

The Aging Readiness & Competitiveness Report

UNITED KINGDOM





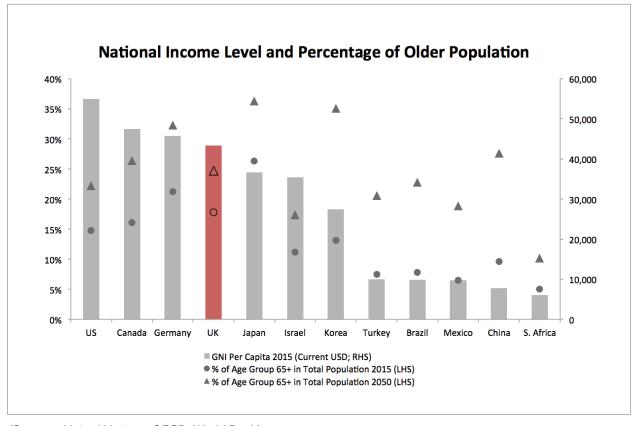
Overview

Like many developed European countries, the United Kingdom has been an aged society for several decades as, by the UN's definition, the percentage of older adults (age 65 and older) has exceeded 14 percent of the total population. However, as baby boomers are getting older, the country will see the pace of aging accelerate over the next two decades. As such, the population of older adults is projected to grow by nearly 45 percent between 2015 and 2035, compared with 25 percent for the period of 1995 though

2015, increasing the share of older adults in the total population to 23 percent by 2035 and rising to nearly 25 percent in 2050.¹

According to the International Longevity Center-UK (ILC-UK), between 2014 and 2037, the older population is projected to grow by 278,000 each year, almost ten

¹ United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 Revision, custom data acquired via website.



(Sources: United Nations, OECD, World Bank)

times the average annual increase in the working population (15 through 64 years old).2 As a result, great economic potential resides among older people if it can be harnessed through continued employment or other productive activity. According to Age UK's estimates, older households (headed by people age 65 years old or over) contributed GBP 61 billion (approximately USD 78.7 billion) per year to the British economy in 2013 and 2014, accounting for about 3.5 percent of the country's GDP in 2013.3 The lion's share (60 percent) of the economic contribution came from continued formal employment, while an additional 19 percent came from informal care, with the remainder coming from childcare, volunteerism, and other activities.4

While the UK already has higher labor participation by older adults than other major European economies, the government has been seeking new avenues to increase productive opportunities. Major efforts include fostering an age-friendly labor market and providing assistance, in addition to generating incentives through the pension and benefit system reforms. The government has recognized the role

of training and job-search assistance, but more is needed to fund dedicated programs targeting older adults.

The government has also recognized the benefits of social inclusion of older people, and it has developed a range of programs from increasing access to age-friendly housing facilities to expanding digital inclusion. However, several major programs have ended and have not been extended, or their funding has been cut, undermining service delivery.

To improve medical and social care services, the government has focused on promoting the digital healthcare system and improving the well-being of informal caregivers. The public funding cuts in recent years represent a major challenge to the UK's long-term care system as well as the delivery of social services, although the government has taken action to strengthen local government's capacity to raise revenue, such as allowing for tax hikes. While the central government has made minor adjustments to tax policy, caps on local revenue generation continue to constrain the ability to fund local service delivery. Devolution of funding and service delivery to local government continues to create challenges for older adult programs and service delivery across all pillars of study. Varying government bureaucracies and strategic priorities across the UK, from England, Wales, Northern Ireland, and Scotland, also result in service fragmentation and uneven impacts across the country.

International Longevity Centre-UK (2014). http://www.ilcuk.org.uk/index.php/publications/publication_details/the_age_audit_delivering_a_business_response_to_ageing.

³ Office of National Statistics (2017). https://www.ons.gov.uk/economy/grossdomesticproductgdp/timeseries/abmi/qna.

⁴ Age UK (2014). http://www.ageuk.org.uk/latest-press/archive/61-billion-the-economic-contribution-of-people-aged-65-plus/.



While the British government recognized the importance of social inclusion with a task force dedicated to this issue. this group was abolished in 2010 and absorbed into the Office for Civil Society. and the policy area is no longer an explicit focus. 5 NGOs and the private sector have attempted to fill the gap by developing innovative approaches to enhance social inclusion, transportation access, and suitable housing stock. Funding remains a challenge in areas such as transportation, housing retrofits, and winter heating subsidies, but increasing local governments' ability to raise needed revenue, collaborations between the public and private sectors to foster innovative design, and utilization of technology and digital inclusion are a few of the areas that are being explored to improve the quality life for older adults in the UK.

Social Well-Being

While the well-being of the older population is a concern for policymakers, older adults in the UK reportedly tend to have a higher level of well-being than the younger population. According to surveys conducted by the Office for National Statistics (ONS), people age 65 and older are generally more likely to report high

levels of life satisfaction and happiness than those of working age.⁶ Compared with counterparts in other OECD countries, older adults in the UK tend to have marginally higher life satisfaction as well.⁷ The sense of life satisfaction and happiness peaks with the group ages 65 through 79. The ONS research suggests that this could be due to a cohort effect and an outlook of a particular generation, greater perspective from a life of new experiences, and/or socio-economic factors and an ability to allocate more time to personal endeavors of interest while in retirement.

The Office of National Statistics also found, however, that these levels of happiness and well-being for those 65 through 79 decline rapidly in later life due to a range of factors, including loneliness and diminishing sense of purpose and deteriorating health.⁸ Age UK studies also found that loneliness represents one of the three top concerns of older adults, in

Jane Vass, Director of Policy and Research, Age UK. May 2017.

⁶ Office for National Statistics (2016). https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/measuringnationalwellbeing/atwhatageispersonalwellbeingthehighest.

⁷ OECD Society at a Glance 2016. http://www.oecd.org/social/society-at-a-glance-19991290. htm.

⁸ Office for National Statistics (2016). https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/measuringnationalwellbeing/atwhatageispersonalwellbeingthehighest.

addition to bodily pain and memory loss.9 Around 8.5 percent of people age 65 and older in the UK often or always feel lonely, and 12 percent are persistently or chronically lonely. 10 In particular, those age 80 and older are twice as likely to report feeling lonely as those 65 through 79.11 The high degree of loneliness among older adults is partly attributed to social isolation. Forty-one percent of people age 65 and older feel out of touch with the pace of modern life, and 12 percent feel cut off from society. 12 In addition, research suggests that older adults who live alone are particularly vulnerable to social isolation and loneliness.¹³ As of 2016, 36 percent of people age 65 and older and nearly half of those age 75 and older live alone.

Efforts to Reduce Social Isolation

Successive British governments have provided initial funding for programs to "prime the pump" and help create an enabling environment for local governments and organizations to

⁹ Age UK (2014). http://www.ageuk.org. uk/Documents/EN-GB/For-professionals/ Research/Age percent20UK percent20Evidence percent20Review percent20on percent20Loneliness percent20July percent202014.pdf?dtrk=true.

deliver services independently. In order to reduce social isolation among older adults, the Department for Work and Pensions (DWP) implemented the Active at 60 Community Agent Program in 2010 and 2011 to support local services for people at risk of longer-term loneliness and social exclusion. Under the program, the DWP provided one million pounds (approximately USD 1.28 million) to support local community organizations that help older adults remain active and independent. The organizations would bid for grants of GBP 250 to 3,000 (approximately USD 322 to 3,684) and use them to recruit volunteer "Active at 60 Community Agents," who worked to engage older adults in society following retirement by inspiring them to try something new and helping them to build social contacts. In total, the program funded 459 initiatives involving approximately 2,800 Community Agents.¹⁴

The program ended in December 2011 after the funding was exhausted. A study of outcomes by the Community Development Foundation (CDF) found that the program succeeded in its goals to enhance the social interaction of older adults, particularly those who are living alone and at risk of isolation.¹⁵ Alison Seabrooke,

¹⁰ Age UK (2017). https://www.ageuk.org.uk/ Documents/EN-GB/Factsheets/Later_Life_UK_ factsheet.pdf?dtrk=true.

¹¹ Office for National Statistics (2015). https://socialwelfare.bl.uk/subject-areas/services-client-groups/older-adults/officefornationalstatistics/176008dcp171766_418058.pdf.

¹² TNS survey for Age UK, April 2014.

¹³ Department of Health (2006). https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/272238/6737.pdf.

Department for Work & Pensions (2015). https://www.gov.uk/government/publications/2010-to-2015-government-policy-older-people/2010-to-2015-government-policy-older-people#appendix-2-supporting-councils-to-provide-a-better-quality-of-life-for-older-people-through-local-services--ageing-well.

¹⁵ Community Development Foundation. (Accessed 2017). http://www.cdf.org.uk/?news-item=active-at-60-report-out-now.

Chief Executive of CDF, contends that funding local community groups and enlisting community volunteers represents an effective model that could be replicated in future projects seeking to support older adults. 16 In a survey conducted by CDF, 92 percent of the funded community groups reported that they successfully involved many older people who otherwise may not have been involved in social activities, and 94 percent of older participants responded that they had more opportunity to socialize through this program. In addition, the funding enabled local communities and agencies to become leaders in supporting older adults. Among the community groups who responded to the survey, 91 percent continued the role after the funding ceased.17

Many services targeting older adults have devolved from the federal government to local authorities. Local governments, which now have the responsibility for public health, in some instances provide free or concessionary access to public sporting facilities in an effort to prolong healthy lifespans. In Burnley, for example, free swimming sessions for adults over age 60 have been scheduled to coincide with the times when older adults can use their free bus passes. The program has been considered highly successful across the UK; for example, swimming by adults age 60 and older increased over

200 percent after the London Borough of Newham introduced its free swimming program. In London and Dudley, a range of local projects have been put in place in recent years to create and improve footpaths, travel corridors, and public squares to improve older adults' accessibility to green space. Ip2021 The Local Government Association has recognized the importance of tackling loneliness and has published guidance, based on a framework developed jointly by Age UK and the Campaign to End Loneliness.

The British government has incorporated older adults' needs into transportation facilities and service initiatives to allow for independent living while avoiding social isolation. For example, in England, Wales, Northern Ireland, and Scotland, older adults of eligible ages (65 in England, with the exception of London, where the eligible age is 60, as it is in Wales, Northern Ireland, and Scotland) are provided with free off-peak concessionary bus travel, which

Charity Times (2012). http://www.charitytimes.com/ct/new_report_finds_local_volunteers_key_to_reducing_social_isolation_of_older_people.php
 Community Development Foundation (2012). http://www.cdf.org.uk/wp-content/uploads/2012/11/Active-at-60-research-report.pdf.

¹⁸ The UK Urban Ageing Consortium (N.D.) http://www.ifa-fiv.org/wp-content/uploads/2015/03/4.1-Manchester-The-UK-Urban-Ageing-Consortium.pdf.

¹⁹ Greater London Authority. Pocket Park Projects (2014). Available from: http://www.london.gov.uk/ priorities/environment/greening-london/improvinglondons-parks-green-spaces/pocket-parks/ pocket-park-projects.

Peters D.M., Jones C.V. Dudley Healthy Towns
 Programme Evaluation: Executive Summary (2011).
 Available from: http://ecosystemsknowledge.net/sites/default/files/wp-content/uploads/2012/12/
 Dudley-Healthy-TownsExecutive-Summary1.pdf.
 Public Health England, UC Institute of Health
 Equity (2014). https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/357411/Review8_Green_spaces_health_inequalities.pdf.

²² Local Government Association (2016). http://www.local.gov.uk/combating-loneliness.

helps to increase transportation access and mitigate costs.²³ The importance of the concessionary bus pass service to the older population is illustrated in ridership, with total concessionary journeys (elderly or disabled, and youth concessions) making up 34 percent of all bus passenger journeys in England in 2016, representing 1.53 billion rides.²⁴

In addition to increased access afforded by the bus passes, in some areas older adults are supported by navigation assistance, which is often provided in public transportation. Particularly helpful to older adults are audio-visual announcements, which are made on all trains, talking timetables, and talking signs that exist throughout the system, and highly visible hospital route maps posted throughout major urban areas.²⁵

While bus passes provide needed access to transportation services, the benefits are greatest in cities that have a relatively high density of transportation services and bus availability. Older adults living in smaller towns and rural areas continue to struggle to access low-cost transportation options. Further, local transportation authorities, which are required to provide subsidies for adults, are short on revenue

Roger Mackett, Emeritus Professor of
 Transport Studies at University College London

and are cutting back on bus services, thus exacerbating the issue. According to Roger Mackett, Emeritus Professor of Transport Studies at University College London, the bus pass benefits cost approximately GBP 1 billion (approximately USD 1.279 billion) per year across the country.26 However, evidence suggests the benefits well exceed the costs in terms of enabling older adults to get to work and otherwise continue to participate in the economy. Mackett notes that while it is a critical baseline service, reliance on central government funding and existing constraints to local authorities' ability to raise funds for such services have hampered service delivery. "Increasing the ability of local authorities to provide transportation services will be critical to enabling older adults to continue to contribute to the economy while they are active, as well as to tackling the issue of social exclusion," he said.27

[&]quot;Increasing the ability of local authorities to provide transportation services will be critical to enabling older adults to continue to contribute to the economy while they are active, as well as to tackling the issue of social exclusion."

²³ Gov.UK. (2017). https://www.gov.uk/apply-for-elderly-person-bus-pass.

²⁴ Department for Transport, 2015/2016, Annual Bus Statistics (2016). https://www.gov.uk/ government/uploads/system/uploads/attachment_ data/file/579855/annual-bus-statistics-yearending-march-2016.pdf.

²⁵ Disability Rights UK (2017). https://www. disabilityrightsuk.org/sites/default/files/pdf/ Doing%20Transport%20Differently%20website. pdf.

Department for Transport (2013). Annual
 Bus Statistics. http://www.gov.uk/government/publications/annual-bus-statitistics-2012-13.
 Interview with Roger Mackett, Emeritus
 Professor Transport Studies, Centre for Transport
 Studies, University College London. January 9, 2017.

Housing

The vast majority of older adults in the UK reside in their own homes, with more than 96 percent living at home rather than in care institutions.²⁸ According to FY2014/2015 statistics, the housingownership rate in the population ages 65 and older was over 75 percent, compared with 59 percent for the age group 25 through 34, and 37 percent for the age group 35 through 44.29 While, to a large degree, they have access to housing, a significant share lacks appropriate agefriendly facilities.30 Research shows that around 93 percent of this demographic live in non-specialized housing,31 and more than half of non-specialized housing stock is estimated to require structural alterations to provide suitable facilities for aging in place.³² However, it can be more challenging to adapt housing facilities, and the need is considerable: over 750,000 people age 65 and older need specially adapted accommodation because of a medical condition or disability, and

²⁸ UK Department for Communities and Local Government (2016). https://www.gov.uk/government/statistical-data-sets/owner-occupiers-recent-first-time-buyers-and-second-homes#history.

145,000 of them report living in homes that do not meet their needs.³³

In order to support independent living, both national and local governments have endeavored to strengthen older-age housing provisions. Local governments have set aside Disabled Facility Grants to adapt housing facilities for disabled people, including older adults with disabilities. Home adaptation consultation and repair services are also provided to older adults and disabled persons through local home-improvement agencies as well as collaboration with NGOs. On the national level, the Homes and Communities Agency (HCA) created the Care and Support Specialised Housing Fund in 2012 to support the development of specialized housing for older adults and people with disabilities by funding selected developers. As of 2016, it had undertaken two rounds of bids and planned to allocate up to GBP 221 million³⁴ (approximately USD 285 million) to build thousands of homes to help meet the needs of older people and adults with disabilities or mental health problems.35 In 2016, the HCA announced that it would carve out GBP 4.7 billion (approximately USD 6.1 billion) in capital grants from 2016 through 2021 for its

²⁹ Ibid.

³⁰ Commission for Rural Communities (2006). https://www.york.ac.uk/media/chp/documents/2006/olderruralsum.pdf.

³¹ Alzheimer's Society (2012) Home Truths https://www.alzheimers.org.uk/site/scripts/download_info.php?fileID=1452.

³² Mitchell, L. (2012) Breaking New Ground: The Quest for Dementia Friendly Communities Viewpoint No. 25 Housing LIN www.housinglin. org.uk/Topics/browse/HousingandDementia/. Design/?andmsg=0andparent=5091and-child=8525.

 ³³ Care & Repair England (2014) Ageing Well at Home. Nottingham Care & Repair at Home.
 ³⁴ The HCA plan to allocate up to GBP 221 million (approximately USD 285 million) includes GBP 101 million (approximately USD 130 million) in funding that was allocated in 2013 for Phase 1, and up to GBP 120 million (approximately USD 155 million) that the agency plans to allocate for Phase 2.
 ³⁵ Homes and Communities Agency (2016). https://www.gov.uk/government/collections/careand-support-specialised-housing-fund-guidance-and-allocations.

Shared Ownership and Affordable Homes Programme. As part of the program, the government seeks to allocate 5 percent for homes for older disabled and vulnerable people, and at least 8,000 homes for supported and older people's rental accommodation.^{36 37} This program is helping to provide needed specialized accommodation, but the total amount of funds that will benefit older people directly, rather than other vulnerable groups, remains to be seen.

While these housing programs have delivered needed services to older adults, they are limited in scale, and more could be done to retrofit existing housing stock as well as to incorporate considerations for an aging population into architectural design and investment planning. According to Jeremy Myerson, Helen Hamlyn Professor of Design at the Royal College of Art,³⁸ housing should not be thought of in isolation, and it is an incredibly important component of integrated community infrastructure. Adaptation of the existing housing stock for older adults could create homes as places of work, community, and care by moving beyond narrow and traditional considerations of housing to develop integrated designs for living that

carefully consider the various needs of older adults. The recent New Old exhibition in London,³⁹ which opened in January of 2017, seeks to rethink some of these key issues and offers forward-thinking ideas as to how design can help overcome challenges related to aging, identity, home, community, work, and mobility. Novel ideas, such as those for connected, multiunit housing with back corridors that allow for companies to deliver groceries and household goods directly, offer concepts for consideration and potential public and private collaboration. The models and ideas put forth are conceptual at this stage but are intended to inform future design and investments.

Winter heating has been, and continues to be, another significant issue, particularly for low-income older adults. The UK has the highest rate of excess winter deaths in Europe and the highest rate of fuel poverty. Twenty-eight percent feel worried about staying warm in their homes in the winter, and 55 percent are concerned about the increasing cost of energy bills in the winter. ⁴⁰ In response, the government has provided Winter Fuel Payments since 1996 to subsidize their heating bills. ⁴¹ According to Jane Vass of Age UK, the new government is committed to means-testing

³⁶ Housing LIN (2016). https://www.housinglin. org.uk/Topics/browse/HousingExtraCare/ FundingExtraCareHousing/Specialised-Housing/ HCA-SO-AHP-2016-2021/.

³⁷ Homes & Communities Agency (2016). https://www.housinglin.org.uk/_assets/Resources/Housing/Policy_documents/SO_and_AHP_prospectus_FINAL_13_04_16.pdf.

³⁸ Interview with Jeremy Myerson, Helen Hamlyn Professor of Design, Royal College of Art, London. January 10, 2017.

³⁹ The Design Museum (2017). https://designmuseum.org/things-to-do/talks-and-events/pop-up-exhibitions/new-old.

⁴⁰ Age UK (2017). https://www.ageuk.org.uk/ Documents/EN-GB/Factsheets/Later_Life_UK_ factsheet.pdf?dtrk=true.

⁴¹ Department for Work and Pensions (2016). https://www.gov.uk/government/collections/winter-fuel-payments-caseload-and-household-figures.

these payments, which is concerning, given that means-tested income support fails to reach 30 percent of pensioners who are entitled to it.⁴² It has also placed an "Energy Company Obligation" (ECO) on large energy suppliers to subsidize social programs. A "Green Deal" scheme, which allowed homeowners to finance the installation of energy-efficiency measures, was introduced, but it had a low utilization rate and has now ended.⁴³ Overall, the programs have helped to improve conditions for some older adults, but NGOs and advocacy groups contend that much more needs to be done to

ensure that all older adults live in a warm home. Organizations such as Age UK are shedding light on this important issue and are calling for reform of energy-efficiency programs and asking the government to commit to concrete measures, including bringing two million low-income homes up to Energy Performance Certificate (EPC) Band C by 2020 and all six million low-income homes up to EPC Band C by 2025.⁴⁴ The EPC bands are assigned based on a home's energy efficiency on a scale from A to G, with the A being the most efficient.

⁴² Jane Vass, Director of Policy and Research, Age UK May 2017.

⁴³ Ibid.

⁴⁴ Age UK. http://www.ageuk.org.uk/home-and-care/housing-choices/campaign-for-warm-homes/.

Productive Opportunity

Recognizing the economic potential of their aging population, the British government has sought to foster more age-friendly labor markets. In addition to reforming the pension and public benefit system to provide incentives to stay in the labor force, a range of other policies have been pursued with this objective in mind, including those that provide assistance to help older adults go back to work. Research by Age UK has, however, shown poor outcomes for many older workers who face a range of challenges such as hourly cutbacks, insecure employment, and difficulty transitioning in the tech-based economy.45 While the labor-participation rate is increasing, there remains notable age discrimination in the workplace, in spite of legislative programs attempting to address it over many years.

Labor Participation of Older Adults
Older adults' labor participation in the
UK has been increasing over the past
decade, which could be attributed to
changes in the type of work people do,
changes in pension provision, increasing
State Pension age, and increased life
expectancy, among other factors.⁴⁶ The
participation rate increased by nearly two-

Age UK (2017). http://www.ageuk.org.uk/latest-press/age-uk-analysis-shows-older-people-in-employment-are-facing-cuts-to-working-hours/.
 Bank of England (2011). http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb110102.pdf.

thirds (61 percent) in the last decade and hit 10.3 percent in 2015.47 In particular, older women have been increasingly active in the labor market, largely because of the increase in the State Pension age. Although there were more male older workers (60 percent) than female older workers (40 percent) as of 2015, the growth rate of female older workers' labor participation over the past decade was 70 percent higher than that of male older workers, largely driven by the equalization of the women's pension age from 60 to 66.48 Today, older adults in the UK are more active in the labor market than their counterparts in other major European economies, including Germany, France, and Italy. 49 However, the participation rate is still lower than the OECD average (14 percent) and far below the levels in the U.S. (19 percent) and Japan (22 percent),⁵⁰ indicating potential for further growth.

Older workers tend to work part-time or to be self-employed more often than the working-age population (ages 15 through 64). In 2015, 57.3 percent of the working population age 65 and older worked part-time, and 34.2 percent were

⁴⁷ OECD Statistics.

⁴⁸ Ibid.

⁴⁹ Office for National Statistics (2011). http://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/workersaged65andoverinthe2011census/2015-02-19.

⁵⁰ OECD statistics.

self-employed, more than double those of the employed population under age 65.51 According to leading NGO Age UK, as people near retirement age, some determine that they do not want to leave the labor force entirely but may want or need some schedule modification. For those considering retirement, one major factor influencing the transition is whether or not, and the degree to which, older adults have the responsibility of caring for a spouse or loved one. Care responsibilities manifesting themselves prior to retirement also can create a need or desire for more flexible work schedules. While some adults choose to transition, others are being pushed out of the labor force involuntarily. Research by Business in the Community, in partnership with the International Longevity Centre (ILC-UK), found that of the 3.3 million economically inactive adults ages 50 through 64, approximately one million have been made "involuntarily workless" after being pushed out by a range of factors, including redundancy, ill health, or early retirement. The organizations estimated that GDP could be boosted by GBP 88 billion (approximately USD 113 billion) by extending those workers' time in the labor force.⁵² Organizations such as Age UK, ILC-UK, and Business in the Community have advocated for legislating more flexible work schedules, addressing barriers to recruitment, innovation on job design and

training, and other accommodations on the part of companies and employers to help facilitate that and to enable older adults to remain in the labor force longer.⁵³ ⁵⁴

Creating an Older-Age-Friendly Labor Market

There are also significant barriers to reentering the labor force, namely ageism. A 2015 survey of 1,400 UK managers, conducted by the Institute of Leadership and Management, found that 61 percent of managers say that workers who are over age 50 have low (20 percent) or very low (41 percent) potential to progress. That is despite that population scoring higher than younger workers for occupationspecific knowledge and skills (85 percent) and understanding of customers (78) percent).55 Employers also often require certain professional certification or credential documents.56 which older workers may lack, despite significant accumulated experience.57 According to Age UK, older adults have also had

⁵¹ Office for National Statistics (2011). https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/workersaged65andoverinthe2011census/2015-02-19.

⁵² Business in the Community (2015). http://www.bitc.org.uk/system/files/the_missing_million_-_rec_for_action_23-4-2015.pdf.

⁵³ Age UK (2016). http://www.ageuk.org.uk/ Documents/EN-GB/For-professionals/Policy/workand-learning/ppp_employment_uk.pdf?dtrk=true. ⁵⁴ Business in the Community (2015). http://www.

⁵⁴ Business in the Community (2015). http://www.bitc.org.uk/system/files/the_missing_million_-_rec_for_action_23-4-2015.pdf.

⁵⁵ Independent (2015). http://www.independent. co.uk/news/business/news/ageism-at-work-older-workers-are-being-unfairly-overlooked-10330188. html.

Department of Work and Pensions (2013). https://www.gov.uk/government/news/employment-boost-for-older-workers

⁵⁷ Government Office for Science (2016). https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/535187/gs-16-10-future-of-an-ageing-population.pdf www.gov.uk/government/uploads/system/uploads/attachment_data/file/283896/ep22-ageingsociety-implications-manufacturing.pdf.

difficulty finding professional-skills training in the workplace or taking advantage of professional-skills training to re-enter the labor force. Furthermore, the increasing prevalence of online recruitment and application systems has disadvantaged older adults, who generally are less familiar with online systems.58

Recognizing the latent productive potential of older workers and the challenges associated with working later in life, the British government has taken action to create an older-age-friendly labor market. Policy efforts specifically attempt to tackle the ageism among employers and provide employers with a set of tools and guidance to manage older employees. In 2010, the British government introduced the Equality Act, which outlaws age discrimination and establishes regulations aimed at protecting the legal rights of older workers.⁵⁹ 60 In particular, it bars the expulsion of employees from the labor force for the reason of age alone. Several of these issues were already on the books as part of other legislation but were consolidated under the Equality Act.⁶¹

At the same time, the British government has worked with partners to develop several complimentary initiatives aimed at changing employers' perception of

older workers and to help employers adjust their existing approaches to better accommodate the aging labor force. In 2017, the Department for Work and Pensions (DWP) laid out its Fuller Working Lives: A Partnership Approach to provide information and evidence to help employers and older adults adapt to changing demographics, and it is actively recommending options for flexible working, retraining for new careers, selfemployment, volunteering, and phased retirement. The government will monitor change and publish data to track these changes within the workforce.62

The British government is also forming related partnerships. For example, in 2013 the Age Action Alliance – a group of 848 organizations and individuals dedicated to supporting the lives of older adults – launched the Age Positive Initiative (API). It provides employers with a toolkit and guidance to address issues, 63 including retaining, retraining, and recruiting workers across sectors like transportation, health, finance, and retail.⁶⁴ The API also provides guidance for employers and staff regarding a range of issues related to ageism in the workplace.65 While this type of work is ongoing, the programs are relatively small, and almost all experts contacted for this report indicated that more needs to be done to change the perception of older adults and to convey value to prospective employers more effectively. According to

⁵⁸ Interview with Jane Vass, Director of Policy and Research, Age UK, January 2017.

⁵⁹ https://www.equalityhumanrights.com/en/ equality-act-2010/what-equality-act.

⁶⁰ https://www.gov.uk/government/uploads/ system/uploads/attachment_data/file/461437/ gs-15-25-future-ageing-work-environments-er18.

⁶¹ Jane Vass, Director of Policy and Research, Age UK May 2017.

⁶² https://www.gov.uk/government/uploads/ system/uploads/attachment_data/file/600620/ fuller-working-lives-evidence-base-2017.pdf.

⁶³ http://ageactionalliance.org/employer-toolkit/. 64 Ibid.

⁶⁵ http://ageactionalliance.org/toolkit-general/.

Jane Vass, Director of Policy and Research at Age UK, the government has pushed hard on extending the productive life of workers, as the State Pension age has been increased, but the challenge is for those efforts to have an impact on the ground. The organization has been calling for government to introduce a requirement for jobs to be "flexible by default," and for more support for caregivers, as well as engaging with business to provide resources for recruiters and managers to integrate older adults into their operations more effectively.⁶⁶

Job-Searching Assistance

The British government has put in place a number of employment and training policies to support jobseekers. However, these programs do not specifically target older adults, and they have had a minimal impact on the older population, according to experts. One area the government has focused on is facilitation of informationsharing of job positions, with one example being the Universal Johmatch initiative. 67 The initiative provides an online platform to match employees and employers and facilitates job seeking. Approximately 8 percent of Jobmatch users are between 55 and 64 years old.⁶⁸ However, poor management and services quality -

⁶⁶ http://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Communities-and-inclusion/Age_Opportunity_Best_Practice_Guide_for_Recruiters.pdf?dtrk=true.

including repeat or unvetted job postings – have been identified by government and media and have both undermined the credibility of the site and driven the government to employ more rigorous monitoring practices.⁶⁹ The government is now working with SAFERjobs, a non-profit, joint industry and law enforcement organization, to monitor and address fraud and other scams.⁷⁰

In an effort to address a lack of professional skills among unemployed workers, the British government has provided support through various measures, such as a simplified skills system, which allows skills trainers more freedom to tailor their offerings to local communities and their needs.⁷¹ Trainees who participate in that system can apply for professional-development loans from the government to pay for training.⁷² The learning programs have attracted the interests of older adults.73 Forty-eight percent of the learning trainees were 45 years old or older, and 16 percent of learners were 65 years old or older, while this latter age group represents roughly 30 percent of the labor force.74 Although

⁶⁷ https://www.gov.uk/jobsearch.

⁶⁸ https://www.gov.uk/government/uploads/ system/uploads/attachment_data/file/210444/ universal-jobmatch-equality-impact-assessment. pdf.

⁶⁹ https://www.theguardian.com/money/2014/mar/16/dwp-jobs-website-universal-jobsmatch.

⁷⁰ https://www.safer-jobs.com.

https://www.gov.uk/government/uploads/ system/uploads/attachment_data/file/458861/ fuller-working-lives.pdf.

⁷² https://www.gov.uk/career-development-loans/overview.

http://www.ons.gov.uk/
 peoplepopulationandcommunity/
 populationandmigration/populationestimates/
 articles/overviewoftheukpopulation/february2016.
 UK Labour Market Statistical Bulletin, July 2015
 ONS Table 2(2).

there has been support, there is little data on the effectiveness of these programs in terms of the number of jobs created or acquired for older adults. With this in mind, and building on the Fuller Lives strategy, in 2017, the British government solicited submissions to evaluate the effectiveness of these programs⁷⁵ and announced up to GBP 40 million (approximately USD 51.4 million) to be spent by fiscal year 2018-2019 on "lifelong learning pilots" to evaluate varying approaches to retraining and skills development, and GBP 5 million (approximately USD 6.4 million) to identify how best to increase the number of "returnships" offering pathways back to employment after individuals have left or taken a break from the labor force.76

Entrepreneurship

The New Enterprise Allowance (NEA), launched in 2011, aims to help unemployed, low-income, or disabled individuals (age 18 and older) start their own businesses. Under the NEA scheme, those who are eligible are matched with a volunteer business mentor, who assists them in drawing up a business plan. Once the plan is approved, the applicant will have access to further support, including continued mentoring service for the first six months of working, a tax-free weekly

The NEA significantly benefits older adults and people age 50 or older and taps their productivity potential. According to Roger House, former Chairman for the Federation of Small Business in Kent and Medway, the NEA has successfully helped older people, who are often on the margins of the labor market, to set up their own business. Indeed, more than 22 percent of beneficiaries of the NEA scheme are older people: around 38,300 individuals age 50 and older have received assistance, and nearly 22,300 of them have started their own business.77 It also assists informal caregivers in starting their own new business, enabling them to work on flexible schedules while taking care of their older family members.

Volunteerism

The productive potential among older adults is also being recognized by non-governmental entities, which are attempting to capitalize on their experience and knowledge for the benefit of the rest of the society. The education charity Ark seeks to increase access to

allowance (up to 26 weeks and a maximum of GBP 1,274 or USD 1,640), and loans for start-up costs (up to GBP 2,500 or approximately USD 3,219). By September of 2016, 175,370 individuals had received access to a business mentor, and 95,320 individuals had started a business under the NEA scheme.

⁷⁵ https://www.parliament.uk/business/ committees/committees-a-z/commons-select/ women-and-equalities-committee/newsparliament-2015/older-people-employmentlaunch-16-17/.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/597467/spring_budget_2017_web.pdf.

⁷⁷ https://www.gov.uk/government/statistics/ new-enterprise-allowance-april-2011-toseptember-2016.

high-quality education for all students, regardless of background. In 2016, Ark established Now Teach, which aims to retrain experienced professionals as teachers, enabling them to redeploy their skills and to help address the dearth of math, science, and language teachers in British schools. In the pilot year of 2017-2018, Now Teach will focus on secondary schools in London. The novel program encourages older professionals to join, emphasizing the value of their skills and professional experience in the classroom.78 It seeks to leverage older adults' vast talent and productive desire while addressing their educational needs. While a range of volunteer options exist for older adults, pressure to remain in the workforce for longer may also reduce the number of volunteers available and put greater pressure on those organizations that benefit from, and rely on, volunteer staff. Organizations such as the ILC-UK and New Philanthropy Capital and the Commission on the Voluntary Sector and Ageing are working to understand and help prepare the non-profit sector for the impending demographic changes.⁷⁹

Pension and Public Benefit Reform

The central policy approach to enhancing labor force participation of older adults and strengthening fiscal sustainability of the pension system has been to increase the State Pension age.⁸⁰ Since 2010, the

⁷⁸ http://nowteach.org.uk/our-programme/.

British government has gradually raised that age for women from 60, aiming to equalize it with men's age of 65 by 2018. The pension age for both genders is set to increase to 66 by 2020, and further to 67 by 2028.⁸¹ According to behavioral economic researchers, surprisingly, the policy has raised employment levels of not only women but also men, illustrating that men and women tend to make retirement and associated economic decisions as couples.⁸² However, research by Age UK has found that although the employment rate is rising, the hours worked have fallen for some groups.⁸³

The British government has set up a fiveyear State Pension review mechanism that will enable officials to make adjustments and fine-tune the policy as needed. The review is starting in 2017 and will be conducted at least once every five years, taking into account factors such as life expectancy, and officials will decide whether to bring forward changes to the State Pension age.84 The first independent review has proposed that the State Pension age should rise from 67 to 68 between 2037 and 2039. Age UK, however, does not believe the case has been made to accelerate the timetable at this stage, and it has expressed concern

 ⁷⁹ https://cvsanpc.files.wordpress.com/2015/03/decision-time_final-report-of-cvsa_mar15.pdf.
 ⁸⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/310231/spa-timetable.pdf.

⁸¹ Ibid

⁸² Interview with Ben Franklin, Head of Economics at the International Longevity Centre – UK. January 9, 2017.

⁸³ http://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Policy/work-and-learning/Behind_the_Headlines_%20hours_worked_report_(April2017).pdf?dtrk=true.

https://www.gov.uk/government/uploads/ system/uploads/attachment_data/file/310231/ spa-timetable.pdf.

that the proposals to reduce the impact on people who are unable to work because of poor health or caregiving are insufficient.85 The British government has also piloted Mid Life Career Review (MLCR) processes to support older workers. The MLCR pilots have involved face-to-face, phone, and online sessions with mid-career adults to assess their career status, identify transferrable skills, and evaluate options.86 The government has worked with partners on the pilots and has encouraged employers to implement reviews, but it has not extended the program. Such skills identification and retraining where necessary could help to increase skill sets and marketability of older workers and help to extend employment into older age, but the government has yet to commit to extend or provide retraining. An independent review of the State Pension age has also recommended a mid-life review on finances to help older adults manage the transition and calls on the government to provide greater support in that process.87

The changes, however, are not without controversy. Increasing the pension age is expected to disproportionately impact low-income people, who tend to rely more on the State Pension. Experts have pointed to potential negative impacts of this policy on blue-collar workers, who may

not be able to work in their 60s, often due to health issues, which means that they will be left without a working income but also ineligible for State Pension benefits.⁸⁸ According to interviews, the government and experts in the field are working to identify possible support systems for the most vulnerable workers,⁸⁹ but advocacy groups such as Age UK note that they have had limited impact.⁹⁰

In addition to raising the State Pension age, the government has adjusted social benefits programs that discourage the unemployed from working.⁹¹ ⁹² It introduced the Universal Credit program in 2013 to replace six means-tested benefits and tax credits, in an effort to ensure fairer and simpler social security benefits. People between 18 and the State Pension age who have low income or are out of work are eligible to claim Universal Credit. According to government figures, people ages 50 through 65 are one major beneficiary group.93 The mechanism of Universal Credit is designed to ensure that people will not lose benefits because they take on jobs. Instead of a sudden and drastic cut, the Universal Credit benefit decreases gradually as earnings increase, to give people incentives to stay in the

 $^{^{85}}$ Jane Vass. Director of Policy and Research Age U.K. May 2017.

http://www.learningandwork.org.uk/wp-content/uploads/2017/01/MLCR-Final-Report.pdf
 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/611460/independent-review-of-the-state-pension-age-smoothing-the-transition.pdf.

⁸⁸ Interview with Ben Franklin, Head of economics at the International Longevity Centre – UK. January 9, 2017.

⁸⁹ Ibid.

 $^{^{\}rm 90}\,$ Jane Vass. Director of Policy and Research Age U.K. May 2017.

⁹¹ https://www.gov.uk/universal-credit/overview.

⁹² https://www.gov.uk/government/uploads/ system/uploads/attachment_data/file/458861/ fuller-working-lives.pdf.

⁹³ https://www.gov.uk/government/news/90-of-jobcentres-now-offer-universal-credit.

labor force while receiving basic benefits for livelihood. 94 In addition to the Universal Credit program, the government removed a rule in the pension system in 2013 that required retirees to forfeit a part of their pension if they returned to work, which had discouraged labor participation among the older population. 95 96 However, the introduction of Universal Credit has been repeatedly delayed, with full roll-out not expected until 2022. 97

⁹⁴ https://www.gov.uk/universal-credit/overview.

⁹⁵ https://www.gov.uk/government/uploads/ system/uploads/attachment_data/file/458861/ fuller-working-lives.pdf.

⁹⁶ http://www.legislation.gov.uk/ukpga/2013/25/contents/enacted.

⁹⁷ http://www.bbc.co.uk/news/uk-politics-36847967.

Technological Engagement

The penetration of digital technologies in the UK's general and older population is among the highest in Europe, 98 and the government continues to seek additional avenues to improve digital inclusion. It considers expanded investment in broadband to be essential to enhanced productivity and competitiveness. Further, the integration and broader use of digital technologies is being recognized as critical to the provision of more cost-efficient and effective service and healthcare delivery by both the public and the private sector. The British government has been working to update its digital strategy in the last few years, but the Brexit vote and the recent change in government leadership have created uncertainties about its implementation. However, expanded access and skills training have been identified as the top priorities.

Digital Technology Penetration

Internet use among older adults in the UK has been growing steadily over the past decade. The percentage of people in the age group 55 through 74 who report "using the Internet in the past three months" doubled from 2006 through 2015. 99 As of 2014, 72 percent

of people ages 65 through 74 in the UK were Internet users, well above the OECD average of 50 percent. Meanwhile, the digital divide between the older population and the rest of the society is relatively low. The difference in Internet penetration between the age group 65 through 74 and the total population was 20.6 percentage points in the UK in 2014, one-third less than the OECD's average divide although higher than those of the U.S. and Japan.¹⁰⁰

In critical ways, the use of the Internet varies among the older and younger populations. While e-mail communications and finding information about goods and services are the top two major online activities carried out by all age groups over age 35, users age 65 and older are much less active in Internet banking and social networking. More than 60 percent of general users use Internet banking and social networking, but this falls to just 25 percent among older Internet users. 101 Developing broader Internet skills and familiarity with social networks and the range of online services could have myriad benefits, including social connection, productivity, and economic engagement.

⁹⁸ https://stats.oecd.org/Index. aspx?DataSetCode=ICT_HH2.

⁹⁹ ICT Access and Usage by Individuals, OECD database.

OECD Science, Technology and Industry Scoreboard 2015.

https://www.ons.gov.uk/ peoplepopulationandcommunity/ householdcharacteristics/ homeinternetandsocialmediausage/bulletins/ internetaccesshouseholdsandindividuals/2016.

Several studies have identified multiple barriers that continue to inhibit digital inclusion, from insufficient infrastructure to the users themselves. According to the Office of National Statistics, a lack of access, skills, motivation, and trust are among the major barriers that stop older adults from going online or adopting other digital technologies. 102 103 Forty-seven percent of single older adult households and 15 percent of households with two adults age 65 or older have no Internet connection in their homes. 104 Expanding access will be fundamental to broader inclusion. In addition to access issues, the Life Offline qualitative research study found that approximately 50 percent of older participants have little confidence or knowledge of how to use the Internet. 105 Moreover, some older adults remain reticent or unwilling to adopt new technologies. A study by Britain Thinks and Age UK showed that a significant number of older respondents reported that they preferred to have face-to-face communication in social activities and buying things and did not see the need to use the Internet. Some older non-users also highlighted concerns about fraud and security as a reason for not using the Internet.106

Promoting Digital Inclusion

There is considerable economic potential that could be realized with greater digital inclusion among older adults, but gaps remain, and in the meantime older people who are not online or who do not have a smart phone are increasingly excluded from key services or risk having to pay more. A recent study estimated that full digital take-up could add GBP 63 billion (approximately USD 81 billion) in value to the economy. 107 In order to close the gap, the British government has been actively promoting its 2014 Digital Inclusion Strategy, 108 identifying older adults as one of the groups who are most vulnerable to digital exclusion. The strategy outlines a set of targets to reduce the number of people lacking digital skills by 25 percent every two years and to have more than 90 percent of the adult population online by 2020. In 2015, it tasked Go ON UK, the digital-skills charity, to lead the crosssector effort and implement the plan. 109 A leader in this space, Doteveryone, launched its Go On Local program in 2015, which provides an online community toolkit and collaborative platform that helps people to connect, share, and promote best practices around basic digital skills. 110 It also provides quidance to local communities on how to provide basic digital skills training.

https://www.gov.uk/government/publications/government-digital-inclusion-strategy/government-digital-inclusion-strategy.

http://www.cisco.com/c/dam/en_us/about/ac79/docs/wp/ps/Report.pdf.

http://www.ageuk.org.uk/documents/en-gb/for-professionals/computers-and-technology/evidence_review_technology.pdf?dtrk=true.
 lbid.

http://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Research/Life_Offline.pdf?dtrk=true.

https://www.gov.uk/government/publications/ government-digital-inclusion-strategy/governmentdigital-inclusion-strategy.

¹⁰⁸ Ibid.

¹⁰⁹ https://www.gov.uk/government/publications/ government-digital-inclusion-strategy/governmentdigital-inclusion-strategy.

https://digitalinclusion.blog.gov. uk/2015/10/22/guest-post-go-on-local-and-thedigital-exclusion-heatmap/.

In the last few years, the British government has been working to update its digital strategy to enhance the role of technology in fostering economic growth and competitiveness. Following the Brexit vote and the leadership transition, the May government released its updated digital strategy in March of 2017,111 which prioritizes continued investment in digital infrastructure and promoting digital skills development - including access to free training. With respect to implementation, the government recognizes that cross-sector engagement will be necessary. The UK Secretary of State for Culture, responsible for technology, will be establishing a forum to engage stakeholders to move the strategy forward.112

NGOs, such as AbilityNet, are focused on enhancing access with practical solutions. According to Robin Christopherson, Head of Digital Inclusion at AbilityNet, "Technology is the biggest leveler, and simple, basic changes on computers and devices can be made to significantly ease use and enhance quality of life." He notes that changing the double-click speed on the mouse or slowing the keyrepeat speed for people with reduced dexterity can have significant impacts. AbilityNet is consulting with major international technology companies, such as Microsoft, to help them develop

user-friendly technologies and practical solutions that apply to the aging and the disabled but are designed for every mobile user. This type of inclusive design impacts all users, expanding the market and strengthening the business case for technology developers.¹¹⁴

While digital inclusion and inclusive design are key areas of focus, with the government and NGOs importantly looking at broadband, Internet skills, and bringing people online, advocates assert that mere enforcement of accessibility standards for websites and apps that are legally required under the Equality Act of 2010 would change the landscape for older and disabled users. Ninety percent of public websites do not meet the AAlevel compliance, the legal minimum, for accessibility. NGOs, such as AbilityNet, contend that enforcing these standards is a low-cost, high-impact means to drastically improve accessibility for the aging and the disabled. According to

[&]quot;Technology is the biggest leveler, and simple, basic changes on computers and devices can be made to significantly ease use and enhance quality of life...The mere enforcement of accessibility standards currently on the books would change the landscape beyond recognition."

Robin Christopherson, Head of Digital Inclusion at AbilityNet

https://www.gov.uk/government/publications/uk-digital-strategy.

https://www.gov.uk/government/publications/uk-digital-strategy/uk-digital-strategy.

¹¹³ Interview with Robin Christopherson, Head of Digital Inclusion, AbilityNet, January 10, 2017.

¹¹⁴ Ibid.

Christopherson, "The mere enforcement of accessibility standards currently on the books would change the landscape beyond recognition." The government has moved forward to update its websites, but more standard application across government and public sites is needed, and practice in the private sector is highly variable.

Digital Assistance for Older Adults Not Online

The government has set up the Assisted Digital program to provide offline nondigital assistance in 25 major public services that have become digital by default, 116 such as voting registration, tax accounting, obtaining a driver's license, and receiving a caregiver's allowance, among others. 117 To ensure non-Internet users' access to these services, the government provides support of either guiding users to use digital services or entering information in the system on their behalf. The support can be provided in person at post offices, hospitals, or users' homes or through web chat or by phone. 118 These services have been helpful, but local authorities do not have the same guidance about implementing the program, and service delivery can be uneven. 119

Incorporating Digital Technologies into the Healthcare System

At the forefront of a rapidly evolving industry, the British government has been promoting the integration of digital technologies into its healthcare system over the past two decades in order to enhance care efficiency and quality. 120 In 2007, it developed Technology Healthcare Cooperatives, multi-stakeholder engagements incorporating healthcare professionals and specialists as well as technology developers to identify conditions and needs of older adults that could be more readily and efficiently addressed with technology. Through the program, four diagnostic and evidence centers were established with small infrastructure grants of roughly GBP 250,000 (approximately USD 322,270) per year. Each cooperative raised additional funding through grant-bid and in-kind contributions from professionals with medical expertise. These centers are focused on three core areas commonly afflicting older adults: urinary incontinence, renal kidney disease, and broad categories of communication and rehabilitation. 121

In the face of growing chronic diseases, which are prevalent among older people, the National Health Service is broadening its scope and has looked to increase the role of digital technologies in primary care monitoring and health management. In

https://www.abilitynet.org.uk/news-blogs/open-letter-government-please-ensure-websites-and-apps-comply-legal-accessibility.

https://www.gov.uk/government/publications/government-approach-to-assisted-digital.

¹¹⁷ https://www.gov.uk/transformation.

https://www.gov.uk/service-manual/helping-people-to-use-your-service/designing-assisted-digital.

http://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Research/Later_life_in_a_digital_world.pdf?dtrk=true.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/461479/BIS-15-544-digital-health-in-the-uk-an-industry-study-for-the-Office-of-Life-Sciences.pdf.
 Interview with Oliver Wells, Commercial Director, Devices for Dignity, January 12, 2017.

2015, NHS England launched a multiyear GBP 1 billion (approximately USD 1.3 billion) investment program called Estate and Technology Transforming Fund (Primary Care), intended to help general practitioners improve their IT infrastructure to strengthen out-of-hospital care¹²² for patients. 123 This type of investment has also spurred interest by privatesector developers of healthcare-related technologies. A 2015 survey of 5,000 app developers, digital health practitioners, and other healthcare professionals ranked the UK first among 28 countries as the best market for digital healthcare applications. In addition to the government support, those surveyed indicated that one major factor contributing to the ranking is that doctors in the UK have an open and positive attitude about utilizing new technologies and integrating digital health solutions into patient care. 124

Health-related mobile applications and wearable devices are rapidly growing markets in the UK, and they have the potential to address the care needs and mobility constraints of the older population. To encourage the innovation, in 2015, Innovate UK, a non-departmental

public agency, put aside a fund of GBP 210,000 (approximately USD 270,375) to support the development of wearable technologies used in areas including healthcare, safety, sports, and well-being, among others. 125 However, unlike the digital health system market, which has been primarily driven by government initiatives, this emerging market is driven by, and dependent on, consumer demand.126 A lack of clear reimbursement models for the apps and wearable devices, particularly in the NHS, as well as consumers' concerns about health and medical data privacy and security, have been major obstacles to monetizing relevant technologies. However, the government has been working to overcome these obstacles. The National Health Service has developed a regulatory framework for mobile medical apps, which can be classified as "medical devices" by the Medicines and Healthcare Products Regulatory Agency. 127 This approach is helping to address concerns about product reliability and to engender more insight into, and control over, data management and privacy. 128

¹²² It refers to the primary care GPs who apply digital technology and could provide integrated care services.

https://www.england.nhs.uk/commissioning/primary-care-comm/infrastructure-fund/.

¹²⁴ http://www.mobihealthnews.com/43472/survey-uk-is-the-best-european-market-for-health-apps.

https://www.gov.uk/government/news/business-funding-210000-for-digital-innovation-inwearable-technologies.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/461479/BIS-15-544-digital-health-in-the-uk-an-industry-study-for-the-Office-of-Life-Sciences.pdf.
http://www.bmj.com/content/346/bmj.f1811.

http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001953.

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Healthcare and Wellness

Technology also holds promise to help address one of the UK's greatest challenges: the increase in healthcare and long-term care demand alongside declining budget allocations and increased austerity. These dynamics are putting pressure on older adults and informal caregivers. In response, the government is increasing funding transfers and allowing for local tax hikes to help fill the growing gaps in funding for local governments. Recognizing that much more will be needed, in 2016, the British government launched a major technology initiative aimed at leveraging technology to help cut costs and balance budgets in the face of an aging population. Related initiatives are just getting off the ground but hold promise for public-private collaborations between the National Health Service (NHS) and industry to develop and deploy technologies that will help reduce costs and enable older adults to age in place longer and more comfortably.

Long-Term Care/Social Care¹²⁹ and **Funding Challenges**

Life expectancy has steadily increased in the UK over the past decade, but

the improvement in disability-free life expectancy (DFLE) has lagged in comparison. In the UK today, the average woman age 65 can expect to live another 21.2 years, while the average man can expect to live another 18.8 years, with averages of 10.9 and 10.3, respectively, of those years spent disability free. 130 The difference in the life expectancy and DFLE improvements suggests increasing needs for long-term care as the population continues to age. Another indicator for the rising LTC needs is that the number of people ages 85 and older, who are the group most likely to need care, increased by 30 percent from 2005 through 2014.¹³¹

Just as LTC needs have increased, the British government has been forced to cut health-related funding. The NHS provides financial support for older adults who have complex care needs that often require medical care services. Local governments then endeavor to provide means-tested support for older adults for institutional or home-based care services. Public spending on older adults' LTC has declined over the past five years, by around 10 percent

¹²⁹ In the circumstance of the UK, "social care" is the commonly used term for long-term care, which excludes health and medical care. "Social care" and "long-term care" are used interchangeably in this report.

https://www.ons.gov.uk/peoplepopulationand-community/healthandsocialcare/healthandlifeex-pectancies/bulletins/disabilityfreelifeexpectancy-byuppertierlocalauthority/england2012to2014.
 https://www.ageuk.org.uk/Documents/EN-GB/Campaigns/CIC/Care_in_Crisis_report_2014.
 pdf?epslanguage=en-GB?dtrk percent3Dtrue.

during the periods of 2009–2010 and 2013–2014 before slightly recovering in 2014–2015.¹³²

As a result of the funding cut, unmet healthcare needs and the associated out-of-pocket expenditure are rising. According to a 2017 Age UK report, there are nearly 1.2 million people age 65 and older who do not receive the help they need with essential daily living activities. This represents an almost 18 percent increase over 2016 and a 48 percent increase since 2010.¹³³ Cutbacks have hit home care services and communitybased day care services the hardest.¹³⁴ An increasing number of older adults are paying all of the costs of their care services, particularly institutional care. Nearly all of (96 percent) older people who fund their own homecare paid more than local authorities for the same type of room in the same home, an extra 43 percent on average.135

The decreased support for LTC has also affected the healthcare system. In secondary and acute care facilities, there

"Right now, there is typically a poor interface between the health system and the care system. The NHS is continually finding it difficult to find the beds it needs because it can't discharge people that are in the hospital because they can't find acceptable social care situations."

 Oliver Wells, Commercial Director, Devices for Dignity

are a large number of older adults who no longer need an acute bed but remain in hospitals. 136 137 This issue has been raised again and again in expert interviews. According to David Oliver, the President of British Geriatric Society, and Oliver Wells, the Commercial Director of Devices for Dignity, these patients may be using hospitals as care facilities due to reduced public support for LTC.138 "Right now, there is typically a poor interface between the health system and the care system. The NHS is continually finding it difficult to find the beds it needs because it can't discharge people that are in the hospital because they can't find acceptable social care situations," according to Wells. 139 Ben Franklin, Head of Economics at the Ageing International Longevity Centre - UK,

http://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Research/Briefing-The_Health_and_Care_of_Older_People_in_England-2015-UPDATED_JAN2016.pdf?dtrk=true.

http://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Research/The_Health_and_Care_of_Older_People_in_England_2016.pdf?dtrk=true

Health & Social Care Information Center Statistics http://www.hscic.gov.uk/catalogue/PUB16111/pss-exp-eng-13-14-fin-nat-exp.xlsx. http://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Research/The_Health_and_Care_of_Older_People_in_England_2016.pdf?dtrk=true

¹³⁶ Many of them did have initial acute illness for which hospital was an appropriate facility at the beginning.

https://www.kingsfund.org.uk/blog/2013/12/national-intermediate-care-audit-key-understanding-integrated-care-older-people.
 Interview with David Oliver, President of British Geriatric Society. November 2016.

¹³⁹ Interview with Oliver Wells, Commercial Director, Devices for Dignity, January 12, 2017.

"The big question is on insurance, and how to develop insurance for social care."

Ben Franklin, Head of Economics at the
 Ageing International Longevity Center - UK

contends that this pattern results in high costs to the healthcare system, highlighting the need to integrate the NHS and social care systems more effectively. "The big question," he says, "is on insurance and how to develop insurance for social care." 140

Recognizing care-related funding challenges, the government announced two measures to increase funding resources for LTC at the end of 2015, although experts are skeptical that these will be sufficient.141 One measure was to increase the central government's funding to the Better Care Fund¹⁴² (BCF) by GBP 1.5 billion, starting in 2017. The Better Care Fund (a.k.a. the Integration Transformation Fund) was set up in 2015, with an original allocation of GBP 3.8 billion by the Treasury, as a pooled budget that enables the NHS and local governments to work together to fully integrate health and social care services and improve

The other measure, the 2 percent social care "precept," enables local councils to increase their council tax by 2 percent to raise funds for social care given outside of a hospital or healthcare setting. Government commissioners estimate that nearly GBP 2 billion (approximately USD) 2.6 billion) in additional funding could be raised by 2020.144 However, according to the King's Fund, a think tank, this could be overly optimistic as it is highly unlikely that all of the local councils will raise taxes due to political considerations. The King's Fund estimates that the tax increases will result in, at most, GBP 800 million (approximately USD 1.03 billion) per year, only 40 percent of the government's projection. 145 In addition, because it is up to local authorities to spend the additional income, it is uncertain whether they would actually spend it on LTC, particularly given that local governments' funding from the central government is set to be cut by 56 percent over the course of the current Parliament's tenure. 146 Local governments and service providers are exploring additional funding mechanisms

service quality and efficiency.¹⁴³ Experts acknowledge this as progress but also observe that there is a long way to go.

Interview with Ben Franklin, Head of Economics at the International Longevity Centre – UK. January 9, 2017.

¹⁴¹ http://www.localgov.co.uk/The-crisis-in-social-care-funding/40094.

¹⁴² https://www.nao.org.uk/wp-content/ uploads/2014/11/Planning-for-the-better-carefund.pdf.

¹⁴³ https://www.england.nhs.uk/ourwork/part-rel/transformation-fund/bcf-plan/.

https://www.theguardian.com/society/2015/ nov/20/osborne-plans-to-allow-2-council-taxrises-to-plug-social-care-holes.

http://www.localgov.co.uk/The-crisis-in-social-care-funding/40094.

http://www.ilcuk.org.uk/index.php/ publications/publication_details/the_end_of_ formal_adult_social_care.

and possible public-private partnerships, given the uncertainty surrounding future public funding.

Supporting Informal Caregivers

Reduced access to formal care services as a result of funding cuts has led to an increasing reliance on informal and unpaid caregivers, including family members and friends, who are often older themselves. The number of informal caregivers hit 17.6 percent of the total population in 2014. In that year, 20.5 percent of older people provided unpaid care, taking on a higher share of the caregiving burden, particularly unpaid caregiving. Nearly 40 percent of older caregivers dedicate 20 or more hours per week, and around one-quarter dedicate 50 or more hours per week.¹⁴⁷

The government provides certain allowances for informal caregivers, but it is not nearly adequate to compensate for their time and service. The Carers Allowance is currently set at GBP 62.10 (approximately USD 80) per week for those providing at least 35 hours of care, equivalent to less than GBP 2 (approximately USD 2.60) per hour or less than 30 percent of the national minimum wage for people age 25 and older as of October of 2016.¹⁴⁸ 149

The government is paying greater attention to caregivers' well-being, which it recognizes affects the quality of care given to older adults. In 2014, the government announced GBP 700,000 in funding to support volunteering programs that provide practical and emotional support for unpaid family caregivers. 150 In the same year, the government introduced the Care Act 2014, which outlines a range of reform measures to make individual well-being the organizing principle of care and support.151 The act sets rights and provisions for caregivers¹⁵² and defines local authorities' duty of promoting the well-being of not just users of care services but also caregivers. According to the act, everyone in the UK, including caregivers and self-funders, has the right to an assessment of their need for support, and local governments are obligated to respond to their needs. 153 The act has helped to simplify entitlements for different types of care and support that were spread across various acts of Parliament, clarify administration, and treat various groups more fairly and consistently.154 There are other similar acts in place in other areas in the UK, such as the Social Services

¹⁴⁷ http://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Research/Briefing-The_Health_and_Care_of_Older_People_in_England-2015-UPDATED_JAN2016.pdf?dtrk=true.

http://www.ageuk.org.uk/Documents/EN-GB/ For-professionals/Research/The_end_of_formal_ social_care.pdf?dtrk=true

¹⁴⁹ https://www.gov.uk/national-minimum-wage-rates.

https://www.gov.uk/government/news/700000-funding-for-volunteers-who-support-unpaid-family-carers.

http://www.ageuk.org.uk/professional-resources-home/policy/agenda-for-later-life/.
 http://www.publications.parliament.uk/pa/bills/cbill/2013-2014/0168/14168.pdf.

¹⁵³ https://www.gov.uk/browse/disabilities/carers.

https://www.gov.uk/government/publications/care-act-2014-part-1-factsheets/care-act-factsheets.

and Wellbeing (Wales) Act 2014¹⁵⁵ and the Social Care (Self-Directed Support) (Scotland) Act 2013.¹⁵⁶ While the Care Acts have conferred benefits, challenges remain; local authorities have expressed concern that budget cuts will undermine their ability to achieve reforms, and limit their access to advocacy and care worker resources.¹⁵⁷ The Brexit vote and the forthcoming negotiations over its terms could exacerbate the challenges with respect to care workers, as 92,000 EU nationals working in the UK care sector may have their work and residence status within the UK adversely affected.¹⁵⁸

Moving Care Work out of Hospitals

The British government has been seeking to move care work out of hospitals and to integrate healthcare and social care services in another bid to improve care and cut costs. In the "Five Year Forward View" in 2014, the NHS outlined options to integrate human and other physical resources from secondary and primary care facilities to create out-of-hospital care providers. ¹⁵⁹ The NHS invited individual organizations and partners to apply to use new care models, which include multi-specialty community

 Oliver Wells, Commercial Director, Devices for Dignity

providers, viable smaller hospitals, and specialized care, among others. 160161
Those selected will be "pilots" intended to test out those integrated models. The "Five Year Forward View" also stresses the importance of enhancing medical care in resident facilities. Suggested approaches include installing healthcare facilities and staff in order to meet the needs of older adults residing there before they have to go to hospitals. 162 Age UK's personalized integrated care program is also showing promise in reducing the need for unplanned hospital admissions. 163

In addition to greater integration between medical care and other supportive care services, the British government is recognizing that much more could be

[&]quot;Technologies that are able to address the big issues, including mental health, loneliness, and frailty – all of which are subclinical and do not fit neatly in the highly structured roles of hospitals - could dramatically improve social care and living conditions for older adults."

http://www.legislation.gov.uk/anaw/2014/4/enacted.

http://www.legislation.gov.uk/asp/2013/1/contents/enacted.

http://www.communitycare.
 co.uk/2016/04/01/one-year-care-act-achieved/.
 http://www.theguarian.com/social-care-network/2017/apr/20/eu-nationals-social-care-brexit.

¹⁵⁹ http://www.ageuk.org.uk/professional-resources-home/policy/agenda-for-later-life/.

https://www.nice.org.uk/news/feature/vanguards-piloting-new-models-of-care-for-the-nhs

https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf.

https://www.kingsfund.org.uk/blog/2015/05/enhancing-health-care-care-homes-integration-practice.

http://www.ageuk.org.uk/professional-resources-home/services-and-practice/integrated-care/integrated-care-model/.

done to leverage technology in healthcare to reduce costs and improve in-home social care service delivery. In this vein, in January of 2016, the NHS announced the launch of seven "Innovation Test Beds." which evolved out of the 2014 Five Year Forward plan for the NHS¹⁶⁴ and aimed to balance budgets in the context of an aging population. The test beds are a collaboration between the NHS and industry and will focus on a range of issues. including diabetes, heart disease, mental health, and older-age care. Collaboration between the NHS and industry is enabling technology testing within the healthcare setting. Two of the test beds, for example, are focused on Internet of Things technology and are looking at smart devices to, for example, help dementia patients stay at home longer, remind

patients to take medication, and manage diabetes.165 According to Oliver Wells of Devices for Dignity, "Technologies that are able to address the biggest issues, including mental health, loneliness, and frailty – all of which are subclinical and do not fit neatly in the highly structured roles of hospitals – could dramatically improve social care and living conditions for older adults."166 Though the technology is being tested in healthcare settings, one primary aim of the innovation centers is to help keep older adults out of costly and congested hospital settings and to provide cost-effective solutions that help enable adults to live longer, more comfortable lives at home.

https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf.

¹⁶⁵ http://www.wired.co.uk/article/nhs-technology-innovation-testbeds.

Interview with Oliver Wells, CommercialDirector, Devices for Dignity, January 12, 2017.