

**Thailand** has similarly focused on developing a stronger LTC system and taken a community-based approach to address the challenge (Appendix II-8). The program is built around LTC support

**Figure 4. Access to LTC is lacking across the world**  
Legislative coverage for global 65+ population as of 2015, %



Source: International Labour Organization



specialists (care managers) who assess the needs of each older adult and create a care plan that combines specific health and welfare services to match their needs and better coordinate care. The model organically evolved in three phases, with the focus of each phase being coordination of medical care and LTC. Because it is difficult for family caregivers to manage the full scope of healthcare needs after patients leave hospital, discharge management is a specific target. According to Shintaro Nakamura, senior advisor on social security at the Japan International Cooperation Agency (JICA), the programs demonstrate that “if older adults have the appropriate interventions after hospital discharge, they can stay independent or be in better condition longer.” Most people served by this program (over two-thirds) reported improved daily living. Meanwhile, other countries, such as Mexico and Malaysia, are hoping to implement similar models.<sup>75</sup>

“ If older adults have the appropriate interventions after hospital discharge, they can stay independent or be in better condition longer.

**Shintaro Nakamura**  
Senior advisor on social security, Japan  
International Cooperation Agency

Just as important to improving LTC facilities' capacity and resources is improving the quality of care at those institutions. Too often, important research is either not conducted or, perhaps more frustratingly, is conducted but remains in theory and never implemented. **The Living Lab in the Netherlands** addresses this gap and endeavors to improve LTC facilities through translational science: turning observations in the laboratory, clinic and community into interventions that improve health (Appendix II-9).<sup>76</sup> The lab integrates research institutions, LTC facilities and health training programs to improve care access and quality. Crucial to the design are the “linking pins” that connect older individuals and their families to researchers and care workers, helping to guide research toward the needs relevant to older adults. As Dr Judith Urlings, network coordinator for the Living Lab in Ageing & Long-Term Care at Maastricht University, explained, “I think we should move to a situation that is more demand driven—whatever the older adult needs

and ‘demands’ should be provided as opposed to providing whatever is simply available.” By creating a model that addresses this issue, the Living Lab offers valuable lessons on improving the quality of LTC facilities worldwide.

The efficacy of quality improvement initiatives depends on how well equipped individuals implementing the initiatives are. With help from the Asian Development Bank (ADB), one region in China has implemented a smaller-scale approach, opting to focus on LTC training. **ADB's program in Liaoning, China**, draws from Japanese and German experts and practices principles of mutual partnership to provide geriatrics nurse education to increase the capacity of professional geriatrics caregivers. The program was so effective that the education materials were adopted into national geriatrics nursing education (Appendix II-10).

## Caring for the carers: prioritizing support for family caregiving

Despite the magnitude of the LTC sector, the vast majority of caregiving work is still done informally, with some countries having nearly 20 times as many family LTC workers as professional ones.<sup>77</sup> The hours required for family caregiving for dementia alone have been estimated as equivalent to over 40 million full-time workers globally as of 2015, and that is expected to increase to 65 million full-time workers by 2030.<sup>78</sup> The often-unseen burden family carers experience manifests in loss of income, cessation of pension contributions and even loss of health insurance in countries without expansive coverage (Box 5). For example, a study by AARP and Economist Impact estimates that with proper support to remain in the workplace for family caregivers age 50-plus, US GDP could grow by an additional US\$1.7trn (5.5%) by 2030.<sup>79</sup>

# 65 million

The hours required for informal caregiving for dementia alone is expected to increase to 65 million fulltime workers by 2030

## Enabling Innovation for Healthcare and Wellness

Adelina Comas-Herrera, assistant professorial research fellow at the Care Policy and Evaluation Centre at the London School of Economics and Political Science, explained that policymakers around the world are “overlooking the implications of informal care, such as people leaving work to provide care for older parents. More understanding of the longer-term consequences on productivity, savings and security for informal carers is needed.” These structural losses are compounded by the mental and physical toll that unpaid caring can cause. Higher rates of depression and levels of pain, as well the emotional toll from the losses that come with family caring, are incalculable on these individuals. Family carers are also typically not trained to perform the medical tasks that older adults frequently need, causing more distress and lower quality of care for the older adult.<sup>80</sup> Despite that fact, research shows that family carers are frequently practicing more intense and complex care in an effort to keep their loved one out of a LTC facility. With little support and training for these carers, the emotional and psychological burden of these difficult tasks continues to grow.<sup>81</sup>

“ I think we should move to a situation that is more demand driven—whatever the older adult needs and ‘demands’ should be provided as opposed to providing whatever is simply available.

**Dr Judith Urlings**  
Network coordinator for the  
Living Lab in Ageing &  
Long-Term Care, Maastricht University



Countries around the world are increasingly trying to offer services that align with the priority interventions from international organization Embracing Carers: legislation, financial support, working arrangements, pension credits, respite care, and information and training.<sup>88</sup> The local government in **Greater Manchester in the UK** has developed a practice to address each of these priority areas in unison (Appendix II-II). The region has merged the budgets of the health and social sectors to support caregivers outside the clinical environment and ensure their needs are met. Beyond offering health-specific skills training

to family carers, the program also supports these individuals in returning to the workforce, receiving counseling and participating in local policy creation. The devolution of funding has fostered an environment rich with collaboration, support and encouragement for family carers, which has proven beneficial to both their wellbeing and that of the loved ones for whom they care.

More targeted interventions prioritize certain domains from Embracing Carers and tailor offerings to meet specific needs. In countries such as Singapore, Australia, France, and Italy, among others, national or regional governments



### Box 5. New norms of family care

While spouses already account for a substantial proportion of total family caregivers in many parts of the world—over 50% in some regions—their representation is likely to increase further.<sup>82</sup> As global aging continues, the availability of certain family caregivers, especially adult children, will decline. In light of this shift, a public recognition of the contributions of other informal caregivers is needed.<sup>83</sup> However, support for non-professional caregivers should extend not only to immediate, legal family but also friends, neighbors and other community members. In addition to aging, the long-term global increase in one-person households (households with a single individual, living alone) will raise the importance of nonfamily carers.<sup>84</sup>

Existing examples demonstrate the form that new paradigms of family care may resemble. For LGBTQ+ communities in some countries, “chosen families” have been the norm among non-professional caregivers for older adults—demonstrating a response to long-term discrimination and bias. In the US, for example, partners, spouses, friends, neighbors and community members provide the bulk of informal care for LGBTQ+ older adults, rather than biological family members.<sup>85,86</sup>

Rwanda provides another example of this model of informal care. Because the 1994 genocide left many people without their children, older adults caring for one another has become common. Particular emphasis is placed on maintaining dignity through daily tasks and treating older people as active participants in their own care.<sup>87</sup> Societal, political and even legal recognition of the value that all types of informal carers provide, and the increasing role they are likely to play in the future, will be important to ensure that all older adults have access to care and connection.



have established programs offering support for family caregivers through monthly stipends or tax breaks to help with the costs of providing care.<sup>89</sup> This monetary support (one form of support among others these countries offer) shows these countries recognize the worth of family carers, and demonstrates the governments' willingness to tangibly assist these invaluable individuals. In other countries such as India, Nepal and Bangladesh, the third sector has been instrumental in establishing training, support, advocacy and other services for family carers.<sup>90</sup>

### C. Supporting aging in place through community-centered care

Globally, a majority of older adults wish to age in place—to live in their own homes and familiar communities and maintain a sense of independence and autonomy. However, countries have not adequately prepared for this.<sup>91</sup> Despite older adults' desire, in countries around the world familial units are changing in that children are moving farther away and relatives might be spread across a wide geographic area because of changing migration patterns, new job opportunities and other reasons.<sup>92</sup> Regardless of desire, older adults in many countries do not have the ability to choose between an LTC facility and aging in their home because LTC services are not widely available or affordable. Together, these factors have created a need for intermediary services that allow older individuals to stay in their homes and communities with adequate care and support that their families might not be able to provide. Some efforts and effective practices (examples outlined below) focus on interpersonal support and health-specific technology.<sup>93</sup>

### Community-driven support networks offer mental and physical benefits

One of the most powerful benefits of aging in place is maintaining a sense of belonging to a community. Simply altering the built environment will not inherently lead to belonging, autonomy,

independence or security, which are all crucial to aging in place.<sup>94</sup> Community engagement is one of the most influential forces affecting older adults' autonomy and capacity to age in place. **Costa Rica** has recognized this and acted at the national level by establishing community-driven, government-supported care networks. The program, called Red de Cuido, works by using local networks led by community organizations to provide more care to older adults, focusing on those in poverty or at high social risk (Appendix II-12). In this way, Red de Cuido supports both aging in place and equity, as it seeks to serve the most vulnerable older adults. There is considerable room for improvement in Costa Rica's provision of care—especially supporting unpaid caregivers and older adults who need services but are not economically or socially vulnerable.<sup>95</sup> However, with over 50 networks operating across the country, Red de Cuido has proven sustainable and effective in offering health and social services to Costa Rica's most vulnerable older adults.

The most effective practices are often seen where support is aligned with cultural values. As Dr Elisabeth Schroeder-Butterfill of the Centre for Research on Ageing remarked, successful innovations achieve acceptability to the extent that the interventions to support aging in place align with the community's norms and needs. **Vietnam** offers a particularly compelling model of community support that is widely acceptable to communities across the country. HelpAge Vietnam has worked to establish **Intergenerational Self-Help Clubs** (ISHCs) with the support of local organizations (Appendix II-13). The clubs promote healthy aging through multisectoral interventions adaptable to each unique community. The basis is community volunteers, who are often older adults themselves. The clubs foster inclusivity and are explicitly designed to promote health equity. Typically, members are women over age 55 and from disadvantaged backgrounds. The program initially focused on rural areas with lower incomes and less access to healthcare services. Its effects are twofold: serving the health and social needs of older individuals; and allowing older volunteers to feel more active and engaged in their community.

Gerontological centers are yet another way that governments can support aging in place. Rather than offering community outreach, the centers serve as local hubs where older adults can receive a range of services. **Croatia** has established over 100 **gerontological centers** nationally, with collaboration among various government entities



(Appendix II-14). The centers offer a community location for older individuals to interact with one another and health professionals, with services covering day care for older persons; physical, mental and occupational rehabilitation; and daily lessons on healthy aging. The centers take a holistic approach and offer services beyond health-specific interventions, such as creative activities, legal counseling and meal delivery, among others, to overcome barriers to aging in place.

### Technology-supported care offers convenience while maintaining quality

Where medical attention or monitoring is needed to support aging in place, technological innovations can be a valuable tool. As adults age, their preferences continue to change, and technology must adapt to maintain relevance and utility throughout the life course.<sup>96</sup> Technology that incorporates human-centered design and co-design with older adults can improve efficacy and uptake, but this is not yet happening at the scale needed to influence the sector.<sup>97</sup> Ensuring that technology reaches its full potential also requires improving digital literacy. Although the covid-19 pandemic has further exposed this divide, it has also encouraged more self-education, which “allows older adults to be more involved in their own advocacy, health promotion, work, and social engagement,” according to Mary Furlong, CEO of Mary Furlong and Associates and a strategic advisor in the longevity marketplace. While implementation must be adapted for a specific region or population’s needs, technological innovations hold much promise for efficiently addressing many growing needs in older adults’ desire to age in place.

Using human-centered design principles, the **InLife program in Europe** connects researchers and technology companies to develop and provide combinations of health-related technologies to integrate information and communication technology-based solutions into care and services for older adults (Appendix II-15). This program aims to determine the most effective combinations of technologies for older populations by piloting groupings of technology such as health monitoring and wellbeing-support functions, mental training, fall detection, travel support, and communication, among others. The final results are currently being analyzed, but early evidence from the pilots

demonstrates improved physical and mental states of older adults and reduced burden on informal caregivers. More of this research is needed to determine which technologies prove the most beneficial and why.

Technologies to support daily function and continuous monitoring are increasingly important, as are new technologies that can provide more advanced medical care while allowing older adults to age in their homes. Developments in services like telehealth have proven vital, particularly during the covid-19 pandemic, but often individuals need more intensive care than a virtual consultation or check-in. The model for **hospital care at home** addresses this by bringing integrative acute care practitioners and equipment directly into older adults’ homes, establishing a temporary hospital bed for the patient. The model was initiated decades ago but has continued to adapt and is now a leading practice for improving care while also freeing up inpatient hospital resources. The health benefits are bolstered by the cost savings of keeping older individuals out of expensive emergency rooms—though the specifics vary widely among programs and countries, one study found that about 94% of hospital-at-home trials reported cost savings compared with standard hospital care (Appendix II-16).



## D. Caring for older adults in crisis settings

Countries around the world are all too aware that older adults have been among the most vulnerable groups during the covid-19 pandemic. As Figure 5 demonstrates, the burden of covid-19 deaths globally disproportionately falls on adults over age 60. While more visible to the public now, older adults' vulnerabilities existed long before covid-19; other natural, health and humanitarian crises pose great risks to older populations. An estimated 26 million or more older adults are affected by natural disasters every year, and even more are affected by humanitarian crises, although little concrete data are available.<sup>98</sup> Between 2005 and 2017 the number of crises around the globe nearly doubled, while the average duration rose from four years to seven years. Older adults at higher risk of adverse health outcomes, gender-based violence and elder abuse are in particular danger in disasters because this population is frequently overlooked in emergency planning and design and emergency relief systems.<sup>99</sup>

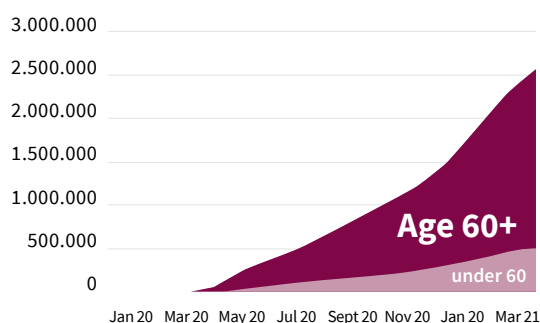
# 26 million

or more older adults  
are affected by natural  
disasters every year

Just as important as caring for older adults in crisis situations is caring for them in the wake of one. Following the Ebola outbreak in West Africa in 2014, more people died from disruptions to social services and economic collapse than the virus itself.<sup>100</sup> To mitigate the impact of crises on older adults, health systems, along with the public health response, must incorporate principles of resilience to ensure cohesive quality services. Building a resilient health system is enormously complex, involving a multisectoral approach that takes significant time with substantial investment. As the world aims to come back stronger from the current covid-19 pandemic, many innovative practices have emerged to foster short-term resilience in services for older populations.

**Figure 5. Older adults account for roughly 80% of worldwide covid-19 deaths**

Estimated worldwide covid-19 deaths, as of March 2021



Source: Economist Impact estimates based on data from Our World in Data; O'Driscoll et al. (2021), "Age-specific mortality and immunity patterns of SARS-CoV-2", Nature

## Mobilizing volunteers to mitigate dangerous crises

Even without a pressing health or natural disaster, resources and support for older adults are in short supply; a crisis on top of an already strained healthcare system has catastrophic effects such as increased care costs, decreased providers and greater difficulty accessing services.<sup>101</sup> During the covid-19 pandemic, volunteer activity has increased to close some of these care gaps.<sup>102,103</sup> Some countries have improved resiliency by mobilizing volunteers to care for and support vulnerable populations—drawing on the flexible expansion and repurposing of established volunteer services and relationships.

In **Peru**, the Ministry for Development and Social Inclusion (MIDIS), for instance, rapidly implemented a volunteer program around the nation (Appendix II-17). Alongside the UN Development Program and UN volunteers, MIDIS mobilized over 15,000 volunteers through the preexisting Bicentennial Volunteers program to monitor the physical and social health of 400,000 low-income older adults through phone calls.<sup>104</sup> The older adults are identified through MIDIS's database, and the volunteers receive guides and educational materials to prepare them for service.<sup>105</sup> The guides also include valuable information on emotional self-care for volunteers to remind them to take care of themselves too.

In the UK, the National Health Service (NHS) has formed a similar volunteer service that leverages advanced technology to quickly meet the needs of vulnerable older adults amid the pandemic (Appendix II-18). The NHS Volunteer Responders program was a response to the Royal Volunteer Service's recognition of the looming pandemic and the tremendous pressure it would exert on the NHS. Partnering with another organization, GoodSam, the Royal Voluntary Service and the NHS were able to develop a first-of-its-kind technological platform that matches available volunteers with individuals in the same community (primarily older adults) who put in a request for help, using localized data and algorithmic matching. The services range from medication and grocery drop offs, "check in and chat" conversations, and more advanced functions like patient transport and technology delivery. Volunteers simply switch their status on the platform to "active" and can agree to any referrals in their area. As of March 2021, 437,000 on-duty NHS Volunteer Responders had completed more than 1.5 million tasks. Around 93% of beneficiaries felt assisted to stay safe, which was made possible by dedicated volunteers from around the country.

Both the Peru and UK programs also—at least initially in the NHS's case—relied on information or referrals provided by government actors to identify beneficiaries. The implementation of a volunteer service directly for vulnerable older adults in crisis is exactly the kind of innovation that reduces inequalities and serves as a model of what to do in future disasters.

## Protecting mental health within the chaos of crises

The volunteer programs described previously have demonstrated the critical need to provide mental health support for individuals to cope with increased anxiety, stress, loneliness and depression in a crisis. Older adults are over two times more likely than young adults to experience post-traumatic stress disorder symptoms and nearly two times more likely to develop adjustment disorder following a disaster.<sup>106</sup> The pandemic has further increased these risks by forcing older adults into physical distancing and isolation, intensifying feelings of loneliness and sadness. In light of this, the UN's Inter-Agency Standing Committee (IASC) has compiled principles for responding to the mental health and psychosocial support needs of individuals that considers local capacities while taking a "whole-of-society" approach.<sup>107</sup>

Given older adults' propensity for adverse mental health outcomes, specific measures must be taken to put high-level guidance (such as the UN's) into action to reduce this burden. One pilot in India is doing so by training community health workers (CHWs) to deliver mental health care to older adults as opposed to relying on doctors, who are less available. After gaining a baseline understanding of CHWs' knowledge of mental health issues in older adults, researchers developed a training manual that comprises medical knowledge as well as information on reducing stigma and negative perceptions of mental health issues.<sup>108</sup> Although in its early stages, the program has already made clear the benefit of a standard manual and training for CHWs on this topic to improve older adults' access to mental health care.

The **Irish Association of Social Workers (IASW)** undertook its own initiative as social workers around the country struggled to provide quality services in the pandemic (Appendix II-19). The national response to the virus failed to recognize and respond quickly to the emotional and social needs of LTC residents. The IASW developed practice guidelines for social workers in residential care settings as they respond to psychosocial needs, provide communication and support to residents and families, and, when necessary, offer palliative and bereavement care and support. The IASW sought to recognize the dignity of each older adult in their care during a chaotic season of nationwide lockdowns. As members of the IASW explained, "we need to help people realize that care home residents are equal members of society who need love and connection like anyone else . . . older people are not being given a voice in the lockdowns." The association developed rights-based solutions, including new techniques and policies which protected residents rights to connection and safeguarding, improved care plans and expanded partnerships within communities and the LTC sector. The model demonstrates how to identify and address the broad needs of residents within the confines of public health restrictions.

“ We need to help people realize that care home residents are equal members of society who need love and connection like anyone else ... older people are not being given a voice in the lockdowns.

Members of the Irish Association of Social Workers

## Leveraging existing networks and practices for crisis response

Acting quickly and effectively does not always require novel practices. Instead, existing models can be adapted to meet the most pressing needs of the time. Dr Thomas Osborne of the US Veterans Health Administration explained this side of the crisis, noting that “urgency is greater now. People are using the tools that are already part of their infrastructure and adapting them to be better as a function of necessity.” Technologies and models previously mentioned in this report, as well as additional programs described later, have demonstrated resilience during the covid-19 pandemic by leveraging their adaptable practices in real time. Flexibility is a hallmark of organizations that have been able to adapt innovations to the pandemic. The versatility of Vietnam’s ISHCs, for example, enabled them to quickly pivot their clubs to use health volunteers as conduits of information about covid-19, distribute masks and food rations, and continue with health-related check-ups to ensure members and beneficiaries receive support. This preexisting network was crucial in making information and resources accessible for older adults.

“Urgency is greater now. People are using the tools that are already part of their infrastructure and adapting them to be better as a function of necessity.”

**Dr Thomas Osborne**  
Director, National Center for  
Collaborative Healthcare Innovation,  
US Veterans Health Administration

Other examples also demonstrate the value of flexibility during crises. The US-based Program of All-Inclusive Care for the Elderly organizations, which provide comprehensive care to older adults in need, have been able to meet the ongoing needs of their communities thanks to a versatile and localized structure, with many PACE programs adjusting to sending care providers to PACE recipients’ homes, for instance.<sup>109</sup> In another instance of a program operating flexibly during the pandemic, preexisting telehealth infrastructure

repurposed for acute care allowed a hospital transition program and telemedicine program to adapt into a virtual hospital-at-home scheme that served nearly 1,500 patients.<sup>110</sup> Both of the volunteer programs already described (in the UK and Peru) relied on volunteer organizations that were in place before the crisis. In other countries such as China, apps that predated the pandemic have also become the predominant means of coordinating volunteering (including serving older adults) during the pandemic.<sup>111</sup> Masato Okumura, senior specialist within IDB Lab at the Inter-American Development Bank, explained that a covid-19 innovation challenge had received many submissions of existing programs flexibly using their resources to shift attention toward older adults.

## Technology for crisis response

Technology has frequently enabled this flexibility and driven scale during the pandemic. In **Liverpool, England**, physicians from the NHS along with a telehealth company pioneered a program that leverages technology to support self-care for chronic diseases at home. Through the program, called **More Independent (MI)**, partners have built a remote telemedicine hub providing service to patients (mostly older adults) to self-manage their long-term health conditions (Appendix II-20). Patients record their vital signs, which are monitored by clinicians at the telemedicine hub to decide whether intervention is needed. Moving beyond a straightforward discussion with a doctor through an internet platform, the MI program offers continual assessment and real-time assistance for intervention when needed. The program has been scaled up in the Liverpool region since its initiation in 2013, and has since been rapidly scaled during the pandemic and expanded to other regions. Additional investment will allow the program to support up to 6,000 patients in Liverpool, roughly 4,000 more than were actively supported before the covid-19 pandemic.<sup>112</sup>

On the whole, these technologies have been able to enhance crisis resilience by quickly adapting to meet older adults’ most pressing needs. Dr Thomas Osborne, director of the National Center for Collaborative Healthcare Innovation in the US, described how many of the US Veterans Affairs system’s pandemic-related innovations have found specific ways to use existing technologies



## Enabling Innovation for Healthcare and Wellness

for new diagnostic, treatment and even medical educational purposes. Technological solutions are certainly not the only means to adaptable crisis response—as seen by the ISHC and IASW examples discussed earlier—but technology provides a clear path to scale and means for flexibility. While technological solutions cannot be used in a one-size-fits-all manner because of potential drawbacks concerning accessibility and ease of use, it is clear that these solutions offer great potential for serving older adults during times of crisis. Ensuring affordable access to the internet and employing design that focuses on the preferences and capacities of older adults, combined with robust and empathic education, can mitigate the downsides.



# III. Enabling environment, replication and scale

Examining the enabling environments for the innovations and leading practices identified in this study reveals key elements that facilitate their creation, replication and scale-up. Building on their respective strengths, all stakeholders—either from the public, private or “third” (ie, civil society and advocacy) sectors—can play a role in supporting healthy aging. Collaboration within and among these stakeholder groups is essential for innovation and implementation. Socioeconomic context mediates the specific roles that different actors take, and the legal and policy environments influence innovations in all contexts. Finally, knowledge-sharing and networks drive bottom-up and top-down efforts to replicate and scale innovations, although innovations must be adaptable, and governments play a uniquely important role in this process.

## A. All stakeholders have a role to play

All stakeholders—including public sector actors, healthcare and academic institutions, civil society and advocacy groups, and the private sector—take on different responsibilities in the innovation process. However, some stakeholders are more active than others. The public sector is central to innovations for healthy aging, given its important role in care for older adults, and intergovernmental groups are hubs of expertise. Healthcare and academic institutions lead clinical and technical innovations where patient or user trials are needed. Civil society and advocacy groups are particularly important for promoting equity, both within and among countries. Finally, the private sector is important particularly for new technologies, and is rapidly increasing its participation in the innovation ecosystem as older adults grow as a share of the global population.

## The public sector is the linchpin

National and subnational governments are particularly instrumental for the development of innovations, given their broad reach and deep involvement in health and social care policy and implementation. Many of the innovations identified for this report were driven by government actors, who were also particularly important for replication and scale (as discussed further in the report). For government-run innovations, such as Uruguay’s National System of Care and Thailand’s LTC system, the public sector’s involvement is a matter of course and spans the construction of a legislative and policy framework, funding for the program, and operations. But even in cases where an innovation is not government run, the public sector can confer legitimacy, resources and information. Take the volunteer networks established in the UK to support those vulnerable to covid-19, particularly older adults. While the program was run primarily by the Royal Voluntary Service, the NHS offered referrals for beneficiaries and a broader link to the UK health service’s efforts to protect citizens during the pandemic.

International multilateral agencies and supranational organizations (such as the EU), while less frequently the primary drivers of innovations, are valuable sources of global and regional technical expertise, knowledge, and coordination, assisting other actors with conception, implementation and funding. The ADB’s program to improve geriatrics nursing capacity relied on Chinese national and provincial government support (in addition to a variety of other partners). The ADB served as director and funder for the project. In the case of CoSENSo, the EU’s primary role was as a funder rather than implementer. Similarly, as described earlier in this report, organizations like the WHO play an essential role in directing global priorities and providing information about best practice and innovation.<sup>113</sup>

## Healthcare and academic institutions lead in implementation and research

Healthcare centers and health-focused academic institutions (often linked) are particularly important for patient-focused ideas that require trials. Those institutions closest to patients have an intimate understanding of the challenges they face and innovations that might alleviate these challenges. These institutions not only offer clear-cut pathways for trials of innovations but also provide standardized methods for publishing and sharing results, helping to spread innovations and allow them to scale up (more on this below). The Living Lab, for instance, started at Maastricht University in 1988, has since expanded to other sites and countries, and began receiving government funding in 2018.<sup>114</sup> The majority of hospital-at-home trials, particularly the early ones, were conducted by hospital-based researchers.<sup>115,116,117</sup> For policy development, representatives from healthcare institutions and academia often have seats at the table, as was the case in Taiwan's accreditation program for age-friendly healthcare institutions, to name one example.

## Civil society and advocacy groups fill in gaps and promote equity

Civil society groups and advocacy organizations fill myriad important roles as drivers of innovation for healthy aging. They lead innovations, collaborate with other stakeholders, advocate on behalf of older adults, provide knowledge and, in some contexts, even support services that fill gaps in governments' provision of services. A major strength of the civil society and advocacy sector is its versatility. For example, the NGO HelpAge International is the organizing force behind Vietnam's ISHCs and has been supporting its planned expansion to other locations, such as Iran and Cambodia. While—thanks to its success—the Vietnamese government has taken on greater responsibility for the project, it took years of sustained effort and ongoing trial and error to get the program right, including mobilizing disparate advocacy organizations from across Vietnam.

In the case of Uruguay, civil society movements provided the seeds of the National System of Care, particularly its explicit goal of promoting gender equity. Patricia Cossani, former deputy to the national secretary of care in Uruguay provided historical context, explaining that “the origin of the Sistema Nacional de Cuidados dates back to the 90s, not because of government initiatives then but because of the feminist movement.” For the IASW, advocacy through the development of new models of practice supported the broad emotional and social care needs of residents of LTC facilities, as well as their families.

## The private sector: the waking giant

The private sector has historically played a less active role in developing innovations for healthy aging, but is quickly becoming a key participant in the innovation ecosystem. As the proportion of older adults continues to increase globally, more and more firms are recognizing the economic potential of older adults. Public-private partnerships (PPPs) have also yet to become commonplace. Lisa Alecxih, chief capabilities officer at The Lewin Group, noted that at present, “PPPs happen on a more opportunistic basis rather than being an overarching goal.” Despite their relative lack of involvement, market forces and access to funding give the private sector a unique dynamism, which will allow firms to innovate rapidly and deliver at scale.

At present, the private sector's participation in innovations for healthy aging is particularly notable when it comes to new technologies and technologically mediated services, where companies are frequently at the vanguard. Much of the research on AI tools to promote healthy aging, for example (like the use of AI-based cognitive assessment), is currently supported by private sector firms like IBM. For the same reason, telehealth programs such as that developed by the NHS in Liverpool for self-care typically depend on private sector partners.

## B. Stakeholder collaboration is essential: breaking down silos drives innovation

More than any one set of actors, stakeholder collaboration has emerged as perhaps the greatest enabler of all the innovations identified in this study, a key driver for the development and spread of nearly all of them. Within the past decade, the value of collaboration for public sector and policy innovation has been increasingly recognized.<sup>118,119,120</sup> Previous studies under the ARC initiative, too, recognized that the best innovations are holistic and multidisciplinary. Stakeholder collaboration is important not only for government- or multilateral-led initiatives, but also for innovations across the board.

### Finding common interest and coordinating action through collaboration

One reason that collaboration is important—both within stakeholder groups and, even more so, among them—is simply that there are many stakeholders. The healthcare system is typically fragmented (though this is to a large extent country dependent), and even beyond the healthcare system there are many actors who are interested in older adults' wellbeing. These actors often have unaligned or even competing agendas.<sup>121</sup> Older adults and their families, care providers, advocates, policymakers, politicians, companies and others all have their own dynamic sets of desired outcomes that are likely to converge in some areas. Finding these areas of convergence, breaking down silos and increasing coordination can improve outcomes.

In the FLS model, clinicians improved older adults' outcomes by addressing a lack of coordination among groups of caregivers treating fragility fractures. The innovation is fundamentally a matter of improved cooperation. On top of the FLS model, it was the interaction among researchers, hospitals, civil society groups, governments and private sector actors that allowed this model to spread rapidly and flourish.<sup>122</sup>

Singapore and Greater Manchester provide examples of governments breaking down silos in pursuit of more effective whole-of-system policymaking. In these cases, the coordination and collaboration themselves, in a sense, were the innovative government activity.

In Singapore, efforts to prepare the health system to serve older adults and promote healthy aging have been largely government coordinated, for instance through the Ministerial Committee of Ageing, and have brought together a variety of government agencies with different mandates that all impact the lives of older adults, including representatives from the Ministries of Health, Social and Family Development, the Urban Redevelopment Authority and the Housing Development Board. In addition to close cross-ministry coordination, healthcare providers, public health experts, health administrators, private sector actors, community groups and older adults are involved in the policymaking process and the suite of programs for improving healthy aging and wellbeing among older adults. As Dr Lim Wee Shiong, senior consultant in the Department of Geriatric Medicine, Institute of Geriatrics and Active Ageing, Tan Tock Seng Hospital, told Economist Impact, “an aspect that has been important for Singapore has been the more integrated approach to the whole-of-government coordination ... In the past, the ministries would have jurisdiction over different areas and have oversight over their own activities, but there's more inter-ministerial dialogue now. It makes an impact in terms of the organization, coordination and overview of care.”

In Greater Manchester's “informal care” program, the budgets of the health and social care sectors were merged as part of a devolution agreement within this region. This decision allows local authorities to fund what they understand to be the greatest challenges in the community, jointly focusing on healthcare, social needs and the social determinants of health. The Greater Manchester carers' program benefits from this merging of budgets by allowing multiple entities to be involved in its delivery. In addition, the program itself centers on collaboration through the inclusion of family caregivers in decision-making processes where they have previously been left out.

“ In the past, the ministries would have jurisdiction over different areas and have oversight over their own activities, but there's more inter-ministerial dialogue now. It makes an impact in terms of the organization, coordination and overview of care.

**Dr Lim Wee Shiong**

Senior consultant in the Department of Geriatric Medicine, Institute of Geriatrics and Active Ageing, Tan Tock Seng Hospital



## Stakeholder collaboration drives effective knowledge sharing and transfer

In addition to breaking down silos to align stakeholder activity, in some cases stakeholder collaboration adds value by bringing together knowledge that may be held across multiple silos, to increase the likelihood of successful outcomes. Mexico's national information system on older adults is a case in point (Appendix II-21). While representatives are primarily from the Mexican government and academia, the working group includes specialists from four research and academic centers. The project also requires buy-in from politicians and policymakers and data from the Health Information Systems and the National System of Statistical and Geographic Information.<sup>123</sup> In other cases, transferring knowledge between stakeholders is one of the fundamental aims of collaboration. Efforts to improve geriatric education in Ghana and China relied, to varying extents, on knowledge transfer from countries (the US and Japan) with established geriatric expertise and specialties through collaboration with experts from these countries.

Older adults are a particularly crucial, and sometimes overlooked, stakeholder group whose knowledge and perspective about their own experiences inform effective innovation when they are included in the process, among other actors like family caregivers. The IASW's conversations with older adults and their families about how to best address their psychosocial needs during the covid-19 crisis provided insights that served as the foundation for national guidance. Involving older people was also critical for the Living Lab, which, in addition to older adults' knowledge, draws knowledge from nursing home administrators, clinicians, teaching staff at universities and family caregivers, among others, to collaboratively design new solutions to improve older adults' LTC—demonstrating the value of stakeholder collaboration.



## C. Socioeconomic context as an important mediator

While all stakeholders have a role to play in innovating, socioeconomic context mediates the actual effect or degree of impact. In addition, while innovations can emerge from all types of contexts, it cannot substitute for societal action.

### Diverging roles for drivers of innovation

Because socioeconomic context is intimately tied to the level of resources available for potential innovators, different actors often play different roles and have various levels of engagement. The differences determined by socioeconomic context are particularly pronounced for private sector actors, which tend to be more active in high-income economies. To a large extent this reflects the size of life-sciences sectors and markets. As a result, high-tech healthcare innovations reliant on hardware and preexisting healthcare infrastructure have emerged primarily in high-income (and in some cases middle-income) contexts and remained there. The InLife program, Liverpool's telehealth program, hospital-care-at-home programs, and AI programs for mental health and cognitive assessment are set within such economies.

The dynamics of civil society-led innovations are also driven by socioeconomic status. Multiple experts interviewed for this study suggested that for civil society actors, advocacy work and efforts to shape policy discourse were more common in high-income contexts, whereas service provision and support for policy development itself were more common in middle- and lower-income contexts, both among and within countries.

Healthcare and academic centers, too, vary among income groups. Given the relatively high-income distribution of academic centers publishing in English-language journals, and perhaps because of the more advanced health infrastructure as well (also linked to the private sector), academics and clinicians from high-income countries were more likely to be involved in innovations than those from LMICs. Alternatively, innovative practices from LMIC-based clinicians and academics may be myriad but less likely to reach the academic publishing network because of systemic barriers.

## Innovation, equity and enabling environments across the socioeconomic spectrum

Innovations emerge in a variety of contexts, and resource-constrained environments can lead to creative and productive resource use (as discussed in this report with regard to the covid-19 pandemic response), sometimes even more so than resource-rich environments. Because the typical model sees innovation move from high-income countries to LMICs, this is referred to variously as “frugal innovation”, “reverse innovation” and “disruptive innovation”. And there are undoubtedly lessons about healthy aging that high-income countries can learn from LMIC approaches.<sup>124,125,126</sup>

Community health worker (CHW) programs provide a clear example of frugal innovation. CHW programs emerged from LMICs, and then were primarily popularized in these regions, before their demonstrated efficacy increasingly led to adoption in high-income countries.<sup>127,128,129</sup> Even as CHW programs become more popular in high-income countries, LMICs continue to provide insights on effective CHW practices—including their ability to improve access to quality care for older adults. One recent trial in India reported that training CHWs in mental health protection for older people has improved mental health outcomes for this population.<sup>130</sup> Other innovations included in this report could also be successfully adopted in high-income countries. Costa Rica's care network, as one example, offers a replicable model of community-driven and government-supported care for high-income countries with strong locally led care activity, and many high-income countries have been evaluating the ISHCs for lessons to learn.

At the same time, overemphasis on “frugal innovation” in lower-income contexts risks undervaluing the benefits of broad-based economic development and the expansion of access to care to ensure healthy lives and wellbeing for older adults, in line with SDG 3. As one academic summarizes: “Innovation may help, but nothing can substitute for a fair society as the main and sustainable source of health equity.”<sup>131</sup>

## D. Legal and policy environments undergird innovation

The legal and policy environment is particularly important for shaping and enabling innovation. Roughly four-fifths of the innovations analyzed for this report were significantly enabled by the legal and policy environment, across innovation categories and varied contexts. As discussed at length in Section II of this report, policies regarding, for instance, UHC and LTC to a large extent determine older adults' ability to receive quality care. In the same manner, the legal and policy environment influences the innovations that emerge in a country, at the same time as that environment is itself a fruitful area for innovation. The care of older adults is typically highly regulated and government influenced. Thus, as governments move, so too do innovators—both within and outside the government.

### The direct line from legislation and policy to innovation

In some examples of innovations investigated for this report, there is a clear connection between a country's laws for the protection and care of older adults and the innovative policy that follows.

Uruguay is one instance. The Ministry of Social Development's creation by law in 2005 initiated a chain of events that resulted in Uruguay's National Integrated Care System in 2015.<sup>132,133</sup> Many stakeholders, both in and out of government, were involved in the design, development and deployment of the system, but the system's mandate and coordination were tied explicitly to the ministry's creation and its legal remit. Because the ministry's mandate covered children, women, older adults and those with disabilities, so too did the National System of Care serve children, older adults and those with disabilities together, with a specific focus on freeing women from traditional caregiver roles for these groups.

The Red de Cuido in Costa Rica offers another example of a legal environment promoting innovative policy. The network was borne out of a regulatory framework that includes the Comprehensive Law for the Elderly, the Equal Opportunity Law for Persons with Disabilities and the Law for the Promotion of Personal Autonomy of Persons with Disabilities (among other laws),<sup>134,135,136</sup> The Comprehensive Law for the Elderly, for instance, stipulates the promotion of older adults' permanence in their family and community nucleus and of forms of organization and participation for older adults that allow the country to benefit from the experience and knowledge of this population. This legal and policy approach specifically prioritizes community-centered and community-driven care, with input from older adults themselves, delivered together





by a variety of public and private entities, and the Red de Cuido follows these priorities.

While it may seem straightforward, the Uruguay and Costa Rica examples both demonstrate that the specific content of national legislation has a large impact on the policy and later laws that emerge. Laws prizing the roles of older adults in society do not necessarily lead to innovative policy in all cases, but it is difficult for innovative policy for healthy aging to develop without the requisite legal framework in place.

### Legal and policy environments influencing innovation

Even where a direct line cannot be drawn from laws and policies to innovation, often the policy environment undoubtedly influences the priorities of innovators and determines the range of possible solutions for challenges through innovation.

In Ghana, for instance, recent efforts have led to the creation of West Africa's first geriatric medicine fellowship program.<sup>137</sup> The National Ageing Policy (soon to be augmented by an Aged Persons Bill<sup>138,139</sup>) of 2010 explicitly discusses the need for improved geriatric medical education, stating: "The training of health personnel gives little attention to older people and very few specialist services exist. Currently, there are no special incentives to attract medical and health students to offer [sic] courses in geriatrics and gerontology." The program at the Ghana College of Physicians and Surgeons is operating within this supportive policy environment, possessing government sponsorship. Moreover, the Ghanaian program is also taking advantage of a policy dictate that government-sponsored graduates of the fellowship program will be bonded to the government for five years after training, allowing it to operate with significantly less fear of brain drain.

In the same way, establishment of the ADB's program in Liaoning, China, was presaged and guided by a variety of national and local policy initiatives to improve care of older adults and expand training programs for care workers.<sup>140</sup>

This relationship with the policy environment is also particularly important when developing AI for healthcare uses, including for older adults. National legal and policy environments for AI in healthcare and health data more broadly dictate

the extent to which this set of technologies can be applied and where and how they develop. While global policy on AI has been fairly lax to date, this is expected to change rapidly in the coming years. The International Medical Device Regulators Forum (IMDRF) has been a key player in this process.<sup>141</sup> The group contains representation from health regulation bodies from Australia, Brazil, Canada, China, Europe, Japan, Russia, Singapore, South Korea and the US, with official observation by the WHO.<sup>142</sup> The organization has been focused on developing AI standards, building on existing standards for Software as a Medical Device. These standards will influence relevant regulatory processes in IMDRF members and beyond, and will directly impact the extent to which AI tools do or do not reinforce existing biases, including age-related. Because AI innovation is still emerging, these policy changes will alter the enabling environment, as the laws catch up with technology.<sup>143</sup>





## E. Facilitating replication and scaling of innovations and pioneering practices

Creating the first instance of a new innovation is one matter, but successfully replicating, scaling or adopting is another entirely. Some aspects of the enabling environment remain important for both, such as the government's foundational role, and other aspects are unique to scaling innovations. If others do not know about an innovation, it will not spread. Innovations frequently move through existing networks, so those stakeholders wishing to spur the transfer of innovation can work to strengthen these networks. Even if there is an infrastructure for sharing innovations, there still must be demonstrated effectiveness and the ability to meet a clear need. Moreover, to enable replication, an innovation must be flexible enough to be adapted across multiple contexts since, even within countries, no two locations are alike.

### Networks drive spread, and information drives credibility

Innovations in healthy aging can spread only if those actors who would adopt an innovation first know about it and believe it will be effective. Networks typically help drive this spread, whether interpersonal or academic, created by civil society groups, or within or between international organizations. Networks provide not only a means of spreading information about effective innovations, but also best practices regarding implementation and localization. Global networks like the WHO's Network of Age-friendly Cities and Communities promulgate "experience and mutual learning" among its members around the world.<sup>144</sup> Academic institutions and publishing spread clinical innovations in particular.<sup>145</sup> The ongoing exchange of information across these networks as trials take place in multiple locations builds the evidence base that will encourage others to use a clinical innovation.

One example where this process has been well documented is the rise of Fracture Liaison Services

(FLS). The first FLS program by that name was established in Glasgow in 1999.<sup>146,147</sup> Through person-to-person education, FLS had been established in roughly 30% of UK hospitals by 2005.<sup>148</sup> Afterwards, medical professional societies banded together with patient groups, amplifying this network effect and providing national leverage for policy adoption. This process was replicated in other countries. Innovation champions connected with one another or worked under the auspices of larger civil society or government organizations to create both bottom-up and top-down promotions of FLS. This process is currently taking place in hospital-care-at-home programs, where academic and clinical networks have spread the innovation, and rising awareness and advocacy have concurrently created top-down pressure that led to its national implementation in countries like Spain and Portugal.

In another ongoing example, Manchester's approach to connecting the health and social sectors resembles the approach that Mexican experts are hoping to take in improving information on older adults in the country, which has led to experts from the UK and Mexico connecting. Networks built around healthy aging and common ground fostered global policy cooperation. Dr Luis Gutiérrez, director general of Mexico's National Institute of Geriatrics at the National Institute of Health, described this collaboration, saying, "we have partnered with experts in Manchester working on the same ideas. We think this will hopefully keep our project moving and can be a useful partnership for them as well."

The replication process depends on evidence and messaging, too. Positive local reception contributes not only to an innovation's initial success but also its ongoing replication and spread. Therefore, highlighting success stories (such as Glasgow's FLS) both frames best practice and serves as an effective communication tool. Information on these successes must be available and credible. As Bengt Andersson senior advisor in welfare technology at the Nordic Welfare Center said, a community should ideally be asking, "why don't we have those services in our town?" This is also both top-down and bottom-up. In the case of Vietnam's ISHCs, community demand for clubs was a major factor in the model's strong results. The success of the Japanese community-based LTC policy led to its replication in Thailand. And, in turn, Thailand's success then piqued the interest of experts in other LMICs such as Mexico and Peru, where efforts to adapt the Thai model are under way.

## Innovations must be adaptable to successfully replicate

Time and again, experts highlighted the need for innovations to be adaptable to local contexts to successfully replicate. If the best solution for one locale cannot be modified enough to succeed in another, replication and scale are not feasible. Rebecca Kennelly, former director of volunteering at Royal Voluntary Service, made this idea clear when describing the NHS Volunteer Responders program: “You can always replicate, always learn, take the best and adopt it, but the thing that is most important is that NHS Volunteer Responders are different in every community throughout England. They understand local needs.” ISHCs are a model of this type of adaptability. The clubs are designed to flexibly serve the needs of community members, which enabled the success and spread of the model throughout Vietnam, and now beyond.

Regardless, even if an innovation is flexible, local context and implementers still need to be suitable to successfully adapt a particular innovation. Planning, education, financing, quality management and understanding local policy context all play into successfully implementing health innovations.<sup>149</sup> As Justin Derbyshire, CEO of HelpAge International, explained, “every context is local. There’s always the pain and process of adapting locally country by country and region by region, but you have to go through it to make sure you’re successful.”

Replication may not always be straightforward, and even if an innovation initially seems adaptable, there may be underlying factors that complicate its spread. Although the technology of the NHS Volunteer Responders program could easily be recreated in other countries with smartphone penetration, as could the mass volunteer drive, there are other complicating factors. In particular, the trust among the Royal Voluntary Service, the NHS, the GoodSam app developers and the public could be difficult to replicate elsewhere. This trust between partners is the cornerstone of the program’s success, and—in the case of the relationships between the Royal Voluntary Service, the NHS and the public—have been built up over decades of collaboration and good will.

“Every context is local. There’s always the pain and process of adapting locally country by country and region by region, but you have to go through it to make sure you’re successful

Justin Derbyshire  
CEO, HelpAge International



## All actors drive scale, but governments are vital

To varying extents, the private sector, civil society organizations and multilateral organizations all have capacity to deliver scale, but for many aspects of healthy aging, government involvement is desirable to deliver nationwide scale. Because governments are central to healthcare in all countries—and frequently areas like LTC as well—whether they are funding and delivering care themselves or simply setting policies in areas like billing and reimbursement, government involvement is typically central to scaling up innovations for healthy aging. Where networks drive bottom-up spread and work to influence policy, government cooperation supports widespread, top-down adoption. Reflecting on this reality, Masato Okumura, senior specialist within IDB Lab at the Inter-American Development Bank, remarked, “when it comes to scaling aging and health innovations, the public sector is extremely important. Many things just cannot happen without public-sector involvement.”

The ISHCs in Vietnam illustrate the value of government involvement for expansion. The main drivers of scale initially were HelpAge Vietnam and HelpAge International, donors and partner organizations, and ISHC club members, all of which made long-term concerted efforts to build a successful program. However, examination reveals that the Vietnamese government was needed at each step. Vietnamese government approval was required for the first pilot clubs in 2006. After the success of these, it was first provincial government cooperation and then strong, active national government support beginning in 2016-17 that allowed the program to grow to nearly 3,500 clubs. Active government involvement accelerated the pace of scale, with a current target of roughly 10,000 clubs by 2025.<sup>150</sup> In the same manner, as HelpAge looks to spread the ISHC model internationally, they are working with government actors from different countries

“When it comes to scaling aging and health innovations, the public sector is extremely important. Many things just cannot happen without public-sector involvement.”

**Masato Okumura**  
Senior specialist, IDB Lab  
The Inter-American Development Bank





## IV. Call to action

The covid-19 pandemic has re-focused attention on the many ways in which older adults have been excluded from or face barriers to accessing health services. The causes, including ageism, the perpetuation of disparities, marginalization and lack of dedicated resources, among others, continue to strain countries worldwide. However, these are not permanent, and systems can be adapted to better serve the diverse needs of older adults. Major gaps that exist in health services provision fall in the following domains:

### **Access to quality healthcare services:**

Fragmented health systems, inefficient service delivery and outdated models of care result in limited, unequal access to quality health services for older adults. By expanding preventive services, implementing integrated models of care and making health systems easier to navigate, older adults can better access these vital services.

### **LTC provision and support for caregivers:**

Access to affordable, quality LTC services remains limited. As a result, the burden falls far too frequently on family carers. To improve this will take a combination of national-level policy reform that recognizes LTC work as vital, alongside improved training and incentivization to increase the LTC workforce and support for family caregivers.

### **Support for aging in place:**

The growing desire of older adults to remain living in their homes and/or communities has not been matched with structures and services that can support this. Establishing community-centered care and services that target physical, mental and social needs are instrumental to improving older adults' ability to age in place.

### **Crisis response:**

Older adults are among the most vulnerable in times of crisis because of their increased risk of isolation, lack of access to technology and information and limited structures that can be mobilized to help older adults access care, among others. To support the health and wellbeing of this population, it is important to ensure that their immediate needs are met during and in the wake of crises, and their continued, longer-term care needs are met on an ongoing basis without interruption.

Across the globe, various stakeholders—including governments, civil society, academia, international agencies, the private sector and others—have increasingly realized the opportunities that aging brings and the importance of healthy aging for the sustainable development of societies. These stakeholders have stepped up efforts to build or augment supportive systems and improve service quality.

However, more solid and concerted actions are needed. To succeed in the four action areas of the Decade of Healthy Aging, along with SDG 3, requires efforts of whole societies and across countries.

## Imperative of a whole-of-society approach

Societies have long operated under the belief that health is an individual's responsibility. That narrow lens is shifting, albeit slowly, to a view that it is the responsibility of the whole



society—including stakeholders across governance, health, education, finance and other systems—to enable individuals to age in good health. To achieve this new goal of aging, new practices and models will inevitably encompass principles of the life-cycle approach, laid out in the European Commission's latest Green Paper on Ageing. The approach requires all relevant stakeholders to work together in shaping policies across individual life spans, but also to commit to sustainable solutions and intergenerational solidarity.<sup>151</sup> Collaboration among stakeholders is the first step.

The covid-19 pandemic has unveiled just how necessary a cohesive whole-of-society approach is to ensure the health and wellbeing of older and more vulnerable populations. Bearing in mind that crises exacerbate preexisting inequalities, HelpAge International suggests key actions to protect older adults and prevent inequalities from worsening: identifying vulnerable older adults; planning outreach activities when the emergency occurs; and having the capacity to provide mobility and adaptive services as needed. Following the crisis, it will be important to ensure older adults have information regarding the extent of the pandemic and available services in the community. Despite growing solidarity at present around caring for aging populations, there is much to be done:

- Promoting a life-course approach to innovation can encourage societies to offer services that lead to better health in older age, including strong preventive measures early in life.
- Understanding the need for social inclusion and engagement with community, innovations should focus on the interconnected nature of mental health, physical health and the social determinants of health to result in the greatest impact.

## Breaking down silos between stakeholders

Traditional “non-health” actors (eg, technology firms, finance ministries) are beginning to see the benefits of collaborating to enable healthy aging. Cross-country collaboration facilitates knowledge-sharing and adopting effective practices. Methods such as merged budgets, shared decision-making and collaborative design help move along this path.

However, historical isolationist tendencies continue to hinder efficient progress. Dr Willeke Van Staaldouin, CEO of AFEdemy BV, a Netherlands-based company, and vice chair

of the COST Action NET4Age, explained that “there is a need for a ‘common language’ so that authorities from a variety of sectors can understand the challenges in a coherent way without technical jargon” that often perpetuates these silos. Although increased collaboration has its benefits, societies should also be wary of too much integration, which could lead to inefficient conglomerates. Achieving this balance is possible, and the following efforts can bring about efficient, sustainable and effective practices:

- Engaging the most important stakeholders—older adults—is paramount to establishing innovative practices that meet this population's needs. All older adults cannot be considered one entity; rather, taking a more granular approach to understanding this diverse population will give greater insight into the innovations needed, which will also help to address the disparities that exist even among different groups of older adults.
- Maintaining the knowledge that transformational change takes time, it is important for stakeholders to strive for a common vision that they can continuously work toward.

## Developing the evidence base

Innovations, by definition new approaches, can lack rigorous evidence bases. Confidence in new approaches can be built only by closing gaps in evidence. However, too strong an emphasis on a wait-and-see approach may preclude the trial and good-faith experimentation needed to establish innovative practices and policies. Programs identified in early stages of this research address critical gaps in aging and wellbeing, but lacked information on program details and evidence of impact, precluding inclusion. Other innovations, such as testing new treatment approaches for older adults with multiple chronic conditions, will be instrumental in the coming years, but the pilot phases also pose challenges for wider lessons on applicability. Research gaps continue for many pressing issues older adults face, including sexual and reproductive health and the impact of ageism on mental health conditions.

Lack of traditional scientific research can prevent innovative practices from attracting the attention they deserve, as found in the previous studies under the ARC initiative. Often, funding is seen as the headline challenge, but a strong implementation plan with key indicators of

## Enabling Innovation for Healthcare and Wellness

success is, in practice, far more difficult to achieve. Dr Karen Eggleston, director of Stanford's Asia Health Policy Program, takes the argument a step further and asserts that “correlated to evaluation is the need for accountability to be built into these programs,” emphasizing that evaluation is not the end goal. The ecosystem for producing evidence on untested innovations could be bolstered through key action areas:

- Establishing meaningful impact measures that can be adapted to reflect the realities on the ground makes it possible to assess metrics such as acceptability and adaptability, among others.
- Developing implementation plans can alleviate challenges that arise by setting clear goals and objectives with an active feedback loop in their design.
- Building in impact assessment measures and strong implementation design are futile without clear lines of accountability.



# Appendix

# Appendix I. Methodology

## Defining, identifying and researching innovative or pioneering practices

### Definition:

Throughout our research we have relied on a broad definition of innovation that accounts for both novel practices to address the health and wellbeing of older adults in any context, as well as innovation in application, where preexisting or newly established innovations are adapted or applied in new contexts. This definition draws largely from the World Health Organization's definition of health innovation, which states: "Health innovation identifies new or improved health policies, systems, products and technologies, and services and delivery methods that improve people's health and wellbeing. Health innovation responds to unmet public health needs by creating new ways of thinking and working with a focus on the needs of vulnerable populations."<sup>152</sup>

### Approach:

- Initially, the research team undertook a structured literature review using relevant keywords to identify innovations and pioneering practices for increasing and improving access to health and care services in varied contexts, with the focus on those that had emerged, expanded or scaled up in the past decade and not covered in the previous ARC reports.
- Simultaneously, a first round of exploratory interviews was conducted with experts from around the world who represented a variety of backgrounds and professions, with additional innovations added based on expert input.
- After this initial phase, the research team conducted a deep secondary literature search to better understand the approach to implementation and impact of identified innovations and pioneering practices, and identify an additional set of innovations.
- From an initial long list of 71 identified innovations, Economist Impact narrowed to the short list of 21 innovations included in the appendix, aiming for a diverse representation of innovation focus, innovation development stages, geographies and socio-economic contexts.
- The research team also conducted topic-focused interviews with experts who were identified as helping to establish or currently involved in the selected innovations and pioneering practices.



# Appendix II. Select innovations

- 1 Developing an integrated aging-ready healthcare system: Singapore's national care system
- 2 Championing coordinated and multidisciplinary care for specific diseases: fracture liaison services
- 3 Expanding the network of trained healthcare professionals: the first geriatric medicine fellowship program in Ghana
- 4 Attracting care providers to new communities: CoSENSo in the Alpine Space in Europe
- 5 Utilizing sustainable technology to improve access and equity: Kaaro Health in Uganda
- 6 Accrediting age-friendly institutions: Taiwan's accreditation program
- 7 Formalizing integrated care systems for older adults: Uruguay's National Integrated Care System
- 8 Supporting aging in place in middle-income contexts: Thailand's community-based care program
- 9 Improving the quality of long-term care: the Living Lab in the Netherlands
- 10 Expanding capacity of caregiving professionals: Asian Development Bank geriatric training program in Liaoning, China
- 11 Supporting caregivers outside of the clinical environment: Greater Manchester informal carers support
- 12 Community-driven, government-supported care networks: Costa Rica's Red de Cuido
- 13 Creating mutual support and volunteer networks: Intergenerational Self-Help Clubs in Vietnam
- 14 Building gerontological support at the neighborhood level to support aging in place: Croatia's gerontological centers
- 15 Integrating ICT-based solutions into care and services: InLife program across Europe
- 16 Bringing hospital-level care to the home: hospital-at-home program
- 17 Large-scale government-supported volunteer networks for crisis response: Peru and UN Volunteer program
- 18 Large-scale government-supported volunteer networks for crisis response: UK NHS Volunteer Responders program
- 19 Addressing the psychosocial needs of older adults during periods of crisis: Irish Association of Social Workers model of practice during covid-19
- 20 Leveraging technology-supported care for chronic conditions: Liverpool telehealth-based self-care program
- 21 Developing national health information systems for older adults: Mexico's Strategic Information System in Health, Functional Dependency and Aging fracture

# 1) Developing an integrated aging-ready healthcare system: Singapore's national care system

**Using a whole-of-government approach and reorganizing its healthcare system, Singapore has emerged as a leader in an integrated, community-centered approach to healthy aging.**



## THE FOCUS

As a rapidly aging country, Singapore urgently needs to ensure that its care systems for older adults promote healthy aging and active participation in their communities.



## HOW IT WORKS

Singapore has been among the first countries to offer a model of integrated, patient-centric, team-based healthcare for older adults, moving away from a traditional focus on acute healthcare. In 2012, the country developed an integrated aging-ready health system, shifting from care for specific diseases to more holistic care provided at the local level. Regional healthcare systems (RHSs)—six established in 2008, consolidated into three in 2018—coordinate care that emphasizes prevention and health promotion for all levels of care, including self-management of chronic disease.



## ENABLING ENVIRONMENT

A forward-thinking, pragmatic policy environment in Singapore is behind the reorganization of the care system to prioritize older adults and prepare for healthy long-term aging. The government has coordinated efforts to prepare the health system to serve older adults and promote healthy aging, bringing together a variety of agencies with differing mandates that all impact the lives of older adults, including representatives from the Ministries of Health, Social and Family Development, and Transport. In addition to close cross-ministry coordination, healthcare providers, public health experts, health administrators, private sector actors, community groups and older adults are involved in policymaking and the suite of programs for improving older adults' healthy aging and wellbeing. This level of coordination among ministries is itself innovative. Changes to healthcare funding and buy-in from the private sector healthcare system have also helped to successfully transform Singapore's system to RHSs and the patchwork of supports and care pathways for older adults.



## IMPACT

Singapore exemplifies targeted coordination of care services across the whole of government for older adults. Population-level impacts are still forthcoming since they will require more years of data. However, initial results from the RHSs indicate that they have improved care processes, sped up patient recovery and shortened lengths of hospitalization.

### Sources:

Lim WS, Wong SF, Leong I, et al. Forging a frailty-ready healthcare system to meet population ageing. *International journal of environmental research and public health*. 2017;14(12):1448.

Rogerson A, Stacey S. Successful ageing in Singapore. *Geriatrics*. 2018;3(4):81.

SINGAPORE'S LONG-TERM CARE SYSTEM ADAPTING TO POPULATION AGING. ADB. Available from: <https://www.adb.org/sites/default/files/publication/637416/singapore-care-system-population-aging.pdf>.

Earn LC. Singapore [Internet]. The Commonwealth Fund. Available from: <https://www.commonwealthfund.org/international-health-policy-center/countries/singapore>.

## 2) Championing coordinated and multidisciplinary care for specific diseases: fracture liaison services (FLS)

**FLS is an innovative model for the treatment of fragility fractures that has gained rapid traction globally since the late 1990s, typically targeting patients over age 50 who have sustained a major osteoporotic fracture.**



### THE FOCUS

Patients with a fracture—a common occurrence among older adults—are often challenged by ambiguous care pathways that result in a gap in health services for detection and treatment of a fracture.



### HOW IT WORKS

The core of this model is a crosscutting approach to collaboration among a variety of healthcare providers and specialists. FLS combines services including orthopedic surgery, primary care and other ancillary treatment such as physical therapy and dietary advice. After suffering an osteoporotic fracture, a patient is assigned a care coordinator (or liaison) responsible for arranging all treatment and recovery services. The liaison follows the patient throughout their care journey to ensure continuity of care through multiple providers and services.



### ENABLING ENVIRONMENT

The FLS model of innovative, multidisciplinary, coordinated care for older adults' fracture treatment emerged from hospital-driven efforts, which were then supported and spread by civil society groups along with networks of healthcare professionals. National policy has since dictated the extent to which the FLS model has been able to spread in a country, rather than remain driven by hospitals and health systems. While funding has not been a key determinant, FLS typically generates cost savings that, in addition to the model's clinical efficacy, have undergirded efforts to disseminate the model.



### IMPACT

Across a wide range of FLS programs in various countries, this model has demonstrated improved treatment outcomes and health benefits for fracture patients. Studies have found that FLS programs increase access to high-quality fracture treatment leading to lower refracture rates, which in turn result in better mobility and physical function, and increase quality of life for older adults. These outcomes also reduce mortality. A highly successful trial in the Netherlands revealed a 3% decrease for a typical FLS program and up to 35% over two years following FLS-supported care. Ultimately, FLS programs have been found highly cost-effective, improving outcomes for health systems and individuals at the same time.

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Han Cha, Y., et al. (2020). Introduction of the Cost-Effectiveness Studies of Fracture Liaison Service in Other Countries. *Journal of Bone Metabolism*. 2020 May; 27(2): 79-83.

International Osteoporosis Foundation. Available from <https://www.osteoporosis.foundation/>

Huntjens KM, Van Geel TA, Van Den Bergh JP, et al. Fracture liaison service: impact on subsequent nonvertebral fracture incidence and mortality. *JBJS*. 2014;96(4):e29.

### 3) Expanding the network of trained healthcare professionals: the first geriatric medicine fellowship program in Ghana

**In 2016, Ghana College of Physicians and Surgeons, in collaboration with the University of Michigan (UM), created the first geriatric training fellowship program in Ghana, an important first step to build the country's geriatric-service capacity.**



#### THE FOCUS

With a large and growing older population, Ghana—and West Africa more broadly—is grappling with providing specialized care for older adults, resulting from the lack of domestic programs in advanced geriatrics education.



#### HOW IT WORKS

Building on an evidence-based geriatric curriculum, the Ghanaian fellowship is a two-year program consisting of outpatient, inpatient, office and community experience; educational and research activities; and specialty clinics (eg, geriatric nephrology, palliative care). The program is longer than most fellowship programs in other countries (usually one year) to ensure fellows learn from practice. For example, fellows are assigned to care homes, where they gain real-life practice by conducting assessments of older patients' health conditions and providing geriatric advice, benefiting both fellows and care homes.



#### ENABLING ENVIRONMENT

International collaboration and a supportive policy environment made the fellowship program possible. The Ghanaian fellowship lead, a senior faculty member, spent six months at UM gaining clinical training in geriatric care and helped develop the fellowship's curriculum. Furthermore, Ghana's policy environment also supported this program, including the 2010 National Ageing Policy, which emphasizes the need to increase capacity in geriatrics education, and policy dictating that government-sponsored graduates of the fellowship program will be bonded to the government for five years after training. Thus the program can operate with less fear of brain drain, a significant problem in low- and middle-income countries.



#### IMPACT

The program has created a pipeline of domestically trained geriatrics fellows in Ghana, although the first cohort of two fellows has yet to graduate as of the end of 2020 (they are currently working on their dissertations). Regardless, this program can serve as a template for other institutions in the country and the region to expand their advanced geriatrics education.

#### Sources:

Essuman A, Gold KJ, Vitale C, et al. Establishing the first geriatric medicine fellowship program in Ghana. *Journal of the American Geriatrics Society*. 2019;67(8):1718-23.

NATIONAL AGEING POLICY 'AGEING WITH SECURITY AND DIGNITY' [press release].

Ministry of Gender, Children and Social Protection Republic of Ghana. 2010. Available from:

<https://www.mogcsp.gov.gh/mdocs-posts/national-ageing-policy-ageing-with-security-and-dignity/>



## 4) Attracting care providers to new communities: CoSENSo in the Alpine Space in Europe

**The CoSENSo (COmmunity Nurse Supporting Elderly iN a changing SOCIety) pilot increased access to care for older adults in the European Alpine Space by training family community nurses to serve in these mountain regions and lead health promotion activities.**



### THE FOCUS

Older adults in the Alpine Space find it more difficult to access care than those who live in less rural and mountainous areas, meaning community members are more likely to have to leave their home to get care. These regions (including Austria, France, Italy and Slovenia) have higher proportions of older adults (ages 65 and older) than others, ranging from a fifth to a third of the total population.



### HOW IT WORKS

This model interweaves three objectives in a new approach to care delivery in remote areas of the Alpine region: 1) designing and implementing new public policies based on the social innovation model for older adult care, 2) building training modules for nurses that can be adapted and transferred to training institutions in the Alpine Space and beyond, 3) and stimulating social enterprise development and entrepreneurship among nurses. The program includes individualized plans from family community nurses, regular check-ups, health promotion activities and training for the family community nurses. Central to this program are the nurses who facilitate communication among the older adults, the providers of their health services and those who arrange the social services to holistically address older adults' needs.



### ENABLING ENVIRONMENT

CoSENSo required government coordination between both regional and national entities as well as nonprofit research organizations. Led by the Piedmont region in Italy, the program includes ten partners from Austria, France, Italy and Slovenia, as well as seven observers representing governmental ministries, health authorities and professional associations from the Alpine Space. EU funding supported the project, allowing the partners to focus on implementation. In the given areas, the health and social sectors were already integrated, serving as the foundation on which CoSENSo could build. The private health sector proved instrumental as well since nurses were employed privately to reduce the burden on public health services.



### IMPACT

The pilot ran from 2016 to 2018 and ultimately led to a number of outputs such as a policy guidelines toolkit for local authorities, training programs for nurses and the validation of the CoSENSo Social Business Model in each partner region. For example, 31 nurses actively implemented CoSENSo. Each nurse, on average, visited 157 clients and performed 340 visits. Though outcomes differed among regions, the pilot was successful in increasing healthcare access and allowing older adults in the Alpine Space to remain in their communities. The pilot has ended, but other stakeholders can use the CoSENSo policy guidelines toolkit for training, implementation and social business development.

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CoSENSo - Community Nurse Supporting Elderly iN a changing SOCIety [Internet]. Interreg Alpine Space. Available from: <https://www.alpine-space.eu/projects/consenso/en/partners>.

Ippoliti R, Falavigna G, Montani F, et al. The private healthcare market and the sustainability of an innovative community nurses programme based on social entrepreneurship-CoSENSo project. BMC health services research. 2018;18(1):1-8.

## 5) Using sustainable technology to improve access and equity: Kaaro Health in Uganda

**Kaaro Health provides a variety of health and support services to rural communities in Uganda through solar-powered clinics offering telehealth consults, consistent access to medication and training to local providers, among other needs.**



### THE FOCUS

In East Africa, older adults experience policy gaps concerning pensions, insurance and access to health services at the national level, and they receive limited education about healthy lifestyles and maintaining independence. Bringing together sustainable energy and novel health infrastructure, Kaaro Health aims to expand healthcare access to rural areas of Uganda to promote healthcare and prevent dangerous travel to distant care facilities.



### HOW IT WORKS

What began in 2014 as an equipment leasing company to help rural areas acquire medical and solar equipment has grown into a sophisticated “clinic-in-a-box” system. Kaaro Health offers solar-powered telehealth container clinics in rural areas of Uganda to provide access to high-quality primary healthcare through repurposed shipping containers. The telehealth consultations are given by doctors in one of two urban centers, who can provide diagnoses, prescriptions and continuous medical education to the clinics’ health workers. The company offers in-home health visits from local health workers as well as the only software-supported drug refill system in the country, promoting consistency in access to and delivery of medication.



### ENABLING ENVIRONMENT

In the absence of policies guaranteeing health services to older adults, Kaaro Health, a social enterprise, steps in to provide a sustainable solution. Collaboration has been crucial to its success. The company has partnered with local Rotary Clubs and church parishes to identify older adults most in need of health services and has bolstered the technical aspects of the services with international partners such as GIZ, Merck and Unilever, ensuring the company’s relevance and quality to communities across the country. The program also relies on champions of this work at the community level who are willing to start and operate Kaaro Health’s services in their locality.



### IMPACT

The nearest in-person clinics are typically a full day’s walk away, which is often impossible or extremely difficult for older adults. Kaaro Health addresses this challenge with its network and services. The Kaaro Health platform has established a network of 71 energy-autonomous container clinics, deployed in Uganda’s 28,000 rural villages that have 2,000 or more inhabitants but do not have a health facility within a ten-mile radius. Since late 2020, Kaaro Health has also trained rural nurses and health workers to provide mental health support and treatment adherence counseling to improve older adults’ mental and physical health during the pandemic.

#### Sources:

Economist Impact communication with Asimwe Francis Xavier. January - February 2021.

Tech-Enabled Solutions for Rural Healthcare [Internet]. Kaaro Health. Available from: <https://www.kaarohealth.com/>.

## 6) Accrediting age-friendly institutions: Taiwan's accreditation program

The Taiwanese government has established an accreditation program for age-friendly healthcare institutions that helps promote effective care for older adults throughout the country.



### THE FOCUS

Taiwan, as a rapidly aging society, wants its citizens to know where they can turn for high-quality care for the older population. Given the unique care needs of older adults and the discrimination that older adults can face, it is not always easy to know which institutions will serve older adults well; without incentives, institutions may fail to offer appropriate services to this population.



### HOW IT WORKS

To improve older adults' quality of care, the Health Promotion Administration (HPA) introduced an accreditation program in 2011 for age-friendly healthcare institutions, the first in the world initiated by a national government. Accreditation criteria cover four dimensions of healthcare: administration policy, communication and service, care procedures, and physical environment. The program began in hospitals and was expanded in 2012 to include public health centers, clinics and long-term care institutions, and now includes primary health centers. This national program awards special accreditation to hospitals and health institutions that, based on established criteria, provide high-quality care to older adults. The policy has specific health outcome targets, but it also takes aim at ageist practices by requiring health providers to focus on factors such as the intrinsic capacity of older adults and forming community partnerships to establish age-friendly cities.



### ENABLING ENVIRONMENT

The HPA was the catalyst for establishing the accreditation program at a national level and ensuring hospitals and health systems across the country were aware of the new policy. The HPA based its program on WHO's "Health Promoting Hospitals and Health Services," which specifically focused on caring for vulnerable groups such as older individuals. In establishing the program, the HPA included representatives from healthcare institutions and academia for input on policy development. The Taiwanese government funded the program, and the HPA offered additional funding, including grants, to accredited hospitals for preventive services, which engaged key partners such as local public health departments and private providers.



### IMPACT

By the end of 2019, 652 institutions were certified, and 90% of surveyed older adults reported satisfaction with services provided at these institutions. This accreditation program aligns health system priorities with principles of equality, dignity and respect for older adults. Although the original criteria were developed primarily based on hospital practices, the government continues to optimize and adapt them to different types of institutions. The program has inspired similar efforts around the world in countries including South Korea, Austria and Greece.

### Sources:

Chiou S-T, Chen L-K. Towards age-friendly hospitals and health services. Archives of gerontology and geriatrics. 2009;49:S3-S6.

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Lin Y-Y, Huang C-S. Aging in Taiwan: building a society for active aging and aging in place. The Gerontologist. 2016;56(2):176-83.

Wu T-Y, Majeed A, Kuo KN. An overview of the healthcare system in Taiwan. London journal of primary care. 2010;3(2):115-9.

## 7) Formalizing integrated care systems for older adults: Uruguay's National Integrated Care System

**Uruguay's National Integrated Care System provides a range of services to older adults, including personal assistance, day care, telemedicine and financing for improving the built environment. The program was established in 2015 and has been expanding since then.**



### THE FOCUS

Uruguay wants to ensure access to quality care that promotes autonomy and inclusion for the estimated 64,000 from among its 490,000 adults ages 65 and over (as of 2020) who need assistance with their care. A proportion of these needs remain unmet, as do the care needs of the subset of those older adults who require assistance and also have disabilities.



### HOW IT WORKS

The system offers personal assistance (care workers), day care services and medical alert monitoring for older adults who would have difficulty accessing these services otherwise. The system also incorporates government accreditation for long-term care centers, which can then access financing for projects to improve their services, such as built-environment upgrades or equipment. As of 2020, the personal assistant program had been extended to those aged 80 and over, and the program incorporates training, assistance and quality assurance for caregivers.



### ENABLING ENVIRONMENT

Civil society actors and academics initiated a long-term conversation—in large part about the role of women as caregivers in Uruguayan society—that led to substantive government action, guaranteeing by law the right to care and be cared for. Starting in 2010, a group of national and international stakeholders joined the planning process to collaborate on a policy agenda around care, enshrined in law in 2015, when implementation began. The system also obtained periodic input from an Advisory Committee on Care, comprising civil society groups such as the Pro Care Network, academic institutions and business groups like the Uruguayan Chamber of Companion Service Companies.



### IMPACT

The International Labour Organization strongly supports the program as does the Inter-American Development Bank, who reports that “the creation of the SNIC has served to revitalize the private provision of [long-term support] services and revalue work in care” in Uruguay. The system expanded its reach between 2015 and 2020, with older adults benefiting from each of the constituent programs. As of December 2019, there were nearly 4,700 personal assistants serving roughly 6,100 (mostly older adult) users, from over 20,000 applicants. The day care centers (11 as of October 2020) were serving around 200 older adults by March 2020, from roughly 600 applicants, and the telecare program was supporting about 1,500 individuals from around 3,500 applicants. By March 2020, 343 long-term care centers had received accreditation.

### Sources:

S. d. Cuidados. Cuidados rinde cuentas - Marzo 2020. Ministerio de Desarrollo Social, 2020. Available from: <https://www.gub.uy/sistema-cuidados/datos-y-estadisticas/estadisticas/cuidados-rinde-cuentas-marzo-2020>.

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IDB. PANORAMA OF AGING AND LONG-TERM CARE 2019. Available from: [https://publications.iadb.org/publications/english/document/Panorama\\_of\\_Aging\\_and\\_Long-term\\_Care\\_Summary\\_Uruguay.pdf](https://publications.iadb.org/publications/english/document/Panorama_of_Aging_and_Long-term_Care_Summary_Uruguay.pdf).

How a new law in Uruguay boosted care services while breaking gender stereotypes. International Labour Organisation, 2018. Available from: [https://www.ilo.org/global/about-the-ilo/mission-and-objectives/features/WCMS\\_643905/lang-en/index.htm](https://www.ilo.org/global/about-the-ilo/mission-and-objectives/features/WCMS_643905/lang-en/index.htm)



## 8) Supporting aging in place in middle-income contexts: Thailand's community-based care program

Thailand has partnered with Japan to implement new programs and policies targeting the gap in LTC facilities and services across the country.



### THE FOCUS

In low- and middle-income countries without established LTC offerings, implementing programs at the community level and working up to the acute care level offers a compelling model for national transformation. Evolving in three distinct phases, this work builds on the phase before it by targeting new needs with every step.



### HOW IT WORKS

Thailand's multi-phased program offers services that target different aspects of LTC provision. The Japan International Cooperation Agency (JICA) began the C-TOP (Community Health Care and Social Welfare Services Model for Thai Older Persons) in Thailand in 2007, to improve the community health volunteer coordination and provision of health and social care for older adults. These volunteers receive a government stipend and serve as community-based health and social coordinators, offering the first line of care to older people while referring those with additional needs to other care providers. The second phase of the work, L-TOP (Long-term Care Service Development for the Frail Elderly and Other Vulnerable People), ran from 2013 to 2017 because C-TOP revealed many older adults in need of LTC due to a loss of independence or mobility. L-TOP focused on identification and case management of at-risk older adults across Thailand. The latest iteration of this program (running from 2017 to 2022), S-TOP (Project on Seamless Health and Social Services Provision for Elderly Persons), aims to improve care coordination after an older adult is discharged from a hospital. Each of these phases relies on the national health volunteers who receive a stipend from the Thai government to carry out these programs. Select volunteers and nurses travel to Japan to receive training in care and coordination for older adults and, on returning to Thailand, train other volunteers and nurses.



### ENABLING ENVIRONMENT

The policy environment was crucial in establishing these three programs. The Thai government recognized their existing policy gaps, particularly in light of the anticipated increase of older adults, and utilized Japan's expertise in this area to recommend policies and programs. In the initial stages of this program, the strong partnership between JICA and the Thai Ministry of Public Health and Ministry of Social Development and Human Security was key in establishing new services and trainings. At the start of the program, none of the stakeholders knew what C-TOP would become and allowed the needs they saw on the ground determine the next phases of the project. Rather than being prescriptive about implementation, these stakeholders collaborated to meet the most urgent needs of older adults using community volunteers. Recently, Thailand launched the "Health in All Policies" framework, which requires the national government to ensure healthy policies, underscoring the government's critical role in securing services for adults as they age.



### IMPACT

The primary indicator of success in these programs has been improvements in activities of daily living. Over two-thirds of participants have reported improvements, and qualitative surveys are under way to determine further benefits of the programs. The Thai government has also dedicated funding to continue training nurses and health volunteers on coordination and care for older adults. The program is in the process of being expanded to other countries, including Chile, Mexico and Sri Lanka.

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Outline of the Project [Internet]. JICA. Available from: <https://www.jica.go.jp/project/english/thailand/015/outline/index.html>.  
 Nakamura S. Translating Long-term Care Experiences in Japan - Thailand. JICA, 2019. Available from: <http://www.geriatrics.salud.gob.mx/descargas/publicaciones/apec-inger/23octubre/1-Nakamura-Japan.pdf>.  
 Economist Impact communication with Shintaro Nakamura. January 2021.

## 9) Improving the quality of long-term care: The Living Lab in the Netherlands

**The Living Lab in Ageing and Long-Term Care is a collaboration between long-term care facilities and universities to better integrate science into long-term care.**



### THE FOCUS

Designed to fill a void in both policymaking and research into long-term care, the lab serves as a central body to organize and implement research on reducing physical restraints, improving physical activity and increasing independence. The lab unites nursing home administrators, clinicians, teaching staff at universities and family caregivers, among others, to align care holistically.



### HOW IT WORKS

This innovation employs a participatory and multidisciplinary research design. Scientific researchers or employees of a long-term care facility serve as “linking pins,” or scientific and practice-based coordinators, throughout this process. They unite university research with training care providers and eventual in-practice deployment of research findings. The linking pins work together to pay special attention to the needs of the older individuals and their families, ensuring that the research and training are the most beneficial for these stakeholders. The research can focus on anything from developing an instrument to measure quality of care to the involuntary treatment of older people with cognitive impairments.



### ENABLING ENVIRONMENT

The Living Lab was created in 1988 in the Netherlands as a collaboration between a nursing home and Maastricht University. Each partner funded and directed its respective domain. The lab was developed as an intentionally collaborative program, and what began as a partnership between a healthcare institution and a university has evolved into a collaboration among multiple care organizations, universities and technical schools, and a variety of implementing partners. The institutional context was particularly important in the creation of the Living Lab. Research institutions and long-term care facilities agreed on the need for more scientific research on older adults and ways of translating that research into meaningful action in care homes—to create as much impact as possible with limited research resources.



### IMPACT

The research was and is used to change care norms to reflect the priorities of families and improve long-term care for the future. The lab has expanded to institutions across the Netherlands, including 110 long-term care facilities and programs that offer home care, totaling 30,000 clients and 15,000 staff across the country, as well as other European countries such as Portugal and the UK. The Netherlands government has recognized the value of the lab and awarded funding in 2018, after the lab's decades of producing evidence-based best practices. Funding has continued to expand from external competitions (such as EU grants) and partner organizations from the private sector, such as medical device research companies that are funding specialized projects they deem high priority.

### Sources:

Verbeek H, Zwakhalen S, Schols J, et al. The living lab in ageing and long-term care: a sustainable model for translational research improving quality of life, quality of care and quality of work. *The journal of nutrition, health & aging.* 2020;24(1):43-7.

Economist Impact communication with Dr. Judith Urlings. March 2021.

## 10) Expanding capacity of caregiving professionals: Asian Development Bank (ADB) geriatric training program in Liaoning, China

**The ADB, in collaboration with the Chinese government, developed policies and training programs to increase the capacity of geriatric nurses in Liaoning province.**



### THE FOCUS

With a rapidly growing, aging demographic, China is grappling with a lack of long-term care (LTC) workers. At present, China has about 500,000 LTC workers, which amounts to roughly 0.29 workers per 100 older adults, compared with an OECD average of 4.9 per 100 as of 2016. Moreover, geriatric nurses in the country are typically trained only in acute care rather than LTC.



### HOW IT WORKS

Starting in 2016, the ADB collaborated with the Chinese government and carried out a three-year program in Liaoning province to develop policies and training programs in geriatric nursing. Local and international experts worked together to develop policy recommendations and create a training curriculum. The program also established a system for teaching three groups—training experts, trainers and caregivers for older adults—to not only train more caregivers but also enable future training.



### ENABLING ENVIRONMENT

A variety of actors, coordinated by the ADB, worked together to successfully implement this program, including central and provincial government officials as well as domestic and foreign experts (eg, from the First Affiliated Hospital of China Medical University in Liaoning and Chiba University in Japan). In Liaoning, a multidisciplinary working group—consisting of representatives from the Liaoning provincial departments of finance, education, health and family planning, as well as the civil affairs bureau—was established to provide policy and implementation guidance. The ADB served as director and funder for the project. The program was also presaged and guided by national- and local-level policy initiatives for improving the care of older adults and expanding training programs for care workers, including the Law on the Protection of the Rights and Interests of the Elderly from 2013 and several other national and provincial policies explicitly mandating the improvement of education in caring for older adults, including geriatric nursing.



### IMPACT

The program improved geriatric nursing capacity and future training within Liaoning province, and it improved China's national geriatric nursing education. Four hundred individuals received training and gained certification. One hundred percent of clients reported satisfaction with the services provided by the trained nurses. ADB's technical assistance also led to the development of nationally distributed geriatric training and education materials. Standardized modules and other materials developed through the program have been disseminated to training centers and social welfare institutions around the country. Thus, the program created a pathway for more and better trained geriatric nurses in the future.

### Sources:

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## 11) Supporting caregivers outside of the clinical environment: Greater Manchester informal carers support

**Greater Manchester has developed an array of programs to assist informal caregivers through multisectoral interventions.**



### THE FOCUS

Informal caregivers are often overlooked in long-term care policies and policies that support traditional caregivers. Greater Manchester aimed to develop and promote supportive structures for informal carers.



### HOW IT WORKS

Using funds from multiple government ministries, Greater Manchester has been able to better support informal carers. The devolution of the budget began in 2015, and the support for carers began in 2018. The region has merged the budgets of the health and social sectors, and with that new integrated budget they support caregivers outside of the clinical environment to ensure their needs are met. Beyond offering health-specific skills training to informal carers, the program also supports these individuals in returning to the workforce, receiving counseling and participating in local policy creation.



### ENABLING ENVIRONMENT

The carers' program has been made possible only through the collaboration of a wide array of stakeholders, especially in the health and social sectors. The health and social care partnership has provided the foundation for this program. Local authorities and volunteer organizations have teamed up to support carers in a variety of ways. In addition, the devolution agreement in Greater Manchester allows the local government to make decisions for its population. Rather than receive mandates from the national level, local stakeholders can identify the needs of the region and enact policies accordingly. One of these policies is the Greater Manchester Support for Carers Programme, developed explicitly to outline the rights of carers. This culture of respect has influenced the highest levels of policy. The Adult Statutory Framework is part of national legislation that equalized the voices of carers and the people they care for in medical assessments.



### IMPACT

The devolution of funding has fostered an environment able to offer better support and encouragement for informal carers, beneficial to their wellbeing and the wellbeing of the loved ones for whom they care. Through training, employment, local policies, counseling and so forth, the 33 organizations in the Greater Manchester Health and Social Care Partnership have improved assistance for caregivers in the region.

#### Sources:

Greater Manchester Health and Social Care Partnership. Greater Manchester Support for Carers Programme Available from: <https://www.gmhsc.org.uk/wp-content/uploads/2019/03/10a-Greater-Manchester-Support-to-Carers-Appendix-A.pdf>.  
Manchester City Council Report for Information, (2019). Available from: <https://democracy.manchester.gov.uk/documents/s9717/Our%20Manchester%20Carers%20Strategy.pdf>



## 12) Community-driven, government-supported care networks: Costa Rica's Red de Cuido

**Red de Cuido is a Costa Rican program that subsidizes care for older adults in poverty or at high social risk through locally established and managed care networks, hence improving health equity.**



### THE FOCUS

Costa Rica's demographic transition is accelerating, with life expectancy and the number of older adults both increasing rapidly. As a result, care needs for older adults have grown, particularly for the most at-risk populations.



### HOW IT WORKS

In Costa Rica's Red de Cuido, the government subsidizes and oversees locally implemented and coordinated care networks (52 as of March 2021) for older adults in poverty or at other high social risk. These networks provide the services desired by the community and emphasize aging in place through a wide range of interventions including feeding, hygiene, equipment, social care, housing and municipal services, assistants, community homes, transport, health prevention and promotion, housing improvements, and long-term care. Networks can also allocate up to 10% of the government's subsidy to hire professional carers.



### ENABLING ENVIRONMENT

Red de Cuido is a product of Costa Rica's legal and policy environment, which emphasizes universal rights, including the care and protection of older adults. The Comprehensive Law for the Elderly, for instance, promotes the permanence of the elderly in their family and community nucleus, as well as comprehensive inter-institutional care for the elderly provided by public and private entities. The law also promotes older adults' organization and participation in a manner that allows the country to take advantage of their experience and knowledge. Costa Rica's legal and policy approach—which the Red de Cuido program follows—prioritizes community-centered and community-driven care, with input from older adults themselves, delivered through a variety of public, private and non-profit entities. The government increased the program's funding in 2015—augmented with social development funds and taxes on liquor, beer and cigarettes—to expand access to care.



### IMPACT

The Care Network is the government's main method of supporting older adults' care needs. Nearly 80% of older adults receiving subsidized care obtain it through the Red de Cuido, or roughly 15,000 older adults (out of an estimated 105,000 older adults living in poverty or extreme poverty). While there is room to expand services beyond those older adults facing poverty to others who have care needs, the program has successfully created a safety net of care for the neediest and has helped to promote the rights and fair treatment of older adults.

### Sources:

THE LEGISLATIVE ASSEMBLY OF THE REPUBLIC OF COSTA RICA. COMPREHENSIVE LAW FOR THE ELDERLY ADULT. 1999. Available from: [http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm\\_texto\\_completo.aspx?param1=N-RTC&nValor1=1&nValor2=43655&nValor3=95259&param2=1&strTipM=TC&lResultado=4&strSim=simp](http://www.pgrweb.go.cr/scij/Busqueda/Normativa/Normas/nrm_texto_completo.aspx?param1=N-RTC&nValor1=1&nValor2=43655&nValor3=95259&param2=1&strTipM=TC&lResultado=4&strSim=simp)

Sauma P. Elementos para la consolidación de la Red nacional de cuidado de las personas adultas mayores en Costa Rica. División de Desarrollo Social Santiago de Chile, 2011. Available from: <https://www.gerontologia.org/portal/archivosUpload/ssc-red-cuidado-Costa-Rica.pdf>.

RED DE ATENCIÓN PROGRESIVA PARA EL CUIDO INTEGRAL DE LAS PERSONAS ADULTAS MAYORES EN COSTA RICA Conapam, 2012. Available from: [https://www.conapam.go.cr/mantenimiento/Red\\_Cuido.pdf](https://www.conapam.go.cr/mantenimiento/Red_Cuido.pdf).

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IDB. Panorama Costa Rica. 2020. Available from: <https://publications.iadb.org/publications/english/document/Panorama-of-Aging-and-Long-term-Care-Panorama-Costa-Rica.pdf>.

## 13) Creating mutual support and volunteer networks: Intergenerational Self-Help Clubs (ISHCs) in Vietnam

**ISHCs are an innovative community-driven initiative to promote healthy aging through a broad range of self-supported interventions. The model has been rapidly upscaled in Vietnam since 2006 and is being implemented across Southeast Asia.**



### THE FOCUS

Vietnam is a rapidly aging society; experts predict that by 2050 the number of adults over age 60 will more than double, from 11.9 million in 2019 to 29 million, making up almost a third of the country's population. In addition, many older adults face challenges accessing healthcare and economic support, particularly in rural areas. Barriers to access are heightened due to urbanization combined with limited social protection policies that apply largely to those with formal-sector affiliation.



### HOW IT WORKS

Each club has its own unique model to best serve the needs of the community, but in general all ISHCs facilitate activities and support for participants, spanning health promotion, social pursuits and economic activities. Typical activities include home health visits and care; music, dance and art; microfinance and technical assistance; and rights awareness activities. The clubs, each with 50-70 members, foster inclusivity and are explicitly designed to promote health and gender equity. Typically, most members are women, aged over 55 and from a disadvantaged background. The program's initial focus was on rural areas with lower incomes and less access to care services. Clubs are locally managed, and each club has at least five home-care volunteers.



### ENABLING ENVIRONMENT

Civil society actors, partnering with multilateral organizations, brought ISHCs to fruition, and the Vietnamese government has led recent efforts to scale the program. It was started by HelpAge International and local partners. Alongside HelpAge, organizations such as the Vietnam Women's Union, the Vietnam Association of the Elderly, and the Center for Ageing Support and Community Development assisted with local implementation. The model's success eventually drew strong government support. The government aims to expand to over 10,000 ISHCs by 2030, up from 3,412 in 2020. ISHCs are sustainable and replicable because members' income-generating activities are typically able to fund the clubs without outside investment after two years. Finally, the model's adaptability has fostered its spread and broader adoption.



### IMPACT

ISHCs have improved health, social and economic outcomes, becoming a support system for older adults during the covid-19 pandemic. Eighty-five percent of members report improved health, 90% report access to health insurance each year, and over 94% have at least two health check-ups each year. Nearly 85% of ISHC members actively participate in physical exercise at least three times per week, and almost all members report improved confidence. The clubs have also raised member incomes. As of 2020, roughly 13,500 members received care from over 17,000 volunteers. Most recently, the program has used its network to provide timely and important information about covid-19, as well as distribute masks, rice and funds.

#### Sources:

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Economist Impact communication with HelpAge International Vietnam Office staff. November - December 2020.

## 14) Building gerontological support at the neighborhood level to support aging in place: Croatia's gerontological centers

**The Croatian government has established gerontological centers across the country to promote aging in place by providing intermediary services to older adults.**



### THE FOCUS

The government recognizes that changing family dynamics and improved longevity have increased the need for informal care services for older adults in Croatia. In response the government has established care centers within communities to meet these needs.



### HOW IT WORKS

Understanding the importance of aging in place, Croatia initiated a pilot program on the use of gerontological centers in 2004. Variations of such centers exist in many countries, but Croatia has established a nationally comprehensive program with collaboration among various Ministry of Health entities. The centers offer a community location for older individuals to interact with one another and with their health professionals while remaining in the comfort of their homes. Specific services of the centers include day care for older persons, physical, mental and occupational rehabilitation services, and daily lessons on healthy aging. The centers aim to not only offer health services but also creative activities, legal counseling, meal delivery and a variety of other services to address the holistic needs of aging adults.



### ENABLING ENVIRONMENT

Croatia has a universal health system that places an emphasis on providing care to all its citizens. This environment has allowed the gerontological centers to be widely accessible in communities throughout the country. The centers are operated by the Institute for Public Health, Center of Gerontology, and older individuals have access to them through the universal healthcare policy. The Ministry of Health funds the centers and has promoted expansion beyond the pilot phase. The efficacy of these centers relies on the partnerships between the Croatian Institute for Public Health, the national Center for Gerontology in the Ministry of Health and Social Work, and the feedback and communication of the network of centers.



### IMPACT

The program has been expanded to now include more than 100 centers across the country and continues to flourish today because of the demonstrated improvements in quality of life for individuals participating in these programs. The centers have improved quality of life in health outcomes defined by the Ministry of Health, and combated social isolation and loneliness. Outcomes for older adults in the program are some of the best in Europe as compared favorably with similar programs in other European countries.

### Sources:

Croatian Society for Gerontology and Geriatrics of the Croatian Medical Association. [Internet]. European Geriatric Medicine Society Available from: <https://www.eugms.org/our-members/national-societies/croatia.html>.

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Piotrowicz K, Gluszevska A, Czesak J, et al. Abstracts of the 15th International Congress of the European Geriatric Medicine Society (vol 10, pg S1, 2019). *EUROPEAN GERIATRIC MEDICINE*. 2020;11(2):343-.

## 15) Integrating ICT-based solutions into care and services: InLife program across Europe

**The InLife project, coordinated through the Polytechnic University of Madrid, facilitated independent living for older adults with mild to severe cognitive impairment through interoperable, open and personalized information and communications technology (ICT).**



### THE FOCUS

Independent living for older adults with cognitive impairment can be challenging, but technological solutions can promote independence and provide support.



### HOW IT WORKS

Running from 2015 to 2017, InLife used ICT solutions including supporting health activities, fostering socialization and communication, and undertaking home activities. Building on human-centered design principles, the InLife program connects researchers and technology companies across Europe through pilot sites to develop and provide combinations of health-related technologies to integrate ICT-based solutions into care and services for older adults. This program aimed to determine the most effective combinations of technologies for older populations by piloting groupings of technology such as health monitoring and wellbeing support functions, mental training, fall detection, travel support and communication, among others.



### ENABLING ENVIRONMENT

InLife brought together a variety of experts from multiple sectors to design and launch the program at the various sites. Different stakeholders had different roles (ie, the application developers were keen to ensure that the app had high-quality technological function, while psychologists were interested in verifying that older adults enjoyed using the app and found it useful). The private sector, primarily technology firms, were crucial in developing the technology that was used in the pilots. Inclusivity was also a key feature in design and implementation. The project involved a variety of older adults in all aspects of the design and operation of the program, including those with dementia, those living alone, those without a permanent home residence and so forth, as well as formal and informal caregivers. Funding from the EU and partner research sites across Europe ensured the longevity of the program.



### IMPACT

The results are currently being analyzed, but early evidence from the pilots demonstrates improved physical and mental states of older adults and reduced burden on informal caregivers. More of this type of research is needed to ultimately determine how and why certain technologies prove more beneficial than others. Currently a private tech company in Europe is working on rolling out ICT solutions from the pilot.

### Sources:

Independent Living support Functions for the Elderly [Internet]. European Commission. Available from: <https://cordis.europa.eu/project/id/643442>.

Smith SK and Black B. Participating in the European InLife project - perspectives from a university and social care institution [Internet]. Association for the Advancement of Assistive Technology in Europe. Available from:

<https://aaate.net/2018/06/29/participating-in-the-european-inlife-project-perspectives-from-a-university-and-social-care-institution/>.



## 16) Bringing hospital-level care to the home: hospital-at-home program

**Hospital-at-home, also referred to as “hospital care at home” and “home hospital unit”, offers in-home acute care primarily for older adults. The model has been adopted to varying extents in both high- and middle-income countries.**



### THE FOCUS

Hospital-at-home aims to reduce the strain on healthcare systems and costs by offering quality, hospital-level care services in an individual's home.



### HOW IT WORKS

The model's two most commonly used variations are 1) admissions avoidance, which involves treatment by healthcare professionals in the patient's home instead of hospitals, and 2) early discharge, which moves patients home from the hospital, where ongoing care is provided. Patients must meet certain criteria—such as access to care at home, clinical stability and not needing specialized medical care—to be eligible.



### ENABLING ENVIRONMENT

Researchers, individual hospitals and small hospital networks across the US, Europe and Australasia were key in adopting this innovation. A wider ecosystem of policymakers and advocates have since taken on roles in spreading the hospital-at-home model. Because this model (both early discharge and admissions avoidance) is well established, there is a wealth of evidence on its efficacy, which is driving dialogue about future developments. The local financing environment in part determines where this innovation has taken root so far. In countries that have funded trialing, covering and expanding the model—such as Australia, Spain and Portugal—hospital-at-home has spread much more rapidly. Most recently, the covid-19 pandemic has pushed healthcare providers and governments to seek new ways to expand provision of and access to acute care services, which has spurred the promotion and adoption of hospital-at-home.



### IMPACT

Hospital care at home can provide better care to eligible older adults and improve their wellness while offering broader social benefits. A study of over 80,000 patients in Australia found that mortality was much lower for patients who received some form of hospital care at home compared with those who received standard care (0.3% versus 1.4%). In general, patients reported greater satisfaction with hospital care at home than standard hospital care—with increases ranging from 8% to 40%. There is also strong evidence that patients are less likely to live in long-term care institutions in the months following hospital-at-home treatment, indicating that these programs can support older adults' ability to age in place. Finally, freeing up hospital beds—as the hospital-at-home model does—benefits health systems overall, particularly when crises like the covid-19 pandemic strain hospital capacity.

### Sources:

Caplan, G. A., Sulaiman, N. S., Mangin, D. A., Aimonino Ricauda, N., Wilson, A. D., & Barclay, L. (2012). A meta analysis of “hospital in the home”. *Medical Journal of Australia*.

Gonçalves Bradley, D. C., Iliffe, S., Doll, H. A., Broad, J., Gladman, J., Langhorne, P., ... & Shepperd, S. (2017). Early discharge hospital at home. *Cochrane database of systematic reviews*.

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Nundy S, Patel KK, editors. Hospital-at-home to support Covid-19 surge—time to bring down the walls? *JAMA Health Forum*; 2020: American Medical Association.

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## 17) Large-scale government-supported volunteer networks for crisis response: Peru and the UN Volunteer program

**A volunteer program coordinated by the Peruvian government, supported by the UN Volunteers program, checked in on nearly 100,000 high-risk older adults during the covid-19 pandemic, ensuring that their needs were being met.**



### THE FOCUS

Vulnerable older adults during the covid-19 pandemic have been exposed to new risks while also forcing them into isolation. The Peruvian government wanted to ensure that these adults were safe, healthy and having their psychosocial needs met.



### HOW IT WORKS

Volunteers call high-risk older adults to assess their physical and mental wellbeing and ensure that these needs are being met. The Bicentennial Volunteers program, which had been established in 2019 to serve the Pan-American games, recruited the volunteers. UN Volunteer staff also recruited and trained volunteers, coordinating with the Peruvian government.



### ENABLING ENVIRONMENT

The Bicentennial Volunteers program, UN Volunteers and other Peruvian government actors were the driving force behind the program. It was initiated on 31st March 2020 as an extension of the Amachay Network, which was established on 15th March 2020 to provide covid-19 protection and prevention services to high-risk older adults and individuals with disabilities. The Amachay Network includes the Ministry of Development and Social Inclusion, the Ministry of Health, the Ministry of Women and Vulnerable Populations, as well as regional and local governments. This network made use of pre-existing government information on high-risk older adults to develop a roster of potential beneficiaries.



### IMPACT

In a matter of days, Peru solicited roughly 20,000 volunteers to help support hundreds of thousands of at-risk older Peruvians. By June 2020, over 7,000 volunteers had already made multiple calls to an estimated 150,000 older adults, contacting almost 98,000 of them.

### Sources:

Aprueban la Directiva N° 007-2020-MIDIS denominada “Documento Técnico para la implementación de la Red de Soporte para la Persona Adulta Mayor con Alto Riesgo y la Persona con Discapacidad Severa, frente al COVID-19”, (2020). Available from: <https://busquedas.elperuano.pe/normaslegales/aprueban-la-directiva-n-007-2020-midis-denominada-document-resolucion-ministerial-n-147-2020-midis-1883743-1/>

VOLUNTARIOS DEL BICENTENARIO EMERGENCIA COVID - 19 / REPORTE. Bicentenario del Peru, 2020.

Harvey OMaI. Volunteers redirect efforts to address COVID-19 in Peru [Internet]. UN Volunteers. Available from: <https://www.unv.org/Success-stories/volunteers-redirect-efforts-address-covid-19-peru>

## 18) Large-scale government-supported volunteer networks for crisis response: UK NHS Volunteer Responders program

**In the UK, the Royal Voluntary Service collaborated with the NHS and software company GoodSam to develop a platform connecting volunteers to beneficiaries across multiple services during the covid-19 pandemic, using geolocation information and algorithmic matching.**



### THE FOCUS

The covid-19 pandemic has created new vulnerabilities for many, particularly older adults. Because vulnerable individuals are asked to self-isolate, there is a risk of loneliness, and daily tasks such as grocery or prescription pickup can be difficult. On top of this, services like medical transport have been less available.



### HOW IT WORKS

Partnering with another organization, GoodSam, the Royal Voluntary Service and NHS were able to develop a first-of-its-kind technological platform that matches available volunteers in the same community with older adults who put in a request for help, using localized data and algorithmic matching. Volunteers simply switch their status on the platform to “active” and can take any referrals in their area. Six services are available, including medication and grocery drop-offs, “check in and chat” conversations between older adults and volunteers, and patient transport and technology delivery. Service needs have been linked to gaps in the NHS provision of healthcare and support services. More generally, the program supports the health of vulnerable older adults by allowing them to shelter in place.



### ENABLING ENVIRONMENT

The NHS Volunteer Responders program was built on a trusting and collaborative relationship among three partners. The Royal Voluntary Service primarily runs the program. They worked with GoodSam to develop the platform in less than two weeks, built on the existing GoodSam app and service, after the Royal Voluntary Service realized that the NHS would be under tremendous pressure during the pandemic. The NHS offered referrals for beneficiaries and a broader link to the UK health service’s efforts to protect citizens during the pandemic. The partners continued to refine the service and platform over the following months. The NHS and the Royal Voluntary Service had a pre-existing decades-long relationship, and the trust between all three partners (including GoodSam) anchored the program.



### IMPACT

As of March 2021, more than 435,000 volunteers have completed over 1.5 million tasks. About 93% of beneficiaries felt the program helped them stay safe, and 82% of the volunteers reported enjoying their service. The program serves older adults but also gives them the opportunity to support their communities and other older people. While only 17% of volunteers in the program are aged 60 years or older (in part because of restrictions on some older volunteers due to covid-19), 43% of all tasks have been completed by this cohort.

#### Sources:

NHS Volunteer Responders [Internet]. Royal Voluntary Service. Available from: <https://nhsvolunteerresponders.org.uk/>. Economist Impact communication with Royal Voluntary Service. March 2021.

## 19) Addressing the psychosocial needs of older adults during periods of crisis: Irish Association of Social Workers (IASW) model of practice during covid-19

**At the start of the covid-19 pandemic, the IASW recognized a growing need for psychosocial support among long-term care residents in lockdown. The organization developed guidance for social workers to meet this need.**



### THE FOCUS

The IASW developed a model of practice that guides social workers as they respond to psychosocial needs, facilitate communication for residents and families, support the rights and needs of residents and family members, and provide—when needed—palliative and bereavement care.



### HOW IT WORKS

Beginning in April 2020, the IASW worked with nursing homes to develop new practice guidelines for social workers in long-term care settings. The guidelines were modeled on widely successful guidelines in palliative services. The IASW convened social workers with residents of nursing homes and their families to learn what psychosocial support they needed during this time. Practices include the Beyond the Door visualization method—to remind older adults of their connections with loved ones through affirmation that they are just “beyond the door” in the older adults’ living spaces—and communication that ensures that residents and families receive complex and distressing information in an empathic and sensitive way from a consistent, supportive professional. The model has been implemented by social workers in hospitals and nursing homes throughout Ireland.



### ENABLING ENVIRONMENT

The covid-19 pandemic accelerated faster than governments could respond, and in the absence of a national policy, the IASW took it upon itself to create valuable resources for use around the country. Support from the IASW for both social workers and the individuals they serve were key to success. Oftentimes the needs of older adults in Ireland are seen through a medical lens, neglecting the psychosocial needs of long-term care residents. Social workers alleviate the burden on healthcare workers and ensure older adults feel connected to their families and communities. Ireland was the first country to be declared “age-friendly” by the WHO based on its national and local policies, recognizing a national culture that values older adults and respects their rights and needs.



### IMPACT

The IASW’s evaluation of the new guidelines will take time, especially given the current barriers to conducting research on vulnerable populations. The model has led to notable improvements in how social work is practiced during the current pandemic. The National Public Health and Emergency Team has taken note of this work and committed to funding it in the future.

#### Sources:

IRELAND’S SOCIAL WORK RESPONSE TO COVID-19 [Internet]. International Federation of Social Workers. Available from: <https://www.ifsw.org/irelands-social-work-response-to-covid-19/>.

Covid-19 Resources [Internet]. Irish Association of Social Workers. Available from: [https://www.iasw.ie/IASW\\_COVID19\\_Resources](https://www.iasw.ie/IASW_COVID19_Resources).

Economist Impact communication with members of the IASW. December 2020.



## 20) Leveraging technology-supported care for chronic conditions: Liverpool telehealth-based self-care program

**The UK's National Health Service (NHS) is implementing and expanding a telehealth intervention known as the More Independent (MI) program in Liverpool, with the aim of empowering older adults to self-manage chronic conditions.**



### THE FOCUS

Starting in 2013, the program was designed to improve the efficiency of Liverpool's health system by reducing avoidable hospital admissions, which account for 16% of total emergency admissions in the UK, while improving healthcare quality.



### HOW IT WORKS

The program uses technology with human-centered design to provide both healthcare and health education. Participants receive virtual training on managing their conditions, and regularly complete self-assessments of their symptoms and health status. Patients access services including disease management and monitoring and coaching, and communicate with health professionals through telemonitoring equipment using a TV or tablet interface. A clinically staffed hub monitors patients and facilitates communication between them and primary care physicians. Over time, the service has been adapted to improve care pathways and individualized care plans.



### ENABLING ENVIRONMENT

This program is the product of the NHS' ongoing initiatives in technology and innovation, and was first developed through the MI program as part of the broader Delivering Assisted Living Lifestyles at Scale initiative. Funding was provided through government innovation funding from the UK's Technology Strategy Board, regional health system funding from the Liverpool Clinical Commissioning Group and private sector support from health technology company Phillips. The program has since been mainstreamed using a different technology provider, Docobo.



### IMPACT

The program has resulted in positive health outcomes and improved health workforce capacity in the Liverpool region. Fifty-five percent of participants report decreased healthcare utilization, and 90% reported more confidence in their ability to cope with their condition. Additionally, 79% reported improved health management, and 52% reported improvement in their lifestyles. Furthermore, evidence has shown that the program can help to expand nursing service capacity in the region by almost sixfold. With steady funding and an iterative design process, the program expanded from supporting 3,717 patients in 2015 to over 5,300 patients in 2018. Most recently, the MI initiative has been used during the covid-19 pandemic to support vulnerable populations while preventing potentially dangerous hospital-acquired infections.

### Sources:

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## 21) Developing national health information systems for older adults: Mexico's Strategic Information System in Health, Functional Dependency and Aging (SIESDE)

**Mexico's in-development SIESDE will consolidate and systematize Mexico's information pertaining to aging in order to develop, coordinate and track targeted policy and other interventions for healthy aging.**



### THE FOCUS

Good policymaking requires understanding current conditions through data collection and synthesis. Mexico lacks an effective system for synthesizing the country's multiple streams of public data on older adults in such a way as to develop data-driven and targeted public policies to support healthy aging.



### HOW IT WORKS

Through a computer platform and the cooperation of multiple Mexican ministries, SIESDE will merge and systematize data streams primarily from the public information sources that are produced by Mexico's Health Information Systems and the National System of Statistical and Geographic Information. Synthesized data and applied statistics will be used to achieve goals such as detecting gaps, harmonizing and standardizing concepts and methodologies, consolidating information, broadening the spectrum of available statistics, and producing relevant, quality and timely information for the development of a long-term care system in Mexico. Special attention will be paid to the differential impacts of local socioeconomic conditions and health resource availability. The system will also establish a health information network on healthy aging that will integrate the federal, state and municipal bodies in Mexico to link knowledge creation, decision-making and solution development—to design, monitor and evaluate evidence-based public policies.



### ENABLING ENVIRONMENT

A variety of government, academic and health systems experts are collaborating to develop SIESDE, with the support of government ministries—primarily Mexico's National Geriatrics Institute, the Institute of Geography of the National Autonomous University of Mexico, the University of Colima, and the Center of Excellence and Innovation at Christus Health International. Buy-in from politicians and policymakers has facilitated the system's development, and funding has been secured for developing SIESDE. While SIESDE has not yet been completed, the model is likely to be sustainable given funding and ongoing support. This manner of integrated national information system on healthy aging is replicable where the appropriate national data and expertise are available. The model could be useful in countries that need to improve their data synthesis, and it can be adapted based on the local infrastructure, context and available data.



### IMPACT

N/A (currently in development)

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