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Shortfall in innovation: how technology, skill mix and self-care can change long-term care

This chapter discusses innovative solutions to help long-term care (LTC) workers achieve more by increasing their productivity and increasing prevention effort to delay a worsening of LTC needs. Such policies are important to allow LTC workforce focusing on essential care and make the best use of their skills. The chapter discusses three important axes of action – use of technologies, improving the skill mix and helping elderly people to age healthily – and their implications for the current LTC workforce. The analysis finds that, while such policies hold the promise of improved outcomes, workforce barriers in terms of skills, allocation of tasks and worker engagement also need to be addressed.

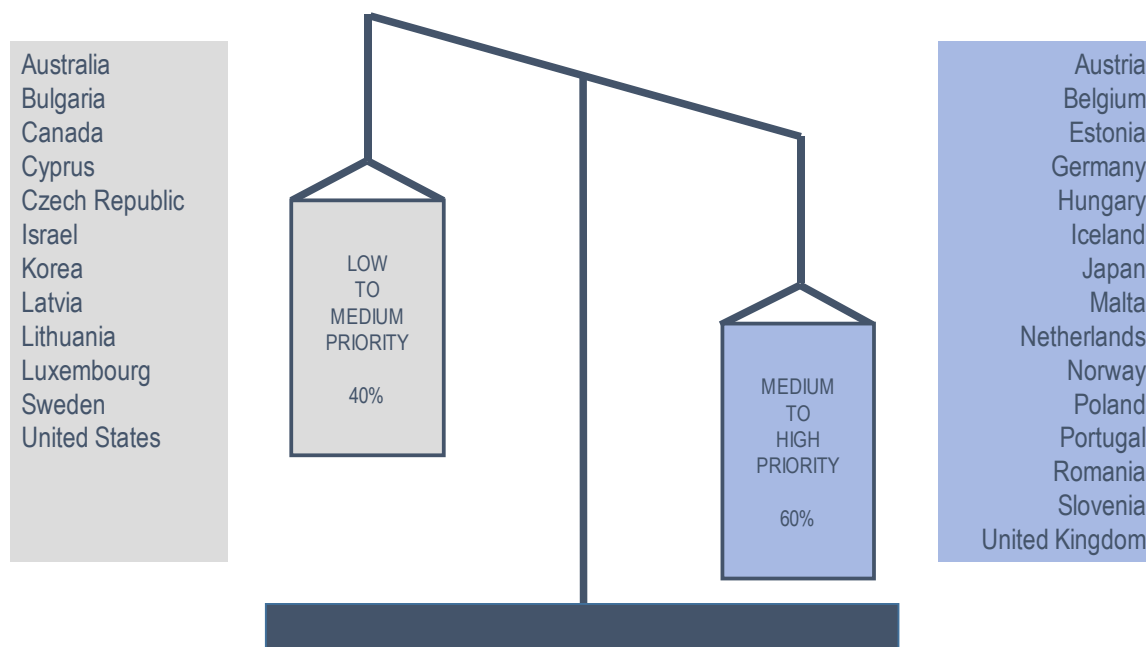
6.1. Increasing productivity and delaying long-term care needs will increase quality of care

With population ageing, the demand for care services is expected to increase. In addition, the cost of providing LTC is rising, in part because of growing demand from ageing populations but also because labour-intensive services in a growing economy tend to see falling productivity (often referred to as “Baumol’s cost disease”). With continued pressure on demand for workers, policies that can improve LTC worker productivity may make it easier to meet the needs of ageing populations with a limited workforce.

In the light of shortages faced in the sector, there is an urgent need to find innovative ways to narrow the gap between LTC supply and demand and to improve LTC worker productivity. One method may be to help LTC professionals to work in smarter ways, ensuring that the same number of professionals are able to do more and deliver better care services. This could free professionals’ time from tasks that it is possible to automate, allowing them to focus on the activities that are most important for the people in need of care. Importantly, this may also help to promote better quality of care. Better use can be made of workers’ time in three ways: by promoting smarter use of technology, by improving the workforce skill mix and by helping elderly people age well.

Promoting productivity gains in the LTC sector is not a straightforward exercise, as it is a highly labour-intensive sector. Many of the tasks carried out by health and social workers are difficult to standardise and need to be delivered by a person. Productivity in the care sector is known to be rather low. Estimates for the United Kingdom reveal that the residential and social care sector ranks second to last in absolute levels of labour productivity (Forth and Aznar, 2018^[1]). Recent evidence, however, suggests that there is room to do better: the recent Topol review (NHS, 2019^[2]) notes that with the use of tele-consultation between nursing homes, residential homes and experienced clinicians, approximately 38% of general practitioner (GP) referrals could be prevented, and ambulance conveyances decreased by up to 40%.

There is significant variation in how countries rank the topic of LTC workforce productivity in their workforce agendas. In 60% of cases – including Austria, Belgium, Estonia and Germany – improving the productivity of LTC workers is a medium to high priority. In the remainder – including Luxembourg, Cyprus and Bulgaria – this issue is placed at medium/low priority (Figure 6.1). This variation may well be related to countries’ differing national priorities, but it may also be driven by the implicit idea that increasing the productivity of LTC workers is challenging.

Figure 6.1. Productivity ranks as a medium/high priority for the majority of countries

Note: Answers to “On a scale of 1 (low) to 5 (high), please indicate the level of priority of workforce issues within the LTC policy agenda”. OECD countries not listed in this chart did not answer this question in the OECD Long-term care workforce questionnaire, 2018.

Source: OECD Long-term care workforce questionnaire, 2018.

This chapter discusses policy options that support nurses and personal caregivers in provision of high-quality care while making the best use of their time. Several options discussed are based on national-level approaches, but it also includes bottom-up initiatives and ongoing pilots, for which evaluations are scarce. Conclusions are therefore tentative, as this is a field for which robust research is rapidly evolving but not yet consolidated. Section 6.2 explains policies in the area of technology, Section 6.3 investigates the area of improving the skill mix and Section 6.4 examines healthy ageing and reablement.

Key findings

- New technologies can help improve work processes and reduce LTC workload – for instance, by helping to share care plans and reducing the amount of repetitive and physically demanding tasks. Many providers already use or are looking for ways to implement simple technologies such as smartphones, alarm systems, sensors and GPS monitors in nursing homes or for home care delivery. More complex technological devices – such as companionship robots or self-sufficient smart homes – are showing positive results in labs and making their way into care settings in Japan and northern European countries.
- To help achieve this, however, LTC workers need to make the best use of these technologies. Carers need to become more digitally and technologically savvy. In Norway, a new nationwide strategy has been introduced to improve the digital skills of care workers during initial education, but given the speed at which new technologies are evolving, there is also a need to upskill and reskill the current workforce. Employers are playing a key role in this through in-house training and using digital champions, as in the case of the United Kingdom.

- There is also a need to reduce LTC workers' resistance to new technologies. Their buy-in could be attained by raising awareness of LTC sector innovations, such as distributing evidence on how new technologies can help them perform work in smarter ways. In countries such as the United Kingdom and Germany, nurses are now able to identify elderly people's needs that could be solved using technology, and are developing competencies to help engineer devices that may improve care provision. In several countries, innovation incubators and hubs are bringing together tech experts and health and social professionals to develop useful care technologies jointly.
- One-third of OECD countries make use of task delegation between LTC professionals, but the range and nature of tasks formally delegated to care professionals vary. Nurses can be allowed to perform a variety of medical actions delegated by doctors (e.g. in Israel) or the tasks they are allowed to undertake may be limited to a few actions like sewing complex wounds and injections (e.g. in the Netherlands). When allowed, task delegation raises the need for additional training for LTC workers.
- Two main factors contribute to the promotion of task delegation in LTC. First, it is often developed when there is a shortage of care providers. Second, the increasing use of new technologies in care for elderly people provides more opportunities. For instance, the democratisation of digital aides allows personal care workers to perform tasks such as taking temperature or blood pressure (as in Israel).
- Investing in healthy ageing not only helps elderly people enjoy a better quality of life but also postpones the need for LTC. Evidence suggests that much more needs to be done to ensure that the LTC workforce is competent to assess elderly people's needs. In Norway, for instance, the government designed a standardised form for home assessments. In several OECD countries, nurses can receive advanced education or training that improve their clinical judgement and management competencies, preparing them to conduct comprehensive diagnosis of elderly people's needs.
- Improving LTC workers' communication skills and knowledge about health literacy can strengthen prevention policies designed for elderly people. At least one-third of OECD populations may have low levels of health literacy, and elderly people represent a high-risk group. A number of countries such as the United States and Canada have guidelines on how to speak to people with certain illnesses, such as dementia, hearing impairment or memory loss. However, data on how these tools effectively support both LTC workers and care recipients are limited. Training LTC workers to become aware of recipients' health knowledge needs, which has been shown to have positive results in France, would improve their experience of care, as well as increasing the impact of counselling about lifestyle behaviours and strengthening the connection between physicians and frail elderly people.
- More and more countries are investing in rehabilitation or reablement to help older individuals recover their autonomy. Such policies usually target frail elderly people who live in the community, and there is increasing evidence of their cost-effectiveness and overall positive impact. The Danish Fredericia model of reablement, for example, has shown positive results with people recovering functional ability and reducing their care needs significantly. A few countries are increasing the number of occupational therapists (OTs) and physiotherapists to help perform this type of activity, focusing on better, more people-centred use of resources. However, for such initiatives to be successful, countries may need more aligned incentives.

6.2. Technologies can help LTC professionals improve their productivity

New technologies hold enormous potential to support LTC workers, particularly when it comes to improving communication with and monitoring of elderly people in need of care, helping to record and process their data and improving professionals' working conditions. The current lack of a uniform electronic record that connects health and social care may be creating inefficiencies. In the United Kingdom, it is estimated that 15-70% of a care worker's time is spent on administrative tasks (NHS, 2019^[2]). In the Netherlands, around one-third of nurses' time is spent on administrative reporting, such as filling in forms for insurance companies, council departments and similar.

In the long run, the use of technology in the care sector may help save costs and improve care quality and safety. A report in the United Kingdom has shown that 30% of social care tasks could be automated. Technologies such as telecare have also reduced hospital admissions and length in hospital stay for the elderly. For instance, the Advanced Telecare service in the Limousin Region in France achieved a reduced number of falls among the elderly at home and reduced hospitalisation (Carretero, 2015^[3]).

There is increased evidence that technological services and devices are improving the independence of older people at home and increasing carers' productivity (Carretero, 2015^[3]). Wearable devices with advanced algorithms can also support remote monitoring in home care, and may reduce time spent by workers in promoting self-care practices. Home devices (like intelligent fridges) and medication dispensers can promote self-care and allow better management of elderly people's basic need. Silent alarm systems that replace noisy ones, intelligent systems filtering information to identify truly urgent needs and home devices (like intelligent fridges) can allow better management of elderly people's needs and professionals' time.

6.2.1. Innovative technologies are slowly but firmly making their way into LTC

The fourth industrial revolution is there and increasingly affecting all areas of our lives and the LTC sector is no exception to this transformation. Nursing homes, home care services and other community services are slowly embracing technology as a way to support their staff in service delivery, but also improve their residents' wellness and engagement. The range of tools varies from simple and easy to access technologies, such as smartphones, alarm systems, sensors and GPS monitors, up to more complex devices such as surveillance and companionship robots or comprehensive technologies such as self-sufficient smart homes.

Most technologies in use have low entry costs and are easy to access

The majority of technologies currently used in LTC are those that carry low marginal costs of production and that are easily available. These include, for instance, alarm systems, cameras and sensors to detect movement. The degree of penetration of these devices varies considerably across and within countries. Unsurprisingly, private nursing homes and home care service entities or those receiving more public funding support are those where pockets of innovation are more prevalent. To a lesser extent, countries are also exploring more complex technologies. These include humanoid robots that replace or supplement LTC workers and fully fledged smart homes that support independent living.

The technologies available for LTC can be grouped into four clusters (Figure 6.2).

Figure 6.2. Four categories of technology are available to support LTC workers



Source: OECD long-term care questionnaire and interviews, 2018.

According to data collected, in the large majority of countries, assistive technologies are being used in LTC care provision. Assistive technologies include sensors used at home or installed in nursing homes, which are connected to smartphones, for instance. They help professionals monitor care recipients, thus freeing up their time. When used in nursing homes, the devices can take some pressure off staff. They allow communication across teams (e.g. between a nursing home and a hospital), support autonomy of care providers and enable nurses to cover several care recipient homes. The use of remote care and self-management technologies is also quite common. These include, for instance, interactive programmes to work on psychomotor skills for elderly people (as used in Germany) or special gyms where elderly people can exercise and socialise.

To a more limited extent – in one-third of the countries – social technologies are also being used as a way to connect health professionals with each other or with users. In Norway, for instance, a social media messaging app similar to WhatsApp connects nurses who work in the same region but have different clients. This helps them share professional advice, which is particularly relevant in home care services. In

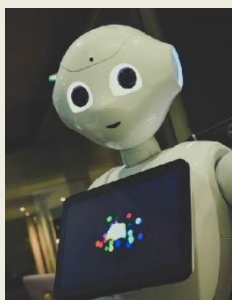
France, in the Ile-et-Vilaine region, a new teleprocessing tool was implemented to allow nurses to communicate in real time, to co-ordinate working schedules more easily and to share medical data in a secure way.

LTC jobs are at low risk of automation compared with other sectors

New technologies, such as robots and artificial intelligence (AI), are set to disrupt and automate people's jobs. The LTC sector is no exception to this growing phenomenon. The development of humanoid robots is now quite advanced, and they may take on a more important role in the future of LTC provision. Pepper and Paro, for instance, can read and respond to human interactions and emotions, memorise personality traits, play memory games, send emails and show videos (Box 6.1). They are successfully replacing health and social workers in hospitals and nursing homes, and studies have shown that they help to deal with loneliness and to form social connections with elderly people.

Box 6.1. Some assistive social robots are successfully replacing health and social workers

Pepper



Designed by a Japanese company called Softbanks, Pepper was initially designed as a companion robot. However, it is now being used in different settings such as guiding patients to different hospital departments (as in Belgium) or working as a social care worker in community engagement, awareness-raising and to facilitate other activities.

Paro



Paro is a therapeutic baby seal robot developed by the National Institute of Advanced Industrial Science and Technology. Its behaviour can be programmed according to patient needs. Initial small-scale studies carried out by the manufacturer have found positive results in encouraging interaction and communication among elderly patients.

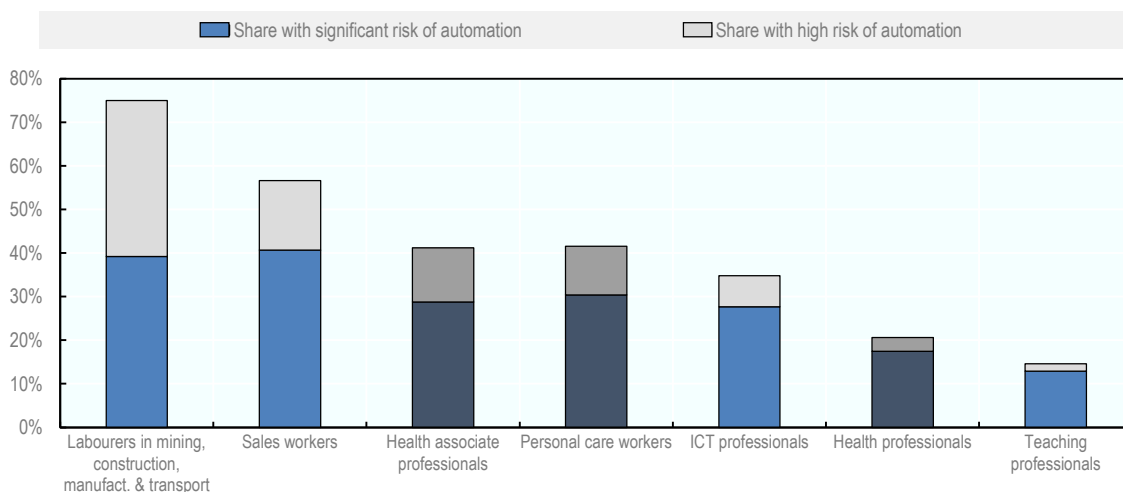
Source: Broekens, Heerink and Rosendal (2009^[4]), "Assistive social robots in elderly care: A review", <https://doi.org/10.4017/qt.2009.08.02.002.00>.

Image credits: Pepper: Owen Beard/Unsplash.com; Paro: frantic00/Shutterstock.com.

What robots will mean for LTC jobs is uncertain. The risk of automation of LTC jobs is relatively low compared with other sectors. Evidence suggests that health associate professionals and personal care workers are on a par with information and communication technology (ICT) professionals in terms of shares of jobs at high risk (10%) and significant risk (30%) of automation. These proportions are relatively low compared with the risk for workers in mining, construction, manufacturing and transport or in sales (Figure 6.3).

But this is not set in stone. What will happen to LTC jobs will depend on the rate at which technologies will continue to evolve, but mostly on the speed of diffusion and their adoption. It is likely however that, for the most part, robots and AI will supplement and complement LTC workers jobs rather than replace them fully. This is in many ways good news. Automation of certain tasks has the potential to free up time from nurses and personal carers, allowing them to spend more time on caring tasks that require interpersonal skills, such as communication and teamwork.

Figure 6.3. The likelihood of health and personal care worker positions being automated is low



Note: Job automatability for selected occupations, based on European data.

Source: Nedelkoska and Quintini (2018^[5]), based on the OECD's Programme for the International Assessment of Adult Competencies (PIAAC) 2012.

More innovation, digitalisation and automation in LTC may also lead to new employment opportunities. These could include jobs for people that are able to bridge knowledge between health and technology development. Making the most of these opportunities and ensuring that the changes result in favourable outcomes will require machine learning engineers and data scientists to work alongside care workers. In the digital age these professions can add much value to non-clinical but very important activities related to system governance and policy decisions. One example is using a range of datasets to generate information on system performance or evidence on the performance of drugs once in clinical use.

6.2.2. Policies need to be in place to ensure that LTC workers reap the benefits of technologies

LTC workers will need support to make the best use of new technologies. This can be achieved in three ways: by improving their digital skills, promoting better understanding of how technologies can support carers' tasks and tailoring regulation.

Increasing professionals' digital skills is a first step

Care workers need to become digitally literate. This refers to an individual's ability to learn, work and develop effectively in a digital workplace and society (NHS, 2017^[6]). The advantages of a digitally literate care workforce are numerous. Care workers that are digitally savvy will be able to share data and digital care plans with home and institutional providers. Digital skills can improve decision making, reduce the amount of repetitive and physically demanding tasks and increase flexibility and productivity (Skills for Care, 2016^[7]). Improving digital literacy in the sector may help to attract and retain not only care workers

but also people with a range of other skills into care. When digitally literate, home care providers can also help care receivers to use apps and connect digitally with their family members and friends. More automation of certain tasks means that workers will have time to take on more complex tasks, such as problem solving in new situations, and will need to have solid literacy, numeracy and problem-solving skills combined with autonomy, co-ordination and collaborative skills, in addition to ICT skills.

LTC workers are not necessarily digitally savvy. The OECD's PIAAC Survey of Adult Skills suggests that more than 50% of the adult population among 28 OECD countries can only perform a simple set of computer tasks, such as writing an email or browsing the web, or have no ICT skills at all (OECD, 2016^[8]). In a survey conducted among 200 European care workers, 80% of individuals claimed that they had not received training, or had insufficient training in health technologies. In Norway, a survey among social employers revealed that a large majority of workers do not possess the skills to adequately manage digital tools and that there is over-reliance on paper-based systems.

Promoting care workers' digital skills requires comprehensive and regular updating of skills for handling technologies in initial education and training. A few OECD countries have implemented nationwide strategies to improve the digital skills of care workers in initial education. In Norway, for instance, a competency plan for 2020 is under way to revamp the curriculum of health and social workers, with 12 new learning outcomes, including technology use and development. In the United Kingdom, digital skills are considered core skills for LTC workers, but without specifying the underlying competencies workers need to develop. Compensating for this, charities and other non-governmental organisations have designed frameworks defining core digital skills for social care (Table 6.1).

Given the speed at which new technologies are evolving, there will also be a need to upskill and reskill the current LTC workforce. In a 2016 European-level digital skills survey among adults, 87% of respondents stated that ICT has changed the tasks of personal care workers in the past five years, and 86% believed that this would continue in the next five years. Employers are responsible for fostering a learning environment that ensures the reskilling and upskilling of care workers in ICT. Data from interviews show that carer training is often conducted on an ad hoc basis, depending on the devices and tools used in nursing homes and home care services. Increasing the range of programmes to promote digital literacy based on health conditions and raising awareness of telecare is recommended (Waight, Bamidis and Almeida, 2018^[9]). Different methods of learning should also be supported, including informal and social learning. For instance, one successful way of promoting digital skills is using digital champions (as in the United Kingdom). These are staff who are comfortable with technologies and can serve as mentors and knowledge centres for other staff. Digital champions are found to promote learning and provide a range of support to peers (Kispeter, 2018^[10]).

Table 6.1. Four core digital skills are needed by care workers in the United Kingdom

Core skills	Reasons they are needed in social care	Examples of use of those digital skills and knowledge
(1) Sharing data	<ol style="list-style-type: none"> 1. to comply with data protection laws 2. to act in service users' best interest 3. to use data and data sharing to safeguard best interests 4. to be a full partner in integration 	<ol style="list-style-type: none"> A. knowing how to share appropriate data safely with colleagues B. knowing how to share data safely with colleagues in other organisations/professions C. knowing how to use password protection safely D. being able to complete digital records accurately E. being able to store information safely F. being able to use insertable and removable storage devices safely G. being able to read, send and receive email communications
(2) Learning and development	<ol style="list-style-type: none"> 1. to support staff development 2. to assess knowledge and skills 3. to monitor learning 4. to create evidence and report learning to monitoring/funding bodies 5. to show evidence of learning to regulators 	<ol style="list-style-type: none"> A. being able to create a log-in and password for a learning account B. being able to print off evidence of completion of learning C. being able to access mobile learning via a tablet or smart phone D. knowing how to record learning digitally for a portfolio E. being able to bookmark a page so it is easy to find again F. using search techniques to locate and select relevant information G. recognising and taking account of currency, relevance, bias and copyright when selecting and using information
(3) Using digital skills in direct care	<ol style="list-style-type: none"> 1. to create business efficiencies 2. to promote self-care 3. to support digital inclusion for service users 4. to conform with commissioner guidelines/wishes regarding assisted living technology 	<ol style="list-style-type: none"> A. knowing how to help someone use their diabetes app B. knowing how to help someone with their falls monitor C. knowing how to help someone access services online (such as claiming benefits, paying rent or booking appointments) D. having the required skills and knowledge to research local activities for a care recipient E. knowing how to set up and support a remote medical consultation for a care recipient
(4) Managing information	<ol style="list-style-type: none"> 1. to ensure efficient internal and external communications 2. to use when tendering for contracts 3. to attract private business 4. to comply with monitoring requirements 5. to create business efficiencies 	<ol style="list-style-type: none"> A. in home care, knowing how to use a remote monitoring system via a smart phone B. in home care/day support, knowing how to update a digital care plan C. in residential or nursing care, knowing how to update digital handover records in a skilled way D. being able to work with files, folders and other means to access, organise, store, label and retrieve information E. being able to follow and demonstrate understanding of the need for safety and security practices F. being able to demonstrate how to create, use and maintain secure passwords G. being able to demonstrate how to minimise the risk of computer viruses

Source: Skills for Care (2016^[7]), Core Digital Skills in Social Care, <https://www.skillsforcare.org.uk/Documents/Topics/Digital-working/Core-digital-skills-in-social-care.pdf>.

LTC workers show resistance to new technologies

LTC workers may take to using new technologies with some degree of resistance. Their concerns often revolve around the depersonalisation of care, fear of losing status and relevance or low awareness of the opportunities and benefits of using new technologies (Ramsey and Montgomery, 2014^[11]; Dubois et al., 2013^[12]). A scoping review found that nurses and other health and social care workers show worry for care recipients' safety and privacy when using humanoid robots (Papadopoulos, Koulouglioti and Ali, 2018^[13]). Some also believe that using technology may shift the art of diagnosing away from LTC workers to algorithms, potentially increasing existing inequalities. Many LTC workers do not trust the data, and this may undermine clinical judgement.

Buy-in from LTC workers may be made possible using a combination of promoting a culture of change and innovation in the LTC sector, providing evidence on how technologies can help LTC workers' daily tasks and making LTC workers co-developers and an integral part of decisions about which technologies to use.

One important element of securing LTC workers' adherence to new technologies is promoting an overall culture of change and innovation in the sector. A few strong local-level initiatives are leading by example. For instance, the Flanders Care programme in Belgium has been set up to respond to the challenges of an ageing population through innovation. Aiming to create a caring and solidarity-based society where everyone gets equal opportunities, this programme has been set up to improve the quality of care through innovation and responsible entrepreneurship. Its focus is on prevention and home care through assistive technologies, monitoring applications, ICT care, diagnostics and imaging. Work practices and employment relations in the sector are also strongly related to the adoption of new technologies. A study found that nursing homes that promoted teamwork and communication adapted faster to the introduction of new systems (Avgar, Tambe and Hitt, 2018^[14]). In particular, management allowing staff to experiment and setting up a peer-support system are important for the successful introduction of new technologies.

Interviews also revealed a need to strengthen LTC workers' views on how best to use technologies for the benefit of caregiving provision. Studies show that when staff work in technology-rich environments, they perceive that benefits outweigh potential difficulties with implementation (Ruiz Morilla et al., 2017^[15]). When that is not the case, LTC workers fear that new tools and devices may add to their already heavy workload. To smooth the transition, managers need to plan the introduction of technologies carefully and give LTC workers enough time to become acquainted with their use. For instance, nurses can receive training on the advantages of using sensor alarms in home care provision. In countries such as Israel, these alarms are connected to a call centre where a nurse or personal care worker is available to respond to health issues that arise from a multitude of different care recipients. Awareness also needs to be raised on how well-designed AI and other tools can reduce administrative burdens, releasing professionals' time for important care recipient-clinician interaction. In addition, roles could also be developed with responsibility to advise on the opportunities underlying health care technologies and to identify skills gaps among teams of care providers.

Another important way to convince staff to adopt new technologies is to make them co-developers of technological solutions. The current offer of new tools and devices for care service provision is wide and rapidly increasing. In Japan, for instance, the market for personal care robots, which currently stands at around USD 155 million, is projected to grow to USD 3.7 billion by 2035. In Scotland, United Kingdom, the total digital health market – e.g. telehealth, mobile health and wireless health – was estimated at USD 79 billion in 2015 and is expected to reach USD 206 billion by 2020 (Rimpiläinen, Morrison and Rooney, 2014^[16]). The number of options is increasing and providers are feeling lost when trying to identify best options for their clients. To solve this issue, a few countries (such as Norway and the United Kingdom) are now training nurses on the basics of technology development and design. The idea is that future nurses will be competent in identifying needs of their clients and help engineers design technological devices that may improve care provision. In several countries – Belgium, France, Germany and Sweden – innovation incubators and hubs are bringing together both technology experts and health and social professionals to help accelerate the identification of care technologies that are most useful. In addition to supporting care adherence and trust in these new devices, these hubs may in future open the possibility for new employment opportunities – for example, for LTC workers who are able to bridge health settings and technological developments.

Workers should be guided on how to use technology better

Technology-enabled care is gaining impetus in several countries; with this comes the need to update and establish regulations on how health and social workers use it. Collection and storage of data on elderly people leaves sensitive information available to hackers. Health and social workers thus need guidance on how to handle, for instance, servers such as email and cloud computing systems in a secure and

consistent way to avoid breaches in a care recipient's security. AI is also developing at high speed. Many humanoid robots are now quite advanced, and can change and adapt their behaviour in response to human interaction. There is a need for strong ethical and privacy regulations that help and protect users, particularly care recipients with disabilities.

Most countries have set up guidelines and standards to help LTC workers understand not only the use of new technologies but also ethical and privacy issues concerning how data is collected (Box 6.2).

Box 6.2. Standards and regulations on technologies help LTC workers

In mid-2018, a Concerted Action was implemented in Germany, involving the Ministry of Health, the Ministry of Labour and Social Affairs to recruit more people in LTC. As part of the action, there are concrete proposals for innovative care approaches involving digital solutions to improve the efficiency of nursing care. It prioritised and examined how these approaches can be used in the field, in particular focusing on: using digitisation to design innovative approaches, such as in district networking, telenursing, telecounselling, home assistance systems or eCounselling; using digitisation to relieve nurses, for example, by reducing the bureaucracy of nursing documentation, electronic billing or communicating with doctors and other health professionals, or maintaining and improving the health of employees; involving caregivers in the development of new digital products and applications and introducing them into day-to-day work, while observing ethical principles; and increasing efficiency at the interfaces between nursing and health care (such as discharge from hospital).

To ensure effective use of new technologies in health and social care, countries need stronger regulatory frameworks that are fit for purpose. Stronger frameworks regulating technologies will also help build trust and transparency in their use, not only for caregivers but also for recipients. Elderly people in need of care need to understand issues such as why their data are vital to ensure the right diagnosis and treatment, how the information will be used, the measures in place to secure and protect the data and who is accountable. A survey in the United Kingdom found that only 18% of current AI health and social projects have received regulatory approval, and 78% of respondents felt that regulation was very/extremely important in realising the potential of AI in health and care (NHS, 2018^[17]).

Another area that needs attention is the promotion of technology-enabling infrastructure. Across OECD countries, many rural areas do not yet have access to the internet, which makes LTC workers isolated. Further, the use of analogue telephones still prevails in many homes for elderly people. Ensuring connectivity in health and social care means relying on broadband connectivity. If there are variations across and within countries in broadband speeds, this may increase inequalities in access to care and constrain professionals' ability to innovate in their services. In Germany, a series of measures has been implemented to support the integration of medical apps and improve infrastructure. The German Appointment Service and Supply Act, which came into effect in early 2019, required health funds to offer electronic health records by 1 January 2021.

Countries may need to invest more in regulating resources that educate and train care workers in health data provenance, curation, integration and governance, the ethics of AI and autonomous systems and tools, critical appraisal and interpretation of AI and robotics technologies (NHS, 2019^[21]). Currently, technological education for care workers remains rather basic.

6.3. Improving the skill mix is another way to improve productivity in LTC

LTC carers need various skills to perform their duties. However, as discussed in Chapter 3, their skills do not always match those required for the job. In addition, automation, AI and other factors are set to disrupt

the way labour markets function, and the social and care sector is no exception. Skills mismatches may mean that some LTC workers have acquired more skills than are required for the job, leading to waste of human capital and job dissatisfaction, while others may lack some skills for certain tasks, possibly contributing to lower quality and safety of LTC services (OECD, 2016^[18]).

6.3.1. Task delegation is not common in LTC

One-third of OECD countries have implemented task delegation (transferring responsibility for the performance of an activity while retaining accountability for the outcome) between LTC workers since 2011. Task delegation mostly involves administering medication, and the low number of countries implementing it may be explained in part by the organisation of LTC. In many countries, LTC professionals are governed by regulations defining their specific competencies, and are subject to different administrations (such as the ministry of health or ministry of social affairs) and budgets (at the national, regional, departmental or municipal levels). Nurses and personal care workers are usually not in a superior-subordinate relationship and their activities are monitored and sponsored by distinct entities.

In countries that allow it, the range and nature of tasks delegated to care workers vary. Nurses may be permitted to perform a variety of medical actions delegated by doctors (as in Israel), or the boundary of their authorised tasks may be limited to a few actions like sewing complex wounds and giving injections (as in the Netherlands). When allowed, task delegation raises the need for additional training for LTC workers. A study in Sweden showed that some home care assistants administer medication occasionally even their skills or knowledge cannot be appraised (Gransjön Craftman et al., 2015^[19]). In the United Kingdom, the Nursing and Midwifery Council states that nurses or nurse associates undertaking delegated tasks must complete the necessary training before carrying out a new role (Nursing and Midwifery Council, 2019^[20]). In the United States, medication aides (unlicensed personnel who can administer medication) can be delegated to administer medication in LTC settings (assisted living, nursing homes, adult day care etc.). In a nationwide survey, 21% reported that “they are required to take responsibilities beyond their defined role”, which may raise safety issues (Budden, 2012^[21]). In all cases, task delegation usually requires strict monitoring of the person receiving care – such as monthly checks of their condition in hospital (Cyprus) – and regular evaluation of the carers’ skills and capabilities, which can be done in the form of informal one-to-one practical training or through take-up of a formal training or under specific regulations (United States).

While increased training and monitoring are needed to prevent accidents and medical errors, some countries have developed additional ways of reducing potential errors by staff receiving care task delegation. In Portugal, for instance, personal carers can administer medication in some nursing homes. Pharmacies prepare daily doses of medication, which are already pre-packaged, and explain in a simple way to whom, how and when to administer it. This has been a successful way of delegating tasks from nurses to personal care workers with little margin for potential errors.

Two main factors contribute to the promotion of task delegation in LTC. First, it is often developed when there is a shortage of care providers. In Belgium, an agreement between federal and regional authorities allows personal care workers to perform nursing tasks exceptionally when the elderly person needs them and no other care options are available, but this has not yet been transposed into legislation. Second, the increasing use of new technologies in care for elderly people provides more opportunities for task delegation. For instance, the democratisation of digital aides allows personal care workers to perform tasks such as taking temperature or blood pressure (as in Israel).

A better match between skills, tasks and job roles would be beneficial for LTC workers. This is currently the case in the Netherlands, where legislation was discussed in parliament in 2018 to improve the job profile for nurses and to differentiate the tasks and skills of nurses with university education and those with vocational training (see Box 6.3). Nurses with a university degree (level 5 and 6) receive education to hold managerial roles, including more knowledge concerning their profession, and additional training in soft skills (such as collaboration and communication). Nurses with university education should thus have more

responsibility for indicating and organising suitable care, especially in complex situations, using a combination of knowledge and protocols (evidence-based practice), while nurses with vocational training should follow protocols and be involved in less complex care.

Box 6.3. Reconfiguring the role of LTC nurses in the Netherlands

In the Netherlands, nurses with vocational training (level 1) are assistants and work only in nursing homes. They are in charge of cleaning, cooking, hygiene and – to some extent – social activities, but cannot perform medical tasks. They are responsible for providing attention and observing client needs. Nurse assistants (level 2) are also assistants, whose main focus lies in ensuring a good environment for the client by supporting level 3 nurses with tasks related to activities of daily living (e.g. helping elderly people with getting up, dressing, eating). Nurses with a higher level of education (level 3) are independent – in charge of physical care, injections, medication and nursing acts. Nurses with level 4 can also perform toileting and can undertake some risky procedures. This nurse is in charge of judging a situation before referring to a doctor and can co-ordinate cases of a complex situation. They are also independent professionals (as are nurses with level 3), but with higher levels of knowledge about diseases/syndromes and more extensive nursing procedures.

6.3.2. Task delegation has both pros and cons

Task delegation has pros and cons. Prior research explored the impact of task delegation for three geriatric conditions (falls, urinary incontinence and dementia) on the quality of care provided by different professionals: physicians, nurse practitioners, physician assistants, registered nurses, medical assistants and licensed vocational nurses (Lichtenstein et al., 2015^[22]). Delegated tasks varied from history taking to referrals. Results show that implementing task delegation within interdisciplinary team management programmes was associated with a higher quality of care for these conditions in community practices.

The delegation of some administrative tasks (such as record-keeping) to personal care workers may also enhance productivity in the LTC workforce. It would help nurses to focus on their core competencies, which are health care provision and care co-ordination. Personal care workers accessing administrative positions could avoid doing physical tasks to pursue a career in care for elderly people. Indeed, workers aged 50 and over often face work-related health issues (such as back problems), and may be better suited to performing some of the administrative tasks currently provided by nurses.

In home-based settings, the delegation of medication administration (pills, eyes-drop etc.) from nurses to personal care workers can lead to better efficacy when, for instance, it reduces unnecessary travel time and allows more time and effort to be dedicated to providing care to elderly people with complex needs. In addition, the Enhanced Home Care pilot programme in California showed that additional training for personal care workers in medication management, mental health and nutrition resulted in lower medication non-compliance rates and improved health (Osterman, 2017^[23]). Other evidence from Australia supports the idea that appropriately trained and supervised care workers can help nurses with medicine management in home care settings, particularly for those at low risk of adverse medication errors (Lee, 2015^[24]).

However, task delegation may also have drawbacks. Task delegation from doctors to nurses may be difficult. Research has documented that nurses providing LTC can be pressured by doctors when they have to report on the work they do, or may face issues with reaching doctors for urgent matters when tasks are delegated to them (Tjia et al., 2009^[25]). Pressure on nurses can also come from the fact that delegation gives them more responsibilities, while they may not necessarily have sufficient training and experience for the most complex cases (such as care recipients with dementia or multiple comorbidities). Consequently, task delegation from primary care providers to nurses may lead to higher risk of burnout (Edwards et al., 2018^[26]).

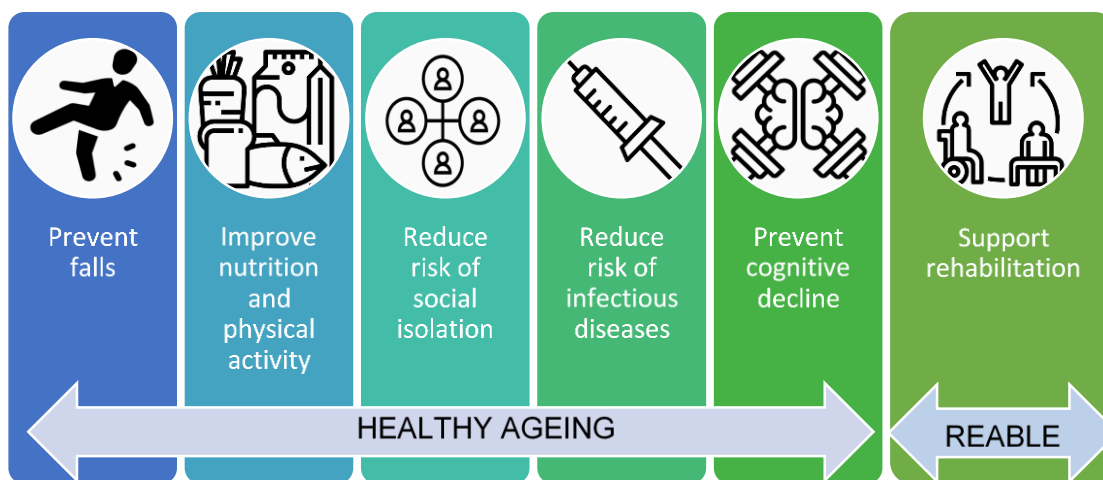
Task delegation from nurses to personal care workers can also raise negative issues. Again, it requires a higher level of training and mentoring. There are concerns about whether personal care workers are able to recognise changes in a patient's condition and to provide the patient with appropriate care (Denton, 2015^[27]). Because task delegation is mainly top-down, it can ultimately lead to personal care workers receiving more tasks because they have nobody to delegate to; this can result in increased workload and higher pressure for them.

6.4. Engaging elderly people to help themselves can delay LTC needs

Many countries also invest in activities that help elderly people age well or recover their autonomy when disabled. The former – healthy ageing – consists of a series of programmes optimising opportunities to increase years of good health and autonomy by reducing the number of years of disability. Health and social workers can support healthy ageing by helping with fall prevention programmes, offering education on food nutrition and physical activity, promoting social activities, supporting immunisation and engaging in activities that help prevent cognitive decline. Recovery of autonomy is commonly referred to as reablement or rehabilitation, in which care workers support frail elderly people in regaining some degree of physical or mental autonomy.

Six areas of action can support elderly people to continue to enjoy the quality of life they desire through healthy ageing and rehabilitation services (Figure 6.4).

Figure 6.4. There are six areas of action in which health and social workers can support elderly people to age healthily and remain autonomous



Source: Adapted from the World Health Organization (WHO) Framework on Healthy Ageing.

6.4.1. Prevention measures and rehabilitation activities may ease the growing pressure on LTC

Preventable safety failures are widespread in LTC. The root causes of most safety events can be addressed through improved prevention and safety practices. For instance, elderly people's falls are frequent. WHO estimates show that approximately 28-35% of people aged 65 or over fall each year around the world, and that more than 30 million falls require medical attention every year. Falls among elderly people cost the US health care system roughly USD 34 billion in direct medical costs (National Council for Ageing, 2018^[28]). In England, United Kingdom, falls and fractures for those aged 65 and above account

for over 4 million bed days per year and fragility fractures cost around GBP 4.4 billion (NHS, 2017^[29]). Regular exercise and healthy diet are associated with lower incidence of cardiovascular disease, osteoporosis and bone loss and certain forms of cancer. Studies suggest that exercise alone can reduce falls by 10%; that proportion increases to 25% if the focus is on balance (Oxley, 2009^[30]).

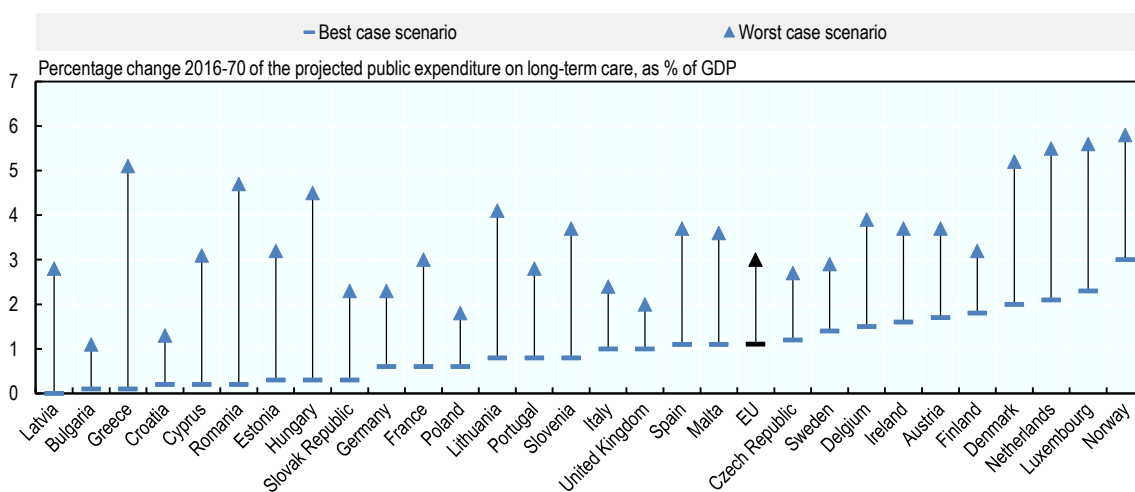
Averting cognitive decline helps people continue to take care of daily tasks on their own. With older age, some cognitive abilities – such as conceptual reasoning, memory or processing speed – tend to decline progressively. This results in a variety of symptoms, such as loss of memory and decreased ability to maintain focus or to solve mental tasks. All of this can severely interfere with everyday tasks of daily life; in some cases, a person affected cannot carry on living independently without care. A multi-domain lifestyle intervention showed that simultaneous management of several vascular and lifestyle-related risk factors can benefit cognition among elderly people (Ngandu et al., 2015^[31]).

Several safety concerns are present specifically in LTC residences. Health care-associated infections were common in LTC – averaging a prevalence of 3.8% among LTC facility residents in OECD countries in 2016-17 (OECD, 2019^[32]). Such infections can lead to increases in morbidity, mortality and health costs for the system. Pressure ulcers – an injury to the skin for due to pressure – are common for the elderly with reduced mobility. Across OECD countries, the prevalence rate of pressure ulcers was 5.35 in LTC institutions (OECD, 2019^[32]). Older people also consume more prescribed opioids than the young, despite the adverse effects of these medicines such as dizziness and confusion.

Increased prevention and safety among the elderly will also help increasing the effectiveness of service delivery and postponing disability among the elderly. In the future there will be an increased pressure on LTC spending given population ageing. Projections suggest that LTC spending will continue to grow in the future, even in the best case scenario, in which half of the elderly population ages without disability and mitigates cost growth (Figure 6.5).

Figure 6.5. LTC expenditure will increase, but less so in conjunction with healthy ageing

LTC spending projections – change in spending as % of GDP 2016-70



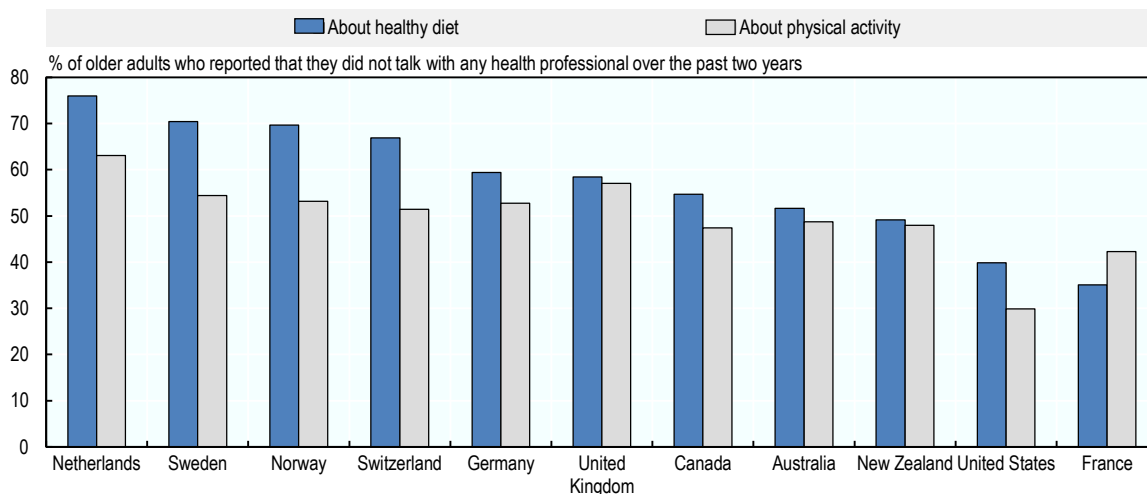
Note: The EU data point is the average, weighted according to GDP, of the 28 countries shown in the chart. In all countries (except Germany, Luxembourg and Poland), the best case scenario is the “healthy ageing” scenario (half of the projected gains in life expectancy are without disability). In all countries, the worst case scenario is the “cost and coverage convergence scenario”, which assumes: i) that growing expectations of the populations and the exchange of best practices will lead to an expansion of publicly financed formal care provision into groups of elderly people who previously relied on informal care; and ii) that EU countries in which LTC spending was below the EU28 average in 2016 will encounter an upward cost convergence.

Source: European Commission (2018^[33]), *The 2018 Ageing Report*, <https://doi.org/10.2765/615631>.

6.4.2. Many gaps persist in improving elderly people’s well-being

Evidence shows that LTC workers can do more, and do it better. LTC workers play an important role in educating and informing frail elderly people to take better care of their own health, but this is not happening as often as it could. In the LTC sector, data show that, during the past two years, no care professionals discussed physical activity or healthy diet with over 50% of senior citizens in the Netherlands, Sweden, Norway, Switzerland, Germany and the United Kingdom. In France and the United States, the situation is comparatively better (Figure 6.6).

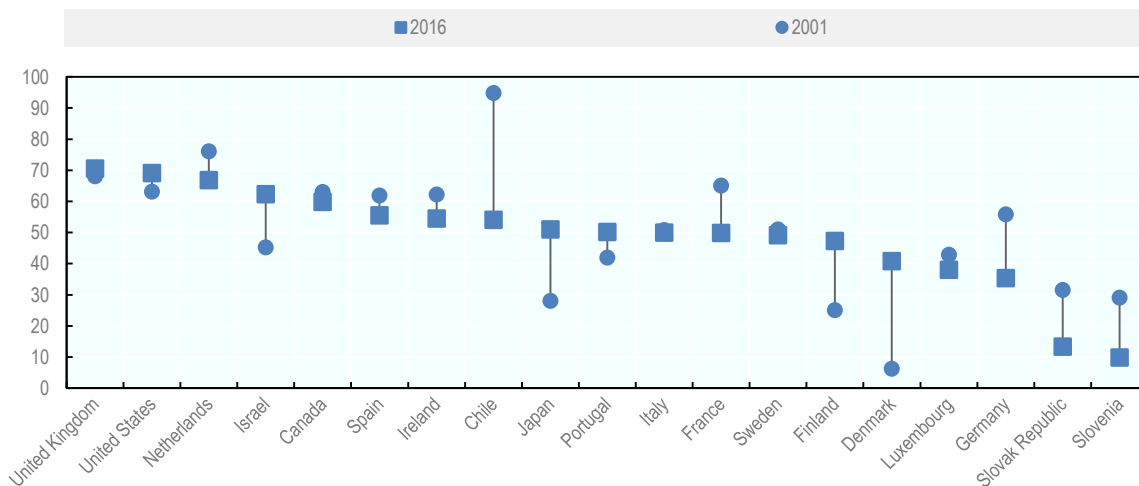
Figure 6.6. Health professionals do not discuss nutrition and physical activity with elderly people



Note: Data show proportion of individuals who answered “no” to the questions “During the past 2 years, has any health professional talked with you about exercise or physical activity?” and “During the past 2 years, has any health professional talked with you about a healthy diet and healthy living?”

Source: 2017 Commonwealth Fund International Health Policy Survey of Older Adults.

Figure 6.7. The proportion of people aged 65 and over receiving flu shots is decreasing in the majority of countries



Source: OECD Health Statistics 2018, <https://doi.org/10.1787/health-data-en>.

Numbers of flu vaccinations among elderly people are also falling. In 11 out of 18 OECD countries, the proportion of elderly people being vaccinated against flu is decreasing (Figure 6.7). In Chile, vaccination rates decreased from 95% in 2001 to 54% in 2016. In France, they fell from 65% to 50% and in Germany, from 56% to 35%. Ignoring this may come at a high cost. When older people get influenza, they become vulnerable to many other serious conditions. Due to their weaker immune systems, people aged 65 years and over are at high risk of developing severe complications following flu, such as pneumonia, heart attacks, strokes or infections. Influenza is associated with increased health care utilisation and thus weighs heavily on health care systems. In the United States, during 2017-18, the influenza virus led to an estimated 22.7 million medical visits and 959 000 hospitalisations. In Canada, estimates show that each case of flu requiring hospitalisation costs on average CAD 14 612.

6.4.3. Several avenues may keep elderly people healthy and autonomous for longer

In the past decade, a number of countries have increased their focus on prevention and healthy ageing, implementing a number of measures supporting elderly people to age better or regain autonomy. These range from regulations on prevention (e.g. the Prevention Act in Germany) to financial incentives to support home rehabilitation (as in Norway). Several countries have implemented rehabilitation programmes (including the United States, the United Kingdom, Australia, the Netherlands, Norway and Sweden). The province of Saskatchewan in Canada is supporting individuals with chronic complex needs in the community, using multidisciplinary teams to delay admission to LTC.

Japan is developing an integrated community care system that emphasises preventive care and activities to promote longer healthy life expectancy. Since 2005, the Japanese government has opened community-based integrated care centres in every district. The centres are responsible for implementation of preventive care services, outreach and counselling for elderly people in need of care through the use of community health resources networks, and continuous and comprehensive care management support that includes supervision of “care managers” responsible for planning care services provided under LTC insurance (Hatano et al., 2017^[34]). The government supports proactive efforts to organise exercise classes and community cafés to increase social participation and reduce isolation. Efforts to promote self-management are also increasing.

In France, healthy ageing is promoted as soon as elderly people retire or before LTC needs develop. Pension insurance schemes finance and implement actions and prevention measures at the regional level. They provide social support to retired people and implement services that mostly target healthy ageing and disability prevention. They have developed workshops to inform and educate retired people about the importance of healthy ageing. A national score – the Aggir scale – has been developed to rank older adults’ level of disability. As soon as a person is considerably vulnerable (but not yet disabled), a number of different providers start to co-ordinate activities that help prevent autonomy loss (Box 6.4).

Box 6.4. The Aggir scale and a comprehensive prevention programme helps prevent loss of autonomy among older adults

In France, care services are administered by two entities – the pension insurance schemes and the departmental councils – which are respectively in charge of prevention of loss of autonomy and disability management. A national rule defines eligibility for care and separates vulnerable elderly people from disabled elderly people. Care needs are assessed using a national scale – the Aggir scale – which provides a score ranging from 1 (severe disability) to 6 (non-vulnerable). Elderly people with an Aggir score of 4 and below are considered to be disabled. The score sets the activity of each entity: pension insurance schemes develop disability prevention schemes within the retired population and offer

assistance to elderly people who are not yet disabled (with an Aggir score of 5-6), while the departmental councils provide support to disabled elderly people (with an Aggir score of 1-4).

Frailty detection is organised at the regional level within the population with an Aggir score of 5-6. Specific retirement insurance schemes are provided to finance domestic help for elderly people who need help performing basic activities of daily living (using the toilet, washing etc.) and transportation assistance. Financial help is also provided to improve home settings and adapt elderly people's homes to their new needs, and social assistance is provided to manage transitions after difficult events (such as hospitalisation, loss of a partner or sibling).

Workshops on prevention cover a wide range of topics: the benefits of physical activity, brain activation, healthy diet, healthy lifestyle, regular sleep patterns, oral hygiene, fall prevention and risk of social isolation. Based on interactive methods, they include scientific content and practical and engaging advice. Volunteers, social workers or physicians specifically trained on healthy ageing conduct each workshop in a lively and friendly way to encourage retired people to participate and exchange views with each other.

Implementation of such workshops requires comprehensive and multidisciplinary skills training for professionals. Training programmes include distance learning followed by classroom sessions, in which professionals develop a solid knowledge base about good eating habits, physical activity adapted to elderly people and activities promoting wellness for older adults such as relaxation, breathing exercises or intellectual activities.

Regional health education and promotion bodies also organise multiple short courses or one-day training courses on several key topics such as prevention of malnutrition among elderly people, facilitation techniques and communication techniques in health education, project methodology and health promotion evaluation.

Social activity by pension insurance schemes is not limited to prevention workshops: they also aim to avoid social isolation and maintain social bonds. Pension funds can also participate financially to holiday trips for their beneficiaries if they face a fragile economic and social situation. Finally, they support financially the development of adapted housing for elderly people with optimal safety and services, including more than 400 home adaptation projects in 2016.

Preventive home visits to older people in Denmark, mainly by district nurses, are another example of good practice. Assessment have shown the positive effects of preventive home visits on the functional health status of older people. A three-year prospective randomised controlled follow-up study showed that training of home visitors was associated with improved functional ability of older people.

Some countries are also active in the area of healthy ageing by promoting more targeted interventions in one dimension. For instance, in Chile, the Santiago Sano programme brings together professionals from every municipal department into 40 dedicated communities to organise evaluations for elderly people with reduced mobility. It runs three-month workshops focusing on maintaining an independent and healthy lifestyle (OECD, 2019^[35]). Public Health England (the executive agency of the Department of Health and Social Care in the United Kingdom) has catering guidance toolkits for those serving food to older people (in residential care), which provides advice for serving food to meet the nutritional needs of this age group in care and other settings. There is also a Workforce Competence Model in Nutrition, which provides a framework that benchmarks competences and underpins standards for expanding the skills of the LTC workforce.

6.4.4. LTC workers can play a stronger role in helping elderly people age well

Three areas of action can help health and social workers support elderly people to age well: giving LTC workers the skills and resources for personalised care assessments and strengthening their role in prevention activities; improving their skills and knowledge of health literacy; and promoting reablement and rehabilitation services.

LTC workers will need to carry out personalised care assessments and support prevention activities

LTC workers can play a major role not only in assessing elderly people's needs but also in guiding their choices and behaviour. They can educate elderly people about the risks of an unhealthy diet, remind them about the schedule for vaccinations and inform them about the importance of being vaccinated. They can also detect changes in a care recipient's cognitive ability and suggest testing to assess whether changes fall within the normal process of ageing and cognitive decline or are pathological.

Traditionally, assessment of an elderly person's needs takes place at the primary care level, usually performed by a GP or a geriatric doctor, but the role of nurses in performing this task is becoming more prominent, given nurses' regular visits to elderly people at home and in their social environment. Evidence suggests that much more needs to be done to ensure that the LTC workforce is competent in assessing elderly people's needs. In several OECD countries, nurses can receive advanced education or training that improve their clinical judgement and management competencies, preparing them for such a role. In eight countries – Australia, Canada, Finland, Ireland, Netherlands, New Zealand, the United Kingdom and the United States – education is available to train as nurse practitioners or advanced practice nurses; these professionals are allowed to work at higher levels of advanced clinical practice.

Countries can strengthen LTC workers' role in health promotion and disability limitation for elderly people by establishing national prevention policies that guide LTC workers on how to help elderly people stay healthy for longer, strengthen professional skills at the primary care level to keep elderly people out of institutions and improve geriatric knowledge among health and social workers working in the community. Nurse practitioners have a strong role to play in healthy ageing (Box 6.5).

Box 6.5. Nurse practitioners have successfully provided prevention to elderly people in rural practices in British Columbia

The nurse practitioner (NP) role has been implemented at different speeds throughout Canada's provinces and territories. In British Columbia, based on an in-depth analysis of three rural collaborative practices where NPs were newly employed, access to care was improved and contributed to enhanced teamwork. NPs spent more time with frail elderly people with chronic conditions and used the extra time for health promotion advice, disease prevention, assessments of complex situations and case management. In addition, NPs often introduced a new, community- and population-based focus to their practices. Activities provided by NPs included outreach activities outside the office for marginalised populations – work not previously done by GPs. These add-on services were appreciated by colleagues and improved physician job satisfaction. Moreover, emergency use and admission rates to hospitals declined (*Roots and MacDonald, 2014*^[36]).

Source: Maier, Aiken and Busse (2017^[37]) "Nurses in advanced roles in primary care: policy levers for implementation", <https://dx.doi.org/10.1787/a8756593-en>.

A few countries – including France, Germany and the United Kingdom – have policies in place to guide LTC workers on how to help older adults live longer and healthier lives. These usually take the form of prevention measures as part of LTC policies or plans. For instance, in Germany, the 2015 Prevention Act introduced a new benefit for nursing care funds for prevention and health promotion in inpatient care institutions. The health insurance scheme has developed a guideline with health-promoting offers for this target group. It defines nutrition, physical activity, strengthening of cognitive resources, psychosocial health and violence prevention as necessary fields of action. In the United Kingdom, the NHS Long-term Care Plan outlines interventions to help cut smoking and obesity and to double enrolment in type 2 diabetes prevention programmes.

Finally, countries are also investing in a series of health promotion and disease prevention activities by promoting geriatric knowledge among nurses and personal care workers. As discussed above, many nurses carrying out LTC tasks have not received LTC-specific or geriatric training. To overcome this barrier, some initiatives aim to help LTC workers at the forefront of home care service improve their knowledge of the needs of elderly care recipients. For instance, the Visiting Nurse Service of New York trained personal care workers as health coaches; this led to improvements in self-care maintenance and management of heart failure symptoms, and reduced the number of activities of daily living for which elderly people needed assistance (Osterman, 2017^[23]).

LTC workers could benefit from improved communication skills and knowledge of health literacy

At least one-third of OECD populations may have low levels of health literacy, and elderly people represent a high-risk group. Factors such as cognitive decline and lack of understanding of online platforms or digital skills mean that elderly people tend to be less skilled and knowledgeable in how to access, evaluate and apply health information. Literature also suggests that older individuals may feel shame and embarrassment in communicating difficulties with understanding their treatment options, or in raising questions in discussion with doctors (Moreira, 2018^[38]). This is worrying, given the high rates of chronic disease that affect this group: good health knowledge to understand and treat long-term conditions is required. Evidence shows that low levels of health literacy are associated with higher risks of elderly mortality, poorer ability to take medication appropriately, lower skills in reading labels and health messages, and poor overall health status for elderly people (Berkman et al., 2011^[39]).

LTC workers can support elderly people to improve their health literacy by promoting better communication. Health and social workers can be sensitised to their role in promoting better health literacy by setting up guidelines for better communication or promoting on-the-job training on how to improve communication with elderly people. Several OECD countries make use of guidelines and toolkits to set standards on how health and social care professionals can better communicate with frail elderly people (Table 6.2). A number of countries also have guidelines on how to speak to care recipients with certain illnesses, such as dementia, hearing impairment or memory loss. However, data on how these tools support both LTC workers and elderly people effectively are limited. Countries may need to invest in more campaigns to help LTC workers become sensitive to the impact that effective and simple communication can have on a care recipient's understanding and uptake of health information.

Another complementary option is the use of on-the-job training. Studies suggest that LTC workers' curricula have gaps in creating competency to understand their role in promoting knowledge and understanding of health information. Training LTC workers to become aware of health knowledge needs would improve frail elderly people's satisfaction with information and care, increase the impact of counselling about lifestyle behaviours and strengthen connections between physicians and their patients. Randomised controlled trials have shown that when providers are informed of frail elderly people's health literacy levels, they are more likely to use related strategies. Frail elderly people are also more likely to

adhere to colorectal cancer screenings when professionals have received training on how to communicate with people with low health literacy (Moreira, 2018^[38]).

Table 6.2. Guidelines and toolkits improve LTC workers' communication with elderly people

Country	Communication policy
Austria	Improving the quality of communication in health care is a national policy towards establishing a patient-centred culture of communication in the Austrian health care system.
Ireland	The Health Service Executive has published national guidelines – <i>Communicating Clearly for Health Professionals</i> – which form part of an improvement programme to support staff to communicate clearly and be aware of health literacy issues during their daily work with service users. It provides writing and speaking advice when dealing with care users.
France	<i>Communiquer pour tous – guide pour une information accessible</i> is a guide on best practices to provide information in an accessible form to all, particularly those with low levels of health literacy.
United States	The Agency for Healthcare Research and Quality has developed a health literacy universal precautions toolkit with evidence-based guidance on how to improve spoken communication.
Canada	The “Easy Does It! Plain Language and Clear Verbal Communication”, developed by the Canadian Public Health Association, is a training manual developed for health providers, carrying advice and stories on how to communicate with care recipients to improve the quality of care.

Source: 2017 OECD Health Literacy survey.

In Canada, a national non-profit organisation supports life-long healthy active ageing through participation, education, research and promotion of information and resources that contribute to overall well-being. It undertakes public education sessions and publishes educational material – communicated in plain language for the public and practitioners – research and study results into the health benefits of active healthy ageing for adults and older adults. It also offers training opportunities through various methods for community leaders throughout Canada, to provide them with the necessary skills and knowledge to facilitate healthy living workshops in their community.

Some countries promote reablement and rehabilitation services

Reablement or rehabilitation usually consists of a short-term intervention (3-12 weeks) in the home of an older person or in a facility designed for that purpose. The focus is on training in daily functions, thus reducing and postponing the need for further care and helping people regain autonomy. There is increasing evidence of the cost-effectiveness and overall positive impact of reablement. The Fredericia model in Denmark helps to reduce care costs significantly (Box 6.6). In Norway, a reablement programme resulted in significantly higher performance and satisfaction of frail elderly people and lowered requests for and duration of home visits, leading to lower overall costs compared with usual care (Kjerstad and Tuntland, 2016^[40]). Another reablement programme in the United Kingdom was found to be a cost-effective way to reduce subsequent LTC use, while having a positive impact on both users' and carers' independence and confidence (Glendinning et al., 2010^[41]). Research suggests that reablement can boost the morale of carers, as they find an older people's needs are met to a greater degree. Staff also feel more satisfied and are thus less likely to quit their job.

Box 6.6. The Fredericia model for reablement in Denmark is cost-effective

The primary objective of the “Life-long Living” programme in Denmark is to postpone age-related dependence and maintain independent living for as long as possible. First implemented in the Fredericia municipality in 2008, its success led to its integration in the national legislative framework. It is now a model of good practice for all Danish municipalities on how to design empowering and rehabilitative home care services for elderly people.

The aim of the programme is to make a radical change in the way home care is delivered. Passive service delivery and compensatory care are replaced by everyday rehabilitation services, prevention, empowerment and active participation of the care recipient. Rather than focusing on the limitations of elderly people, trained personal carers focus on their resources and stimulate them to maintain or develop their physical abilities. The objective is to help and train older people to regain independence, autonomy and the confidence to perform a wide range of activities perceived as important by the older people themselves, inside their home or within their local community. Under the Life-long Living model, each care recipient has his or her own “citizen plan”. Each individual’s goals are continually adjusted as the care recipient improves in performing everyday tasks or as motivation changes.

The plans are conducted by multidisciplinary teams and caregivers specifically trained for rehabilitation. Dedicated care teams include 15 “home trainers”, 2 OTs, a physical therapist and a nurse. This way of helping older people to regain control over their own lives helps them feel empowered rather than a burden on their community. It allows them to reconnect with their preferred social leisure and physical activities, and to remain active in society.

The results of a project evaluation are promising. First, care recipients who joined the programme significantly improved their physical abilities and now rely less and less on home help from the Elderly Care Department. Second, job satisfaction improved among employees of the Elderly Care Department, as caregivers were more involved in the new working methods and more enthusiastic about the new interaction with senior citizens. The programme also resulted in considerable financial gains: the costs of services provided by the municipality decreased by approximately EUR 170 000 per month – more than EUR 2 million a year. This improved financial performance enables the municipality to provide more care to more people with the same amount of money.

Since 2008, the model has been implemented throughout Denmark. The majority of Danish municipalities replaced their traditional home care services with rehabilitation services as in Fredericia. Other countries, such as Finland, Norway, Sweden, France and the Netherlands are also considering ways to implement similar models.

Source: Kjellberg and Ibsen (2010^[42]), “Økonomisk evaluering af Længst Muligt i Eget Liv i Fredericia Kommune [Economic evaluation of Life-long Living in Fredericia municipality]”, <https://www.vive.dk/da/udgivelser/oekonomisk-evaluering-af-laengst-muligt-i-egget-liv-i-fredericia-kommune-9299/>.

The Portuguese National Network for Long-term Integrated Care integrates health and social care as a way to prevent long stays in hospitals for elderly people, with both medical and social services provided under the same umbrella. This was part of a major reform that took place in 2006 to create a network providing integrated LTC services. Two of the three types of institutional care services of the Network include convalescence beds for intensive rehabilitation for up to 30 days and medium-term beds for between 31 and 90 days, where care recipients receive support to regain autonomy. These services are also being developed for use at home, delivered by primary health care centres.

Care workers will be increasingly called on to perform rehabilitation activities in co-ordination with OTs. A few countries are increasing the number of OTs and physiotherapists to help perform this type of activity,

focusing on better, more people-centred use of resources. In Norway, the OT profession has grown quickly. In 2011, OTs started to provide services in four Norwegian municipalities. In 2018, they implemented care plans in around 300 municipalities. OTs often have high education levels (a bachelor's or master's degree), but there is no specific reablement certification, so training is organised in workshops. However, for this initiative to be more successful, countries may need further financial support. In Norway, while uptake for reablement is increasing, municipalities complain they do not receive sufficient financial support to develop OT programmes. It is difficult to find financial sponsorship because the priority is currently on nurse recruitment.

6.5. Conclusion

With population ageing, the demand for care services is expected to increase. Closing the gap between supply and demand for LTC workers will require innovative solutions to improve how work is done in this sector.

This chapter outlines some of the innovative ways in which LTC workers can be supported to work in smarter ways, ensuring the same number of professionals are able to do more and deliver better care services. This not only promotes better quality of care but also frees professionals from tasks that it is possible to automate, allowing them to focus on activities that are most important for the people in need of care.

Countries are helping LTC professionals achieve more by increasing their productivity and postponing demand for LTC needs in three ways:

- **Technologies:** this chapter finds that new technologies can help improve work processes and reduce LTC workload. To help achieve this, however, LTC workers need to make the best use of these technologies. Carers need to become more digitally and technology savvy. There is also a need to reduce professionals' resistance to new technologies.
- **Skill mix:** one-third of OECD countries make use of task delegation between LTC professionals. This is often developed when there is a shortage of care providers, but is also promoted due to greater use of technology.
- **Promoting healthy ageing and safety of elderly people:** investing in healthy ageing not only helps elderly people enjoy better quality of life but also postpones the need for LTC. Evidence suggests that much more needs to be done to ensure that the LTC workforce is competent in assessing elderly people's needs – for instance, improving communication skills and knowledge of health literacy can strengthen prevention policies for elderly people. More and more countries are also investing in rehabilitation or reablement to help older individuals recover their autonomy.

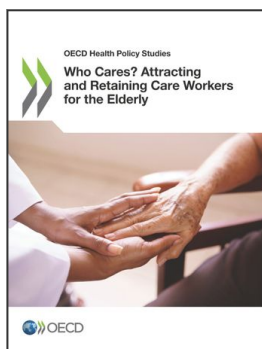
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