# Beyond Applause? Improving Working Conditions in Long-Term Care

OECD

# Beyond Applause? Improving Working Conditions in Long-Term Care

**Please cite this publication as:**
OECD (2023), *Beyond Applause? Improving Working Conditions in Long-Term Care*, OECD Publishing, Paris, https://doi.org/10.1787/27d33ab3-en.

ISBN 978-92-64-37804-9 (print)
ISBN 978-92-64-44558-1 (pdf)
ISBN 978-92-64-64609-4 (HTML)
ISBN 978-92-64-65834-9 (epub)

**Photo credits:** Cover image © Aymeric Vergnon

Corrigenda to OECD publications may be found on line at: www.oecd.org/about/publishing/corrigenda.htm.

# Foreword

This report is the outcome of a collective effort with contributions from a team of policy analysts from the OECD Social Policy Division and the Jobs and Income Division of the Directorate for Employment, Labour and Social Affairs (ELS). Hervé Boulhol led the team and co-ordinated the project and the publication. The overview Chapter 1 was written by Hervé Boulhol and Wouter De Tavernier drawing on the analyses carried out in other chapters. Principal authors of the chapters were Maciej Lis: Chapters 2 and 5; Wouter De Tavernier and Andrea Garnero: Chapter 3; Wouter De Tavernier and Andrew Reilly: Chapter 4. Other contributors to the report include Sandrine Cazes, Yuta Fujiki and Sebastien Martin. The authors are very grateful to Monika Queisser, Head of the Social Policy Division, for supervising the preparation of this report and providing in-depth comments on all chapters.

We would also like to thank the country delegates and experts who provided responses to the questionnaire at the early stage of the project as well as useful comments during the different meetings where the project was discussed. The report also benefited from the very helpful comments on drafts of the chapters by delegates from the OECD Health Committee, the OECD Employment, Labour and Social Affairs Committes and the OECD Working Party of Social Policy. Given their expertise in the field of long-term care, the report greatly benefited from useful guidance and comments by Francesca Colombo, Ana Llena-Nozal and Eileen Rocard. We are grateful for comments received on initial drafts by a number of OECD colleagues including Satoshi Araki, Andrea Bassanini, Jonathan Chaloff, Jean-Christophe Dumont, Valerie Frey, Gaetan Lafortune, Luca Lorenzoni, David Morgan and Glenda Quintini. Thanks also go to Lucy Hulett, Max Ladaique, Jayne Maddock, Eva Rauser, Hanna Varkki and Alastair Wood for their administrative support and help in preparing the manuscript for publication. We also thank Stefano Scarpetta and Mark Pearson, Director and Deputy Director of Employment, Labour and Social Affairs at the OECD for their key comments at various stages of the project.

# Editorial

It started in New York City. At the height of the first wave of COVID-19 in March 2020, New Yorkers applauded daily at windows, on balconies and in the streets to thank doctors, nurses, paramedics and others for their tireless efforts to fight the pandemic. Cities in France, Italy, Spain, the United Kingdom and other countries quickly followed their example. Residents stood at the window every evening in the lockdown, joining their neighbours from across the street in clapping hands together for all the people whose work had suddenly become vital to survival, central to the functioning of our societies, and who were on duty day and night despite high risks of infection. With vulnerable older people at highest risk of dying from COVID-19, managing caregiving both in long-term care (LTC) institutions and in people's homes became a huge challenge for LTC staff, whose working conditions and pay became a focus of public discussions and policy debate.

Now that the pandemic-related stress has subsided, where do we stand? Paying respect to LTC and other essential workers was clearly very important, but it needs to be followed with concrete action. LTC workers continue to work under difficult conditions, with low pay, and little social recognition despite the applause from the balconies and despite the fact that LTC supply and working conditions have been on policy makers' radar for years.

Urgent action is needed. Rapid population ageing in OECD countries will greatly increase the demand for workers in long-term care (LTC) services. In order to meet this demand for formal care, the share of LTC workers in total employment will need to increase by about 30% over the next decade. But fewer workers may be available and willing to take on these jobs, which are often underpaid, performed in difficult working conditions, and overall not well recognised by societies.

LTC workers are among the lowest paid and earn less than those working with similar qualifications in the healthcare sector. Low wages are one of the reasons for the difficulty to attract workers in LTC. In addition, shift work is common in LTC, and associated with a wide range of health risks, such as anxiety, burn-out and depression. Other mental risk factors are becoming more common as well, such as stressful behaviour, in particular aggression, from care recipients. Close to two-thirds of LTC workers are also exposed to physical risks, as they move, transfer and reposition patients.

Given the high demand for LTC staff and insufficient supply one could expect wages and working conditions to improve in order to attract more workers into the sector. But this is not happening. Why this is the case and what can policy makers do about it?

A range of factors can explain why wages have not been rising and why working conditions remain unattractive. One of them is the lack of collective bargaining in LTC. Care workers are hard to reach for unions, since they often do not work in a common physical location, but rather scattered across many workplaces. At the same time, identifying the employer counterpart in order to negotiate can be difficult due to the fragmentation of home care workers. Another important factor is that the bulk of LTC is still provided by informal carers. Families often cannot afford to pay for more expensive LTC and, if they cannot find low-paid care, either provide care themselves or resort to undeclared work.

Governments trying to address the LTC workforce's challenges therefore need to design comprehensive strategies. While the exact design of such a strategy will depend on how the LTC sector works in each country, all countries share the need to reform policies in a series of areas, that will promote and can be summarised as more RESPECT for the caring profession:

- **R**ecognise, both economically and socially, care workers
- **E**nforce (effective regulations) governing the LTC sector
- **S**ustainably fund the LTC sector
- **P**ay better salaries
- **E**quip workers with new technologies
- **C**ollective bargaining for better work conditions
- **T**rain to retain LTC workers

If LTC continues to be perceived as a dead-end street staff shortages will persist and reach socially unacceptable levels. More public spending will be required in many countries to help match supply and rising demand but that alone will not be enough. Implementing the RESPECT strategy will go a long way to make the LTC sector more attractive and do right by people who are supporting families with care for their loved ones. Respect means far more than applauding on balconies.

# Table of contents

## FIGURES

## INFOGRAPHICS

## TABLES

# Executive summary

The COVID-19 pandemic put a huge strain on the health and care systems, and it was thanks to the strenuous work and commitment of care workers that many lives were saved and people in need got support. We regularly applauded them from our windows, but a few years later we seem to have forgotten about them. Working conditions in long-term care (LTC) generally remain poor and it is difficult to attract and retain LTC workers. The situation is particularly dire for personal care workers who make up about four-fifths of them in the OECD, the other fifth consisting of nurses. This challenge will grow tremendously with ageing prospects. We need to go *Beyond Applause* and this requires taking significant measures to improve wages and working conditions more generally in order to ensure that people requiring assistance in their daily lives receive the care they need. This report describes what these measures should be.

## LTC labour shortages may reach socially unacceptable levels if no decisive action is taken now

There is already considerable unmet need for people needing care. Even before COVID-19, only half of people aged 65+ with severe limitations of daily living activities received formal care in Europe, while one-quarter received neither formal nor family care, with the difficulties intensifying during the COVID-19 crisis. The share of LTC workers in total employment increased from 1.7% in 2011 to 1.9% in 2021 in the OECD. While the number of LTC workers has increased in line with the number of older people, shortages remain.

Many countries have been struggling to recruit LTC workers. Given population ageing, the demand for LTC workers will increase quickly, and may be especially hard to meet in countries facing a declining working-age population. To meet the increase in labour demand, the share of LTC in total employment would need to increase by a minimum of 27% (or 0.5 percentage points) assuming strong productivity growth in LTC, or by a more likely 32% (or 0.6 percentage points) on average in the OECD over the next decade.

## Tough working conditions diminish care quality and dissuade potential workers

LTC workers face very difficult working conditions. Physical and psychological strain as well as burdensome working times are part of the main drawbacks of the working environment: LTC workers are much more exposed to physical and mental health risks than other employees. In addition, compared to workers with similar characteristics (e.g. age, education, gender and tenure), personal care workers have lower hourly wages than in most other occupations, and even more so if they work in LTC rather than in hospitals. While women account for more than 85% of LTC employment, they still earn less than men doing the same job. The availability of informal care – mostly unpaid and often provided by family members – as a possible substitute for formal LTC contributes to explaining low wages in LTC. Moreover, foreign-born workers represent a large proportion of live-in carers, whose employment conditions are generally difficult to monitor. It is a paradox that wages are so low in a sector such as LTC that has been reported to suffer from labour shortages for many years. When market forces are at play, the existence of excess demand should drive wages up to attract more workers. Reasons that prevent the market from balancing demand and supply differ across countries depending on their specific context.

LTC workers also feel a lack of social recognition. The majority of OECD countries have taken initiatives to improve this situation, including increasing remuneration, fighting gender discrimination, recognising LTC experience in education, increasing training requirements and running public information campaigns, but much more needs to be done.

## Policy implications

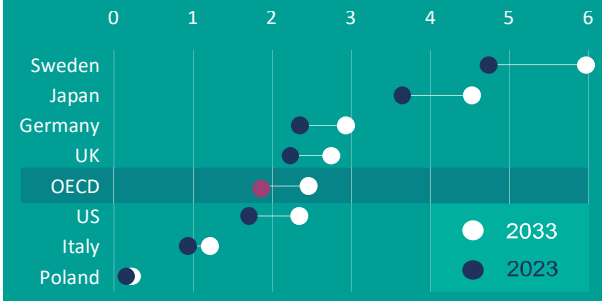
A comprehensive policy strategy is needed to tackle poor working conditions and insufficient social recognition of LTC work. Such a strategy has to cover several dimensions, with different priorities across countries depending on how their LTC sector functions. If regulations including those enforcing competition are effective, it is probably best to raise funding and leave providers the flexibility to choose a combination of higher wages, more hours or more staff. If, however, despite these regulations high profits are generated among private LTC providers then a more direct intervention on wages or staffing is justified.

- *Increasing public financing and fostering the leading role by governments.* Public finances have been under pressure during the recent and ongoing crises. But greater resources must be devoted to improving working conditions today and limit future labour shortages. A large increase in public LTC spending is needed and governments must lead in setting job-quality standards.
- *Directly intervening to raise wages and improve staff requirements.* Higher wages paid by public LTC providers may force private providers to raise wages too. Other measures covering public and private LTC providers may include: raising staffing requirements; improving compliance with staff requirements and transparency in the communication of effective staff ratios; enforcing minimum wage regulations while promoting appropriate wages in collective agreements; and, raising the sectoral minimum wage in countries where the instrument exists. In some countries, regulations in the LTC sector are more honoured in the breach than in the observance: this must change.
- *Supporting collective bargaining*. Increasing the effective coverage of LTC workers can be achieved by extending collective agreements to all LTC workers, and increasing compliance and enforcement through enhanced labour inspections and clearer information about the content of collective agreements, and by supporting affiliation to unions, for example, through subsidies.
- *Strengthening training*. Training for personal care workers, in particular those providing home care, needs to be enhanced, for example by initial training on care for older people with common physical and mental limitations, supplemented with continuous courses tailored to needs of care recipients. For nurses, an increased focus on geriatric care is required in their curricula in many countries.
- *Promoting social recognition*. In addition to better training and higher wages, information and recruitment campaigns challenging gendered care norms and training certifications are key.
- *Increasing the use of new technologies*. Beyond increasing budgets the use of new technologies should be expanded by: ensuring that data governance frameworks protect privacy; providing training to improve workers' digital skills; and, informing providers about the technologies available.
- *Strengthening preventive health policies*. Public information campaigns to promote healthy lifestyles and rehabilitation policies can mitigate the increasing demand for LTC services. LTC workers' role in preventive health can be enhanced through training and guidance on how to help older people stay healthy for longer. Technologies can contribute to reducing health risks, mitigating physical and cognitive decline and facilitating independent living.
- *Promoting transitions of undeclared care workers to formal employment*. With undeclared LTC work common in several countries especially among foreign-born workers, promoting transitions to formality is a must to improve working conditions and ensure a higher compliance with the standards set in collective agreements. This could be done by vouchers to purchase declared work, reduction in the cost of compliance with legislation and tax incentives, among others.

## Infographic 1. Key facts and figures

### Demand for long-term care workers will increase over the next decade

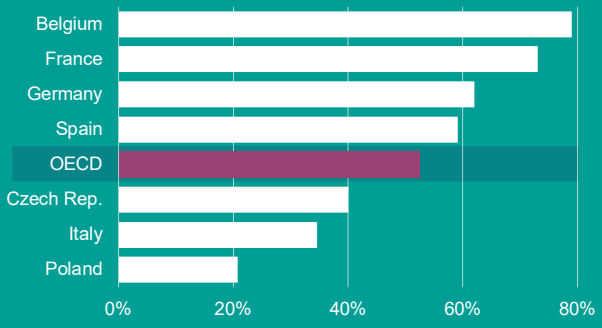
Share of LTC workers as % of total employment by 2033




Employment levels in long-term care (as % of total employment) would need to rise by 32% over the next 10 years to meet the increase in demand for care workers.

### Only half of older people with severe daily life limitations receive formal care

Share of people over 65 with severe limitations in activities of daily living who also receive formal care



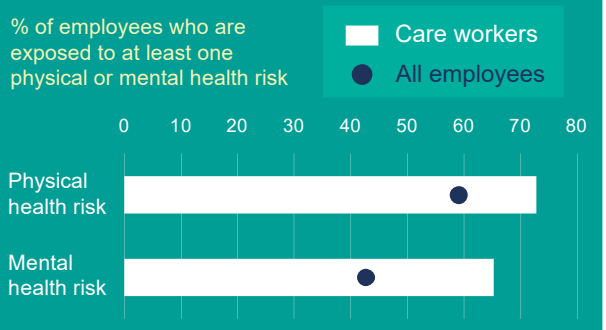

### Low pay reduces the attractiveness of working in long-term care

On average, the hourly wages of personal care workers are 12% lower than what they would earn in other jobs.


Long-term care workers also earn 8% less than what they would earn in hospitals.

### Care workers are highly exposed to physical and mental health risks

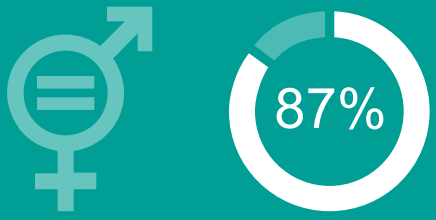
% of employees who are exposed to at least one physical or mental health risk




Care work is both physically and mentally arduous.LTC workers are much more exposed to risks to their physical and mental health than other employees.

### Women represent overwhelming majority of LTC workers everywhere

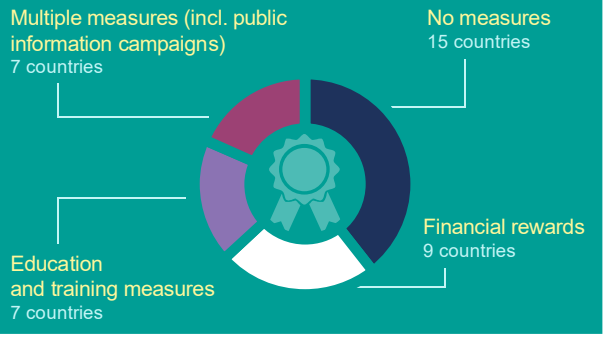
While women account for 87% of workers in long-term care, they still earn less than men doing the same job.




The only other sectors with such a female over-representation are cleaners, clerks and helpers.

### Long-term care workers should be given recognition for their work

Long-term care workers often feel a lack of recognition, but many countries have taken measures to improve this.



# 1 Beyond Applause? Improving working conditions in long-term care: An overview

Hervé Boulhol and Wouter De Tavernier

This introductory chapter gives an overview of the entire publication drawing on analyses carried out in the other chapters, and discusses policy implications. It documents the past evolution of employment in long-term care and projects demand for long-term care workers, which highlights the risk of substantial shortages over the next decades. The chapter flags tough working conditions for long-term care workers, including high physical and mental health risks, low wages in particular for personal care workers and a lack of recognition of both the workers and their competences. It discusses why wages have remained low despite persistent labour shortages in the sector. The chapter concludes with policy measures to improve working conditions and mitigate shortages in long-term care.

## Beyond applause: Better working conditions are key to meeting increasing long-term care needs

Images of exhausted care workers have been part of our collective memory since the outbreak of the COVID-19 pandemic. When severe restrictions to mobility were first introduced, many people around the world expressed their gratitude for health and care workers labouring relentlessly and putting their own health at risk by applauding them from their windows and balconies. The pandemic and the ensuing massive rise in health and care needs took the world by surprise. It came at the expense both of care workers, who had to scramble to continue to provide their services in often very difficult conditions, and of vulnerable populations including older people whose quality of life and care were severely impacted.

A second drastic rise in care needs is on its way, although this one has been well predicted. Over the next decades, the demand for long-term care (LTC) workers will increase substantially, mainly driven by population ageing.[1] Several countries are currently facing unmet LTC needs and shortages of LTC workers at a time when the large baby-boom generation is joining the older population requiring assistance in their daily lives for carrying out activities such as washing, eating, and moving. Moreover, care needs are becoming increasingly complex because of the rising share of older people with dementia and co-morbidities. This increasing complexity requires workers trained with greater clinical, communication, teamwork and digital and management skills. Despite the advance warnings, many countries are insufficiently prepared to absorb these increasing care needs.

Tackling poor working conditions of LTC workers including low wages and high pressure is key to ensure that enough people join and remain in the LTC workforce. The situation is particularly dire for personal care workers who make up 78% of LTC workers on average in the OECD, the remaining 22% consisting of nurses – personal care workers are formal workers providing routine personal care, such as bathing, dressing or grooming, to people in needs of care or assistance in their own homes or in institutions and who are not qualified or certified as nurses. This report shows that LTC workers do physically and mentally arduous work often at burdensome hours, all the while receiving below-average wages compared to other workers with similar characteristics. Hence, substantial improvements in working conditions are required to improve the attractiveness of LTC work if countries want to avoid the quality of life of their older population from worsening dramatically.

The report focuses on formal LTC. This is defined as a range of medical, personal-care and assistance services that are provided with the primary goal of: alleviating pain; reducing or managing the deterioration in health status for people with a degree of long-term dependency; assisting them with their personal care (through help for activities of daily living, or ADL, such as eating, washing and dressing);and, assisting them to live independently (through help for instrumental activities of daily living, or IADL, such as cooking, shopping and managing finances). Formal LTC is delivered by nurses or personal care workers, including workers who could be undeclared, especially live-in care workers. The report does not analyse informal care undertaken by family or friends outside a formal labour relationship (for definitions, see Annex 1.A). Yet, as informal care represents a large share of care provided in many countries and can be a substitute for formal care, its impacts on working conditions of formal care workers are discussed.

The LTC sector finds itself between a rock and a hard place as many countries are increasingly facing overall labour scarcity while the demand for LTC workers is growing rapidly. Being able to meet increasing LTC needs is by no means a new concern. Over a decade ago, the OECD study *Help Wanted?* rang the alarm bell over increasing LTC needs and the need to improve the supply and retention of LTC workers (Colombo et al., 2011[1]). *Who Cares?* followed up with an analysis of LTC work and its workforce, suggesting possible pathways to tackle care shortages (OECD, 2020[2]). Unfortunately, the situation has not much improved. And different from a decade ago, LTC shortages now have to be seen in a context of widespread labour shortages in various economic sectors (OECD, 2022[3]). Moreover, *Ready for the Next*

*Crisis?* illustrates how the COVID-19 pandemic revealed significant understaffing of health systems including frontline services (OECD, 2023[4]).

This report adds to previous analyses through an in-depth investigation of how LTC workers fare along the different key dimensions of job quality, drawing from the OECD Job Quality Framework (Cazes, Hijzen and Saint-Martin, 2015[5]). It explores the role working conditions play in LTC shortages in the context of population ageing as well as what stands in the way of improving these conditions to address the shortages. In a well-functioning labour market, sectoral labour shortages should lead to better working conditions, including higher wages, to attract more workers. Older people receiving care are also affected by many of the problems highlighted as the quality of LTC jobs impacts the care LTC workers deliver; assessing the quality of care, however, is beyond the scope of this report. To go *Beyond Applause* requires to take significant measures to improve wages and working conditions, more generally, for LTC workers in order to ensure that older people requiring assistance in their daily lives receive the care they need.

This overview chapter is organised as follows. The first section describes current shortages of LTC workers and their projected evolution over the coming decades. The second section focuses on working conditions, covering health risks, working times, wages and social recognition. The third section examines why poor working conditions persist despite shortages of LTC workers in many countries. Finally, the fourth section presents the policy implications of the findings.

### Box 1.1. Key findings and policy implications

#### Key findings

***Labour shortages and population ageing***

- Many countries have reported structural difficulties in recruiting long-term care (LTC) workers for many years. The COVID-19 crisis has resulted in deteriorating working conditions and increased job quits in the LTC sector, potentially intensifying staff shortages.
- LTC workers made up 1.9% of total employment in OECD countries in 2021 and the demand for LTC workers will increase at a fast pace. Given that the working-age population is projected to start shrinking, even by more than 10% in several OECD countries in the coming decade, the increasing demand will be hard to meet.
- The LTC share of total employment would need to increase by 32%, or by 0.6 percentage points, on average in the OECD over the next decade to meet the increase in demand for care workers. This is according to baseline projections combining the effects of demographic changes, higher incomes and no labour-productivity growth in the LTC sector. Even with a much more optimistic scenario assuming annual labour productivity growth of 0.5% in the LTC sector, the LTC employment share would still need to increase by 27%, or 0.5 percentage points, to meet the demand.
- Low pay and more generally poor working conditions as well as poor social recognition limit the attractiveness of LTC work, contributing to structural labour shortages.
- With persistent labour shortages in the LTC sector, market forces should lead to improvements in working conditions to clear the market. Yet a number of factors prevent the market from clearing, including insufficient financing of LTC services, low labour market power of LTC workers and mismatches due to limited geographical mobility within countries and insufficient training. Reasons differ across countries depending on their specific context, implying different policy priorities.
- The development of new technologies is likely to support and supplement LTC workers, but it cannot replace LTC workers entirely for core caregiving tasks. It can help limit the looming shortage of LTC workers by facilitating independent living of older people, reducing the strain of LTC work and raising efficiency in the sector.

***Main characteristics of the LTC sector***

- The LTC share of total employment ranges from less than 0.3% in Greece, Lithuania and Poland to more than 4.0% in Norway and Sweden. Huge differences across countries may reflect differences in the development of the formal LTC sector, the scope of family care, the extent of LTC provision by hospitals and life expectancy, among others.
- Personal care workers make up 78% of LTC workers on average in the OECD and nurses 22%.
- LTC professions are among those where women are most over-represented. While women account for more than 85% of LTC employment, they still earn less than men doing the same job and having otherwise similar characteristics.
- Foreign-born workers account for 26% of the LTC workforce on average across OECD countries, compared to 20% of all workers. They represent a large proportion of live-in carers.
- Only half of people aged 65+ with severe limitations in activities of daily living receive formal care across European countries, while one-quarter receive neither formal nor family care. According to the *OECD Risks that Matter* survey, the prospect of not being able to access good-quality LTC services is a major concern among adults in OECD countries.
- Investment in new technologies in LTC remains low. On average across 12 OECD countries for which data are available, IT investments make up only 1.0% of gross value added in LTC, compared to 3.2% in the total economy.
- Barriers to implementing new technologies in LTC include the high cost of certain technologies such as robots, concerns over privacy and data security, and the lack of both LTC providers' awareness of some available technologies and LTC workers' digital skills to operate such tools.

***Work environment and social recognition***

- LTC workers face very difficult working conditions. Physical and psychological strain as well as burdensome working times, such as night and week-end shifts, are part of the main drawbacks of the working environment in LTC. As a result, nurses and personal care workers are more often absent from work than other employees due to work-related health issues.
- About three-quarters of nurses and personal care workers are exposed to risks to their physical health, compared to 59% of all employees. The primary health risks care workers are exposed to are lifting people and providing care while being bent over, resulting in musculoskeletal problems. Abuse from care recipients and exposure to infectious diseases such as COVID-19 may also be important risk factors.
- About two-thirds of nurses and personal care workers are exposed to risks to their mental health, compared to 43% of all employees. The primary mental health risks care workers are exposed to are a high workload and time pressure, and difficult care recipients.
- Studies from Australia and the Nordic countries show that LTC workers feel recognised by care recipients and by their colleagues, but much less so by their managers, politicians and the wider society. This feeling of low recognition is related to poor working conditions including wages and low status. In terms of recognition of skills, personal care workers generally do not benefit from the certification of acquired skills, unlike nurses.
- OECD countries' initiatives to improve the social recognition of LTC workers include increasing remuneration, fighting gender discrimination, recognising LTC experience in education, increasing training requirements for LTC workers and running public information campaigns.

***Wages and collective bargaining***

- Personal care workers employed in residential and non-residential care earn around 70% of the economy-wide average hourly wage. One-quarter of personal care workers in the LTC sector and in hospitals earn at most 53% and 60%, respectively, of the average hourly wage in the total economy. Personal care workers earn less in LTC than in hospitals.
- Occupational and sectoral effects combine into low wages for personal care workers in the LTC sector. Regarding occupations, personal care workers have hourly wages that are 12% lower than the average across occupations, once individual characteristics such as age, education, gender, sector, etc. are taken into account. Regarding sectors, the LTC sector is estimated to pay workers with similar characteristics 4% less than the average across all sectors, with wages being particularly low in non-residential care.
- In most OECD countries, collective bargaining coverage of LTC workers employed in the formal sector tends to mirror the national average, but collective bargaining coverage of workers on paper is not sufficient to ensure good working conditions. In several countries, workers' representatives in the LTC sector are not strong enough to negotiate tangible improvements in wages and working conditions; and even when they are, compliance is not guaranteed. Furthermore, several categories of LTC workers are underrepresented as they fall outside the scope of existing collective agreements because they work undeclared or as self-employed (including sometimes false self-employment).

## Policy implications

A comprehensive policy strategy is needed to tackle poor working conditions and insufficient social recognition of LTC work. This is essential to avoid that LTC labour shortages reach unacceptable levels in the context of population ageing. Such a strategy has to cover several dimensions, with different priorities across countries depending on the diagnosis about the way the LTC sector functions. If regulations including those enforcing competition are effective, then it is probably best to raise funding and leave providers the flexibility to choose a combination of higher wages, more hours or more staff. If, however, despite these regulations high profits are generated among private LTC providers then a more direct intervention on wages or staffing is justified.

- *Increasing public financing and fostering the leading role by governments.* Public finances have been under pressure during the recent and ongoing crises. But improving working conditions today and limiting future labour shortages require a substantial increase in public spending in the sector. Governments can also play a leading role in setting job-quality standards, directly in public institutions and by requiring that LTC institutions benefitting from public funding be covered by collective bargaining and/or adhere to higher job-quality standards.
- *Directly intervening to raise wages and improve staffing requirements.* As part of the leading role played by governments, higher wages paid by public LTC providers may generate spill-over effects to private providers, forcing them to raise wages too, if they are to keep their best staff. Depending on the specific context of each country, other measures covering both public and private LTC providers may include: raising staffing requirements in residential care; improving compliance with staffing requirements and transparency in the communication of effective staff ratios by care providers; enforcing hourly minimum wage regulations while promoting appropriate wages in collective agreements; and, raising the sectoral minimum wage in countries where the instrument exists.

- *Supporting collective bargaining and social dialogue*. Increasing the share of LTC workers effectively covered by collective agreements can be achieved by extending collective agreements to all LTC workers, increasing compliance and enforcement through enhanced labour inspections and clearer information about the content of collective agreements, and by supporting affiliation to unions, for example, through subsidies.
- *Strengthening training*. Training for personal care workers, in particular those providing home care, needs to be enhanced, for example by initial training on care for older people with common physical and mental limitations, supplemented with some continuous courses fitted to the needs of care recipients. For nurses, an increased focus on geriatric care is required in their curricula in many countries. For LTC workers providing home care, increasing access to training reflecting their care recipients' needs is particularly relevant.
- *Promoting social recognition*. In addition to better training and higher wages, information and recruitment campaigns challenging gendered care norms and training certifications are key to strengthen the social recognition of LTC workers.
- *Increasing the use of new technologies*. New technologies can improve productivity and reduce the arduousness of LTC work by limiting the time needed for other tasks than direct care provision, and by taking over the most physically demanding tasks such as lifting people. Barriers to the use of new technologies can be overcome, beyond expanding budgets, by ensuring that data governance frameworks protect privacy, by providing training to improve LTC workers' digital skills, and by informing LTC providers about the technologies available.
- *Strengthening preventive health policies*. Public information campaigns to promote healthy lifestyles and rehabilitation policies can mitigate the increasing demand for LTC services, beyond improving the well-being of older people. LTC workers' role in preventive health can be enhanced through training and guidance on how to help older people stay healthy for longer. Technologies can contribute to reducing health risks, mitigating physical and cognitive decline and facilitating independent living, but successful implementation requires efforts to improve older people's health literacy and digital skills.
- *Promoting transitions of undeclared care workers to formal employment*. With undeclared LTC work being common in several countries especially among live-in carers and in particular among foreign-born workers, promoting transitions to formality is a fundamental prerequisite to improve working conditions in the LTC sector and ensure a higher compliance with the standards set in collective agreements. This could be done by vouchers to purchase declared work, reduction in the cost of compliance with legislation and tax incentives, among others.

In addition to limiting undeclared work, some general policies in other areas would greatly benefit LTC workers, including: fighting discrimination against women and foreign-born workers; eliminating gender stereotypes; and, raising the national minimum wage in countries having such an instrument and where its level is low.

## 1.1. Labour shortages may reach unacceptable levels in the near future if no decisive action is taken now

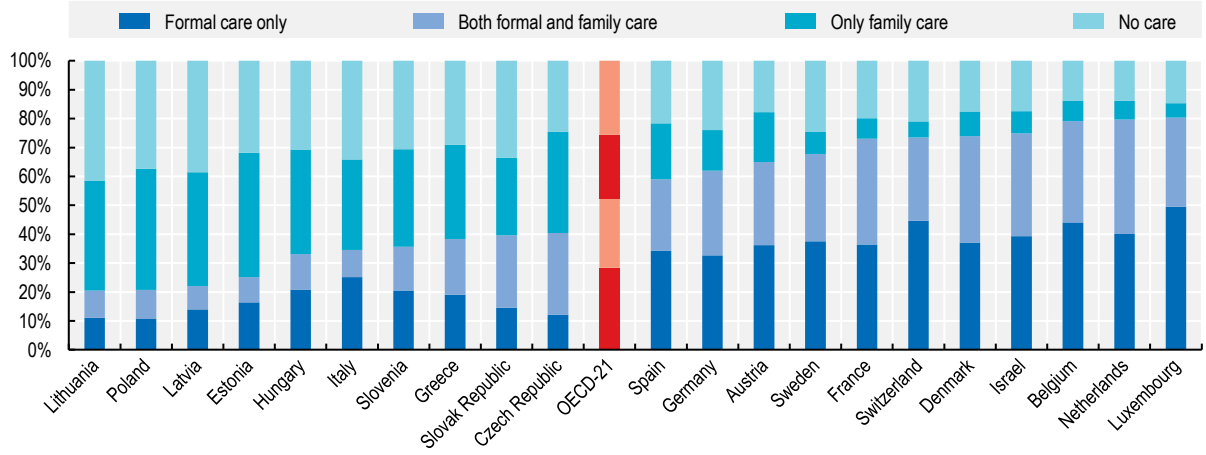
### *1.1.1. One-quarter of people with severe limitations in activities of daily living receive neither formal nor family care*

While one in eight people over 65 report severe limitations in activities of daily living,[2] only half of them receive formal care and one-quarter receive neither formal nor family care across European countries (Figure 1.1). In Estonia, Latvia, Lithuania and Poland, less than one-quarter of older people with severe

limitations receive formal care, while it is more than three-quarters in Belgium, Israel, Luxembourg and the Netherlands. The share of older people with at least three daily limitations receiving neither formal nor family care varies from around 15% in Belgium, Luxembourg and the Netherlands to around 40% in Latvia, Lithuania and Poland. These are worrying numbers while the prospect of not being able to access good-quality LTC services is a major concern among adults in OECD countries according to the Risks that Matter Survey measuring the perception of various social risks in OECD countries (OECD, 2021[6]).

### Figure 1.1. Only half of older people with severe daily life limitations receive formal care

Share of the population 65+ with at least three ADL or IADL limitations, by type of care received




Source: Chapter 5, Figure 5.2, https://stat.link/o70bwr.

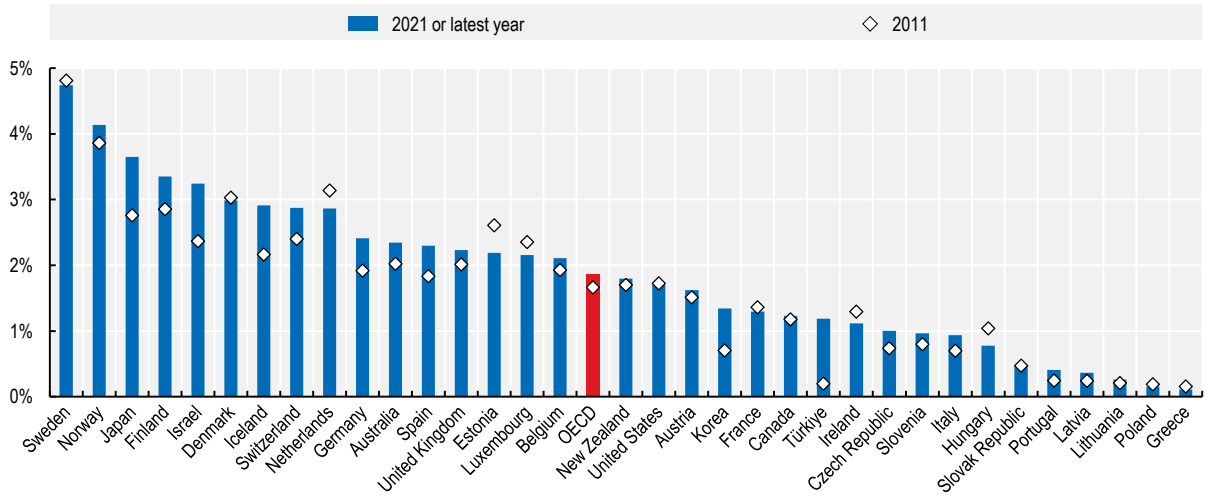
The share of LTC workers in total employment increased over the past decade by 12%, from 1.7% in 2011 to 1.9% in 2021 in the OECD on average (Figure 1.2). Differences between countries in the current share are large, ranging from less than 0.5% in Greece, Latvia, Lithuania, Poland and Portugal to more than 3% in Finland, Israel, Japan, Norway and Sweden. Reasons for this variation are the development of the LTC sector, the scope of family care and the extent of LTC provision by hospitals, among other factors.

Population ageing affects the demand for LTC services through two channels. First, while the number of older people sharply increases, accounting for changes across all older age groups matters as both LTC needs and the share of people with needs using formal LTC rise steeply with age. For example, in the OECD on average, 13% of people aged 65-69 report at least one limitation in activities of daily living (ADL) or instrumental activities of daily living (IADL) increasing to 53% at age 85-89. At age 65-69, 22% of people with a limitation in activities of daily living receive formal LTC, compared with 49% in the age group 85-89. Second, LTC needs at given ages tend to diminish over time due to health improvements.

Overall, the numbers of LTC workers are estimated to have grown in line with those driven by demographic changes on average across countries over the last decade. This means that the staff-to-user ratio has remained broadly stable but was not enough to improve either quality or coverage given that there was no labour productivity growth in the sector during that period (Chapter 5). In total, this also implies that the increase in the number of LTC workers was not sufficient to substantially reduce if at all any past labour shortages, explaining why the latter have persisted. Moreover, although difficult to quantify precisely, there has been a trend in many countries from residential to home care. This typically generates savings as residential care is more expensive, but this may require additional workers to offset the loss of economies of scale in employment depending on the severity of disabilities.

## Figure 1.2. The share of LTC workers in total employment is slowly increasing

Number of LTC workers as a percentage of total employment




Source: Chapter 2, Figure 2.4, https://stat.link/nfhsuy.

### *1.1.2. Many countries have been struggling to recruit LTC workers*

Unmet LTC needs do not necessarily translate into staff shortages. There are several reasons why not all people who need LTC receive it: limited access to public funding, underdeveloped LTC institutions and home care services, affordability issues, or even sometimes individual preferences. Surveys, such as HRS or SHARE, ask respondents about their LTC needs irrespective of their income or of the price of LTC services. By contrast, staff shortages depend on wages and prices and point to the fact that the demand for new LTC workers exceeds the supply at current working conditions, which leads to unmet needs. Countries offering limited access to formal LTC may report high unmet needs but no staff shortages as few job offers are posted. Conversely, in countries with well-developed formal LTC services, labour shortages may be the main driver of unmet LTC needs.

Chronic shortages of LTC workers have been reported in many OECD countries and regions over the past decades (Chapter 5). In Australia, the Skills Priority List identifies care workers among occupations with current shortages and significant expected growth in demand. In Ireland, basically all nursing homes report difficulties in recruiting healthcare assistants, while employers in Norway face substantial recruitment issues in both the LTC and healthcare sectors. Portugal, Switzerland and the United Kingdom, among other countries, acknowledge existing shortages of care workers. In Europe more generally, nurses were reported to be among the top shortage occupations in 18 EU countries, and healthcare assistants in 11 EU countries in 2021 (ELA, 2021[7]).

Not only is the quantity of care needs increasing with population ageing, the range of requested tasks has also expanded with care becoming more complex as more people suffer from multiple chronic conditions and mental health problems. While many countries struggle to recruit sufficient personal care workers (Chapter 5), this increasing complexity means that shortages are often particularly pronounced for skilled care personnel such as nurses, including in Austria, Belgium, Estonia, Germany and Portugal (Eurofound, 2020[8]).

The COVID-19 crisis has resulted in deteriorating working conditions and increased job quits in the LTC sector, potentially intensifying staff shortages. More generally, job quits have risen most in sectors with larger shares of contact-intensive, physically strenuous or less flexible jobs (Duval et al., 2022[9]). Large increases in job quits in most sectors in the United States especially, and in particular among prime-age workers, have coined the term of a “Great Resignation”. However, evidence rather suggests high mobility

within sectors in a tight labour market – as hiring rates have also increased sharply – rather than significant outflows from specific industries caused by changes in workers' preferences away from some low-pay jobs (OECD, 2022[3]). High turnover rates could thus reflect a well-functioning labour market with workers taking advantage of a hot labour market to seize new opportunities (Duval et al., 2022[9]).

However, population ageing could structurally threaten recruitment and retainment of nurses and personal care workers. In many OECD countries, high projected increases in the number of older people, and therefore in the demand of LTC services, will be accompanied by labour scarcity in the overall labour market. In a "structurally tight" labour market, workers may be less inclined to accept employment in occupations subject to difficult working conditions, thereby compounding difficulties to fill in job vacancies in the LTC sector.

### *1.1.3. Demand for LTC workers as a share of total employment is projected to increase by 32% over the forthcoming decade*

The demand for LTC workers is projected to increase at a fast pace over the next decades. This results from the ageing of populations in most OECD countries, from increased demand for care services as a result of higher incomes and from low productivity in LTC services (see below). In the baseline projections, combining demographic changes, higher income and no labour-productivity growth in the LTC sector, rising demand for LTC services would increase the LTC employment share by 32% over the next decade, or by 0.6 percentage points of total employment in the OECD on average (Figure 1.3).

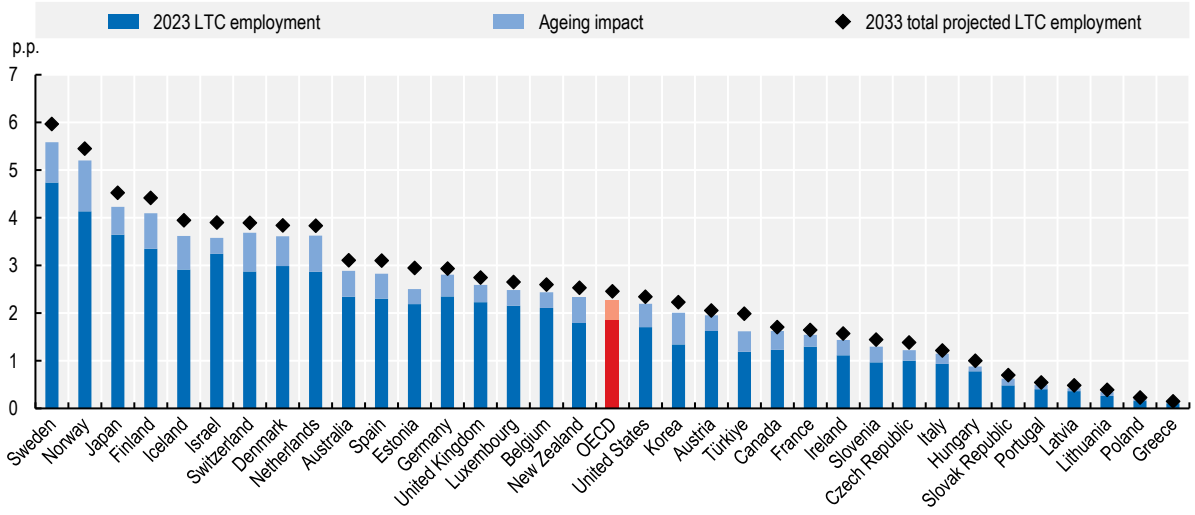
The demand for LTC workers would increase by 0.4 percentage points over the next decade due to population ageing alone or by 22% in the LTC employment share (Figure 1.3). A similar trend is expected to continue over the following decade. This represents a substantial acceleration relative to the past decade for which the estimated ageing impact on the share of LTC workers in total employment was 0.2 percentage points. These projections are based on "no policy change" scenarios, meaning that ageing increases LTC needs but is assumed to affect neither the share of formal-care recipients among people with limitations in activities of daily living nor the number of LTC workers per formal-care recipients (Chapter 5). More precisely, this means that ageing leads to proportional effects on numbers of both LTC workers and family care providers required, and therefore on the number of people experiencing unmet needs. This thus implies low increases in the absolute number of LTC workers (or as a share of total employment) in countries where the initial number of LTC workers is low as the projections do not include any catch-up phase in the development of LTC systems, consistent with past observations. In such countries that also face fast ageing, these projections imply a large absolute increase in the number of people experiencing unmet LTC needs unless counterbalanced by more informal care provision.

Differences across countries in the estimated impact of ageing on the demand for LTC workers as a share of total employment thus depend on projected changes in the number of older people by age groups as well as on the initial size of the LTC workforce (Figure 1.3). The projections of the demand for LTC workers take into account the expected decrease in working-age populations in many OECD countries. While working-age populations are projected to shrink by 2% on average in OECD countries over the next decade, the decrease would be more than 10% in Germany, Italy, Korea, Latvia, Lithuania, Poland and the Slovak Republic.

On top of demographics, economic growth is expected to further raise the demand for LTC services due to the income effect; and the fact that labour productivity growth in the LTC sector is projected to be lower than in the overall economy (Baumol effect). Higher incomes generated by economic growth raise the demand for LTC services and allow people to spend more on LTC or more people to have access to LTC. Higher labour productivity growth in the overall economy than in LTC means that technological progress saves relatively more labour in other sectors. As a labour-intensive sector, LTC records low levels of labour productivity growth. On average among OECD countries, labour productivity declined slightly in the care sectors over the past decades while it increased by 1.5% per year in the total economy. As a result, low labour productivity growth in the LTC sector requires additional workers to meet increasing demand.

## Figure 1.3. Demand for LTC workers expected to increase by 0.6 percentage points of total employment in the next decade, or 32%

Projected share of LTC workers in total employment by 2033, baseline scenario




Source: Chapter 5, Figure 5.13, https://stat.link/uagjim.

### *1.1.4. Labour shortages will grow substantially even with large efficiency gains*

Recent OECD publications have highlighted how much scope there is to improve efficiency in the delivery of LTC services in most OECD countries (OECD, 2020[2]). For example, nurses often perform work for which they are overqualified (e.g. dressing older people), and only one-third of countries allow task delegation from doctors to nurses, and from nurses to personal care workers. Likewise, while LTC services remain labour intensive, with very weak productivity growth recorded so far, there is significant potential to make more use of new technologies. This would help reduce the costs of LTC services, containing the otherwise growing employment needs and improving the quality of services. Digital technologies can also facilitate the independent living of older people and reduce the arduousness of LTC work.

LTC investment in new technologies remains low. On average among 12 OECD countries for which data are available, IT investments make up only 1.0% of gross value added in LTC, compared to 3.2% in the total economy (Chapter 5). New technologies in LTC are not limited to IT, although as cost is an important barrier to the implementation of new technologies such as robots, IT technologies including sensors and tablets with specialised applications are attractive as they are cheaper and can reduce the time LTC workers spend on administration, co-ordination, monitoring and transport, and are increasingly used in the sector in both residential and home care settings.

By raising labour productivity, digital and other technologies can limit future shortages of LTC workers. However, it is unlikely that they will replace LTC workers entirely for core caregiving tasks. Employment projections in this report include an alternative, very optimistic scenario of a 0.5% annual labour productivity growth rate in the LTC sector, compared with the baseline zero growth which is consistent with past observed data. Based on this assumption, the LTC sector would be able to save on employment, limiting the increase in the LTC employment share. However, even with such a big upsurge in productivity growth, the increase in the demand for LTC workers would remain very large, reaching 0.5 percentage points of total employment or 27% over the next decade, instead of 0.6 percentage points and 32%, respectively, according to baseline projections.

## 1.2. Tough working conditions affect care quality and dissuade potential workers

The characteristics of LTC jobs are measured and assessed based on the three dimensions highlighted by the OECD Job Quality Framework (Cazes, Hijzen and Saint-Martin, 2015[5]): earnings quality refers to the adequacy of individual wages and their level compared to those of other workers (Chapter 2); labour market security refers to the risks of job loss and its economic cost for workers (Chapter 3); and, the quality of the working environment refers to non-economic aspects of jobs (Chapters 3 and 4).

LTC workers face very difficult working conditions. Physical and psychological arduousness as well as difficult working times such as night and week-end work are important drawbacks of the working environment in LTC (Chapter 3). Despite demanding working conditions, wages for personal care workers in LTC, particularly those working in home care, are lower than for workers with similar characteristics in healthcare or in other sectors (Chapter 2). And while LTC workers feel the work they do is appreciated by the people they care for, they generally perceive little social recognition from managers, policy makers and the wider society (Chapter 4).

### *1.2.1. High physical and mental health risks and difficult working hours*

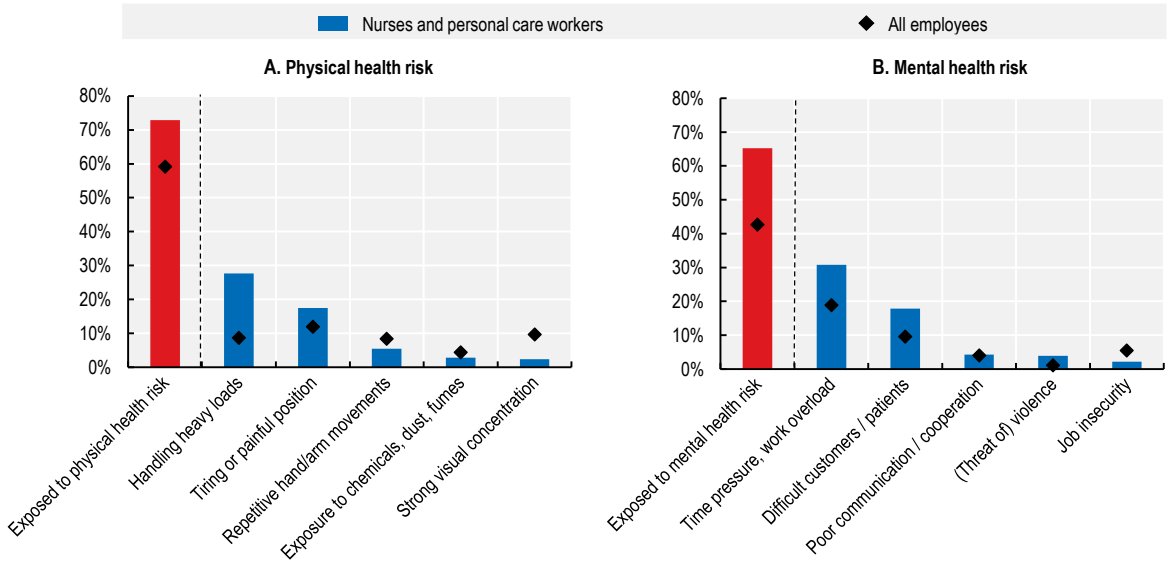
Care work is both physically and mentally arduous. In 2020, about three-quarters of nurses and personal care workers in healthcare and LTC in European OECD countries were exposed to risks to their physical health and about two-thirds were exposed to risks to their mental health, compared to 59% and 43% of all employees, respectively (Figure 1.4). While 27% of nurses and personal care workers indicate that they are not exposed to any large risks to their physical health, a similar share (28%) identify handling heavy loads as the most important risk to their physical health (Panel A). With overweight and obesity among older people on the rise in some countries, the musculoskeletal health impact from lifting people is likely to increase further over time. Another 18% name holding tiring and painful positions as the main risk factor affecting their physical health, for instance as a result of performing care tasks while bent over an older person lying in bed. At 12%, nurses and personal care workers were four times as likely as other workers to flag other physical health risks, which may include abuse from care recipients and exposure to infectious diseases such as COVID-19.

In terms of exposure to mental health risks, 31% of nurses and personal care workers refer to a high workload and corresponding time pressure as their most important mental health risk, compared with 19% for all employees (Panel B). Care workers experience pressure and frustration due to administrative requirements leaving little time to work with individual care recipients. Difficult interactions with care recipients are pinpointed as the main mental health risk for another 18% of nurses and personal care workers. While it is common for care workers to be exposed to various forms of abuse, few care workers identify abuse or the threat thereof as the main risk to their mental health. In another study, Eurofound (2020[8]) reports that 26% of LTC workers have been exposed to verbal abuse, 11% declare to have been threatened and 8% to have been humiliated, bullied or harassed during the month before being surveyed.

The implementation of new technologies can help reduce exposure to physical and mental health risks in LTC work (Chapter 5). The use of robots and lifts for instance reduce the impact of helping people in and out of bed and assisting with bathroom visits on LTC workers' musculoskeletal health. Sensors, tablets and other IT products can reduce time pressure by limiting the time LTC workers spend on other activities than direct care provision. These technologies are increasingly used in LTC, although there is still much room for expansion of their use. The reasons for the limited use of cheaper technologies are not entirely clear, but obstacles may include the lack of both LTC providers' awareness of some available technologies and LTC workers' digital skills.

## Figure 1.4. Care workers are highly exposed to physical and mental health risks

Selection of the most important physical and mental health risk factors employees in OECD-25 countries report being exposed to, share of employees, 2020



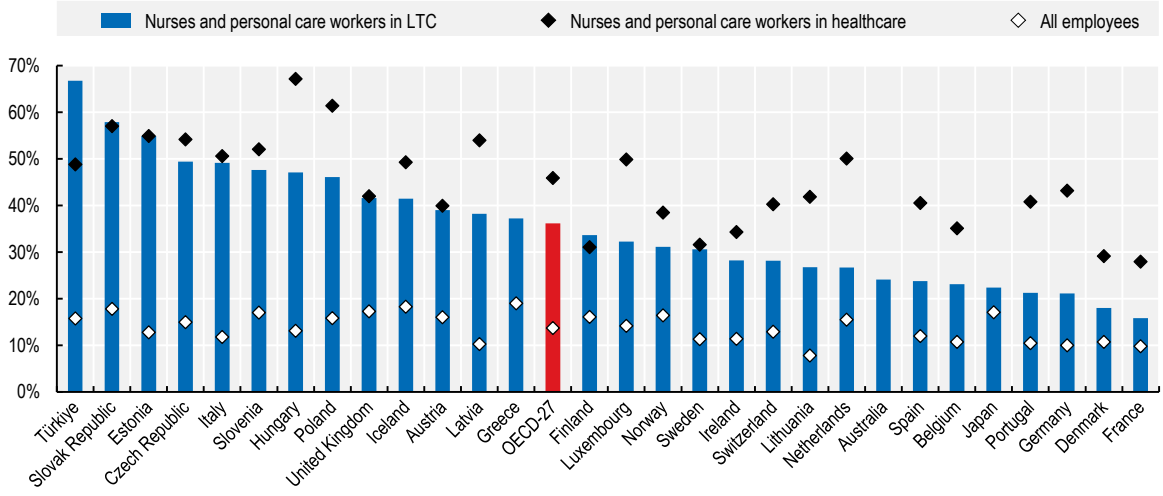

Source: Chapter 3, Figure 3.2, https://stat.link/sfqwto and Figure 3.3, https://stat.link/sn5j2t.

LTC workers are much more likely than other employees to work at times that are difficult to reconcile with family responsibilities or social activities, including night and week-end work. On average across the OECD, 36% of LTC workers sometimes or usually work at night, compared to only 14% of all employees; in the healthcare sector, however, night work is more common among nurses and personal care workers in almost all countries and concerns 46% on average (Figure 1.5). LTC workers are also about 2.5 times as likely as the average employee to work on Sundays (Chapter 3). Of all LTC workers, 70% usually or occasionally work on Sundays, compared to 27% of all employees and 61% of nurses and personal care workers in healthcare.

Part-time work is more common among LTC workers than among other employees. On average across the OECD, 32% of LTC workers are employed on a part-time basis, compared to 18% of all employees and 24% of nurses and personal care workers in healthcare. Even in some countries reporting LTC shortages a substantial share of LTC workers working part-time would like to work more hours.

### Figure 1.5. LTC workers are 2.5 times as likely to work at night as the average employee

Share of employees sometimes or usually working at night, 2020-21 or latest year




Source: Chapter 3, Figure 3.8, https://stat.link/bix7ca.

### *1.2.2. Low wages, especially for personal care workers*

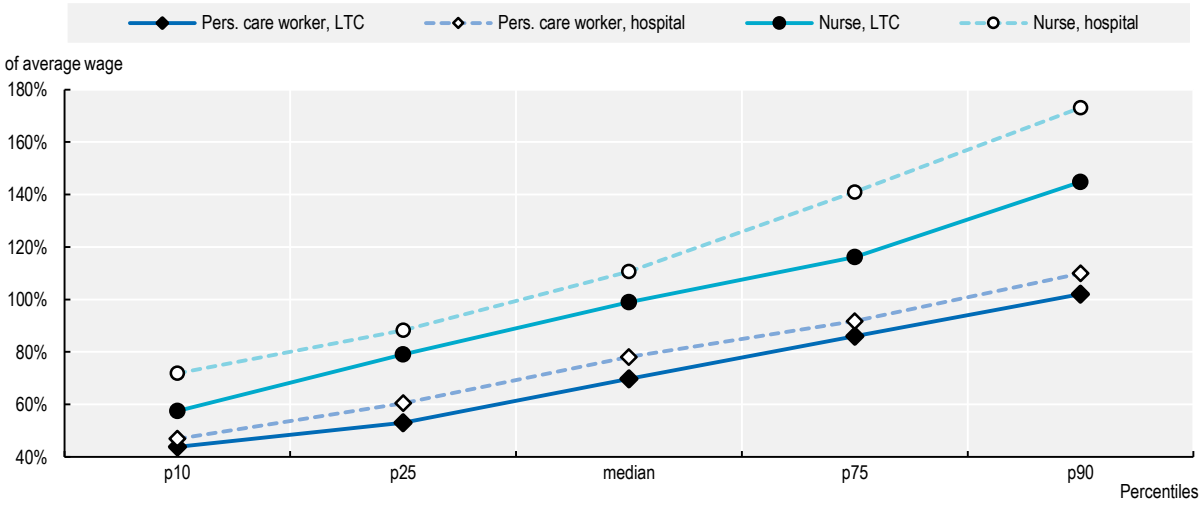
Personal care workers in LTC earn around 70% of the economy-wide hourly wage on average across the OECD. Moreover, in most OECD countries their wages are lower in non-residential compared to residential LTC. Personal care workers earn less in LTC than in hospitals across the whole distribution of wages. For example, one-quarter of personal care workers earn at most 53% of the economy-wide average wage in LTC compared to at most 60% in hospitals (Figure 1.6). Only 10% of personal care workers in LTC earn at least the average wage. Similar to personal care workers, nurses' wages are lower in LTC than in hospitals: the median wage for nurses in LTC is at the economy-wide average wage, whereas it is 11% higher for nurses in hospitals. In LTC, nurses' hourly wages on average are 39% higher than those of personal care workers.

The above numbers are descriptive statistics that are influenced by individual characteristics such as education, gender, hours worked and tenure. But even when these individual characteristics as well as sectoral differences are accounted for, personal care workers still have hourly wages that are 12% lower than the average across occupations (Figure 1.7).[3] This negative 12% occupational effect for personal care workers is similar to that of waiters (-11%), and larger in absolute terms than for hairdressers (-8%) but smaller than for cooks (-16%) or refuse collectors (-36%).[4] Across all occupations, estimates range from -40% for street service workers to +49% among the managers of large companies.

Workers with similar jobs and similar characteristics earn about 8% less per hour in LTC settings than in hospitals. As the raw average-wage difference between both sectors is equal to 31%, this implies that about three-quarters of this large average difference reflect differences in workers' characteristics while the remaining one-quarter is not explained by individual characteristics and may be interpreted as a penalty for working in LTC.

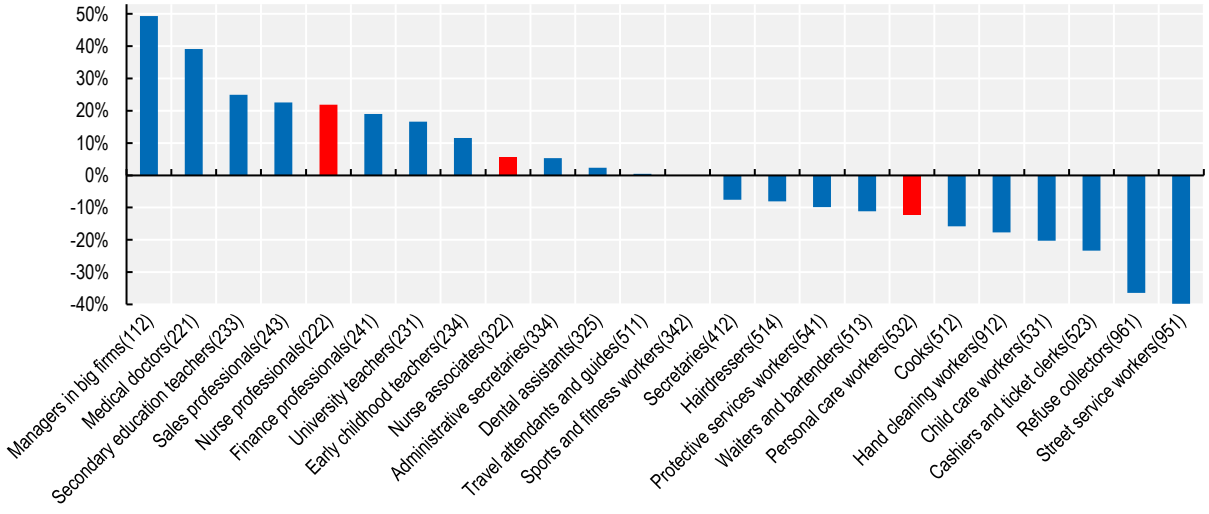
## Figure 1.6. About one-quarter of personal care workers in LTC sector earn less than half the average hourly wage

Selected percentiles of wage distribution of selected occupations in LTC and hospital sectors, 2017 or latest year available




Source: Chapter 2, Figure 2.14, https://stat.link/ya1qv5.

## Figure 1.7. Occupational effects on wages for workers with similar characteristics, percentage

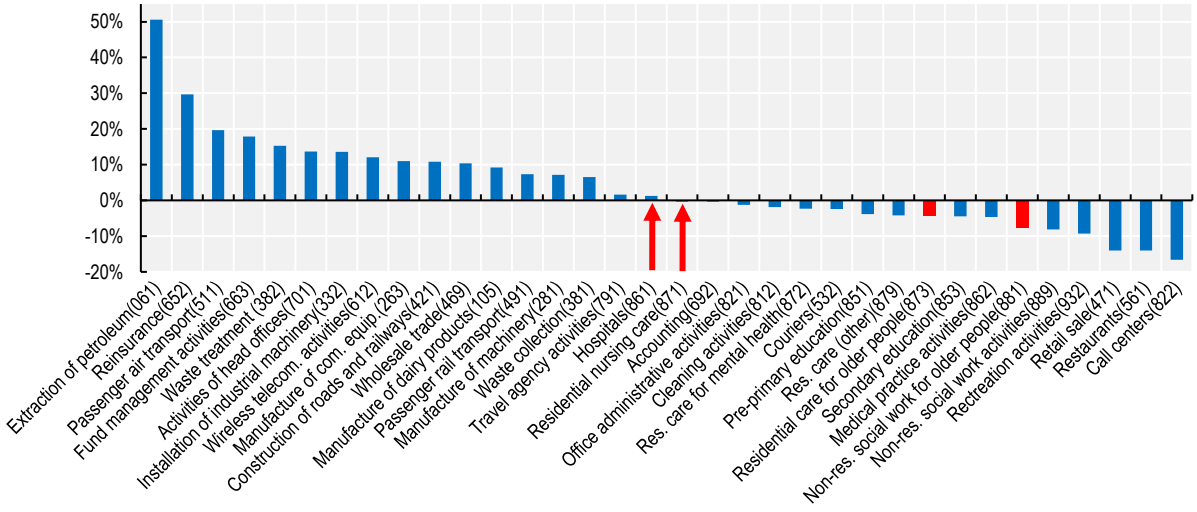



Source: Chapter 2, Figure 2.16, https://stat.link/h1fjwk.

LTC workers on average also earn 4% less than workers with similar characteristics in all other sectors. While wages in residential nursing care homes (i.e. residential care homes also providing medical assistance from nurses in addition to assistance with activities of daily life) are around the average for workers with similar individual characteristics across all sectors, wages are 4% lower in residential care facilities where only assistance with activities of daily life is provided, and even 9% lower in non-residential care (Figure 1.8). These negative wage effects in the LTC sector are also consistent with the estimated wage pattern in labour-intensive service sectors: retail sales and restaurants pay 14% less, all else being

equal, call centres pay 17% less, amusement and recreational activities pay 9% less, and pre-primary education 4% less. By contrast, sectors such as extraction of petroleum or reinsurance pay over 25% more than the average for workers with similar individual characteristics.

### Figure 1.8. Sectoral effects on wages for workers with similar characteristics, percentage




Source: Chapter 2, Figure 2.17, https://stat.link/pmdt19.

The gender pay gap is another important factor contributing to low wages for LTC workers, in addition to the occupational and sectoral pay penalties. Female LTC workers are paid 7.6% less than their male colleagues with similar characteristics. This is well below the economy-wide female wage "penalty" of 14.2%, but it is remarkable that even in a sector where women represent more than 85% of employment, they still earn less in the same occupations than men with similar characteristics.

### *1.2.3. Lack of recognition of LTC workers and of the skills and competences required*

Social recognition of an occupation can motivate people to choose it. Social recognition refers to the acknowledgement of a worker's contribution to the community and may give the worker the sense of doing something that is valuable to others. It can take the form of good status, high enough remuneration or gratitude, as was the case with the applause for care workers during the initial stages of the COVID-19 pandemic in many countries.

Studies from Australia and the Nordic countries reveal that LTC workers feel recognised by care recipients and by their colleagues, but much less so by their managers, politicians and the wider society (Chapter 4). The feeling of misrecognition by managers and policy makers is likely connected to poor working conditions and low remuneration, for which LTC workers hold these leaders responsible. Misrecognition by the society is likely driven by the low status of LTC work and is related to a negative perception of the job itself and the skills required. The emotional and psychological competences required to care for vulnerable people are often overlooked.

Gendered care norms downplay the skills needed to provide LTC and the wage levels required to attract skilled and motivated workers to the LTC sector, undermining recognition and valuation of care work. In the traditional gendered division of labour of the male-breadwinner model, care is considered women's work and the skills required for performing care work are wrongly assumed to occur "naturally" in women; moreover, informal care is not viewed as part of income-producing activities and is thus not valued in

monetary terms. While the widespread adherence to the male-breadwinner model is a thing of the past, some aspects of the traditional division of labour are still replicated in society, including the idea of care work as women's work. Therefore, to sustainably improve LTC workers' position in society, and thus go Beyond Applause, it is not only necessary to better recognise care work in terms of increased status and remuneration, but also to tackle gendered care norms.

In addition to tackling these norms, education and training may contribute to boosting LTC workers' recognition as training programmes for LTC workers improve the quality of care delivered and can in addition ameliorate the public image of LTC jobs. Home care workers in particular could benefit from additional training as they often work alone and thus with little support, and as older people's homes often are neither designed nor equipped for LTC provision, meaning that a good mastering of care techniques is important to minimise physical strain. In addition, there is a need for LTC workers to receive more education and training on providing care that is appropriate for the physical and mental condition of the people they care for, and to monitor their development. This is especially the case for dementia care as a growing part of older people receiving LTC are diagnosed with dementia. Training programmes are also important for the successful implementation of new technologies in LTC (Chapter 5). On the one hand, LTC providers may be hesitant to implement new technologies due to worries over their workers' ability to use them, and, on the other hand, training is vital to ensure that newly introduced technologies are used effectively.

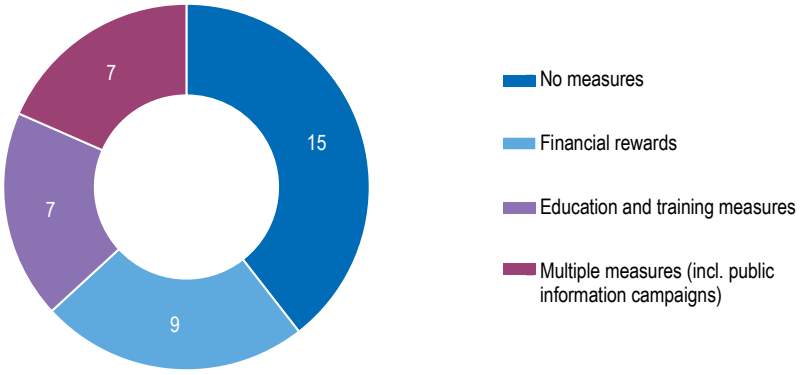
The majority of OECD countries have taken initiatives to improve the social recognition of LTC workers (Figure 1.9):

- Nine OECD countries have improved the remuneration of LTC workers either permanently or via bonuses or temporary wage increases in relation to COVID-19: Canada, the Czech Republic, France, Hungary, Korea, Latvia, Lithuania, the Netherlands and Slovenia.
- Seven countries have taken initiatives in the area of education and training, mostly through recognising previous work experience in LTC by awarding course credits in education programmes, but also through strengthening training requirements for LTC staff: Denmark, Ireland, Norway, Portugal, Sweden, Switzerland, and the United Kingdom.
- Seven countries have combined different measures, of which five have aimed to improve the public image of LTC workers through organising or supporting public information campaigns, in addition to other measures: Australia, Austria, Germany and Luxembourg combined information campaigns with financial measures and Japan with both financial and educational measures. Belgium and the United States combined financial and educational measures.

Care work has repeatedly been described as "undervalued". This can refer to low wages, but this may also be interpreted as meaning that the market value of care is below its social value for the community or society, although it is not clear what the social value of LTC is and therefore how to measure it. It is reminiscent of the concept of positive externalities in economics, referring to others reaping some benefits from a good or a service beyond the buyer and the seller of that good or service themselves. However, it is not clear how personal care work produces benefits for the wider community beyond those for the care recipients and their families. The lack of clarity on the social value of care work does not mean that personal care work is not undervalued in the labour market, which is evidenced by wage penalties to being a personal care worker in the LTC sector.

### Figure 1.9. The majority of OECD countries have taken measures to improve recognition of LTC workers

Distribution of OECD countries by type of measures taken to improve social recognition of LTC workers




Note: Public information campaigns to improve the image of LTC work have been held in Australia, Austria, Germany, Japan and Luxembourg, but countries have combined these campaigns with other measures to improve social recognition of LTC workers: Australia, Austria, Germany and Luxembourg combined campaigns with financial rewards, and Japan combined them with financial reward and education and training measures. In the United States, the federal government did not provide bonus payments to LTC workers in response to COVID-19, but several states did.
Source: OECD based on information provided by the countries.

## 1.3. Why wages are low and working conditions do not improve despite shortages

The relation between poor social recognition and bad working conditions including low wages is a circular one. Bad working conditions impair social recognition, which in turn contributes to maintaining low wages and difficult work environments. In a well-functioning labour market, sectoral labour shortages should trigger an improvement of working conditions including wages to attract more workers in order to meet labour demand. Instead, many countries are struggling with persistent labour shortages in the LTC sector.

The section first provides an overview of key reasons for wages being low in LTC. It then explores possible explanations for why persistent labour shortages have not led to substantial improvements in working conditions so as to increase labour supply. Identifying the key mechanisms at work in wage formation is important as different explanatory factors have different policy implications.

### *1.3.1. Factors contributing to low wages in the LTC sector*

Education levels are important determinants of wage levels and the educational requirements for personal care workers in LTC – who account for almost four-fifths of LTC workers – are relatively limited in many countries. Most LTC workers have a medium level of education: only about 20% of LTC workers, primarily nurses, have attained tertiary education and about 20% have at most a lower secondary education level on average across countries (Chapter 2). In some countries, a majority of LTC workers have no diploma in the field of health or the social sector.[5] However, although LTC jobs are often classified as low-skilled, the skills that are actually needed to deliver good-quality care are complex, and, contrary to nurses, personal care workers generally do not benefit from the certification of acquired skills.

Persistent gender pay gaps also contribute to low hourly wages for LTC workers. These gaps are partly related to the unequal distribution of care work between men and women. The female wage penalty translates into low aggregate wages among LTC workers as LTC professions are among those where

women are most over-represented, accounting for more than 85% of workers. The only other sectors with such a female over-representation are cleaners, clerks and helpers.

The over-representation of women in LTC is related to working-time arrangements and gender norms and stereotypes. In healthcare and LTC, women are twice as likely to work part-time as men, 32% and 16%, respectively (Chapter 4), although part-time work is more common in LTC than in the total economy for both men and women as LTC jobs often offer opportunities for part-time or flexible working hours. In addition, stereotypes and persistent gender biases in unpaid care work at home play a key role. Girls are two to three times more likely to pursue health-related studies than boys, and women tend to be seen as a more natural "fit" for paid care work, which feeds into the gendered care norms discussed above. Tackling these issues requires to fight not only gender discrimination in the labour market, but also gender norms and stereotypes more generally. Particularly for LTC, efforts to broaden the recruitment pool by focusing on hiring more men would greatly help.

The high share of migrant workers in LTC tend to contribute to poor working conditions including lower wages in the sector. Foreign-born workers accounted for 26% of the LTC workforce on average across OECD countries in 2021, compared to 20% of all workers. The actual number of foreign-born personal care workers is likely to be higher than what is reported in particular in countries where live-in care is common, due to migrant workers being less likely to participate in data collection in general and the prevalence of undeclared work in live-in care. Migrant workers often have a small number of decent alternative job opportunities due to language barriers and limited social networks through which to find a job, and because their right to remain in the country may depend on maintaining their current employment. The reliance on migrant workers to fill the employment gaps in the LTC sector is likely to increase further due to population ageing. While the OECD wage analysis did not uncover wage discrimination against foreign-born workers among the LTC workforce, they represent a large proportion of live-in carers; the monitoring of live-in carers' employment conditions, including coverage by employment contracts, is generally very poor, making them vulnerable to abuse for example in terms of long working hours. Increasing the frequency of controls for live-in workers would at least help ensure better treatment.

In addition to personal characteristics such as education, gender and migration background, the availability of informal care – mostly unpaid and often provided by family members – as a possible substitute for formal LTC (Norton, 2016[10]) is a fourth important factor explaining low wages in LTC. While this report focuses on formal care, the large role played by informal care cannot be ignored as it indeed tends to weaken the position of formal care workers. In the European Union, informal carers represent close to 80% of care providers in full-time equivalents (European Commission, 2021[11]). Across Europe, countries with high numbers of formal carers tend to have low numbers of informal carers, and vice versa.

Finally, LTC workers are much more likely than workers in other sectors to perceive their job as meaningful, and even slightly more so than healthcare workers. This may be an important motivator to take LTC jobs (Eurofound, 2020[8]) and could partly explain why these workers accept low wages. Amenities – that is, non-wage characteristics of jobs such as perks or flexible working time options – are largely unobservable but may contribute to explaining low wages in the LTC sector.

### *1.3.2. Low wages despite persistent shortages*

It is a paradox that wages are so low in a sector such as LTC that has been reported to suffer from labour shortages for many years. When market forces are at play, the existence of excess demand for workers should drive wages up to both attract more workers and limit labour demand through higher prices of services, thereby clearing the labour market. Indeed, a tight labour market is often identified by upward pressure on wages. Although causality may work the other way, with low wages resulting in labour shortages, this should only be temporary.

There are reasons, however, that could explain why these market forces do not work properly within LTC and face obstacles that perpetuate the disequilibrium. This report finds that there are three main factors behind this paradox which can all be at work simultaneously: low labour market power of LTC workers; mismatches; and, insufficient financing of LTC services.

### *Low labour market power of LTC workers*

Low wage levels and the insufficient supply of LTC workers suggest that the labour market in the LTC sector may be subject to monopsony power. Monopsony power refers to a situation in which firms have large labour market power and use it to pay workers low wages, maximising their profits despite the negative impact this has on the number of workers willing to work at these low wages. Consistent with this idea, firms may take advantage of limited outside options of certain groups of workers, who therefore have low alternative (or reservation) wages. They may then engage in wage discrimination, paying them lower wages than those of other individuals who are equally productive but benefit from a wider range of job opportunities (they have a higher labour supply elasticity) (Boal and Ransom, 1997[12]). Based on the above discussion, this may apply in particular to women and foreign-born workers, as their over-representation in the LTC sector is likely to weaken the ability of workers in general to negotiate wages in LTC jobs.

Monopsony can explain structural labour shortages. In the case of monopsony, firms are not ready to hire more workers as, within this framework, this would require them to raise wages and cut profits. However, if it were possible, they would hire more workers *at the current wage*, which would increase their profits further. In that sense, surveyed firms can easily declare that they want to hire more workers at current conditions, and that there is a lack of candidates, hence shortages; they may even post job offers, leading to vacancies. In that case, the low level of wages is one factor that structurally contributes to limiting the labour supply of LTC workers. Over the last decade, wages in the LTC sector grew broadly in line with wages in the total economy (Chapter 2) – not less, but not more either – and this could explain why labour shortages persist.

There is mixed evidence of monopsony power negatively affecting nurses. Nurses are often employed in firms that are large relative to their geographical labour market and have a dominant position on local labour markets. Moreover, the labour supply of nurses was found not to react strongly to changes in wages, which makes them subject to lower wages than they could expect under perfect labour market competition (Staiger, Spetz and Phibbs, 2010[13]; Sullivan, 1989[14]). However, Hirsch and Schumacher (2005[15]; 2012[16]) report limited evidence supporting monopsonic labour markets for nurses. Eurofound (2020[8]) found that among LTC workers shortages are most urgent for skilled nurses.

There is no evidence of monopsony power negatively affecting personal care workers, which represent about four-fifths of LTC workers. Furthermore, Prager and Schmitt (2021[17]) show that an increase in labour market concentration following hospital mergers negatively affected wages of only skilled workers, such as nurses, and did not affect wages of lower skilled workers, such as personal care workers. This may relate to the lower concentration of labour markets for personal care workers than those of nurses: only 12% of personal care workers work in moderately or highly concentrated labour markets, compared to 30% of nurses (Chapter 3). Matsudaira (2014[18]) finds that LTC providers in California (United States) who were forced to increase the staffing levels of nurse-aids (a category of personal care workers) after an increase in minimum staffing regulations were able to recruit as many new workers as required at the current wage.

In any case, the assessment may differ strongly across countries. In those countries where the minimum wage is low, low-skilled personal care workers are likely to be affected by monopsony power. In those cases, raising the minimum wage would benefit a large share of these workers while boosting labour supply in the sector.

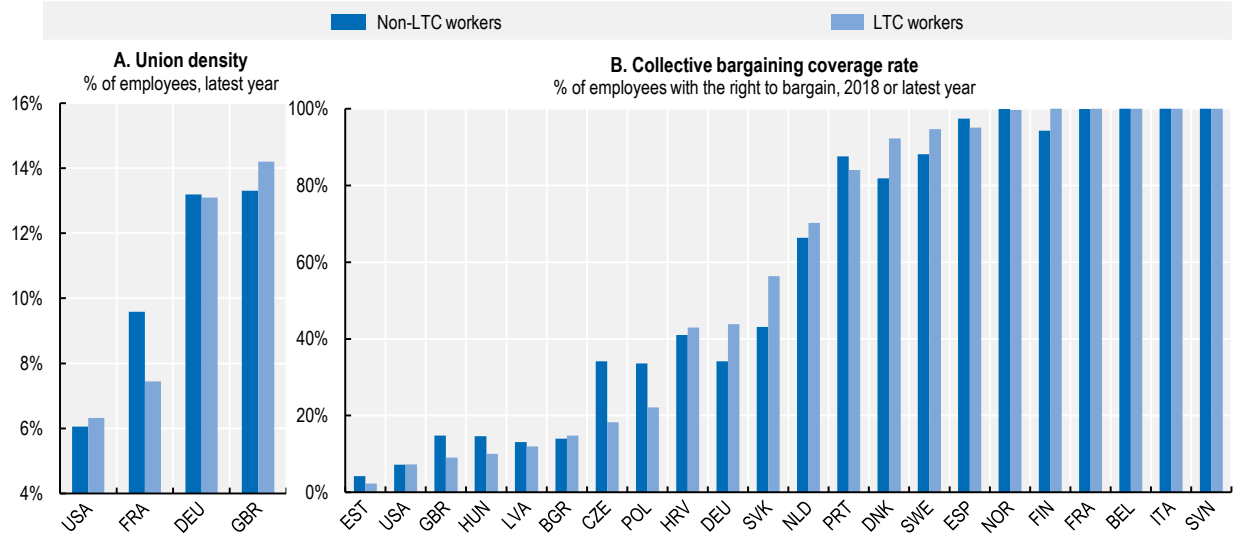
Collective bargaining and social dialogue remain unique tools enabling governments and social partners to find tailored and fair solutions to strengthen workers' bargaining position in negotiating their wages,

enhance job quality or adapt workplaces to the use of new technologies, also in the LTC sector. In most OECD countries, collective bargaining coverage and unionisation of LTC workers employed in the formal sector tends to mirror the national average (Figure 1.10). Among the four countries where microdata allow to measure trade union membership among specific occupations (Panel A), France is the only country where trade union density is lower among LTC workers than among the rest of the workforce. In the large majority of OECD countries shown in Panel B, collective bargaining coverage among LTC workers is similar to that of the rest of the workforce. Only in the Czech Republic and Poland does coverage among LTC workers appear to be significantly lower than among other employees; conversely, in Denmark, Germany and the Slovak Republic, coverage among LTC workers is higher than in the rest of the workforce. For nurses, their basic or minimum pay is typically set by agreements that cover both LTC and healthcare, and differences in pay between these two sectors can mostly be explained by level of training and experience which tend to be higher in healthcare (Eurofound, 2020[8]).

However, as discussed above, the working conditions in the LTC sector are generally worse than for the rest of the workforce in many dimensions. Ensuring the collective bargaining coverage of workers on paper is indeed not sufficient to guarantee good working conditions. In several countries, workers' representatives in the LTC sector are not strong enough to negotiate tangible improvements in working conditions including wages; and even when they are, compliance is not guaranteed. Moreover, large groups of LTC workers are underrepresented as falling outside the scope of existing collective agreements because they work undeclared or asself-employed (sometimes in false self-employment).[6]

## Figure 1.10. Unionisation and collective bargaining coverage of LTC workers in selected OECD and European Union countries

Employees in the private sector




Source: Chapter 3, Figure 3.14, https://stat.link/dlr748.

### *Mismatches*

Long-term care shortages may stem from differences between labour supply and demand for LTC workers in terms of the time and place of care as well as the skills required. It is for instance puzzling that even in some countries reporting a shortage of care workers, some LTC workers working part-time would like to work more hours but cannot find a full-time job. For example, in Australia, the share of LTC workers who would like to work full-time is almost 1.3 times the share who effectively do so (Mavromaras et al., 2017[19]).

In non-residential LTC a large share of part-time workers indicates that they work part-time because they could not find a full-time job (Eurofound, 2020[8]). Three types of mismatches may play a role in countries facing LTC shortages while at the same time part of the potential supply of care workers remains unused.

First, limited geographical mobility, in particular between rural and urban areas, can lead to local mismatches between the demand and supply of LTC workers, and in the end to local staff shortages (Chapter 3). For example, older people with unmet care needs in rural areas might have difficulties in benefiting from formal LTC services whereas the LTC workforce is mainly concentrated in and around towns and cities.

Second, there could be mismatches between the times when people would be available to work extra hours and the times when care workers are most needed. LTC workers working part-time may want to work more hours through expanding their current shift, whereas the peaks in demand for care in the mornings and the evenings may mean that working more hours would entail a split shift.

Third, skills mismatches might mean that there are shortages for some LTC workers with specific skills, while the supply of low-skilled workers may be sufficient, limiting wage pressure. Many LTC workers do not have sufficient geriatric care knowledge, understanding of both safety procedures and caring needs after hospital discharge, stress management skills or soft skills (Chapter 2). This situation may be better characterised by the lack of skills that are in demand rather than mismatches per se. Enhancing education and training in these areas is the main way to match excess labour demand. In addition, ICT skills become increasingly important for LTC workers as new digital technologies are being implemented in LTC (Chapter 5).

### *Insufficient financing*

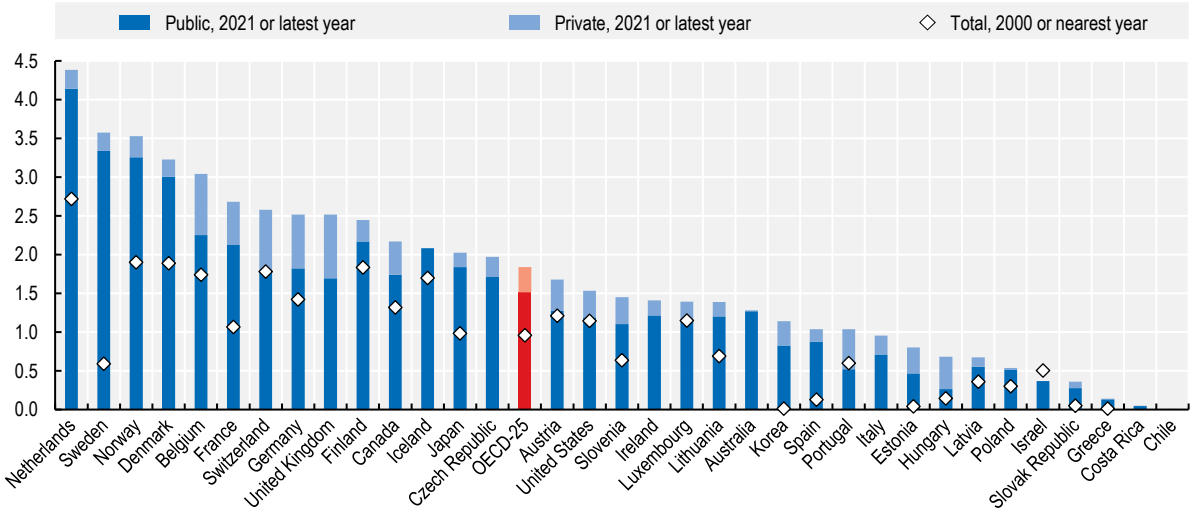
There are typically two main financial reasons why needs may not be fulfilled. First, the person in need is not able or ready to pay the price expected by the service provider due to, for example, low current income, limited savings or insufficient insurance. Analysing weaknesses in insurance mechanisms in LTC is well beyond the scope of this report. However, when there is a lack of insurance instruments, there is a clear need to improve public coverage or mandatory insurance. Second, the state is not ready to spend enough resources to ensure a sufficient service is delivered to meet people's needs, likely resulting in lower wages.

Insufficient financial resources are one important factor explaining why the sustained shortages of LTC workers do not lead to better working conditions to attract more workers. LTC services are, in many countries, largely financed from the public purse. Low wages and low employment in LTC can be the result of state budgets under pressure from, among others, population ageing as well as the political process leading to a relatively low willingness to pay for care-related public services (Hirsch and Manzella, 2014[20]).

Public financing plays a large role in LTC. Across OECD countries, about four-fifths of total LTC spending is funded from public sources (Figure 1.11). Total LTC spending was equal to 1.8% of GDP in the OECD on average in 2021. At 4.4% of GDP, the highest spender was the Netherlands, with Belgium, Denmark, Norway and Sweden spending between 3.0% and 3.6%. At the other end of the scale, Chile, Costa Rica, Greece and the Slovak Republic spent less than 0.5% of GDP on LTC services. This variation mostly reflects the stage of development of formal LTC systems, as opposed to more informal arrangements based mainly on care provided by mostly unpaid family members (OECD, 2021[21]). The value of informal care is not considered LTC spending because it does not involve financial flows. It is likely to be very large, as for example it has been estimated at 3.6% of GDP in European countries on average (Peña-Longobardo and Oliva-Moreno, 2021[22]). Nursing homes account for more than half of LTC spending, hospitals for around one-tenth and about one-fifth was on formal home care provision (OECD, 2021[21]), all being largely financed by public money. In the United States, for example, more than 70% of LTC spending was publicly financed in 2020, mainly through Medicaid, while out-of-pocket expenditure accounted for about half of private spending (Congressional Research Service, 2022[23]). Private spending is likely to be underreported, in particular due to undeclared work.

## Figure 1.11. Total LTC spending as a share of GDP, percentage

Total spending (broken down into public and private sources) in 2021 and 2000




Note: Data are missing for the private component in Chile, Iceland and Israel.
Source: OECD Heath Statistics, https://doi.org/10.1787/health-data-en.

StatLink https://stat.link/3ikaed

Overall, it thus seems reasonable to estimate that at least two-thirds of wages among LTC workers are directly or indirectly influenced by public policies. The role of public policies in determining or influencing working conditions including wages can of course vary greatly across countries. When LTC workers are employed in public institutions, the public sector is likely to play the leading role in setting the working conditions. Moreover, wages of nurses, who make up 20% of LTC workers, are likely to be directly regulated.

The independent Migration Advisory Committee in the United Kingdom considers properly funding care facilities as the ultimate key to improvements in pay and working conditions (MAC, 2022[24]). Reciprocally, cost-cutting measures in countries facing constraints to finance the LTC system can lead to downward pressure on wages of LTC workers, or lower employment. This has been the case in the Netherlands where a 2015 reform tightened the LTC budget and led municipalities to negotiate lower tariffs with LTC providers. This resulted in many providers struggling with deficits and some, in particular ADL social care providers, stopping their activities (Maarse and Jeurissen, 2016[25]). Budget cuts were partly reversed from 2016. Funding can also be used to steer working conditions in LTC by making its receipt dependent on fulfilling certain minimum requirements. The comprehensive Eurofound report about the LTC workforce reaches the conclusion that, given the large role public funding plays in LTC, this public leverage can be used effectively in improving working conditions, for instance through requirements in public procurement (Eurofound, 2020[8]).

Interventions in working conditions may have adverse consequences depending on how LTC is financed. When the level of public subsidies depends on the number of older people in residential-care institutions or is based on regulated prices of LTC services, firms are likely to reduce employment, care quality or both when forced to raise wages for given total subsidies. In New Zealand, the 2017 Pay Equity Settlement for care and support workers aimed at addressing gender discrimination that has resulted in poor working conditions including low wages in these sectors where women are traditionally over-represented. The hourly minimum wage for care and support workers with three years of experience and no qualifications was increased by 27%. The Report assessing its impact, however, concluded that the funding was

inadequate to cover the costs associated with the Settlement, which led to severe unintended and negative consequences (Doulgas and Ravenswood, 2022[26]). Those include reduced working hours, increased workloads, lower quality of care and smaller providers in residential care struggling to remain in operation.

The United Kingdom may be facing similar concerns following the increase in the national minimum wage by 9.7% in 2023 after 6.6% in 2022 as these measures have not been met by consistent increases in the financial support provided by local authorities to care providers (Hft and Care England, 2023[27]). As a result, a large share of care providers have had to reduce their activity while not being able to raise wages at the same pace, which makes it more difficult for them to retain and recruit workers. While increasing wages is acknowledged as the main priority to improve the workforce situation, nearly all providers consider that pay is currently the most significant cost pressure threatening their financial position (Hft and Care England, 2023[27]).

Australia is in the process of establishing expert panels for its independent industrial relations tribunal, the Fair Work Commission. One expert panel for Pay Equity and one for the Care and Community Sector will hear applications for equal remuneration and employment conditions. To determine whether an equal remuneration order is to be issued, it will, for example, be assessed whether the work has been undervalued on the basis of gender. To support the panels four Commission members with expertise in gender pay equity, anti-discrimination, and the care and community sector will be appointed. The Australian Nursing and Midwifery Federation considers that the Fair Work Commission will help low-paid care workers bargain for improved wages and conditions (Australian Nursing & Midwifery Journal, 2022[28]).

Providers of LTC services can also be subject to financial constraints due to ongoing demand pressure. Hirsch and Schumacher (2012[16]) suggest that nurse shortages may be explained by the slow capacity of healthcare providers to adjust their budgets to increasing trends in demand and entry constraints in the nursing profession. Ageing trends may be so strong that market conditions do not adjust quickly enough, generating persistent shortages of LTC workers. This is consistent with a situation in which wages, employment and total spending increase while shortages remain (Veneri, 1999[29]).

From a policy perspective, the diagnosis about the way the LTC sector functions determines whether the best way to improve working conditions within private providers is to force wage increases, to tighten staff requirements (increasing staff ratios to improve the work environment as well as care quality) or to raise public funding and let the market work. If regulations including those enforcing competition are effective, then it is probably best to raise funding and leave providers the flexibility to choose a combination of higher wages, more hours or more staff. If, however, despite these regulations high profits are generated among private LTC providers then a more direct intervention on wages or staffing is justified. This means that designing the correct policies depends on country-specific assessments about the functioning of the LTC sector and profit levels. In Australia, the Royal Commission into Aged Care Quality and Safety investigated whether a lack of public funding may have contributed to lower-quality LTC, but found that profit margins in for-profit LTC institutions were comparable to or even exceeding those in several other sectors including production of consumer goods, industry and IT (BDO, 2020[30]). In the case of the Orpea scandal in France, for instance, the LTC provider generated high profit margins with public subsidies making up a large part of its revenues, while at the same time its staff faced poor working conditions and its residents poor care quality or even outright abuse (Castanet, 2022[31]).

Financial constraints can also make LTC unaffordable for many households while contributing to low wages. In this case, however, LTC needs are unmet, but there is no excess demand at current labour market conditions, and therefore no labour shortages, as these households are not ready to pay the price of services or those wages. Unmet needs and low wages are not inconsistent in this case; they even reflect the same binding income constraints households are facing.

Finally, this section implicitly assumes that current shortages of LTC workers are real, although it may be that reports of large shortages are inflated by providers seeking supplementary government funding or trying to bypass complaints from their workers regarding work pressure. Potentially, a significant share of

vacancies are not real in some countries, with firms having no intention to hire more workers, which would relate to stories about fake vacancies and ghost jobs (Wall Street, 2023[32]). This might happen in the LTC sector because, given LTC providers' willingness to maintain profits at the price paid by governments, firms might have little appetite to raise the quality or quantity of services – and therefore increase employment. In cases where this would be correct, labour shortages that are self-declared by firms may not actually refer to a situation where labour demand exceeds supply. Such a behaviour might relate to a strategy to justify bad working conditions and insufficient quality of LTC services or be a tool in bargaining with government over more public subsidies. No evidence of such practices was found for this report to back the idea that this feature commonly happens in the LTC sector.

## 1.4. Policy implications

The public sector plays a large role in long-term care (LTC) and governments have different cards in their hands to tackle poor working conditions and insufficient social recognition of LTC work. Governments can directly intervene to improve working conditions at public LTC providers, for instance by increase wages, which may generate spill-over effects to the private sector. Tackling these issues among private providers can be done through promoting wage increases, raising staff requirements or increasing public funding while letting the market work, although which of these policies is most effective in a specific country depends on the way its LTC sector functions. Hence, governments have an extensive policy toolbox at their disposal to make the LTC sector more attractive and robust in the face of population ageing.

These issues should be addressed by a comprehensive policy strategy covering several dimensions; priorities within this strategy depend on the specific country context: increasing public financing and fostering the leading role by governments; directly intervening to raise wages and improve staff regulations; supporting collective bargaining and social dialogue; strengthening training; promoting social recognition through information and recruitment campaigns and certifications (licensing); greater use of new technologies; and, strengthening preventive health policies.

Some general policies in other areas would greatly benefit LTC workers, but they are not covered in detail here, however. This applies first to measures that limit undeclared work. Undeclared LTC work is common in several countries; promoting transitions to formality is a fundamental prerequisite to improve working conditions in the LTC sector and ensure a higher compliance to the standards set in collective agreements.[7] In LTC, this applies, in particular, to live-in carers, especially foreign-born workers. Eurofound (2020[8]) highlights several measures in place in some EU countries to encourage declared work in LTC: vouchers that can only be used to purchase declared work, providing social security entitlements to the carer (Belgium); a clear and user-friendly process for declaring LTC work (Austria); and, a reduction in the cost of compliance with the legislation for home care (Lithuania). Second, fighting discrimination against women and foreign-born workers is especially relevant to better protect LTC workers. Third, gender stereotypes extend well beyond the specific context of LTC, and measures taken to eliminate them in the overall society would be beneficial for the LTC sector. For example, reducing the segregation of boys and girls into different education trajectories could have a long-term beneficial impact on the supply of male LTC workers. Finally, many LTC workers would benefit from increases in the national minimum wage in countries having such an instrument.

### *1.4.1. More public financing and leading role by governments to improve working conditions*

Improving working conditions today and limiting future labour shortages require a substantial increase in public spending. This is because public resources play a large role to finance LTC services, although the importance of private financing varies internationally (see Figure 1.11 above). In many countries in Southern, Central and Eastern Europe and in Latin America in particular, the LTC system is underdeveloped and tackling unmet needs will be achieved only with substantial inflows of public money

in the LTC sector. Likewise, to deal with the pressure from population ageing, most OECD countries should be prepared to spend much more as a share of GDP to avoid socially unsustainable shortages of LTC workers in the coming decades. In a quickly expanding sector such as LTC, new workers must be attracted and trained which requires time, money and effort.

This concurs with the assessment by the European Commission that funding is one of the most important factors to ensure an adequate level of physical and human resources. Measures taken before COVID-19 for recruiting additional LTC staff in both home care and residential care have mostly involved higher financial resources dedicated to staffing, as in Germany in 2019 and in Sweden during 2015-18 (European Commission and Social Protection Committee, 2021[33]). In the United Kingdom, the Migration Advisory Committee emphasises that properly funding LTC is ultimately the key to address increasing demand for care, high vacancy rates, low pay rates with little pay progressions and poor working conditions more generally (MAC, 2022[24]).

Beyond providing access to adequate funding, governments can play a leading role in setting high enough job-quality standards, which is likely to spill over to private-sector workers. First, wages in public LTC providers can be directly raised to improve attractiveness. Second, staffing ratios in public institutions can be increased to reduce workload. Third, governments may require that LTC institutions benefitting from public funding be covered by collective bargaining or adhere to higher job-quality standards including minimum wages. Collective bargaining and social dialogue contribute to the determination of both wages and non-wage working conditions and help ensure better protection to workers with a weak bargaining position. They can operate alongside statutory rules for wages and working conditions, but they also provide voice to workers, while giving employers and employees a tool for addressing common challenges.

Fourth, governments can lead by example in collective bargaining. Governments, at national and local level, can promote collective bargaining and social dialogue in the LTC sector by taking the lead in the areas under their direct control. Even where collective bargaining in the private sector is rare and mostly taking place at the company level, what is negotiated in the public sector can influence bargaining in the business sector. Ensuring a regular renegotiation of collective agreements covering LTC workers in the public sector will typically set the example for the private sector and may provide a reference in terms of wages and working conditions. More generally, providing a forum at local, national, or supranational level to discuss the issues specific to the LTC sector, even if limited to the public organisations, would allow to have regular exchanges, monitor the situation and, possibly, find shared solutions that may then be applied more generally. The European Care Strategy includes possible measures to improve social dialogue in LTC by, for example, proposing to increase support for capacity building for social dialogue in the care sector (European Commission, 2022[34]).

### *1.4.2. Direct interventions: increasing wages and strengthening staff requirements*

Raising wages of LTC workers and tightening staff requirements are the most direct measures to improve working conditions, reduce turnover and attract workers. The Czech Republic, for instance, substantially increased the salaries of personal care workers in the public LTC sector by about 50% over 2017-18 (European Commission and Social Protection Committee, 2021[33]). In the French context, a study found that increasing wages can significantly raise retention rates of nursing auxiliaries in private nursing homes (Martin and Ramos-Gorand, 2017[35]).

Increasing wages or staff requirements generate positive effects especially when the bargaining power of workers is low and profits are high. That is, if providers exploit monopsony power which limits both wages and employment. However, if this is not the case, wage increases and stricter employment requirements decided without securing adequate financing from public or private sources may lead to unintended consequences as the case of New Zealand discussed above illustrates.

A large share of LTC workers is likely to be affected by minimum-wage settings. For example, the recent increase in the national minimum wage in the United Kingdom led to wage increases for a substantial part of LTC workers (Chapter 2). In the OECD on average, one-quarter of personal care workers in the LTC sector earn less than 53% of the average wage (Figure 1.6 above). This compares to minimum wages averaging around 45% of the average wage in the OECD countries that have minimum wages. Hence, proper enforcement of national minimum-wage regulations is important as they affect a substantial part of LTC workers.

In some countries, sectoral minimum wages provide a higher wage floor for LTC workers, which can be a tool to promote pay increases and attractiveness. This is the case in particular in countries where collective bargaining is weak. Several countries including Australia, Germany and Latvia have recently boosted the minimum wage for LTC workers (Chapter 4). However, sectoral minimum wages have some potential drawbacks including weakening social dialogue, as social dialogue's strength is built on the capacity to negotiate wage scales, and reducing employment.

Staffing requirements can take the form of setting either mandatory minimum ratios or ratios that are considered appropriate thereby nudging staffing decisions of providers. Staffing ratios can improve working conditions by limiting the workload and improving the quality of care delivered. The United States use the five-star quality rating system to classify nursing homes based on various indicators including staffing ratios. This system helps care recipients and their families compare LTC providers more easily. Few other OECD countries have staffing-ratio requirements including Finland, France, Hungary, Lithuania, Luxembourg, Portugal and Spain. Finland has raised the minimum staffing ratio substantially from 0.5 workers per client in 2020 to 0.7 in 2023.

Compliance and transparency are crucial to enhance the effectiveness of staff-requirement regulations. First, compliance with the regulations should be enforced through adequate control. In Portugal, COVID-19 triggered a strengthening of staffing levels in the care sectors after trade unions had highlighted that some care institutions were not complying with legal requirements (Pelling, 2021[36]). Second, the communication of the effective staff ratios by care providers should be transparent. Transparency is important because it can discipline care providers through pressure from consumer choice. In Australia for example, while providers are asked to report against care quality standards to the regulator, very little of this information seems to be available to older people looking for care options (Duckett, Stobart and Swerissen, 2020[37]). Poor available information may lead unscrupulous providers to skimp on quality. To help deal with this issue, the five-star rating system was introduced in December 2022. This five-star rating system aims to assess the quality of care at all government-funded LTC homes; the staffing component is based on the amount of time care workers spend per care recipient and contributes roughly one-fifth to the overall rating.[8]

### *1.4.3. Supporting collective bargaining and social dialogue*

The working conditions of LTC workers are generally worse than for the rest of the workforce in many dimensions even though the bargaining coverage of those employed with a formal employment relationship tends to mirror the respective national average (Figure 1.10 above). Ensuring collective bargaining coverage to workers on paper is indeed not sufficient to guarantee good working conditions. In many countries, workers in the LTC sector are not adequately represented by unions, and compliance with negotiated agreements is not guaranteed. Often, workers' representatives in the LTC sector are not strong enough to negotiate tangible improvements in wages and working conditions. Furthermore, some groups of LTC workers may be excluded from collective agreements because they work undeclared or as self-employed.

Governments should support efforts to expand union membership to LTC workers and promote collective agreements. While the latter Is a prerogative of social partners, governments can provide the right enabling conditions. This could include supporting affiliation to unions through tax breaks for union membership

fees, as in Finland, Norway and Sweden, given that limited membership may be a major drag on the potential role of collective bargaining for promoting good working conditions. The organisation of non-standard LTC workers, in particular (false) self-employed and those in the grey area between employment and self-employment, is an additional challenge. Over the past decade, unions have responded to the diversity of employment relationships by adapting their structures, opening up to self-employed workers and engaging in specific campaigns and legal battles, in particular to ensure the reclassification of false self-employed workers into employees.

In the absence of broad-based social partners, in countries where collective bargaining takes place at the sectoral level, administrative extensions can also be used to extend collective bargaining coverage to all workers and firms in a sector. This approach is used in Belgium, France and Italy to ensure full coverage of LTC workers. Germany has introduced an obligation for LTC providers to pay their workers at least the collective-bargaining level. Since September 2022, the German statutory care insurance is only allowed to conclude supply contracts with LTC providers if they comply with this regulation. Providers who do not pay wages according to this requirement are no longer allowed to perform care services that are funded by the German statutory care insurance (Chapter 3). In countries with limited sectoral bargaining, as in Australia, wage and staff requirements (see above) represent an alternative approach to ensure basic terms of employment among all firms in the LTC sector. The main challenge of this approach is the difficulty to establish appropriate sectoral standards, as this presupposes detailed knowledge of the sector, which may often require a strong involvement of the social partners.

Efforts to increase compliance and enforcement measures are often warranted. Labour inspections should be enhanced and additional measures can be taken to improve compliance. First, it is important to ensure that legally binding collective agreements are signed only by representative unions and employers' organisations. This is not the case in all OECD countries. Agreements signed with complacent, poorly representative or "yellow" trade unions – that is, trade unions dominated or influenced by an employer and thus not properly independent – undermine existing agreements and undercut workers' working conditions. Second, in order to have access to their rights, workers need to be aware of them. Collective agreements are difficult to access and to understand in most countries. Making the main elements of the content of collective agreements publicly and easily available is an essential precondition to ensure that workers and employers are well informed about their rights and duties. Given the incidence of workers with a migrant background in the LTC sector, this information should be available in relevant languages. Finally, once the content of the collective agreements is made available, an awareness campaign targeted at LTC workers, both offline and online, could be launched to discuss the importance of compliance and present the tools available to employers and workers.

### *1.4.4. Improving training to reduce arduous work and enhance the quality of care*

Current education and training programmes for LTC workers fall short of providing the necessary knowledge and skills to provide good-quality care and reduce health risks in many OECD countries, especially for personal care workers and LTC workers providing home care. Training for personal care workers should consist of an initial training providing the necessary knowledge and skills to care for older people with common physical and mental limitations. Australia, for instance, created thousands of fee-free places for vocational training in LTC in 2023 in order to boost the skills of personal care workers across the country. This should be supplemented with some continuous training courses fitted to the needs and health profiles of the people the worker is caring for, as is the case for instance in Ireland. For nurses, an increased focus on geriatric care in their curricula could mitigate the mental and emotional impact of working with people with dementia. Training programmes preparing LTC workers specifically for work in a home care setting are all the more important because home care workers often work alone, and older people's homes often are not well-equipped for providing care.

Training can improve the working conditions of LTC workers, in particular for personal care workers. Better training typically coincides with improved remuneration, but training is also vital to make LTC work less arduous. Learning, for instance, about proper techniques for lifting people and about ergonomic positions to provide care to a person who is lying in bed, can reduce physical strain on the carer's body. Training on how to care for people with dementia, who make up a substantial and growing group of LTC recipients can reduce both physical and mental health risks related to violence.

Finally, the use of digital and other new technologies should be a core component of training for LTC workers. As LTC providers cite a lack of digital skills in their workers as an important barrier to implementation of new technologies, better training in this area will promote the wider use of digital technologies in the sector. In addition, it will enable LTC workers to assist older people in learning how to use technologies that can allow them to continue living independently in their own homes. In its Skills Partnership for LTC launched in April 2023, the European Commission identified digital skills and soft skills as the two most urgent training needs in LTC and set a target of 60% of the LTC workforce participating in training in these areas each year by 2030.

### *1.4.5. Promoting the social recognition of long-term care workers*

Measures discussed above to improve working conditions including wages are important steps to raise the social recognition of LTC workers. However, more needs to be done to improve status, and in addition to better training and higher wages, information and recruitment campaigns challenging gendered care norms and developing certifications are key to strengthen the social recognition of LTC workers.

Public information and recruitment campaigns can be used to correct the perception many people have of LTC work as women's work of low economic value and can provide a better idea of the skills the work requires. Public information campaigns showing men as LTC workers and giving a balanced view of LTC work including communicative and emotional aspects as well as the physical and technical sides of care work could help in that respect. Furthermore, recruitment campaigns targeted specifically at men may offer an effective tool to draw more men into the sector. Austria, Germany, Japan and Luxembourg have been or are running public information campaigns with the double goal of improving the public image of LTC work and enticing in particular young people to choose for a career in the sector, although none of these campaigns so far have been specifically targeted at men.

Licensing or national registration of personal care workers can also contribute to a better recognition of the work and the required skills. In most countries, qualification requirements can be minimal and almost anyone can become a personal care worker (OECD, 2020[2]). A common practice for nurses, licensing is generally associated with better training and higher wages. This would signal that personal care work is an occupation requiring the development of certain skills, hence raising social recognition and addressing the gender stereotype that women would somehow "naturally" possess the skills LTC provision requires. In Sweden, for instance, the professional title of assistant nurse will be certified as of July 2023. A person will receive the certificate of assistant nurse by completing the corresponding education programme or through gaining the required competences in some other way. Similarly, France introduced a specific job classification of home-care assistant, which is granted based on completing the corresponding education programme, although a majority of care workers still have no diploma (Le Bihan and Martin, 2019[38]).

The introduction of licensing for personal care workers in LTC may generate trade-offs as it can improve recognition but may reduce employment. As with the discussion about higher wages above, licensing tends to increase LTC costs and may need to be accompanied by additional financial resources to avoid detrimental effects on the quantity of care provided. Hence, such a certification is not to be implemented with the idea that all personal care workers should be licensed in order to avoid creating a regulatory barrier to the overall labour supply of LTC workers. Certification can be a significant first step to develop career progressions as a way to raise attractiveness and to streamline training programmes. For example, under

its Aged Care Workforce Strategy, Australia aims to develop career pathways in LTC through redesigning job roles, vocational training and recognition of competences.

One alternative to licensing can be the introduction of a professional register for LTC workers (Hft and Care England, 2023[27]). Scotland, for instance, has a register for both formal LTC workers and informal carers. By registering, these workers subscribe to the care quality standards of the Scottish Social Services Council, and registration can be revoked when these standards are not respected. In addition, registration gives access to free online courses covering a variety of LTC-related topics and levels of complexity, for which LTC workers earn badges when they complete them. The system provides a pathway for the development of qualifications that is designed to improve the formal recognition of LTC workers' skills and knowledge.

In any case, the occupation of personal care worker should also be clearly distinguished from that of domestic workers such as housekeepers. Personal care workers primarily provide personal, not household services, meaning that the content of their work and thus also the skills required depend on the needs of the persons they care for. This could be recognised for instance through personal care work including in home care being covered by collective bargaining for the LTC sector.

### *1.4.6. Improving efficiency and reducing arduous work through introducing new technologies*

By raising labour productivity, expanding the use of new technology can improve efficiency and reduce the demand for LTC workers. Digital technologies, in particular, can limit the time LTC workers spend on other activities than direct care provision. Comprehensive software packages can facilitate the planning of LTC provision and the sharing of information between different actors involved in care provision, reducing the time needed for administration and co-ordination. Moreover, sensors allow for remote monitoring of multiple care recipients simultaneously, which reduces the time required for monitoring itself and for transit between care recipients.

New technologies can reduce both the physical and the mental strain of LTC work, which can reduce both absence from work due to health problems and the number of people quitting the sector. The mental well-being of LTC workers may be improved by software reducing administrative burdens. Other technologies, such as lifts and care robots, can reduce the physical burden on LTC workers by taking over the most physically demanding tasks.

Four important barriers currently limit the use of new technologies in LTC. First, financial constraints limit the budget available to invest in new technologies. This is a particularly relevant barrier for the introduction of more expensive technologies such as robots. Second, concerns over privacy and data security may make care providers and care recipients wary of using technologies recording sensitive data. A data governance framework for the secure use of these technologies and the data they provide is essential to reduce the risk of infringements on care recipients' privacy. Third, LTC providers are worried that their care workers lack the skills to work with new technologies. Hence, proper training can remove an important barrier to the implementation of cheaper technologies such tablets with digital applications for administration, co-ordination of care work and monitoring of care recipients. Finally, LTC providers themselves may be insufficiently aware of the technologies that are available. Information campaigns and industry events showcasing and counselling on new technologies could improve awareness of the availability of tools and the impact they may have in terms of improved efficiency and staff health among LTC providers.

### *1.4.7. Strengthening preventive health policies to reduce long-term care needs*

The share of older people with care needs or care intensity can be reduced through preventive health programmes promoting healthy lifestyles and making older people aware of certain health risks such as

the risk of falling. Public information campaigns and rehabilitation efforts can reduce LTC needs of older people. Nordic countries have rehabilitation or re-ablement[9] embedded as part of the LTC needs assessment and this approach helps to delay LTC needs. Since 2011, Japan has been running an LTC Prevention Project focused on three main objectives: to strengthen social connections of older people in their community, irrespective of their age and mental and physical conditions, and support them in organising exercise classes and other local gatherings; to use professionals with rehabilitation knowledge in their community to help older people live independent lives; and, to develop a local community in which older people can live worthwhile lives and play a role, even if they are in serious need of LTC. Since 2020, the Japanese Government has increased subsidies for municipalities that are actively engaged in the project and has made efforts to expand the communities in which older people can participate for instance by drawing in more professionals.

LTC workers should play a key role in preventive health efforts by detecting possible health risks older people may be exposed to. This consists of picking up early signs of potential health problems and assisting older people in finding supplementary support if needed, for instance by providing information on housing adaptations and helping them apply. Countries can strengthen LTC workers' role in health promotion and disability limitation for older people by establishing national prevention policies that guide LTC workers on how to help older people stay healthy for longer, strengthen professional skills at the primary care level to keep older people out of institutions and improve geriatric knowledge among health and social workers working in the community. The Visiting Nurse Service of New York, for example, 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 older people needed assistance (OECD, 2020[2]).

Self-management technologies can contribute to preventive health efforts and even boost the capacity of older people with health problems to continue living independently. Applications providing physical and cognitive training exercises can contribute to maintaining older people's physical and mental fitness and slowing decline. They can also mitigate exposure to health risks, such as a route planner providing routes for pedestrians with lower falling risk. Smart home technologies, medication management tools and sensors for remote monitoring allow older people to safely continue living in their own homes. They help older people control their own lives and reduce the need for LTC workers to pass by in person for monitoring. LTC workers can provide guidance to older people in selecting appropriate tools matching their needs and learning how to use them.

Improving older people's health literacy and digital skills would facilitate the use of preventive health and self-management technologies. With one-quarter of people aged 55-74 in the European Union using internet only rarely or not at all, in particular older people with lower educational attainment, and one-third of people in OECD countries having low levels of health literacy, significant efforts are needed to boost education and training of older people in these areas (Chapter 5). Workshops for instance have been shown to be an effective tool to improve health-related digital literacy in older people (Pourrazavi et al., 2020[39]). LTC workers have an important role in helping older people improve their health literacy and digital skills, as well as identifying older people who could benefit from specific training in these areas.[10]

## References


Australian Nursing & Midwifery Journal (2022), *Labor pledges expert panel in Fair Work Commission for low-paid care workers*, https://anmj.org.au/labor-pledges-expert-panel-in-fair-work-commission-for-low-paid-care-workers/. [28]

BDO (2020), *Report on the profitability and viability of the Australian aged care industry*, The Royal Commission into Aged Care Quality and Safety, https://agedcare.royalcommission.gov.au/publications/research-paper-12-report-profitability-and-viability-australian-aged-care-industry. [30]

Boal, W. and M. Ransom (1997), "Monopsony in the Labour Market", *Journal of Economic Literature*, Vol. 35/1, pp. 86-112. [12]

Castanet, V. (2022), *Les Fossoyeurs*, Fayard. [31]

Cazes, S., A. Hijzen and A. Saint-Martin (2015), "Measuring and Assessing Job Quality: The OECD Job Quality Framework"*, OECD Social, Employment and Migration Working Papers*, No. 174, OECD Publishing, Paris, https://doi.org/10.1787/5jrp02kjw1mr-en. [5]

Colombo, F. et al. (2011), *Help Wanted?: Providing and Paying for Long-Term Care*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/9789264097759-en. [1]

Congressional Research Service (2022), *Who Pays for Long-Term Services and Supports?*, https://crsreports.congress.gov/product/pdf/IF/IF10343. [23]

Doulgas, J. and K. Ravenswood (2022), *The Value of Care: Understanding the impact of the 2017 Pay Equity Settlement on the residential aged care, home and community care and disability support sectors*, New Zealand Work Research Institute, Auckland, New Zealand. [26]

Duckett, S., A. Stobart and H. Swerissen (2020), *Reforming aged care: a practical plan for a rights-based system*, Grattan Institute, https://grattan.edu.au/wp-content/uploads/2020/11/Reforming-Aged-Care-Grattan-Report.pdf. [37]

Duval, R. et al. (2022), *Labor Market Tightness in Advanced Economies*, International Monetary Fund, https://www.imf.org/-/media/Files/Publications/SDN/2022/English/SDNEA2022001.ashx. [9]

ELA (2021), *Report on Labour Shortages and Surpluses*, European Labour Authority, https://doi.org/10.2883/746322. [7]

Eurofound (2020), *Long-term care workforce: Employment and working conditions*, Publications Office of the European Union, Luxembourg, https://www.eurofound.europa.eu/publications/customised-report/2020/long-term-care-workforce-employment-and-working-conditions. [8]

European Commission (2022), *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the European care strategy*. [34]

European Commission (2021), *Study on exploring the incidence and costs of informal long-term care in the EU*, European Commission, https://op.europa.eu/en/publication-detail/-/publication/bafbb918-2197-11ec-bd8e-01aa75ed71a1/language-en. [11]

European Commission and Social Protection Committee (2021), *Long-term care report: Trends, challenges and opportunities in an ageing society. Volume I*, Publications Office of the European Union, Luxembourg, https://doi.org/10.2767/677726. [33]

Gustafsson, L. et al. (2020), *IHR-projektet: Forskningsrapport [IHR project: Research report]*, Akademin för hälsa, vård och välfärd, Eskilstuna, https://www.mdu.se/download/18.1914277017751b6df2bc5531/1612876465446/Rapport%20IHR%20200826%20Klar%20PDF.pdf. [43]

Hft and Care England (2023), *Sector Pulse Check, A snapshot of finances and workforce in the adult social care sector in 2022*, https://www.hft.org.uk/wp-content/uploads/2023/03/Hft-Sector-Pulse-Check-2023-Single-Pages-Digital.pdf. [27]

Hirsch, B. and J. Manzella (2014), "Who Cares - And Does It Matter? Measuring Wage Penalties for Caring Work", *IZA Discussion Paper Series* No. 8388, https://doi.org/10.2139/ssrn.2550448. [20]

Hirsch, B. and E. Schumacher (2012), "Underpaid or Overpaid? Wage Analysis for Nurses Using Job and Worker Attributes", *Southern Economic Journal*, Vol. 78/4, pp. 1096-1119, https://doi.org/10.4284/0038-4038-78.4.1096. [16]

Hirsch, B. and E. Schumacher (2005), "Classic or new monopsony? Searching for evidence in nursing labor markets", *Journal of Health Economics*, Vol. 24/5, pp. 969-989, https://doi.org/10.1016/j.jhealeco.2005.03.006. [15]

Le Bihan, B. (2018), *ESPN Thematic Report on Challenges in long-term care: France*, European Commission, ESPN, https://ec.europa.eu/social/BlobServlet?docId=19847&langId=en. [41]

Le Bihan, B. and C. Martin (2019), *French social and long term care system*, HAL SHS, https://shs.hal.science/halshs-02058183. [38]

Maarse, J. and P. Jeurissen (2016), "The policy and politics of the 2015 long-term care reform in the Netherlands", *Health Policy*, Vol. 120/3, pp. 241-245, https://doi.org/10.1016/j.healthpol.2016.01.014. [25]

MAC (2022), *Adult Social Care and Immigration: A Report from the Migration Advisory Committee*, Her Majesty's Stationery Office, https://www.gov.uk/government/publications/review-of-adult-social-care-2022. [24]

Martin, C. and M. Ramos-Gorand (2017), "High turnover among nursing staff in private nursing homes for dependent elderly people", *Economics and Statistics*, Vol. 493, pp. 49-66, https://doi.org/10.24187/ecostat.2017.493s.1912. [35]

Matsudaira, J. (2014), "Monopsony in the Low-Wage Labor Market? Evidence from Minimum Nurse Staffing Regulations", *The Review of Economics and Statistics*, Vol. 96/1, pp. 92-102, https://doi.org/10.1162/rest_a_00361. [18]

Mavromaras, K. et al. (2017), *The Aged Care Workforce, 2016*, Australian Government Department of Health, https://gen-agedcaredata.gov.au/www_aihwgen/media/Workforce/The-Aged-Care-Workforce-2016.pdf. [19]

Norton, E. (2016), "Health and Long-Term Care", *Handbook of the Economics of Population Aging*, Vol. 1, pp. 951-989, https://doi.org/10.1016/bs.hespa.2016.06.001. [10]

OECD (2023), *Ready for the Next Crisis? Investing in Health System Resilience*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/1e53cf80-en. [4]

OECD (2022), *OECD Employment Outlook 2022: Building Back More Inclusive Labour Markets*, OECD Publishing, Paris, https://doi.org/10.1787/1bb305a6-en. [3]

OECD (2021), *Health at a Glance 2021: OECD Indicators*, OECD Publishing, Paris, https://doi.org/10.1787/ae3016b9-en. [21]

OECD (2021), *Main Findings from the 2020 Risks that Matter Survey*, OECD Publishing, Paris, https://doi.org/10.1787/b9e85cf5-en. [6]

OECD (2020), *Who Cares? Attracting and Retaining Care Workers for the Elderly*, OECD Publishing, Paris, https://doi.org/10.1787/92c0ef68-en. [2]

OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris, https://doi.org/10.1787/9ee00155-en. [40]

OECD (2008), *OECD Employment Outlook 2008*, OECD Publishing, Paris, https://doi.org/10.1787/empl_outlook-2008-en. [42]

Pelling, L. (2021), *On the Corona Frontline: The experiences of care workers in nine European countries - Summary report*, Friedrich-Ebert-Stiftung, https://library.fes.de/pdf-files/bueros/stockholm/17490.pdf. [36]

Peña-Longobardo, L. and J. Oliva-Moreno (2021), "The Economic Value of Non-professional Care: A Europe-Wide Analysis", *International Journal of Health Policy and Management*, https://doi.org/10.34172/ijhpm.2021.149. [22]

Pourrazavi, S. et al. (2020), "Theory-based E-health literacy interventions in older adults: a systematic review", *Archives of Public Health*, Vol. 78/1, https://doi.org/10.1186/s13690-020-00455-6. [39]

Prager, E. and M. Schmitt (2021), "Employer Consolidation and Wages: Evidence from Hospitals", *American Economic Review*, Vol. 111/2, pp. 397-427, https://doi.org/10.1257/aer.20190690. [17]

Staiger, D., J. Spetz and C. Phibbs (2010), "Is There Monopsony in the Labor Market? Evidence from a Natural Experiment", *Journal of Labor Economics*, Vol. 28/2, pp. 211-236, https://doi.org/10.1086/652734. [13]

Sullivan, D. (1989), "Monopsony Power in the Market for Nurses", *The Journal of Law and Economics*, Vol. 32/2, Part 2, pp. S135-S178, https://doi.org/10.1086/467192. [14]

Veneri, C. (1999), "Can Occupational Labor Shortages Be Identified Using Available Data?", *Monthly Labor Review, Bureau of Labor Statistics*, https://www.bls.gov/opub/mlr/1999/03/art2full.pdf. [29]

Wall Street (2023), *Job Listings Abound, but Many Are Fake*, 20 March. [32]

# Annex 1.A. Definitions

This chapter uses OECD's definitions of long-term care (LTC), of the LTC workforce and of LTC settings (OECD, 2020[2]).

## Long-term care

LTC is a highly labour-intensive sector, which consists of a range of medical, personal-care and assistance services that are provided with the primary goal of alleviating pain and reducing or managing the deterioration in health status for people with a degree of long-term dependency, assisting them with their personal care (through help for ADL, such as eating, washing and dressing) and assisting them to live independently (through help for IADL, such as cooking, shopping and managing finances).

## Formal care: Nurses and personal care workers

The LTC workforce consists of individuals who provide care to LTC recipients in residential or non-residential LTC settings (see below), but not in hospitals. LTC workers comprise two professional categories: personal care workers, including nurse aids and care assistants, and nurses, including both nurse associates and nurse professionals. Other professional categories, e.g. doctors or social workers, are not included in the LTC workforce definition.

Nurses in LTC include people who have completed their studies/education in nursing and who are licensed to practise (including both professional nurses and associate/practical/vocational nurses); salaried and self-employed nurses delivering services in residential or non-residential LTC settings (other than hospitals); foreign nurses licensed to practise and actively practising in the country; and nurses providing LTC to care recipients affected by dementia and/or Alzheimer's disease. The following categories of nurses are excluded from the OECD definition (and therefore not covered by the analyses in this report): students who have not yet graduated; nursing aides/assistants and care workers who do not have any recognised qualification or certification as licensed nurses; nurses working in administration, research and other posts that exclude direct contact with care recipients; unemployed nurses and retired nurses; nurses working abroad; nurses providing social services; and psychiatric nurses.

Personal care workers in LTC include formal workers providing LTC services in residential or non-residential LTC settings (other than hospitals) and who are not qualified or certified as nurses. Personal care workers are defined as people providing routine personal care, such as bathing, dressing or grooming, to older people, convalescent or disabled people in their own homes or in institutions. They include nursing aides/assistants and care workers providing LTC services, who do not have any recognised qualification/certification in nursing; family members, neighbours or friends employed (i.e. under a formal contractual obligation and/or declared to social security systems as caregiver) by the care recipient or a person/agency representing the care recipient, and/or by public care services and private care service companies, to provide the care services to the person in need.

## Informal care

Informal caregivers provide care to family members, neighbours or friends and are excluded from the category of LTC workers unless they are formally employed by the care recipient. This includes informal

caregivers receiving income support or other cash payments from the care recipient as part of cash programmes and/or consumer-choice programmes, but who are not formally employed, or paid for, by the care recipient (or the person or agency representing the care recipient, including providers or organisations such as public social care services and private care service companies).

## Declared and undeclared work

Formal care can be provided by both declared and undeclared workers. Undeclared workers refer to employees who have an employment relationship that is, in law or in practice, not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits (OECD, 2019[40]). Thus, informal work refers to undeclared work while informal care refers to care provided by family members, neighbours or friends (see above).

## Long-term care settings

Long-term care can be either residential or non-residential. Residential LTC refers to LTC in nursing homes and other residential care facilities, which provide accommodation and LTC as a package. This refers to specially designed institutions or hospital-like settings where the predominant service component is LTC and the services are provided for people with moderate to severe functional restrictions. LTC institutions include nursing and residential care facilities dedicated to long-term nursing care. LTC facilities comprise establishments primarily engaged in providing residential LTC that combines nursing, supervisory or other types of care, as required by the residents. In these establishments, a significant part of the production process and the care provided is a mix of health and social services, with the health services largely at the level of nursing care, in combination with personal care services. The medical components of care are, however, much less intensive than those provided in hospitals. Residential LTC does not include institutions used on a temporary basis to support continued living at home – such as community care, day care centres and respite care. It also excludes LTC services provided in specially designed or adapted living arrangements for people who require help on a regular basis while guaranteeing a high degree of autonomy and self-control (defined as home, and included in the home-based setting). Finally, the definition excludes LTC services provided in hospitals.

Non-residential LTC is provided to people with functional restrictions who mainly reside in their own homes. In addition to home care, this includes the use of institutions on a temporary basis to support continued living at home, such as community care, day care centres and respite care. Non-residential LTC also includes specially designed or adapted living arrangements (for instance, sheltered housing) for people who require help on a regular basis while guaranteeing a high degree of autonomy and self-control, and supportive living arrangements.

## Notes

[1] While many care-related sectors struggle with similar staffing concerns, this report focuses specifically on LTC for older people in the light of the increasing needs due to population ageing.

[2] That is, at least three ADL or IADL; and, one in four people with at least one limitation.

[3] When both workers' and sectoral characteristics are controlled for, i.e. for the same age, number of years of education, tenure, etc., personal care workers still earn about 15% less than nurse associates in the LTC sector, compared with 26% less based on raw data. This means that less than half of the observed hourly-wage difference between personal care workers and nurse associates is explained by individual (and firm) differences.

[4] The estimation does not seem to fully capture the intensive education and training of medical specialists: medical doctors earn 39% more than explained by individual characteristics and nurse professionals earn 22% more, in line with sales professionals, while university teachers earn 17% more.

[5] See for example Le Bihan (2018[41]) for France. In California, about 55% of nurse aides have at most a high school diploma and 82% have no college degree of any level (Matsudaira, 2014[18]).

[6] False self-employment refers to cases where individuals are classified as self-employed but, to all intents and purposes, work as employees (OECD, 2019[40]).

[7] As discussed in OECD (2008[42]), depending on the specificity of each country, formalisation can be promoted by improving incentives to employ workers formally through a combination of measures reducing the labour costs when they are excessive, increasing flexibility in countries with stringent employment protection legislation and improving the design of social protection schemes to increase the benefits of affiliation to workers. Better incentives should be complemented by enhanced tax, social security and labour enforcement efforts.

[8] https://www.myagedcare.gov.au/quality-aged-care.

[9] Re-ablement entails a short period of home-based rehabilitation supported by a multidisciplinary team targeting both medical and psycho-social needs, with the aim of strengthening or maintaining functional capacity and thus facilitating people to live their own lives (Gustafsson et al., 2020[43]). Reablement focuses both on (re-)training people to independently execute (instrumental) activities of daily living as well as participate in daily activities that are important to the person.

[10] Austria, for instance, is currently piloting community nursing projects to promote healthy and independent living of older people, in which strengthening self-help and health literacy are key components. Community nurses who completed a tailored training programme provide advice to older people as well as to other actors involved in LTC provision, among others through home visits.

# 2 Work and wages in long-term care today

Maciej Lis and Hervé Boulhol

This chapter discusses LTC work today. It starts by looking into the tasks LTC workers do, and the skills and level of education that LTC work requires, before showing descriptive statistics of LTC employment, including recent trends related to demographic changes and to the composition of LTC between residential and home-based care. The chapter then focuses on wages. New results are presented to shed light on the determinants of individual hourly wages of LTC workers. Finally, factors that may explain low wages of LTC jobs beyond the factors identified in the quantitative analysis are discussed.

## Introduction

Describing the content of long-term care (LTC) work and job requirements is a prerequisite to analysing the challenges faced by LTC workers. These workers face multiple difficulties including low wages, strenuous working conditions and low recognition for their work. Women make up a vast majority of LTC workers while the share of workers with a migration background is above average, with both groups often occupying disadvantaged positions in the labour market in general. Difficulties faced by LTC workers have contributed to difficulties in attracting enough workers to meet the growing demand arising from population ageing.

Chapter 2 discusses LTC work today. It starts by looking into the tasks LTC workers do, and the skills and level of education that LTC work requires, before showing descriptive statistics of LTC employment, including recent trends related to demographic changes and to the composition of LTC between residential and home-based care.

The chapter then focuses on wages. New results are presented to shed light on the determinants of individual hourly wages of LTC workers. While individual characteristics, in terms of age, education and tenure, help explain relatively low wages among LTC workers, gender differences in hourly wages play a significant role. Overall, the LTC sector is estimated to pay wages that are lower than in the hospital sector for similar workers and similar jobs. Finally, factors that may explain low wages of LTC jobs beyond the factors identified in the quantitative analysis are discussed.

The subsequent chapters in this report focus on other aspects of LTC work. Chapter 3 analyses working conditions beyond wages and discusses collective bargaining coverage in LTC. Chapter 4 looks into composition of the LTC workforce in terms of both gender and migration background, and how LTC workers are perceived by society. Chapter 5 analyses current and future labour shortages of LTC workers.

## Key findings

- LTC jobs require a unique combination of communication and physical abilities. Consistently across countries, job offers for personal care workers often demand communication, teamwork and time-management skills.
- LTC workers make up 1.9% of total employment in OECD countries, ranging from less than 0.3% in Greece, Lithuania and Poland to more than 4.0% in Norway and Sweden. Huge differences across countries may reflect differences in the development of the LTC sector, the scope of family care, the extent of LTC provision by hospitals and life expectancy, among others.
- Personal care workers make up 78% of LTC workers on average in the OECD and nurses 22%.
- Many countries have been pursuing a “deinstitutionalisation” strategy of LTC by promoting home-based care solutions over institution-based care. As a result, the number of LTC beds in institutions has not kept pace with the number of older people on average across countries during the last decade, by contrast to the period before when it increased much faster.
- Personal care workers employed in residential and non-residential care earn around 70% of the economy-wide average hourly wage. One-quarter of personal care workers in the LTC sector and in hospitals earn at most 53% and 60%, respectively, of the average wage in the total economy.
- Regarding occupations, personal care workers have hourly wages that are 12% lower than the average across occupations, once age, education, gender, sector, etc. are taken into account.
- Regarding sectors, the LTC sector is estimated to pay to workers with similar characteristics 4% less than the average across all sectors. The LTC sector is estimated to pay wages that are about 8% lower than the hospital sector for similar workers and similar jobs.
- Occupational and sectoral effects combine into low wages for personal care workers in the LTC sector.

- When both workers' and sectoral characteristics are controlled for, i.e. for the same age, number of years of education, tenure, etc., personal care workers still earn about 15% less than nurse associates in the LTC sector, compared with 26% less based on raw data. This means that less than half of the observed hourly-wage difference between personal care workers and nurse associates is explained by individual (and firm) differences.
- The gender hourly wage difference among LTC workers in similar jobs and with similar characteristics is significant and estimated at 7.6% (to the detriment of women). This is substantially less than in the whole economy, where the female "penalty" is estimated at 14.2%. Yet, in a sector where women represent more than 85% of employment, they still earn less than men doing the same job and having otherwise similar characteristics.
- In theory, labour shortages in the LTC sector should drive up wages, especially given difficult working conditions. However, the causality may also work the other way, with low wages fuelling labour shortages. Limited public financing and insufficient income of LTC recipients contribute to low wages and may prevent market forces to raise wages, boost labour supply and eliminate shortages. Low wages in LTC might also result from low market power of LTC workers, low rents to be shared between companies and employees and from the "devaluation of women's work" hypothesis shaping cultural norms in care jobs, which has received mixed evidence.

## 2.1. What is long-term care work?

Long-term care (LTC) workers provide care to LTC recipients at home or in LTC institutions but not in hospitals; provided care relates to both helping with activities of daily living and assisting to live independently. Although LTC may be provided to people at all ages, this analysis focuses on LTC provided to older people (see Chapter 5 for age structures of care recipients). Care provided in hospitals is classified as healthcare, even if provided to LTC recipients. According to the OECD definition, LTC workers comprise two professional categories: personal care workers, including nurse aids and care assistants, and nurses, including both nurse associates and nurse professionals. Other professional categories, e.g. doctors or social workers, are not included in the LTC workforce definition, as they do not directly provide assistance in activities of daily living. Informal caregivers who provide care to family member, neighbours or friends are excluded from the category of LTC workers unless they are formally employed by the care recipient. LTC workers can come from the healthcare or the social-care branches (OECD, 2020[1]). LTC services can be publicly or privately financed. Based on replies to the questionnaire sent to countries for this report, the national definitions of LTC workers vary across countries and they are often broader than the OECD definition because they account for workers for whom providing care is not the main task. In particular social workers or rehabilitation specialists may be included in national definitions, e.g. in Austria, Canada, Denmark, France, Germany, Ireland, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, the United Kingdom and the United States. This section heavily builds on previous work on defining and characterising LTC workers (OECD, 2020[1]).

### *2.1.1. What do long-term care workers do?*

#### *Personal care workers*

The activities of personal care workers can cover four main functions: providing assistance with activities of daily living (ADL) such as getting dressed and feeding; helping with instrumental activities of daily living (IADL) such as cooking; communicating with care recipients and their families; and, performing healthcare monitoring. In most countries, LTC workers are central to prevent people's loss of autonomy. The most common tasks include maintaining hygiene standards, monitoring health status and how individuals respond to care, transporting them from home to outside places and providing psychological support.

Based on previous work by the OECD, personal care workers' main role across OECD countries has been identified as providing basic care. The six most common tasks are centred on assisting with ADL and IADL. In most countries, this includes positioning, lifting and turning care recipients, transporting them (via wheelchairs, movable beds and/or motor vehicles) and assisting care recipients with personal hygiene, feeding and dressing. Another aspect of the job mostly involves maintaining environmental hygiene standards (e.g. changing bed linen, washing, cleaning), providing assistance with the planning, purchasing, preparing or serving of meals to meet nutritional requirements and prescribed diets, and accompanying care recipients on errands.

In the United States, the Occupation Information Network (ONET) database provides a detailed description of occupations, as well as of the importance of tasks within occupations, based on surveys of workers (Handel, 2016[2]). These occupational characteristics are useful for analysing workers also in other countries (Goos, Manning and Salomons, 2009[3]). The importance of a task is assessed on a 1-5 scale, from 1 being not important, 3 being important to 5 being extremely important.

There are three detailed categories of personal care workers in the ONET database: personal care aides, home health aides and nursing assistants. Among 59 tasks that scored at least 3, 32 cover assisting daily living. Other important tasks of personal care workers include administration such as maintaining records of care recipients, documenting care recipients' behaviour, physical symptoms and care needs; planning future services and administering prescribed medicine and medical treatment, monitoring vital signs, providing emotional support to care recipients and families.

When it comes to the range of tasks that personal care workers do, countries can be sorted into two broad groups (OECD, 2020[1]). A few countries seem to strictly limit the range of personal care workers' tasks. This is the case in Norway and Israel, where tasks mostly involve ADL support provision and verbal communication. Preparing care recipients for examination or treatment is a less common task that personal care workers provide; in some countries, e.g. Estonia, Lithuania, Norway and the United States, they are not allowed to administer medications. Meanwhile, a larger group of countries (including Belgium, Canada, the Czech Republic Japan, Korea and Sweden) report that personal care workers perform a broader set of tasks and seem to have developed a model of LTC provision where they play a more comprehensive role. In Sweden, for instance, they commonly provide medications.[1] In Korea and Japan, they may even act as case managers.

### *Nurses*

OECD (2020[1]) shows that nurses in LTC are in charge of four main functions: healthcare provision, including medication administration, and health status monitoring, which are the main tasks, as well as care co-ordination and communication with families. Nurses often have to implement care plans and supervise or evaluate the work provided by other staff. Reporting tasks usually require communication with physicians. These functions demand soft skills, such as being competent in social and interpersonal relations. They also require specific geriatric care expertise, such as understanding the LTC system as a whole and being able to identify the relevant service providers. In many countries, nurses co-ordinate care provided to older people.

An analysis of tasks in the ONET database (of the United States) confirms that nurses play substantially different roles than personal care workers in delivering healthcare and LTC. Most tasks undertaken by nurses[2] relate to assisting in medical treatments and only 3 out of their 50 important tasks (which scored 3 or more) refer to assisting with daily living. The importance of providing medical treatment or personal care in private home setting[3] was assessed at 4.4, helping care recipients with bathing etc. at 4.1 and cleaning rooms and making beds at 3.7 compared to the highest ranked task of recording care recipients' medical information at a score of 4.7.

There are two main take-aways from the ranking of nurses' tasks when providing LTC (OECD, 2020[1]). First, countries differ in terms of autonomy to provide medical treatments granted to nurses. While healthcare provision is also a key aspect of their job, it mostly involves cleaning wounds and applying surgical dressings and bandages. In Lithuania, wound care is one of the main healthcare tasks provided

by nurses, while Korean nurses are not supposed to perform this specific task. Provision of treatment and healthcare is more frequent when included in a care plan that the nurse has to follow. Most of the role then involves the management of multiple comorbidities.

Second, nurses play a central role in care co-ordination in most OECD countries, often bridging health and social care provisions. Supervising and co-ordinating care recipients' care along with other healthcare and social care professionals is the most frequent co-ordination task provided by nurses (it is found in 19 countries). Their activities are typically associated with the updating, monitoring and record keeping of care recipients' health status; co-ordination and supervision of care recipients' care plans; and interactions with care recipients, family caregivers, care providers and healthcare professionals. Care following hospital discharge needs specific monitoring and communication with hospital teams.

### *2.1.2. How to become an LTC worker?*

#### *Educational levels and qualification requirements*

The International Standard Classification of Occupations (ISCO) groups occupations into groups of similar complexity and skill requirements. For personal care workers, in general across countries lower-secondary education is required, e.g. in the form of specialised or on-the-job training (Table 2.1). Personal care workers require higher qualifications than for example cleaners and helpers. Nurse associates belong to an occupational group that requires even higher level of skills, associated with completing the first level of tertiary education of up to 3 years. Nurse professionals belong to the group of occupations with the highest level of skill requirements, which require more than 3 years of higher education. Similar to nurses, social workers and psychotherapists, who are not included in the LTC workforce, belong to skill Level 3 or 4, depending on scope of their tasks.

**Table 2.1. Qualification requirements and relevant tasks of selected occupations**

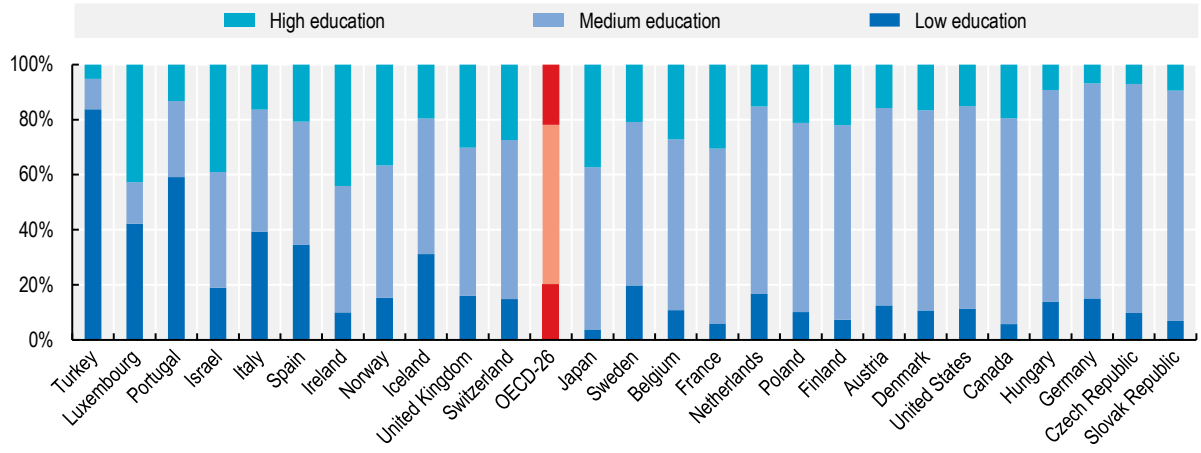
| Skill level and education requirements | ISCO occupation name (code) | Relevant tasks | Considered as LTC workers |
|---|---|---|---|
| 4 – complex problem solving and decision making, 3-6 years of higher education generally required | Nurse Professionals (222) | Providing care to patients, assuming responsibility for planning and management of care, supervision of other care workers | yes* |
| | Physiotherapists (2264) | Assessing, planning and implementing rehabilitation programs and therapies | no |
| | Social Work and Counselling Professions (2635) | Assisting clients to develop skills needed to respond to issues arising from disability | no |
| 3 – complex practical and technical tasks, 1-3 years of higher education generally required | Nurse Associates (322) | Providing basic care for people who are physically or mentally sick; working under supervision of other health professionals. | yes* |
| | Physiotherapy Technicians and Assistants (3255) | Providing physical therapeutically treatments to patients, following rehabilitative plans established by other health professionals | no |
| | Social Work Associates (3412) | Administering and implementing social assistance programs and assist client to deal with personal and social problems, including accessing and identifying relevant care programs | no |
| 2 – tasks related to manipulating, ordering and storage of information, and operating machinery; first stage of secondary education generally required | Personal Care Workers (532) | Providing personal care and assistance with mobility and activities of daily living | yes* |
| 1 – simple and routine tasks, primary education required | Domestic cleaners and helpers (9111) | Preparing food, serving meals, purchasing household supplies and taking other domestic duties | no |

Note: Workers in these occupations are considered LTC workers if they work in the LTC sector, as discussed below.
Source: OECD based on ILO (2012[4]), International Standard Classification of Occupations.

On average across OECD countries, 58% of LTC workers have a medium level of education (Figure 2.1), while 20% have not attained medium education and 22% have a high education level. In Türkiye and Portugal, more than half of LTC workers have a low education level while it is the case for less than 10% in Canada, the Czech Republic, Finland, France Ireland, Japan and the Slovak Republic. Highly educated workers constitute at least one-third of long-term care workers in Ireland, Japan, Luxembourg and Norway.

## Figure 2.1. Most LTC workers have a medium level of education

LTC workers by education level, 2019 or nearest year




Note: Low education corresponds to a lower secondary education (international standard classification of education (ISCED) 0-2), medium education to an upper secondary education or a post-secondary non-tertiary education – vocational schools (ISCED 3-4), and high education to tertiary level of education – university (ISCED 5-8). Countries are sorted based on the share of workers with medium education.
Source: EU-LFS; ASEC-CPS for the United States; Census for Canada; LFS for Israel; Survey on Long-term Care Workers for Japan.

StatLink https://stat.link/rcgx0b

Billington and Foldnes (2021[5]) propose a complexity measure of occupations based on the description of the occupations' tasks in the U.S. Dictionary of Occupational Titles ONET. The occupational complexity distinguishes: analysing data; interacting with people; and, operating things with precision, assessed as low, medium and high. Personal care workers jobs were assigned a low level of complexity in all three dimensions, similar to e.g. sales workers, waiter and bartenders, general secretaries, tellers, money collectors and related clerks and elementary occupations. Nurse professionals were classified as medium complexity for data and things, and high for people, while nurse associates also as medium for data and things, and low for people.

Minimum qualification requirements offer the guarantee that staff have sufficient knowledge, skills and competencies to provide care to older people. Less than half of the countries surveyed in OECD (2020[1]) – Austria, Belgium, Canada (Ontario), Germany, Korea, Slovenia and the United States – require personal care workers to pass or hold a licence or a certification showing that they have the basic competencies and skills to work in healthcare and social services for older people.[4] Also, less than half of the surveyed countries require personal care workers to hold a minimum education level. Among those that do, it varies from vocational training (Hungary, Luxembourg, the Netherlands and Latvia) to a high school diploma (Belgium and Sweden) or a technical degree after high school (Canada and Estonia). Conversely, nurses are required to hold high education levels (such as a bachelor's degree) in half of countries.

Moreover, many countries require initial training programmes for personal care workers but there is quite a lot of heterogeneity in the requirements (OECD, 2020[1]). Training rules and organisation can differ according

to the LTC setting (home-based, institution-based) or job title (e.g. nurse aide, social carer). Training often targets institution-based personal care workers, and training participation is often not mandatory for home-based workers. This is the case for example in the United States, where entry credentials are often not required from personal care workers delivering home care while certificates often are in nursing homes.

OECD (2020[1]) points that while the bulk of LTC work by personal care workers involves ADL support (such as helping to dress, bath and cook) and does not require a high level of training, some basic tasks (such as administering food) can become complex and require training when disabled older people have severe conditions (such as dementia).

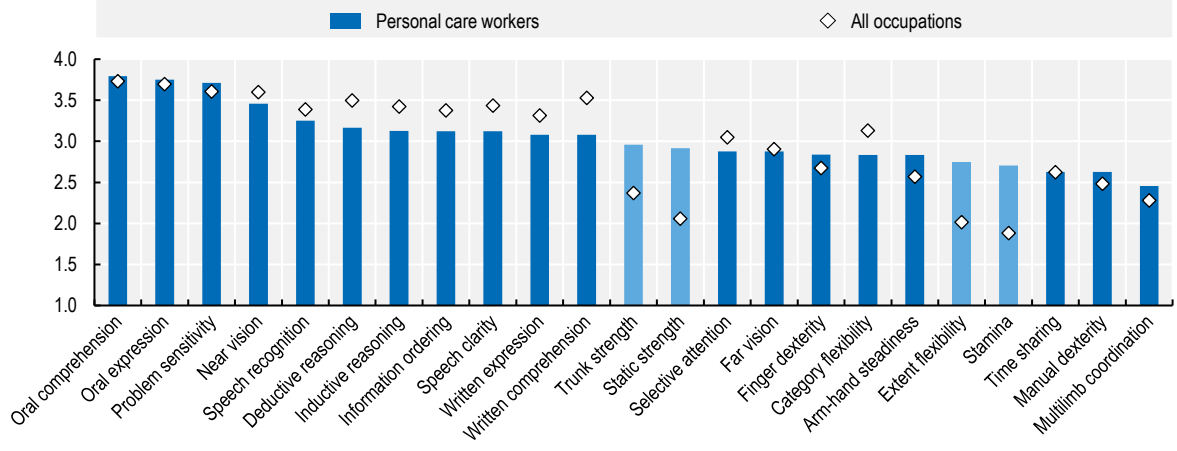
### *Abilities and skills needed by personal care workers*

The ONET database also provides an assessment of the importance of various abilities and of various skills needed for detailed occupations. Abilities are enduring attributes of an individual while skills refer to developed capabilities, typically in the process of learning or training.

The combination of communication and physical abilities is very specific to care jobs. For personal care workers,[5] the top three abilities that score at least 3.6 on the 5-level importance scale are oral expression, oral comprehension and the recognition of the existence of problems (problem sensitivity) (Figure 2.2). However, these specific skills are assessed with a similar importance in many other occupations, indicating that they are not exceptionally important for personal care workers. Some abilities related to intellectual problem solving, such as deductive and inductive reasoning, information ordering, written comprehension score above 3 among personal care workers, but below the average score for these tasks in other occupations on average. Physical abilities (trunk strength, static strength, extent flexibility and stamina) score between 2.5 and 3.0, hence substantially less than communication skills, but substantially more than the average overall across occupations.

## Figure 2.2. Most important abilities for personal care workers

Abilities assessed on the 1-5 importance scale



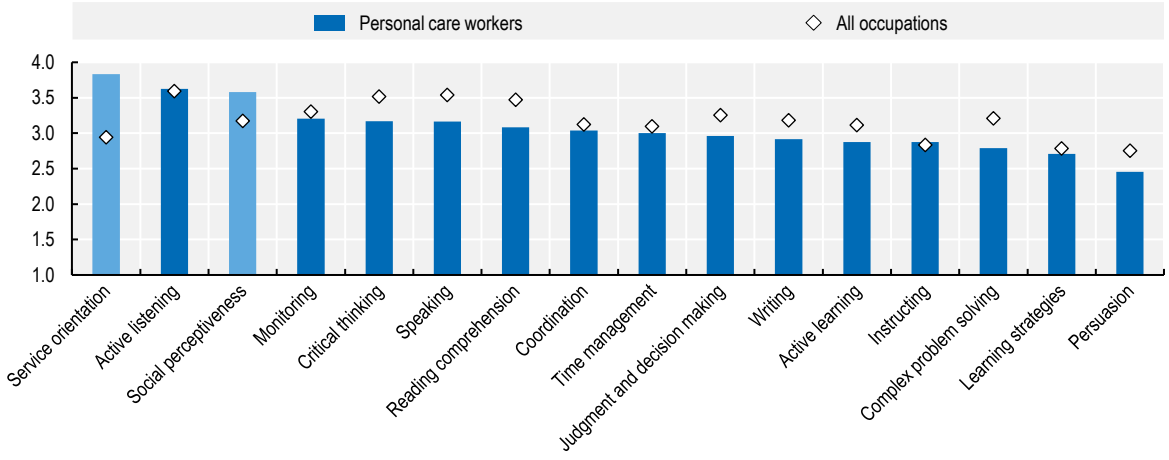

Note: The figure presents abilities which importance for personal care workers was assessed as at least 2.5 on average on the 1-5 scale. The average for all occupations is unweighted. Personal care workers is the average of personal care aides, home health aides and nursing assistants. Light blue colour highlights the abilities in which personal care workers scored substantially more than the average across all occupations.
Source: ONET, retrieved 10 September 2022.

StatLink https://stat.link/tw23vd

As for skills, communication skills are assessed to be of the highest importance for personal care workers. The top three, that scored at least 3.6 on the 1-5 scale, are: actively looking for ways to help people (service orientation); giving full attention to what other people are saying (active listening); and, being aware of others' reactions and understanding why they react as they do (social perceptiveness) (Figure 2.3). Additionally, service orientation and social perceptiveness are two skills in which personal care work scores substantially more than the average across all occupations. Some management skills, such as monitoring, co-ordination, time management are also important for personal care workers, as they score more than 3, which is slightly less than among all occupations on average. OECD (2020[1]) notices that minimum training requirements for personal care workers vary a lot among countries, and in many of them training requirements might not cover communication skills at the level needed by the job.

## Figure 2.3. Most important skills for personal care workers

Skills assessed on the 1-5 importance scale




Note: The figure presents skills which importance for personal care workers was assessed at least 2.5 on the 1-5 scale. The average for all occupations is unweighted. Personal care workers is the average of personal care aides, home health aides and nursing assistants. Light blue colour highlights the skills in which personal care workers scored substantially more than the average across all occupations.
Source: ONET, retrieved 10 September 2022.

StatLink https://stat.link/itvl40

The Lightcast database of online job offerings allows for the analysis of requirements in millions of actual job offers in many countries (Cammeraat and Squicciarini, 2021[6]). As it is updated almost in real time, these data can detect changes in job requirements much faster than ONET. Job offers for personal care workers often demand communication, teamwork and time-management skills, consistently across countries (Table 2.2). Additionally, skill requirement for personal care workers seem to differ substantially across countries and assertiveness appears among the three top skills in Austria, Denmark and Sweden while readiness to adapt to changes is requested in Finland, Germany, Luxembourg and the Netherlands.

### Table 2.2. Communication and time management skills are frequently listed in job offers for personal care workers in OECD countries

| Country | Up to 3 top skills most frequently appearing in job offers for personal care workers |
|---|---|
| Austria | Work in teams, assertiveness, communication |
| Australia | Building effective relationships, meal preparation, medication administration |
| Belgium | Show responsibility, work independently, manage time |
| Canada | Communication skills, caregiving, bathing |
| Germany | Adapt to change, assist customers, provide customer follow-up |
| Denmark | Provide information, assertiveness, show responsibility |
| Estonia | Assist customers, communicate with customers, |
| Spain | Person-centred care, work with nursing staff, communicate with nursing staff |
| Finland | Adapt to change, work in teams, outdoor activities |
| France | Think proactively, work in teams, provide customer follow-up |
| Ireland | Person-centred care, nursing principles, communicate with nursing staff |
| Italy | Assist customers, work in teams, show responsibility |
| Luxembourg | Adapt to change |
| Netherlands | Work in teams, adapt to change, problem solving |
| New Zealand | Caregiving, care planning, travel arrangements |
| Poland | Follow work schedule, small talk |
| Portugal | Communication, provide information, demonstrate enthusiasm |
| Sweden | Work in teams, assertiveness, manage time |
| Slovenia | Work in teams, assisting in planning nursing care, manage time |
| United Kingdom | Communication skills, teamwork, working with patient |
| United States | Communication skills, caregiving, ADLs assistance |

Note: Top three skills by countries, based on available job offers from all available years 2018-21 for most countries, but for 2012-21 for Australia, Canada, New Zealand, the United Kingdom and the United States. Due to small sample size, only two skills are reported in the Poland and one in Luxembourg.
Source: OECD based on Lightcast Data.

#### *Competency requirements and future challenges*

It is not clear whether the levels of competency requirements are always sufficient to ensure the good quality of LTC provision, including care recipients' safety. The absence of minimum education requirements may not be a problem across all staff, as the bulk of personal care workers' roles involve low-skilled tasks. However, the absence of minimum qualifications could be of concern when workers are allowed to perform specific tasks that require a higher level of expertise and knowledge.

OECD (2020[1]) highlights that several factors may lead to an increase in the importance of some of these competencies in the future, potentially raising training requirement levels. LTC provision may become more complex as older people's disabilities may increase with population ageing, while substantial dementia training is rarely included in the minimum training requirements for care staff. Moreover, recent evidence suggests the need to raise workers' awareness about basic issues that can have dramatic consequences for older people with most complex LTC needs. Also, the broader use of some devices, such as the use of oxygen delivery equipment, sensors alarming in the case of a fall, automatic blood pressure machines or hearing aid devices, can require more advanced skills and knowledge to guarantee their safety and/or effectiveness.

### *2.1.3. How many workers work at LTC jobs?*

The number of LTC workers are identified by crossing occupational and sectoral classifications in sectoral or economy-wide surveys. Occupational classification alone does not allow discriminating between care workers working in healthcare and LTC while care economic sectors cover also non-LTC activities and

non-LTC workers. Box 2.1 discusses in detail how LTC workers are identified using international classifications of occupations and economic activities. Although respondents in employment surveys may not work in formal employment, undeclared workers are likely to be underrepresented in such survey data.

### Box 2.1. Identification of LTC workers in international classification of occupations and economic activities

#### Occupations

International Standard Classification of Occupations (ISCO, 2008 edition) compiled by ILO (2012[4]) identifies personal care workers (code 53) within a broader group of service and sales workers (code 5).[6] The category 53 combines childcare workers and teachers' aides (code 531) and personal care workers in health services (code 532). Personal care workers in health services (532) includes nursing aides, home care aides and care assistants.

Nurses are also considered LTC workers if they work in the LTC sector. ISCO classification distinguishes two categories of nurses: nurse professionals (code 222) and nurse associates (code 322). Nurse professionals belong to health professionals (code 22), which includes also doctors and veterinarians. Nurse professionals assume responsibility for planning, management of the care of patients and supervise other care workers; they work autonomously. Nurse associates belong to heath associates (code 32) together with medical technicians and veterinary technicians, among others. Nurse associates provide nursing and personal care to people who are physically or mentally ill. They generally work under the supervision of other health professionals.

There are also some occupations, in which at least some tasks may be considered as part of LTC, but their identification might not be possible even with a 4-digit resolution. These are: among low-skill occupations, domestic cleaners and helpers (code 9111); among middle-skill occupations, physiotherapy technicians and assistants (code 3255) and social work associates (code 3412); and, among high-skill occupations, physiotherapists (code 2264), social work and counselling professions (code 2635).

#### Economic sectors

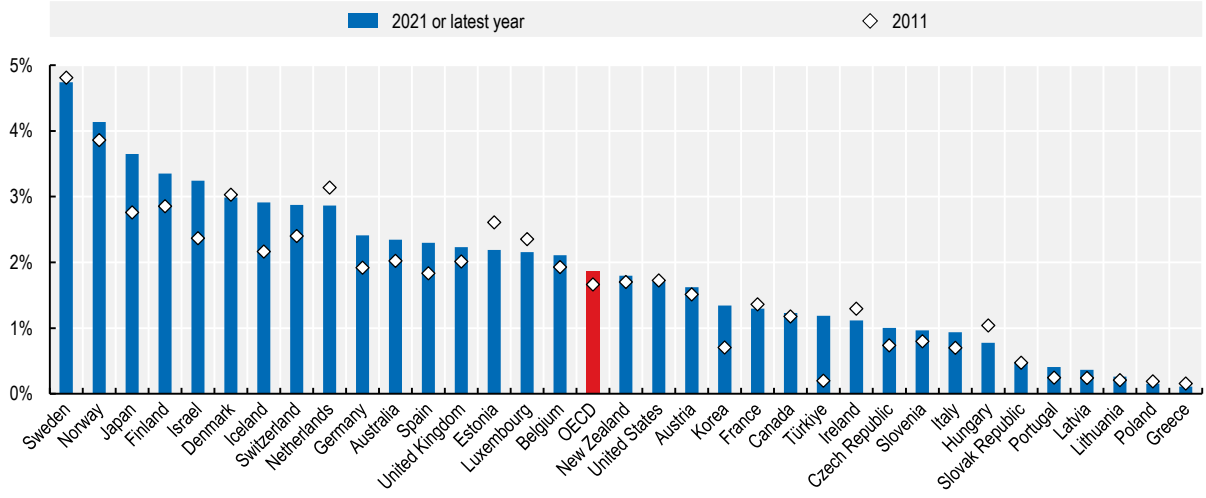
Economic activities are classified with ISIC classification (United Nations, 2008[7]) in most OECD countries, with regional and country level equivalents such as NACE in European Union or NAICS in the United States.[7] Human health and social work activities is part of non-market services. They include healthcare (code 86), residential care (code 87) and social work without accommodation (code 88). LTC activities are parts of the latter two categories. In particular, LTC activities include residential nursing care activities (code 871), residential care for the older people and disabled (code 873), and social work activities without accommodation for the older people and disabled (code 881). The following activities within sectors 87 and 88 are not part of LTC: residential care activities for mental retardation, mental health and substance abuse (code 872), other residential care activities (code 879) and other social work activities without accommodation (code 889). The latter two categories include some childcare activities. Yet, in many surveys only the two-digit classification is available. A precise definition of LTC workers compromises personal care workers in health services (532) and nurses (222 and 322) working in relevant care sectors: 871, 873 and 881.[8] This precise definition is applied to the PIAAC (OECD Survey of Adult Skills) data while EU labour force survey (EU-LFS) and structure of earnings survey (EU-SES) identify sectors only at the two-digit accuracy.

LTC workers made 1.9% of total employment in OECD countries in 2021, ranging from less than 0.3% in Greece, Lithuania and Poland to more than 4% in Norway and Sweden (Figure 2.4). That share increased from 1.7% on average in 2011 as a result of growth in two-thirds of OECD countries. Among them, increases were larger than 0.5 percentage points in Iceland, Israel, Japan, Korea and Türkiye.

The huge differences across countries in the share of LTC workers reflect differences in several factors: the development of the LTC sector, the scope of informal family care, the extent of LTC provision by hospitals, total and healthy life expectancy among others. The differences in population structure across countries explain only a fraction of cross-country variations, as the number of LTC workers per older people also varies greatly.

## Figure 2.4. The share of LTC workers in total employment is slowly increasing

Number of LTC workers as percentage of total employment

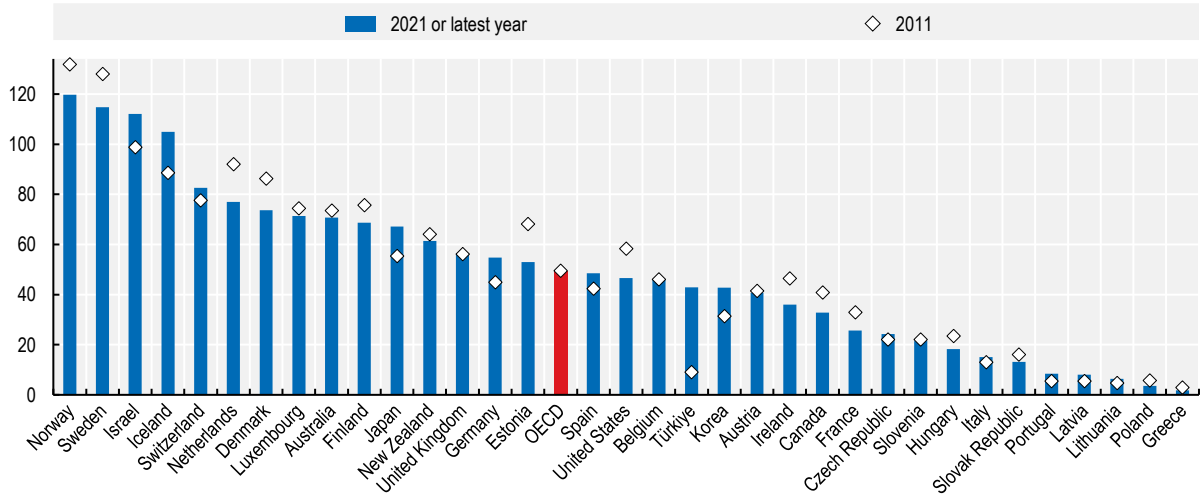



Note: LTC workers based on both the three-digit occupational classification and two-digit NACE classification. Data refer to 2020 for Australia, Canada, the Czech Republic, Estonia, Korea, Luxembourg, Norway, Sweden, Switzerland, Türkiye and the United States, and 2019 for Denmark, the Slovak Republic and the United Kingdom.
Source: OECD Health Statistics, EU-LFS and OECD Employment Database.

StatLink https://stat.link/nfhsuy

There were 49 LTC workers per 1 000 people aged 65 or more on average in the OECD countries in 2021 (Figure 2.5), ranging from more than 100 in Iceland, Israel, Norway and Sweden to less than 10 in Greece, Latvia, Lithuania, Poland and Portugal. This average ratio has been basically stable over the last decade. This means that the number of LTC workers has increased in line with the number of older people due to population ageing.

## Figure 2.5. Number of LTC workers per 1 000 people aged 65 or older has been stable on average



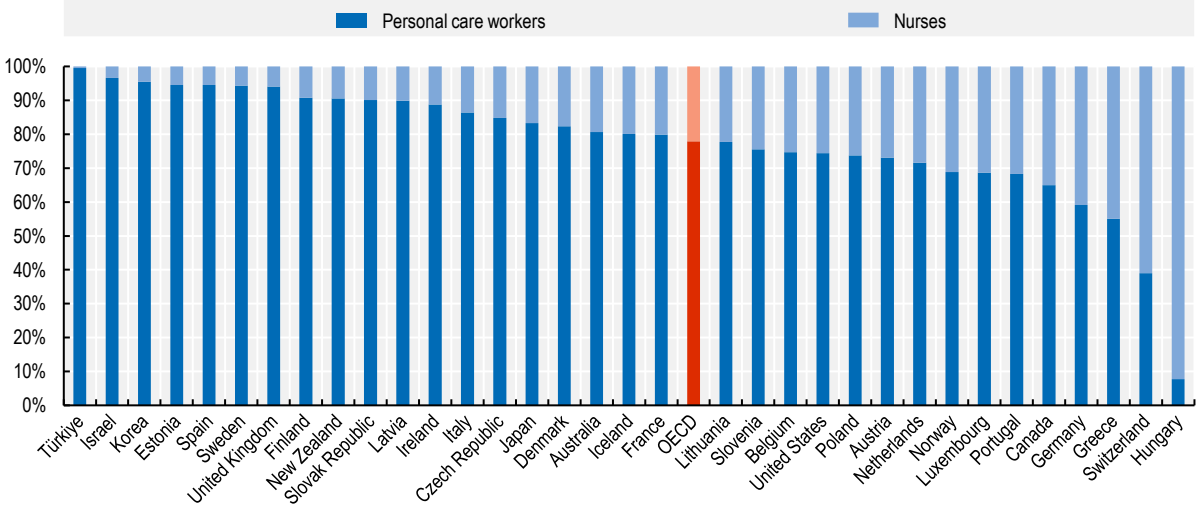

Note: LTC workers based on both the three-digit occupational classification and two-digit NACE classification. Data refer to 2020 for Australia, Canada, the Czech Republic, Estonia, Korea, Luxembourg, Norway, Sweden, Switzerland, Türkiye and the Untied States, and 2019 for Denmark, the Slovak Republic and the United Kingdom. A break in series for the Netherland was reported for 2012 (OECD, 2020[1]) and, thereby, data for 2013 were used. Due to potential break in series for Iceland, the 2013 data were used.
Source: OECD Health Statistics and EU-LFS.

StatLink https://stat.link/n86gi5

Personal care workers make 78% of LTC workers on average in the OECD and nurses constitute 22% (Figure 2.6). Only in Switzerland and Hungary do nurses constitute more than half of the LTC workers.[9]

## Figure 2.6. Personal care workers make 78% of the LTC workforce

2021 or latest year



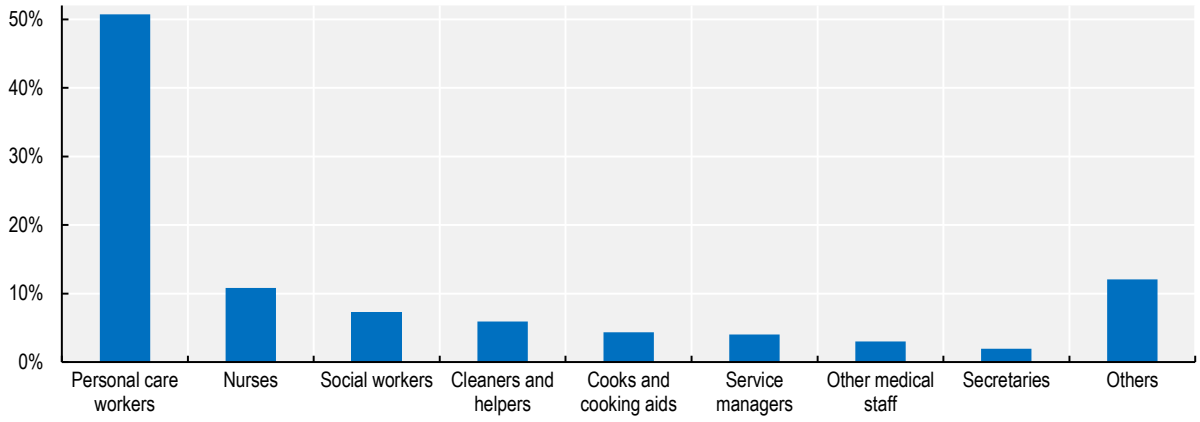

Note: The primary source of data is OECD Heath statistics and EU-LFS data for remaining countries. LTC workers based on both the three-digit occupational classification and two-digit NACE classification.
Source: OECD Health Statistics 2022 and EU-LFS.

StatLink https://stat.link/07lbnx

Based on the OECD Survey of Adult Skills (PIAAC) data, discussed in detail in the following sub-section, which allow for a precise identification of occupational categories, personal care workers constitute 51% of workers in the LTC sector (NACE Codes 871, 873 and 881) among 31 OECD countries (Figure 2.7). Nurses add another 11% and other medical staff, including doctors who account for 3%. Social workers represent 7% of total employment in the LTC sector, while food preparing staff and cleaners make about 5% each. Administrative and management staff provide 6% of total employment in the sector. Remaining occupations make 12% of sectoral employment.

### Figure 2.7. Occupational structure of the LTC sector

2017 or latest year




Note: In sectors 871, 873 and 881 of NACE classification of OECD countries. Sample size: 3 052.
Source: PIAAC data.

StatLink https://stat.link/bve68y

### *2.1.4. Is home-based care expanding faster than residential care?*

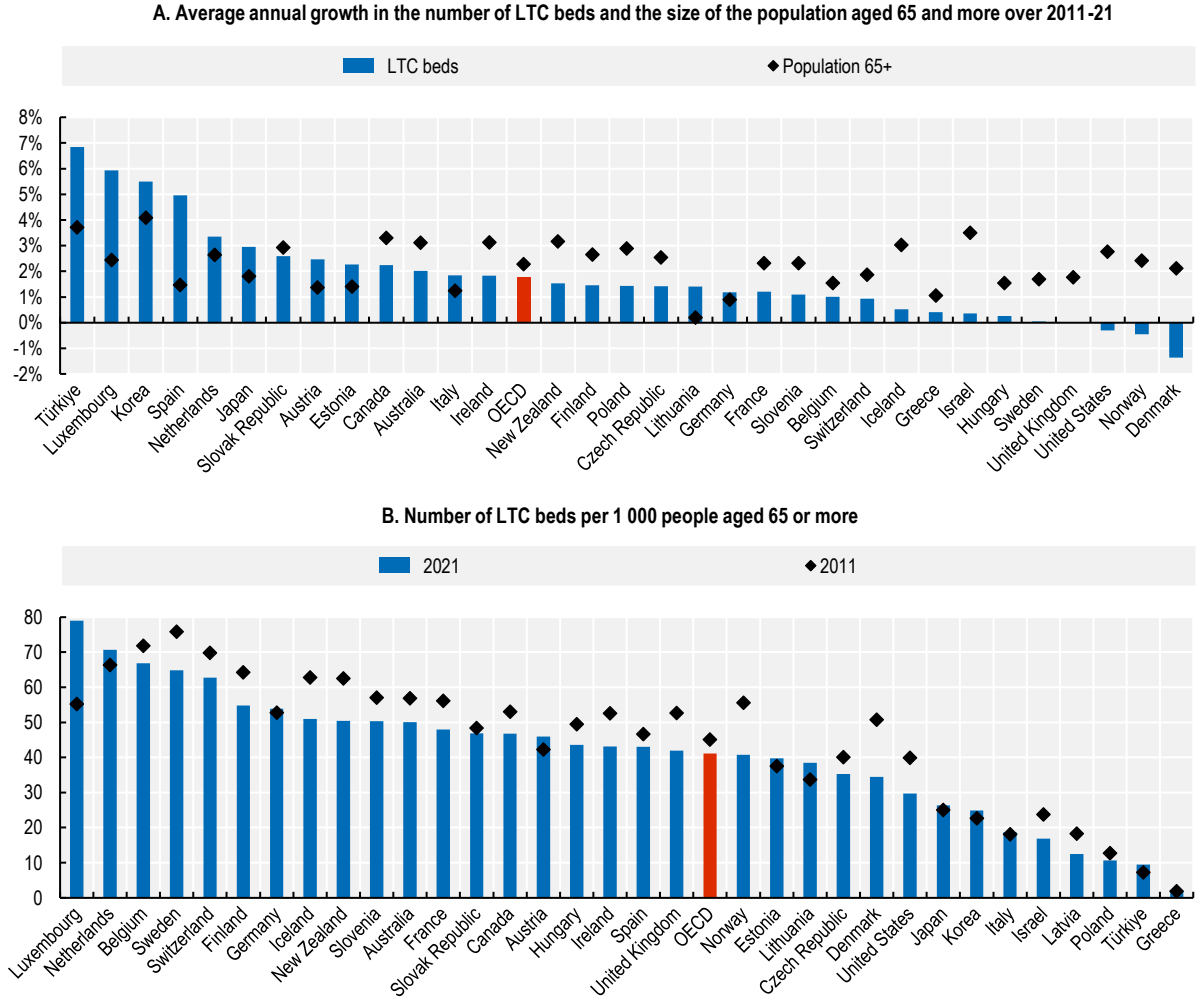
Home-based care allows care recipients to stay longer in their familiar environment and maintain more freedom while residential care entails moving to a different location and living in an institution. From a worker perspective, home-based care (at least those not based on live-in arrangements) may provide more independence and flexibility, closer relationships with care recipients, more diversity of tasks and a quieter and more personal setting. On the other hand, residential care gives more structure and routine, more options to work in teams and interact with colleagues, more people to care and resulting looser relationships with them, and a busier setting.

Historically, most countries have provided LTC in institutions. However, over the past few decades, many countries have pursued a "deinstitutionalisation" strategy, promoting home-based care solutions in order to both match care recipients' preferences for home-based ageing and contain spending. For example, Sweden reduced the share of care recipients in institutional care from 24% to 15% between 1992 and 2008 (Leichsenring, Ilinca and Rodrigues, 2015[8]). In addition to enhancing home-based services, these countries have promoted the use of community-based facilities as, for instance, day care centres. In some countries, the transition from residential care has been accompanied by the expansion of cash benefits to finance home care, which empowers older people to decide by themselves on what type of care to receive while it might have resulted in a larger use of informal care. More than half of the countries are transferring public LTC spending away from residential care and towards home-based care (OECD, 2020[1]). However, non-professional carers might not have enough training and skills while excess caring responsibilities of family members and friends are likely to cause stress and might be hard to reconcile with other jobs.

Consequently, the number of LTC beds in institutions has not kept pace with population ageing during the last decade, contrary to the period before. The number of people 65+ accelerated after 2010, from an average annual growth rate of 1.8% between 2000 and 2010 to 2.3% between 2011 and 2021. By comparison, the number of LTC beds decelerated from an average annual growth of 3.7% to 1.7% over the same periods (Figure 2.8, Panel A).

As a result, the number of LTC beds per 1 000 people aged 65 or more declined from 45 in 2011 on average across countries to 41 in 2021 (Figure 2.8, Panel B). Over that period, this ratio increased in about one-third of countries while it decreased by more than 10 points in Denmark, Iceland, New Zealand, Norway, Sweden, the United Kingdom and the United States. One important caveat is that the number of beds compared to the population 65+ is a rough measure because care needs increase strongly with age and differ across countries at similar ages, as discussed in more details in Chapter 5.

## Figure 2.8. Consistent with the shift towards residential care, the number of LTC beds has not kept pace with population ageing in the last decade



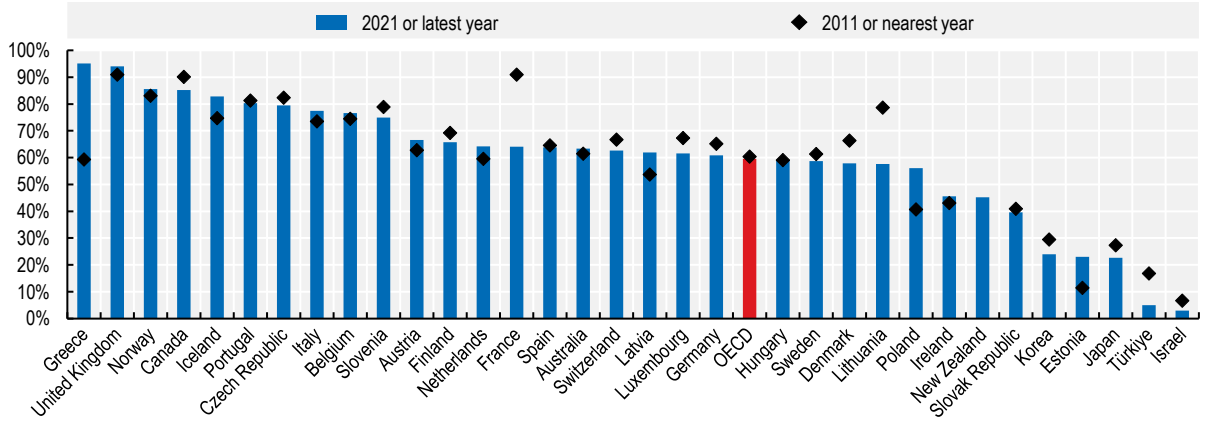

Note: Data refer to 2020 in Australia, Austria, the Czech Republic, Estonia, Finland, France, Hungary, Iceland, Japan, Korea, Lithuania, the Netherlands, Poland, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom; and to 2019 in Germany, Greece and the United States. The reported OECD averages refer to all available countries; averages for countries for which all data are available are: 1.5% for LTC beds 2011-21, 2.1% for Pop 65+ 2011-21.
Source: OECD Health Statistics 2022, https://doi.org/10.1787/health-data-en.

StatLink https://stat.link/gkyund

The deinstitutionalisation of LTC does not show up, however, in how LTC workers are split between residential and home-based care. On average across the OECD, the share of LTC workers working in residential care has remained close to 60% in 2011 and in 2021. The share of residential care substantially declined from a high level in France and Lithuania, while it increased substantially in Greece and Poland. In countries with a small LTC sector, e.g. Estonia, Greece, Latvia and Poland, expanding residential care might be the first step of developing the LTC sector and separating it from healthcare. In most OECD countries, except Estonia, Ireland, Israel, Japan, Korea New Zealand, the Slovak Republic and Türkiye, the majority of LTC workers work in residential care. More than 90% of LTC workers work in residential care in Greece and the United Kingdom (Figure 2.9). A large role of informal carers in many countries might blur the identification of changing trends in the data (OECD, 2020[1]).

### Figure 2.9. Most of LTC workers still work in residential care in the OECD

Workers of residential care as percentage of all LTC workers




Note: Data based on two-digit sector classification and three-digit occupational classification.
Source: OECD Health Statistics and EU-LFS data.

StatLink https://stat.link/rb186t

## 2.2. Wages of LTC workers

### *2.2.1. How do wages of LTC workers compare to those of other workers?*

Wages in healthcare (NACE 86) and education (NACE 85) are relevant reference points for LTC workers. Long-term care, childcare and mental care are grouped together in residential (NACE 87) and non-residential care (NACE 88) sectors, according to NACE classification. Apart from other professions, both the healthcare and the LTC sectors employ nurses and personal care workers. They provide personal services that are often financed and delivered by the public sector, grouped as non-market services, as the education sector.

This sub-section first compares average wages among selected sectors and then the analysis is narrowed to personal care workers and nurses as aggregate average sectoral wages reflect sectoral differences in the composition of occupations, including e.g. physicians. Due to data limitations, undeclared work is not accounted here. Finally, the evolution of relative wages over time is discussed.

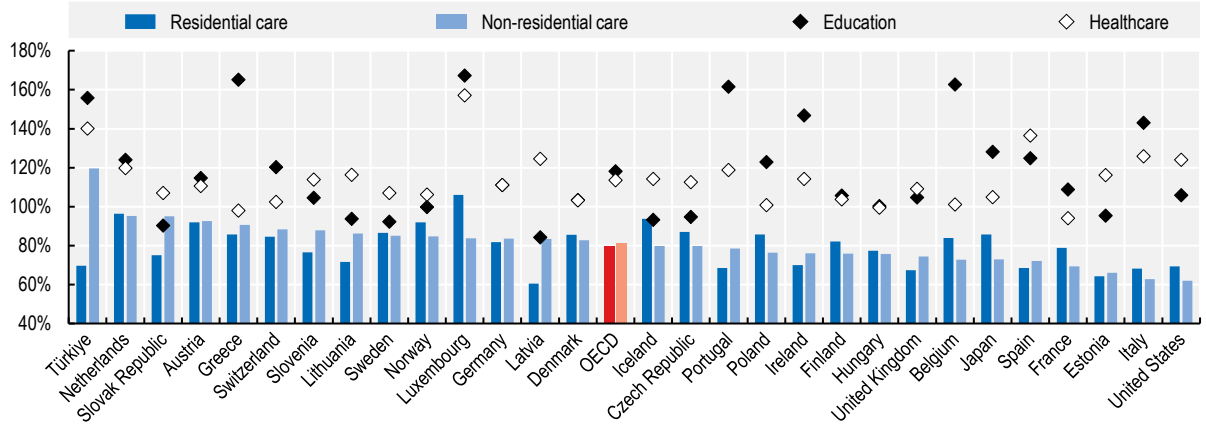
### *Workers in residential and non-residential care sectors earn on average 80% of economy-wide average wage*

On average across OECD countries, jobs in residential and non-residential care paid 80% and 81% of the economy-wide gross average hourly wage in 2018, respectively (Figure 2.10). These compare to 114% and 118% in the healthcare and education sectors, respectively. These sectoral averages are calculated for all workers in these sectors, including those not considered LTC workers in this report, e.g. doctors, cooks or accountants. Previous reports showed similar values: OECD (2020[1]) highlights a 40% median-wage difference between the LTC and the hospital sector in 2014 on average across OECD countries; according to Eurofound (2020[9]), workers in residential and non-residential care sectors were paid 80% of the average wage in 2014 on average in the EU compared to 111% for healthcare. The overrepresentation of personal care workers including nurse aids, partly explains low pay in LTC.

Both non-residential and residential care pay less than the average wage in all OECD countries except Türkiye for non-residential care and Luxembourg for residential care. Average wages in both sectors are higher than 90% of the total-economy wage in Austria and the Netherlands. By contrast, in Estonia, Italy and the United States they are lower than 70% in both sectors. Moreover, there is no common pattern across countries about whether average wages are higher or lower in the residential than in the non-residential care sector, which is explained by composition effects that are analysed in greater detail in the remaining of this section.

## Figure 2.10. Average hourly wages in selected economic sectors in OECD countries in 2018

Percentage of the economy-wide gross average hourly wage




Note: For the United States, healthcare wages refer to hospitals.
Source: OECD calculations 2018 EU-SES data, 2021 Occupational Employment and Wage Statistics (OEWS) survey data for the United States; and 2018 Survey on Working Conditions of Long-term Care Workers and 2018 Basic Survey on Wage Structure in Japan.

StatLink https://stat.link/brt8q5

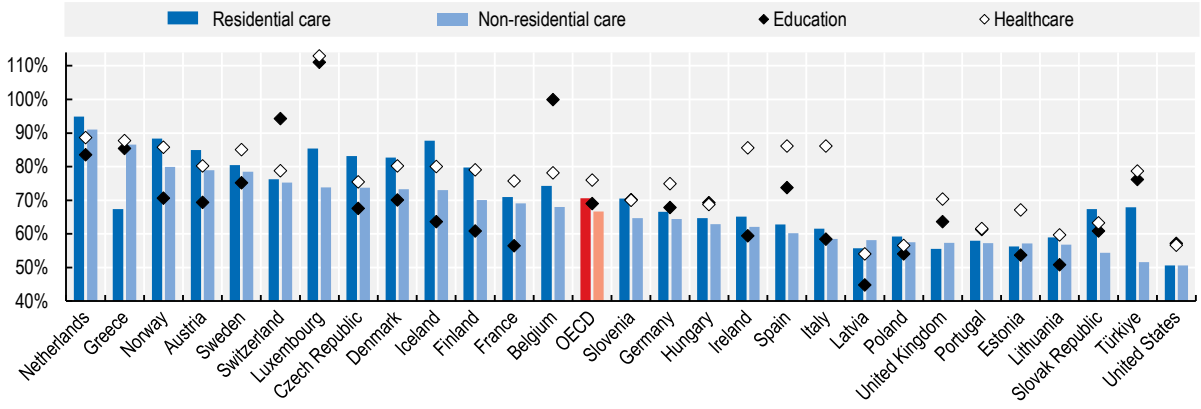
### *Personal care workers earn about 70% of the economy-wide average wage*

As discussed in Section 2.1, care sectors, and the LTC sector in particular, employ many professions, including physiotherapists, cooks, administrative staff, while only personal care workers and nurses working in LTC are considered LTC workers based on the OECD definition. Sectoral differences in average wages thus partly reflect wage differences across various professions (composition effects). When narrowing the comparison to one professional category, personal care workers, differences across sectors are much smaller.

Personal care workers employed in residential and non-residential care earn 71% and 67% of the economy-wide average wage, respectively (Figure 2.11). By comparison, personal care workers in education and healthcare earn 69% and 76%, respectively. Wages of personal care workers are higher in healthcare than in both residential and non-residential care in three-fifths of OECD countries, and the difference is larger than 20% of the average wage in Greece, Ireland, Italy, Luxembourg and Spain.[10] Personal care workers earn less in non-residential care than in residential care in a large majority of countries and by more than 10% of the average wage in Finland, Iceland, Luxembourg, the Slovak Republic and Türkiye. Only in Greece does residential care pay substantially less than non-residential care.

## Figure 2.11. Average hourly wages of personal care workers in selected sectors in 2018

As percentage of the economy-wide hourly gross average wage




Note: Personal care workers are those included 53 ISCO category, which groups together personal care workers and childcare workers. NACE sectors are: 85 education, 86 healthcare, 87 residential care, 88 non-residential care. For the United States, the category Home Health and Personal Care Aides (SOC 31-1120) identifies personal care workers.
Source: OECD calculations 2018 EU-SES data, and 2021 Occupational Employment and Wage Statistics (OEWS) survey data for the United States.

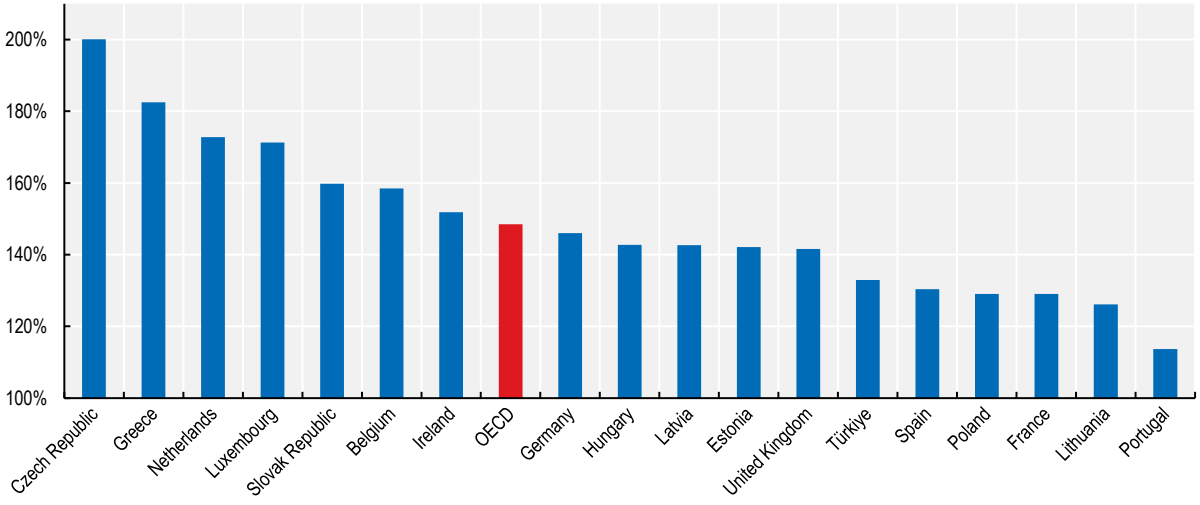
StatLink https://stat.link/70ixmd

As a share of the minimum wage, personal care workers in residential (NACE 87) and non-residential (NACE 88) care sectors earned 149% of the minimum wage in 2018 on average among countries having a minimum wage (Figure 2.12). This ratio ranges from 114% in Portugal to more than 170% in the Czech Republic, Greece, Luxembourg and the Netherlands. In the United States, 64% of nurse assistants in nursing homes earn between USD 10 and 15, compared to minimum wages of USD 7-9, varying by state (ASPE, 2020[10]).

However, an important share of LTC workers might be affected by minimum-wage settings. Before the introduction of the minimum wage in the United Kingdom in 1999, about 40% of LTC workers were paid below the newly introduced minimum wages level (Hussein, 2017[11]). Moreover, Vadean and Allan (2020[12]) show that an increase in the national minimum wage in 2015 and 2016 led to wage increases for a substantial share of LTC workers.

## Figure 2.12. Average hourly wages of personal care workers in residential and non-residential care sectors relative to minimum wages

As percentage of the minimum wage, 2018




Note: Personal care workers identified on as 53 ISCO occupational category and 87-88 NACE sectors. The OECD average reported for countries for which both series are available.
Source: OECD calculations based on EU-SES data and OECD data on minimum wages, https://stats.oecd.org/Index.aspx?DataSetCode=MW_CURP.

StatLink https://stat.link/d3lizp

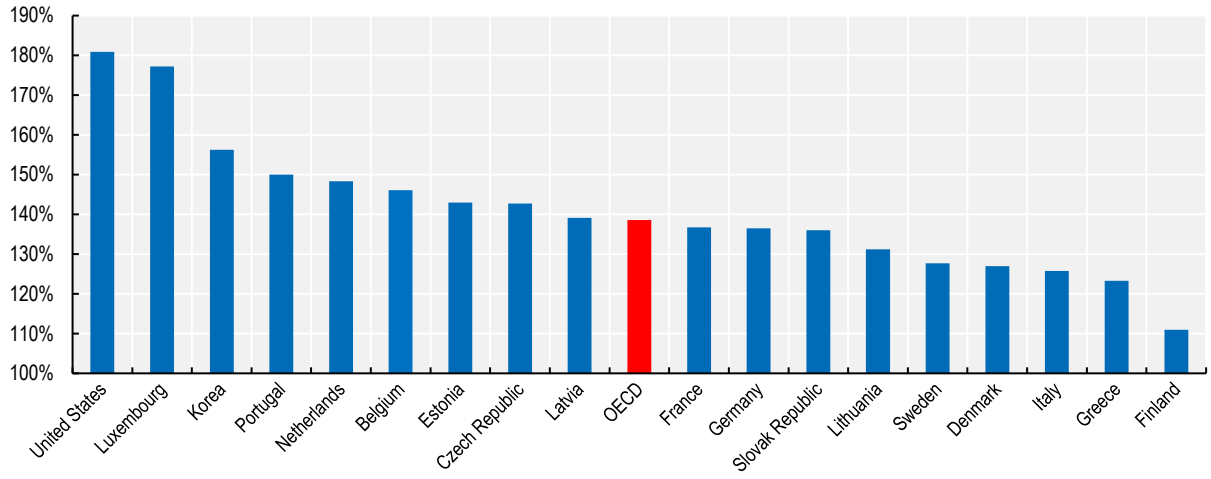
The hourly wage comparison between sectors and occupations might be blurred by not accounting for the travel time and by difficulties in measuring actual working time in live-in care arrangements. The reported working hours often do not include travel time, which is expected to be higher for LTC workers than for most other professions when LTC workers give several home visits a day. In some countries, paid time is restricted only to time spent with care recipients (OECD, 2020[1]). Furthermore, it is not straightforward to define the working time of workers who live with care recipients and may therefore be ready to provide assistance 24 hours a day. In Austria for example, LTC live-in carers are classified as self-employed with limited regulation on working hours (Trukeschitz, Österle and Schneider, 2022[13]).

### *Nurses earn substantially more than personal care workers*

In residential and non-residential care sectors, nurses earned 39% more than personal care workers on average in 2018 (Figure 2.13). This difference exceeded 50% in Korea, Luxembourg and the United States and was less than 30% in Denmark, Finland, Greece, Italy and Sweden.

## Figure 2.13. Nurses earn substantially more than personal care workers

Average hourly wages of nurses compared to personal care workers in residential and non-residential care sectors in 2018 or latest year




Note: Residential and non-residential care sectors are NACE sectors 87 and 88, respectively. The average wage of nurses is the weighted average of wages of nurse associates and nurse professionals, weighted by their size in employment. For Korea, data for nurses refer to an average based on different qualifications. Data for most countries for 2018, but Korea, the Netherlands, Portugal, and Sweden refer to 2014, while for the United States data refer to 2021.
Source: OECD calculations based on EU-SES data and OECD LTC workforce survey 2018.

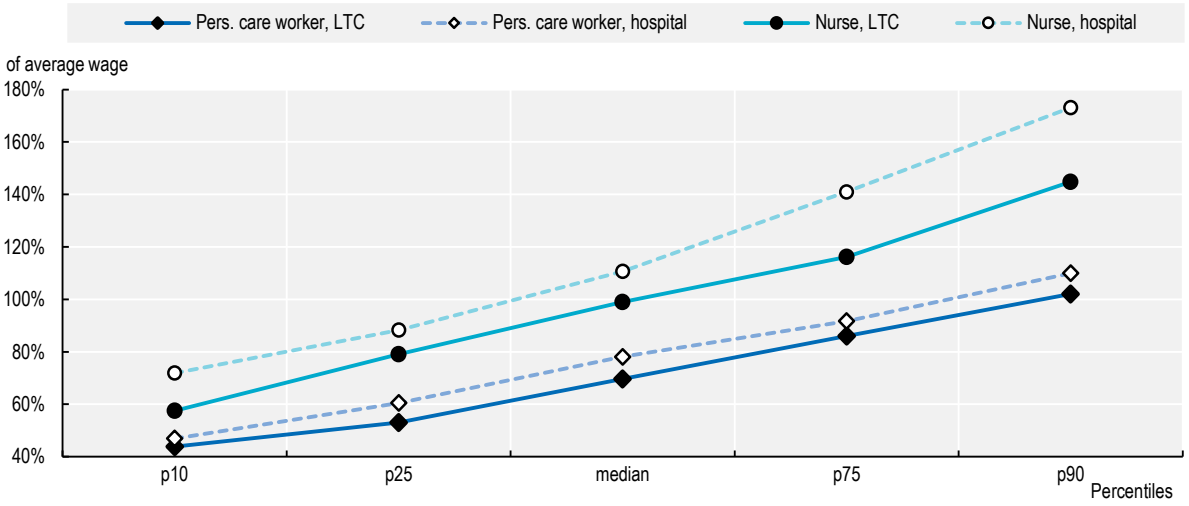
StatLink https://stat.link/9uwizy

The LTC sector, which includes only parts of residential and non-residential care sectors, pays lower wages than hospitals to both nurses and personal care workers on average. The median hourly wage for nurses in hospitals and in the LTC sector is equal to 111% and 99% of the average wage in the total economy, respectively (Figure 2.4). The difference is similar for personal care workers; their median hourly wage in hospitals and in the LTC sector is equal to 78% and 70% of the average wage, respectively.

A large share of personal care workers in the LTC sector have low wages. One-quarter of personal care workers earn less than 53% of the average wage in the LTC sector and less than 60% in hospitals. These compare to the minimum wage averaging around 45% of the average wage in OECD countries that have minimum wages. Additionally, only 10% of personal care workers working in the LTC sector earn at least the average wage, compared to 50% of nurses in this sector. The wage variation within personal care workers in the LTC sector is very similar to that of personal care workers in hospitals and only slightly below that of nurses. The wage of a personal care worker in either the LTC or hospital sectors at the ninth decile is equal to 2.3 times that of a worker at the first decile, compared with 2.5 and 2.4 for nurses in the LTC and hospital sectors, respectively.

## Figure 2.14. About one-quarter of personal care workers in LTC sector earn less than half the average hourly wage

Selected percentiles of wage distribution of selected occupations in LTC and hospital sectors, 2017 or latest year available




Note: Based on microdata from PIAAC for 31 OECD countries, which are described in detail in the next subsection. The LTC sector includes the following NACE sectors: 871, 873 and 881. The hospital sector is NACE 861. Personal care workers are identified by the 532 code of ISCO classification.
Source: OECD calculations based on PIAAC data.

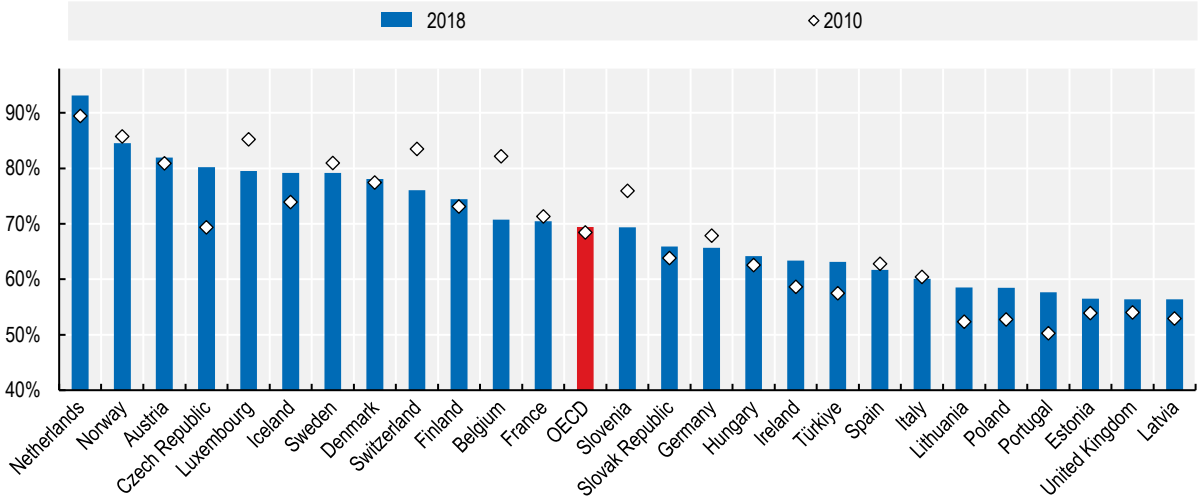
StatLink https://stat.link/ya1qv5

### *Wages of personal care workers in residential and non-residential care sectors have kept pace with the average*

Wages of personal care workers in residential and non-residential care sectors (NACE 87 and 88) as a ratio of the average wage in the overall economy tend to be stable, even though some countries have experienced substantial changes over time. The relative wage of personal care workers in residential and non-residential care sectors was stable on average across OECD countries, at 69% in 2018 compared with 68% in 2010 (Figure 2.15). It increased in 16 countries, at most by 11 points in the Czech Republic, and declined in 10 countries, and at most by 11 points in Belgium. A longer 25-year perspective, based on macro data for all occupations in social services, similarly shows a stability of relative wages on average in the OECD.[11]

## Figure 2.15. Wages of personal care workers kept pace with the average wage over the past decade

Wages of personal care workers in residential and non-residential care sectors as percentage of the average wage in 2010 and 2018




Note: Personal care workers identified on as 53 ISCO occupational category and 87-88 NACE sectors.
Source: OECD calculations based on EU-SES data.

StatLink https://stat.link/d7f5mi

### *2.2.2. What drives wages of LTC workers?*

*PIAAC data allows for a novel wage analysis of LTC workers*

The OECD Survey of Adult Skills (PIAAC) provides a unique and rich individual data source on workers' and firms' characteristics that allow to identify LTC workers precisely for 31 OECD countries. This is the first time PIAAC data are used to analyse LTC workers (Box 2.2). The regression analysis estimates the impact of different factors, such as age, gender, education, and tenure, on wages and highlights the remaining wage differences across professions and sectors, i.e. after having factored out the impact of their different composition in terms of age, gender, education, tenure etc.

Before commenting on the results of the econometric analysis, descriptive statistics show that relative wages based on PIAAC data are broadly consistent with those presented in the preceding sub-section based on earnings surveys. On average across OECD countries, nurse associates (ISCO code 322) earn slightly less (2%) in all sectors than the average wage for the whole economy. Compared to nurse associates, personal care workers (ISCO code 532) earn 26% less while nurse professionals (ISCO code 222) earn 27% more. The average wage in the LTC sector is 23% lower than for the total economy, while it is 11% higher in the hospital sector (NACE code 861), hence the LTC sector pays on average 31% less than hospitals.[12] These sectoral differences are partly driven by differences in the composition of workforce in terms of education and occupations.

## Box 2.2. Wage regression with PIAAC data

Compared to data sources for the statistics reported above, the sample size of PIAAC is much smaller. This implies that there are limited options to report cross-country differences, but it allows for a deeper look into the determinants of wages in the LTC sector. PIAAC identifies precisely the LTC sector (i.e. NACE codes 871, 873 and 881) within residential and non-residential care sectors (NACE codes 87 and 88).

The analysis is based on a wage regression through which individual, job and firm characteristics are among key factors driving individual wages. It provides insights into the determinants of wage differences between LTC workers and other workers. Table 2.3 presents estimates with Panel A covering only personal care workers and nurses in the LTC and hospital sectors, and Panel B covering all workers in the economy. Estimates might differ between the total and restricted samples because, for example, gender pay gap or returns to education might be very different in various sectors. These differences provide important insights on the specificity of wage setting in LTC sector.

Results of the econometric analysis are presented in Table 2.3, with Panel A covering only the LTC and hospital sectors (restricted sample) and Panel B covering all sectors in the economy (full sample). The restricted sample allows for a more precise estimate of the effects at play in the LTC sector. While the effects – for example of age, education, tenure, etc. – estimated from the restricted sample applies to workers in the hospital and LTC sectors indistinctly, effects that would apply to workers in the LTC sector specifically have been tested, but no significant differentiated effects have been found.[13] This is why in the text the estimated effects can be described as applying to LTC workers. The full sample makes it possible to compare hourly wages of LTC workers more broadly with those of individuals with similar characteristics but working in all other occupations and sectors.

## Table 2.3. Wage regression results

Estimates of wage regression explaining hourly wages with individual, job and sector characteristics

Dependent variable: Log (hourly gross wage)

| | A. Sample restricted to hospital and LTC sectors (NACE 861, 871, 873 and 881) | | B. Full sample | |
|---|---|---|---|---|
| Variables | Coefficients/effects | Standard errors | Coefficients/effects | Standard errors |
| Personal care workers | -0.147** | 0.020 | -0.122** | 0.017 |
| Nurses professionals | 0.123** | 0.020 | 0.218** | 0.017 |
| Nurse associates (ref.) | 0.000 | | 0.055 | |
| LTC sector (average) | -0.076** | 0.017 | -0.041 | |
| – Residential nursing homes | | | -0.003 | 0.016 |
| – Residential care for older people | | | -0.043** | 0.016 |
| – Non-residential, social work for older people | | | -0.078** | 0.016 |
| Hospitals (ref.) | 0.000 | | 0.013 | |
| Women | -0.076** | 0.019 | -0.142** | 0.003 |
| Foreign-born | 0.029 | 0.017 | -0.052** | 0.005 |
| Age | 0.021** | 0.004 | 0.039** | 0.001 |
| Age squared | -0.001** | 0.000 | -0.001** | 0.000 |
| – *marginal effect at age 22* | *0.012* | | *0.020* | |
| – *marginal effect at age 45* | *0.001* | | *0.001* | |

| | | | | |
|---|---|---|---|---|
| Education (number of years) | 0.020** | 0.003 | 0.035** | 0.001 |
| Education in health-related field (number of years) | 0.010** | 0.001 | | |
| Reading skills (per 100 points, approx. 2 x std. dev.) | 0.037 | 0.025 | 0.022** | 0.006 |
| Numerical skills (per 100 points, approx. 2 x std. dev.) | 0.036 | 0.023 | 0.078** | 0.005 |
| Tenure | 0.016** | 0.002 | 0.016** | 0.000 |
| Tenure squared | -0.001** | 0.000 | -0.001** | 0.000 |
| – *average per year over the first 10 years* | *0.013* | | *0.014* | |
| Hours worked (monthly, logarithm) | 0.583** | 0.134 | 0.300** | 0.030 |
| Hours worked (monthly, squared logarithm) | -0.084** | 0.015 | -0.054** | 0.003 |
| Public sector (relative to private sector) | 0.065** | 0.015 | | |
| Non-profit sector (relative to private sector) | 0.056* | 0.027 | | |
| Firm size (ref: 1-10 employees) | | | | |
| – 11 to 50 employees | 0.021 | 0.022 | | |
| – 51 to 250 employees | 0.058** | 0.022 | | |
| – 251 to 1 000 employees | 0.041 | 0.025 | | |
| – More than 1 000 employees | 0.055* | 0.026 | | |
| Country dummies | yes | | yes | |
| Sector dummies | yes | | yes | |
| Occupation dummies | yes | | yes | |
| Overall statistics | | | | |
| Number of observations | 3 336 | | 91 421 | |
| Adjusted R squared | 64% | | 63% | |

Note: In Panel B, sectoral and occupational dummies were rescaled so that the average value of dummies, weighted by the employment shared, equals 0. *, ** stand for p values of 0.05 and 0.01. Among the explanatory variables, the PIAAC scores are divided by 100. Sample included only nurses (ISCO codes: 222 and 322) and personal care workers (ISCO code 532) in hospitals (NACE 871) residential care (NACE 871 and 873) and non-residential care (881). The LTC sector estimate for the full sample is the average of the estimates of NACE sectors: 871, 873 and 881. Observations from the top and bottom 1% of hourly earnings and top 1% of working hours were removed. Public sector and firm size dummies where not included in the full sample estimates not to interfere with sectoral dummies. PIAAC data cover the following countries: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Japan, Korea, Lithuania, Mexico, the Netherlands, New Zealand, Norway, Poland, the Slovak Republic, Slovenia, Spain, Sweden, Türkiye, the United Kingdom and the United States. Sample sizes of countries were not corrected and no weighting of observations was used. For the restricted sample, interaction terms of LTC sector with gender, foreign-born and occupational variables were tested separately and they were not statistically significant. Regression was estimated with OLS.
Source: OECD analysis based on PIAAC data.

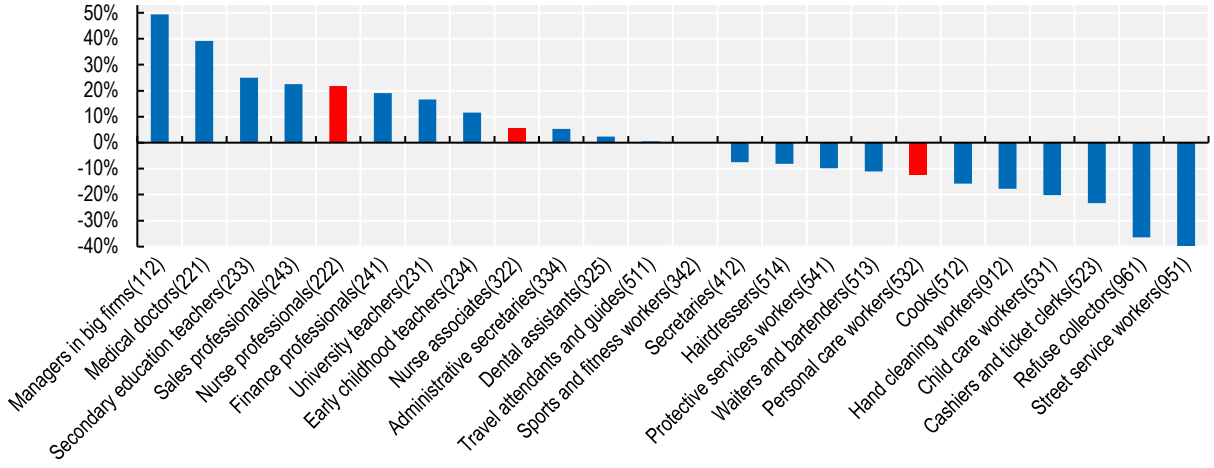
### *Half of wage differences between personal care workers and nurses relates to differences in education and other personal characteristics*

When both workers' and sectoral characteristics are controlled for, i.e. for the same age, number of years of education, tenure, etc., personal care workers earn 14.7% less than nurse associates in the LTC sector (Table 2.3, Panel A in Box 2.2). This implies that slightly less than half of the observed hourly-wage difference (25.7%) between personal care workers and nurse associates is explained on average by individual (and firm) differences including age, number of years of education, tenure, etc. This also means that more than half of the wage differences that are detrimental to personal care workers relative to nurse associates are not explained by these factors.[14] Additionally, nurse professionals earn 12.3% more than

nurse associates beyond what is explained by workers' and firms' characteristics. This is less than half of the 26.9% observed in the raw data on average. With a broader dataset, Hirsch and Schumacher (2012[14]) show that accounting for working conditions in the wage regression reduces by half the wage premium estimated for registered nurses in the United States.

In the sample with all sectors, for similar characteristics – i.e. when gender, education, etc. is taken into account – working as a personal care worker is associated with lower hourly wages by 12.2% compared with the average across occupations (Figure 2.16).[15] This negative occupational effect is similar to that of waiters (-11.1%), and larger in absolute terms than for hairdressers at -8.1% but smaller than for cooks (-15.8%) or refuse collectors (-36.5%). The estimation does not seem to fully capture the intensive education training of medical specialists: medical doctors earn 39.1% more than explained by individual characteristics and nurse professionals earn 21.8% more, in line with sales professionals, while university teachers earn 16.7% more. Nurse associates earn 5.5% more than the average occupation with similar individual characteristics, similar to administrative secretaries.[16] Across all occupations, estimates range from -40% for street service workers to 49% among the managers of largest companies.

## Figure 2.16. Selected occupational effects in the wage regression, percentage




Reading Note: The value of -12.2% for personal care workers mean that they earn 12.2% less than people with similar characteristics on average in all occupations.
Note: Coefficients from a wage regression for all workers were rescaled so that their average, weighted by number of observations, equals 0. Occupations are identified at 3-digit ISCO08 classification (130 different occupations). Only selected occupations are presented at the figure.
Source: OECD calculations based on PIAAC data.

StatLink https://stat.link/h1fjwk

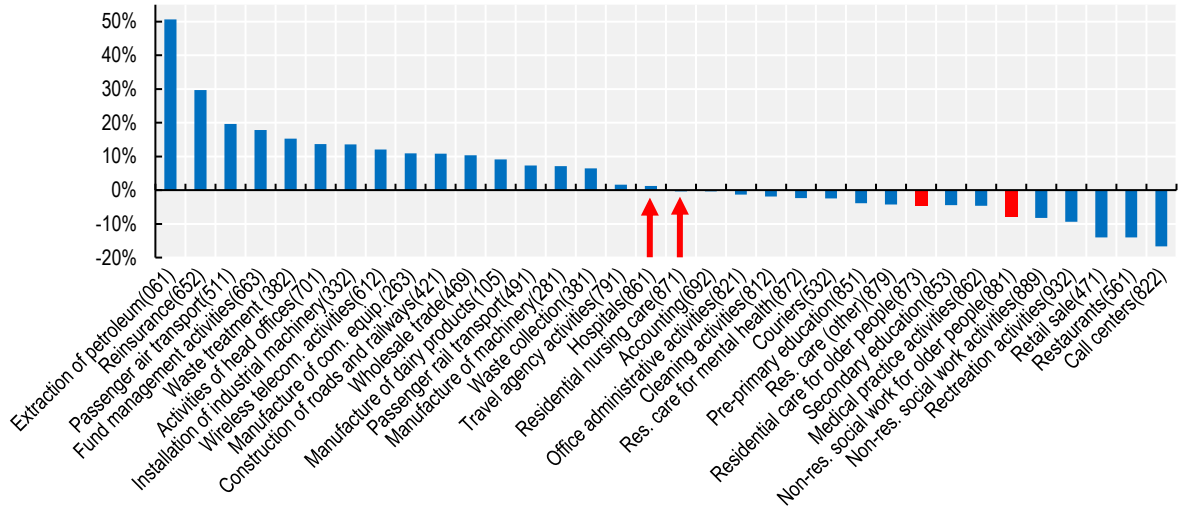
### *The LTC sector pays significantly less than the hospital sector to similar workers*

The LTC sector is estimated to pay wages that are 7.6% lower than in the hospital sector for similar workers and similar jobs (Table 2.3, Panel A in Box 2.2). This sectoral effect is much lower than the 30.7% average-wage difference between both sectors, which implies that about three-quarters of this large average difference between hospital and the LTC sectors reflects differences in workers' characteristics.

When all sectors and occupations are included (Table 2.3, Panel B in Box 2.2), the LTC sector pays 4.1% (on average) less than the average sector for similar characteristics (Figure 2.17). Residential care in the broad sense distinguishes in the data nursing homes and residential care for the older people. On top of assistance with daily living provided in less specialised residential care facilities, nursing homes provide

medical assistance from nurses. This effect comes from -0.3% for nursing homes, -4.3% for residential care for older people and -9.0% for non-residential care for older people. By comparison, the wage effect (compared to the average sector) for hospitals is +1.3% higher wages compared to the average. A negative wage effect in the LTC sector is consistent with the estimated wage pattern in labour-intensive service sectors: retail sales and restaurants pay 14.1% less all other things equal, call centres pay 16.6% less, amusement and recreational activities pay 9.3% less, and pre-primary education 3.8% less. By contrast, sectors such as extraction of petroleum or reinsurance pay 25% or more.

### Figure 2.17. Selected sectoral effects in the wage regression for the total sample, percentage




Reading Note: The value of -9.0% for non-residential care for older people means that workers in the non-residential care for older people earn 9.0% less than workers with similar characteristics on average across all sectors.
Note: Coefficients from a wage regression for all workers were rescaled so that their average, weighted by number of observations, equals 0. Sectors identified at 3-digit NACE2 classification (238 different sectors). Only sectors are presented at the figure.
Source: OECD calculations based on PIAAC data.

StatLink https://stat.link/pmdt19

#### *Gender differences in hourly wages are lower for LTC workers than on average for other workers*

Although a significant gender wage gap among LTC workers exists, which should by itself be a source of concern for policy makers, women are less penalised in the LTC and hospital sectors than in the overall economy. Among LTC workers, women's "raw" hourly wages are 2% lower than men's on average. The gender gap in hourly wages is low in part because women on average have 2.7 more years of tenure than men (8.0 versus 5.3 years). When correcting for this along with other personal characteristics, the gender hourly wage difference among LTC workers in similar jobs and with similar characteristics is significant and estimated at 7.6% (Table 2.3, Panel A in Box 2.2). Although this means that in a sector where women represent more than 85% of employment, they still earn less than men doing the same job and having otherwise similar characteristics, this is substantially less than in the whole economy, where the female "penalty" is estimated at 14.2% (Table 2.3, Panel B in Box 2.2). Consistently, Eurofound (2021[15]) reported that the gender pay gap is larger in high-pay sectors and lower in low-pay services such as accommodation and food.

*Regression results do not provide evidence of pay discrimination against foreign-born LTC workers*

When controlling for personal and firm characteristics, in the overall economy (Table 2.3, Panel B in Box 2.2), foreign-born workers are estimated to receive wages that are 5% lower than workers born in the country. However, for the sample restricted to the LTC and health sectors, the binary variable identifying foreign-born individuals is not statistically significant (Table 2.3, Panel A in Box 2.2). Without controlling for individual characteristics, i.e. based on raw data, among LTC workers, foreign-born workers earn 4% more per hour than those born in the country on average. Hence, both average hourly earnings and the wage regression do not deliver evidence that foreign-born LTC workers face wage discrimination. However, this might result from not fully accounting for the income of undeclared migrant workers whose working conditions are likely to be worse than in the formal sector while they might be largely underrepresented in surveys, including in PIAAC. Frequent undeclared employment of migrant workers was confirmed by Triantafillou et al. (2010[16]) while Lightman (2020[17]) found significantly lower wages among foreign-born individuals in the care sectors, but this was based on annual earnings, not hourly earnings as studied here. Chapter 3 discusses the situation of migrant LTC workers in more detail.

*Higher wages for those with health-related education, working in larger companies and in the public sector*

Every year of non-health related education is estimated to increase hourly wages of personal care workers and nurses in the hospital and LTC sectors by 2.0% compared to 3.0% when education is pursued in a health-related field (Table 2.3, Panel A in Box 2.2).[17] The returns to education are somewhat lower than in other sectors because in the full sample the average return is estimated at 3.5%. Moreover, all other things equal, public-sector and non-profit institutions are estimated to pay around 6% more than private-sector companies, and larger firms employing more than 50 employees pay about 5% more than those employing less than 11 people. This might result from stronger collective bargaining setting in larger and public companies, discussed in greater detail in Section 2.4. Consistently, Hussein (2017[11]) notes that for-profit providers pay substantially lower wages than non-for-profit entities in the United Kingdom.

### *2.2.3. Why do LTC jobs pay low wages despite labour shortages?*

Similar to the results of the regression analysis above, many other empirical studies identify substantially low pay for care jobs. More precisely, wages are typically found to be low for medical aids and personal carers, in particular in childcare, while they are average or high for nurses and doctors (Folbre, Gautham and Smith, 2020[18]; Dwyer, 2013[19]; Budig, Hodges and England, 2018[20]; Lightman, 2020[17]; Barron and West, 2011[21]).

These wage disadvantages affecting care workers compound with the difficult working conditions in the LTC sector. Indeed, difficult working conditions in LTC jobs would justify higher wages than for workers with similar characteristics in less arduous sectors. Based on PIAAC data, 18% and 14% of non-working former LTC workers in residential and domestic care, respectively, point to bad health as the reason for leaving their last job, compared to 12% and 10% in healthcare and all sectors, respectively (Table 2.4).[18] Chapter 3 provides more evidence on poor working conditions in LTC jobs.

### Table 2.4. Health is an important reason for ending residential LTC jobs

The main reason for stop working in the last job, percentage

| | Giving up work for health reasons | An end of a temporary contract | Retirement or early retirement | Dismissed or resigned for other reasons |
|---|---|---|---|---|
| Healthcare | 11.9 | 16.3 | 23.7 | 48.1 |
| Residential care | 18.4 | 16.9 | 14.9 | 49.9 |
| Domestic care | 14.4 | 24.2 | 11.1 | 50.4 |
| All sectors | 9.6 | 21.1 | 14.2 | 55.3 |

Note: Each row adds to 100%.
Source: OECD calculations based on PIAAC data.

This part assesses other factors explaining low wages in the LTC sector beyond those highlighted in the above analysis. At first glance, it may be puzzling that low wages and poor working conditions are recorded in a sector characterised by unmet needs and labour shortages. First, mechanisms that can help explain this puzzle are highlighted. The analysis then turns to discussing why individual characteristics that are not observable in earnings surveys partly explain low wages of LTC workers. The "devaluation of women's work" hypothesis is sometimes raised to explain why cultural norms result in low wages in care jobs. Other explanations for low wages may refer to the potential role of occupational entry barriers, sharing profits between companies and employees (rent-sharing) and monopsony power of companies.

#### *Low wages and labour shortages*

There may be a paradox to find low wages in a sector such as LTC often reported to suffer from labour shortages, as analysed in more detail in Chapter 5. Labour shortages refer to a situation where labour demand exceeds labour supply at a given wage. Barnow, Trutko and Piatak (2013[22]) define occupational labour shortage as "a sustained market disequilibrium between supply and demand in which the quantity of workers demanded exceeds the supply available and willing to work at the prevailing wage and working conditions at a particular place and point in time".

When market forces are at play, the existence of unmet demand should drive wages up both to attract more workers and to limit (labour) demand though higher prices of services. There are reasons, however, that could explain why these market forces do not work properly within LTC. Causality could also work the other way. Too low wages are likely to result in labour shortages. In that case, one key question refers to whether this is a temporary phenomenon or whether market forces face obstacles that perpetuate the disequilibrium.

Veneri (1999[23]) describes labour shortages in the dynamic context, i.e. referring to the situation in which demand continually grows more rapidly than supply. Even though wages and labour supply may be increasing, a shortage may result because they cannot keep up with demand (Arrow and Capron, 1959[24]). A slow reaction by employers or by workers will delay the needed adjustments. It may take time for employers to recognise the difficulty of finding workers or for workers to realise the opportunities available. Also, response time may be slowed by institutional barriers, such as limited enrolment capacity in training institutions or requirements such as licensing and certification. As shown in Section 2.1, the number of LTC workers has increased substantially over last 20 years while their wages have been rising at the pace or slightly faster than the average wage on average across countries (Figure 2.15).

Unmet demand is different from unmet needs because needs are expressed irrespective of price or wage levels. There are typically two main reasons why needs may not be fulfilled. First, the person in need is not ready to pay, due to for example, low current income and limited savings, the price expected by the service provider. Second, the state is not ready to spend enough resources to ensure the service is

delivered to meet the needs, likely resulting in lower wages. In the second situation, unmet needs and labour shortages are closely related.

### *Amenities and unobserved characteristics of workers*

Accounting for workers' characteristics that are not observable in many earnings surveys contributes to explaining low wages of care workers. Some surveys follow individuals who switch jobs over time and are, therefore, able to account for all time-constant characteristics, including those unobservable. Unobserved characteristics may include preferences, personal traits and unobserved skills. Studies based on such data show substantially lower, but still statistically significant, wage penalties for care jobs. For example, England, Budig and Folbre (2002[25]) estimate that after controlling for those unobserved characteristics wages of workers are around 5% lower in care jobs.[19] No wage penalty was observed among nurses. For the United Kingdom, Barron and West (2011[21]) find that personal care workers face a wage penalty of between 6% and 18%. Hirsch and Manzella (2014[26]) question the fact that wages in care-related jobs are substantially lower than in other jobs. Applying a continuous measure of care intensity to all occupations, they find that, after controlling for unobserved heterogeneity, the substantial wage penalties associated with caring remain statistically significant but are around three times lower.

More specifically, amenities (non-wage characteristics of jobs such as perks or flexible working time options), which are largely unobservable, may contribute to explaining low wages in the LTC sector. LTC workers often perceive their work as meaningful, even slightly more so than healthcare workers and much more often than workers in other sectors (Eurofound, 2020[9]). On top of that, despite low wages, personal care workers report relatively high job satisfaction.[20] Dodson and Zincavage (2007[27]) show that LTC workers value the family-like relationship present in LTC jobs. Additionally, if part-time employment opportunities are scarce elsewhere, the possibility to work part-time in LTC jobs might be in demand. Indeed, Erosa et al. (2022[28]) show that a preference to work shorter hours strongly affects occupational choices. According to Vadean and Allan (2020[12]), the majority of workers entering the LTC sector have low education levels and limited access to higher-paid jobs and/or are looking for part-time or flexible working-time jobs that can be fitted around other (caring) responsibilities. Moreover, some aspects of care jobs might attract workers with specific personality traits that are not well rewarded on the labour market. For example, Collischon (2019[29]) reported that agreeableness – a person's ability to put other people's needs above their own – is negatively correlated with wages.[21]

### *Devaluation of women's work*

LTC jobs may pay low wages due to cultural reasons. LTC involves many tasks, such as nurturing, that have been traditionally ascribed to women and delivered within families without remuneration. Skills associated with mothering are more likely to be seen as "natural" and, thus, be either unnoticed or considered as not deserving remuneration. This may result in care tasks being culturally undervalued and thereby underpaid as argued by "devaluation of women's work" hypothesis (England, Budig and Folbre, 2002[25]). Chapter 4 discusses the lack of social recognition of LTC work in greater detail. Cultural undervaluation may lead not only to lower wages of women overall, but also to lower pay in care occupations for both men and women, even lower than in other feminised occupations such as administrative work (Lightman, 2020[17]; Razavi and Staab, 2010[30]). Palmer and Eveline (2010[31]) argue that employers in Australia associate care jobs with self-sacrifice, love and family values in their recruitment communication to rationalise maintaining low wages in this sector.

The "devaluation of women's work" hypothesis has been tested empirically but without a clear conclusion. For Sweden, Magnusson (2008[32]) shows that, while gender-balanced occupations seem to enjoy most prestige,[22] care work does not have lower prestige than other jobs. Magnusson (2013[33]) further shows that wages for similar workers are highest in occupations with a balanced mix of men and women. Ochsenfeld (2014[34]) tests three hypotheses behind gender sorting to different jobs in Germany:

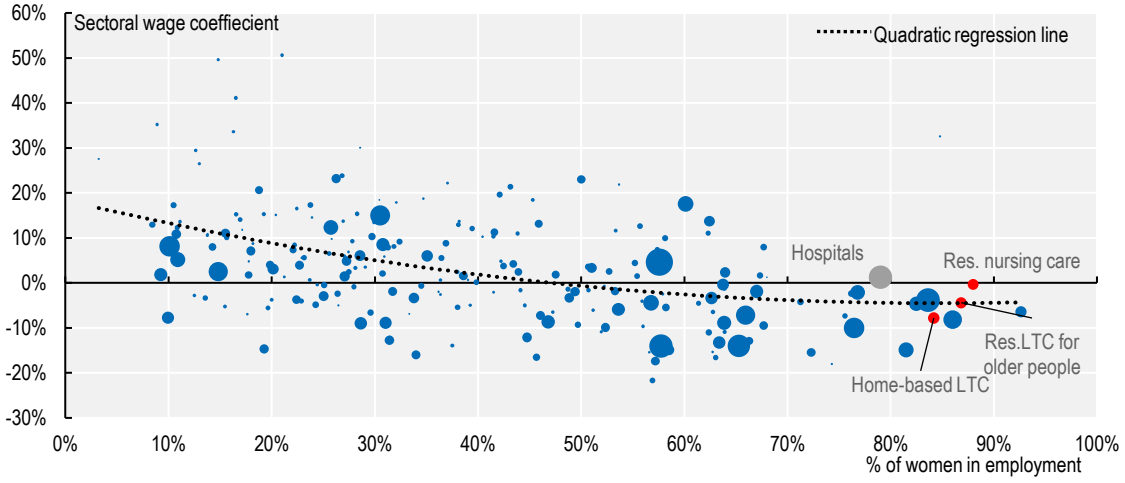
differences in human capital; devaluation of women's jobs; and differences in the career approach between genders. He finds empirical justification only for the latter: men tend to be more career driven and get higher paid jobs. The high proportion of women in caring sectors may also result from the fact that they provide a vast majority of caring tasks at home and sort into jobs requiring similar or complementary skills.

Results from the wage regression (Box 2.2) do not confirm any clear pattern between wages and the share of women in professions. The statistical relation between estimated relative wages and the share of women in professions is statistically insignificant. However, men (women) tend to work more often in sectors – rather than professions – that pay higher (lower) wages for individuals with similar work characteristics (Figure 2.18).

More precisely, sectors in which 90% of workers are men pay 14% more than those with equal gender shares in employment for similar workers of the same sex. Sectors with only 10% of men pay 4% less on average. The residential and non-residential care sectors are both extremely feminised, slightly more than healthcare. The estimated sectoral wage effects are negative for home-based care and residential care for older people (as shown Figure 2.18) while it is close to 0 for nursing homes and hospitals.

### Figure 2.18. Highly feminised sectors including LTC tend to pay lower wages

Estimated hourly wages relative to the average wage and gender balance by three-digit economic sectors in OECD, 2017 or latest year




Note: The area of the bubbles corresponds to the number of workers in a given occupation or sector. Sectoral wage coefficient are estimates from the model described in Box 2.2, Panel B. They show sectoral wages assuming that the structure of employment characteristics such as age, gender, education, tenure etc. is the same in all sectors. Coefficients of sectors from a wage regression for all workers were rescaled so that their average, weighted by the sectoral employment size, equals 0. The trends are polynomials of degree 2 fitted with minimum least square. The fitted equation for sectors: $y = 0.3084x^2 – 0.5337x + 0.1828$ is statistically significant at the 95% confidence level.
Source: OECD calculations based on PIAAC data.

StatLink https://stat.link/rqvd6k

#### *Entry barriers*

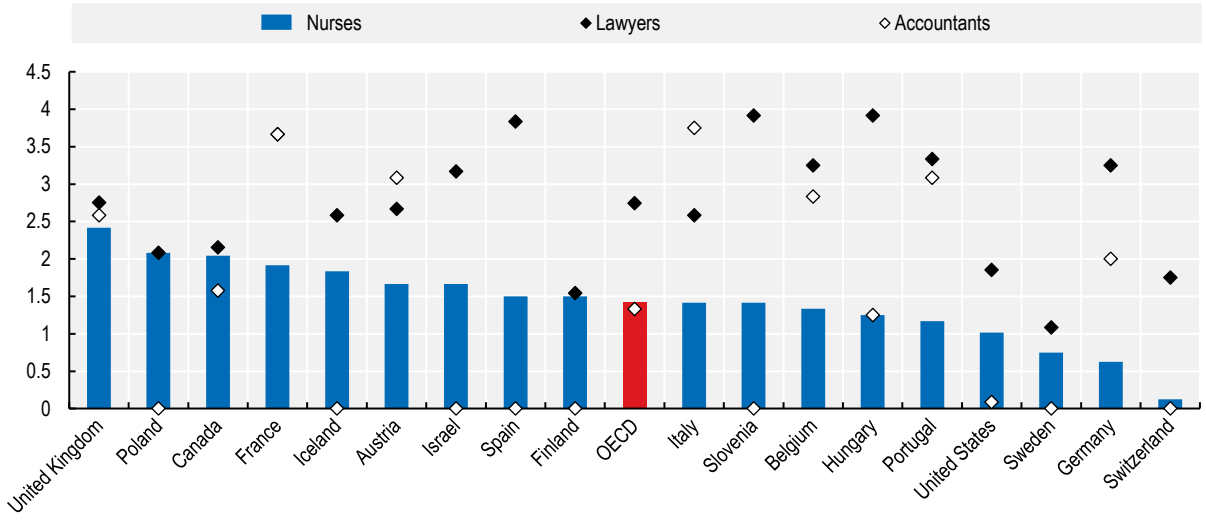
Occupational entry regulations, in the form of licencing or certification, might reduce job mobility and employment while increasing wages and improving both service quality and job quality (Giesecke, Groß and Stuth, 2020[35]; Weeden, 2002[36]; Bol and Weeden, 2014[37]). Executing a licenced activity is restricted to those who hold the licence, while performing a certified activity is open to everyone with only the use of the occupational title being restricted. Von Rueden and Bambalaite (2020[38]) show that 15-35% of the workforce is subject to licencing in EU countries and the United States, which may noticeably boost

earnings for workers with those occupations. Licencing and certification are common for nurses, but uncommon for personal care workers. This might explain partly why the estimated professional effects from the regression model (Figure 2.19) are negative for personal care workers relative to nurses.[23]

The OECD Occupational Entry Regulation index measures entry restrictions for some regulated occupations, including nurses. It does not measure the service quality or safety of clients or patients. The value of 0 means that there are no regulatory barriers to entry an occupation while the value of 6 would correspond to a fully regulated profession. The most regulated occupation, among those covered by the indicator, are lawyers with an average score of 2.7 (Figure 2.19). Nurses (excluding nursing aides or assistants) scored 1.4, exactly equal to driving instructors and similar to accountants. In all covered OECD countries, the nurse occupation is regulated and the occupational title is protected. Nurses are most strictly regulated (score above 2) in Canada, Poland and the United Kingdom, while they are less regulated in Germany, Sweden and Switzerland (score below 1). In almost all OECD countries the nurse profession is licenced, except Germany and Switzerland where only certification is required.[24] Compulsory practice to performing this occupation is required only in Belgium, some provinces of Canada and France. Examinations are required in Austria, Canada, Germany and the United Kingdom. The number of nurses is not limited by law in any of OECD countries. In Canada, Finland, France, Hungary, Italy, Poland, Portugal, Spain, the United Kingdom, it is mandatory to be a member of the occupational association to practice (von Rueden and Bambalaite, 2020[38]).

## Figure 2.19. Regulation of nurse profession varies substantially across OECD countries

OECD Occupational Entry Regulations (OER) Indicator 2020




Note: The value for the United States is the average for all states, and in the case Canada this is the average of all provinces.
Source: Occupational Entry Regulations (OER) Indicator 2020, http://www.oecd.org/economy/growth/occupational-licensing-and-productivity/.

StatLink https://stat.link/2qx4sj

### *Financing constraints, rent sharing and labour market power*

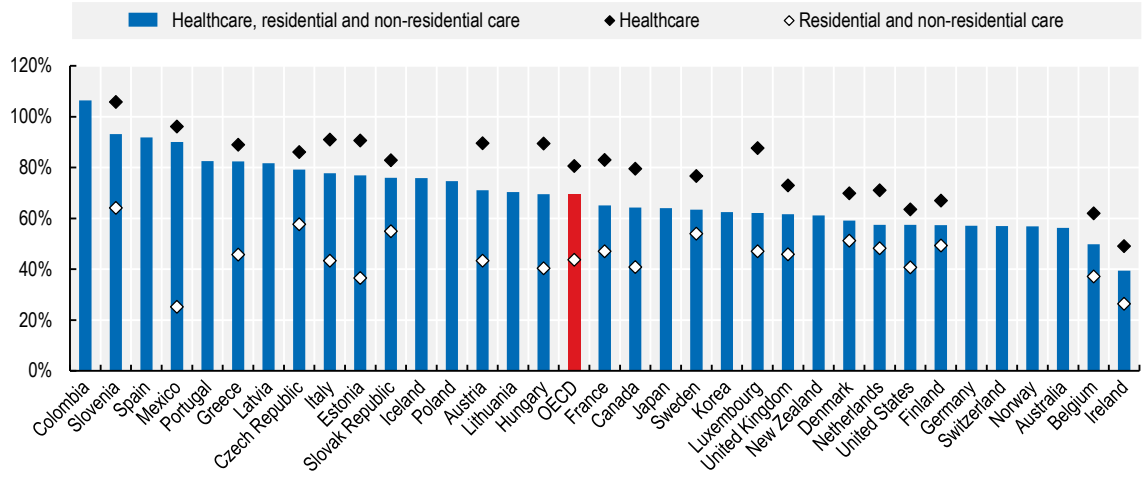
Scarce public resources, limited capacity to pay out-of-pocket for LTC services and low labour market power of LTC workers, as for example related to monopsonic market structures, may contribute to low wages in the LTC sector. LTC services are, in many countries, largely financed from the public purse, implying that LTC providers compete for resources with providers of other public services (Barron and West, 2011[21]). Household income is often not enough to cover the costs of intensive LTC, in particular at older ages when

people rely on pensions and private savings. When financial resources are scarce, for example due to public finance constraints, or if the political process produces relatively low willingness to pay for public services that often involve caring, then both low wages and low employment can follow (Hirsch and Manzella, 2014[26]).

On average in OECD countries, value added per worker, which reflects wages, capital intensity and profits, in residential and non-residential care sectors is less than half of the economy-wide average. So-called labour- and product-market imperfections, including those driven by entry barriers and monopoly power, result in rents that companies might share with employees. Therefore, more profitable companies or sectors tend to have a high level of value added per worker and to pay higher wages. Moreover, prices of LTC services are often subject to public contracting, which may leave little space for higher wages or profits. On average across OECD countries, value added per worker is equal to 44% of the economy-wide average in the case of residential and non-residential care sectors alone, and to 81% in the case of healthcare (Figure 2.20). Moreover, in their cross-country analysis, Ferragina and Parolin (2021[39]) show that differences in labour-market and welfare-state institutions, such as collective bargaining coverage, employment protection and social spending, may explain most of the cross-country variation in the extent of low wages in care jobs in the United States and European countries. Chapter 3 discusses collective bargaining in the LTC sector.

## Figure 2.20. Value added per worker in residential and non-residential care sectors is lower than in most other sectors

As percentage of the average for all sectors 2020 or latest year




Note: OECD averages for all available countries are presented at the figure. The average of healthcare and social work for countries for which all three series are available was 68%. Health care, residential care and non-residential care are NACE sectors: 86, 87 and 88, respectively.
Source: OECD National Accounts, https://stats.oecd.org/Index.aspx?DataSetCode=SNA_TABLE6A.

StatLink https://stat.link/4ls8bi

The low labour market power of personal care workers contributes to low wages. Groups known to possess low labour market power due to limited labour market opportunities are overrepresented among LTC workers. Given their unequal share in care responsibilities, women are less prone to commute for better-paid jobs and more often tend to prefer part-time and flexible employment. Similarly for migrants, decent job opportunities are scarce due to discrimination, lower language proficiency and legal restrictions on job mobility. Availability of unpaid family care additionally lowers the labour market power of LTC workers. Furthermore, given that the majority of LTC expenditure is financed from public purse in most countries, governments may influence wages of LTC workers directly, when they are the major employer or, indirectly, through setting prices of LTC services.

In some professions, monopsony power by firms could explain why wages are low and employment limited. As a result of their dominant position on local labour markets, large or colluding employers might possess monopsony power that allows them to limit both wages and employment in order to reap larger economic rents. OECD (2022[40]) empirically assesses the scope of labour market concentration, which is one factor (other factors for example include search frictions) that may lead to monopsony, in OECD countries. In 15 OECD countries, 16% of all workers are in labour markets that are at least moderately concentrated and 10% even work in highly concentrated markets.[25]

Labour markets for personal care workers are less concentrated that the economy-wide average, hence market concentration does not explain relatively low wages of personal care workers: only 12% of personal care workers work in moderately or highly concentrated labour markets on average in 15 OECD countries.[26] Matsudaira (2014[41]) finds that LTC employers were able to recruit at the market wage as many new nurse-aids – who belong to the personal care workers category – as required by the increased mandatory minimums for staff-to-patient ratios. Furthermore, Prager and Schmitt (2021[42]) show that an increase in labour market concentration following hospital mergers negatively affected wages of only skilled workers, such as nurses, and did not affect wages of lower skilled workers, such as personal care workers.

Monopsony may indeed affect the wages of nurses more often than those of personal care workers. About one-third of nurses work in moderately or highly concentrated labour markets on average in 15 OECD countries, which is substantially higher than the average for all workers. Additionally, a number of studies show that the own-firm labour supply of nurses does not react strongly to changes in firm wages, suggesting a potentially substantial role of monopsony (Staiger, Spetz and Phibbs, 2010[43]; Sullivan, 1989[44]). Yet, Hirsch and Schumacher (2005[45]) report high mobility of nurses across employers and the low correlation between their wages and hospital concentration. The mixed evidence on the role of monopsony for nurses might be related to the fact that their market power, stemming from e.g. entry regulations discussed above, might offset firms' bargaining power related among others to potentially high labour market concentration.

## References


Arrow, K. and W. Capron (1959), "Dynamic Shortages and Price Rises: The Engineer-Scientist Case", *The Quarterly Journal of Economics*, Vol. 73/2, p. 292, https://doi.org/10.2307/1883726. [24]

ASPE (2020), *Potential impacts of minimum wage increases on nursing homes*, https://aspe.hhs.gov/sites/default/files/migrated_legacy_files//195091/MWImpactIB.pdf. [10]

Barnow, B., J. Trutko and J. Piatak (2013), "How Do We Know Occupational Labor Shortages Exist?", *Employment Research*, Vol. 20/2, pp. 4-6, https://doi.org/10.17848/1075-8445.20(2)-2. [22]

Barron, D. and E. West (2011), "The Financial Costs of Caring in the British Labour Market: Is There a Wage Penalty for Workers in Caring Occupations?", *British Journal of Industrial Relations*, Vol. 51/1, pp. 104-123, https://doi.org/10.1111/j.1467-8543.2011.00884.x. [21]

Billington, M. and N. Foldnes (2021), "Exploring the association between occupational complexity and numeracy", *Large-scale Assessments in Education*, Vol. 9/1, https://doi.org/10.1186/s40536-021-00112-6. [5]

Bol, T. et al. (2019), "School-to-Work Linkages, Educational Mismatches, and Labor Market Outcomes", *American Sociological Review*, Vol. 84/2, pp. 275-307, https://doi.org/10.1177/0003122419836081. [50]

Bol, T. and K. Weeden (2014), "Occupational Closure and Wage Inequality in Germany and the United Kingdom", *European Sociological Review*, Vol. 31/3, pp. 354-369, https://doi.org/10.1093/esr/jcu095. [37]

Budig, M., M. Hodges and P. England (2018), "Wages of Nurturant and Reproductive Care Workers: Individual and Job Characteristics, Occupational Closure, and Wage-Equalizing Institutions", *Social Problems*, Vol. 66/2, pp. 294-319, https://doi.org/10.1093/socpro/spy007. [20]

Cammeraat, E. and M. Squicciarini (2021), "Burning Glass Technologies' data use in policy-relevant analysis: An occupation-level assessment", *OECD Science, Technology and Industry Working Papers*, No. 2021/05, OECD Publishing, Paris, https://doi.org/10.1787/cd75c3e7-en. [6]

Collischon, M. (2019), "The Returns to Personality Traits Across the Wage Distribution", *LABOUR*, Vol. 34/1, pp. 48-79, https://doi.org/10.1111/labr.12165. [29]

Dodson, L. and R. Zincavage (2007), ""It's Like a Family": Caring labor, exploitation, and race in nursing homes", *Gender & Society*, Vol. 21/6, pp. 905-928, https://doi.org/10.1177/0891243207309899. [27]

Dwyer, R. (2013), "The Care Economy? Gender, Economic Restructuring, and Job Polarization in the U.S. Labor Market", *American Sociological Review*, Vol. 78/3, pp. 390-416, https://doi.org/10.1177/0003122413487197. [19]

England, P., M. Budig and N. Folbre (2002), "Wages of Virtue: The Relative Pay of Care Work", *Social Problems*, Vol. 49/4, pp. 455-473, https://doi.org/10.1525/sp.2002.49.4.455. [25]

Erosa, A. et al. (2022), *Labor Supply and Occupational Choice*, National Bureau of Economic Research, Cambridge, MA, https://doi.org/10.3386/w30492. [28]

Eurofound (2021), *Understanding the gender pay gap: What role do sector and occupation play?*, European Jobs Monitor series, Publications Office of the European Union, https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef21039en.pdf. [15]

Eurofound (2020), *Long-term care workforce: Employment and working conditions*, Publications Office of the European, https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef20028en.pdf. [9]

Ferragina, E. and Z. Parolin (2021), "Care earnings in the United States and 24 European countries: The role of social policy and labour market institutions", *Social Policy & Administration*, Vol. 56/1, pp. 118-137, https://doi.org/10.1111/spol.12759. [39]

Folbre, N., L. Gautham and K. Smith (2020), "Essential Workers and Care Penalties in the United States", *Feminist Economics*, Vol. 27/1-2, pp. 173-187, https://doi.org/10.1080/13545701.2020.1828602. [18]

Giesecke, J., M. Groß and S. Stuth (2020), "Occupational Closure and Wage Inequality: How Occupational Closure Effects Vary Between Workers", *KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie*, Vol. 72/S1, pp. 157-195, https://doi.org/10.1007/s11577-020-00677-0. [35]

Goos, M., A. Manning and A. Salomons (2009), "Job Polarization in Europe", *American Economic Review*, Vol. 99/2, pp. 58-63, https://doi.org/10.1257/aer.99.2.58. [3]

Handel, M. (2016), "The O*NET content model: strengths and limitations", *Journal for Labour Market Research*, Vol. 49/2, pp. 157-176, https://doi.org/10.1007/s12651-016-0199-8. [2]

Hirsch, B. and J. Manzella (2014), "Who Cares - And Does It Matter? Measuring Wage Penalties for Caring Work", *IZA Discussion Paper Series* No. 8388, https://doi.org/10.2139/ssrn.2550448. [26]

Hirsch, B. and E. Schumacher (2012), "Underpaid or Overpaid? Wage Analysis for Nurses Using Job and Worker Attributes", *Southern Economic Journal*, Vol. 78/4, pp. 1096-1119, https://doi.org/10.4284/0038-4038-78.4.1096. [14]

Hirsch, B. and E. Schumacher (2005), "Classic or new monopsony? Searching for evidence in nursing labor markets", *Journal of Health Economics*, Vol. 24/5, pp. 969-989, https://doi.org/10.1016/j.jhealeco.2005.03.006. [45]

Hussein, S. (2017), ""We don't do it for the money" … The scale and reasons of poverty-pay among frontline long-term care workers in England", *Health & Social Care in the Community*, Vol. 25/6, pp. 1817-1826, https://doi.org/10.1111/hsc.12455. [11]

ILO (2012), *International Standard Classifcation of Occupations*, International Labour Organization. [4]

Kim, Y., S. Kyoung and Y. Lee (2020), "A Study of Care Workers' Wages and Relevant Factors in South Korea", *Healthcare*, Vol. 8/2, p. 178, https://doi.org/10.3390/healthcare8020178. [48]

Law, M. and M. Marks (2013), "From Certification To Licensure: Evidence From Registered And Practical Nurses In The United States, 1950-1970", *The European Journal of Comparative Economics*, Vol. 10/2, pp. 177 - 198, https://ejce.liuc.it/Default.asp?tipo=articles&identifier=ejce:18242979/2013/02/04. [46]

Leichsenring, K., S. Ilinca and R. Rodrigues (2015), "From care in homes to care at home: European experiences with (de)institutionalisation in long-term care", *European Centre Policy Brief*, https://www.euro.centre.org/publications/detail/420. [8]

Lightman, N. (2020), "Comparing Care Regimes: Worker Characteristics and Wage Penalties in the Global Care Chain", *Social Politics: International Studies in Gender, State & Society*, Vol. 28/4, pp. 971-998, https://doi.org/10.1093/sp/jxaa008. [17]

Magnusson, C. (2013), "More women, lower pay? Occupational sex composition, wages and wage growth", *Acta Sociologica*, Vol. 56/3, pp. 227-245, https://doi.org/10.1177/0001699313484480. [33]

Magnusson, C. (2008), "Gender, Occupational Prestige, and Wages: A Test of Devaluation Theory", *European Sociological Review*, Vol. 25/1, pp. 87-101, https://doi.org/10.1093/esr/jcn035. [32]

Matsudaira, J. (2014), "Monopsony in the Low-Wage Labor Market? Evidence from Minimum Nurse Staffing Regulations", *The Review of Economics and Statistics*, Vol. 96/1, pp. 92-102, https://doi.org/10.1162/rest_a_00361. [41]

Ochsenfeld, F. (2014), "Why Do Women's Fields of Study Pay Less? A Test of Devaluation, Human Capital, and Gender Role Theory", *European Sociological Review*, Vol. 30/4, pp. 536-548, https://doi.org/10.1093/esr/jcu060. [34]

OECD (2022), *OECD Employment Outlook 2022: Building Back More Inclusive Labour Markets*, OECD Publishing, Paris, https://doi.org/10.1787/1bb305a6-en. [40]

OECD (2020), *Who Cares? Attracting and Retaining Care Workers for the Elderly*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/92c0ef68-en. [1]

Palmer, E. and J. Eveline (2010), "Sustaining Low Pay in Aged Care Work", *Gender, Work & Organization*, Vol. 19/3, pp. 254-275, https://doi.org/10.1111/j.1468-0432.2010.00512.x. [31]

Prager, E. and M. Schmitt (2021), "Employer Consolidation and Wages: Evidence from Hospitals", *American Economic Review*, Vol. 111/2, pp. 397-427, https://doi.org/10.1257/aer.20190690. [42]

Razavi, S. and S. Staab (2010), "Underpaid and overworked: A cross-national perspective on care workers", *International Labour Review*, Vol. 149/4, pp. 407-422, https://doi.org/10.1111/j.1564-913x.2010.00095.x. [30]

Rémen, T. et al. (2018), "Development of a Coding and Crosswalk Tool for Occupations and Industries", *Annals of Work Exposures and Health*, Vol. 62/7, pp. 796-807, https://doi.org/10.1093/annweh/wxy052. [51]

Richter, J., S. Åström and U. Isaksson (2012), "Personality Characteristics of Staff in Elderly Care—A Cross-Cultural Comparison", *Issues in Mental Health Nursing*, Vol. 33/2, pp. 96-100, https://doi.org/10.3109/01612840.2011.624675. [47]

Staiger, D., J. Spetz and C. Phibbs (2010), "Is There Monopsony in the Labor Market? Evidence from a Natural Experiment", *Journal of Labor Economics*, Vol. 28/2, pp. 211-236, https://doi.org/10.1086/652734. [43]

Sullivan, D. (1989), "Monopsony Power in the Market for Nurses", *The Journal of Law and Economics*, Vol. 32/2, Part 2, pp. S135-S178, https://doi.org/10.1086/467192. [44]

Triantafillou, J. et al. (2010), *Informal care in the long-term care system*, https://www.euro.centre.org/downloads/detail/768. [16]

Trukeschitz, B., A. Österle and U. Schneider (2022), "Austria's Long-Term Care System: Challenges and Policy Responses", *Journal of Long Term Care*, pp. 88-101, https://doi.org/10.31389/jltc.112. [13]

United Nations (2008), "The International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4", *Statistical papers*, https://unstats.un.org/unsd/publication/seriesm/seriesm_4rev4e.pdf. [7]

Vadean, F. and S. Allan (2020), "The Effects of Minimum Wage Policy on the Long-Term Care Sector in England", *British Journal of Industrial Relations*, Vol. 59/2, pp. 307-334, https://doi.org/10.1111/bjir.12572. [12]

Veneri, C. (1999), "Can Occupational Labor Shortages Be Identified Using Available Data?", *Monthly Labor Review, Bureau of Labor Statistics*, https://www.bls.gov/opub/mlr/1999/03/art2full.pdf. [23]

von Rueden, C. and I. Bambalaite (2020), "Measuring occupational entry regulations: A new OECD approach", *OECD Economics Department Working Papers*, No. 1606, OECD Publishing, Paris, https://doi.org/10.1787/296dae6b-en. [38]

Weeden, K. (2002), "Why Do Some Occupations Pay More than Others? Social Closure and Earnings Inequality in the United States", *American Journal of Sociology*, Vol. 108/1, pp. 55-101, https://doi.org/10.1086/344121. [36]

Yamada, A. and K. Ishii (2020), "Aging and Wages of Long-term Care Workers:A Case Study of Japan, 2002–2017", https://www.esri.cao.go.jp/jp/esri/archive/bun/bun202/bun202d.pdf. [49]

## Notes

[1] In Sweden, personal care workers can be delegated to prepare, administer or hand over medication. Delegating means giving someone the right to do a work task that they are not otherwise allowed to do.

Healthcare professionals may only delegate a work task to someone else if it is compatible with the requirement for good and safe care. Whoever delegates a work task to someone else must ensure that the person has the conditions to perform the task. Each delegation decision must be documented and the decision must apply for a certain period of time, a maximum of one year, or for a specific occasion.

[2] Registered nurses, and Licensed practical and licensed vocational nurses are grouped together. The ONET database does not differentiate between nurses working in the LTC sector and in hospitals.

[3] The exact name of the task is "Provide medical treatment or personal care to patients in private home settings, such as cooking, keeping rooms orderly, seeing that patients are comfortable and in good spirits, or instructing family members in simple nursing tasks."

[4] Australia, while requiring mandatory screening for personal care workers, does not require minimum licences/certifications for entry-level personal care work. However, particular providers may require workers to have formal qualifications.

[5] For personal care workers, the reported scores are averages for personal care aides, home health aides and nursing assistants.

[6] National occupational classification might differ from the ISCO, but there are crosswalks that allow map them into ISCO, see for example https://www.census.gov/topics/employment/industry-occupation/guidance/code-lists.html or (Rémen et al., 2018[51]). For the United States, the category Home Health and Personal Care Aides (SOC 31-1120) identifies personal care workers while Registered Nurses, Nurse Practitioners and Licensed Practical and Licensed Vocational Nurses (SOC 29-1141, 29-1171 and 29-206, respectively) identify nurses.

[7] Crosswalks between various classification is available e.g. https://ec.europa.eu/eurostat/ramon/relations/index.cfm?TargetUrl=LST_REL&StrLanguageCode=EN&IntCurrentPage=11.

[8] Such a detailed classification (three-digit) for both occupations and sectors is not always available and therefore the broader categories (two-digit) are used if there is no choice.

[9] In Switzerland, healthcare assistants with a federal diploma of vocational education and training are often classified as "nurse associate professionals" and are therefore included in the nurse category. In other countries however, healthcare assistants would often be classified as personal care workers.

[10] Using not fully comparable data, Kim, Kyoung and Lee (2020[48]) reported that care workers earn on average less than 50% of the average wage in Korea.

[11] Compared to the average wage, wages in LTC sectors have increased from 77% to 79% between 1995 and 2019. The average wage in these sectors decreased in nine countries, with Slovenia and Luxembourg showing the largest decrease, while it increased in 12 countries, and by more than 10% in the Czech Republic, Hungary, Ireland, Lithuania, the Slovak Republic and the United Kingdom.

[12] 31%=100%-77%/111%.

[13] Interaction terms between LTC sector and gender, foreign-born and occupation dummies were statistically insignificant (Panel A).

[14] This estimated 14.7% negative effect may reflect the fact that individual skills differentiating the two professions on average are not fully captured by the explanatory factors included in the analysis.

[15] This is slightly less than 14.7% in the restricted sample.

[16] In the full sample, the difference between the dummies for nurse associates and personal care workers is therefore equal to 17.7%, larger than 14.7% estimated in the restricted sample.

[17] Workers whose occupation match their skills generally earn higher wages (Bol et al., 2019[50]).

[18] Leaving the last job due to the end of temporary contract is pointed by 17% and 24% for former workers in residential care sector and domestic care sector against the average of 21% among former workers in all sectors. Additionally, Yamada and Ishii (2020[49]) report that in Japan, the main reason for leaving LTC is “low wages” for men and “old age” for women.

[19] The authors estimated a fixed effect model using annual National Longitudinal Survey of Youth from 1982-93.

[20] In PIAAC dataset, 80% of personal care workers and nurses in LTC sectors (LTC workers) report being satisfied or extremely satisfied with their jobs, compared to 82% in hospitals and 79% among all workers. (Eurofound, 2020[9]) reported relatively lower satisfaction of workers in residential and non-residential sectors: 81% were satisfied or very satisfied with their jobs, against 86% both in healthcare and total economy, in EU countries.

[21] Swedish and German professional carers scored lower in novelty seeking and harm avoidance and higher in self-directedness and co-operativeness than individuals from the general population matched by age and gender (Richter, Åström and Isaksson, 2012[47]).

[22] Prestige measures the perceived value people attach to occupations.

[23] However, increasing strictness of entry regulations does not necessarily increase wages. Law and Marks (2013[46]) show that making the barriers of entry more strict through a shift from certification to mandatory licensing of nurses in the United States in 1950-70 had little or no effect on their wages.

[24] However, in Germany, some nursing care activities may only be performed by people who have been granted authorisation. In Switzerland, a 2020 law (Loi fédérale sur les professions de la Santé LPSan) has created an obligation for local governments to issue licences for nurses with tertiary education.

[25] Moderately and highly concentrated labour markets are defined consistently with definitions used by antitrust authorities in the United States.

[26] The OECD calculation of the concentration index is consistent with Chapter 3 in OECD (2022[40]).

# 3 Work environment and collective bargaining in long-term care

Wouter De Tavernier, Hervé Boulhol, Sandrine Cazes and Andrea Garnero

This chapter provides an overview of the work environment and of collective bargaining in long-term care. It shows that long-term care workers have somewhat shorter tenures than other employees. It reveals that the quality of the working environment in long-term care is rather poor, as the work is both physically and mentally arduous, often takes place at burdensome times, and that training opportunities and enforcement of labour regulations are limited for some groups of long-term care workers, in particular personal care workers providing home care. Finally, the chapter analyses collective bargaining in long-term care, revealing that in several countries workers' representatives in the long-term care sector are not strong enough to negotiate tangible improvements in wages and working conditions.

## Introduction

Whether people want to work in a specific sector or occupation not only depends on the wages they are paid, but also on other working conditions. In addition to earnings levels analysed in Chapter 2, the OECD job quality framework includes the quality of the working environment and labour market security (Cazes, Hijzen and Saint-Martin, 2015[1]). The quality of the working environment depends on a range of factors affecting the worker's health and well-being including, among others, arduousness of work, working-time arrangements, and opportunities for adult learning. The economic uncertainty resulting from the risk of job loss, for instance in case of employment on fixed-term contracts, can be a reason for workers to look for another job.

Collective bargaining provides an important tool for workers and employers to improve job quality, including working conditions and the working environment. The European Commission presented the European Care Strategy in 2022, in which it stressed the essential role of collective bargaining to improve working conditions, wages and training opportunities for LTC workers (European Commission, 2022[2]). While workers need bargaining power to push for improvements in job quality, the LTC sector may be a difficult one to unionise. This is because many LTC workers work alone in people's homes and because the share of immigrants working in the sector, who are less likely to be unionised (Gorodzeisky and Richards, 2013[3]; Kranendonk and de Beer, 2016[4]), is high in some countries (Chapter 4).

When data are available, indicators compare the LTC sector with both the overall economy and the healthcare sector. On the one hand, the healthcare sector is a good reference point to assess the job quality of LTC workers as it is the other major sector employing nurses and personal care workers. On the other hand, the much larger share of personal care workers in the LTC sector and reciprocally the larger share of nurses in the healthcare sector limit the full relevance of the comparison.

While in principle this report focuses on formal LTC work, most statistics in this chapter are based on survey data of people who reported to be in paid employment. The data may therefore include people performing undeclared work as their primary occupation to the extent that they are willing to say so when surveyed. The inclusion of undeclared LTC work may affect the findings in this chapter as undeclared LTC workers are more likely to face a poorer working environment and lower labour market security (Casanova, Lamura and Principi, 2017[5]). The issue of informal employment is briefly touched upon explicitly in the part on enforcement of labour regulations as some countries have implemented exceptions to labour regulations in order to formalise previously undeclared LTC work.

This chapter first sets the scene by presenting data on tenure, retention and labour market security of LTC workers. It then explores core aspects of the working environment. The final section analyses collective bargaining in the LTC sector and presents some international good practices with the aim of improving job quality of LTC workers.

## Key findings

### *Work environment*

- LTC workers face very difficult working conditions. Physical and psychological arduousness as well as burdensome working times, such as night and week-end shifts, are part of the main drawbacks of the working environment in LTC. As a result, nurses and personal care workers are more often absent from work than other employees due to work-related health issues.

- About three-quarters of nurses and personal care workers are exposed to risks to their physical health, compared to 59% of all employees. The primary health risks care workers are exposed to are lifting people and providing care while being bent over, resulting in musculoskeletal problems. Abuse from care recipients and exposure to infectious diseases such as COVID-19 may also be important risk factors.
- About two-thirds of nurses and personal care workers are exposed to risks to their mental health, compared to 43% of all employees. The primary mental health risks care workers are exposed to are a high workload and time pressure, and difficult care recipients.
- Nurses and personal care workers in the LTC sector have somewhat shorter tenures than workers in general, and much shorter tenures than nurses and personal care workers in the healthcare sector on average. For example, in the OECD on average, tenure is longer than 60 months for 48% of LTC workers, compared to 54% for all employees and 61% of nurses and personal care workers in the healthcare sector.
- The share of LTC workers with fixed-term contracts is similar to that of other employees (12% vs 11%), but much higher than nurses and personal care workers in the healthcare sector (8%) on average in the OECD. Among workers on fixed-term contracts, a bigger share of surveyed workers report not wanting a permanent job in the LTC sector compared with all employees.
- Part-time work is more common among LTC workers than among both healthcare workers and all employees. On average across the OECD, 32% of LTC workers are employed on a part-time basis, compared to 18% of all employees and 24% of nurses and personal care workers in healthcare. The difference in part-time incidence is especially large when the analysis is restricted to men. It is puzzling that even in some countries reporting a shortage of care workers, some LTC workers working part-time want to work more hours but cannot find a full-time job. Possible explanations include mismatches both geographical and between the times when people would be available to work extra hours and the times when care workers are most needed.
- Participation in education and training is as common among LTC workers as in the general workforce, with 17% having received education or training in the four weeks prior to being surveyed, slightly below the share for nurses and personal care workers in healthcare, at 21%. Yet, there is a need for more education and training of LTC workers in some specific areas, in particular for those providing home care.

### *Collective bargaining*

- In most OECD countries, collective bargaining coverage of LTC workers employed in the formal sector tends to mirror the national average, but collective bargaining coverage of workers on paper is not sufficient to ensure good working conditions. In several countries, workers' representatives in the LTC sector are not strong enough to negotiate tangible improvements in wages and working conditions; and even when they are, compliance is not guaranteed. Furthermore, several categories of LTC workers are underrepresented as they fall outside the scope of existing collective agreements because they work undeclared or as self-employed (including sometimes false self-employment).
- There are local and national examples showing that collective bargaining and, more generally, social dialogue can help improve the working conditions, and wages in particular, of LTC workers. Whether to limit wage inequality or enhance job quality and workplace adaptation to the use of new technologies, collective bargaining and social dialogue remain unique tools enabling governments and social partners to find tailored and fair solutions, also in the LTC sector.

## 3.1. Tenure and labour market security of long-term care workers

High turnover can be a sign of low job quality and a dissatisfied workforce. Insecure contracts contribute to poor job quality and can be a reason for people to leave an occupation if more economically secure jobs are available elsewhere in the economy. In turn, high turnover can undermine the quality of services provided as experienced staff leave the organisation and are replaced by staff requiring time to get acquainted with clients' needs. Tenure and staff turnover are included as measures to assess LTC quality in several countries (OECD/European Union, 2013[6]). Moreover, to the extent that turnover leads to people leaving the sector, it entails a loss of experienced staff and requires training of new LTC workers (OECD, 2020[7]). This section first presents some figures on tenure and retention of LTC workers, and subsequently discusses labour market security in the LTC sector.

### *3.1.1. Tenure and retention*

The frequency of short tenure among LTC workers is slightly higher than among other employees. On average in the OECD, tenure is shorter than 12 months for 15% of LTC workers, compared to 11% of nurses and personal care workers in the healthcare sector and 13% for all employees (Figure 3.1, Panel A). This is an example where differences between LTC and healthcare workers may partially be the consequence of their different composition: on average across the OECD, the LTC sector employs over 3 times as many personal care workers as nurses, whereas the exact opposite is the case for the healthcare sector.[1]

Around one-quarter LTC workers have a tenure of less than 12 months in Denmark, Finland and Iceland, whereas it is about one-tenth or less in Belgium, Greece, Hungary, Japan, Luxembourg Norway, Poland, the Slovak Republic and Türkiye. A higher share of LTC workers have particularly short tenures compared with employees in general in the Baltic and the Nordic countries (except Sweden) as well as in Slovenia.

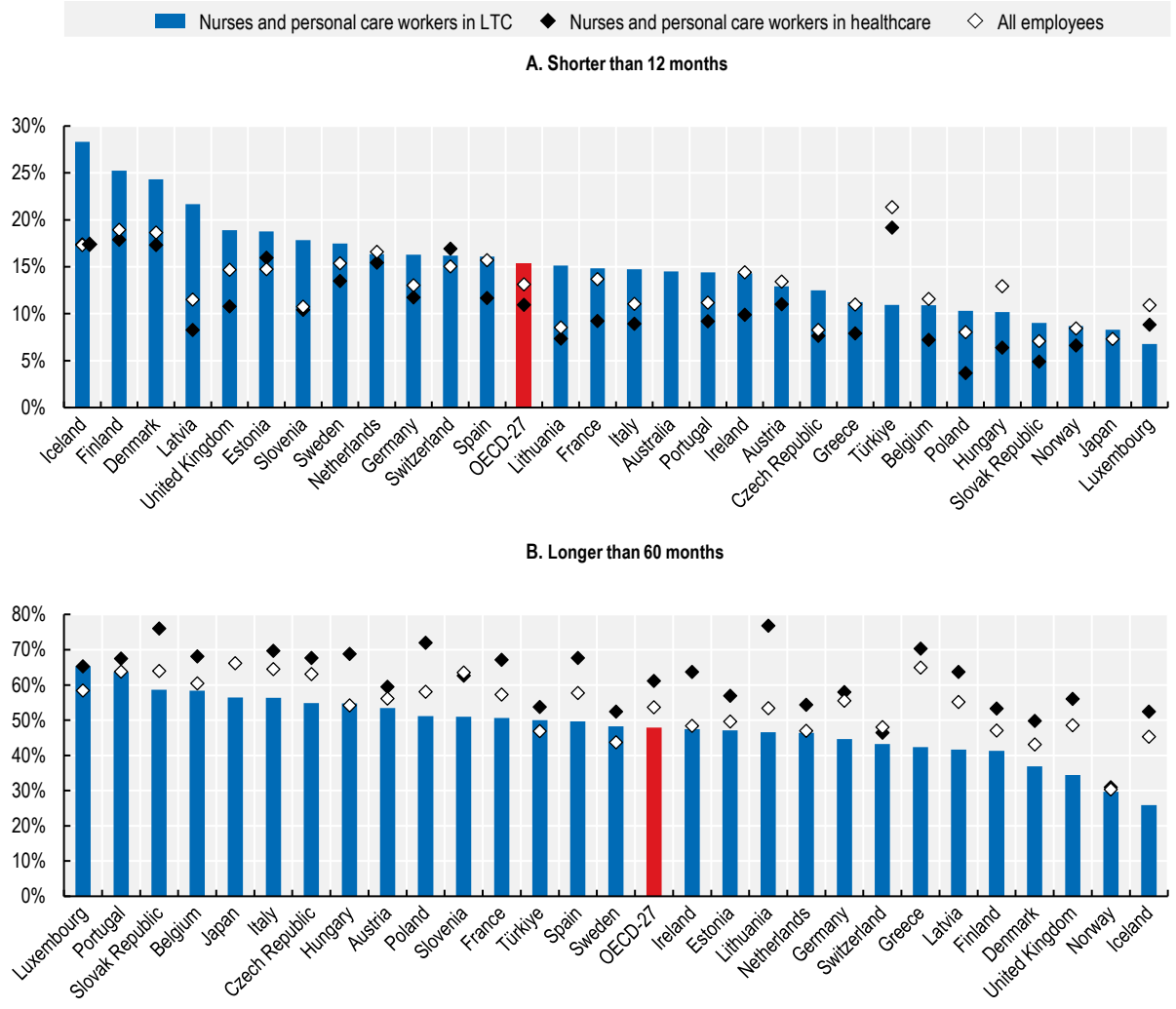
On average across countries, about half of LTC workers have tenure exceeding 60 months, slightly less than the share for all employees and well below the share among nurses and personal care workers in the healthcare sector (Panel B). About two-thirds of LTC workers in Luxembourg and Portugal have tenures exceeding 60 months, while long tenures are least common in Denmark, Iceland, Norway and the United Kingdom, where the share is below 40%.

LTC workers are not more likely to be looking for another job than employees in general: across the OECD, 4% of LTC workers were looking for another job in the period 2019-20, the same share as for all employees and 1 percentage point higher than for nurses and personal care workers in the healthcare sector.[2] The above number for LTC workers is lower than some more alarming turnover intention rates in the LTC workforce reported in other studies. Gaudenz et al. (2019[8]) for instance report that more than half of care staff in Swiss nursing homes intend to leave their jobs. However, searching for another job is a much more accurate predictor of turnover of LTC workers than vaguer statements such as thinking about leaving or expecting to leave one's job in the future (Castle et al., 2007[9]).

The turnover of LTC workers increases when the quality of the working environment is poor. The working environment of nurses and personal care workers in LTC is particularly poor in terms of workload and working times as discussed in greater detail below: their turnover has been linked to high workload and work-related stress due to staffing shortages (Halter et al., 2017[10]; Hayes et al., 2006[11]) and non-standard or unstable work schedules (Butler et al., 2014[12]; Castle et al., 2007[9]). One study comparing turnover intentions of nurses in nursing homes to those in home care finds that turnover intentions of the former were slightly higher as a result of somewhat higher time pressure and occurrence of social conflict (Rahnfeld et al., 2016[13]). Some other aspects of the working environment of nurses and personal care workers can mitigate high turnover rates, in particular support from colleagues, autonomy, and participative, motivational and supportive leadership (Butler et al., 2014[12]; Halter et al., 2017[10]; Hayes et al., 2006[11]; Radford, Shacklock and Bradley, 2015[14]). In addition, LTC workers' attachment to care recipients and good care quality reduce the odds of LTC workers leaving the organisation (Castle et al., 2007[9]; Rajamohan, Porock and Chang, 2019[15]; Treuren and Frankish, 2014[16]).

## Figure 3.1. LTC workers have somewhat shorter tenure than employees in general

Share of employees with tenure shorter than 12 months (Panel A) and longer than 60 months (Panel B), 2021 or latest year




Note: The OECD average refers to the average of countries for which data on all three data series are available, and does therefore not include Australia and Japan. Due to the number of LTC workers with tenures shorter than 12 months being below the number required to report exact numbers, data for the period 2020-21 are used for Estonia, Latvia and Lithuania; 2019-21 for Greece and Luxembourg; and 2018-21 for Poland. Data only refer to 2016 for Australia, to 2020 for Türkiye, and to 2019 for the United Kingdom. For Japan, data refer to 2020 for LTC workers and to 2021 for all employees.

Source: EU-LFS; Australian data based on Mavromaras et al. (2017[17]), *The Aged Care Workforce, 2016*, https://gen-agedcaredata.gov.au/www_aihwgen/media/Workforce/The-Aged-Care-Workforce-2016.pdf, Japanese data from Care Work Foundation (2021[18]), 令和３年度介護労働実態調査： 介護労働者の就業実態と就業意識調査 結果報告書 [Survey on Long-Term Care Workers: Report on Employment Status and Employment Attitude Survey of Care Workers], http://www.kaigo-centre.or.jp/report/2022r01_chousa_01.html, and Ministry of Health, Labour and Welfare (2021[19]), 賃金構造基本統計調査 [Basic Survey on Wage Structure], https://www.mhlw.go.jp/toukei/list/chinginkouzou.html.

StatLink https://stat.link/36s7rp

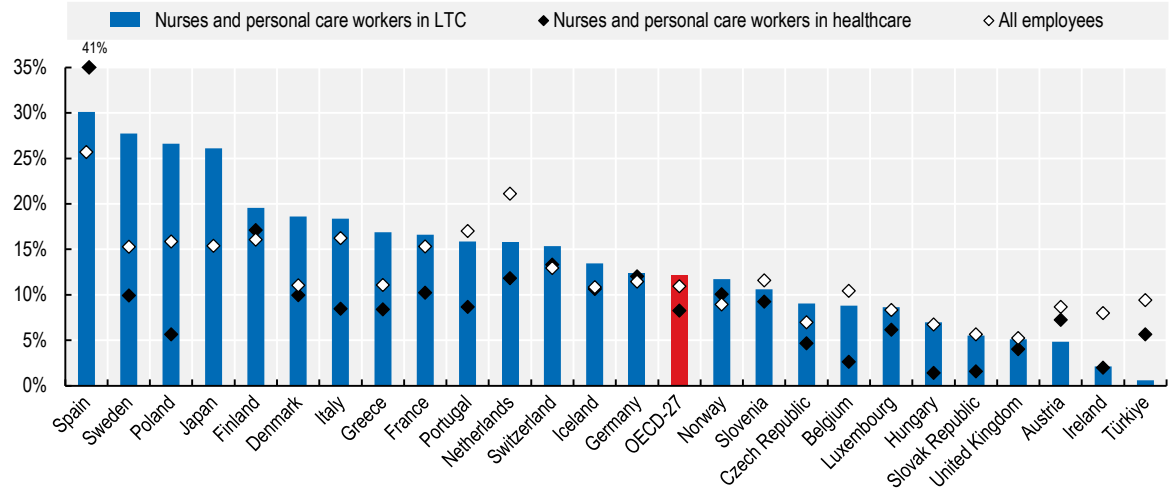
### *3.1.2. Labour market security*

Labour market security refers to the risk of job loss and the economic consequences for the worker. People employed on fixed-term contracts, and a fortiori those employed through temporary employment agencies, face a number of disadvantages in the labour market (OECD, 2017[20]; OECD, 2014[21]). They are less likely to be unionised and their voices are less likely to be taken into account within the organisation (see the last section of this Chapter). Employers are less likely to invest in the education or training of these employees. Overall, within similar occupations job quality is lower for workers on temporary contracts: beyond higher labour market insecurity and reduced education and training opportunities, they receive lower earnings on average, have less autonomy in their work and experience lower levels of support from their peers, while being more exposed to health risks.

There is a wide variation between countries in the use of fixed-term contracts in LTC, although this largely follows differences in the use of such contracts in the entire economy. In the OECD on average, LTC workers are about as likely to be employed on fixed-term contracts as employees in general, respectively 12% and 11%, while this is the case for only 8% of nurses and personal care workers in the healthcare sector (Figure 3.2). Over one-quarter of LTC workers are on fixed-term contracts in Japan, Poland, Spain and Sweden, whereas this applies to less than 5% of the LTC workforce in Austria, the Baltic states, Ireland and Türkiye. LTC workers are much more likely to be hired on fixed-term contracts than employees in general in Denmark, Greece, Japan, Poland and Sweden, whereas the opposite is the case in Austria, Ireland, the Netherlands and Türkiye.

## Figure 3.2. LTC workers are slightly more likely to work on fixed-term contracts than other employees

Share of employees on fixed-term contracts, 2020-21 or latest year




Note: The OECD average refers to the average of countries for which data on all three data series are available, and does therefore not include Japan. Data are not shown for Estonia, Latvia and Lithuania as the share of LTC workers concerned is below the number required to report exact numbers, although the exact share is used for the calculation of the OECD average. Extended reference periods for LTC workers are used for the following countries: data for the period 2017-21 are used for Ireland; 2016-21 for Estonia and Lithuania; and 2014-21 for Latvia. Data only refer to 2020 for Japan and Türkiye, and to 2019 for the United Kingdom.

Source: EU-LFS; Japanese data from Care Work Foundation (2021[18]), 令和３年度介護労働実態調査: 介護労働者の就業実態と就業意識調査 結果報告書 [Survey on Long-Term Care Workers: Report on Employment Status and Employment Attitude Survey of Care Workers], http://www.kaigo-center.or.jp/report/2022r01_chousa_01.html and OECD (2022[22]), "Temporary employment" (indicator), https://www.doi.org/10.1787/75589b8a-en (accessed on 11 October 2022).

StatLink https://stat.link/sfqwto

About 40% of LTC workers on fixed-term contracts indicate that they could not find a permanent job, which is somewhat lower than in the overall economy (Table 3.1). In addition, a higher share of LTC workers on fixed-term contracts state that they do not want a permanent job, at 17% compared to 10% among all employees. Overall, this still means that a large part of LTC workers on fixed-term contracts work on these contracts involuntarily, even though this is less of an issue in LTC than in the overall economy. LTC workers do not differ much from employees in general in terms of being on a fixed-term contract because that was the only option available for the job, for training purposes or for a probation period.

### Table 3.1. LTC workers on fixed-term contracts are more likely not to want a permanent job than other employees

Share of employees on fixed-term contracts in OECD-26 countries by reason for working on a fixed-term contract, 2020-21

| | LTC workers | All employees |
|---|---|---|
| Could not find a permanent job | 39% | 44% |
| This job is only available with a fixed-term contract | 11% | 10% |
| Did not want a permanent job | 17% | 10% |
| Apprentice, intern, trainee or other training programme | 17% | 15% |
| Fixed-term probationary contract | 8% | 9% |

Note: Due to the number of LTC workers on temporary contracts being below the number required to report exact numbers in some countries, data for 2020 and 2021 are merged. The United Kingdom is not included as EU-LFS contains no data for the country for the years 2020 and 2021.
Source: EU-LFS.

## 3.2. Quality of the working environment in long-term care

The OECD work on the quality of the working environment is rooted in the job demands-resources model (OECD, 2017[20]).[3]

- Job demands are aspects of a job that require sustained physical or psychological effort. Job demands typical in LTC include for instance lifting people, working with people with dementia and night work.
- Job resources refer to aspects of a job that can help employees achieve work goals and stimulate their career development – and thus improve well-being. This includes among others skill variety, autonomy, opportunities to learn and support from peers.

At its core, the model contends that high job demands reduce workers' physical and mental well-being, whereas job resources help workers meet demands at a lower cost to their well-being. The model was initially used to explain burnout, which entails emotional exhaustion and disengagement of the worker, but is now also extensively used for other outcomes such as worker health, absenteeism and job turnover.

In relation to LTC, the job demands-resources model has been used not only to analyse job quality but also to explain care-related outcomes including quality, person-centredness and rationing of care,[4] and safety, neglect and abuse of care recipients (Andela, Truchot and Huguenotte, 2021[23]; Ruotsalainen, Jantunen and Sinervo, 2020[24]; Seljemo, Viksveen and Ree, 2020[25]).

The OECD assesses job characteristics along six dimensions, identifying both job demands and job resources in each of these dimensions:[5]

- *The physical and social environment of work* includes job demands such as physical demands and risk factors, and support from peers as a resource.

- *Job tasks* include job demands such as work intensity and emotional demands, and autonomy as a resource.
- *Organisational characteristics* include job resources such as good managerial practices, workplace participation and performance feedback.
- *Working-time arrangements* include unsocial work schedules as a job demand, and flexibility of working hours as a resource.
- *Job prospects* include perceptions of job insecurity as a job demand, and training and opportunities for career advancement as resources.
- *Intrinsic aspects of the job* include opportunities for self-realisation and intrinsic rewards as job resources.

Studies have generally found evidence of the job demands-resources model applying to nurses and personal care workers across countries.[6] Key job demands in these occupations include work overload, for instance linked to staffing shortages; working-time arrangements that infringe on workers' work-life balance; and, emotional demands stemming among others from dealing with aggressive care recipients or with their death and functional decline. Some job demands and resources are especially important for nurses and personal care workers in the LTC sector compared to those in the hospital sector.[7] For instance, nurses in LTC have lower workloads but higher levels of emotional exhaustion (Sarti, 2014[26]). Resources for LTC workers include a supportive environment, participatory leadership and recognition (Chapter 4). Specific resources help deal with specific impacts of job demands. For home-care nurses, for instance, task autonomy reduces the effect of high workloads on burnout, whereas receiving support from the people around you helps buffer the impact of emotional demands (Vander Elst et al., 2016[27]).

This section explores core aspects of the quality of the working environment of LTC workers. First, it analyses the arduousness of LTC work, examining both physically and psychologically arduous aspects of the work. Then, working-time arrangements in LTC are examined. After briefly looking into opportunities for adult learning, enforcement of labour regulations in LTC work is discussed.

### *3.2.1. Arduousness of LTC work*

LTC work can be very taxing, both physically and mentally. Working in LTC has a stronger negative impact on health than working in other occupations (Rapp, Ronchetti and Sicsic, 2021[28]). LTC work requires physical abilities, in particular trunk and static strength (Chapter 2). Strength is necessary for lifting care recipients, which is an important risk factor for physical health (Dellve, Lagerström and Hagberg, 2003[29]). LTC-specific psychological health risks include exposure to aggression and abuse from care recipients and their families (Vasconcelos et al., 2016[30]) as well as emotional strain. While empathy is an important aspect of LTC work, it becomes a risk factor for stress and burnout. The emotional bond that can develop between the care recipient and the LTC worker due to the long periods over which they interact with one another (Khamisa, Peltzer and Oldenburg, 2013[31]) may result in the latter absorbing the care recipient's emotional distress (Hunt, Denieffe and Gooney, 2017[32]; Singh et al., 2020[33]). The COVID-19 pandemic exacerbated LTC workers' exposure to physical and mental health risks due to shortages of protective gear such as face masks in the LTC sector and increasing workloads (Pelling, 2021[34]).

The arduousness of LTC occupations has been recognised in some countries through the access to social benefit entitlements. French nurse aids and care assistants employed in the public sector are allowed to retire five years earlier due to being exposed to multiple health risks, as they are exposed to relational (e.g. regular interpersonal tensions), organisational (e.g. high work pace, shortage of human resources), physical (e.g. straining posture), chemical and biological health risks (Anses, 2021[35]). In 2021, the social partners of the Dutch LTC sector agreed on the introduction of a scheme allowing LTC workers to retire up to three years earlier after a 45-year career in the care sector, of which at least 20 years worked as a

direct care provider. In Belgium, workers in the care sector have supplementary annual leave entitlements as of age 45 with the objective to facilitate working longer.

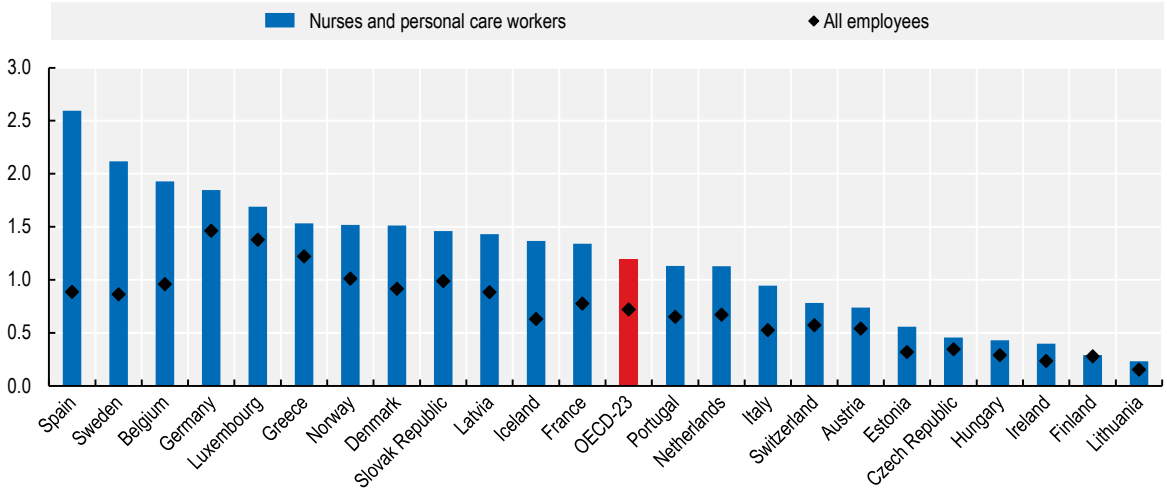
This sub-section provides an overview of absence from work and of the main risk factors and health problems that care workers face in terms of physical and mental health. The data in this section do not exclusively refer to LTC workers, but to all nurses and personal care workers in the sector of human health and social work activities collectively referred to in this sub-section as "care workers", which hence also includes those working in healthcare (NACE sector Q).[8]

### *Absence from work*

Consistent with higher exposure to health risks, care workers are more frequently absent from work than the overall employed population. In all OECD countries for which data are available, nurses and personal care workers are more absent, on average, due to a work-related health problem than all employees. On average, nurses and personal care workers were absent from work during 1.2 weeks over the last year as a result of a health problem that was either caused or exacerbated by their work, compared to 0.7 weeks for the average employee (Figure 3.3). For nurses and personal care workers, this ranges from over two weeks in Spain and Sweden to less than half a week in the Czech Republic, Finland, Hungary, Ireland and Lithuania. COVID-19 likely exacerbated the absence of LTC workers: in Canada, 71% of nursing homes experienced an increased absence of staff due to COVID-19, compared to 56% of other residential care facilities for older people (Clarke, 2021[36]).

## Figure 3.3. Care workers are absent from work longer due to work-related health problems than the average employee

Average number of weeks of absence from work during the last year because of a work-related health problem, 2020




Note: "Nurses and personal care workers" includes people in occupations 222 (nursing and midwifery professionals), 322 (nursing and midwifery associate professionals) and 532 (personal care workers in health services) employed in NACE sector Q (human health and social work activities). Answer categories were transformed into weeks by assigning the value of the middle of the answer category (e.g. a person indicating to have been absent "At least one month but less than three months" is assumed to have been absent for two months). Periods of absence exceeding one year were topped off at one year.
Source: OECD calculations based on EU-LFS 2020 ad hoc module on accidents at work and other work-related health problems.

StatLink https://stat.link/sn5j2t

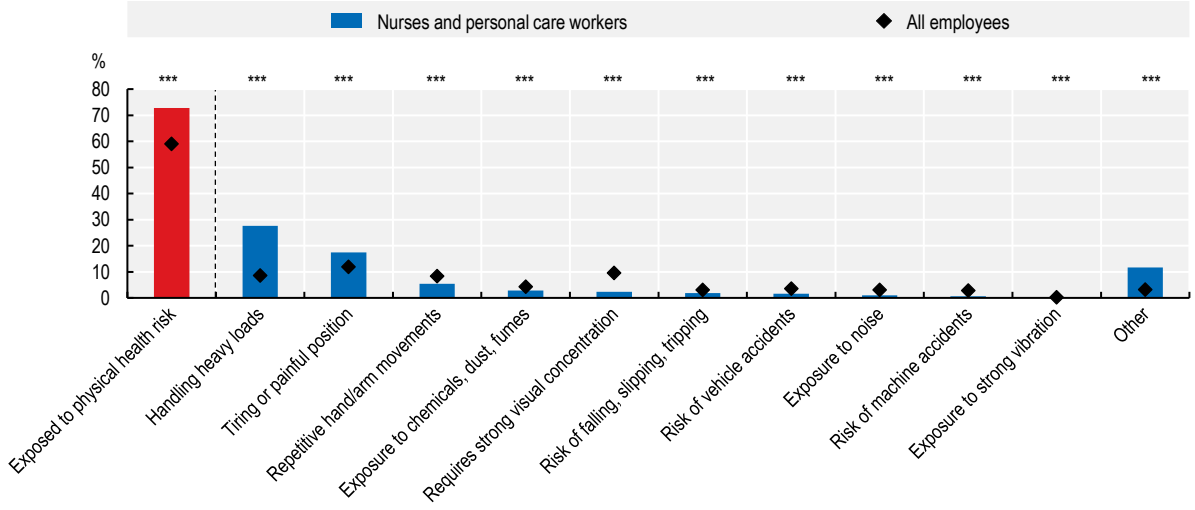
### *Physicality of LTC work*

Nurses and personal care workers are much more exposed to physical health risks than other employees. Of all nurses and personal care workers employed in the broader sector of human health and social work activities in the OECD, 73% declare being exposed to some risk that can impact their physical health, compared to 59% of employees in general (Figure 3.4).

The primary risks to physical health of care workers are lifting people and providing care while being bent over, for instance to people lying in bed (OECD, 2020[7]). Handling heavy loads and holding tiring and painful positions are singled out as risk factors by respectively 28% and 18% of nurses and personal care workers (Figure 3.4). Increasing overweight and obesity among older people is a growing worry for LTC workers' musculoskeletal health in some countries. By contrast, these percentages are 9% and 12%, respectively, for employees in general. Care workers do score lower than the average employee on all other specified risk factors, in particular on the requirement of strong visual concentration. However, 12% of care workers indicated that they face other risks to their physical health than the ones listed, compared to 3% of all employees. This may for instance include exposure to infectious diseases such as COVID-19 or the risk of physical violence from care recipients and their families. Eurofound (2020[37]) reports that 12% of LTC workers have been exposed to physical violence during the month before being surveyed.

## Figure 3.4. High exposure to physical health risk factors for care workers

Most important physical health risk factor employees in OECD-25 countries report being exposed to, share of employees, 2020




Note: The red bar indicates the total share of employees who are exposed to at least one physical health risk. The asterisks indicate the extent to which nurses and personal care workers differ significantly from all employees for each listed physical health risk (* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$). "Nurses and personal care workers" includes people in occupations 222 (nursing and midwifery professionals), 322 (nursing and midwifery associate professionals) and 532 (personal care workers in health services) employed in NACE sector Q (human health and social work activities).
Source: OECD calculations based on EU-LFS 2020 ad hoc module on accidents at work and other work-related health problems.

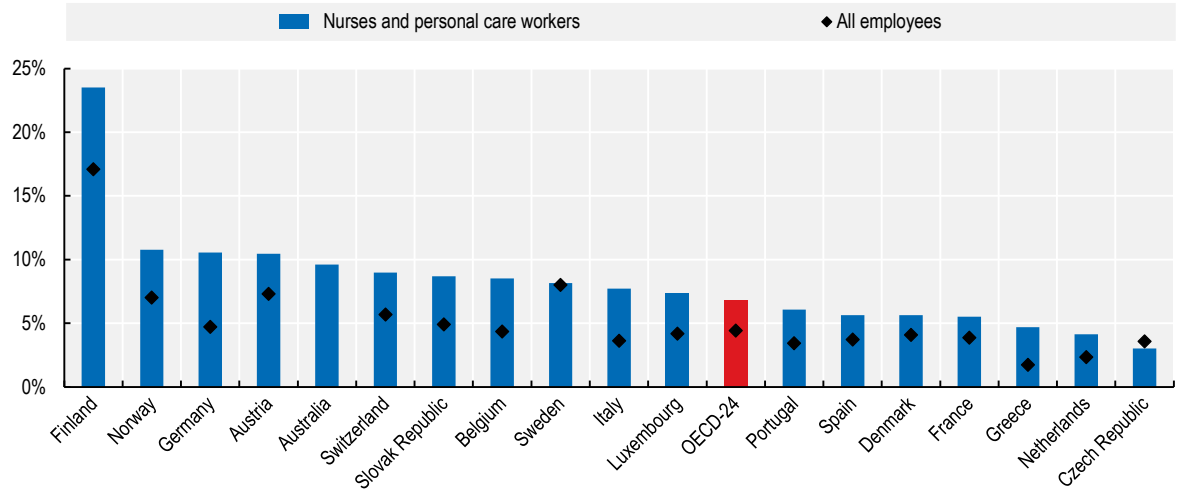
StatLink https://stat.link/k02qvb

Nurses and personal care workers are more likely to have musculoskeletal problems either caused or exacerbated by working than the average employee. On average across 22 OECD countries for whom sufficient data are available in the EU-LFS dataset, 7% of nurses and personal care workers have a bone, joint or muscle problem as a result of work compared to 4% of all employees (Figure 3.5). In all countries

except the Czech Republic and Sweden, care workers are more likely to report work-related musculoskeletal problems than the average employee. Finland is an absolute outlier, with 24% of care workers and 17% of employees reporting this type of health problem.[9] Other countries where over 10% of nurses and personal care workers have work-related problems with their bones, joints or muscles are Austria, Germany and Norway.

### Figure 3.5. Care workers are more likely to have musculoskeletal problems than other employees

Share of employees reporting having a bone, joint or muscle problem as a result of work, 2020 or latest year




Note: "Nurses and personal care workers" includes people in occupations 222 (nursing and midwifery professionals), 322 (nursing and midwifery associate professionals) and 532 (personal care workers in health services) employed in NACE sector Q (human health and social work activities). Data are not shown for Estonia, Hungary, Iceland, Ireland, Latvia and Lithuania as the share of LTC workers concerned is below the number required to report exact numbers, although the exact share is used for the calculation of the OECD average. For Australia, the data refer to work-related fractures, chronic joint or muscle conditions, or sprain/strain. Data refer to 2016 for Australia.
Source: OECD calculations based on EU-LFS 2020 ad hoc module on accidents at work and other work-related health problems; Australian data based on Mavromaras et al. (2017[17]), *The Aged Care Workforce, 2016*, https://gen-agedcaredata.gov.au/www_aihwgen/media/Workforce/The-Aged-Care-Workforce-2016.pdf.

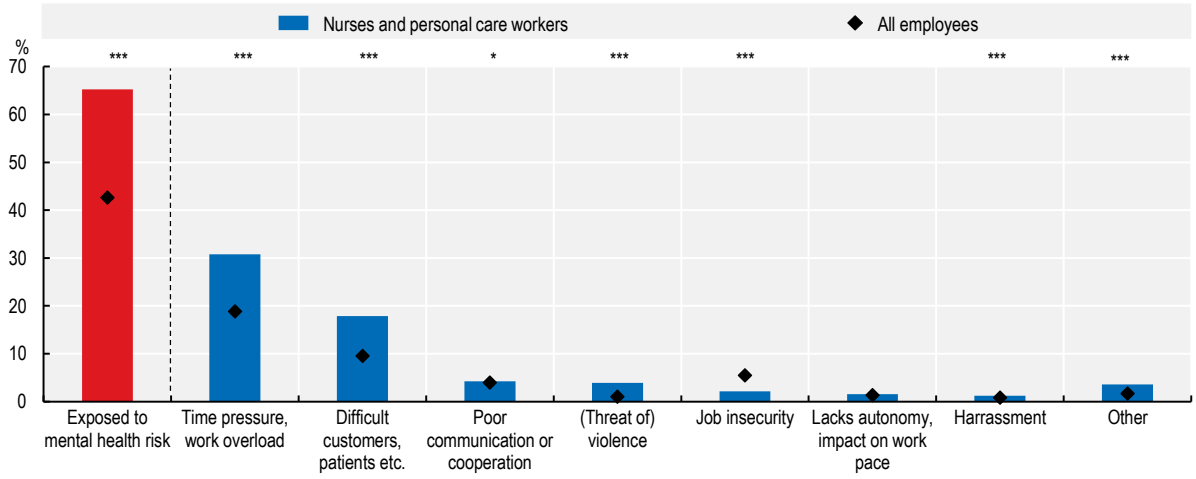
StatLink https://stat.link/vcwmya

#### *Psychological impact of LTC work*

About two-thirds of nurses and personal care workers report being exposed to mental health risks, much more than average employees at 43% (Figure 3.6). Workload and time pressure are the main source of mental health risk for 31% of nurses and personal care workers and 19% of employees in general. This feeling is often the result of high caseloads and administrative requirements leaving LTC workers frustrated about a lack of time to work with individual care recipients (OECD, 2020[7]). Work intensity is indeed higher in the LTC sector than it is in the overall economy (Eurofound, 2020[37]). Difficult customers or, in the case of care workers, patients and care recipients are a mental health risk for 18% of nurses and personal care workers and 10% of employees in general. While violence or the threat thereof was considered the main source of mental health risk by only 4% of nurses and personal care workers, the level was 4 times lower among employees, at 1%. At the same time, Eurofound reports that 26% of LTC workers have been exposed to verbal abuse, 11% declare to have been threatened and 8% to have been humiliated, bullied or harassed during the month before being surveyed (Eurofound, 2020[37]). Care workers are less likely than other employees to identify job insecurity as their main mental health risk, with respectively 2% and 5% reporting this to be a risk factor.

## Figure 3.6. Pressure and difficult care recipients are the main mental health risks for care workers

Most important mental health risk factor employees in OECD-25 countries report being exposed to, share of employees, 2020



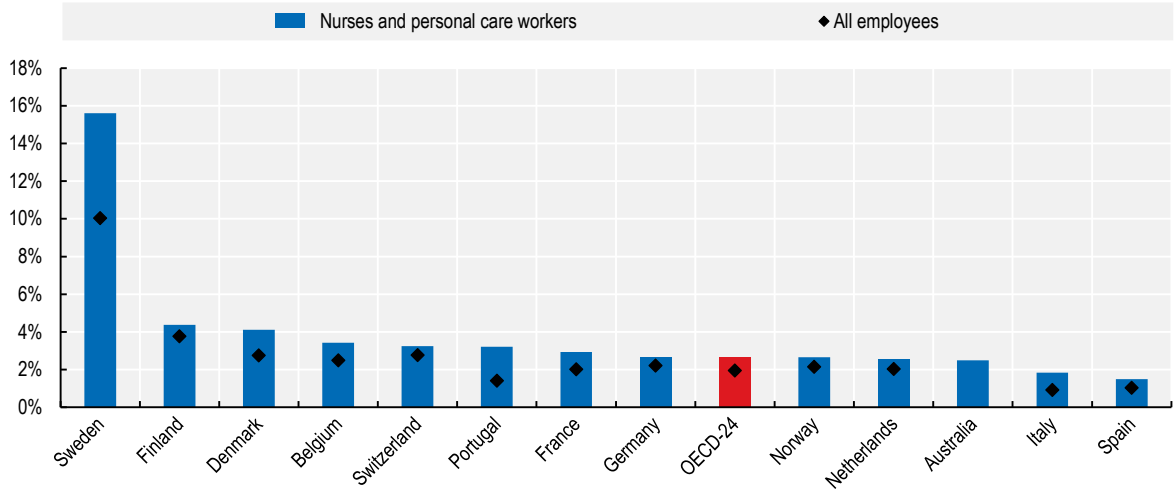

Note: The red bar indicates the total share of employees who are exposed to at least one mental health risk. The asterisks indicate the extent to which nurses and personal care workers differ significantly from all employees for each listed mental health risk (* p < 0.1; ** p < 0.05; *** p < 0.01). "Nurses and personal care workers" includes people in occupations 222 (nursing and midwifery professionals), 322 (nursing and midwifery associate professionals) and 532 (personal care workers in health services) employed in NACE sector Q (human health and social work activities).
Source: OECD calculations based on EU-LFS 2020 ad hoc module on accidents at work and other work-related health problems.

StatLink https://stat.link/y21jfv

Nurses and personal care workers are slightly more likely to suffer from stress, depression or anxiety caused or worsened by work than employees in general. On average across the OECD countries analysed, 3% of care workers report suffering from stress, depression or anxiety, compared to 2% of employees (Figure 3.7). Sweden is an absolute outlier, with 16% of care workers and 10% of all employees reporting these mental health problems, although this may be the consequence of a questionnaire issue.[10] In all other countries, the share remains below 5% for both employees in general and care workers specifically.

## Figure 3.7. Care workers report suffering from stress, depression or anxiety slightly more than the average employee

Share of employees reporting having stress, depression or anxiety as a result of work, 2020 or latest year




Note: "Nurses and personal care workers" includes people in occupations 222 (nursing and midwifery professionals), 322 (nursing and midwifery associate professionals) and 532 (personal care workers in health services) employed in NACE sector Q (human health and social work activities). Data are not shown for Austria, the Czech Republic, Estonia, Greece, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg and the Slovak Republic as the share of LTC workers concerned is below the number required to report exact numbers, although the exact share is used for the calculation of the OECD average. Sweden's position may be the consequence of a questionnaire issue.[10] Data refer to 2016 for Australia.

Source: OECD calculations based on EU-LFS 2020 ad hoc module on accidents at work and other work-related health problems; Australian data based on Mavromaras et al. (2017[17]), *The Aged Care Workforce, 2016*, https://gen-agedcaredata.gov.au/www_aihwgen/media/Workforce/The-Aged-Care-Workforce-2016.pdf.

StatLink https://stat.link/aoqxg0

### *3.2.2. Working-time arrangements*

Long working hours, working at burdensome times and irregular work schedules are risk factors for physical and mental health, in particular when workers have little control over their working hours (Cazes, Hijzen and Saint-Martin, 2015[1]). Non-standard working-time arrangements, such as night, weekend and holiday shifts, long shifts and overtime, are related to higher turnover intentions in nurses (Hayes et al., 2006[11]; Zeytinoglu et al., 2009[38]). In addition, part-time workers are somewhat disadvantaged in the labour market as they are less likely to be unionised, and as some managers may take working part-time as a signal of low career commitment. While part-time work has a number of disadvantages, in particular lower investment in education and training, limited career prospects and less autonomy, for some workers these disadvantages are partially compensated for by higher control over their working time and a better work-family balance (OECD, 2017[20]).

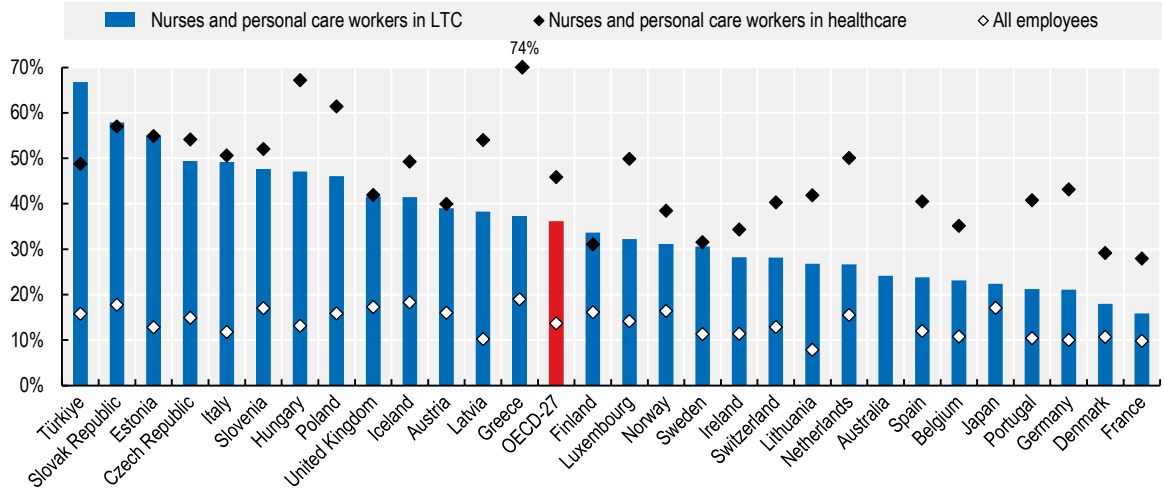
#### *Night and weekend work*

LTC workers are about 2.5 times as likely as the average employee to work at night. On average across the OECD, 36% of LTC workers sometimes or usually work at night, compared to only 14% of all employees (Figure 3.8). Yet, night work is less common for LTC workers than it is for nurses and personal care workers in the healthcare sector, 46% of whom sometimes or usually work at night. The share of LTC workers doing night work differs strongly across countries, ranging from 16% in France to 67% in Türkiye. This wide variety is in stark contrast to the share of all employees working at night, which fluctuates only

between 8% in Lithuania and 19% in Greece. The high variation between countries in the prevalence of night work among LTC workers could among others be related to the extent to which LTC is provided by live-in care workers who are available 24 hours per day, and how this is accounted for across countries. In Germany, for instance, a court ruled in 2021 that live-in care workers who are available around the clock should also be paid at least at the minimum wage for the hours where they do not provide care but are standby (DW, 2021[39]), which may reduce the possibility for people to afford formal live-in care. There is no assessment yet of the impact of the ruling on formal live-in care provision.

## Figure 3.8. LTC workers are 2.5 times as likely to work at night as the average employee

Share of employees sometimes or usually working at night, 2020-21 or latest year




Note: The OECD average refers to the average of countries for which data on all three data series are available, and does therefore not include Australia and Japan. Due to the number of LTC workers working at night being below the number required to report exact numbers in some countries, data for 2020 and 2021 are merged. Data only refer to 2016 for Australia, to 2020 for Japan and Türkiye, and to 2019 for the United Kingdom.

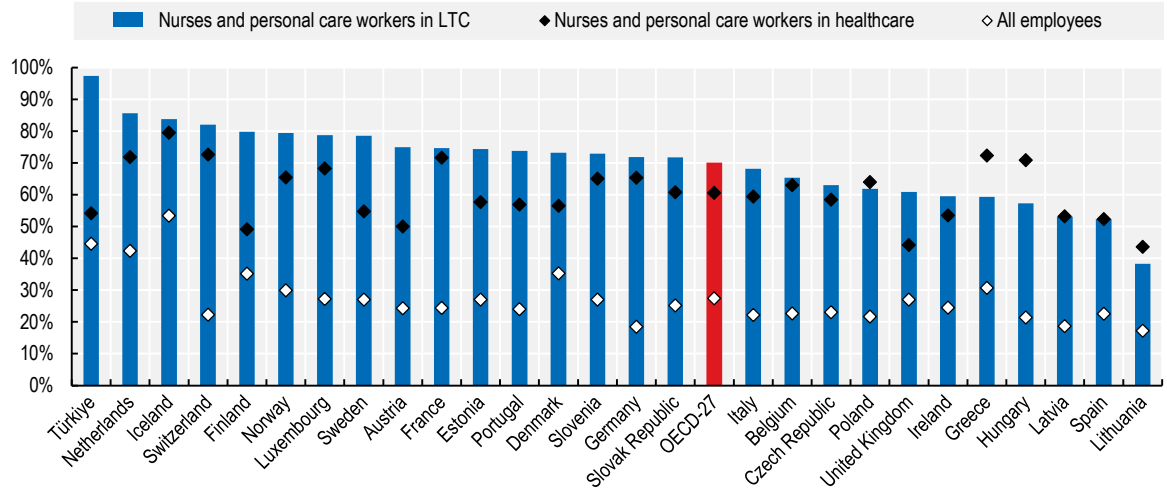
Source: EU-LFS; Australian data based on Mavromaras et al. (2017[17]), *The Aged Care Workforce, 2016*, https://gen-agedcaredata.gov.au/www_aihwgen/media/Workforce/The-Aged-Care-Workforce-2016.pdf; Japanese data from Care Work Foundation (2021[18]), 令和３年度介護労働実態調査: 介護労働者の就業実態と就業意識調査 結果報告書 [Survey on Long-Term Care Workers: Report on Employment Status and Employment Attitude Survey of Care Workers], http://www.kaigo-center.or.jp/report/2022r01_chousa_01.html and Ministry of Health, Labour and Welfare (2020[40]), 労働安全衛生調査（実態調査）[Occupational Health and Safety Survey (Fact-finding Survey)], https://www.mhlw.go.jp/toukei/list/list46-50_an-ji.html.

StatLink https://stat.link/bix7ca

Similarly, LTC workers are about 2.5 times as likely as the average employee to work on Sundays. Sundays, occasionally or usually, are part of the working schedules of 70% of LTC workers compared to 27% of employees and 61% of nurses and personal care workers in healthcare (Figure 3.9). LTC workers are more than three times as likely to work Sundays as employees in general in Austria, France, Germany, Italy, Portugal and Switzerland.[11]

## Figure 3.9. LTC workers are 2.5 times as likely to work on Sundays as the average employee

Share of employees sometimes or usually working on Sundays, 2020-21 or latest year




Note: Due to the number of LTC workers working on Sundays being below the number required to report exact numbers in some countries, data for 2020 and 2021 are merged. Data only refer to 2020 for Australia and Türkiye and to 2019 for the United Kingdom.
Source: EU-LFS.

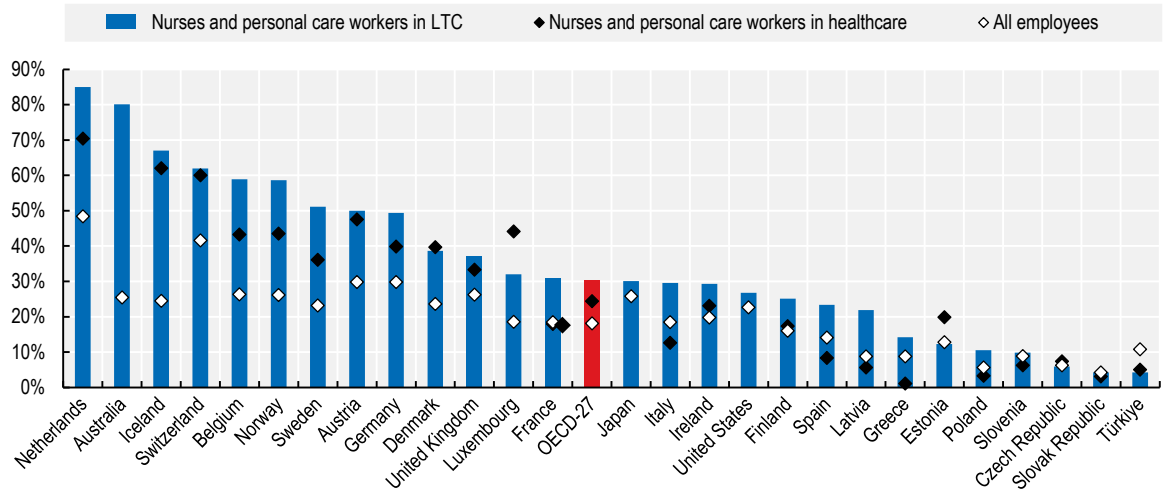
StatLink https://stat.link/0sh9d2

### *Part-time work*

Part-time work is more common among LTC workers than it is in the total workforce. On average across the OECD, 32% of LTC workers are employed on a part-time basis, compared to 18% of employees and 24% of nurses and personal care workers in healthcare (Figure 3.10). However, there are big differences between countries: while 85% of LTC workers in the Netherlands, 80% in Australia and 67% in Iceland are employed part-time, this is the case for less than 5% in Hungary, Lithuania, Portugal, the Slovak Republic and Türkiye. This variation between countries roughly follows country differences in the prevalence of part-time work in the full workforce, although it is more pronounced in the LTC sector. This large variation is partly the result of the large share of women in the sector, as cross-country variation in part-time work is typically higher for women than for men. A high share of LTC workers employed part-time is not an indication of a poor working environment in itself as it may fit the worker's preferences, although it is problematic from a job quality perspective if part-time workers end up working fewer hours than they would prefer (see below).

## Figure 3.10. Part-time work is more widespread among LTC workers

Share of employees working part-time, 2020-21 or latest year




Note: The OECD average refers to the average of countries for which data on all three data series are available, and does therefore not include Australia, Japan and the United States. Data are not shown for Hungary, Lithuania and Portugal as the share of LTC workers concerned is below the number required to report exact numbers, although the exact share is used for the calculation of the OECD average. Extended reference periods for LTC workers are used for the following countries: data for the period 2019-21 are used for Estonia; 2018-21 for Poland; 2016-21 for Lithuania; and 2015-19 for the United States. Data only refer to 2020 for Japan and Türkiye, and to 2019 for the United Kingdom. The data for the United States only include residential LTC workers.

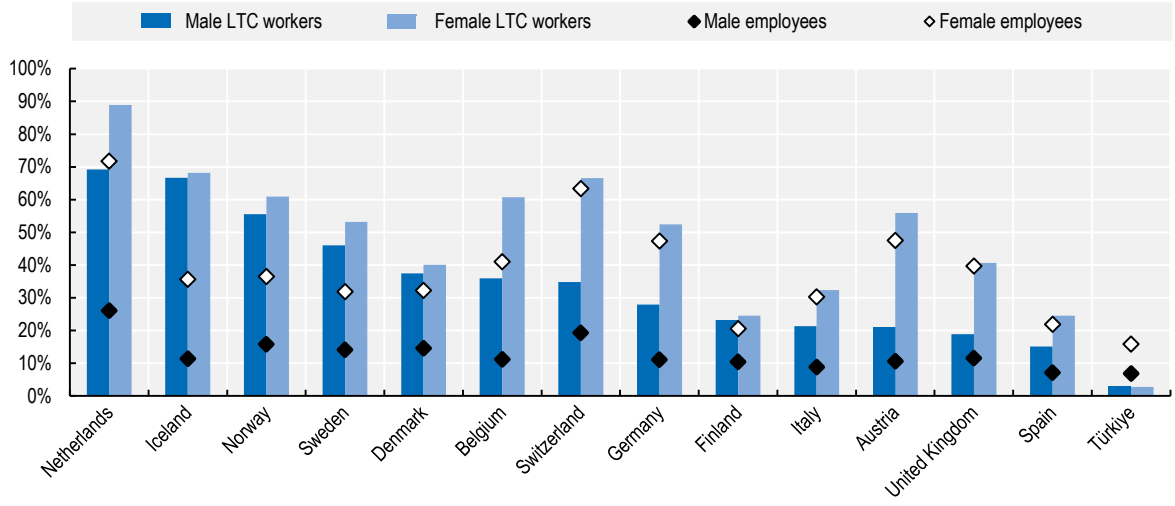
Source: EU-LFS; data for Australia from Australian Government Department of Health (2021[41]), 20*20 Aged Care Workforce Census Report*, https://www.health.gov.au/resources/publications/2020-aged-care-workforce-census, and OECD (2022[42]), Part-time employment rate (indicator), https://www.doi.org/10.1787/f2ad596c-en (accessed on 18 November 2022); data for Japan from Care Work Foundation (2021[18]), 令和３年度介護労働実態調査: 介護労働者の就業実態と就業意識調査 結果報告書 [Survey on Long-Term Care Workers: Report on Employment Status and Employment Attitude Survey of Care Workers], http://www.kaigo-center.or.jp/report/2022r01_chousa_01.html and OECD (2022[42]), Part-time employment rate (indicator), https://www.doi.org/10.1787/f2ad596c-en (accessed on 18 November 2022); data for the United States from Martinez Hickey, Sawo and Wolfe (2022[43]), "The state of the residential long-term care industry: A comprehensive look at employment levels, demographics, wages, benefits, and poverty rates of workers in the industry", https://www.epi.org/publication/residential-long-term-care-workers/.

StatLink https://stat.link/2sl186

There is a sectoral pattern: the high share of women working in LTC explains only part of the high share of part-time work in LTC. Within LTC, women work part-time more than men, as in the overall economy (Figure 3.11). But even among men, working part-time is much more common in the LTC sector than in the economy as a whole. This is likely the result of care needs being particularly concentrated in the mornings and the evenings, when people need assistance with getting in and out of bed, with getting washed and dressed, and with eating (OECD, 2020[7]). Hence, care workers may opt to work part-time to avoid split shifts and to balance work and family life.

## Figure 3.11. Relative to other employees, women and men in particular are much more likely to work part-time in LTC

Share of employees working part-time by gender, 2019-21 or latest year




Note: Due to the number of LTC workers working part-time being below the number required to report exact numbers in some countries, data for 2019-21 are merged. Data only refer to 2019-20 for Türkiye and to 2019 for the United Kingdom.
Source: EU-LFS.

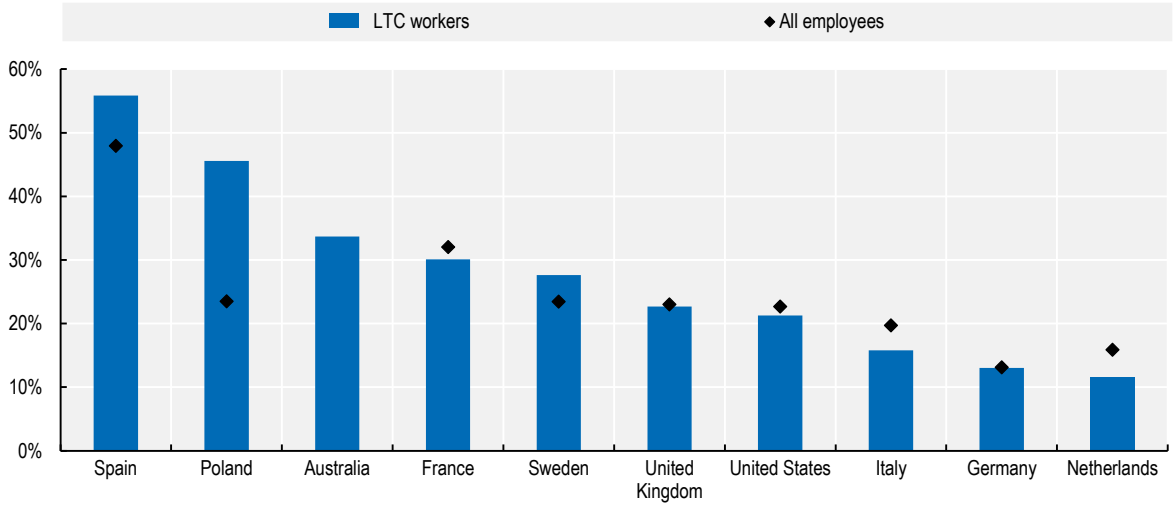
StatLink https://stat.link/0c3wd4

Some LTC workers who are currently working part-time would like to work more hours. This is also the case in some countries reporting a shortage of workers in LTC, where more than 10% of part-time workers in the sector indicate that they work part-time because they cannot find a full-time job (Eurofound, 2020[37]), which is puzzling. One possible explanation could be a mismatch between the times when people would be available to work extra hours and the times when care workers are most needed: LTC workers working part-time may want to work more hours through expanding their current shift, whereas the peaks in demand for care in the mornings and the evenings may mean that working more hours would entail a split shift. Geographical mismatches between care needs and care supply could be an alternative explanation, for instance if older people with unmet care needs particularly live in rural areas whereas the LTC workforce is mainly concentrated in and around towns and cities. Alternatively, LTC providers may be reluctant to offer full-time positions if full-time workers receive supplementary rights or entitlements. In the United States, for instance, nurses working part-time have more limited sick-leave entitlements than those working full-time (Denny-Brown et al., 2020[44]). While reasons for working part-time for the entire LTC sector are similar to those in the overall economy, in non-residential LTC a somewhat larger share of part-time workers indicates that they work part-time because they could not find a full-time job (Eurofound, 2020[37]).

In Poland and Spain, as much as around half of LTC workers working part-time would rather work more (Figure 3.12). In other countries, this is the case for between 10% and 30% of LTC workers on part-time contracts. In most countries for which data are available, the share of underemployed part-time LTC workers fluctuates around that of part-time workers in the full economy. In Australia, 34% of LTC workers would like to work more hours and the share of LTC workers who would like to work full-time is almost 1.3 times the share who effectively do so (Mavromaras et al., 2017[17]). In Japan, in contrast, 14% of care workers would like to work fewer hours, while only 9% would like to work more (Care Work Foundation, 2021[18]).

## Figure 3.12. Part-time employed LTC workers' willingness to work more hours

Share of employees working part-time who wish to work more hours than they currently do, 2019-21 or latest year




Note: The data refer to 2015-21 for Poland and to 2015-19 for the United States. Data refer to 2016 for Australia and to 2019 for the United Kingdom. The data for the United States only include residential LTC workers.
Source: EU-LFS; Australian data based on Mavromaras et al. (2017[17]), *The Aged Care Workforce, 2016*, https://gen-agedcaredata.gov.au/www_aihwgen/media/Workforce/The-Aged-Care-Workforce-2016.pdf; data for the United States from Martinez Hickey, Sawo and Wolfe (2022[43]), *The state of the residential long-term care industry: A comprehensive look at employment levels, demographics, wages, benefits, and poverty rates of workers in the industry*, https://epi.org/249221.

StatLink https://stat.link/w4htld

### *3.2.3. Opportunities for adult learning*

Education and training are important job resources to improve the quality of care, and therefore job satisfaction and the retention of LTC workers (Rajamohan, Porock and Chang, 2019[15]). In particular mentorship programmes for new LTC workers, needs-based training programmes for experienced workers and training on leadership and support for managers have reduced turnover intentions (Halter et al., 2017[45]). Training is a particularly important job resource in home care settings as home care workers often work alone meaning that little support is available (Xanthopoulou et al., 2007[46]). In addition, mastering care techniques is important to minimise physical strain on LTC workers, in particular in homes that often are not designed and equipped for LTC provision.

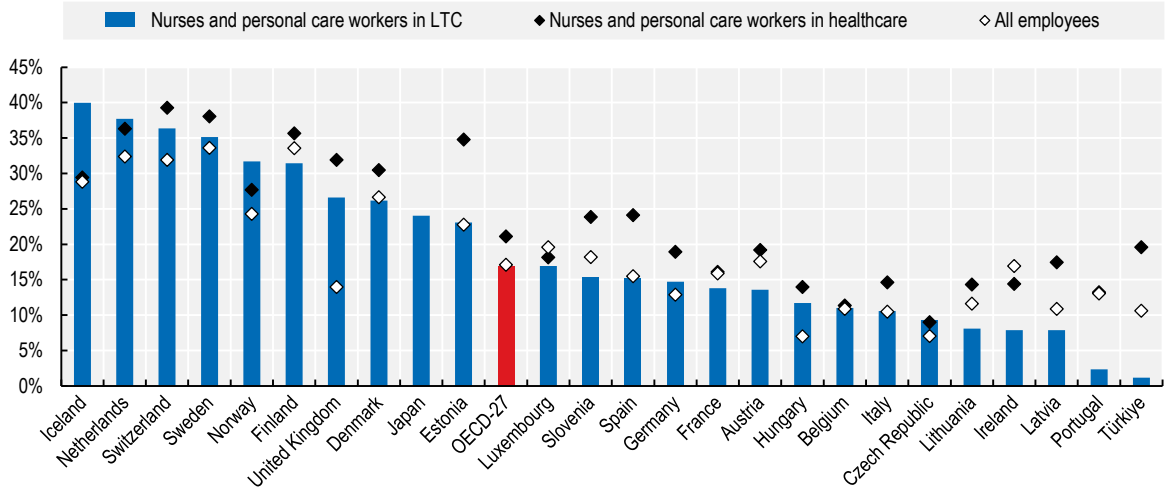
The share of LTC workers having received education or training in the four weeks before taking part in the LFS survey largely follows the average among all employees across countries, and the OECD average for both is at 17% (Figure 3.13). However, this is slightly below the share for nurses and personal care workers in healthcare, which is at 21%. In particular, in countries where following education and training is commonplace within the overall workforce, LTC workers are above-average in terms of the likelihood of having participated in an education or training programme. This is the case in Iceland, the Netherlands, Norway, Switzerland and the United Kingdom. Likewise, in countries where participating in such programmes is less common, such as Ireland, Portugal and Türkiye, LTC workers are less likely to participate than the average employee.

The Australian 2020 Aged Care Workforce Census Report (Australian Government Department of Health, 2021[41]) provides some detailed statistics on participation in training programmes for LTC workers. Personal care workers completed fewer training opportunities than nurses – on average 3.4 trainings per year compared to 4.7 for nurses. Home care workers completed fewer training courses than those in

residential care: a home care nurse on average completed 1.2 training programmes less per year compared to a nurse working in a residential care facility, whereas the difference for personal care workers equals 1.3 trainings per worker per year.[12] The differences in training participation between nurses and personal care workers in Australia reflect the differences in their responsibilities to a large extent, although nurses partake in certain non-health-related trainings more than personal care workers. In both residential and home care settings, nurses are more likely than personal care workers to have completed training in wound care, palliative care and infection prevention and control (Australian Government Department of Health, 2021[41]). Among home care workers, personal care workers completed more trainings per worker in dementia care and diversity awareness compared to nurses, whereas nurses were somewhat more likely to have completed trainings in fall risk and elder abuse than personal care workers. In residential care settings, there is little difference between both groups regarding completion of these types of training. In contrast, medications-related training is much more common for nurses than for personal care workers in residential care, whereas there is little difference between both groups in a home care setting. With the exception of medications, differences in course completion between nurses and personal care workers are more pronounced in home care than in residential care.

### Figure 3.13. LTC workers are as likely to receive education or training as other employees

Share of employees who received education or training in the last four weeks, 2020-21 or latest year




Note: Data are not shown for Greece, Poland and the Slovak Republic as the share of LTC workers concerned is below the number required to report exact numbers, although the exact share is used for the calculation of the OECD average. Extended reference periods for LTC workers are used for the following countries: data for the period 2019-21 are used for Portugal; 2018-21 for Lithuania; 2017-21 for Latvia; and 2014-21 for Greece and Poland. Data only refer to 2020 for Japan and Türkiye, and to 2019 for the United Kingdom.
Source: EU-LFS; Japanese data based on Care Work Foundation (2021[18]), 令和３年度介護労働実態調査: 介護労働者の就業実態と就業意識調査 結果報告書 [Survey on Long-Term Care Workers: Report on Employment Status and Employment Attitude Survey of Care Workers], http://www.kaigo-center.or.jp/report/2022r01_chousa_01.html.

StatLink https://stat.link/gobm3a

### *3.2.4. Enforcement of labour regulations*

While in principle, LTC workers fall under the same labour regulations as other employees, labour regulations have been circumvented in several countries, in particular for live-in care. Regulations limiting working hours or setting minimum wages make live-in 24-hour care provision expensive, making the sector vulnerable to the use of unpaid and undeclared or partially declared employment, often provided by immigrants. In addition, the enforcement of labour regulations can be complicated by contracting LTC workers through placement agencies posting workers from abroad.

Across the European Union, undeclared LTC work appears to occur in particular in countries where formal LTC wages are relatively high, where LTC is largely home-based and where LTC entitlements of people with needs are either limited or consist of cash payments with little control on how they are used. Italy's '*badanti*', for instance, refer to workers providing personal care in people's homes, often immigrants living in with the care recipient. While official statistics include around 400 000 personal care workers, estimates including undeclared workers range around 1 million, with a majority either not having a formal employment contract or working on a contract for fewer hours of caregiving than are effectively supplied (Facchini, 2022[47]; Pasquinelli and Pozzoli, 2021[48]).

In countries where LTC work is largely formal, such as in Denmark and France, it is not uncommon for workers to provide some additional hours of care undeclared according to Eurofound (2020[37]). In Austria, labour regulations applying to employees for live-in LTC workers can be circumvented if these workers register as self-employed (Trukeschitz, Österle and Schneider, 2022[49]). Migrant care workers have been an important source of LTC since the 1990s in Austria, typically in an arrangement where two workers would rotate every two weeks to provide care for an older person. The practice became regularised in 2007 with the implementation of the 24-hour care scheme, allowing these LTC workers to register as self-employed. In doing so, regulations on work schedules, maximum working hours and minimum wages were bypassed. In 2019, about 60 000 care workers took care of about 30 000 older people through this scheme. Similarly, LTC workers are sometimes hired as self-employed in the Netherlands even if they only provide services to a single person, resulting among others in fewer social security entitlements than would be the case if they were hired as employees (OECD, 2020[7]).

A report on compliance with labour protection regulations among home care workers providing publicly funded care in the United States shows that several states provide exceptions to maximum limits on working hours (Doty, Squillace and Kako, 2019[50]). States are responsible for determining limits to working hours for LTC workers, typically set between 40 and 50 hours per week, although 17 states provide exceptions to these limits. In California, for instance, the maximum limit on working hours is 66 hours per week (40 hours for a full-time worker, plus 26 hours overtime), but the limit is 70.75 hours for a live-in LTC worker with a single care recipient; under some circumstances an LTC worker can ask for permission to work up to 90 hours per week caring for two or more people living in the same home.[13] In total, 13 states provide exceptions to maximum working hours regulations for live-in LTC workers, although some states have deliberately chosen not to allow this for publicly funded care to avoid any legal responsibility for having to pay out banked overtime hours plus penalties in case the care recipient did not cover overtime from the public funds received.

## 3.3. A portrait of collective bargaining in the long-term care sector

Collective bargaining and workers' voice are key labour rights; they can also be enablers of inclusive labour markets (OECD, 2019[51]). Typically, collective bargaining and/or union coverage may provide better working conditions and standardised pay scales for workers: for instance, by comparing the earnings of care workers in the United States and 24 European countries, Ferragina and Parolin (2021[52]) find that differences in labour market and welfare state institutions[14] explain most of the difference in the relative earnings of LTC workers across countries. In particular, higher rates of collective bargaining coverage as well as stronger employment protection and welfare state spending, are associated with higher earnings for care occupations.

Collective bargaining matters also for non-monetary aspects of job quality, such as occupational safety and health, working time, training and re-skilling policies, management practices, and the prevention of workplace intimidation and discrimination.

Yet, the capacity of collective bargaining systems to deliver, in particular for workers in the service sector, is being increasingly challenged by the general weakening of labour relations in many OECD countries, the flourishing of new − often precarious – forms of employment and a tendency towards the individualisation of employment relationships. Since the 1980s, collective bargaining systems have been under increasing pressure in most OECD countries. Trade union density (the share of workers who are union members) has declined across OECD countries losing more than half of its reach from 38% on average in 1975 to 16% in 2019. Similarly, the share of workers covered by a collective agreement shrank to 32% on average in the OECD area in 2019 from 45% in 1985.

### *3.3.1. Unionisation and bargaining coverage among long-term care workers tend to mirror national patterns*

In all OECD countries, LTC workers and employers can associate to express their interests and concerns, as well as to bargain over the terms and conditions of employment.[15] However, the actual degree of organisation and coverage differs significantly across countries. Even if *de jure* there are no restrictions to unionise and organise for LTC workers in any OECD country, the presence of many employees in non-standard forms of employment (i.e. without an open-ended contract) may *de facto* limit the ability to unionise, especially where trade unions are already less strong. Across OECD countries, on average, non-standard workers have a lower unionisation rate compared with standard ones (OECD, 2019[51]). Higher job turnover and shorter average job tenure, resulting in workers' limited attachment to workplaces, could also reduce their incentives to join unions as well as their opportunities to do so.

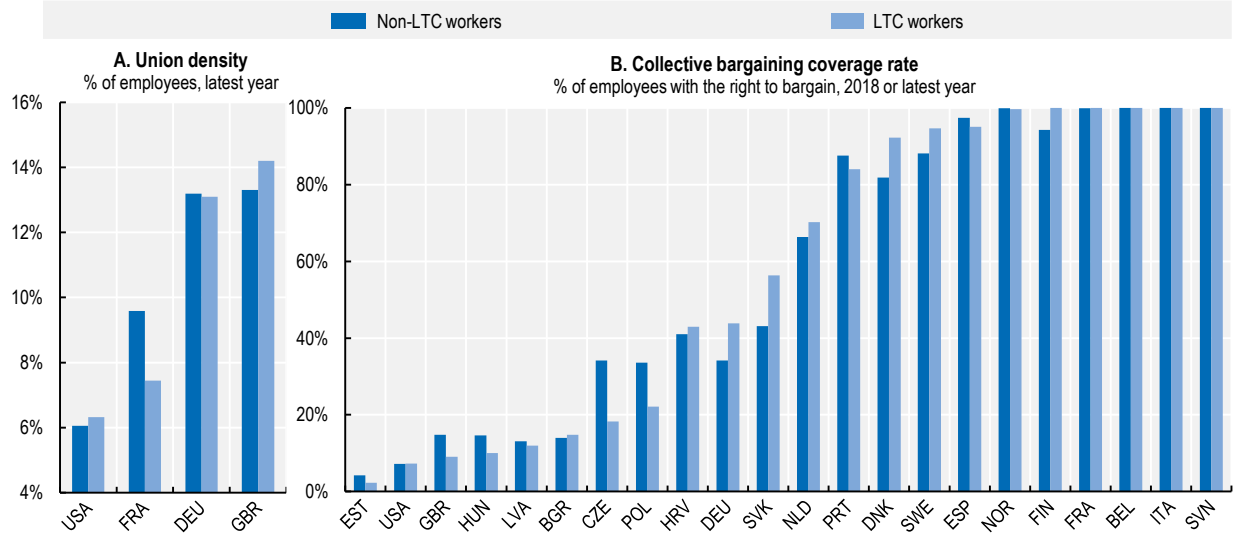
The available data suggest that unionisation and bargaining coverage among LTC workers working with an employment contract (i.e. employees, not self-employed or workers in the informal sector, hence providing a partial picture of the overall workforce in the sector) tend to mirror quite closely the degree of unionisation and coverage among the general employee population.

Among the four countries where microdata allow to measure trade union membership among specific occupations (Figure 3.14), France is the only country where trade union density is lower among LTC workers than among the rest of the workforce (7.4% of private-sector LTC employees are unionised compared to 9.6% among the other workers). In Germany, the United Kingdom or the United States, trade union density among LTC workers is in line with the national average.

A similar pattern emerges when looking at collective bargaining coverage for which a larger number of countries can be covered by the data (see Box 3.1 about the measurement of bargaining coverage in the LTC sector). In the large majority of OECD countries in Figure 3.14, bargaining coverage among LTC workers is similar to that of the rest of the workforce. Only in the Czech Republic and Poland, does coverage among LTC workers appear to be significantly lower than among other employees; conversely, in Denmark, Germany and the Slovak Republic, coverage among LTC workers is higher than in the rest of the workforce.

## Figure 3.14. Unionisation and collective bargaining coverage of LTC workers in selected OECD and European Union countries

Employees in the private sector




Note: LTC workers are strictly defined as personal care workers in health services (ISCO-08 code 532) and nurses (ISCO-08 codes 222 and 322) working in residential nursing care activities (ISIC Rev. 4 code 871), residential care for the elderly and disabled (ISIC Rev. 4 code 873) and social work activities without accommodation for the elderly and disabled (ISIC Rev. 4 code 881). However, the figures presented in this Chart refer to approximate definitions, taking into account the level of detail of the industries and occupations available in the surveys and the national classifications of these two variables which may differ from international classifications (i.e. ISCO-08 and ISIC Rev. 4). LTC workers refer to health professionals (ISCO-08 code 22), health associate professionals (ISCO-08 code 32) and personal care workers (ISCO-08 code 53) working in human health and social work activities (ISIC Rev. 4 code Q) for France in Panel A and Belgium, Croatia, Finland, Germany, Hungary, the Netherlands, Portugal, Slovenia, Spain and Sweden in Panel B; to personal care workers in health services (ISCO-08 code 532) and nurses (ISCO-08 codes 222 and 322) working in human health and social work activities (ISIC Rev. 4 code Q) for Bulgaria, the Czech Republic, Denmark, Estonia, France, Italy, Latvia, Norway, Poland and the Slovak Republic in Panel B; to personal care workers in health services (ISCO-08 code 532) and nurses (ISCO-08 codes 222 and 322) working in residential care activities (ISIC Rev. 4 code 87) and social work activities without accommodation (ISIC Rev. 4 code 88) for Germany in Panel A; to caring Personal Services (SOC2010 code 614) and nurses (SOC2010 codes 222) working in residential nursing care activities (ISIC Rev. 4 code 871), residential care for the elderly and disabled (ISIC Rev. 4 code 873) and social work activities without accommodation for the elderly and disabled (ISIC Rev. 4 code 881) for the United Kingdom (Panels A and B); and to personal care workers (2010 Census occupational codes 3600 3610, 3620, 3655 and 4610) and nurses (2010 Census occupational codes 3255, 3256, 3258, and 3500) working in nursing care facilities (2012 Census industry code 8270), residential care facilities, except skilled nursing facilities (2012 Census industry code 8 290), home healthcare services (2012 Census industry code 8170) and personal care workers working in individual and family services (2012 Census industry code 8370) as nursing, psychiatric, and home health aides (2010 Census occupational codes 3600) for the United States (Panels A and B). Luxembourg is not included due to data limitations, although in principle collective agreements are extended to all workers and firms in the sector.

In Panel A, figures refer to the average of the years 2013 and 2016 for France; 2015 and 2019 for Germany; and 2017 to 2019 for the United Kingdom and the United States. Figures for Norway in Panel B refer to the year 2014.

Source: OECD estimation of union densities (Panel A) based on the Enquête Statistiques sur les Ressources et Conditions de Vie (SRCV, 2013 and 2016) for France; the German Socio-Economic Panel (SOEP, 2015 and 2019) for Germany; the UK labour Force Survey (UKLFS, 2017, 2018 and 2019) for the United Kingdom; and the Current Population Survey (CPS, 2017, 2018 and 2019) for the United States. For the collective bargaining coverage rate (Panel B), OECD estimations based on the European Structure of Earnings Survey (SES, 2018) for all countries excepted the United Kingdom and the United States; the UK labour Force Survey (UKLFS) for the United Kingdom; and the Current Population Survey (CPS) for the United States.

StatLink https://stat.link/dlr748

### Box 3.1. Measuring bargaining coverage in the long-term care sector

Data on bargaining coverage usually come from the bargaining parties, collected through registration at the Labour or Employment Ministry, by national union or employers' confederations or Mediation Boards, by statistical offices based on surveys, or research centres. However, only data from surveys allow a granular analysis at occupational level such as the one needed in this chapter. Survey data have the merit that it excludes double counting, refers only to valid agreements that apply during the reference period, and the data can be used for statistical analyses. However, there are also potentially significant drawbacks. First, this limits country coverage; second, respondents may not necessarily know that they are covered by an agreement; third, small firms are often excluded from the sample leading to an overestimation of coverage; fourth, the wording of the question matters for the final estimates: for instance, the EU Structure of Earnings Survey asks managers to identify the pay agreement covering at least 50% of the employees in the local unit (hence, excluding occupation-specific agreements that may apply only to some employees in the firm or non-wage agreements). Moreover, jobs in the LTC sector are defined at an occupational and sectoral level that is not always available in the microdata used to compute coverage (see notes below the figures). The data presented in this chapter should, therefore, be interpreted with caution.

As discussed in Chapter 2, formal LTC workers comprise two main professional categories: nurses and personal care workers, with the first category including both nurse associates and nurse professionals. Depending on the functioning of the system and the design of collective agreements (some agreements may cover only specific occupations), bargaining coverage across the two professional categories may differ. Data for European Union countries (Figure 3.15) show, however, no major differences between the two professional categories. Except for Croatia and the Slovak Republic, bargaining coverage among nurses and personal care workers is quite similar even if not perfectly aligned (confirming that they may be covered by different agreements). Specific challenges concerning the category of LTC workers at home are discussed in detail in Box 3.2.

All in all, the analysis above suggests that LTC workers do not fare worse (or better) in terms of bargaining coverage than the average employee. Yet their working conditions are generally worse than the rest of the workforce in many dimensions. What could explain this apparent inconsistency? Beyond trade union density and collective bargaining coverage, there are other critical determinants of the effective workers' bargaining power that are harder to measure. First, while high coverage is reached in some countries through administrative extensions of collective agreements concluded at sectoral level, unions do not systematically have the power to negotiate meaningful improvements to working conditions in all sectors. Second, in some countries, like Germany or Italy, the (*de facto* or *de jure*) possibility for companies to opt out from their own sectoral agreement matters a lot for the final bargaining outcomes.[16] Third, in some cases, workers are still covered by collective agreements that have expired as a way to ensure some continuity of the system (the so-called "ultra-activity"). In such case, while most provisions remain binding, wages are eroded in real terms, especially in times of soaring inflation.[17] Finally, compliance with the provisions of collective agreements, even in the formal sector, is not necessarily perfect. There are no precise estimates of the extent of non-compliance among LTC workers but Garnero (2018[53]) shows that 8.2% of the employees in the healthcare sector in Italy in 2015 were paid less than their reference minimum wage. In conclusion, while being usually a useful proxy of the organisation of collective bargaining, high bargaining coverage per se is not a sufficient condition to ensure good working standards, in particular in a sector such as LTC where domestic work is common while undeclared work and false[18] self-employed may also be widespread.

### Box 3.2. LTC workers at home face specific and additional challenges

Many people in need of LTC care wish to remain in their homes for as long as possible. In response to these preferences and the high costs of LTC facilities, many OECD countries have promoted services to support home-based care for older adults. This raises additional and specific challenges for extending social dialogue and collective bargaining to these workers.

First, many of these workers are informal. Promoting social dialogue and collective bargaining, hence, goes hand-in-hand with efforts to promote formalisation. In France, a universal service employment voucher provides families with a simplified hiring process and low costs to formalisation. This system comes together with a specific collective agreement (*Convention collective de la branche du secteur des particuliers employeurs et de l'emploi à domicile*) that regulates all aspects of the working relationship, starting from the minimum wage and that is regularly updated. The French system is relatively simple and extensively used by households. However, it is also very expensive for public finance and has a regressive feature – more than 60% of these tax deductions go to the richest 10% households according to Carbonnier and Morel (2015[54]).

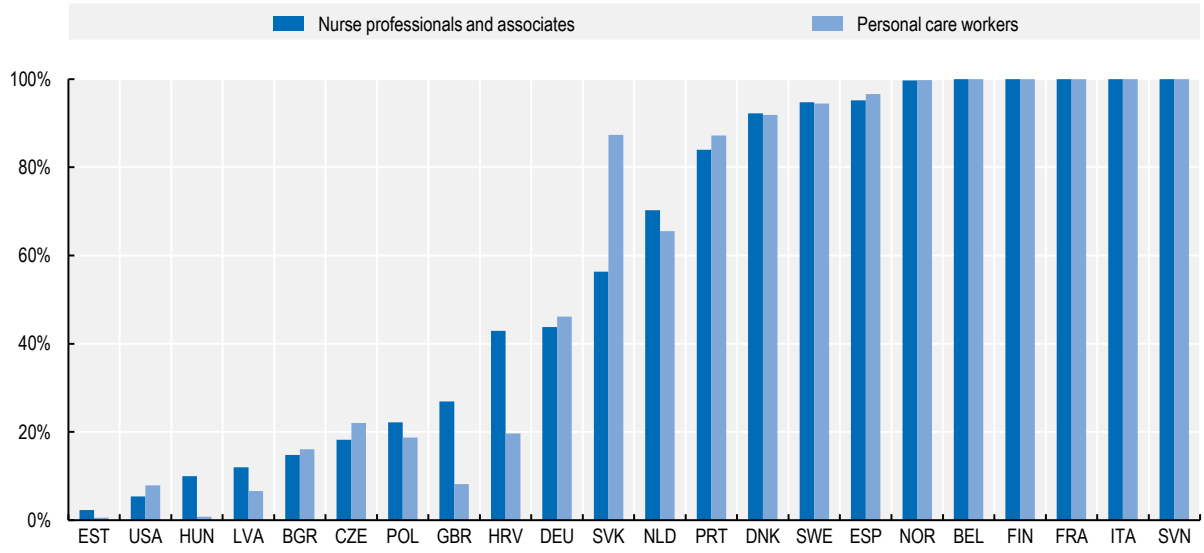
Second, by working at home, these workers do not have a unified place of work where they can meet, discuss and organise. Gig and platform workers face a similar challenge and unions and workers' organisations are making an effort to reach them online. This is more challenging for LTC workers at home who do not work online.

Third, an important barrier to social dialogue and collective bargaining that is specific to workers working at home is the difficulty in organising employers. In most OECD countries, employers (families) are not organised in associations, nor do they negotiate with trade unions or public authorities. Domestic workers face a similar challenge. At the EU level, two organisations represent personal and household services employers, EFFE and EFSI, from France and Italy, which are the two European countries with collective agreements for domestic workers. The current Spanish Government, for instance, is seeking to encourage social dialogue on domestic work, but cannot make progress without an organisation representing employers.

For a more in-depth discussion of the challenges related to LTC workers at home see a dedicated brief by the Global Deal (forthcomimg[55]).

## Figure 3.15. Collective bargaining coverage rate among the two main professional categories in the LTC sector in selected European Union countries

Percentage of the indicated professional category in the LTC sector (private sector only), 2018




Note: LTC workers are strictly defined as personal care workers in health services (ISCO-08 code 532) and nurses (ISCO-08 codes 222 and 322) working in residential nursing care activities (ISIC Rev. 4 code 871), residential care for the elderly and disabled (ISIC Rev. 4 code 873) and social work activities without accommodation for the elderly and disabled (ISIC Rev. 4 code 881). However, the figures presented in this Chart refer to approximate definitions, taking into account the level of detail of the industries and occupations available in the surveys and the national classifications of these two variables which may differ from international classifications (i.e. ISCO-08 and ISIC Rev. 4). LTC workers refer to health professionals (ISCO-08 code 22), health associate professionals (ISCO-08 code 32) and personal care workers (ISCO-08 code 53) working in human health and social work activities (ISIC Rev. 4 code Q) for Belgium, Croatia, Finland, Germany, Hungary, the Netherlands, Portugal, Slovenia, Spain and Sweden; to personal care workers in health services (ISCO-08 code 532) and nurses (ISCO-08 codes 222 and 322) working in human health and social work activities (ISIC Rev. 4 code Q) for Bulgaria, the Czech Republic, Denmark, Estonia, France, Italy, Latvia, Norway, Poland and the Slovak Republic; and to personal care workers (2010 Census occupational codes 3600, 3610, 3620, 3655 and 4610) and nurses (2010 Census occupational codes 3255, 3256, 3258, and 3500) working in nursing care facilities (2012 Census industry code 8270), residential care facilities, except skilled nursing facilities (2012 Census industry code 8 290), home healthcare services (2012 Census industry code 8170) and personal care workers working in individual and family services (2012 Census industry code 8370) as nursing, psychiatric, and home health aides (2010 Census occupational codes 3600) for the United States. Luxembourg is not included due to data limitations, although in principle collective agreements are extended to all workers and firms in the sector.
Source: OECD estimations based on the European Structure of Earnings Survey (SES, 2018) and the Current Population Survey (CPS) for the United States.

StatLink https://stat.link/i0kr2s

### *3.3.2. Good practices exist within heterogenous OECD collective bargaining systems*

Most of the cross-country differences in unionisation levels and bargaining coverage among LTC workers shown in Figure 3.14 and Figure 3.15 can be explained by national differences in the collective bargaining system itself: collective bargaining coverage has remained high and relatively stable only in countries where multi-employer agreements (i.e. at sectoral or national level) are negotiated – more or less frequently – and where the share of firms that are members of an employer association is high, or where agreements are extended[19] also to workers working in firms which are not members of a signatory employer association – see OECD (2019[51]) for a detailed characterisation of the functioning of the collective bargaining system in each OECD country. In several OECD countries, there is no system of sectoral bargaining in place and therefore LTC workers, like all other workers, can only negotiate at firm-level, if and where they manage to organise (Table 3.2).

## Table 3.2. Collective bargaining for LTC workers in the private sector, selected OECD countries, 2022

| Country | Collective agreements in LTC |
|---|---|
| Australia | Australia does not have a system of sectoral collective agreements only company-level bargaining. Modern Awards, together with the legislated National Employment Standards, provide minimum employment standards for employees in the national industrial relations system. |
| Austria | Collective bargaining is common. Regional, single-employer and specific types of care home (confessional) collective agreements. |
| Belgium | Collective bargaining is common at national, sectoral and company level. |
| Canada | Collective bargaining is rare and occurs only at the level of the employer or workplace. |
| Czech Republic | Collective bargaining is rare and occurs only at the level of the employer or workplace. |
| Denmark | Collective bargaining is common at sectoral and company level. Only few private-sector LTC workers are excluded. |
| Estonia | Collective bargaining is rare and occurs only at the level of the employer or workplace. |
| Finland | Collective bargaining is common at sectoral and company level. |
| France | Collective bargaining is common at sectoral and company level. |
| Germany | As of 1 September 2022, all long-term care services and nursing homes must pay their employees who work in the field of nursing and care support at the level of the regional collective agreements. |
| Greece | Collective bargaining is rare and occurs mostly at the level of the employer or workplace. |
| Hungary | Collective bargaining is rare and occurs only at the level of the employer or workplace. |
| Ireland | Collective bargaining occurs mostly at the level of the employer or workplace. |
| Israel | Collective bargaining is rare and occurs only at the level of the employer or workplace. |
| Italy | Collective bargaining is common at sectoral and company level. |
| Latvia | Collective bargaining is rare and occurs only at the level of the employer or workplace. |
| Lithuania | Collective bargaining is rare and occurs only at the level of the employer or workplace. |
| Luxembourg | Collective bargaining is common at sectoral and company level. |
| Netherlands | Collective bargaining is common at sectoral and company level. |
| Norway | Collective bargaining is common at sectoral and company level. |
| Poland | Collective bargaining is rare and occurs only at the level of the employer or workplace. |
| Portugal | Collective bargaining is common at sectoral and company level. |
| Slovak Rep. | Collective bargaining is rare and occurs only at the level of the employer or workplace. |
| Slovenia | Collective bargaining is common at sectoral and company level. |
| Spain | Collective bargaining is common at sectoral, local and company level. |
| Sweden | Collective bargaining is common at sectoral and company level. Only workers in small private companies may not always be covered. |
| Switzerland | Collective bargaining occurs mostly at the level of the employer or workplace. |
| United Kingdom | Collective bargaining is rare and occurs only at the level of the employer or workplace. |
| United States | Collective bargaining is rare and occurs only at the level of the employer or workplace. |

Source: OECD questionnaire on long-term care and Eurofound (2020[37]), *Long-term care workforce: Employment and working conditions*, https://www.eurofound.europa.eu/publications/customised-report/2020/long-term-care-workforce-employment-and-working-conditions.
Information on Chile, Colombia, Costa Rica, Iceland, Japan, Korea, Mexico, New Zealand and Türkiye not available.

In Austria, for instance, collective agreements in the LTC sector are regularly negotiated at company level between management and a work council, and annually at national level during negotiations between industry social partners (employers and trade unions). In 2019, the negotiation led to a 3.2% increase in wages for the whole workforce and to paid leave agreements (European Commission and Social Protection Committee, 2021[56]). In Spring 2020, private-sector unions entered the annual collective bargaining round in the social economy sector with only one demand, to reduce working hours from 38 to 35 hours per week and waive a wage increase. A three-year agreement between the social partners was reached in April 2020. The social partners agreed to wage increases for 2020 and 2021, and to reduce working time to 37 hours from 1 January 2022 (Allinger and Adam, 2022[57]).

In Germany, already before COVID-19, various measures were introduced with the aim of raising pay in LTC, including provisions to make more home care service providers subject to collective agreements and introducing a legal basis to improve wage conditions for care workers. In addition, an obligation was

introduced to pay wages at least at collective bargaining level to employees who work in the field of LTC (*Gesundheitsversorgungsweiterentwicklungsgesetz*). As of September 2022, the German statutory care insurance is only allowed to conclude supply contracts with residential and home care providers if they comply with this regulation. This new requirement is met if LTC facilities that are not bound by collective wage agreements either pay wages to their LTC workers at least at the level of the regionally applicable collective agreement or if they pay wages that correspond at least to the average payment level of care facilities that are bound to the collective agreement in the region.

Beyond the functioning of the collective bargaining system itself, other rules and procedures may provide incentives (or disincentives) to negotiate collective agreements. For instance, Sánchez-Mira, Olivares and Oto (2021[58]) argue that in Spain, despite an increasing decentralisation in collective bargaining in the LTC sector, the precedence given to sectoral agreements in the public procurement process has allowed preventing a move towards "disorganised decentralisation".[20] In fact, moderate decentralisation in Spain has favoured heterogeneity in pay and working conditions at regional and provincial levels but has also led to improvements in working standards with respect to the national collective agreement (Sánchez-Mira, Olivares and Oto, 2021[58]).

Even where collective bargaining in the private sector is rare and mostly confined to the company/workplace level, what is negotiated in the public sector can have an influence on the private sector. In the Czech Republic, for instance, where collective bargaining is rare and occurs only at company/workplace level, since 2017, wages in the care sector have increased substantially both in the public and private sector thanks to an agreement with social partners in the public sector.

Moreover, collective bargaining and social dialogue also cover other issues than wages and working time. In France, for instance, after the first wave of the COVID-19 pandemic, social partners agreed to use pooled funds for professional training to help workers go back to work and to overcome psychological problems (e.g. anxiety); to help managers to rebuild teams, as workers had not been in contact for a while; to take stock of the developments needed to adjust to the situation with the help of a coach (Allinger and Adam, 2022[57]). The programme was organised at the national level and implemented at the local level. In Sweden, a 20-year battle among trade unions of elder care workers revolved around the right to free workwear. Because of lack of clarity in the legal basis, financial concerns and the superposition of different government authorities, for Swedish elder care workers, the right to free workwear was not recognised and they had to wear their own clothes at work. Contrary to the Swedish model of self-regulation, the right to workwear was finally won thanks to the intervention of the state (in 2015 and 2018) and not by collective agreement (Thörnquist, 2021[59]).

Beyond negotiating collective agreements, social partners also voice concerns and do advocacy on behalf of their members, including in the LTC sectors. In Austria, for instance, in the wake of the COVID-19 crisis, the four trade unions active in the health and social care sectors (two unions for public sector employees and two for private sector employees) and the two employees' chambers (Chamber of Labour and Austrian Medical Chamber, group of employed physicians) set up the "*Offensive Gesundheit*" (Health Offensive) initiative. Their goal was to lobby the federal government in order to reform the LTC sector (Allinger and Adam, 2022[57]).

Social dialogue in the LTC sector also happens at the supranational level. At the European Union level, in 2020 social partners adopted four joint documents[21] about social service workers (which include LTC workers) during the COVID-19 pandemic. The statements, letters and position papers aimed at protecting jobs and the health of social service workers by developing protocols for nursing and other residential care services, access to protective personal equipment and screening tests as well as ensuring that business in the sectors were eligible for public aid. Besides those issued statements, letters and position papers, the European social partners held several webinars and social media campaigns to raise awareness and support for the sector. In the recent European Care Strategy, the European Commission has made clear commitments to promote further social dialogue in the LTC sector by exploring ways to set up new sectoral

social dialogue for social services at EU level and increasing support for capacity via social dialogue calls for proposals and European Social Fund Plus funding.

Finally, even where collective bargaining is restricted to company level, it is possible to find solutions to cover a larger share of workers. Australia does not have sectoral bargaining, but a form of industry – or occupation-wide regulations, so-called Modern Awards, which set industry-specific wage floors that vary by skill level.[22] The main awards covering LTC workers in the national system (both for-profit or not-for profit) include the Aged Care Award (residential or institutional care), the Social, Community, Home Care and Disability Services Industry Award (in-home care) and the Nurses Award. In November 2022, aged care workers secured a 15% "interim increase" (the timing of the pay rise and how it will be introduced is still to be decided). There are also specific awards covering some public sector employees, such as the Nurses and Midwives (Victoria) State Reference Public Sector Award and Nurses (ANMF – Victorian Local Government) Award.

To sum up, in line with previous OECD work, there are different examples of collective bargaining and, more generally, of social dialogue that can help improve the working conditions, and wages in particular, of LTC workers. Whether to limit wage inequality, enhance job quality, workplace adaptation to the use of new technologies, or improve the support for workers who lost their jobs following shifts in industries, collective bargaining and social dialogue remain unique tools enabling governments and social partners to find tailored and fair solutions.

In most OECD countries, the bargaining coverage of LTC workers employed in the formal sector is similar to the average. Hence, the ability of collective bargaining systems to deliver may be increasingly challenged by the general weakening of labour relations in the LTC sector as well (on average across OECD countries, only one-third of employees are covered by a collective agreement). Actually, this may even be more the case in the LTC sector where many workers work undeclared or as bogus self-employed and often have a migrant background, making it more difficult to organise them and negotiate on their behalf. Over and above devising tailored initiatives specific to the sector, improving the effectiveness of collective bargaining for LTC workers requires a new impetus to collective bargaining in general, with governments accompanying the efforts of unions and employer organisations to expand their membership and enlarge the coverage of collective agreements.

## References


Allinger, B. and G. Adam (2022), *Impact of the Covid-19 pandemic on the social services sector and the role of social dialogue*, FORESEE project (VS/2021/0054). [57]

Aloisio, L., M. Coughlin and J. Squires (2021), "Individual and organizational factors of nurses' job satisfaction in long-term care: A systematic review", *International Journal of Nursing Studies*, Vol. 123, p. 104073, https://doi.org/10.1016/j.ijnurstu.2021.104073. [64]

Andela, M., D. Truchot and V. Huguenotte (2021), "Work Environment and Elderly Abuse in Nursing Homes: The Mediating Role of Burnout", *Journal of Interpersonal Violence*, Vol. 36/11-12, pp. 5709-5729, https://doi.org/10.1177/0886260518803606. [23]

Anses (2021), *Plan Santé-Travail 3: Action 1.11 : Amélioration et prise en compte de la polyexposition. « Profils homogènes de travailleurs polyexposés »*, Anses, https://www.anses.fr/fr/system/files/PST3_ProfilTravailleursExposes_Polyexposition.pdf. [35]

Australian Government Department of Health (2021), *2020 Aged Care Workforce Census Report*, Australian Government Department of Health, https://www.health.gov.au/resources/publications/2020-aged-care-workforce-census. [41]

Broetje, S., G. Jenny and G. Bauer (2020), "The Key Job Demands and Resources of Nursing Staff: An Integrative Review of Reviews", *Frontiers in Psychology*, Vol. 11, https://doi.org/10.3389/fpsyg.2020.00084. [62]

Butler, S. et al. (2014), "Determinants of Longer Job Tenure Among Home Care Aides", *Journal of Applied Gerontology*, Vol. 33/2, pp. 164-188, https://doi.org/10.1177/0733464813495958. [12]

Carbonnier, C. and N. Morel (2015), *Faut-il miser sur l'emploi domestique ?*, LIEPP Policy brief. [54]

Care Work Foundation (2021), *令和３年度介護労働実態調査: 介護労働者の就業実態と就業意識調査 結果報告書 [Survey on Long-Term Care Workers: Report on Employment Status and Employment Attitude Survey of Care Workers]*, Care Work Foundation, http://www.kaigo-center.or.jp/report/2022r01_chousa_01.html. [18]

Casanova, G., G. Lamura and A. Principi (2017), "Valuing and Integrating Informal Care as a Core Component of Long-Term Care for Older People: A Comparison of Recent Developments in Italy and Spain", *Journal of Aging & Social Policy*, Vol. 29/3, pp. 201-217, https://doi.org/10.1080/08959420.2016.1236640. [5]

Castle, N. et al. (2007), "Job Satisfaction of Nurse Aides in Nursing Homes: Intent to Leave and Turnover", *The Gerontologist*, Vol. 47/2, pp. 193-204, https://doi.org/10.1093/geront/47.2.193. [9]

Cazes, S., A. Hijzen and A. Saint-Martin (2015), "Measuring and Assessing Job Quality: The OECD Job Quality Framework", *OECD Social, Employment and Migration Working Papers*, No. 174, OECD Publishing, Paris, https://doi.org/10.1787/5jrp02kjw1mr-en. [1]

Clarke, J. (2021), *Impacts of the COVID-19 pandemic in nursing and residential care facilities in Canada*, Statistics Canada, Ottawa, https://www150.statcan.gc.ca/n1/pub/45-28-0001/2021001/article/00025-eng.htm. [36]

Dellve, L., M. Lagerström and M. Hagberg (2003), "Work-system risk factors for permanent work disability among home-care workers: a case-control study", *International Archives of Occupational and Environmental Health*, Vol. 76/3, pp. 216-224, https://doi.org/10.1007/s00420-002-0414-5. [29]

Demerouti, E. et al. (2001), "The job demands-resources model of burnout.", *Journal of Applied Psychology*, Vol. 86/3, pp. 499-512, https://doi.org/10.1037/0021-9010.86.3.499. [72]

Denny-Brown, N. et al. (2020), *COVID-19 intensifies nursing home workforce challenges*, Mathematica, Cambridge, MA, http://resource.nlm.nih.gov/101775124. [44]

Dhaini, S. et al. (2017), "Are nursing home care workers' health and presenteeism associated with implicit rationing of care? A cross-sectional multi-site study", *Geriatric Nursing*, Vol. 38/1, pp. 33-38, https://doi.org/10.1016/j.gerinurse.2016.07.003. [67]

Dollard, M. et al. (2007), "Job stress in the Australian and international health and community services sector: A review of the literature.", *International Journal of Stress Management*, Vol. 14/4, pp. 417-445, https://doi.org/10.1037/1072-5245.14.4.417. [63]

Doty, P., M. Squillace and E. Kako (2019), *Analysis of State Efforts to Comply with Fair Labor Standards Act Protections to Home Care Workers*, U.S. Department of Health and Human Services, https://www.aspe.hhs.gov/reports/analysis-state-efforts-comply-fair-labor-standards-act-protections-home-care-workers. [50]

DW (2021), *Germany: Court's order on nursing care workers sparks debate*, https://www.dw.com/en/germany-top-courts-order-on-foreign-nursing-home-workers-pay-triggers-debate/a-58045991. [39]

Eurofound (2020), *Long-term care workforce: Employment and working conditions*, Publications Office of the European Union, Luxembourg, https://www.eurofound.europa.eu/publications/customised-report/2020/long-term-care-workforce-employment-and-working-conditions. [37]

European Commission (2022), *A European Care Strategy for caregivers and care receivers*, https://ec.europa.eu/commission/presscorner/detail/en/ip_22_5169. [2]

European Commission and Social Protection Committee (2021), *Long-term care report*, Publications Office of the European Union, Luxembourg. [56]

Facchini, C. (2022), "Caring for non-self-sufficient older people in Italy: from a familistic system to the immigrant live-in careworker model", *Ciências e Políticas Públicas / Public Sciences & Policies*, Vol. 6/2, pp. 149-168, https://doi.org/10.33167/2184-0644.cpp2020.vvin2/pp.149-168. [47]

Ferragina, E. and Z. Parolin (2021), "Care earnings in the United States and 24 European countries: The role of social policy and labour market institutions", *Social Policy & Administration*, Vol. 56/1, pp. 118-137, https://doi.org/10.1111/spol.12759. [52]

Garnero, A. (2018), "The dog that barks doesn't bite: coverage and compliance of sectoral minimum wages in Italy", *IZA Journal of Labor Policy*, Vol. 7/1, https://doi.org/10.1186/s40173-018-0096-6. [53]

Gaudenz, C. et al. (2019), "Factors Associated With Care Workers' Intention to Leave Employment in Nursing Homes: A Secondary Data Analysis of the Swiss Nursing Homes Human Resources Project", *Journal of Applied Gerontology*, Vol. 38/11, pp. 1537-1563, https://doi.org/10.1177/0733464817721111. [8]

Global Deal (forthcomimg), "Unlocking the potential of social dialogue for carers of older people at home", *Global Deal Thematic Brief*, Global Deal, https://www.theglobaldeal.com/. [55]

Gorodzeisky, A. and A. Richards (2013), "Trade unions and migrant workers in Western Europe", *European Journal of Industrial Relations*, Vol. 19/3, pp. 239-254, https://doi.org/10.1177/0959680113493694. [3]

Halter, M. et al. (2017), "The determinants and consequences of adult nursing staff turnover: a systematic review of systematic reviews", *BMC Health Services Research*, Vol. 17/1, https://doi.org/10.1186/s12913-017-2707-0. [10]

Halter, M. et al. (2017), "Interventions to Reduce Adult Nursing Turnover: A Systematic Review of Systematic Reviews", *The Open Nursing Journal*, Vol. 11/1, pp. 108-123, https://doi.org/10.2174/1874434601711010108. [45]

Hayes, L. et al. (2006), "Nurse turnover: A literature review", *International Journal of Nursing Studies*, Vol. 43/2, pp. 237-263, https://doi.org/10.1016/j.ijnurstu.2005.02.007. [11]

Hunt, P., S. Denieffe and M. Gooney (2017), "Burnout and its relationship to empathy in nursing: a review of the literature", *Journal of Research in Nursing*, Vol. 22/1-2, pp. 7-22, https://doi.org/10.1177/1744987116678902. [32]

Kato, Y., R. Chiba and A. Shimazu (2021), "Work Engagement and the Validity of Job Demands–Resources Model Among Nurses in Japan: A Literature Review", *Workplace Health & Safety*, Vol. 69/7, pp. 323-342, https://doi.org/10.1177/21650799211002471. [73]

Khamisa, N., K. Peltzer and B. Oldenburg (2013), "Burnout in Relation to Specific Contributing Factors and Health Outcomes among Nurses: A Systematic Review", *International Journal of Environmental Research and Public Health*, Vol. 10/6, pp. 2214-2240, https://doi.org/10.3390/ijerph10062214. [31]

Kranendonk, M. and P. de Beer (2016), "What Explains the Union Membership Gap between Migrants and Natives?", *British Journal of Industrial Relations*, Vol. 54/4, pp. 846-869, https://doi.org/10.1111/bjir.12192. [4]

Martinez Hickey, S., M. Sawo and J. Wolfe (2022), *The state of the residential long-term care industry: A comprehensive look at employment levels, demographics, wages, benefits, and poverty rates of workers in the industry*, Economic Policy Institute, Washington DC, http://epi.org/249221. [43]

Mavromaras, K. et al. (2017), *The Aged Care Workforce, 2016*, Australian Government Department of Health, https://gen-agedcaredata.gov.au/www_aihwgen/media/Workforce/The-Aged-Care-Workforce-2016.pdf. [17]

Ministry of Health, Labour and Welfare (2021), *賃金構造基本統計調査 [Basic Survey on Wage Structure]*, Ministry of Health, Labour and Welfare, https://www.mhlw.go.jp/toukei/list/chinginkouzou.html. [19]

Ministry of Health, Labour and Welfare (2020), *労働安全衛生調査（実態調査）[Occupational Health and Safety Survey (Fact-finding Survey)]*, Ministry of Health, Labour and Welfare, https://www.mhlw.go.jp/toukei/list/list46-50_an-ji.html. [40]

OECD (2022), *Part-time employment rate* (indicator), https://doi.org/10.1787/f2ad596c-en (accessed on 18 November 2022). [42]

OECD (2022), *Temporary employment* (indicator), https://doi.org/10.1787/75589b8a-en (accessed on 18 November 2022). [22]

OECD (2020), *Who Cares? Attracting and Retaining Care Workers for the Elderly*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/92c0ef68-en. [7]

OECD (2019), *Negotiating Our Way Up: Collective Bargaining in a Changing World of Work*, OECD Publishing, Paris, https://doi.org/10.1787/1fd2da34-en. [51]

OECD (2019), *OECD Employment Outlook 2019: The Future of Work*, OECD Publishing, Paris, https://doi.org/10.1787/9ee00155-en. [74]

OECD (2017), *OECD Guidelines on Measuring the Quality of the Working Environment*, OECD Publishing, Paris, https://doi.org/10.1787/9789264278240-en. [20]

OECD (2014), "How good is your job? Measuring and assessing job quality", in *OECD Employment Outlook 2014*, OECD Publishing, Paris, https://doi.org/10.1787/empl_outlook-2014-6-en. [21]

OECD/European Union (2013), *A Good Life in Old Age? Monitoring and Improving Quality in Long-term Care*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/9789264194564-en. [6]

Papastavrou, E., P. Andreou and G. Efstathiou (2014), "Rationing of nursing care and nurse-patient outcomes: a systematic review of quantitative studies", *The International Journal of Health Planning and Management*, Vol. 29/1, pp. 3-25, https://doi.org/10.1002/hpm.2160. [61]

Pasquinelli, S. and F. Pozzoli (2021), *Badanti dopo la pandemia: Vent'anni di lavoro privato di cura in Italia. Quaderno WP3 del progetto "Time to care" [Carers after the pandemic: Twenty years of private care work in Italy. WP3 note of the "Time to care" project]*, "Time to care" project, http://www.qualificare.info/home.php?id=729. [48]

Pelling, L. (2021), *On the Corona Frontline: The Experiences of Care Workers in Nine European Countries – Summary Report*, Friedrich-Ebert-Stiftung, https://library.fes.de/pdf-files/bueros/stockholm/17490.pdf. [34]

Radford, K., K. Shacklock and G. Bradley (2015), "Personal care workers in Australian aged care: retention and turnover intentions", *Journal of Nursing Management*, Vol. 23/5, pp. 557-566, https://doi.org/10.1111/jonm.12172. [14]

Rahnfeld, M. et al. (2016), "Uncovering the care setting–turnover intention relationship of geriatric nurses", *European Journal of Ageing*, Vol. 13/2, pp. 159-169, https://doi.org/10.1007/s10433-016-0362-7. [13]

Rajamohan, S., D. Porock and Y. Chang (2019), "Understanding the Relationship Between Staff and Job Satisfaction, Stress, Turnover, and Staff Outcomes in the Person-Centered Care Nursing Home Arena", *Journal of Nursing Scholarship*, Vol. 51/5, pp. 560-568, https://doi.org/10.1111/jnu.12488. [15]

Rapp, T., J. Ronchetti and J. Sicsic (2021), "Are long-term care jobs harmful? Evidence from Germany", *The European Journal of Health Economics*, Vol. 22/5, pp. 749-771, https://doi.org/10.1007/s10198-021-01288-y. [28]

Ruotsalainen, S., S. Jantunen and T. Sinervo (2020), "Which factors are related to Finnish home care workers' job satisfaction, stress, psychological distress and perceived quality of care? - a mixed method study", *BMC Health Services Research*, Vol. 20/1, https://doi.org/10.1186/s12913-020-05733-1. [24]

Sánchez-Mira, N., R. Olivares and P. Oto (2021), "A matter of fragmentation? Challenges for collective bargaining and employment conditions in the Spanish long-term care sector", *Transfer: European Review of Labour and Research*, Vol. 27/3, pp. 319-335, https://doi.org/10.1177/10242589211028098. [58]

Sarti, D. (2014), "Job Resources as Antecedents of Engagement at Work: Evidence From a Long-Term Care Setting", *Human Resource Development Quarterly*, Vol. 25/2, pp. 213-237, https://doi.org/10.1002/hrdq.21189. [26]

Schwendimann, R. et al. (2016), "Factors associated with high job satisfaction among care workers in Swiss nursing homes – a cross sectional survey study", *BMC Nursing*, Vol. 15/1, https://doi.org/10.1186/s12912-016-0160-8. [70]

Seljemo, C., P. Viksveen and E. Ree (2020), "The role of transformational leadership, job demands and job resources for patient safety culture in Norwegian nursing homes: a cross-sectional study", *BMC Health Services Research*, Vol. 20/1, https://doi.org/10.1186/s12913-020-05671-y. [25]

Singh, J. et al. (2020), "A Systematic Review of Job Demands and Resources Associated with Compassion Fatigue in Mental Health Professionals", *International Journal of Environmental Research and Public Health*, Vol. 17/19, p. 6987, https://doi.org/10.3390/ijerph17196987. [33]

Sjöberg, A. et al. (2020), "The burden of high workload on the health-related quality of life among home care workers in Northern Sweden", *International Archives of Occupational and Environmental Health*, Vol. 93/6, pp. 747-764, https://doi.org/10.1007/s00420-020-01530-9. [66]

Squires, J. et al. (2015), "Job Satisfaction among Care Aides in Residential Long-Term Care: A Systematic Review of Contributing Factors, Both Individual and Organizational", *Nursing Research and Practice*, Vol. 2015, pp. 1-24, https://doi.org/10.1155/2015/157924. [65]

Thörnquist, A. (2021), "Trade union struggle for workwear in Swedish elder care", *Transfer: European Review of Labour and Research*, Vol. 27/3, pp. 337-352, https://doi.org/10.1177/10242589211031369. [59]

Treuren, G. and E. Frankish (2014), "Pay Dissatisfaction and Intention to Leave", *Nonprofit Management and Leadership*, Vol. 25/1, pp. 5-21, https://doi.org/10.1002/nml.21108. [16]

Trukeschitz, B., A. Österle and U. Schneider (2022), "Austria's Long-Term Care System: Challenges and Policy Responses", *Journal of Long Term Care*, pp. 88-101, https://doi.org/10.31389/jltc.112. [49]

van den Tooren, M. and J. de Jonge (2008), "Managing job stress in nursing: what kind of resources do we need?", *Journal of Advanced Nursing*, Vol. 63/1, pp. 75-84, https://doi.org/10.1111/j.1365-2648.2008.04657.x. [69]

Vander Elst, T. et al. (2016), "Job demands–resources predicting burnout and work engagement among Belgian home health care nurses: A cross-sectional study", *Nursing Outlook*, Vol. 64/6, pp. 542-556, https://doi.org/10.1016/j.outlook.2016.06.004. [27]

Vasconcelos, S. et al. (2016), "Nursing Staff Members Mental's Health and Factors Associated with the Work Process: An Integrative Review", *Clinical Practice & Epidemiology in Mental Health*, Vol. 12/1, pp. 167-176, https://doi.org/10.2174/1745017901612010167. [30]

Wei, H. et al. (2020), "The Impact of Nurse Leadership Styles on Nurse Burnout: A Systematic Literature Review", *Nurse Leader*, Vol. 18/5, pp. 439-450, https://doi.org/10.1016/j.mnl.2020.04.002. [71]

Willemse, B. et al. (2012), "The moderating role of decision authority and coworker- and supervisor support on the impact of job demands in nursing homes: A cross-sectional study", *International Journal of Nursing Studies*, Vol. 49/7, pp. 822-833, https://doi.org/10.1016/j.ijnurstu.2012.02.003. [68]

Woodhead, E., L. Northrop and B. Edelstein (2016), "Stress, Social Support, and Burnout Among Long-Term Care Nursing Staff", *Journal of Applied Gerontology*, Vol. 35/1, pp. 84-105, https://doi.org/10.1177/0733464814542465. [60]

Xanthopoulou, D. et al. (2007), "When do job demands particularly predict burnout?", *Journal of Managerial Psychology*, Vol. 22/8, pp. 766-786, https://doi.org/10.1108/02683940710837714. [46]

Zeytinoglu, I. et al. (2009), "Casualized employment and turnover intention: Home care workers in Ontario, Canada", *Health Policy*, Vol. 91/3, pp. 258-268, https://doi.org/10.1016/j.healthpol.2008.12.004. [38]

## Notes

[1] Despite possible differences between nurses and personal care workers in terms of working environment in LTC, they are analysed as one group in this chapter as the number of cases in the data used are too small to analyse both groups separately in a meaningful way.

[2] Data based on EU-LFS and Australian data based on Mavromaras et al. (2017[17]) are available upon request. Across OECD countries in the EU-LFS data, the share of LTC and healthcare workers looking for another job in 2020 does not deviate from that in the years prior to the COVID-19 pandemic.

[3] The model was initially developed by Demerouti et al. (2001[72]).

[4] Rationing of care refers to not performing certain care tasks and has been linked to job demands such as a high workload or a lack of staffing, as well as to emotional exhaustion and pain in nurses. The care tasks most often rationed are certain ADL tasks (bathing, oral hygiene, toilet visits), talking to care recipients and their families and providing emotional support, helping care recipients move around, rehabilitation support and monitoring (Dhaini et al., 2017[67]; Papastavrou, Andreou and Efstathiou, 2014[61]).

[5] The OECD has an objective approach to assessing the quality of the working environment, focusing on job characteristics that influence workers' well-being rather than on individuals' subjective evaluations of their conditions (OECD, 2017[20]).

[6] See for instance in Australia (Dollard et al., 2007[63]), Belgium (Vander Elst et al., 2016[27]), Finland (Ruotsalainen, Jantunen and Sinervo, 2020[24]), Italy (Sarti, 2014[26]), Japans (Kato, Chiba and Shimazu, 2021[73]), the Netherlands (van den Tooren and de Jonge, 2008[69]; Willemse et al., 2012[68]; Xanthopoulou et al., 2007[46]), Sweden (Sjöberg et al., 2020[66]), Switzerland (Schwendimann et al., 2016[70]) and the United States (Woodhead, Northrop and Edelstein, 2016[60]).

[7] See for example (Aloisio, Coughlin and Squires, 2021[64]; Broetje, Jenny and Bauer, 2020[62]; Kato, Chiba and Shimazu, 2021[73]; Khamisa, Peltzer and Oldenburg, 2013[31]; Squires et al., 2015[65]; Wei et al., 2020[71])

[8] As the data stem from the 2020 ad hoc module of the EU-LFS on accidents at work and other work-related health problems, it is not possible to merge data from different years to reach the required sample sizes to report the numbers. Instead, the sector was defined at a one-digit NACE level instead of the two-digit level used elsewhere in this chapter.

[9] The reason for high prevalence of work-related musculoskeletal problems in Finland is unclear. The Finnish questionnaire does not deviate from the standard questionnaire for the variables analysed, and

the results are in line with those of earlier waves of the EU-LFS ad hoc module on accidents at work and other work-related health problems.

[10] While the question analysed is the same, Swedes may have been more likely to have been asked this question. In the standard questionnaire, people were asked how many work-related health problems they had, and those who indicated to have had at least one work-related health problem were subsequently asked which types of work-related health problems they had. In Sweden, however, the first question referred to health problems in general, not only work-related health problems. Yet, the same is the case for the question of musculoskeletal health problems where Sweden is not an outlier, so it is unclear to what extent Sweden's exceptionally high prevalence of work-related mental health issues is the result of this deviation in the questionnaire.

[11] Although no data are available, similar findings likely apply to working during public holidays as people requiring assistance in executing activities of daily life such as getting dressed or going to the toilet need support on a daily basis.

[12] In case the uptake of trainings would be equally distributed across workers and over the year, that would correspond to 26% of personal care workers and 36% of nurses having received some form of training over the last four weeks, or 28% for both groups combined.

[13] The 90-hour applies when at least one care recipient has a care need requiring a live-in LTC worker, when the care recipient lives in a remote area where alternative providers are not available, when no other LTC worker able to speak the language of the care recipient is available, or when all the persons cared for are relatives and live in the same household as the LTC worker. In Massachusetts, 50 hours per week is the maximum (40 hours for a full-time worker, plus 10 hours overtime), although an extension to 66 hours can be granted based on special needs. In Wisconsin, 60 hours per week is the limit (42.25 hours for a full-time worker, plus 17.75 hours overtime), although working hours can exceed this limit for live-in LTC workers as well as in case of short-term increased needs. In Ohio, permission to work more than 60 hours per week can be applied for based on "events and circumstances" documented in the individual's service plan (e.g. an immunocompromised care recipient who would face increased risks from additional care providers, or no other care workers with the required skills for specific treatment are available in the area).

[14] Ferragina and Parolin (2021[52]) look at employment protection legislation, bargaining coverage, spending on social services as share of GDP, spending on transfers as share of GDP and income inequality (Gini).

[15] In some OECD countries, it is mandatory for nurses to be a member of an occupational association, which is not a trade union. This does not necessarily imply that the members are bound by a collective agreement.

[16] Conversely, the estimates of collective bargaining coverage may underestimate the actual number of workers benefitting from the terms set in collective agreements. In fact, even when workers are not formally covered by a collective agreement, some firms may follow the terms set by the collective agreement of reference, even in the public sector, to reduce both transaction costs and the risks of conflicts, or, simply, to avoid risking losing workers to competitors.

[17] In Italy, around 40% of private sector employees are currently covered by a collective agreement that has expired.

[18] False self-employment refers to cases where individuals are classified as self-employed but, to all intents and purposes, work as employees (OECD, 2019[74]).

[19] In principle, an agreement between unions and an employer or employer organisations applies only to the signatory parties ("double affiliation principle"). *Erga omnes* clauses extend the terms set in a collective agreement to all workers, not only to the members of signatory unions. Extensions (or administrative extensions) go one step further and cover workers in all firms within an industrial sector, also including firms that have not signed the agreement or are not affiliated to an employer organisation which signed the agreement.

[20] "Disorganised decentralisation" happens when national/sectoral agreements are replaced by enterprise agreements. It is opposed to a process of "organised decentralisation" which happens through a process of articulation/devolution within the national/sectoral agreements allowing firm-level agreements to negotiate wage and working conditions within a general framework negotiated at higher level.

[21] At the onset of the pandemic (25 March 2020), the social partners issued a joint statement on COVID-19 outbreak suggesting concrete support measures. Three weeks later (17 April 2020), a joint letter to call to action to tackle the lack of protective equipment to the European Commission was issued, to call to action to tackle the lack of protective equipment for social services workers in Europe. On 14 May 2020, an open letter was issued by the European Social Partners, together with several other European-level organisations in the sector, urging the Commission to take steps to promote access to social services, including via the creation of an Emergency Fund for Social Services. On 19 October 2020, a joint position paper on preparing the social services sector for the COVID-19 resurgence and increasing its resilience was issued. See Allinger and Adam (2022[57]) for more details.

[22] Modern Awards do not represent a form of sectoral bargaining, but they create a set of industry-specific skill-varying wage floors which, while significantly different, can be compared with the use of administrative extensions in countries with sectoral bargaining. Awards are set by a federal tribunal, the Fair Work Commission, whose members are chosen by the government and selected among employer bodies, unions, lawyers, and government officials. Unions and employers make submissions on the content of Modern Awards and then the Fair Work Commission decides. The Commission is also tasked with revising, after consultations, wage rates (recently every four years). This system has been in place for several decades and a similar organisational arrangement was in place in New Zealand until 1991.

# 4 Social recognition, gender- and migration-related issues in long-term care

Wouter De Tavernier, Andrew Reilly and Hervé Boulhol

This chapter first examines the lack of recognition of long-term care workers and its origins and presents measures countries have taken to boost social recognition of these workers. It then moves to gender issues within the LTC sector including the over-representation of women and the gender wage gap. The chapter finally explores the role of migrant workers in the LTC sector, and shows that they are filling employment gaps in particular as live-in carers, making them vulnerable to abuse.

## Introduction

The ease with which sectors can fulfil vacancies depends not only on the characteristics of the job advertised, but also on the available workforce that would be interested in taking on the job in question. While Chapters 2 and 3 deal with working conditions of long-term care (LTC) jobs, this chapter looks into the characteristics of the LTC workforce and how these workers are perceived by society. In addition to working conditions such as wages and the working environment, people can be motivated to select a certain job in a given occupation by the recognition it receives from others in society, as it may give them a sense that the work they envisage is considered valuable. In the initial stages of the COVID-19 pandemic, the applause for care workers was a clear expression of recognition of their hard work and sacrifice. However, as the applause faded, questions have emerged how to improve recognition of healthcare and LTC work in a sustainable way. This chapter discusses social recognition, the forms it can take and the forms of recognition care workers currently experience as lacking.

The LTC workforce is highly female and has an above-average share of workers with a migration background. Both women and immigrants often occupy disadvantaged positions in the labour market in general, in particular as they more often work in less-well-paid jobs. This chapter analyses in detail the composition of the LTC workforce in terms of gender and migration background, looks into the root causes of the overrepresentation of women and migrants in LTC and explores how this may impact working conditions and recognition of LTC work.

This chapter consists of three sections. The first section goes into recognition of LTC workers, examines the sources of LTC workers' feeling of not being properly recognised and details initiatives OECD countries have recently undertaken to improve the recognition of these workers. The second section explores the gender imbalance in the LTC workforce and its causes. The final section presents the increasing reliance on migrant workers in LTC, documents OECD countries' efforts to attract foreign workers and compares their working conditions to those of native-born workers.

## Key findings

### *Social recognition*

- Studies from Australia and the Nordic countries show that LTC workers feel recognised by care recipients and by their colleagues, but much less so by their managers, politicians and the wider society. This feeling of low recognition is related to poor working conditions including wages and low status.
- Social recognition refers to the acknowledgement of a worker's contribution to the community and can take the form of gratitude, good status or high enough remuneration. While care work has repeatedly been described as "undervalued", meaning that the market value of care would be below its social value for the community or society, it is not clear what the social value of LTC is. Gendered care norms downplay the skills needed to provide LTC and the wage levels required to attract skilled and motivated workers to the LTC sector, undermining recognition and valuation of care work.
- To go *Beyond Applause* and sustainably improve LTC workers' position in society necessitates better recognising their work in terms of increased status and remuneration and tackling gendered care norms.
- OECD countries' initiatives to improve the social recognition of LTC workers include increased remuneration, fighting gender discrimination, recognition of LTC experience in education, increased training requirements for LTC workers and public information campaigns.

### *Gender*

- LTC professions are among those where women are most over-represented, accounting for more than 85% of LTC employment. The only other sectors with such an over-representation of women are cleaners and helpers as well as general and keyboard clerks.
- The gender pay gap among technical and semi/low-skilled workers in the healthcare and care sector, which cover most LTC workers, is much smaller than for similar workers in other sectors. Yet, in a sector where women are so numerous, women are paid significantly less than men for workers with otherwise similar characteristics, by about 7-8%. In particular, women are not well represented in management positions.
- The over-representation of women in LTC is due to two main factors. First, LTC jobs offer opportunities for part-time or flexible working hours, and the share of healthcare and care workers working part-time among women is twice that among men (32% and 16%), with both rates being higher than in the total economy. Second, stereotypes learned in childhood and persistent gender biases in unpaid care work at home play a key role; girls are two to three times more likely to pursue health-related studies than boys, and women tend to be seen as a more natural "fit" for paid care work.
- Reaching a more gender-balanced LTC workforce may increase economic performance, job status and wages for all workers in the sector.

### *Migration*

- Foreign-born workers account for 26% of the LTC workforce on average across OECD countries, compared to 20% of all workers.
- Over the past decade, there has been a large increase in the employment share of foreign-born workers in the LTC sector in virtually every European country, with an average increase of more than 5 percentage points of their share in total employment. The reliance on migrant workers to fill the employment gaps in the LTC sector is likely to increase further due to population ageing.
- Foreign-born workers represent a large proportion of live-in carers and the monitoring of their employment conditions is generally very poor, making them vulnerable to abuse.
- Only Canada, Israel and Japan in the OECD have so far been identified as having specific legal labour migration channels for care workers.

## 4.1. Social recognition of long-term care work

During the initial stages of the COVID-19 pandemic, people applauded those working on the front lines in caring for infected patients around the globe. The applause was an expression of the general public's acknowledgement and appreciation – that is, the recognition – of the work done and sacrifices made by doctors and nurses as well as personal care workers in long-term care (LTC). As the first lockdowns ended and the clapping faded, discussions emerged on how to revalue the work of care workers and recognise their contribution to society more sustainably.

### *4.1.1. Social recognition of LTC work by different actors and the variety of forms it takes*

Recognition refers to the acknowledgement and approval of individuals or social groups and the work they do for the broader community (Austen et al., 2016[1]). Recognising other people means to see and treat them as full members of society. A lack of recognition, or misrecognition, can then be understood either as a form of psychological harm at the individual level, entailing disrespect and undermining the person's

self-esteem, or as a form of social subordination at the societal level, and thus an expression of social hierarchy and exclusion (Elstad and Vabø, 2021[2]).

### *How different actors value LTC work*

Studies indicate that the recognition of LTC work (or at least its perception) is low in the general public, although it is high among care recipients. Generally, LTC workers themselves feel recognised by the care recipients and their families, but much less so by their managers, policy makers and the wider community (Table 4.1). One Australian study (Austen et al., 2016[1]) found that one in five LTC workers felt not at all recognised by their managers and a similar share felt not recognised by the community.[1] At the same time, very few felt misrecognised by care recipients or their family members. A similar picture emerges in a Nordic study (Elstad and Vabø, 2021[2]): while the vast majority (nine in ten) of LTC workers felt valued by colleagues and care recipients, one in three felt not at all recognised by municipal leaders. The feeling of not at all being recognised by mass media ranged from 19% in Norway to 36% in Denmark, and the feeling of not at all being valued by the general public from 7% in Finland and Norway to 21% in Denmark. A similar outcome was found in France (Baret, Recotillet and Kornig, 2021[3]).[2]

The Australian and Nordic studies show that intentions to quit LTC work are related to the feeling of misrecognition. In the Australian study recognition by the community, especially, was associated with turnover intentions. In the Nordic countries, where local authorities play an important role in the organisation of LTC provision, LTC workers' experience of misrecognition from municipal leaders was an important driver of intentions to quit. Hence, misrecognition can seriously hamper care supply as four in ten Nordic LTC workers had seriously considered quitting over the last year (Elstad and Vabø, 2021[2]).

## Table 4.1. LTC workers feel valued by clients but much less by managers, policy makers and the public

Share of LTC workers "not at all" feeling valued by the specific stakeholder

| | Managers | Municipal officials and politicians | Mass media | General public[1] | Clients | Colleagues |
|---|---|---|---|---|---|---|
| Australia | 21% | | | 18% | <2% | |
| Denmark | | 34% | 36% | 21% | 0% | 1% |
| Finland | | 34% | 23% | 7% | 0% | 1% |
| Norway | | | 19% | 7% | 0% | 0% |
| Sweden | | 33% | 32% | 17% | 0% | 1% |

1. In the Australian study, LTC workers were asked about feeling valued by their local community. The Australian sample consisted of approximately 4 000 female LTC workers aged 45+ surveyed in 2011-12; the Nordic samples consisted of unionised LTC workers surveyed in 2015, with samples ranging from approximately 750 in Sweden to around 1 000 in Denmark and Finland.
Source: Austen et al. (2016[1]), "Recognition: applications in aged care work", https://www.doi.org/10.1093/cje/bev057 for Australia; Elstad and Vabø (2021[2]), "Lack of recognition at the societal level heightens turnover considerations among Nordic eldercare workers: a quantitative analysis of survey data", https://www.doi.org/10.1186/s12913-021-06734-4 for Denmark, Finland, Norway and Sweden.

LTC workers' feelings of misrecognition by the society are likely driven by a negative perception of the job itself and the skills required. These feelings were related to the community's perception of their work as being "dirty", reducing the job to its physical aspects and overlooking its emotional and communicative aspects (Austen et al., 2016[1]). Overlooking these aspects then results in a lack of recognition of the emotional and psychological competences required to care for vulnerable people (Bailly, Devetter and Horn, 2013[4]). The feeling of misrecognition by managers and policy makers is likely connected to poor working conditions and low remuneration, for which LTC workers hold these leaders responsible. Half of

Australian LTC workers considered their earnings not at all satisfactory in the light of the estimated importance of their work for society (Austen et al., 2016[1]).

One study analysing the perceptions of LTC workers among service users and their close relatives shows that they both value the interactive aspects of care work and workers' social skills (Manthorpe et al., 2017[5]); indeed, interactions with LTC workers often make up a large part of the care recipient's day-to-day social contacts. Both also value more professional characteristics, including a strong work ethic, reliability and an individualised approach to care work.

### *Social recognition can take various forms*

Recognition can be expressed in the form of payments or in non-monetary forms. Expressions of gratitude are a form of recognition, for instance through applause recognising care workers' sacrifices to help others under difficult circumstances during the initial stages of the COVID-19 pandemic. Recognition can also take the form of status.

Health professionals feel very appreciated by care recipients and their families (Aparicio et al., 2019[6]). While care recipients and their family members are grateful for health professionals' technical skills, the expression of gratitude is particularly linked to their interactive skills: taking time to give information and advice, listening to care recipients' and their family members' experiences and grievances, providing emotional support at difficult moments. The applause for care workers during the initial stages of the pandemic was an expression of gratitude for the efforts care workers made as well as for the outcomes of their work in terms of care provided and lives saved (Day et al., 2021[7]). Expressions of gratitude towards health professionals provide a range of benefits, including increased satisfaction, well-being and work motivation, and might reduce burnout in care staff (Aparicio et al., 2019[6]).

Status, or standing, reflects the desirability of an occupation in a given society, and the extent to which the occupation fulfils a role that is considered valuable. Overall, care work has low occupational standing, but it has higher standing than other occupations with similar educational requirements and job characteristics such as strain, repetitiveness and autonomy (Magnusson, 2009[8]).[3] Moreover, personal care work is among the least desired occupations among younger people (OECD, 2019[9]).

Remuneration can be interpreted as a manifestation of recognition, although both could separately affect socio-economic positions. On the one hand, low pay can be experienced as a lack of recognition, particularly from managers and policy makers. On the other hand, remuneration and recognition can be two separate, although mutually reinforcing, mechanisms producing social hierarchy (Fraser, 1997[10]). While remuneration shapes social hierarchies financially, recognition does so culturally: individuals can feel treated as inferior if their contribution to society is not recognised by others. Cultural and socio-economic inequalities mutually reinforce each other, with cultural inequalities legitimising socio-economic differences and differences in material conditions reproducing one's place in the cultural hierarchy. Hence, for a social group to sustainably improve its position in society, both its cultural and its economic position should ameliorate. Specifically, sustainably improving the position of personal care workers entails tackling the gendered care norms, which treat care as a less respectable occupation, recognising the inherent hardness of personal care workers' jobs, and improving their earnings – that is, to go *Beyond Applause*.

Increased remuneration can boost workers' motivation if it is perceived as a form of recognition. If a financial reward is perceived as supportive and an acknowledgement of the person's performance – that is, recognising the individual's competence and contribution – it boosts self-determination and self-esteem, and fosters intrinsic motivation. Other working conditions also play a role in whether or not care workers feel recognised. A French study on working conditions and employee recognition in the healthcare sector stresses the importance of employee autonomy, managerial support and being provided with sufficient resources to deliver quality care (Baret, Recotillet and Kornig, 2021[3]).

### *4.1.2. Undervaluation of LTC work*

Recognition depends on the assessment of the work one does for the community or the society. This implies that devaluing the contribution to society made by a certain occupational group leads to misrecognition of that group (Elstad and Vabø, 2021[2]). Care work has repeatedly been described as "undervalued", although it is often not clarified what is meant by this. Much attention has been paid to measuring the value of unpaid care work for instance in terms of the amount of paid care it substituted (OECD, 2021[11]), but few efforts have been made to assess the social value of paid care work.

#### *What is social value?*

It is sometimes argued that if left to the forces of supply and demand, care work would not be valued properly (Barry and Jennings, 2021[12]; ILO, 2018[13]; Folbre, 1995[14]), implying that care work has "social value" as different from market value. "Social value" thus refers in that case to care work having some value other than its market value for the community or society. However, what this social value exactly entails is rather vague, let alone measurable. It is reminiscent of the concept of positive externalities in economics, referring to others reaping some benefits from a good or a service beyond the buyer and the seller themselves of that good or service. While examples of positive externalities include getting a vaccination to limit the spread of a virus, the decision to stop smoking to avoid passive smoking, opting for public transport or cars that are less polluting, etc., it is much less clear how personal care work produces benefits for the wider community beyond those for the care recipients and their families.

The lack of a clear understanding of what social value exactly is, does not mean that personal care work cannot be undervalued in the labour market. Indeed, there appears to be a wage penalty to being a personal care worker compared to other occupations with similar characteristics (Chapter 2). In particular, gender norms may play a role in wages being lower for personal care workers than for comparable occupations.

#### *Gender norms: care as "women's nature"*

In the traditional gendered division of labour, care is considered women's work and the skills required for performing care work are assumed to occur "naturally" in women. In the male-breadwinner model, home care is not part of income-producing activities and is thus not valued in monetary terms.

In a society adhering to or still replicating some forms of the traditional division of labour, the crowding of women in the care sector could result in undervaluation of care work. This crowding of the LTC sector by women could be theorised as the result of discrimination against women in other sectors (i.e. a preference among employers for male workers), or as the result of women's own preferences, whether they are "naturally" occurring in women or shaped by norms setting non-monetary rewards for performing care work (Folbre, 1995[14]).

The women's work devaluation thesis asserts that work is undervalued if it is done primarily by women (England, Budig and Folbre, 2002[15]). This is due to gender bias, for instance because the skills required might be perceived as being "natural" in women and therefore not requiring specific training or compensation (England and Folbre, 1999[16]; England, Budig and Folbre, 2002[15]; Austen et al., 2016[1]) – this perception overlooks that in child raising, girls are more likely to be stimulated to take up care tasks at home. At the same time, the idea that the skills required for care work are "natural" in women can undermine willingness to pay for care services particularly if families think they are able to provide the required services themselves (Bailly, Devetter and Horn, 2013[4]). The blurring of care and domestic work and cash-for-care schemes, allowing that family members are paid to provide care, further contribute to the perception that personal care work does not require specific skills (Le Bihan and Sopadzhiyan, 2018[17]). However, low-status jobs are typically highly gendered rather than specifically female, and occupational standing of care work may not be exceptionally low compared to other occupations requiring similar training levels and displaying similar job characteristics (Magnusson, 2009[8]; García-Mainar, Montuenga and García-Martín, 2018[18]).

Some institutionalist thinkers furthermore argue that it is the necessity of the work – testifying to its high value – that causes its low pay. As care is a socially necessary activity, norms assigning caregiver roles to a specific social group, in particular women, could make care provision, a highly time-intensive activity, significantly cheaper or even free in the case of informal care (Folbre, 1995[14]). Indeed, the provision of LTC often happens in a context of inequality between the caregiver and the care recipient, whether this inequality is shaped by income differences, gender norms or precariousness due to migration (De Tavernier and Draulans, 2018[19]). Female care norms, linked to the idea of care as work done "for love" rather than "for money" (see below), therefore contribute to ensuring an affordable supply of LTC for older people. The same applies to care work carried out by immigrants, who often occupy weaker positions in the labour market – such as having a higher likelihood to be employed in non-standard work (OECD, 2018[20]) – and have less leverage to bargain for higher wages (Cools, Finseraas and Bergli Rasmussen, 2020[21]; Kranendonk and de Beer, 2016[22]). One specific issue of recognition in relation to immigrants is the lack of recognition of previously acquired qualifications. About one-quarter of economy-wide immigrant workers are formally overqualified for their jobs (OECD, 2017[23]), which in the case of LTC often entails nurses and other healthcare professionals working as personal care workers (IOM, 2010[24]). Formal procedures may prevent the recognition of previously acquired degrees and skills abroad even though managers may appreciate both the skill level (Atanackovic and Bourgeault, 2013[25]) and the flexibility offered by migrant care workers (Näre, 2013[26]).

### *Care for money or for love?*

Wages may be low if non-monetary rewards of work – or amenities, see Chapter 2 – are high, following the concept of compensating wage differentials, so that employers could offer lower wages for work that is intrinsically motivating (England, Budig and Folbre, 2002[15]; Palmer and Eveline, 2012[27]). Good-quality care entails not only performing certain activities ("caring for") but it may also require a certain emotional connection ("caring about"). Some have even argued that higher wages would draw in less intrinsically motivated people for whom care is not a "vocation", resulting in a weaker emotional connection and therefore a lower quality of care – that is, they argue that care work would be better if performed "for love" rather than "for money" (Brekke and Nyborg, 2010[28]; Heyes, 2005[29]). Hence, for proponents of this approach, good care requires a certain self-sacrifice of care workers. Some studies have documented cases of employers in the LTC sector subscribing to the idea that care workers should not be motivated by money (Palmer and Eveline, 2012[27]; Franzosa and Tsui, 2020[30]; Austen et al., 2016[1]). Socialising women into the idea that motivations for care should be altruistic results in women being more likely to accept emotional over financial rewards (Hebson, Rubery and Grimshaw, 2015[31]).

The idea that the quality of care would somehow be better thanks to low wages for LTC workers makes little sense for several reasons. This makes even less sense in the light of care shortages that cannot be solved by relying solely on LTC workers for whom care is a "vocation". First, low wages in the LTC sector may result in skilled and motivated workers choosing to work in other sectors, which could undermine the quality of LTC provision (Fedele, 2018[32]; Austen et al., 2016[1]). Second, workers who feel that the remuneration and other amenities they receive are not in proportion to their performance may seek to rebalance by reducing performance, resulting in lower-quality care. LTC workers feeling unfairly compensated are for instance less involved in their work (Heponiemi et al., 2011[33]) and more likely to want to retire (Sulander et al., 2016[34]). Third, choosing to become a care worker for the sake of making an income does not necessarily imply providing impersonal care. Intrinsic (liking the nature of the work) and extrinsic motivations (financial incentives) are by no means mutually exclusive: not only extrinsically motivated people are concerned about having a high enough income, also care workers who are strongly intrinsically motivated would want to have a better lifestyle for themselves and their families (Folbre and Nelson, 2000[35]). Fourth, it puts too much emphasis on the emotional skills of care workers and tends to disregard other skills and competences that contribute to providing good-quality care (Nelson and Folbre, 2006[36]). And finally, self-sacrifice may even undermine good care as nurses who are more motivated by altruistic feelings tend to experience higher job turnover and are more likely to face health problems including burnout (Dill, Erickson and Diefendorff, 2016[37]).

The bottom line is that workers could be altruist, brave and generous and still expect not to receive undervalued wages to do their job well. As summarised by the Royal Commission into Aged Care Quality and Safety (2020[38]), "aged care workers do not need to be told they are heroes. They need better wages and conditions and enough colleagues to be able to complete their work safely and to the standard that they consider is appropriate. That is how their work can be properly respected and acknowledged".

### *4.1.3. Measures taken to boost social recognition of LTC workers*

OECD countries recognise the need to improve the social recognition of LTC workers and have taken measures to boost social recognition through three different means (Table 4.2). Sixteen OECD countries have aimed to improve the remuneration of LTC workers either through permanent wage increases or through bonuses or temporary wage increases in relation to COVID-19. Ten countries have taken initiatives in the area of education and training: eight countries recognise previous work experience in LTC by awarding course credits in education programmes, and two have strengthened training requirements for LTC staff. Finally, five countries have aimed to improve the public image of LTC workers through organising or supporting public information campaigns.

#### *Increasing remuneration of LTC workers*

Several countries have permanently increased wages of LTC workers since the outbreak of the COVID-19 pandemic and before the inflation surge. While the impact of these increases may have been significantly mitigated by high recent inflation, they still result in an increase in the relative income of LTC workers compared to workers in other sectors.

Hungary (20%), Slovenia (up to 16%) and Lithuania (8% or 13% depending on level of education) have noted the biggest increases in salaries. Wages in the LTC sector were also increased in Belgium, where those working in institutional care settings gained 6% and those working in home care 4.5%, in Japan, where wages of LTC workers in institutional care were increased by around 3%, in Luxembourg, where all LTC workers received a real-wage increase of 2%, and in the Netherlands, where wages for nurses and some groups of personal care workers were increased by 1.5% in addition to an increase of 2.5% of all wages in the care sector.

France significantly increased care workers' wages, especially for low-wage earners as it opted for flat-rate supplements. Australia opted to increase the minimum wage for LTC workers by 15% in 2023 and set up an expert panel to examine whether supplementary increases in wages are required in the sector. Similarly, Germany increased the minimum wage for LTC workers by around 10% in 2022 with some variation depending on qualification levels; there are plans to increase it further by around 4% in 2023. Latvia adjusted minimum and maximum wages for LTC workers employed by municipalities, as part of a wider reform of wages for public sector workers.[4]

Most countries that provided permanent wage increases to LTC workers also implemented temporary wage increases or bonuses in response to the COVID-19 pandemic. In addition to those countries, bonuses were paid to LTC workers in Japan as well as, albeit indirectly, in Austria, Canada and the United States. In Austria, the federal states are temporarily provided with additional financing from the government in order to improve the income situation in the LTC sector. Similarly, as Canadian federal government has no jurisdiction over care workers' wages, it provided funding to the Provinces and Territories to temporarily top up the wages of low-income "essential workers", including LTC workers.[5] In 2021, the US federal government reserved a supplementary budget of around 8% of public LTC spending for states to improve home and community-based services over a 12-month period, which several states used to provide bonuses to LTC workers.

Luxembourg provided LTC workers with extra holidays, which in effect entails an increase in hourly earnings. Nurses and personal care workers in LTC are entitled to one extra day of leave per year, and in 2021 they received an additional bonus in the form of two extra days of leave. In addition, a guarantee of 20 work-free weekends per year was introduced to improve work-life balance in the sector.

## Table 4.2. Recent measures taken to improve social recognition of LTC workers in OECD countries

| | Permanent wage increase | Bonus or temporary wage increase | Obligatory education and training | Recognition of experience in education and training | Public information campaign |
|---|---|---|---|---|---|
| Australia | ● | | | | ● |
| Austria | | ● | | | ● |
| Belgium | ● | | ● | | |
| Canada | | ● | | | |
| Chile | | | | | |
| Colombia | | | | | |
| Costa Rica | | | | | |
| Czech Republic | ● | | | | |
| Denmark | | | | ● | |
| Estonia | | | | | |
| Finland | | | | | |
| France | ● | ● | | | |
| Germany | ● | ● | | | ● |
| Greece | | | | | |
| Hungary | ● | ● | | | |
| Iceland | | | | | |
| Ireland | | | ● | | |
| Israel | | | | | |
| Italy | | | | | |
| Japan | ● | ● | | ● | ● |
| Korea | ● | ● | | | |
| Latvia[1] | ●[a] | ● | | | |
| Lithuania | ● | ● | | | |
| Luxembourg | ● | ● | | | ● |
| Mexico | | | | | |
| Netherlands | ● | ● | | | |
| New Zealand | | | | | |
| Norway | | | | ● | |
| Poland | | | | | |
| Portugal | | | | ● | |
| Slovak Republic | | | | | |
| Slovenia | ● | ● | | | |
| Spain | | | | | |
| Sweden | | | | ● | |
| Switzerland | | | | ● | |
| Türkiye | | | | | |
| United Kingdom | | | | ● | |
| United States[2] | | ● | | ● | |

1. In Latvia, wages for LTC workers are set by the municipalities, although within a range determined by the law and government regulations. As part of a wider reform of wages of public sector workers gradually taking effect over the period 2022-27, the maximum wage for LTC workers is substantially increased and a minimum wage is introduced. However, it is unclear to what extent LTC workers' wages will effectively be impacted.
2. In the United States, the federal government did not provide bonus payments to LTC workers in response to COVID-19, but several states did (Denny-Brown et al., 2020[39]; Tyler et al., 2021[40]).
Source: Information provided by countries.

### *Education and training*

Interventions in terms of education and training include both increasing training requirements and valorising previous work experience in LTC by awarding course credits in education programmes. Training programmes for LTC workers improve the quality of care delivered and can in addition ameliorate the public image of LTC jobs (Fujisawa and Colombo, 2009[41]). In Belgium, completion of a formal training programme and at least two days of additional training every year are obligatory for all LTC workers. Ireland assesses the quality of LTC providers which includes educational requirements of the provider's care staff. LTC workers have to complete certain trainings or refresher programmes depending on the needs of the persons they are caring for. This approach allows for an incremental build-up of knowledge and competences tied to improving care quality.

Experience in personal care work can also be valorised in the form of course credits for education and training programmes. In most countries, it is left to education providers to determine whether certain work experiences can replace (part of) the training programme. In Denmark and Norway, university colleges providing programmes in nursing can award study credits for relevant work experience. Usually, such credits are awarded for internships intended to build practical experience as part of the study programme, although in principle also credits for theoretical parts of the curriculum could be awarded for work experience. In Sweden, Switzerland, the United Kingdom and the United States, prior work experience can replace courses in vocational training programmes in LTC. In Switzerland, even the entire training for some health and social care workers can be replaced by recognised work experience.[6] Japan and Portugal take a national approach to the valorisation of work experience. Japan provides a qualification as certified personal care worker to people passing a national exam. To enter the exam, people need to have work experience as a personal care worker and should have gone through an advanced training course. Portugal has a national system to register qualifications built up through training or experience, also covering qualifications in the area of social services.

### *Campaigns to improve the public image of LTC workers*

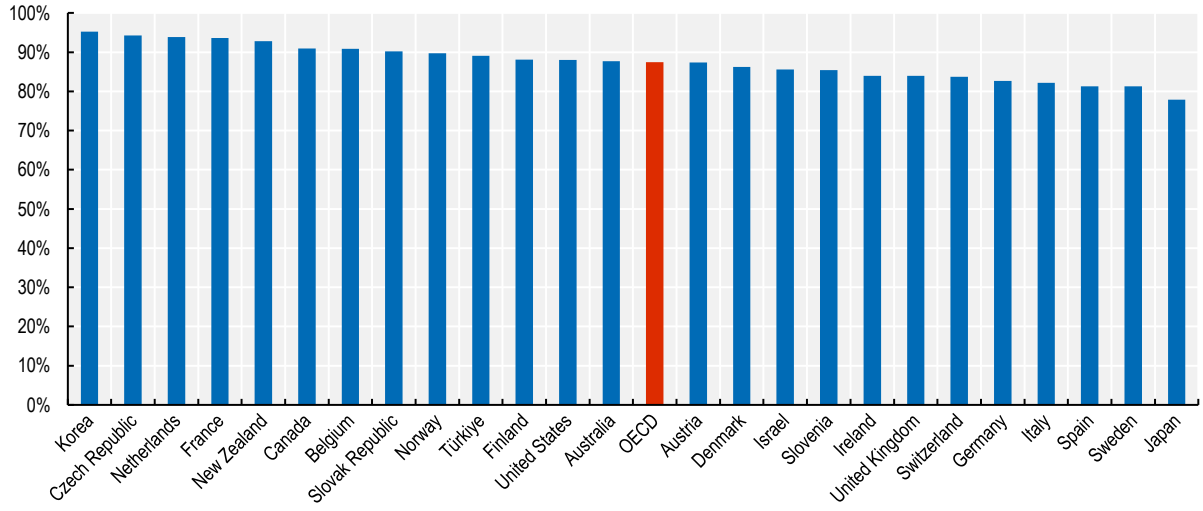
Information campaigns can be used to try to change the public image of LTC workers and can contribute to LTC workers feeling more valued by the media and the general public. Australia launched its multi-media campaign "A Life Changing Life" in 2021 to attract more workers to the LTC sector, with testimonies illustrating the importance of LTC workers for care recipients. Austria has developed aired television commercials picturing the everyday working lives of people working in care professions. The aim of this 2020 campaign was to improve the public image of these occupations and make them more attractive. Germany ran a campaign between 2019 and 2021 under the tagline "Make a career as a human!" ("*Mach Karriere als Mensch*!") to entice young people to choose a career in care. A new campaign running from 2022 to 2025 similarly aims to increase the number of young people choosing to study for a caring profession, and in addition is supposed to boost the public standing of care work. Similarly, Luxembourg launched an information campaign at the end of 2022 with the same dual purpose. The campaign primarily targets younger people through social media and provides information on working in different occupations in healthcare and LTC among others through video testimonies. The Japanese Government has not organised public campaign itself but has provided support to private initiatives intended to improve the public image of LTC workers. Projects receiving support include among others a programme in which LTC workers visited high schools to talk about their work and how to interact with older people; a series of virtual tours of LTC institutions showing the variety of jobs they offer; and, a scheme in which media personalities visited LTC providers and talked to workers to broaden their knowledge about the work so that it would be promoted and depicted more attractively on TV and in newspaper reports. While these information campaigns may be good examples for other OECD countries, there are no evaluations of their impact in either of these countries.

## 4.2. Gender issues in the long-term care sector

In all OECD countries, the LTC workforce is predominantly female. On average across countries, women account for the vast majority of workers, ranging from 78% in Japan to 95% in Korea among the 25 countries for which data is available (Figure 4.1). Having such a gender-related imbalance raises a host of issues related to wage levels, discrimination, social stereotypes, valuation of the work, well-being at work and economic performance.

### Figure 4.1. Women represent the overwhelming majority of LTC workers in all countries

Share of LTC workers that are women, 2021




Note: The OECD data point is the unweighted average of the 25 OECD countries shown in the chart. Data are based on ISCO 3-digit and NACE 2-digit codes. Data for the Czech Republic, France, the Slovak Republic and Slovenia should be treated with caution as they fall below the "b" limit for reliability. Data is 2016 for Australia, Canada and Japan, 2019 for New Zealand and 2020 for Korea and the United States.
Source: EU-Labour Force Survey; ASEC-CPS for the United States; Census 2016 for Canada; LFS for Israel; Survey on Long-term Care Workers 2016 for Japan; OECD estimates based on national sources for Australia and New Zealand.

StatLink https://stat.link/gkpfot

This section builds upon the analysis of social recognition discussed in the preceding section. It begins by investigating the employment levels by gender across occupations before concentrating on part-time work in LTC. Attention then turns to earnings and gender pay gaps across sectors. Why most LTC workers are women is then explored before discussing whether attracting more men to the LTC sector may be an interesting avenue to pursue.

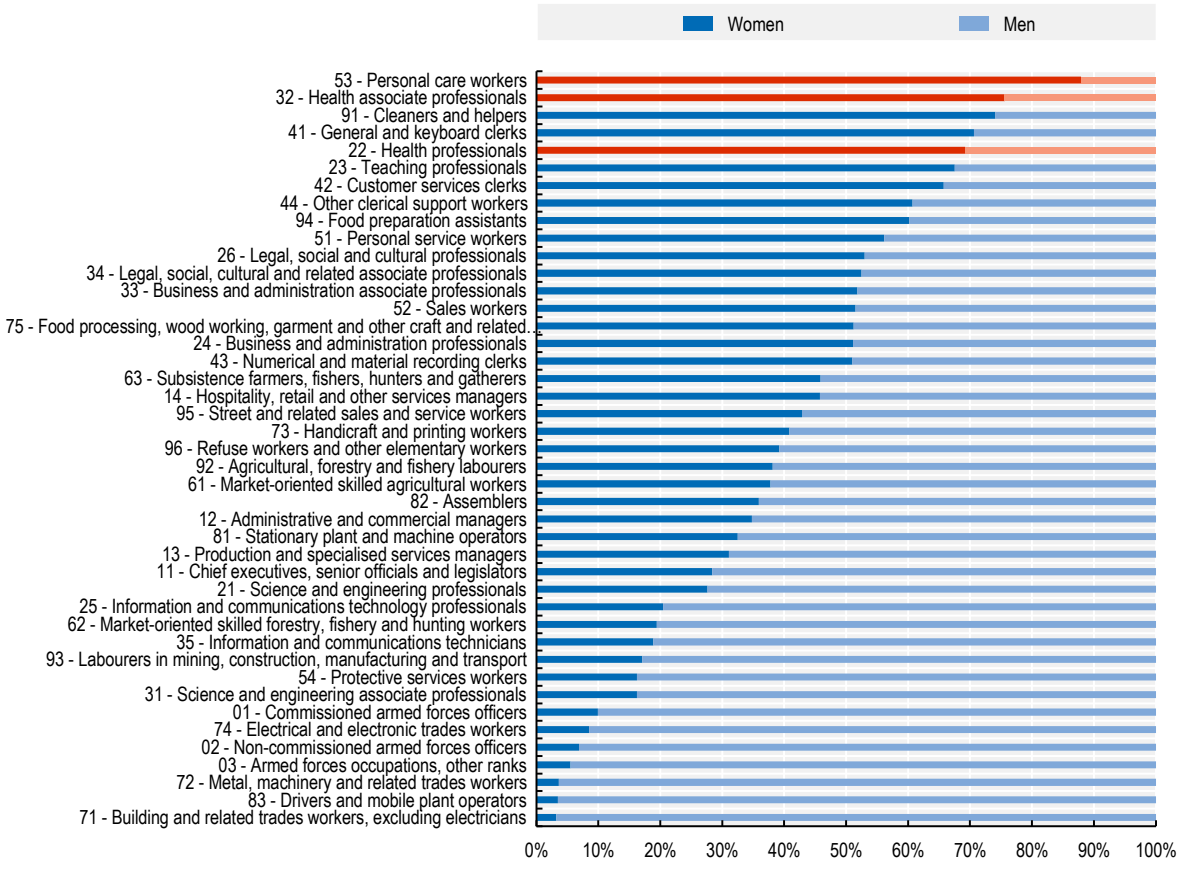
### *4.2.1. Are gender gaps in employment and wages wider in the LTC sector?*

#### *Employment*

Women represent 88% of all personal care workers, over 75% of health associate professionals and 70% of health professionals (Figure 4.2).[7] The only other sectors with such a large proportion of female workers are cleaners and helpers as well as general and keyboard clerks. By contrast. men represent over 90% of workers in manual labour professions, such as builders or electricians, as well as in the armed forces. Overall, based on the ISCO-08 two-digit classification, about half of professions[8] have a workforce that is at least 60% male; by contrast, less 20% of occupations have a workforce that is over 60% female including food preparation assistants and other clerical workers on top of the aforementioned occupations.

## Figure 4.2. Care professions are among those where women are most over-represented

Percentage of employment by sex and occupation (ISCO-08 at the 2-digit level), weighted average for 121 countries using the latest year available




Note: The weighted average is not a global figure. It is based on available data for 121 countries, which represent 63% of global employment. Data for China and India were not available. For ease of reading professions with less than 60% for both genders have been excluded.
Source: ILOSTAT.

StatLink https://stat.link/cq8ro5

Despite the fact that the LTC sector has such a predominantly female workforce, women are not as well represented in senior positions. Only 20% of the managerial roles in the LTC sector in the United States, for example, are filled by women; this women's share in management levels is similar in LTC to that in many other professions, as men dominate managerial roles in general. Similar results have been found in other countries. For example, in England, despite representing only around 17% of the LTC workforce, men filled 32% of senior management roles (Hussein, Ismail and Manthorpe, 2014[42]).

However, over the last few decades, there may have been a change in the perception of "female" and "male" jobs, with men now more likely to be employed in traditionally female-perceived occupations. The latest data from the National Aged Care Workforce Census in Australia indicates that since 2012 the share of male staff working in aged-care-related work has increased from 10% to 13%. In the United States, more men are moving to jobs that have been predominantly seen as a female domain. An analysis of census data showed that between 2000 and 2010, almost one-third of all job growth by men were in occupations that were more than 70% female, double the share of the previous decade; it also finds that in Texas the number of male registered nurses doubled over the same period and men accounted for 10.5% of all nurses, up from 8.4% a decade earlier (Dewan and Gebeloff, 2012[43]).

### *Earnings*

The gender composition within sectors seems to influence wage differences across sectors for workers with similar characteristics (Chapter 2). For example, sectors in which 90% of workers are men are estimated to pay 14% more per working hour for similar workers (age, education, tenure, etc.) of the same sex than those with equal gender shares in employment. The gap is even larger, at 18%, when comparing sectors with 90% male employment to those with 90% female employment. This provides some support to the idea that, by having a primarily female workforce, the LTC sector as a whole may have been devalued.

However, results differ when comparing across occupations (e.g. nurses, managers, cooks, etc.) rather than across sectors (e.g. healthcare, social care, construction etc.). Chapter 2 did not find similar significant effects of the gender proportions on wage differences across occupations for workers with similar characteristics. However, there has been some evidence in the United States of a large negative impact of the increase in the share of female workers over time in a given occupation on the average wage of both men and women in that occupation (Harris, 2022[44]).[9]

Gender pay gaps within the healthcare and care sector are compared with those within all other sectors. The gender pay gap is defined as the difference in average earnings between men and women who are engaged in paid employment, as a ratio of male earnings. Data are from ILO and WHO estimates based on national survey data from WHO (2022[45]). Data are grouped by three occupational categories within sectors: professional, technical and semi/low-skilled. The professional category in the healthcare and care sector includes nurse professionals, while nurse associates are part of the technical worker category and semi/low-skilled covers auxiliary healthcare workers and personal care workers. Hence, almost all LTC workers are included in the technical and semi/low-skilled categories while the professional category is mainly relevant for the healthcare sector.

In the LTC sector where women represent more than 85% of employment, gender pay gaps are pervasive whatever the occupational category. While this could be due to more part-time work and fewer working hours, the in-depth analysis conducted in Chapter 2 based on microdata shows that the gender difference in the *hourly wage* among LTC workers in similar jobs and with similar characteristics is also significant and estimated at about 8%. That is, even in a sector with such a large share of women, men with similar characteristics having similar jobs earn significantly more. Table 4.3 provides the summary results which are detailed and discussed below in Figure 4.3. The gender pay gap in the professional category is much larger in the healthcare and care sector than overall in other sectors, at 23% versus 17%. These occupations include doctors who are predominantly male and highly paid. There is considerable country variation with virtually no gender gap in Canada and Luxembourg among the professional health and care workers, while it is over 40% in Chile and Lithuania (Figure 4.3, Panel A).

## Table 4.3. Gender pay gap by occupational category and sector, latest year available

Pay gap between men and women within each occupational classification and sector, in percentage

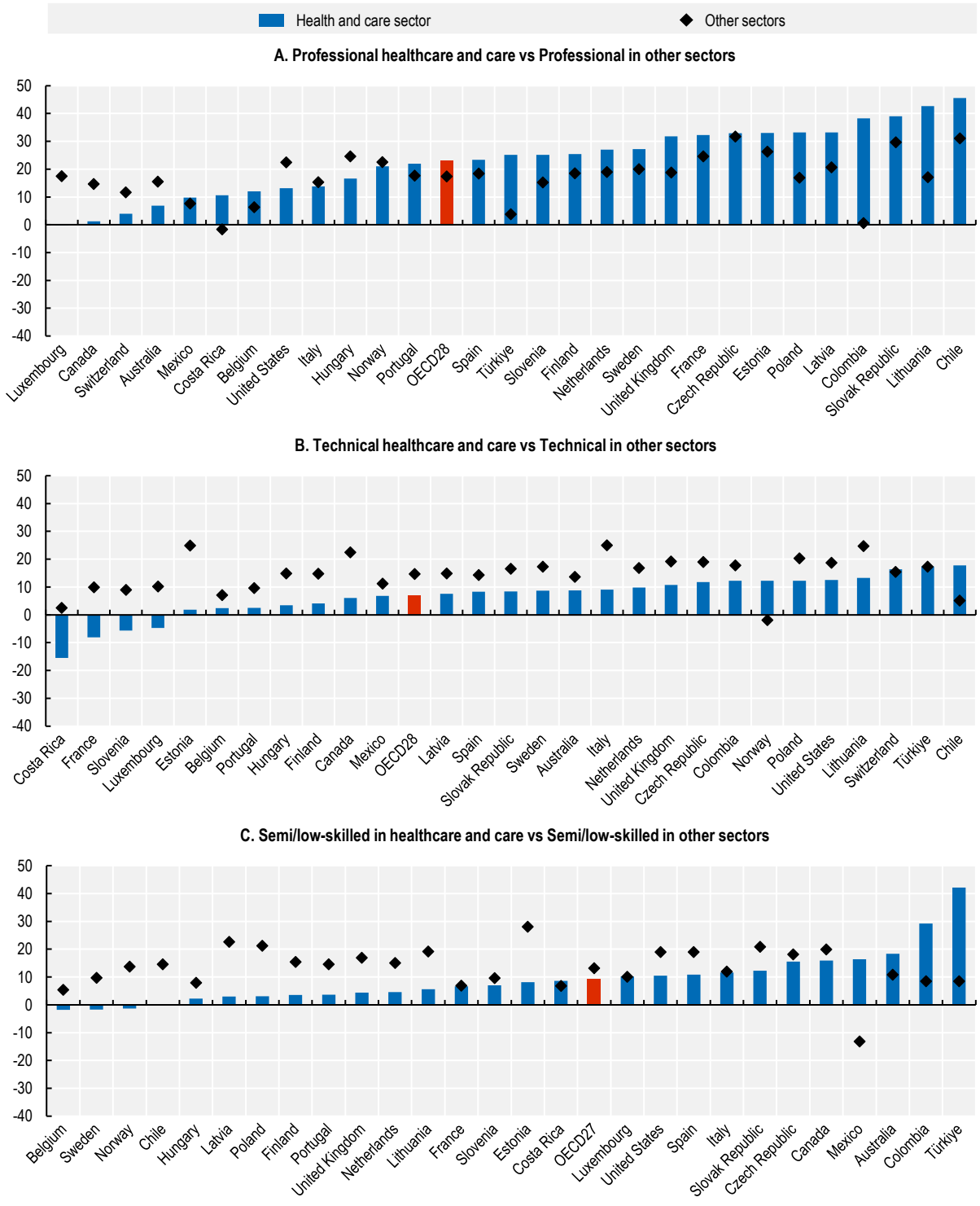
| | Healthcare and care sector | Other sectors |
|---|---|---|
| Professional | 23.1 | 17.4 |
| Technical | 6.8 | 14.7 |
| Semi/low-skilled | 8.2 | 13.2 |

Note: Professionals cover ISCO codes 1**** and 2****. Technical workers are 3**** and semi/low-skilled are 4**** to 9****. Armed forces (code 0****) are not included.

Reading note: For professional workers within the healthcare and care sector, women earn 23.1% less than men, whilst for other sectors women in the professional category earn 17.4% less than men.

Source: WHO/ILO (2022[45]), *The gender pay gap in the health and care sector: A global analysis in the time of COVID-19*, https://apps.who.int/iris/handle/10665/358057.

## Figure 4.3. Lower gender pay gap for categories covering most LTC workers than in other sectors




Note: Professionals cover ISCO codes 1**** and 2****. Technical workers are 3**** and semi/low-skilled are 4**** to 9****. Armed forces (code 0****) are not included. Switzerland is not included due to very small sample size.

Source: WHO/ILO (2022[45]), *The gender pay gap in the health and care sector: A global analysis in the time of COVID-19*, https://apps.who.int/iris/handle/10665/358057.

StatLink https://stat.link/7nph5d

Within healthcare and care, the gender pay gap is also much higher for professionals than for both technical and semi/low-skilled where average wages are also lower overall. The much lower gender gaps for latter categories than in the whole economy is consistent with smaller gender gaps generally found in low-wage occupations, partly due to the wage compressing role of minimum wages.

For the technical occupations, the gender gap is 7% for healthcare and care workers, much lower than 15% for other sectors (Figure 4.3, Panel B). In four countries, Costa Rica, France, Luxembourg and Slovenia, women earn more than men working in technical occupations in the healthcare and care sector, i.e. the gender gap is actually negative. Conversely, the gender gap among technical workers in the sector is over 15% for workers in Chile, Switzerland and Türkiye.

The gender gap for the semi/low-skilled healthcare and care workers, which include most LTC workers, is 8%, significantly lower than 13% for the other sectors on average (Figure 4.3, Panel C). The gap is under 5%, in many countries and even negative in Belgium, Chile, Norway and Sweden; conversely, it is positive and large at 15-20% in Australia, Canada, the Czech Republic and Mexico and about 30% in Colombia and about 40% in Türkiye.

### *4.2.2. Why are most LTC workers women?*

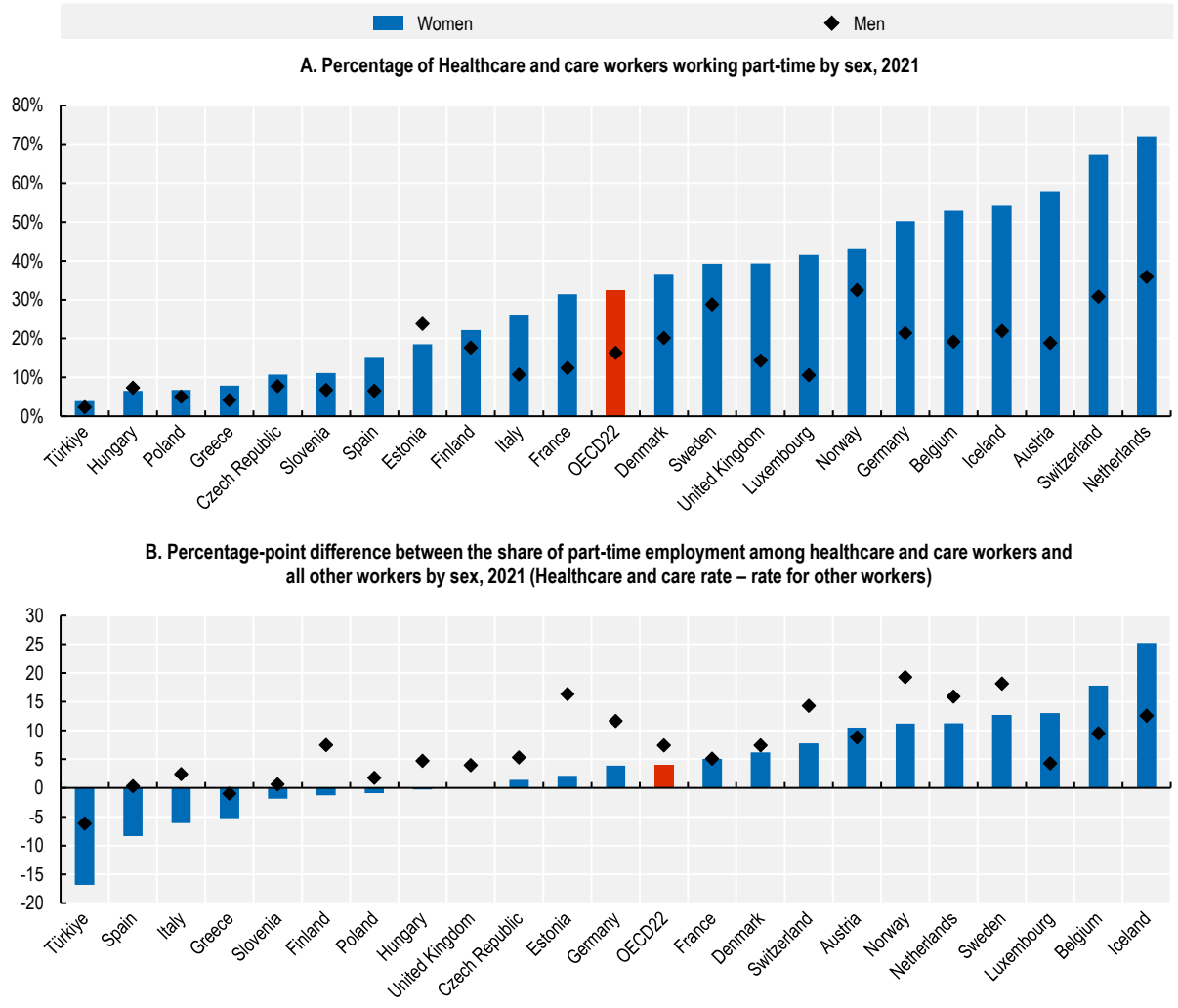
Historically, some sectors or industries have been predominantly comprised of one gender – a phenomenon known as horizontal segregation (OECD, 2021[46]). Gender segregation in the occupations of interest in the current report is extreme.

The causes of horizontal gender segregation are plentiful. First, inherently, LTC jobs offer part-time opportunities. As women provide most unpaid work at home, they are more likely to take up part-time work or a job with flexible working hours in order to reconcile work and family responsibilities (Mas and Pallais, 2017[47]; OECD, 2019[48]). Among healthcare and care workers, a higher proportion of women than men are working part-time (Figure 4.4, Panel A). On average across countries 32% of the female and 16% of the male workers are working part-time. In Austria, Belgium, Germany, Iceland, the Netherlands and Switzerland at least 50% of the female workers are working part-time. By comparison, only 25% of the male workers in these countries are working part-time.

Care work naturally provides part-time opportunities as there are peak periods of activity during the working day, primarily early morning and evenings. Whilst these working times may be beneficial for some, they are harder for others with caring responsibility for children, for example. In the majority of countries, both female and male healthcare and care workers have a higher tendency to work part-time than workers of the respective sex in other sectors (Figure 4.4, Panel B). The difference is actually larger for men than for women, but from a lower level as men work much less part-time than women in the overall economy. More precisely, on average the prevalence of part-time work is 7 percentage points higher for men and 4 percentage points higher for women in healthcare and care compared to other workers.

The data used in Figure 4.4 refer to all workers within the healthcare and care sector, rather than specifically identifying LTC workers. This enables more countries to be included in the analysis as with the gender pay gap analysis above. The specific gender analysis of part-time LTC workers in Chapter 3 (Figure 3.11) indicates that both male and female part-time employment are high compared to other sectors. Comparing the above absolute numbers with reported figures in Chapter 3 implies that the level of part-time work in LTC is higher than more broadly within the health and care sector confirming that part-time work is more widespread in LTC work.

## Figure 4.4. Female healthcare and care workers are more likely to work part-time




Note: Data are based on ISCO 3-digit and NACE 2-digit codes. Data is 2020 for Türkiye and 2019 for the United Kingdom. Data for the Czech Republic, Estonia, Poland and Slovenia should be treated with caution as they fall below the "b" limit for reliability.
Source: EU-Labour Force Survey.

StatLink https://stat.link/0fqivl

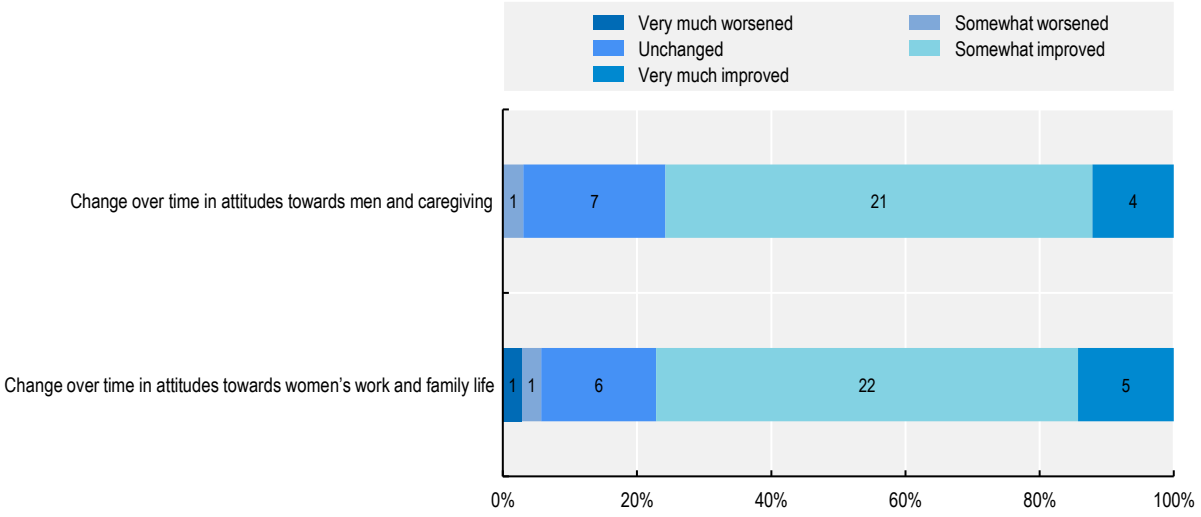
Second, some factors explaining horizontal segregation are rooted in stereotypes learned in childhood and early schooling. Seehuus (2021[49]) suggests that the persistent gender segregation in the labour market is the result of men and women initiating and continuing to pursue different educational paths. OECD PISA finds that 15-year-old girls are two to three times more likely to pursue health-related studies than boys, with the percentage of girls who stated that they expect to work in the healthcare sector growing significantly in most countries, whilst that for boys has been stable (OECD, 2017[50]). As a result, the gender gap in the percentage of students expecting to work in the healthcare sector has grown in most countries.

Moreover, the pervasiveness of gender biases in unpaid care work at home has repercussions on the labour market for formal care as women may be seen as a more natural "fit" for paid care work (Hay et al., 2019[51]). Globally, women bear the disproportionate responsibility for unpaid care work: over 75% of the world's total unpaid care work, including childcare, is done by women (OECD, 2019[52]).

Based on responses to the 2021 Gender Equality Questionnaire sent to OECD member countries, the attitude towards men having a role in caregiving has progressed (Figure 4.5). Three-quarters of the governments that responded answered either somewhat or very much improved in response to the question, whilst about one-fifth answered that the position is unchanged.[10] The results are very similar when looking at the attitude towards women working whilst having a family, with 77% of countries answering somewhat improved or very much improved, though there is still a wide margin for further progress in many countries given the large remaining gender differences.

## Figure 4.5. Progress has been made in attitudes towards male caregiving and female work

Share (%) and number of governments in OECD countries reporting that attitudes regarding these issues have worsened, remained unchanged, or improved over time in their country, 2021




Note: Out of the 38 OECD member countries, 33 responded to the question regarding "attitudes towards men and caregiving", and 35 to the question on "women"s work and family life'. Number of countries marked.
Source: 2021 Gender Equality Questionnaire (2021 GEQ).

StatLink https://stat.link/9rpui6

A Handbook chapter has found women to be more empathetic than men (Marianne, 2011[53]), providing both push and pull factors[11] to LTC work. Greenberg et al. (2022[54]) find that women are better at empathising with others than men no matter where they live in the world or what their cultural or family influences, in their study covering over 300 000 individuals in 57 countries. Burbano, Padilla and Meier (2020[55]) also highlight that women have a higher tendency than men to move into jobs that help others; they also find that while financial preferences are similar between men and women, women tend to draw more personal reward from work that provides wider benefits, whether to individuals or to communities.

There is of course nothing inherently female about the skills required to be a good carer. Skills that may be required include managing medication, preparing food, assisting with personal care and helping people to move about, as well as empathy and commitment. Social norms may assign some of these skills, such as being a sensitive person or managing personal care, more commonly to women. But others, such as helping a person move around or lifting somebody from a chair or bed, are skills that rely on characteristics more generally associated with men, such as body strength. Thus, it is time to combat prejudice and recognise that excellent care can be provided by both men and women, and that there is nothing inherently female about the skills needed and tasks undertaken in the care profession.

### *4.2.3. Recruiting more men to improve the gender balance in the LTC sector*

The devaluation of LTC work can be an important barrier to recruitment. The LTC sector has long suffered from a lack of social recognition, as discussed in Section 4.1. This is likely to make it more difficult to attract young people as well as men who may traditionally regard LTC jobs as "women's work" (OECD, 2020[56]). Overcoming recruitment difficulties is one key objective to tackle current and future shortages of workers in the sector, which are analysed in Chapter 5.

Better gender balance helps to improve economic performance (OECD, 2008[57]). In Australia, a better gender balance has been identified as a way to increase organisational performance, enhance the ability of companies to attract talent and retain employees, and improve organisational reputation (WGEA, 2022[58]). In a recent survey in the United States, about three-quarters of job seekers said that a diverse workforce is an important factor when evaluating companies and job offers (Glassdoor, 2021[59]). There are more male applicants to jobs typically thought of as "female jobs" if the vacancy presents the job as more challenging and indicates that skills and performance are rewarded (Delfino, 2021[60]). However, the majority of campaigns or recruitment programmes in OECD countries are just designed to get more workers into the sector irrespective of who they are rather than directly tackling gender imbalances.

Some patients may prefer to have a male carer, and employing more men may solve some sensitive issues. There is a multitude of reasons why a male care worker may be preferred, ranging from privacy issues, to being able to relate more easily or even religious beliefs. Being able to accommodate these requests would provide a better experience for the patient. According to Care England – a trade organisation for independent adult social care providers -, with men living longer, more male workers will be needed to provide support, as some older men prefer to be looked after by men (BBC, 2015[61]).

Norway and the United Kingdom have implemented positive discrimination programmes that were specifically targeted at getting more men into the sector to try and redress the gender imbalance. The Norwegian Menn i helse (Men in health) programme was targeted at unemployed men aged 26-55 years providing an apprenticeship certificate for men, enabling them to work in the health social care sectors. It has produced more than 400 successful graduates since 2010 (Nordregio, 2021[62]). In the United Kingdom, Skills for Care – a development and planning body for adult social care -commissioned the Men into Care Programme to attract more men into the LTC workforce. This programme actively encourages more men to study healthcare-related subjects to help increase the level of future employment. Coventry University, for example, announced in 2017, a fund of GBP 30 000 to help ten men in subjects where they are under-represented including nursing, occupational therapy, physiotherapy, midwifery operating department practice, and dietetics. Similarly, Queen's University Belfast, alongside a private housing and care provider, have been running campaigns to encourage more men into care work including targeting all-boys' schools.

## 4.3. Role of migrants in the long-term care sector

A significant proportion of the LTC workforce are migrants in many countries, and this phenomenon is likely to increase in the coming decades to help deal with population ageing. The large number of migrant LTC workers, in some countries, has been influencing the nature of LTC provision by enabling many more people in need to remain at home rather than having to go to institutions. At the same time, with the migration of care workers, shortages can easily develop in the countries of origin, both within the formal sector and the immediate family. Whilst most less-developed countries still have favourable demographics, they are expected to age rapidly. Therefore, demand for care workers will also increase in those countries.

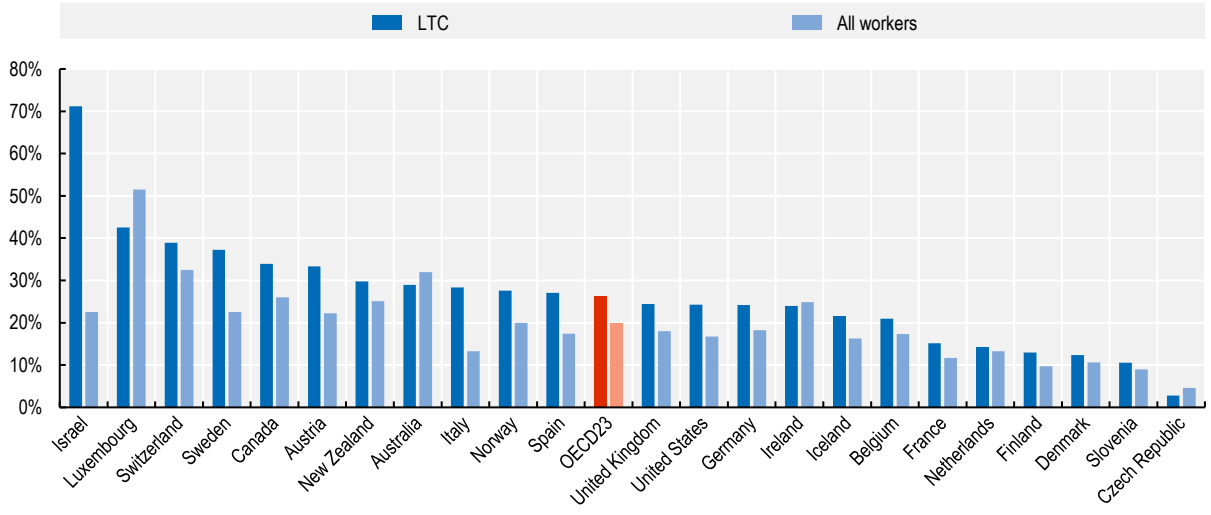
This section begins by comparing the share of LTC migrants across countries before highlighting specific legal channels to recruit foreign care workers in some OECD countries or laws in place to facilitate their recruitment. Whether LTC migrant workers are treated fairly is then investigated.

### *4.3.1. How migrants are filling employment gaps in long-term care*

*Share of foreign-born workers*

Migrant workers represent a higher proportion of LTC workers than among all workers. In the OECD on average, 26% of LTC workers are foreign-born compared to 20% across all employment sectors.[12] In Israel, over 70% of LTC workers are foreign-born, and around 40% in Luxembourg, Sweden and Switzerland (Figure 4.6). By contrast, this share is below 3% in the Czech Republic. Only in a few countries (Australia, Ireland and Luxembourg) is the share of foreign-born workers higher across all workers than for LTC workers only.

**Figure 4.6. Share of foreign-born workers among LTC workers, 2021 or latest year**




Note: Data are based on ISCO 3-digit and NACE 2-digit codes. Data is 2019 for the United Kingdom, 2016 for Australia, Canada, Israel, New Zealand and the United States. Data for the Czech Republic and Slovenia should be treated with caution as they fall below the "b" limit for reliability.

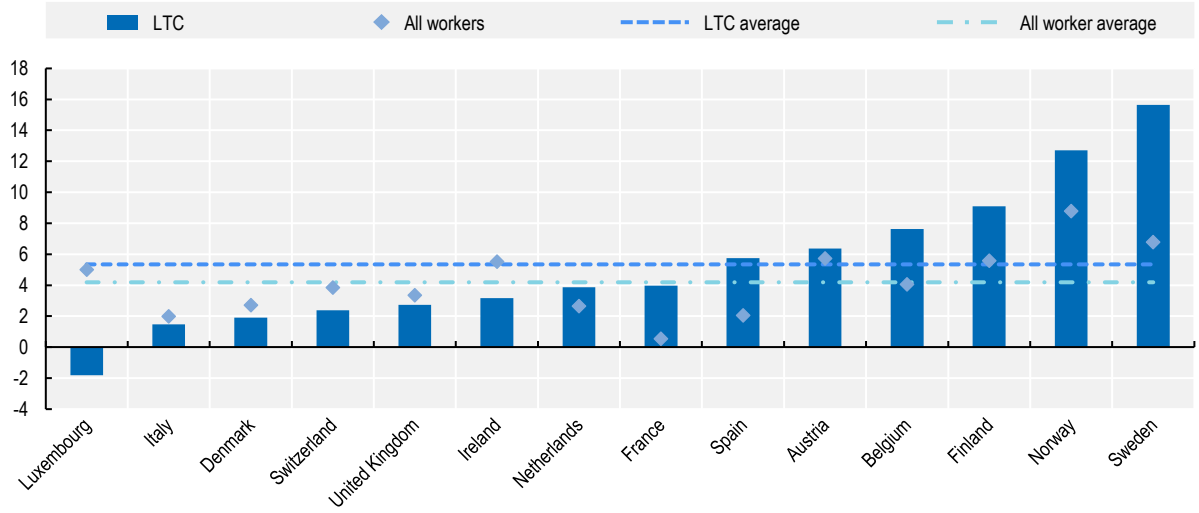
Source: EU-Labour Force Survey; ASEC-CPS for the United States; Census 2016 for Canada; LFS for Israel; OECD estimates based on national sources for Australia and New Zealand.

StatLink https://stat.link/yz2s1i

Over the past decade, there has been a large increase in the employment share of foreign-born workers in the LTC sector in virtually every country for which data is available, with an average increase of more than 5 percentage points of their share in total employment, larger than amongst all workers on average and in particular in Norway and Sweden (Figure 4.7). The increases can at least be partly explained by Bulgaria and especially Romania joining the European Union in 2007 and being granted freedom of movement across all countries in the years thereafter (OECD, 2015[63]). As OECD countries continue to age rapidly, the increasing demand for LTC workers from abroad is likely to be a long-term phenomenon.

## Figure 4.7. Change in the share of foreign-born workers among LTC and all workers, 2011-21

Percentage-point change




Note: Data are based on ISCO 3-digit and NACE 2-digit codes. Data for Finland and France for LTC workers should be treated with caution as they fall below the "b" limit for reliability in 2011 data.
Source: EU-Labour Force Survey.

StatLink https://stat.link/uojs0a

Migrant workers can help shift the structure of the LTC sector from residence-based to home-based services. A recent study in the United States has shown that having a higher proportion of less-educated migrants in the local community decreases the probability of institutionalisation amongst the older population. A 10 percentage point increase in the number of less-educated migrants is estimated to reduce the probability of someone aged 65 or over living in a nursing home or other institution by 29%, and by 26% for those aged 80 or over (Butcher, Moran and Watson, 2022[64]). The study found that areas with higher levels of immigration have lower wages among the less-educated workforce and higher levels of employment of health and nursing aides. This abundance of relatively cheap carers thereby reduces the cost of ageing within the community setting.

There is a clear distinction in the role of LTC migrant workers between countries or even regions of destination. In Northern and Western Europe, the majority of LTC workers are usually employed by specific LTC organisations, therefore having more formal employment provisions. Conversely, in Central and Eastern Europe and in Southern Europe, workers are predominantly hired by the person in need of care or their families (Scheil-Adlung, 2015[65]). In that case, employment is more likely to be informal in nature.

Globally, Southeast Asia is a major origin of immigrants employed in the LTC sector, with some moving to both Japan and Korea as well as many more going further afield to Canada, the United Kingdom and the United States, for example. China is also beginning to supply workers in the LTC sector, particularly in Korea, for example. Parreñas (2015[66]) suggests that low-skilled workers remain within the Asian region in terms of destination countries, whilst those with higher skills migrate intercontinentally.

### *Legal channels for recruitment and recruitment campaigns*

Many LTC workers are recruited after having migrated and commonly find employment in the informal sector (King-Dejardin, 2019[67]). However, some countries have been proactive in trying to recruit migrant workers to the LTC sector, through various legal channels or less commonly with specific recruitment

campaigns. Only five OECD countries, Canada, Germany, Israel, Japan and the United Kingdom, have so far been identified as having specific legal labour migration channels for care workers.

In Canada, the Home Support Worker Pilot (HSWP), launched in 2019, is the latest in a long line of migration schemes covering care workers. HSWP is designed to safeguard against problems associated with the old Live-in Caregiver Programme (LCP) as applicants now immediately apply for permanent residency. Previously, workers recruited under LCP could only apply for permanent residency after having worked in the programme for two years. Workers were therefore vulnerable to employer abuse, poor working conditions and low wages, with limited opportunity to complain as they were not permitted to work for more than one employer and feared repatriation. For permanent residency, foreign candidates must meet language proficiency requirements in either English or French and have at least one year of Canada-equivalent post-secondary education. After working 24 out of 36 months in a qualifying adult social care occupation, participants are automatically granted permanent residence.

Germany has a growing need for both health and LTC workers, with ageing leading to a shortage of workers. To help address the employment needs, a specialist agency for skilled labour in health and care occupations, DeFa (Deutsche Fachkräfteagentur für Gesundheits und Pflegeberufe) was established in 2019 to specifically recruit workers from abroad. It is the first point of contact for health and care providers and helps with visa applications and work permits as well as the recognition of professional qualifications and also organises the selection of applicants and offers language courses (Eurofund, 2020[68]).

In Israel, the Foreign Care Worker programme allows those in need, who have obtained a permit from the Ministry of Industry, Trade and Labour, to hire a foreign care worker. International recruitment must occur through a licensed recruitment agency. The permit obtained is temporary (limited to five years or the death of the person cared for, whichever is longer), with no pathway to permanent residence. The cost of employing a foreign care worker is approximately NIS 4 500– NIS 5 500 per month (34%-42% of average wage). The families are expected to provide an adequate living space for the caregiver, three meals a day and one day off per week. Agreements were signed with Morocco in June 2022 to permit nurses to emigrate to Israel and 2000 workers from Nepal are due to arrive to work in retirement homes. The programme covers over 70 000 workers in Israel, representing about 2% of total employment, but more workers are still needed.

In Japan, there are several schemes allowing foreigners to work as care workers. The Care Work visa route (“Nursing care” Status of Residence) started in 2017. In order to acquire this status, foreign workers must have become certified Care Workers. If they acquire the “Nursing Care” Status of Residence, there is no limit on the number of times they can extend the period of stay, and they can bring their family with them.

There are three other schemes in Japan, two systems and one covering partnership agreements. The two systems are the Specified Skilled Worker System and the Technical Intern Training Programme which cover nursing care work. The third scheme is the Economic Partnership Agreements (EPAs) that have been in place since 2008 with several countries. The first EPA was signed with Indonesia in 2008, followed by the Philippines in 2009 and Viet Nam in 2014 (ERIA, 2022[69]). A component of the agreement permits care workers to work in Japan, but the scheme is limited to just 300 individuals per year from each country. Foreign care workers are required to meet certain requirements such as having a nursing diploma or college degree with being certified as a care giver, be recruited through the Japanese accepting agency (Japan International Corporation of Welfare Services, JICWELS), and be employed only by eligible care facilities. In order to continue to work in Japan after completing the EPA programme, they have to become certified care workers within four years after they started working in Japan and pass a national exam. EPA workers are protected by the Labour Standards Act and guaranteed working conditions at least equivalent to those of Japanese care workers.

The United Kingdom has had to adapt its policy towards LTC workers in recent years. Between January and April 2019, migrants accounted for 5.2% of all new entrants into the LTC sector in the United Kingdom,

whereas it was only 1.8% from January to April 2021. Duval et al., (2022[70]) suggest that the pandemic may have accelerated a process already set in motion by "Brexit," which eliminated free movement for employment from the EU, speeding up the decline in the employment rate of foreigners and contributing to pockets of labour shortages in low-skilled professions, such as care workers. It was virtually impossible for care workers to meet the 70-points threshold of the points-based immigration system introduced in January 2021, because of both low wages and the low-skilled classification of the job. However, since February 2022, care workers have been added to both the Shortage Occupation List (SOL) and the Health and Care Worker visa programme, meaning that employers can now sponsor employees from abroad to fill vacancies, though there are fees involved with this process, even though they are much lower than for most other sectors (MAC, 2022[71]). Senior care workers have been on the SOL since inception in December 2020 and on the visa programme since January 2021. Being added to these programmes has resulted in over 23 000 applications (95% granted) for senior care workers and over 40 000 for care workers or home carers (86% granted) in 2022, with health and care visa applications nearly 150% higher than in 2021.

LTC workers may be eligible to use general labour migration channels. In a number of countries recruitment of LTC workers from abroad is exempt from labour market tests as they appear on the list of occupations identified as having labour market shortages (OECD, 2020[56]). In Korea, an ancestry-based mixed migration route – the H-2 Working Visit Permit for ethnic Koreans whose ancestors emigrated or were deported to foreign countries, mostly China, before 1945 – has served as the main route for the recruitment of foreign workers into adult social care roles. The Working Visit Permit allows a pathway to permanent residence.

Other OECD countries, including Australia and New Zealand have had routes for adult social care workers through their general employment migration schemes. All of these schemes have become more selective over time and now generally apply only to highly skilled occupational sectors, whilst most care jobs are classified as low skilled. Yet, in Australia there is a Carer Visa category which lets individuals live in Australia permanently and provide care for their relatives who are suffering from a long-term or permanent medical condition. Also, there are some agreements with the LTC sector which allow aged care facilities to sponsor foreign-born individuals with the required skills to care for the elderly, even though the occupation of the aged care workers is not on the list of eligible occupations.

The European Care strategy has called for more co-ordinated efforts to recruit foreign LTC workers through the proposed action "Map the current admission conditions and rights of long-term care workers from non-EU countries and explore the feasibility of developing EU-level schemes to attract care workers" (European Commission, 2022[72]). In addition, the strategy is also concerned about the working conditions with the action "Review the application of EU standards governing working conditions". Legislation for fair working conditions is set out in both the European Pillar of Social Rights and the Charter of Fundamental Rights of the European Union. Under these legislations workers are guaranteed a maximum regular working week of 48 hours with guaranteed rest and break periods and extra protection for night work. Member States though have the option to opt out of these rules for specific categories of workers or employment sectors. Individual employees can also opt out of the maximum working hours as long as it is a free choice without pressure from employers. This section now turns to examine the overall treatment and working conditions for migrant LTC workers.

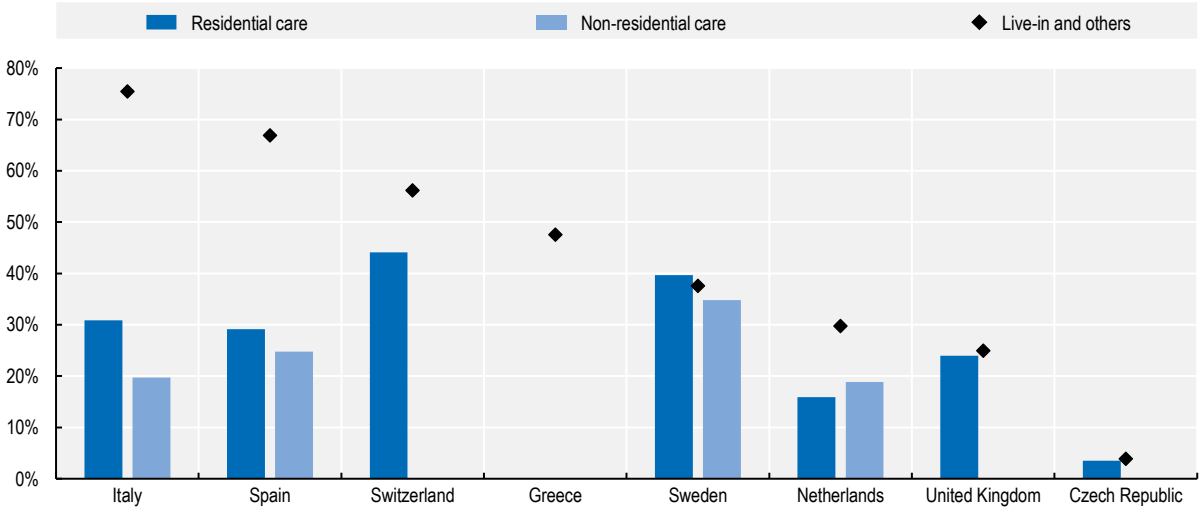
### *4.3.2. Are migrant LTC workers treated fairly?*

*Many migrant workers provide live-in care for which labour regulations are harder to enforce*

Migrant workers represent a large proportion of live-in care workers (Figure 4.8). In Italy, Spain and Switzerland, more than half of live-in carers are foreign-born, a much higher share than in residential or non-residential care. However, reliable data on personal care workers in live-in care positions are scarce as sample sizes are small; such statistics are available for only eight countries. The actual number of live-in foreign-born personal care workers is likely to be higher than what is reported as migrant workers are less likely to participate in data collection, due to, for example, undeclared work.

## Figure 4.8. A high proportion of live-in carers are foreign-born, 2021

Percentage of foreign-born personal care workers by type of care, 2021




Note: Data are based on ISCO 3-digit code 532, representing "Personal Care Workers in Health Services". Live-in and others excludes NACE codes 38, 55, 56, 84-88 and 96 (see EUROPA – Competition – List of NACE codes, https://ec.europa.eu/competition/mergers/cases/index/nace_all.html). Data for "Live-in and others" in the Netherlands, Sweden, Switzerland and the United Kingdom should be treated with caution as they fall below the "b" limit for reliability, meaning that the sample size is small.
Source: EU Labour Force Survey.

StatLink https://stat.link/z6xmpo

In countries with widespread live-in caregiver programmes, individuals can more easily remain in their own home benefitting from 24-hour on-call personalised support for routine activities and health-related needs. However, in most cases, having 24-hour in-home support is unaffordable and is only possible because care workers have to work much longer hours without additional payments for this overtime (Horn et al., 2019[73]).

There is a lower level of labour regulation and a lower – if any – frequency of labour inspections for in-home care compared with other employment settings and sectors. Exploitation of workers can be more commonplace when permission to remain in the country is dependent on remaining with their employer (Arat-Koç, 2001[74]). This employment precariousness and isolation, as well as risks of having to leave the country, makes undeclared LTC workers more vulnerable to physical and sexual abuse.

One-third of domestic workers working in private households globally, a group which includes live-in care workers, are completely excluded from employment legislation (King-Dejardin, 2019[67]). Furthermore, even when legislation is introduced to protect care workers, the rules covering those privately employed are typically less favourable or even non applicable to them. For example, in the United States, under the 2013 Department of Labour regulations, individuals employed as a live-in carer are not covered by federal overtime protection when they are privately paid (Goldberg, 2015[75]).

In Israel, many employment laws do not cover foreign workers who are employed as live-in care providers; 87% of Israel's elderly who are eligible for LTC benefits live in the community (Hasson and Buzaglo, 2019[76]). As foreign workers are living in the same home, they are effectively on call 24 hours a day. However, their working hours are not regulated by law with labour courts having ruled that Israel's Work and Rest Hours Law does not apply to them, though they are entitled to 25 hours a week of rest (Hasson and Buzaglo, 2019[76]).

In Germany, the Federal Labour Court issued a judgement in June 2021 stating that the minimum wage needs to be paid for not only the hours working, but also for those hours effectively on call. Therefore, someone ensuring live-in care overnight, for example, should now be paid for the hours spent in the home overnight, even if no direct care is actually provided.

Many OECD countries have had immigration arrangements with a particular country to cover their employment shortages across numerous sectors, but the supplier country can change over time. For example, until the early 2000s foreign LTC workers in Japan and Korea came mainly from the Philippines, while Indonesia and Viet Nam have now become the main countries of supply as these workers tend to be cheaper to employ (Peng, 2017[77]).

Within international labour laws, there are mechanisms to protect migrant workers and give them the same rights as the national population. However, within the LTC sector only 13 OECD countries (35 countries worldwide) have ratified ILO Convention 189, which provides standards for decent working conditions of domestic workers, including live-in carers. Non-ratification of Convention 189 does not imply that countries are not pursuing alternative routes to better protect domestic workers, but adopting it is a recommendation of the recent European Care Strategy. As migrant workers often represent a significant proportion of the workforce in these sectors, they often work either as undeclared or as false self-employed and have very low wages. They are sometimes denied basic labour rights, such as adequate rest periods (European Commission, 2022[78]).

Improving the working conditions of migrant care workers is therefore a key issue to address. Introducing training programmes to make the adaption to the destination country easier is an option as has been done with language courses in Japan. Alternatively, countries could make applications for permanent residency more straightforward, as in Canada.

### *Comparison of earnings and qualifications*

The analysis presented in Chapter 2 found no significant difference in the level of wages between migrant workers and those born in the country having similar individual characteristics. However, this covers only formal workers within the LTC sector, whereas many migrant workers, particularly those providing in-home care are in the informal economy (King-Dejardin, 2019[67]). The disadvantages faced by undeclared migrant workers in the LTC sector highlighted above extend to lower earnings (Doyle and Virpi, 2009[79]; Jönson and Giertz, 2013[80]). Home-care positions are often less well paid than institutional employment and commonly not fully covered by employment legislation.

When looking more globally and including undeclared workers, migrant LTC workers are predominantly low-paid, middle-aged women, with qualifications often higher than is strictly necessary for the job (ILO, 2013[81]). In Canada, for example, foreign workers account for a large proportion of home-care providers. Many are qualified as nurses in their country of origin with higher education degrees in healthcare, but they cannot work as nurses in Canada due to issues with recognising their qualifications; over 40% of those starting employment among home childcare providers and home support workers are overqualified (CBOC, 2021[82]). In most European countries, the share of migrants reporting that they are overqualified for the work they do is greater in the LTC sector than in the overall economy (OECD, 2020[56]). Removing overqualified foreign nurses from less-developed countries raises ethical concerns when some of these countries also face population ageing challenges (Kotschy and Bloom, 2022[83]).

## References


Aparicio, M. et al. (2019), "Gratitude between patients and their families and health professionals: A scoping review", *Journal of Nursing Management*, Vol. 27/2, pp. 286-300, https://doi.org/10.1111/jonm.12670. [6]

Arat-Koç, S. (2001), *Caregivers Break the Silence: A Participatory Action Research on the Abuse and Violence, Including the Impact of Family Separation, Experienced by Women in the Live-In Caregiver Program*, Intercede, Toronto. [74]

Atanackovic, J. and I. Bourgeault (2013), "The Employment and Recruitment of Immigrant Care Workers in Canada", *Canadian Public Policy / Analyse de Politiques*, Vol. 39/2, pp. 335-350, https://www.jstor.org/stable/23594748. [25]

Austen, S. et al. (2016), "Recognition: applications in aged care work", *Cambridge Journal of Economics*, Vol. 40/4, pp. 1037-1054, https://doi.org/10.1093/cje/bev057. [1]

Bailly, F., F. Devetter and F. Horn (2013), "Can working and employment conditions in the personal services sector be improved?", *Cambridge Journal of Economics*, Vol. 37/2, pp. 299-321, https://doi.org/10.1093/cje/bes071. [4]

Baret, C., I. Recotillet and C. Kornig (2021), "Which characteristics of working conditions affect employee recognition? Case study of a French teaching hospital"*, Communication at the 20th EURAM conference, Dublin, Ireland, December 4-6, 2020*, https://halshs.archives-ouvertes.fr/halshs-03213237. [3]

Barry, U. and C. Jennings (2021), "Gender equality: Economic value of care from the perspective of the applicable EU funds"*, Study*, No. PE 694.784, European Parliament, Policy Department for Citizens' Rights and Constitutional Affairs, Brussels. [12]

BBC, R. (2015), *More male care workers needed, says providers' chief*, BBC, https://www.bbc.com/news/uk-34103302. [61]

Brekke, K. and K. Nyborg (2010), "Selfish bakers, caring nurses? A model of work motivation", *Journal of Economic Behavior & Organization*, Vol. 75/3, pp. 377-394, https://doi.org/10.1016/j.jebo.2010.05.008. [28]

Burbano, V., N. Padilla and S. Meier (2020), *Gender Differences in Preferences for Meaning at Work, IZA Discussion Papers, No. 13053*, Institute of Labour Economics (IZA), Bonn, https://www.econstor.eu/bitstream/10419/216365/1/dp13053.pdf. [55]

Butcher, K., K. Moran and T. Watson (2022), "Immigrant labor and the institutionalization of the U.S.-born elderly", *Review of International Economics*, Vol. 30/5, pp. 1375-1413, https://doi.org/10.1111/roie.12607. [64]

CBOC (2021), *Valued workers, valuable work: The current and future role of (im)migrant talent*, The Conference Board of Canada, https://www.conferenceboard.ca/temp/bef358cd-1f54-4438-aac7-c668645a2042/11354_impact-paper_valued-workers_immigrant-talent.pdf. [82]

Cohen, R. (2016), *What Programming's Past Reveals About Today's Gender-Pay Gap*, The Atlantic, https://www.theatlantic.com/business/archive/2016/09/what-programmings-past-reveals-about-todays-gender-pay-gap/498797/. [84]

Cools, S., H. Finseraas and M. Bergli Rasmussen (2020), "The Immigrant-Native Gap in Union Membership: A Question of Time, Sorting, or Culture?", *LABOUR*, Vol. 35/1, pp. 24-51, https://doi.org/10.1111/labr.12186. [21]

Day, G. et al. (2021), "An outbreak of appreciation: A discursive analysis of tweets of gratitude expressed to the National Health Service at the outset of the COVID-19 pandemic", *Health Expectations*, Vol. 25/1, pp. 149-162, https://doi.org/10.1111/hex.13359. [7]

De Tavernier, W. and V. Draulans (2018), "Negotiating informal elder care, migration and exclusion: the case of a Turkish immigrant community in Belgium", *International Journal of Ageing and Later Life*, Vol. 12/2, pp. 89-117, https://doi.org/10.3384/ijal.1652-8670.18404. [19]

Delfino, A. (2021), *Breaking Gender Barriers: Experimental Evidence on Men in Pink-Collar Jobs*, IZA Institute of Labour Economics, https://docs.iza.org/dp14083.pdf. [60]

Denny-Brown, N. et al. (2020), *COVID-19 intensifies nursing home workforce challenges*, Mathematica, Cambridge, MA, http://resource.nlm.nih.gov/101775124. [39]

Dewan, S. and R. Gebeloff (2012), *More Men Enter Fields Dominated by Women*, New York Times, https://www.nytimes.com/2012/05/21/business/increasingly-men-seek-success-in-jobs-dominated-by-women.html. [43]

Dill, J., R. Erickson and J. Diefendorff (2016), "Motivation in caring labor: Implications for the well-being and employment outcomes of nurses", *Social Science & Medicine*, Vol. 167, pp. 99-106, https://doi.org/10.1016/j.socscimed.2016.07.028. [37]

Doyle, M. and T. Virpi (2009), "The different faces of care work: understanding the experiences of the multi-cultural care workforce", *Ageing and Society*, Vol. 29/3, pp. 337-350, https://doi.org/10.1017/s0144686x08007708. [79]

Duval, R. et al. (2022), *Labor Market Tightness in Advanced Economies*, International Monetary Fund, https://www.imf.org/-/media/Files/Publications/SDN/2022/English/SDNEA2022001.ashx. [70]

Elstad, J. and M. Vabø (2021), "Lack of recognition at the societal level heightens turnover considerations among Nordic eldercare workers: a quantitative analysis of survey data", *BMC Health Services Research*, Vol. 21/1, https://doi.org/10.1186/s12913-021-06734-4. [2]

England, P., M. Budig and N. Folbre (2002), "Wages of Virtue: The Relative Pay of Care Work", *Social Problems*, Vol. 49/4, pp. 455-473, https://doi.org/10.1525/sp.2002.49.4.455. [15]

England, P. and N. Folbre (1999), "The Cost of Caring", *The Annals of the American Academy of Political and Social Science*, Vol. 561, pp. 39-51, https://doi.org/10.1177/000271629956100103. [16]

Eurofund (2020), *Long-term care workforce: Employment and working conditions*, Publications Office of the European Union, Luxembourg. [68]

European Commission (2022), *European Care Strategy*, European Commission, https://www.alzheimer-europe.org/news/european-commission-launches-european-care-strategy. [72]

European Commission (2022), *SWD(2022) 440 final*, European Commission, https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13298-European-care-strategy_en. [78]

Fedele, A. (2018), "Well-paid nurses are good nurses", *Health Economics*, Vol. 27/4, pp. 663-674, https://doi.org/10.1002/hec.3623. [32]

Folbre, N. (1995), ""Holding hands at midnight": The paradox of caring labor", *Feminist Economics*, Vol. 1/1, pp. 73-92, https://doi.org/10.1080/714042215. [14]

Folbre, N. and J. Nelson (2000), "For Love or Money—Or Both?", *Journal of Economic Perspectives*, Vol. 14/4, pp. 123-140, https://doi.org/10.1257/jep.14.4.123. [35]

Franzosa, E. and E. Tsui (2020), "Professional, friend or family? How home care companies sell emotional care", *Journal of Women & Aging*, Vol. 32/4, pp. 440-461, https://doi.org/10.1080/08952841.2020.1763894. [30]

Fraser, N. (1997), *Justice Interruptus: Critical Reflections on the "Postsocialist" Condition*, Routledge, New York. [10]

Fujisawa, R. and F. Colombo (2009), "The Long-Term Care Workforce: Overview and Strategies to Adapt Supply to a Growing Demand", *OECD Health Working Papers*, No. 44, OECD Publishing, Paris, https://doi.org/10.1787/225350638472. [41]

García-Mainar, I., V. Montuenga and G. García-Martín (2018), "Occupational Prestige and Gender-Occupational Segregation", *Work, Employment and Society*, Vol. 32/2, pp. 348-367, https://doi.org/10.1177/0950017017730528. [18]

Glassdoor (2021), *What Job Seekers Really Think About Your Diversity and Inclusion Stats*, https://www.glassdoor.com/employers/blog/diversity/. [59]

Goldberg, H. (2015), "The long journey home: The contested exclusion and inclusion of domestic workers from federal wage and hour protections in the United States, Conditions of Work and Employment Series No. 58", *Conditions of Work and Employment Series*, No. 58, Inernational Labour Office, Geneva, https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_396235.pdf. [75]

Greenberg, D. et al. (2022), "Sex and age differences in "theory of mind" across 57 countries using the English version of the "Reading the Mind in the Eyes" Test", *Proceedings of the National Academy of Sciences*, Vol. 120/1, https://doi.org/10.1073/pnas.2022385119. [54]

Harris, J. (2022), "Do wages fall when women enter an occupation?", *Labour Economics*, Vol. 74, p. 102102, https://doi.org/10.1016/j.labeco.2021.102102. [44]

Hasson, Y. and N. Buzaglo (2019), *The care deficit in Israel: What it means and how it can be reduced*, Adva Center, https://adva.org/en/care-deficit/. [76]

Hay, K. et al. (2019), "Disrupting gender norms in health systems: making the case for change", *The Lancet*, Vol. 393/10190, pp. 2535-2549, https://doi.org/10.1016/s0140-6736(19)30648-8. [51]

Hebson, G., J. Rubery and D. Grimshaw (2015), "Rethinking job satisfaction in care work: looking beyond the care debates", *Work, Employment and Society*, Vol. 29/2, pp. 314-330, https://doi.org/10.1177/0950017014556412. [31]

Heponiemi, T. et al. (2011), "The effects of ownership, staffing level and organisational justice on nurse commitment, involvement, and satisfaction: A questionnaire study", *International Journal of Nursing Studies*, Vol. 48/12, pp. 1551-1561, https://doi.org/10.1016/j.ijnurstu.2011.05.015. [33]

Heyes, A. (2005), "The economics of vocation or 'why is a badly paid nurse a good nurse'?", *Journal of Health Economics*, Vol. 24/3, pp. 561-569, https://doi.org/10.1016/j.jhealeco.2004.09.002. [29]

Horn, V. et al. (2019), "Live-in migrant care worker arrangements in Germany and the Netherlands: motivations and justifications in family decision-making", *International Journal of Ageing and Later Life*, Vol. 13/2, pp. 83-113, https://doi.org/10.3384/ijal.1652-8670.18410. [73]

Hussein, S., M. Ismail and J. Manthorpe (2014), "Male workers in the female-dominated long-term care sector: evidence from England", *Journal of Gender Studies*, Vol. 25/1, pp. 35-49, https://doi.org/10.1080/09589236.2014.887001. [42]

ILO (2018), *Care work and care jobs for the future of decent work*, International Labour Office, Geneva, https://www.ilo.org/global/publications/books/WCMS_633135. [13]

ILO (2013), *Domestic Workers Across the World: Global and Regional Statistics and Extent of Legal Protection*, International Labour Office, Geneva, https://www.ilo.org/global/publications/books/WCMS_173363/lang--en/index.htm. [81]

IOM (2010), *The Role of Migrant Care Workers in Ageing Societies: Report on Research Findings in the United Kingdom, Ireland, Canada and the United States*, International Organization for Migration, Geneva, https://publications.iom.int/system/files/pdf/mrs41.pdf. [24]

Jönson, H. and A. Giertz (2013), "Migrant Care Workers in Swedish Elderly and Disability Care: Are They Disadvantaged?", *Journal of Ethnic and Migration Studies*, Vol. 39/5, pp. 809-825, https://doi.org/10.1080/1369183x.2013.756686. [80]

King-Dejardin, A. (2019), *The social construction of migrant care work: At the intersection of care, migration and gender*, International Labour Organization, https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---migrant/documents/publication/wcms_674622.pdf. [67]

Kotschy, R. and D. Bloom (2022), *A comparative perspective onlong-term care systems*, National Bureau of Economic Research, https://www.nber.org/system/files/working_papers/w29951/w29951.pdf. [83]

Kranendonk, M. and P. de Beer (2016), "What Explains the Union Membership Gap between Migrants and Natives?", *British Journal of Industrial Relations*, Vol. 54/4, pp. 846-869, https://doi.org/10.1111/bjir.12192. [22]

Le Bihan, B. and A. Sopadzhiyan (2018), "The development of an ambiguous care work sector in France", in Christensen, K. and D. Pilling (eds.), *The Routledge Handbook of Social Care Work Around the World*, Routledge, Abingdon, https://doi.org/10.4324/9781315612805-8. [17]

MAC (2022), *Adult Social Care and Immigration: A Report from the Migration Advisory Committee*, Her Majesty's Stationery Office, https://www.gov.uk/government/publications/review-of-adult-social-care-2022. [71]

Magnusson, C. (2009), "Gender, Occupational Prestige, and Wages: A Test of Devaluation Theory", *European Sociological Review*, Vol. 25/1, pp. 87-101, https://doi.org/10.1093/esr/jcn035. [8]

Manthorpe, J. et al. (2017), "Doing, Being and Becoming a Valued Care Worker: User and Family Carer Views", *Ethics and Social Welfare*, Vol. 11/1, pp. 79-91, https://doi.org/10.1080/17496535.2016.1247904. [5]

Marianne, B. (2011), "New Perspectives on Gender", in *Handbook of Labor Economics*, Elsevier, https://doi.org/10.1016/s0169-7218(11)02415-4. [53]

Mas, A. and A. Pallais (2017), "Valuing Alternative Work Arrangements", *American Economic Review*, Vol. 107/12, pp. 3722-3759, https://doi.org/10.1257/aer.20161500. [47]

Mavromaras, K. et al. (2017), *The Aged Care Workforce, 2016*, Australian Government Department of Health, https://gen-agedcaredata.gov.au/www_aihwgen/media/Workforce/The-Aged-Care-Workforce-2016.pdf. [85]

Näre, L. (2013), "Ideal Workers and Suspects: Employers' Politics of Recognition and the Migrant Division of Care Labour in Finland", *Nordic Journal of Migration Research*, Vol. 3/2, p. 72, https://doi.org/10.2478/v10202-012-0017-5. [26]

Nelson, J. and N. Folbre (2006), "Why a well-paid nurse is a better nurse", *Nursing Economics*, Vol. 24/3, pp. 127-130, https://pubmed.ncbi.nlm.nih.gov/16786826/. [36]

Nordregio (2021), *Recruitment and retention in the welfare sector: Nordic good practice*, Nordregio, https://doi.org/10.6027/pb2021:1.2001-3876. [62]

OECD (2021), *Bringing Household Services Out of the Shadows: Formalising Non-Care Work in and Around the House*, Gender Equality at Work, OECD Publishing, Paris, https://doi.org/10.1787/fbea8f6e-en. [11]

OECD (2021), *Pay Transparency Tools to Close the Gender Wage Gap*, Gender Equality at Work, OECD Publishing, Paris, https://doi.org/10.1787/eba5b91d-en. [46]

OECD (2020), *Who Cares? Attracting and Retaining Care Workers for the Elderly*, OECD Health Policy Studies, OECD Publishing, Paris, https://doi.org/10.1787/92c0ef68-en. [56]

OECD (2019), *Good Practice for Good Jobs in Early Childhood Education and Care*, OECD Publishing, Paris, https://doi.org/10.1787/64562be6-en. [9]

OECD (2019), *Part-time and Partly Equal: Gender and Work in the Netherlands*, Gender Equality at Work, OECD Publishing, Paris, https://doi.org/10.1787/204235cf-en. [48]

OECD (2019), *Why you should care about unpaid care work*, Development Matters, OECD, Paris, https://oecd-development-matters.org/2019/03/18/why-you-should-care-about-unpaid-care-work. [52]

OECD (2018), *The Future of Social Protection: What Works for Non-standard Workers?*, OECD Publishing, Paris, https://doi.org/10.1787/9789264306943-en. [20]

OECD (2017), *Making Integration Work: Assessment and Recognition of Foreign Qualifications*, Making Integration Work, OECD Publishing, Paris, https://doi.org/10.1787/9789264278271-en. [23]

OECD (2017), *The Pursuit of Gender Equality: An Uphill Battle*, OECD Publishing, Paris, https://doi.org/10.1787/9789264281318-en. [50]

OECD (2015), *International Migration Outlook 2015*, OECD Publishing, Paris, https://doi.org/10.1787/migr_outlook-2015-en. [63]

OECD (2008), "Gender and Sustainable Development: Maximising the economic, social and environmental role of women", OECD, Paris, https://www.oecd.org/greengrowth/40881538.pdf. [57]

Palmer, E. and J. Eveline (2012), "Sustaining Low Pay in Aged Care Work", *Gender, Work & Organization*, Vol. 19/3, pp. 254-275, https://doi.org/10.1111/j.1468-0432.2010.00512.x. [27]

Parreñas, R. (2015), *Servants of Globalization*, Stanford University Press, https://doi.org/10.1515/9780804796187. [66]

Peng, I. (2017), *Elderly Care Work and Migration: East and Southeast Asian Contexts*, https://www.un.org/development/desa/ageing/wp-content/uploads/sites/24/2017/11/Peng-UN-Expert-Group-Meeting_Dec-5-7-final-Paper_4Dec.pdf. [77]

Royal Commission into Aged Care Quality and Safety (2020), *Royal Commission into Aged Care Quality and Safety Council Assisting's Final Submissions*, https://agedcare.royalcommission.gov.au/sites/default/files/2021-02/RCD.9999.0541.0001_1.docx. [38]

Scheil-Adlung, X. (2015), *Extension of Social Security, Long-term care protection for older persons: A review of coverage deficits in 46 countries*, ILO, https://www.social-protection.org/gimi/RessourcePDF.action?id=53175. [65]

Seehuus, S. (2021), "Gender differences and similarities in work preferences: Results from a factorial survey experiment", *Acta Sociologica*, p. 000169932110602, https://doi.org/10.1177/00016993211060241. [49]

Sulander, J. et al. (2016), "Does Organizational Justice Modify the Association Between Job Involvement and Retirement Intentions of Nurses in Finland?", *Research in Nursing & Health*, Vol. 39/5, pp. 364-374, https://doi.org/10.1002/nur.21740. [34]

Tyler, D. et al. (2021), *COVID-19 intensifies home care workforce challenges*, RTI International, https://aspe.hhs.gov/reports/covid-19-intensifies-home-care-workforce-challenges. [40]

WGEA, W. (2022), *What is workplace gender equality?*, Australian Government, https://www.wgea.gov.au/about/workplace-gender-equality. [58]

WHO/ILO (2022), *The gender pay gap in the health and care sector: A global analysis in the time of COVID-19*, World Health Organisation, https://apps.who.int/iris/handle/10665/358057. [45]

Yuko O. Hirano, O. (ed.) (2022), *Agents of Care Technology Transfer, Trends and Challenges of Migration Care Workers Across Borders*, https://www.eria.org/publications/agents-of-care-technology-transfer-trends-and-challenges-of-migration-care-workers-across-borders/. [69]

## Notes

[1] Another study found that Australian LTC workers are generally rather satisfied with the support they receive from their supervisors (Mavromaras et al., 2017[85]), although receiving support does not necessarily entail being recognised.

[2] Healthcare workers in one French hospital felt to some extent recognised by patients, co-workers and supervisors, but felt very little recognition from management (Baret, Recotillet and Kornig, 2021[3]).

[3] Occupational standing is measured through survey research in which people are asked how prestigious they consider a specific occupation to be. The findings are very stable over time and across countries.

[4] Municipalities are free to set wages of LTC workers, albeit within the boundaries set by the law and government regulations. While previously no specific minimum wage existed for LTC workers, occupation-specific minimum wages were introduced in 2022 and will fully take effect as of 2027. The maximum wage for LTC workers set by the law was substantially increased, by 50% to 80% depending on the specific occupation and connected responsibilities. At the same time, a target wage for average LTC workers was introduced, which exceeds the previous maximum wage for all LTC occupations.

[5] Canada has a list of “essential services and functions” which comprises services and functions that are critical to ensure the health, safety, and economic well-being of the population.

[6] This applies if the evaluation of prior work experience demonstrates that all the required competencies have been acquired.

[7] This is consistent with Figure 4.1 based on a different dataset.

[8] 22 out of a total of 43.

[9] Likewise, there is other evidence suggesting that when men start to enter an occupation both the perception of the job and the remuneration improve. For, example, the initial programmers in the computing industry were women in the 1970s, when wages were generally low. According to Cohen (2016[84]), over the last 50 years it has now become a predominantly male profession with both compensation and esteem having risen substantially.

[10] One country responded that it has somewhat worsened.

[11] Employers are more likely to recruit women because of perceived empathy (pull), which also draws women towards a career that provides help to individuals (push).

[12] LTC workers are identified in the Labour Force Survey data based on NACE classification codes 87 and 88 (see Chapter 2).

# 5 Looking ahead: Current and future labour shortfalls in long-term care

Maciej Lis, Hervé Boulhol, Wouter de Tavernier and Yuta Fujiki

This chapter presents evidence on current and future labour shortages in the LTC sector. The first section presents evidence on unmet LTC needs and existing staff shortages in LTC. The second section discusses recent policies implemented to mitigate staff shortages. The third section shows projections of labour demand in the LTC sector for the next two decades, as driven by population ageing and economic growth, pointing to the need for strong policy action to prevent staff shortages from accumulating at a very fast pace towards a socially unacceptable level. The last section discusses the potential of new technologies to help address the increasing demand for LTC workers.

## Introduction

Shortages of long-term care (LTC) workers have been growing in many OECD countries over the past decades and have intensified during the COVID-19 crisis. Too few workers seem to be ready to take LTC jobs at the current working conditions. Shortages accumulate gradually and structurally as the number of older people, who most often use LTC, increases. This chapter presents evidence on labour shortages in the LTC sector and looks at the growing demand for LTC workers as the key driver of future labour shortages based on demographic, income and productivity effects. Among other factors, technological innovations may help cushion the increasing pressure on LTC workers.

Previous chapters provide important context for labour shortages in LTC. Chapter 2 provides details about the characteristics of LTC work, analyses the determinants of wages for LTC workers and quantifies the extent of low wages. The chapter shows how inefficiencies in wage setting may contribute to labour shortages. Wages are only one part of job quality and Chapter 3 documents poor working conditions in the LTC sector. It also looks into collective bargaining in the LTC sector and its potential role in improving its attractiveness. Chapter 4 highlights the insufficient social recognition of LTC jobs and gender imbalances in the LTC workforce that undermine wider recruitment and retention of staff, while pointing out that migrant workers help mitigate LTC labour shortages in many countries.

This chapter is structured as follows. The first section presents evidence on unmet LTC needs and existing staff shortages in LTC, including the impact of COVID-19. The second section discuses recent policies implemented to mitigate staff shortages. The third section presents projections of labour demand in the LTC sector for the next two decades, as driven by population ageing and economic growth, pointing to the need for strong policy action to prevent staff shortages from accumulating at a very fast pace towards a socially unacceptable level. The last section discusses the potential of new technologies to help address the increasing demand for LTC workers.

## Key findings

### *Shortages of LTC workers*

- Only half of older people (aged 65 or more) with severe limitations in activities of daily living receive formal care, while one-quarter receive neither formal nor family care. The prospect of not being able to access good-quality LTC services is felt as a major concern among adults in OECD countries.
- Both LTC needs and receiving professional LTC when needed increase sharply with age. In the OECD on average, 13% of people aged 65-69 report at least one limitation in activities of daily living (whether ADL or IADL) increasing to 53% at age 85-89. At age 65-69, 22% of people with limitation in daily living receive formal LTC, compared with 49% at age group 85-89.
- Job offers for personal care workers and nurses account for a substantial share of total job offers in several countries, at 6% or more in Norway, Sweden the United Kingdom and the United States while it is less than 1% in the Czech Republic, Estonia, Greece, Hungary, Lithuania, Luxembourg and Poland.
- Many countries report structural difficulties in recruiting LTC workers, both at the national and regional level. The COVID-19 crisis magnified both staff shortages and poor working conditions while increased job quits have been observed in the LTC sector after the outbreak the COVID-19 pandemic.
- Staff shortages means that the quantity of workers to be hired exceeds their supply at current working conditions. Not all people who need LTC receive it due to limited access to public funding, underdeveloped LTC institutions and affordability issues faced by households among other factors.

- LTC do not automatically translate into labour demand (at current conditions) and unmet needs into labour shortages. Yet, the insufficient supply of LTC workers aggravates unmet needs. Population ageing will lead to a sharp increase in LTC needs. In countries where the LTC system is not developed, unless there are large changes in policies, this will not translate into equivalent increases in the number LTC job offers, leading to an explosive growth in unmet needs.
- Low pay and more generally poor working conditions, in part related to constraints on public resources, as well as poor social recognition limit the labour supply of LTC workers, contributing to labour shortages.
- Ageing will substantially increase the demand for LTC, which will be harder to meet given that the working-age population is projected to start shrinking, by 2% in the coming decade on average across OECD countries and by more than 10% in Germany, Italy, Korea, Latvia, Lithuania, Poland and the Slovak Republic.
- The demand for LTC workers would increase by 22%, or by 0.41 percentage points of employment in all sectors, over the next decade due to population ageing alone according to central projections. Similar trends will continue over the following decade.
- On top of demographics, economic growth is expected to further raise demand for LTC services due to income effects while slower labour productivity growth in the LTC sector (Baumol effect) will require additional workers as a share of total employment. In the baseline projections, combining demographic changes, higher income and no labour-productivity growth in the LTC sector, the demand for LTC workers would increase by 32%, or by 0.60 percentage points of total employment, over the next decade. An alternative scenario based on annual labour productivity growth of 0.5% in the LTC sector implies a lower increase in labour demand of 27%.
- The projected growth in labour demand is much higher than the actual recorded increase in the number of LTC workers of 0.19 percentage points of total employment over the past decade, suggesting that policy efforts should be strengthened to avoid a sharp increase in unmet needs and labour shortages.
- Recent measures taken by OECD countries to tackle LTC staff shortages include: expansion of financial resources; pay increases; organisational adjustments to improve attractiveness; better LTC training programmes, including for the unemployed; improvements in recruitment processes; and, prioritising LTC workers in visa and work permit application procedures.

### *New technologies*

- Investment in new technologies in LTC remains low. On average across 12 OECD countries for which data are available, IT investments make up only 1.0% of gross value added in LTC, compared to 3.2% in the total economy.
- The introduction of digital technologies is likely to support and supplement LTC workers, but is unlikely to replace LTC workers entirely for core caregiving tasks. It can help limit the looming shortage of LTC workers by facilitating independent living of older people, reducing the strain of LTC work and raising labour productivity, including through maximising the time LTC workers can spend on effectively providing care.
- Cost is an important barrier to the implementation of new technologies in LTC and expensive equipment such as robots are used by only 1% of LTC providers in Japan and the United Kingdom. However, as prices of such advanced equipment are expected to fall, use of technologies such as robots in LTC will likely increase.
- Cheaper technologies are increasingly used in LTC, such as sensors and tablets, which can reduce the time LTC workers spend on administration, co-ordination, monitoring and transport. The reasons for the limited use of cheaper technologies are not entirely clear, but obstacles may include concerns over privacy and data security, and the lack of both LTC providers' awareness of some available technologies and LTC workers' digital skills to operate such tools.
- The improvement of digital skills of both LTC workers and older people is vital for the successful implementation of new technologies.

## 5.1. Evidence on current unmet needs and staff shortages in long-term care

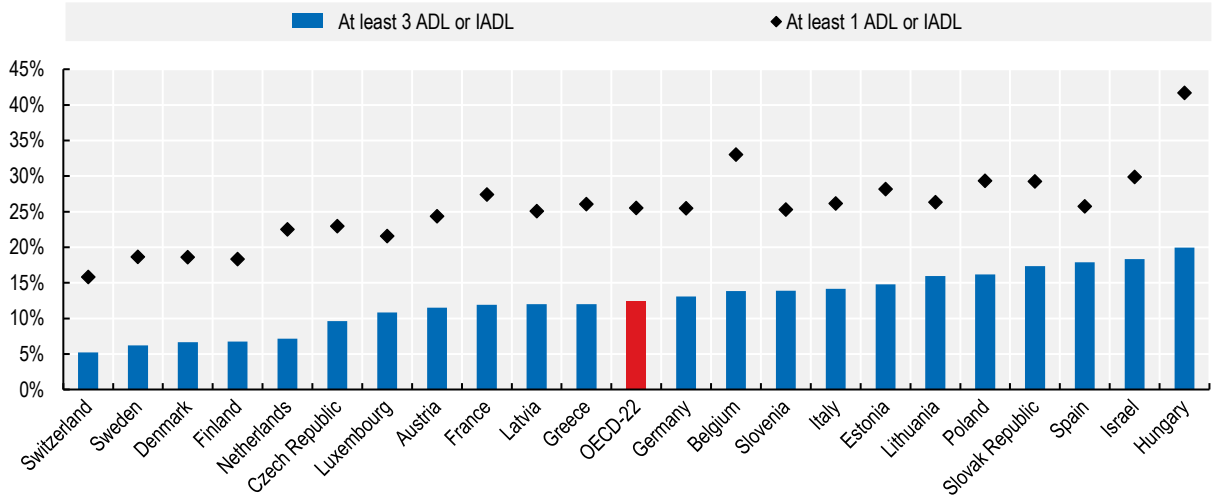
Not all people who need and want long-term care (LTC) receive it. There is a range of reasons for this, including limited access to public funding, underdeveloped LTC institutions and cost faced by households – many households cannot afford to hire care workers under current labour market conditions. Hence, LTC needs do not automatically translate into labour demand and unmet needs into labour shortages, whereby even at current conditions the demand for LTC workers exceeds their supply. This also means that there may be more LTC needs than what the labour-shortage numbers indicate, even though the number of unmet needs is magnified by the insufficient supply of LTC workers.

### *5.1.1. Many older people experience unmet long-term care needs*

A substantial share of older people has LTC needs. One in four people over 65 reports at least one limitation in activities of daily living (ADL or IADL) while one in eight reports at least three limitations (Figure 5.1). The share of 65+ with at least three limitations varies from less than 10% in Denmark, Finland, the Netherlands, Sweden and Switzerland to more than 15% in Hungary, Israel, Lithuania, Poland, the Slovak Republic and Spain. This cross-country variation in LTC needs is thus much lower than that in the number of LTC workers per 1 000 older people discussed in Chapter 2, which ranges from less than 10 in Greece, Latvia, Lithuania, Poland and Portugal to more than 100 in Iceland, Israel, Norway and Sweden.

### Figure 5.1. More than 10% of older people face at least three difficulties in daily living

Share of the population 65+ that is limited in their ability to perform at least one or at least three activities of daily living (ADL) or instrumental activities of daily living (IADL), 2020



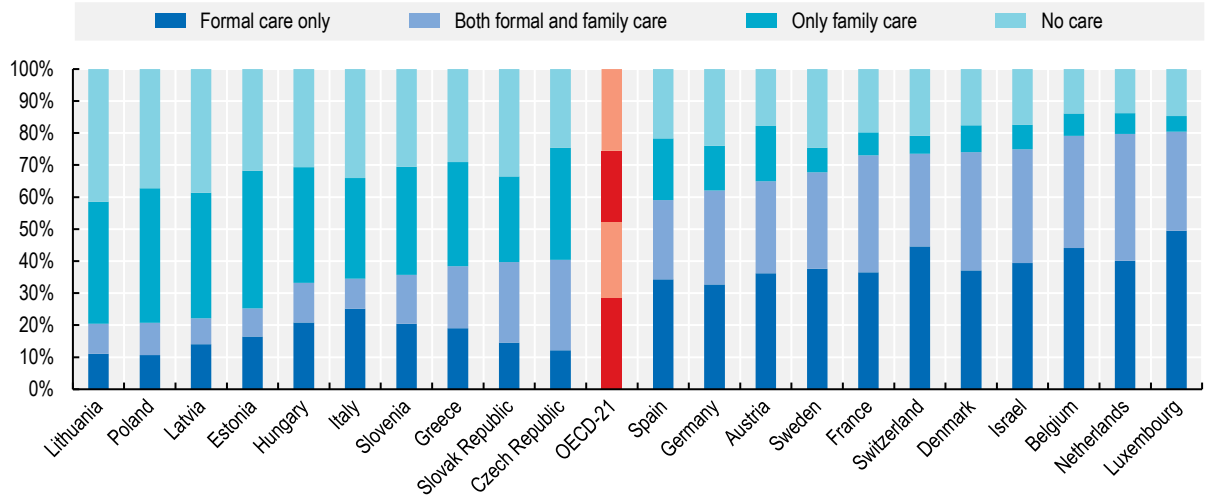

Note: A limitation refers to any difficulty a person has in performing at least one activity from a list of 14 activities as a result of a physical, mental, emotional or memory problem. The 14 activities cover six activities of daily living (ADLs – getting dressed, walking across the room, bathing, eating, getting in/out of bed, going to the toilet) and eight instrumental activities of daily living (IADLs – cooking, shopping, making a call, taking medicine, doing work around the house or garden, managing money, leaving the house independently and using public transport, doing laundry).
Source: OECD calculations based on the Survey of Health, Ageing and Retirement in Europe (wave 8).

StatLink https://stat.link/op3f9g

Formal care is received by only half of people aged 65 or more with at least three limitations in activities of daily living (ADL or IADL, Figure 5.2). In Estonia, Latvia, Lithuania and Poland, it is even less than one-quarter while it is more than three-quarters in Belgium, Israel, Luxembourg and the Netherlands. Family care can come on top of formal care, yet 25% of people with at least three daily live limitations receive neither formal nor family care. This varies from around 15% in Belgium, Luxembourg and the Netherlands to around 40% in Latvia, Lithuania and Poland.

## Figure 5.2. Only half of older people with at least three daily living limitations receive formal care

Share of the population 65+ with at least three ADL or IADL limitations, by type of care received




Note: Family care is received from family and friends; formal care is delivered by paid carers. Countries are sorted by the number of people receiving formal care.
Reading Note: On average across countries, among the 65+ with at least three ADL or IADL limitations, 28% receive formal care only, 24% receive both formal and family care, 22% receive only family care and 26% receive no care.
Source: OECD based on the Survey of Health, Ageing and Retirement in Europe (wave 8).

StatLink https://stat.link/o70bwr

Half of older people with at least one limitation in day-to-day activities have unmet needs on average across OECD countries – i.e. they report receiving none or insufficient care – while this applies to 40% of those with three limitations (Figure 5.3). This 40% share is substantially more than the 25% of people with at least three limitations not receiving any care shown in Figure 5.2, implying that a significant part of older people with at least three difficulties do receive some care, but still have unmet needs.

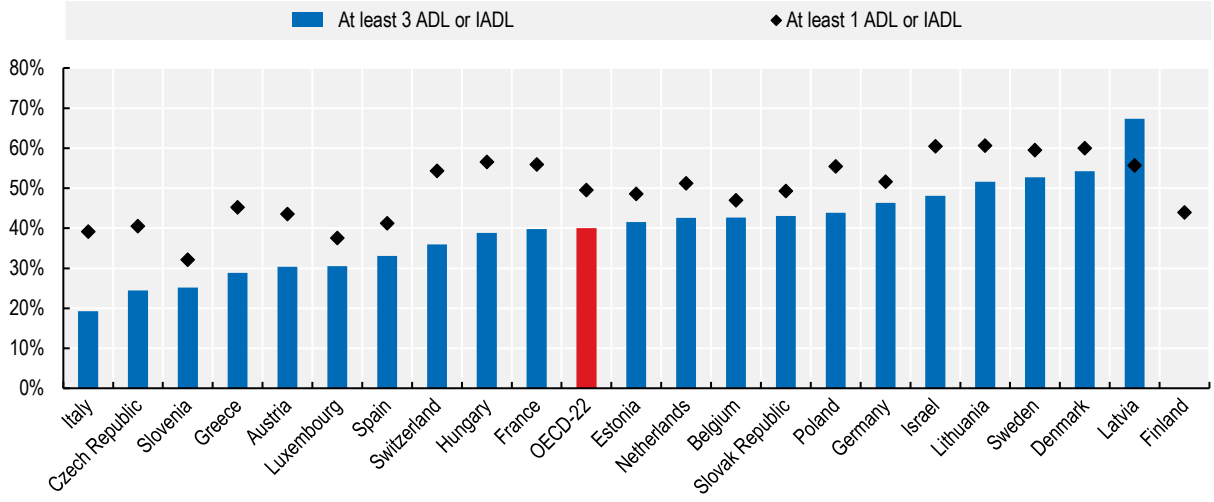
Unmet care needs affect less than 30% of older people with at least three limitations in daily living in Austria, the Czech Republic, Greece, Italy, Luxembourg and Slovenia, but more than 50% in Denmark, Latvia, Lithuania and Sweden. However, given the very low number of people reporting limitations in daily living in Denmark and Sweden (Figure 5.1), the absolute number of people with unmet needs is low in these countries. Moreover, in Sweden, Chapter 2 shows that the number of LTC workers relative to the size of the older population is record high.

Not being able to access good-quality LTC services is a common concern among adults in OECD countries. Based on Risk-That-Matter surveys measuring the perception of various social risks in OECD countries (OECD, 2021[1]), covering LTC needs for old-age family members is among the top social needs that people worry about: it is stated by 56% of people on average among OECD countries (Figure 5.4). It compares to the top worry of becoming ill or disabled, which is stated by 61% of individuals.

More than three in four people share concerns about not being able to access good-quality LTC services in Chile, Greece, Mexico, Portugal and Spain.

## Figure 5.3. Four in ten older people with at least three daily living limitations have unmet LTC needs

Share of the population 65+ with at least one or at least three ADL or IADL reporting unmet care needs

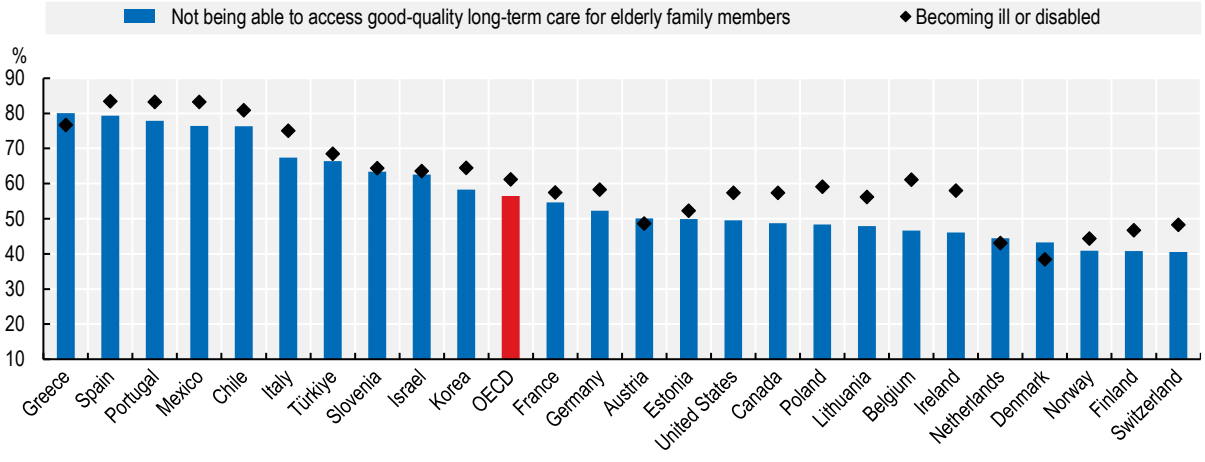



Note: A need is considered unmet if a person declares either to receive no help with these activities or to receive help that does not meet a person's need all the time. The number for Finland is not available due to sample size.
Source: OECD based on the Survey of Health, Ageing and Retirement in Europe (wave 8).

StatLink https://stat.link/oqp1fy

## Figure 5.4. More than half of people are concerned about not having access to good-quality LTC

Percentage of adults indicating they are somewhat concerned or very concerned by each identified risk




Note: Respondents were asked to rate the risks to themselves or their immediate family from a list of nine risks. Respondents had the option of selecting not at all concerned, not so concerned, somewhat concerned, very concerned or can't choose. Percentages shown here present the aggregation of "somewhat concerned" and "very concerned" answer choices.
Source: OECD (2021[1]), *Main Findings from the 2020 Risks that Matter Survey*, https://www.doi.org/10.1787/b9e85cf5-en.

StatLink https://stat.link/59kct7

### *5.1.2. Shortages of LTC workers are structural and intensified during COVID-19 crisis*

#### *Identifying staff shortages is challenging*

Staff shortages are closely related to difficulties in finding competent workers for existing vacancies. Difficulties in recruiting people can therefore imply low employment growth in sectors affected by staff shortages. Barnow, Trutko and Schede Piatak (2013[2]) define staff shortages in a given occupation as a sustained market disequilibrium between supply and demand in which the quantity of workers to be hired exceeds the supply of workers available and willing to work at some particular working conditions, including wages, place and time.

Steady increases in the demand for some products or services may generate shortages. Hence, as argued by Pindus, Tilly and Weinstein (2002[3]), strong employment growth and fast increases in wages in a given occupation may also be signs of shortages. Firms can react to staff shortages in various ways, such as by increasing recruitment effort, resorting to more overtime, reducing minimum qualifications, fostering the training of workers, restructuring work, substituting workers with machines, improving working conditions including wages, introducing bonuses, etc. Sustainable growth of labour demand that is not accompanied by higher wages is likely to fuel or amplify labour shortages.

Identifying labour market tightness in the overall economy is usually done by comparing vacancies and unemployment (Beveridge curve), as well as quit rates (Causa et al., 2022[4]). While vacancies give an indication of labour demand for specific occupations, a high number of vacancies per worker in a given sector might result from high turnover or increasing employment rather than actual staff shortages. Furthermore, workers can switch occupations, particularly among those with low skill requirements, and it is not straightforward to define occupational-specific unemployment as well as occupational-specific labour supply.

#### *Many countries report shortages of LTC workers*

Many countries have reported shortages of LTC workers in the questionnaire filled in for this report. In Australia, the National Skills Commission (NSC) publishes a Skills Priority List,[1] which provides a labour market rating of current shortages and a future demand rating, for 800 occupations nationally, including occupations that relate to the care sector. The Skills Priority List identifies both care workers and enrolled nurses as occupations with current shortages and strong or moderate future demand growth. Additionally, although nurses in aged care were not considered a shortage occupation in general in Australia, the government identified local shortages of nurses in the aged care. The Canadian Occupational Projection System (COPS) reports strong signs of staff shortages for both nurses and personal care workers for 2019 through 2021 and expects further shortages in 2022-31. In Ireland, 97.4% of respondents to a recent workforce survey conducted by Nursing Homes Ireland (NHI) reported difficulties in recruiting healthcare assistants (HCAs) (Department of Health, 2022[5]). In Lithuania, the staff-to-patient ratio in many institutions was lower than required by the law even though shortages of nurses and nurse aids are considered to be limited.

In Norway, employers' surveys show substantial recruitment challenges in both LTC and healthcare sectors (NAV, 2022[6]). Portugal reports shortages of care workers, in particular nurses (MTSSS, 2021[7]), and the 2030 health strategy in Switzerland acknowledges the existing shortages of care workers. The United Kingdom, recognising the challenges faced to recruit and retain care workers, primarily personal care workers, introduced the Workforce Recruitment and Retention Fund to support the recruitment and retention of adult social care staff in 2022. In the United Kingdom, staff shortages are reported among nurses both in healthcare and LTC, for whom the number of unfilled posts is record high (The Guardian, 2022[8]). Moreover, LTC workers, both personal carers and nurses, are being recognised as shortage occupations and are given priority for visa processing.[2] In Europe more generally, nurses and healthcare assistants were reported to be among top shortage occupations in 18 and 11 European Union countries, respectively, in 2021 (ELA, 2021[9]).[3]

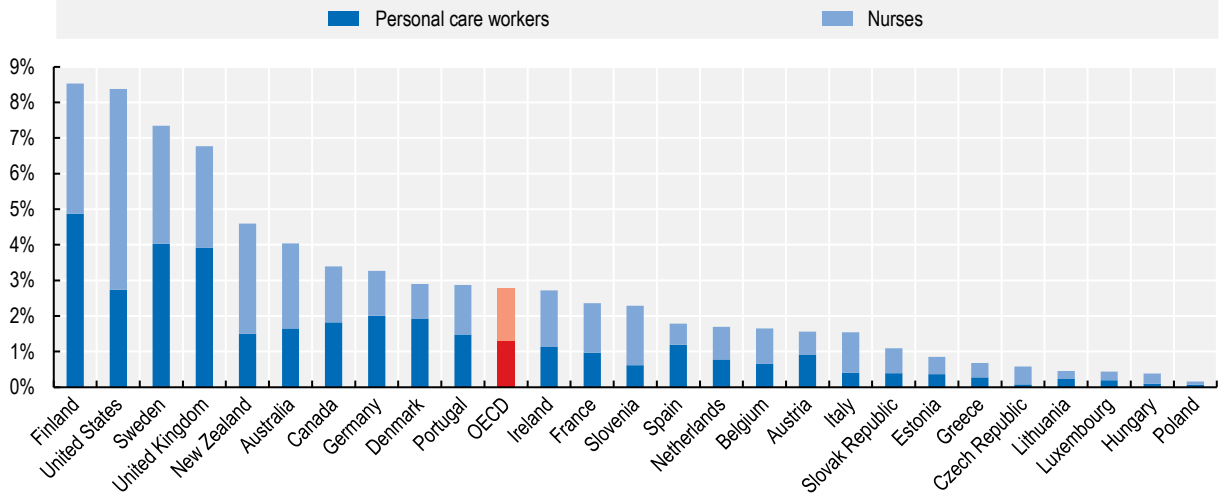
Some countries have identified shortages only for some regions. For example, shortages have been reported for large city areas in Germany and for some regions in the Czech Republic. Eurofound (2020[10]) reports that in Finland shortages are concentrated in the north and east, while in France recruitment difficulties affect all parts of the country, but especially the border areas with Luxembourg and Switzerland, where wages are higher. In the United States, Barnow, Trutko and Schede Piatak (2013[2]) found little indications of staff shortages in New York City; however, they found substantial shortages in rural areas of the New York state, where delivering care requires covering larger distances, where people have lower income and where migrant workers are less numerous. Danish municipalities reported labour shortages for social and health assistants in 2007-10, followed by no shortages in 2011-14 and then a progressive increase in shortages in 2014-17 (FOA KL, 2017[11]).

Simultaneous increases of wages and employment within an occupation illustrate demand pressure, and may even indicate staff shortages according to Barnow, Trutko and Schede Piatak (2013[2]). Based on the analysis in Chapter 2, employment of LTC workers has increased in the OECD on average over the last decade, while wages of LTC workers have increased in line with the average wage. Over the last decade, simultaneous and substantial employment and wage increases took place in the Czech Republic, Iceland, Portugal and Türkiye.

Differences between OECD countries in the demand for personal care and nurses are large. In Finland, Sweden, the United Kingdom and the United States, the share of online job offers for nurses and personal care workers for healthcare and social care sectors together[4] in total online job offers is larger than 6% whereas it is less than 1% in the Czech Republic, Estonia, Greece, Hungary, Lithuania, Luxembourg and Poland (Figure 5.5). In 10 out of 26 countries there are more job offers for personal care workers than for nurses, particularly in Denmark and Spain, where there are two job offers for personal care worker for every job offer for nurses. The proportion is inverted in the Czech Republic, Hungary, Italy New Zealand, Slovenia and the Unites States.

## Figure 5.5. Online vacancies of nurses and personal care workers

Share of online job offers for personal care workers and nurses in all online job offers, 2021 or latest year, in percentage of all job offers




Note: Personal care workers are defined as the ISCO code 532.
Source: OECD based on Lightcast.

StatLink https://stat.link/72xrdl

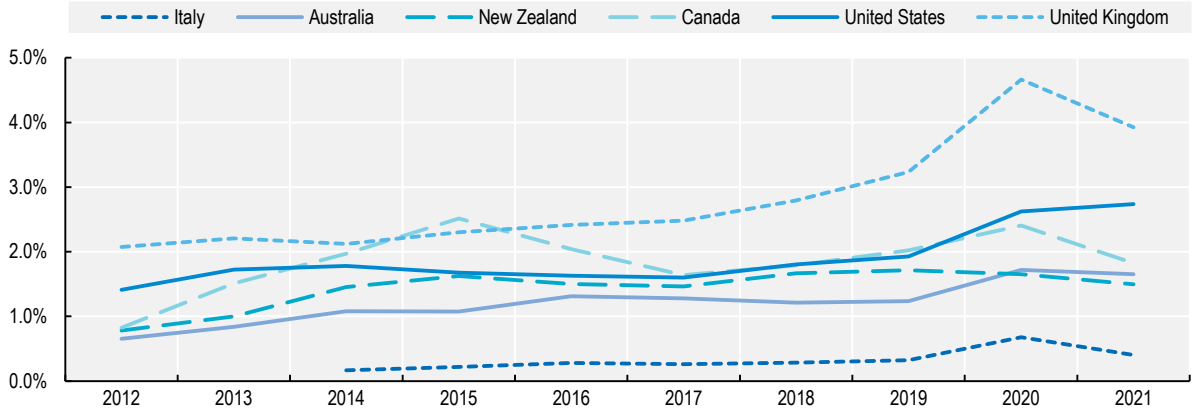
*With COVID-19, job offers for LTC workers increased substantially in 2020*

The COVID-19 crisis has caused many disruptions in LTC. As a share in total online job offers, job offers for personal care workers surged from 1.3% to 1.7% between 2019 and 2020 before returning to 1.3% in 2021. This relative increase was driven by both the slowdown in the number of total online job offers due to the COVID-related economic crisis and strong increases in the number of offers for personal care workers. The 2020 increase in the share of online job offers for personal care workers was more than 1 percentage point in Finland, Sweden and the United Kingdom.

Longer upward trends in job offers for personal care workers are observed in all countries for which the time series is available, i.e. Australia, Canada, Italy, New Zealand, the United Kingdom and the United States. Even in 2019, in Italy, New Zealand, the United Kingdom and the United States the share in vacancies for personal care workers was higher than in any year before (Figure 5.6). In Australia, the United Kingdom and the United States, the demand for LTC workers remained elevated in 2021 while it returned to pre-COVID-19 levels in other countries. Data show a substantial increase in the demand for LTC workers in Canada in 2012-15. In residential care in the United States, job offers increased while employment dropped in 2020 and 2021 (Hickey, Sawo and Wolfe, 2022[12]).

## Figure 5.6. Job offers for personal care workers increased substantially in 2020

Share of job offers for personal care workers in all job offers, 2012-21, selected countries




Note: Job offers for personal care worker (ISCO 532) as a share of all workers.
Source: OECD based on Lightcast data.

StatLink https://stat.link/jtli0e

Staff shortages of LTC workers were magnified by the COVID-19 crisis. In the United States, long-term residential care facilities suffered from immense staffing shortages throughout the pandemic (ASPE, 2022[13]). Paulin (2022[14]) lists possible pathways for LTC workers out of their jobs: "some workers have shifted to other healthcare roles in hospitals or private homes. Many have become travel nurses, who typically work on temporary assignments in various short-staffed facilities for higher pay. Others have left for higher wages at places like Amazon and McDonald's. Some had to take on caregiving responsibilities at home or have opted for early retirement. Many immigrant workers have returned to their home countries". In the United States, stakeholders proposed some solutions to resolve the emerging shortages of LTC workers, included introducing or increasing minimum staff requirements, introducing training subsidies and tax credits, and expediting the process for temporary nurse aides to become certified nursing assistants (AHCA/NCAL, 2022[15]). Introducing and increasing staffing ratios are discussed in many other countries as a solution to improve work quality (Rocard, Sillitti and Llena-Nozal, 2021[16]). In Ireland, the

number of people who were granted some financing of home care but did not receive care due to a lack of workers almost quadrupled between January 2020 and September 2021.

Following the COVID-19 crisis, Australia announced plans to increase LTC staffing, while Spain set up rapid response teams to intervene in certain institutions. Germany raised public spending on LTC, especially to allow to finance higher minimum wages in the sector, promote bonuses for LTC workers and facilitate the distribution of personal protective equipment. France paid out bonuses for workers and to cover part of additional costs faced by institutions (OECD, 2020[17]).

Deteriorating working conditions and increased job quits have been observed in the LTC sector after the outbreak the COVID-19 pandemic. The surge of job quits following the COVID-19 crisis applies mainly to the jobs that bring little satisfaction, pay little and are of poor quality, especially if conditions deteriorated during the pandemic (ASPE, 2022[13]). Excess work pressure was said to have increased burnout rates. OECD (2021[16]) reports that in Canada 77% of nursing homes reported an increase in overtime and 71% an increase in absenteeism.

As labour market conditions have been tighter and economy-wide labour shortages have increased in many OECD countries, the surge in quits from poor-quality and low-paid jobs, the so-called great resignation has spurred debates. OECD (2022[18]) notices that increased quits in the United States are not due to people not participating any longer in the labour force; rather, there has been a high mobility within sectors having a tight labour market rather than significant outflows from specific sectors, which seems to be driven by changes in workers' preferences. Gittleman (2022[19]) reported that healthcare and social assistance sectors in the United States were among sectors which contributed most to the increased quit rates in 2021. In the United Kingdom, surveys in 2021 found that as much as three in four professionals want to change their jobs (CVLibrary, 2021[20]), but evidence about this actually happening is limited. In Australia, the number of nurses in aged care declined in 2021. According to Causa et al. (2022[4]), in 2021, an increasing share of firms reported production constraints due to labour shortages in many OECD countries, a number of countries faced recruitment tensions in health and care-related jobs and quit rates were particularly high in low-paid and low quality service jobs in the United States. European Commission (2022[21]) shows that economy-wide labour shortages started to increase in 2013 with a pause related to the COVID-19 crisis and the population ageing has recently contributed to shortages.

## 5.2. Recent measures taken to address LTC staff shortages

Pressure from shortages of LTC workers has already pushed several countries to take policy action. This section discusses some key measures decided among OECD countries. Recognising the need to tackle the issues raised by the insufficient availability of LTC workers at current labour market conditions is essential. Strong commitment towards further policies is therefore critical to avoid that the imbalances from excess demand for LTC services build up to socially unacceptable levels. The next section provides projections of increases in the demand for LTC workers over the next two decades.

Expanding financial resources to enhance job quality, including wages, is essential to attract LTC workers and tackle both current and future shortages driven by fast ageing. Failure to do so will translate into lower quality of both LTC services and jobs, which would have snowballing effects on the insufficient supply of workers. However, securing sufficient and sustainable financing is a challenging task.

Minimum wages in the care sector set above economy-wide minimum wages raises the attractiveness of LTC jobs. Both the Scottish and Welsh Governments have implemented a minimum hourly wage for care workers about 10% above the economy-wide statutory minimum, after having secured the financial resources to cover publicly financed LTC jobs (MAC, 2022[22]). Low LTC wages mean that economy-wide minimum wage arrangements affect a substantial part of LTC workers and higher minimum wages make formal employment more attractive. Portugal assessed that 40% of LTC workers receive the economy-wide

minimum wage, which level increased from 36% to 47% of the average wage between 2011 and 2021.[5] Over this period, increases in minimum wages were common among other OECD countries, and by more than 5 percentage points of the average wage in Chile, Colombia, Costa Rica, the Czech Republic, Japan, Korea, Mexico, New Zealand, Poland, Spain, Türkiye and the United Kingdom.[6]

Some countries have attempted to raise the attractiveness of LTC employment through improvements in job quality. Canada increased public funding of LTC for 2020-25 in order to develop standards in the LTC sector, ameliorate the supervision of LTC facilities, improve working conditions – including wage increases – of LTC workers and upgrade LTC infrastructure. Germany implemented laws (ger. *Pflegepersonal-Stärkungsgesetz* in 2019 and *Gesundheitsversorgungsweiterentwicklungsgesetz* in 2022) to improve working conditions in the care sector; this was done through promoting collectively agreed pay standards and improving occupational safety. In the Netherlands a new quality framework (ned. *Kwaliteitskader Verpleeghuiszorg*) was introduced in LTC for older persons in 2017, which, among others, imposes a higher staff-to-client ratio. Greece has created support groups for people working with patients having Alzheimer's disease, while Hungary introduced an additional leave for workers across the social sector during the COVID-19 pandemic.[7]

Better job quality might also result from improved work organisation. Ireland is aiming at reorganising care professions to provide more professional advancement to carers. Since 2022 in Germany, nursing staff has been given more responsibility, and they will be able to prescribe nursing aids make more independent decisions in home care. The United Kingdom has increased funding for investing in digital technologies in social care and in the LTC workforce. In Australia, as part of the Aged Care Action plan for 2022-25, qualification requirements and job roles are being reviewed, vocational training will be strengthened, and new tools to manage workforce planning are being implemented (Department of Health, 2022[23]).

Formalising LTC work is a prerequisite for improving job quality, including wages. Vouchers to formalise undeclared work can be very effective in increasing the supply of formal LTC work (OECD, 2021[24]). In Denmark, the 1993 "home service scheme" was key in tackling undeclared work in home care. Home service recipients receive 50% of the invoiced amount, but only if the provider is included in the home service scheme by the Danish Business Authority. Similar voucher-based solutions were also introduced in Austria, Belgium, France and Slovenia. Apart from vouchers, Austria has been successful in formalising live-in care workers. Italy introduced a collective bargaining framework negotiated between unions' and employers' federations to raise professional LTC work in 2013. However, in practice, many families still do not declare live-in carers as the stipulated salary may be considered too high, even though it is one of the lowest minimum rates among collective agreements (Eurofound, 2020[10]).

Immigration policy is often used to tackle general labour markets shortages, and care work has been recognised as a shortage area in some countries. Particularly, Australia and Germany put nurses on shortage occupation lists which enable or facilitate immigration procedures. This is less frequent for personal care workers. However, personal care workers were added to the shortage occupation list in the United Kingdom in 2022. Before that, in 2021, 47% of visas for skilled workers were granted to health (mainly) and care workers in the United Kingdom (Sumption and Strain-Fajth, 2022[25]). In 2019, Japan had included care workers among in the "Specified Skilled Worker" list.

Providing training to upgrade skills required in LTC jobs is instrumental to broaden the pool of LTC workers. Eurofound (2020[10]) details how Denmark, Norway and Sweden have expanded their training programmes for care workers. Some countries, including Japan, the Netherlands, Norway, the United Kingdom and the United States, offer LTC training programmes to the unemployed, and Denmark, from 2021, has increased unemployment benefits by 10% for those undertaking vocational education related to in-demand occupations including LTC jobs (OECD, 2020[17]). In the United States, a community service and work-based job training programme for older workers – the Senior Community Service Employment Program – provides training for low-income, unemployed workers aged over 55. Participants may gain work experience in a variety of community service activities at non-profit and public facilities, including

schools, hospitals, day-care centres, and senior centres. Japan has introduced basic LTC training courses targeting middle-aged and older workers to both facilitate returning to work after a long break and support beginners to take LTC training courses. This contributed to a fast increase in the number of LTC workers between 2011 and 2015. In Canada and the United States, more financial resources are being shifted towards financing LTC training programmes within active labour market policies.[8] The Australian Government partnered with local governments to finance additional vocational training for 180 000 of people in 2023 in priority jobs including LTC. Informal carers belong to priority groups to qualify for the programme.[9]

Efforts have been made to improve recruitment processes of LTC workers. For example, in 2019, Germany established a specialist agency for skilled labour in health and care occupations, DeFa (ger. *Deutsche Fachkräfteagentur für Gesundheits- und Pflegeberufe*). It is the first point of contact for health and care providers intending to recruit skilled staff abroad, facilitating visa applications and the recognition of professional qualifications and work permits (Eurofound, 2020[10]). As an interesting case, amid redundancies in the context of the COVID-19 crisis in the Netherlands, the airline KLM and the care organisation Actiz have enabled airline personnel (mostly flight attendants) to switch to a career in LTC. Airline personnel was given a job guarantee, free professional nursing education and a similar salary to that which they received in their previous role and 270 out of 5 000 dismissed employees expressed their interest in this programme (NOS, 2020[26]).

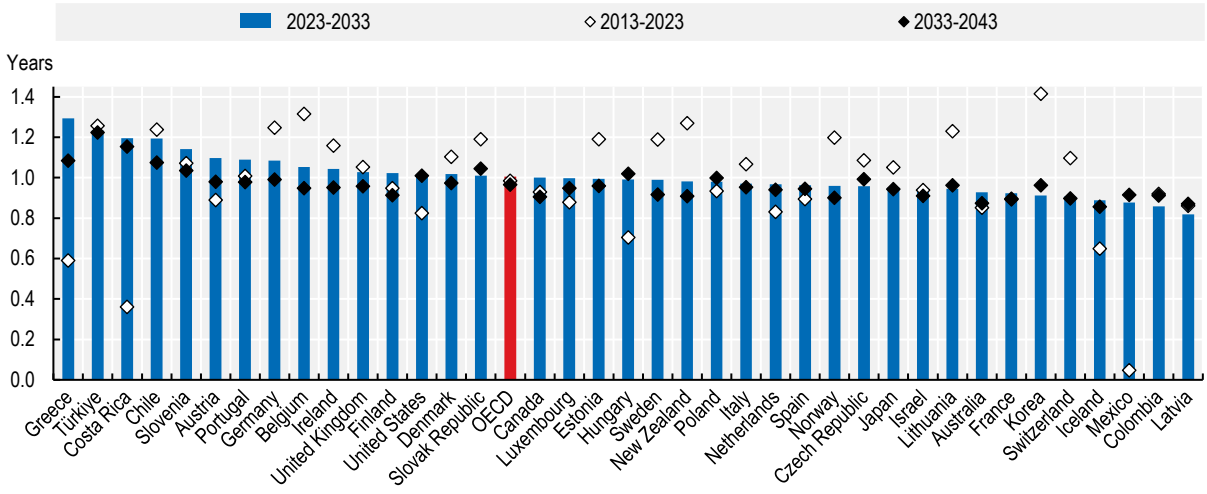
Retaining staff is probably easier and cheaper than recruiting and training new workers (OECD, 2020[17]). The US Bureau of Health Workforce initiated the Geriatric Workforce Enhancement Program in 2015, providing funding to communities to develop new curricula and geriatric care experience and involving collaborations between various professions and partners. Estonia implemented the Nurse Back to Health Care Programme for nurses working in other fields to return to healthcare. Germany launched Concerted Action on Nursing in 2018, involving employers and job centres, which seeks to promote retraining into the profession using full-time funding for professional training courses.

## 5.3. Key drivers of higher labour demand for LTC workers over time

Improvement in longevity is one main factor increasing the number of older people over the long term. Life expectancy at older ages have increased in all OECD countries, at the average pace of 1 year per decade from age 65 in 2013-23 despite the COVID-19 crisis (Figure 5.7). On average across OECD countries, remaining life expectancy at age 65 declined from 19.8 years in 2019 to 19.2 years and 19.1 years in 2020 and 2021, respectively, but it is projected to be back to the pre-COVID trend at 20.2 years in 2023. Life expectancy developments from age 65 in Costa Rica, Hungary, Greece and Iceland have been much below the average pace over the last decade, and Mexico has barely recorded any improvement on average, while remaining life expectancy increased by 1.4 years in Korea. The average pace of life-expectancy gains is projected to be similar over the next two decades as the effects of the pandemic are expected to be largely temporary based on UN projections (Figure 5.7).

## Figure 5.7. Life expectancy is projected to increase by one year per decade on average

Changes in period life expectancy at age 65 in OECD countries




Note: Data show period life expectancy.
Source: OECD calculations based on UN (2022[27]), *World Population Prospects 2022*, https://population.un.org/wpp/.

StatLink https://stat.link/wdfxg4

This section discusses key factors that are expected to drive the rising demand of LTC workers, potentially contributing to labour shortages if supply does not adjust adequately. It starts by discussing both demand and supply factors affecting the employment of LTC workers. Then the focus turns to demand factors and to documenting both the past and projected pace of ageing. Finally, projections are made about future demand of LTC workers, based on demographic changes depending on the extent of healthy ageing, GDP growth and productivity improvements in the LTC sector.

### *5.3.1. Several factors generate shortages of LTC workers*

Shortages of LTC workers arise from imbalances between the demand for LTC services and supply of LTC workers. Demand for LTC services is largely driven by demographic changes due to longer lives and the ageing of the baby boomer generations, especially if additional life years are not spent in good health. The total supply of workers is determined by different factors, including the size of working-age population, policies to raise labour market participation and working conditions including pay levels. The supply of LTC workers can be constrained by societal changes and limited fiscal space to expand public financing. For example, both more common nuclear families and the development of female employment limit the supply of family care and contribute to increasing demand for formal LTC. Moreover, at the sectoral level, low pay and more generally poor working conditions as well as poor social recognition tend to limit the labour supply of LTC workers, in particular if better jobs are available elsewhere (Chapters 2-4).[10] When long-term trends of raising demand for LTC are not accompanied by supply-side responses, shortages become structural.

Policy measures taken in some countries to broaden the access to publicly financed LTC allow more people to afford formal LTC and therefore increase the demand for LTC workers. For example, substantial improvements in LTC funding in Ireland led to strong increases in the demand for LTC workers. While between 2014 and 2021 the budget for home-support services for older people increased by 130%,[11] basically all respondents to a recent workforce survey (97% of them) conducted by Nursing Homes Ireland (NHI) reported difficulties in recruiting healthcare assistants (Department of Health, 2022[5]). In the United States, there have been several legislative changes expanding the eligibility to home care covered

by Medicare and Medicaid. As a result, Medicaid spending on home and community-based care nearly doubled between 2000 and 2006, increasing demand for LTC workers (Barnow, Trutko and Piatak, 2013[28]). Similarly, other public policies such as those raising staff-per-patient ratios sustain the labour demand for LTC workers.

Market forces should in principle eliminate staff shortages over time through wage increases, an improved work environment or both. If working conditions, including wages, do not adjust, staff shortages can become persistent. Chapter 2 discusses potential reasons for obstacles to the functioning of these market forces, explaining why wages may not adjust despite staff shortages, at least in the short-to-medium term. In particular, as the funding of LTC services is mainly public, higher wages often require additional public funding. Also, labour market adjustments take time and abrupt increases in demand or declines in supply can result in temporary staff shortages. This was the case, for example, when the minimum staff-per-patient ratio was increased in California (United States) in 1999 (Matsudaira, 2014[29]). In addition, limited geographical mobility, in particular between rural and urban areas, can lead to local mismatches between the demand and supply of LTC workers, and in the end to local staff shortages (Dotson, Dave and Cazier, 2012[30]). For example, the supply of LTC workers may be limited because, among others, reliable transportation is often not available, thereby hindering workers' commute (Barnow, Trutko and Schede Piatak, 2013[2]).

Nurse shortages can last longer than for personal care workers as training the former and building their skills take more time while the pool of potential workers is smaller. To accelerate the development of skills, some countries, including Belgium, Denmark and the United States, introduced on-the-job training routes for lower-skilled workers with experience in LTC to become nurses. In Belgium, the project "Formation 600", initially targeted at 600 participants in early 2000 exceeded this target through multiple renewals; it finances the wage of personal care workers who decided to study nursing full-time and suspended their work for nine months per year for up to 4 years (Sociale Zekerheid, 2020[31]). Montana (United States) allows nursing assistants to become nurses after having completed a special add-on training (Harmuth, 2002[32]).

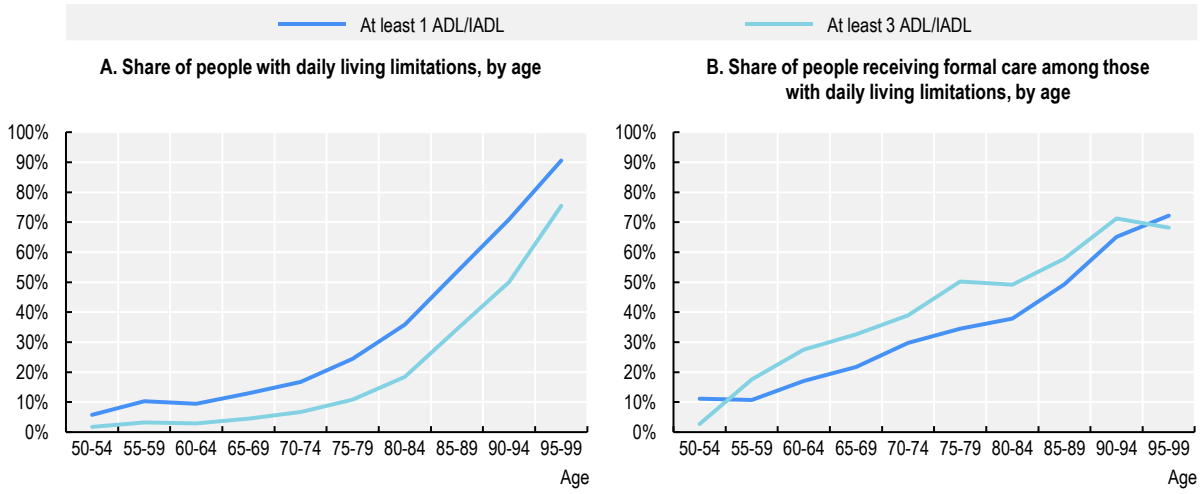
### *5.3.2. Ageing boosts LTC needs and inhibits their fulfilment*

LTC needs increase very strongly with age. In the OECD on average, 13% of people aged 65-69 report at least one limitation in activities of daily living (whether ADL or IADL)[12] and 4% at least three limitations, increasing to 24% and 11%, respectively, at age 75-79, and further to 53% and 34% at age 85-89 (Figure 5.8, Panel A). Less than 10% of people aged 95 or more do not report any limitations of activities in daily living. The expected duration at age 50 of living with no limitation in activities of daily living (ADL or IADL) or with two limitations maximum is 25.8 years and 29.2 years, respectively, on average across OECD countries covered in the SHARE data. This compares to average life expectancy at age 50 of 32.4 years.[13]

Not everyone with limitations in daily living receives formal LTC, in particular at less-advanced ages. At age 60-64, only 17% of people with one and 28% with three limitations in daily living (ADL or IADL) receive formal LTC, compared with 49% and 58% at the age group 85-89, respectively (Figure 5.8, Panel B). Even when reporting a given number of limitations in daily living, people at younger ages are likely to have less severe limitations as well as less care needs, while older people more often live alone.

## Figure 5.8. Care needs and care use increase strongly with age

OECD average, 2019



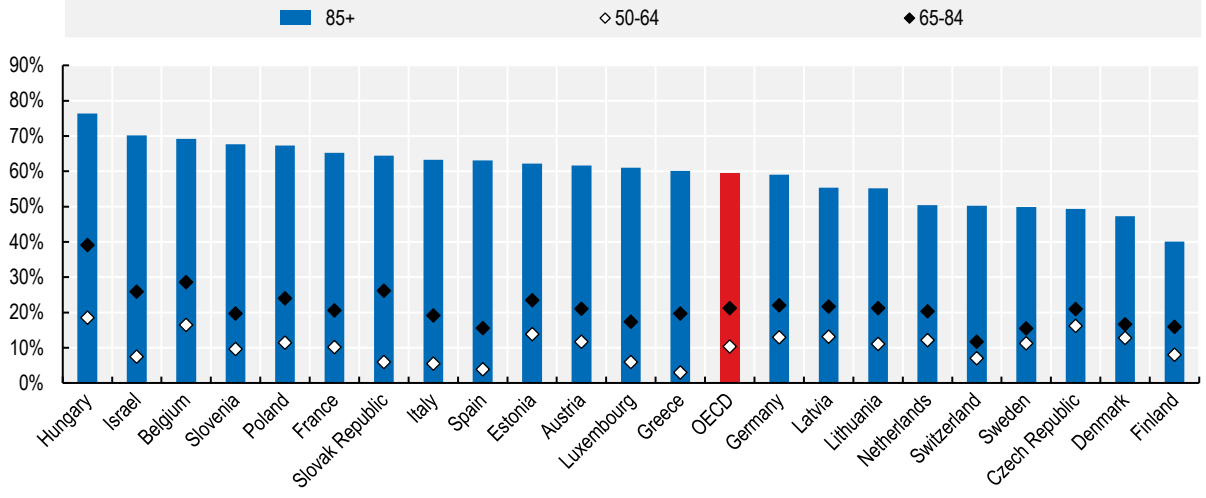

Note: Only 22 OECD countries are covered by these data.
Source: OECD calculations based on SHARE, wave 8.

StatLink https://stat.link/vkcz9t

This strong age pattern is common to all countries. Among people aged 50-64 between 3% (in Greece) and 19% (in Hungary) report having at least one limitation in daily living (ADL or IADL), while this is the case for between 40% (in Finland) to 76% (in Hungary) among people aged 85 or more (Figure 5.9). For the latter, the Czech Republic, the Netherlands, Nordic countries and Switzerland report the lowest rates.

## Figure 5.9. In all countries care needs increase steeply with age

Share of people reporting at least 1 ADL or IADL by age groups, 2019




Source: OECD calculations based on SHARE, wave 8.

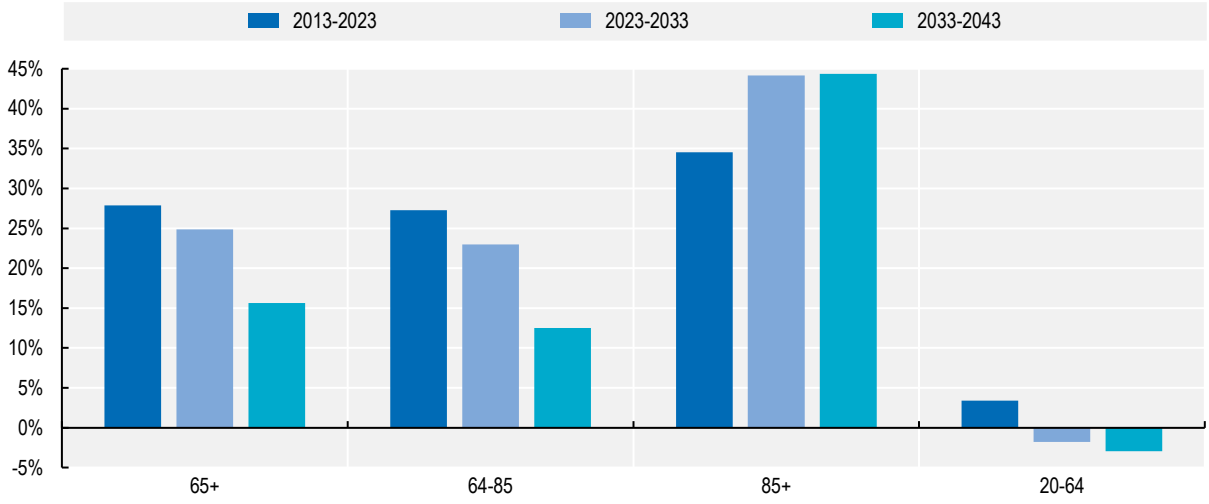
StatLink https://stat.link/aszv8d

The number of people aged 65 years or older will continue to increase at a fast pace over the forthcoming decade and is projected to slow somewhat after that. The average growth across OECD countries in the number of people aged 65 or more has increased by 28% between 2013 and 2023, and the pace would be similar at 25% in 2023-33, before slowing to a projected 16%-increase in 2033-43, given a marked slow-down of the population aged 65-84 (Figure 5.10).[14] By contrast, the number of people aged 85 years or more, who most often need LTC, is projected to accelerate, from an increase of 35% in 2013-23 to 44% in both 2023-33 and 2033-43.[15]

On top of that, the size of working-age population has started to shrink in many countries, limiting the overall labour supply, and therefore the potential supply of LTC workers. On average across OECD countries, population aged 20-64 increased by a cumulative 3% over the past decade, while it is projected to decline by 2% between 2023-33 and by 3% more in 2033-43. In 2023-33 the decline is projected to be at least 10% in Germany, Italy, Korea, Latvia and Lithuania, Poland and the Slovak Republic. Annex 5.A provides these demographic changes by country.

### Figure 5.10. The size of the oldest age groups will accelerate while working-age populations have started to shrink

Relative change of selected population size in selected decades




Source: OECD calculations based on UN (2022[27]), *World Population Prospects 2022*, https://population.un.org/wpp/.

StatLink https://stat.link/c8y6mv

### *5.3.3. Extent of healthy ageing and demographic effects on labour demand in LTC*

Given the steep increase with age in the share of people receiving professional LTC, population ageing will put a substantial pressure on the demand for LTC workers. The estimated impact of population ageing on the demand for LTC workers is calculated based on a pessimistic, an optimistic and an average scenario, depending on the extent to which longevity gains are free of limitations in daily living (i.e. the extent of healthy ageing). The following sub-section shows how income and productivity trends affect the future demand for LTC workers. Methodological assumptions behind these scenarios are discussed in Box 5.1.

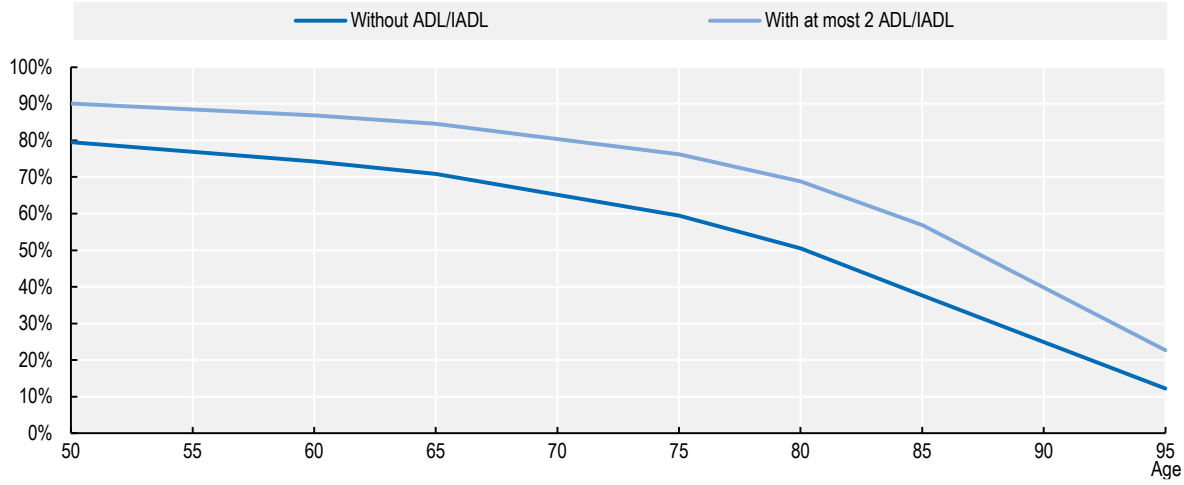
The pessimistic scenario is meant to capture an automatic impact by assuming that, despite longevity gains, the shares of people with limitations in daily living remain constant at given ages, as well as the shares of formal care recipients among people with limitations in daily living and the staff ratios. An

optimistic scenario about healthy ageing assumes that the incidence of having limitations in daily living depends only on remaining life expectancy. This scenario basically implies that all life expectancy gains are disability-free. An intermediate scenario has been computed by averaging the pessimistic and the optimistic scenarios.

Observed data suggest that the reality is in between the pessimistic and the optimistic scenarios. On average across 22 OECD countries, the share of disability-free years in remaining life expectancy declines with age from 80% at age 50 to 74% at age 60 and 38% at age 85 (Figure 5.11). The expected share of remaining life without severe limitation (at most two ADL/IADL) is higher, at 90% and 57% at age 50 and 85, respectively.[16]

## Figure 5.11. The share of remaining life expectancy without limitations is lower at older ages

Remaining life expectancy without any or at most two limitations in daily living as share of remaining life expectancy by age




Note: Statistics were calculated based on period life expectancy in 2019.
Source: OECD based on SHARE and UN data for 22 countries.

StatLink https://stat.link/o9gs52

### Box 5.1. Methodology of projecting demand for LTC workers

The demand for LTC workers ($L^D$) is broken down based on one-year age groups (*a)* into different components:

- the number of people in this age group $N_a$;
- the share of people with limitations in daily living, $\frac{N_a^*}{N_a}$;
- the share of formal care recipients among people with limitations in daily living, or take-up rate, $\frac{C_a^*}{N_a^*}$; and,
- the staff ratio (number of LTC workers per person receiving formal care), $\frac{L_a^D}{C_a^*}$.

$$L^D = \sum_{a \in A} N_a \frac{N_a^*}{N_a} \frac{C_a^*}{N_a^*} \frac{L_a^D}{C_a^*}$$

The share of projected labour demand for LTC workers in total employment in year *y* is $\frac{L_y^D}{E_y}$, where total employment is taken from the OECD long term economic projections (OECD, 2021[33]).

Five scenarios are considered in total. The first three refer to the demographic shift alone. The fourth scenario is the baseline taking into account the impact of economic growth. The last scenario measures on top the impact of higher productivity growth in the LTC sector.

The three demographic scenarios are akin to "no policy change" scenarios, simply assuming that both the share of formal care recipients among people with limitations in daily living and staff ratios are constant. They imply that the demand for LTC workers increases proportionally to the number of people needing LTC: this means low increases in absolute terms in countries where the initial number of LTC workers is low. This reflects the idea that population ageing does not automatically induce changes in LTC provisions and, in particular, in the share of informal care provisions and of unmet needs. In the recent past, in countries that have faced fast ageing, ageing per se has not led to the development of formal care: over the last decade, there has been no tendency of countries with very low share of LTC workers in total employment to catch up with countries employing more LTC workers (Chapter 2).

The first scenario assumes that all age-specific ratios remain constant while sizes of age groups $N_a$ follow UN (2022[27]) demographic projections. It shows how demographic changes alone are expected to impact the demand for LTC workers. This is a pessimistic scenario as it implicitly assumes that there are no improvements in either disability rates at given ages (despite improvements in longevity) or care coverage (despite economic developments).

The second scenario is an optimistic scenario. It assumes that the share of people with limitations in daily living by age $\frac{N_a^*}{N_a}$ is no longer constant but follows life-expectancy improvements such that the average duration of life without limitations is kept constant. For example, when life expectancy at age 80 improves by one year, the share of people with limitation in daily living at age 81 is assumed to be as it was at age 80. This is an optimistic scenario as it assumes that basically all additional years of life are without limitation in daily living. This second scenario is implemented through fitting a model explaining the share of people with limitations by age with the remaining life expectancy (*RLE*) by age. Based on observed data, the following fitted equation was obtained:

$$\ln \frac{N_a^*}{N_a} = 0.25 - 0.20 \ln RLE_a - 0.20 \ln^2 RLE_a$$

These estimates were used to calculate the share of people with limitation in daily activity based on projected life expectancy by age.

The third scenario – average scenario – assumes that half of life expectancy improvements are free of limitations in daily living, which is broadly consistent with Figure 5.11. It is therefore calculated as the average of first and second scenarios.

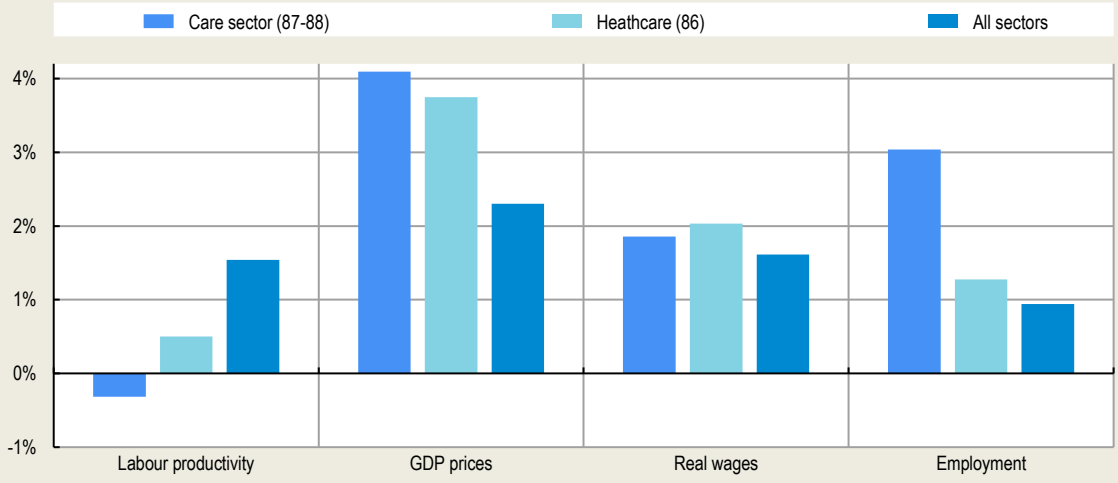
The fourth scenario – baseline scenario – takes into account the impact of economic growth, as measured by changes in real GDP-per-capita. The impact of economic development on labour demand in LTC results from two effects, an income effect and a relative productivity effect. As countries get richer, the income effect implies that the demand for all goods and services, including LTC, increases depending on elasticities, which raises take-up or quality of formal care $\frac{C_a^*}{N_a^*} q$, where *q* denotes quality. It implies higher projected economic growth results in faster increase in the demand for LTC workers as economic growth is likely to reduce informal care and unmet needs. The relative productivity effect, or Baumol effect, is based on lower labour productivity growth in LTC than in the overall economy. As technological progress saves more labour in other sectors, labour is shifted to the LTC sector to meet higher demand financed by higher income. Labour productivity in the LTC sector (adjusted for quality)

is captured by $\frac{L_a^D}{qc_a^*}$. This fourth scenario is calculated by assuming 0.6 elasticity to GDP-per-capita, estimated for high-income OCED countries, and zero productivity growth in LTC (see below). Following Baumol (1967[34]) specification, this implies that higher income leads to proportionally higher demand for both LTC services and LTC workers. The projected changes in real GDP-per-capita come from OECD long-term economic projections (OECD, 2021[33]).

On average among OECD countries, the value added in volume per hour worked, or labour productivity, in the care sectors (NACE 87-88)[17] declined slightly by 0.3% per year in 1995-2019 on average, compared to an increase of 0.5% in healthcare and 1.5% in the total economy (Figure 5.12). Consistent with the Baumol model of unbalanced growth (Hartwig, 2010[35]; Baumol, 1967[34]),[18] slow productivity growth led to large annual price increases of 4.1% in the care sectors compared to 3.8% in healthcare and 2.3% in all sectors on average. Real wages grew at similar paces across sectors. More precisely, they grew slightly faster in the care sectors and healthcare sectors, at 1.9% and 2.0% per year, respectively, compared to 1.6% in all sectors on average. Given the increasing demand for care services and no productivity growth in the LTC sector, employment in this sector grew by 3.0% per year on average, compared to 0.9% in the whole economy.

### Figure 5.12. Prices and employment increased strongly in the care sectors

Average yearly changes, 1995-2019 or similar, OECD average




Note: Real wages are calculated by deflated nominal wages with the GDP deflator. The following periods were used: 1995-2019 (Austria, the Czech Republic, Denmark, Greece, Finland, Ireland, Italy, Luxembourg, the Netherlands, Slovenia and the Slovak Republic), 1995-2018 (Germany, Lithuania, Portugal, Spain, Sweden, the United Kingdom), 2000-18 (France), 2000-16 (Estonia), 2010 -2019 (Hungary) and 2005-18 (Poland).
Source: OECD based on EU-KLEMS.

StatLink https://stat.link/1r24oa

The fifth scenario assumes that labour productivity in the LTC sector increases by 0.5% a year leading to the reduction of the staff ratio, i.e. $\frac{L^*}{C_a^*}$, while maintaining the quality of LTC services, while other factors are held constant.

Ratios are calculated from SHARE data, wave 8, for five-year age groups from age 50 averaged across all countries and interpolated to one-year age groups. The past and future sizes of age groups come from UN (2022[27]) population projections and historic data.

The impact of these demographic scenarios does not assume that ageing per se triggers the development of LTC systems. That is, ageing is assumed to affect neither the share of formal care recipients among people with limitations in daily living nor staff ratios (Box 5.1). In that sense, these scenarios should be thought as "no policy change" scenarios. More precisely, this means that ageing is estimated to increase the number of people with LTC needs, leading to proportional effects on numbers of both LTC workers and family care providers, and therefore on the number of people experiencing unmet needs. This thus implies low increases in the absolute number of LTC workers (or as a share of total employment) in countries where the initial number of LTC workers is low as the projections do not include any automatic catch-up phase in the development of LTC systems. Differences across countries in the estimated impact of ageing on the demand for LTC workers as a share of total employment thus reflect differences in the pace of demographic changes and in the initial size of the LTC workforce. This is consistent with the fact that countries with very low share of LTC workers in total employment did not hire more LTC workers to reduce family care and unmet needs over the past decade, as shown in Chapter 2. It is of course possible that fast population ageing results in stronger increases in the demand for LTC workers in countries where the number of LTC workers is low, but there is no evidence to back this possibility.

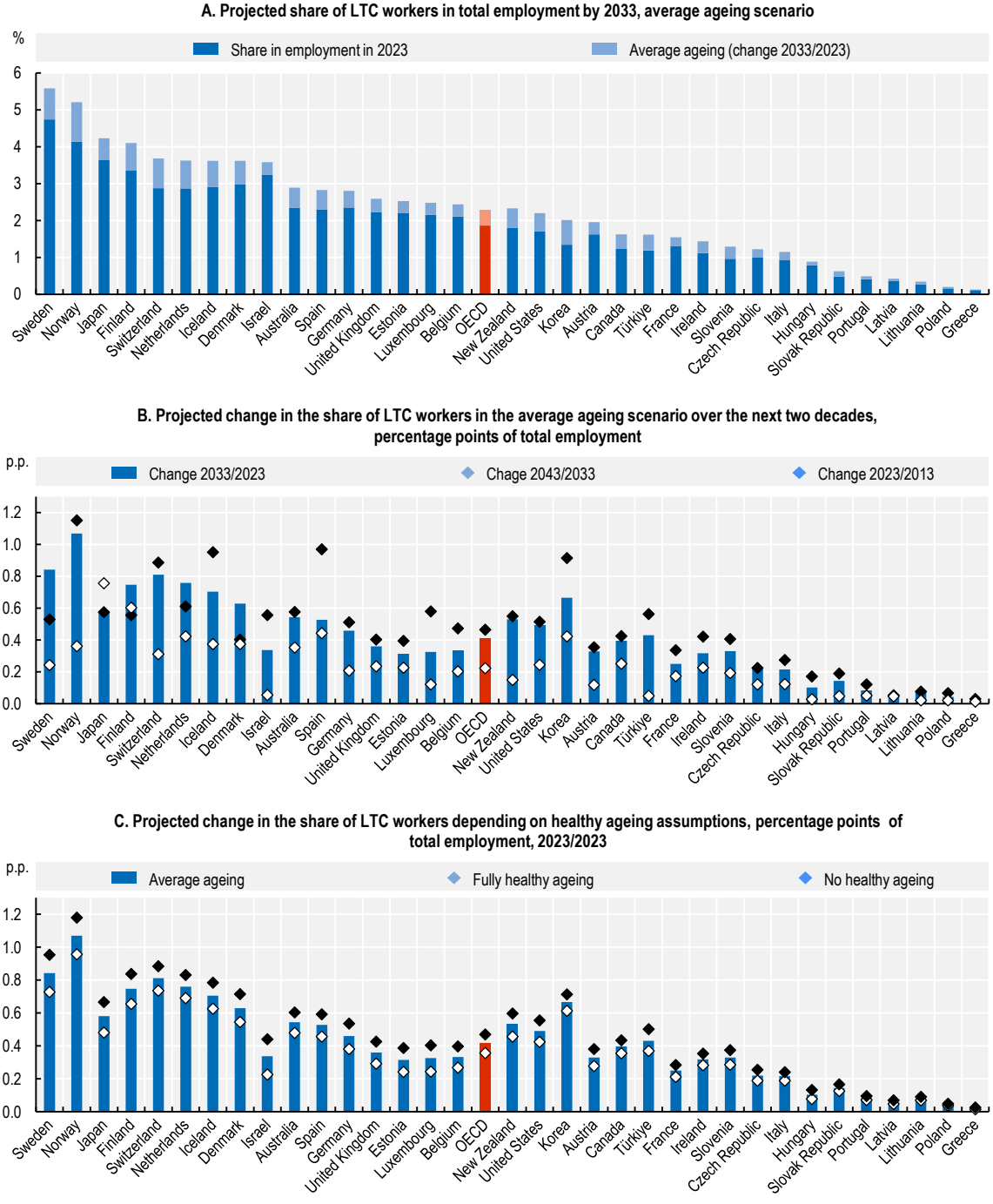
According to the average ageing scenario, higher demand for LTC workers is projected to increase their share in total employment by 0.41 percentage points between 2023 and 2033 and 0.47 percentage points more in the following decade on average across countries, or about 22% per decade (Figure 5.13, Panel A). The number of LTC workers would increase from 1.9% to 2.3% of total employment between 2023 and 2033 and to 2.7% of total employment by 2043 on average in OECD countries.

Demographic pressure is expected to be substantially stronger than in the previous decade when it is estimated to have increased the demand for LTC workers by 0.18 percentage points of total employment (Figure 5.13, Panel B). This acceleration in demand may be harder to meet given that the working-age population is projected to start shrinking, by 2% in the coming decade on average across OECD countries and by more than 10% in Germany, Italy, Korea, Latvia, Lithuania, Poland and the Slovak Republic. Among the driving factors, the baby-boomer generations reaching older ages plays a role that is at least as important as that from longevity trends. In the forthcoming decade, increases would be at most equal to 0.3 percentage points of total employment in Central and Eastern European countries (CEECs), France, Greece and Italy but amount to more than 0.8 percentage points in Norway Sweden and Switzerland.

Very low currently observed numbers of LTC workers in CEECs and in Southern European countries might be related to substantial shares of LTC being classified as healthcare and to larger shares of LTC being provided informally, by family members for example. For example, in 2001, Estonia separated LTC from healthcare by, among others, turning small hospitals into nursing-care homes (Paat and Merilain, 2010[36]), and, in 2021, LTC workers made 2.2% of total employment compared to ten times less in Latvia, Lithuania or Poland. Additionally, Estonia pays caregivers' national insurance contributions and social tax (Paat-Ahi and Masso, 2018[37]) which is likely to result in larger care formalisation.

Comparing the projected impact across the different demographic scenarios illustrates the extent to which healthy ageing may limit the increase in the demand for LTC workers. In the absence of healthy ageing, the average increase in the demand for LTC workers would equal 0.47 percentage points of total employment instead of 0.41 percentage point in the average scenario, while it would be 0.36 percentage points under full healthy ageing (Figure 5.13, Panel C). Hence, full healthy ageing would result in lowering the increase in the demand for LTC workers by about one-quarter compared to the pessimistic scenario between 2023 and 2033. This also means that most of the increase in demand does not depend on whether ageing is healthy or not, but rather more directly on the larger sizes of cohorts reaching older ages. Differences across countries are very similar across scenarios.

## Figure 5.13. Population ageing would increase the demand for LTC workers by almost 0.41 percentage points of total employment per decade, or about 22%, in the average demographic scenario




Note: Countries in Panels B and C sorted as in Panel A. Projections are based on age-specific incidence of limitation in activities of daily living and receiving formal care by age common to all countries (Box 5.1). The average scenario assumes that the age-specific incidence of both receiving care and having limitations in daily living, as well as patient-staff ratios and labour productivity in LTC remain constant (no growth), and that half of longevity improvements are free of limitations in daily living (Box 5.1). Changes in the demand for LTC workers are expressed in percentage points of total employment, which is based on projected changes in total employment (OECD, 2021[33]).
Source: OECD based on SHARE and 2022 UN demographic projections.

StatLink https://stat.link/uagjim

Projections by Kotschy and Bloom (2022[38]) published in the International Social Security Review show somewhat lower impacts of demographic changes on LTC needs. They estimate that LTC needs would increase by 47% between 2020-40 on average across 30 (mainly OECD) countries. Their projections assume that the share of people with at least two limitations in daily living in two age groups (65-79 and 80+) will not change over time, which is consistent with the pessimistic scenario above. However, projections in this report are based on the percentage of both limitations in daily living and the use of formal care in five-year age groups, which both steeply increase with age (Figure 5.8, Panel A and Panel B), compounding their effects. As a result, the projections herein lead to a higher increase of 66% on average across the OECD between 2023 and 2043 in the corresponding pessimistic scenario.[19]

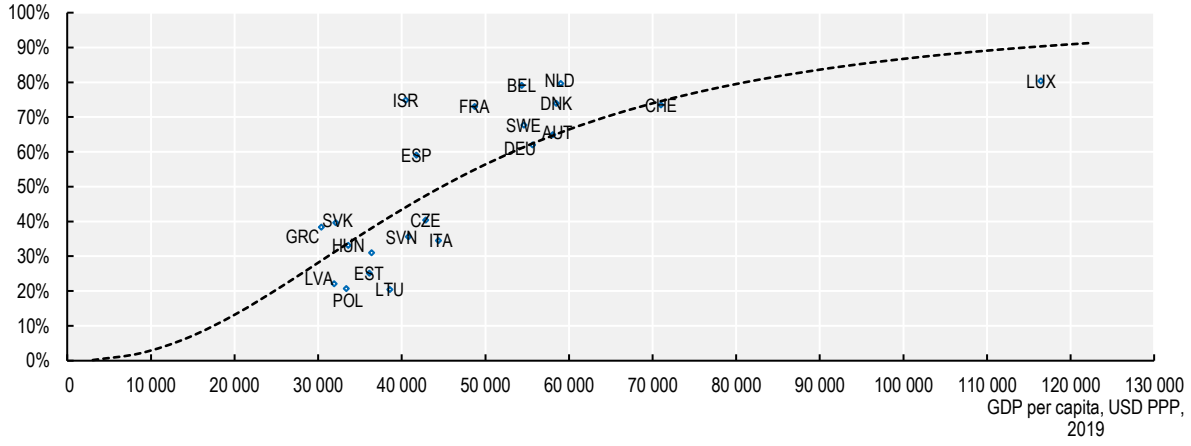
### *5.3.4. Income and productivity growth effects on the demand for LTC workers*

Higher levels of economic development may raise the take-up and/or quality of formal LTC services. Higher incomes increase consumption of LTC services similar to other goods and services. The delivery of informal care may also shrink substantially in some countries due to income-related changes in both family formation and social norms. Fewer children and more people living alone limit the provision of family care, thereby increasing the demand for LTC workers. Moreover, as discussed in Chapter 2, home-based care has been expanding much faster than residential care, additionally increasing demand for LTC workers.

Data across European countries support a strong link between economic development, measured e.g. by GDP-per-capita, and the coverage of people with LTC needs by formal care. In particular, countries in Southern and Central and Eastern Europe have a relatively low take-up of LTC services (Figure 5.14). Yet, while Luxembourg and Switzerland have high income per capita, at least 20% of people with at least three limitations in daily living in both countries do not receive formal LTC, possibly due to individual preferences or financial constraints.

## Figure 5.14. Take-up of formal LTC is associated with economic development level

GDP-per-capita and the share of formal care recipients among people with at least three ADL/IADL, 2019




Note: Dotted line is estimated with logistic regression, resulting the following parameters estimates: $ln\left(\frac{c}{1-c}\right) = -25.0 + 2.3\ \ln(\text{GDP} - \text{per} - \text{capita})$, where *c* is the share of formal care recipients among people with at least three limitations in daily living. That is, an increase of e.g. 10% in real GDP per capita would lead to an increase of 23% in the c/1-c ratio; that is, if the take-up ratio is initially at 50%, it would increase by about 6 percentage points to 56%. Overall, model estimates imply income elasticities of LTC varying from 0.6 to 1.8 for 75% and 25% take-up rates, respectively. The $R^2$ of the fitted logistic regression line is 59%.
Source: OECD based on SHARE data and OECD (2021[33]), "Long-term baseline projections, No. 109 (Edition 2021)", https://doi.org/10.1787/cbdb49e6-en.

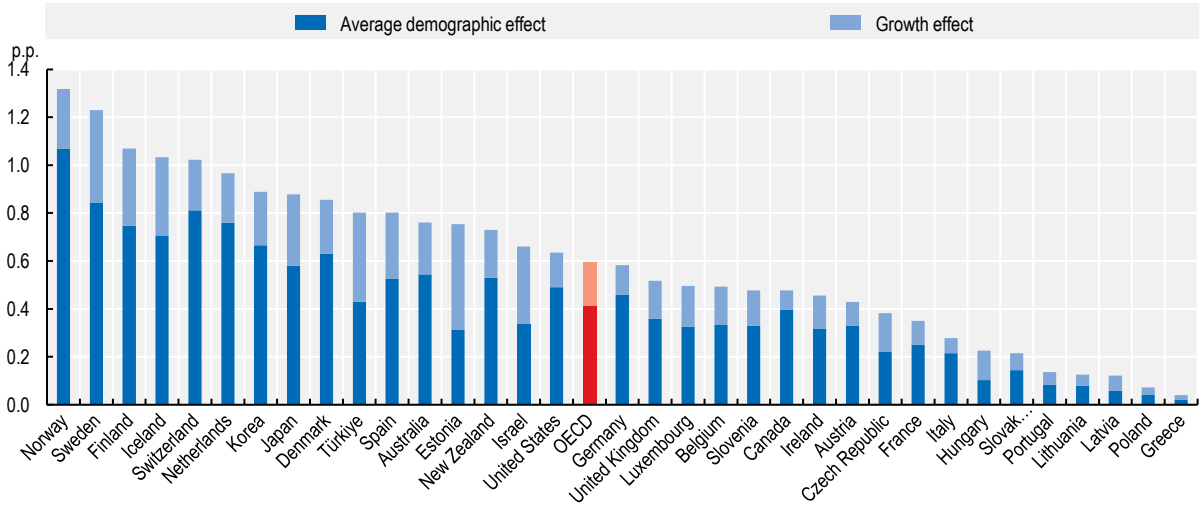
StatLink https://stat.link/bdjcpi

On top of improving take-ups and/or quality (income effects), economic growth affects the labour demand in the LTC sector through relative productivity growth (Baumol effect). Productivity growth is one key driver of economic growth, and labour productivity growth in LTC is slower than in the overall economy, which means that technological progress saves relatively more labour in other sectors. As a result, labour is shifted to the LTC sector to meet higher demand financed from higher income. This scenario, which is the baseline projection, assumes a 0.6 elasticity of labour demand to GDP-per-capita, estimated among high-income OECD countries (Figure 5.14), and zero productivity growth in LTC (Box 5.1).

Over the next decade, economic growth alone is projected to raise the demand for LTC workers by 0.18 percentage points of total employment on average across OECD countries on top of the demographic effects discussed above (Figure 5.15). The income and productivity effects are the strongest in countries with projected fast growth in GDP-per-capita. In the following decade (2033-43), economic growth would add a further 0.24 percentage points of total employment on average. Overall, based on baseline projections including effects from both demographics and economic growth, the LTC employment share would sharply increase from about 1.9% in 2023 to 2.5% in 2033 and 3.2% in 2043.

## Figure 5.15. On top of demographics, economic growth would drive up demand for LTC workers

Changes in the LTC employment share according to baseline projections including effects of demographics and GDP-per-capita growth, in percentage points of total employment, 2023-33




Note: Projections based on unit income elasticities of LTC and projected GDP-per-capita growth rates based on OECD (2021[33]). The growth effect is computed as the total effect minus the demographic effect.

StatLink https://stat.link/xmlqij

While aggregate data based on national accounts reveal hardly any labour-productivity gains in the LTC sector (Box 5.1), this measure of labour productivity may not fully capture improvements, in particular due to not accounting for changes in quality of care or in the underlying needs (Yang, Forder and Nizalova, 2016[39]). In England, while (unadjusted) productivity has fallen, the annual decline in the quality-adjusted productivity index of LTC was 0.2 percentage point smaller than the change in the unadjusted productivity index over 2011-21 (ONS, 2022[40]).

Improvements in labour productivity within LTC, which may in particular be driven by labour saving innovations discussed in Section 5.4, would lower labour demand and help meet future shortages. These productivity gains would result in lower staff-to-patient ratios, or reduced needs for personal care, without lowering quality (Box 5.1). Compared to the baseline, assuming that labour productivity in the LTC sector

grows by 0.5% a year would reduce the total increase in the LTC share in total employment by about 0.09 percentage point per decade on average across countries, hence reducing the total increase from 0.60 percentage points in the baseline to 0.51 percentage point over 2023-33 for example.

The model helps explain why labour shortages may have intensified over the past decade. When applied to the 2013-23 period, the baseline projection assumptions show an increase in the LTC labour demand of 0.36 percentage points of total employment. Based on observed data, the employment share of LTC increased by only 0.20 percentage points in 2011-21 on average across OECD countries (Chapter 2). This actual change was basically equal to the estimated demand effect from demographic changes alone (0.22 percentage points). That is, it does not account for income and productivity (Baumol) effects. This means that the supply of LTC workers, and therefore LTC employment, has not responded to the estimated total demand pressure, potentially contributing to labour shortages given low productivity growth in the sector. With the projected acceleration in demographic changes in the forthcoming decades, attracting more workers in the LTC sector is one policy priority to avoid further significant increases in employment shortages.

## 5.4. How new technologies may limit labour shortages in long-term care

In the face of an increasing number of older people in need of LTC, the introduction of new technologies can mitigate shortages of LTC workers. Not only can the implementation of new technologies boost the productivity of LTC workers, it can make their jobs less arduous and thus reduce the dropout of workers from the sector. Some technologies can even curb the growing need for LTC by boosting the capacity of older people with health problems to continue living independently. The new technologies available in the LTC sector can be divided into four categories as highlighted by OECD (2020[41]) (Table 5.1):

- Assistive technologies: devices that allow a caregiver to perform tasks or that increase ease and safety for the patient.
- Remote care and disease management technologies: software to monitor diseases treatment in the home.
- Self-management technologies: services that enable older people to take control of personal health and care management.
- Social technologies: devices that facilitate social support and help connect with family, peers and the community.

## Table 5.1. Types of new technologies

| Type of new technologies | New technologies | Examples |
|---|---|---|
| Assistive technologies | Information and Communication Technology (ICT) | Online platforms, intercom, smartphones, and tablets |
| | Electronic monitoring of recipients | Personal alarm button, sensor, GPS |
| | Mobility devices | Wheelchairs, stair lifts |
| | Robotic technology | Communication robots, surveillance and companionship robots |
| | Electronic monitoring of LTC workers | Tracking of the real-time location of home-care workers |
| Remote care and disease management technologies | Telehealth/telecare | Health or disease management applications<br>Clinical (medical) monitoring |
| | Mhealth (Wireless technology) | Mobile phones and other wireless technology mainly used in medical care |
| | Electronic (medical) records (EMR) | Digital versions of paper charts |
| | Touchscreen technology | Applications that can be used for reminiscence therapy |
| Self-management technologies | Ambient assisted living (AAL) | Medication management tools, medication reminders, fall detection systems |
| | Assistive technologies for older people | Voice recognition software, text telephones, speech recognition software |
| | Smart home technology | Sensors for doors and lighting, an on/off switch for various appliances |
| Social technologies | Digital interaction technologies | Social media, communication platforms |
| | Virtual reality | Applications and games usually used with a headset to provide immersive experiences |

Source: OECD (2020[41]), *Who Cares? Attracting and Retaining Care Workers for the Elderly*, https://www.doi.org/10.1787/92c0ef68-en, with examples given in European Commission (2020[42]), *Social Situation Monitor The Role of New Technologies in Modernising Long-term Care Systems A Scoping Review*, https://ec.europa.eu/social/BlobServlet?docId=23362.

### *5.4.1. New technologies are available to help workers in most LTC tasks*

New technologies are available for most LTC tasks (Table 5.2), even though LTC workers perform a diverse and complex range of tasks. This includes activities of daily living (ADL) and instrumental activities of daily living (IADL), providing psychological support and the management and reporting tasks (OECD, 2020[41]). For ADL for example, on which LTC workers spend much of their time, robots and mobility devices can be used to support LTC workers, although most of these technologies are expensive. For IADL, many new technologies can be introduced inexpensively, such as touchscreens and smart-home appliances which can even be controlled by older people themselves. For example, transporting older people, a task that is part of ADL can use mobility devices and robotic technology, such as wheelchairs and stair lift.

## Table 5.2. Technologies available for LTC tasks

| Task | | Availability of new technologies | Examples |
|---|---|---|---|
| ADL | Positioning, lifting, and turning older people | Mobility devices<br>Robotic technology | Mobile lift<br>Power assist suit |
| | Transporting older people | Mobility devices<br>Robotic technology | Wheelchairs<br>Stair lift |
| | Assisting care recipients with personal hygiene, feeding and dressing | Mobility devices<br>Robotic technology | Bath lift<br>Power assist suit |
| IADL | Maintaining older people's environmental hygiene standards | Electronic monitoring (recipients)<br>Smart home technology | Sensor<br>Smart home |
| | Planning, purchasing, preparing, or serving meals | ICT | Meal recording application |
| | Scheduling and accompanying older people on errands | ICT | Scheduling application |
| | Preparing care recipients for examination or treatment | ICT | Smartphones to contact relatives of care recipients |
| | Providing oral medications to care recipients | Ambient assisted living (AAL) | Medication management tools<br>medication reminders |
| Communication | Providing psychological support through conversation and reading aloud | ICT<br>Robotic technology<br>Smart home technology<br>Virtual reality | videotelephony software<br>communication robot |
| Management and reporting | Managing interactions between family caregivers and health practitioners | ICT | Online platform connecting family caregivers and health practitioners |
| | Maintaining records of care and changes in condition or behaviour | Electronic (medical) records (EMR) | Patient record management system |
| | Maintaining records of responses to care and treatment | Electronic (medical) records (EMR) | Patient record management system |
| | Reporting concerns or providing referrals to health or social services | ICT<br>Mhealth (Wireless technology) | Online platform connecting LTC workers and health or social services |
| | Implementing care plans established by health professionals | ICT<br>Electronic monitoring (LTC workers) | Care planning software |

Source: Examples collected by the authors.

Communication with older people and psychological support are also important tasks. For communication, a variety of options can be used, from ICT to AI and robots. Progress has been made to replace human communication by AI and other new technologies that talk with older people. This effort has yet to spread significantly, as many older people are somewhat resistant to interacting with robots (MIC, 2015[43]; NRI, 2016[44]).

LTC workers spend a lot of time on management and reporting activities, and many providers are implementing new technologies to support these tasks (NHS, 2019[45]). Electronic (medical) records and ICT are helpful for these tasks and can be easily implemented inexpensively. All these technologies serve to support LTC workers and older people, thereby improving both efficiency and the quality of LTC services, but do not completely replace the work of LTC workers.

### 5.4.2. The use of new technologies in LTC is limited, but some are promising

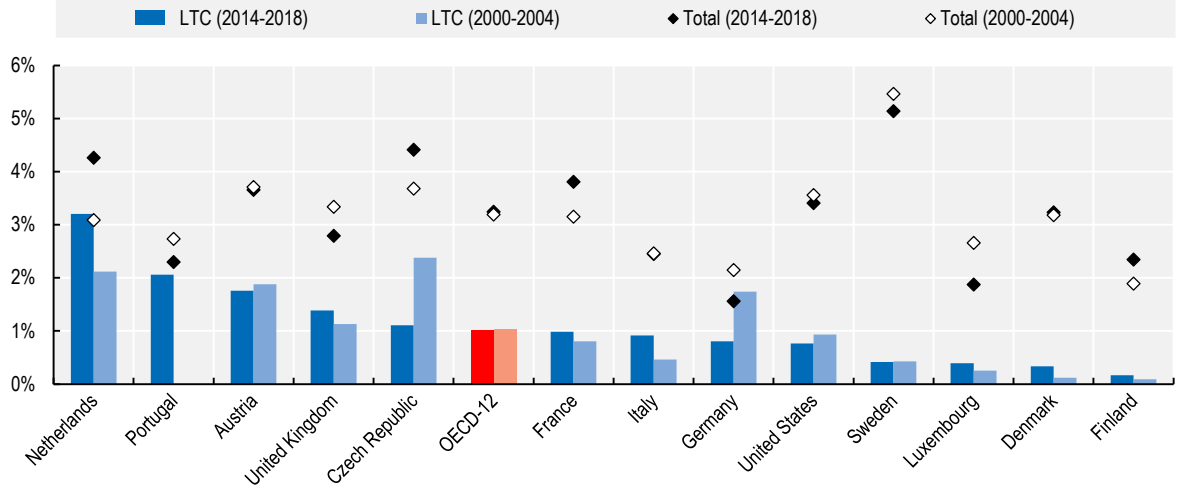
#### *Low IT-related investments in the LTC sector*

The use of new technologies is still not as well-developed in LTC[20] compared to other sectors. For example, IT-related investments – which include communications equipment (ICT), computer software, databases and computing equipment, and can serve as a proxy for investments in new technologies – are low in the LTC sector as a percentage of gross value added (GVA). IT-related investments in LTC average 1.0% of GVA in OECD countries for which data are available, and they are below 2% in most countries (Figure 5.16).[21] By comparison, overall across sectors, IT-related investment is 3.2% of GVA on average in these countries.

Between 2000-04 and 2014-18 the GVA share of IT-related investments in the LTC sector was stable in the available OECD countries on average. It increased in Denmark, Finland, France, Italy, Luxembourg, the Netherlands and the United Kingdom; only the Czech Republic and Germany show large decreases (Figure 5.16). By comparison, the share of IT-related investments in all industries, while also stable on average across countries over the same period, declined in Germany, Luxembourg, Portugal, Sweden, the United Kingdom and the United States.

**Figure 5.16. IT-related investments are much lower in the LTC sector than overall in the economy**

Share of IT-related investments in gross value added




Note: The OECD average is the average for the 12 countries for which data exist for both periods. Data on IT-related investments in LTC are missing for Portugal for the period 2000-04, so Portugal is not included in the average. The data for Italy refer to the period 2014-17.
Source: Bontadini et al. (2021[46]), *EUKLEMS & INTANProd: methods and data descriptions*, https://euklems-intanprod-llee.luiss.it/, based on EU Klems and Intanprod database.

StatLink https://stat.link/rkdyj6

#### *Most new technologies used in the LTC sector are inexpensive and easy to implement*

LTC is a very labour intensive, low value-added sector. It invests a higher percentage of its IT-related investments in ICT such as mobile phones that are relatively inexpensive. Indeed, the share of ICT in total IT-related investments is equal to 20.0% in LTC on average across countries, compared with 14.8% for the whole economy. This pattern has been broadly stable since the early 2000s (Bontadini et al., 2021[46]).

Cheaper technologies, such as simple smartphones, alarm systems, cameras and sensors, are increasingly being used in LTC and are simple to install. Slightly less than half of Japanese LTC providers make use of online communication tools (CWF, 2021[47]), and in the United Kingdom, 53% and 86% of LTC providers have implemented monitoring equipment with sensors and video-calling software, respectively (Skillsforcare, 2021[48]). LTC providers' unawareness of the availability of certain technologies and worries over their workers' ability to use them are important barriers to the implementation of new technologies in LTC (CWF, 2021[47]). Moreover, privacy concerns may reduce the willingness of care recipients to use digital technologies. Privacy concerns are a recurring finding in research on older people's use of digital technologies across countries and types of technologies (Boise et al., 2013[49]; Nguyen et al., 2021[50]; Wang et al., 2019[51]).

Most of the new technologies that will be adopted in the near future are likely to remain inexpensive. LTC providers have limited financial resources, making it difficult for them to invest aggressively in new technologies, especially expensive ones. For example, in the United Kingdom, 57% of providers cite budget as an obstacle for the implementation of new technologies (Skillsforcare, 2021[48]). However, among the new technologies that are inexpensive and can be introduced, some are promising for LTC providers in many OECD countries, as is the case in Denmark, Finland, Germany, Japan and the United States (Table 5.3).

### Table 5.3. Examples of new inexpensive technologies implemented in LTC sector

| Type of new technologies | Country | Good examples | Summary | Source |
|---|---|---|---|---|
| Self-management technologies | Denmark | DigiRehab | DigiRehab is a cost-effective digital training platform for at-home rehabilitation and physical exercise, which has been implemented in a large number of Danish municipalities, including Aalborg, Viborg, and Kerteminde. The tablet or smartphone-based solution provides a screening of the citizens' physical ability and makes a personally tailored exercise programme for them. The exercises are performed twice a week in the citizens' own homes for 12 weeks. About 70% of users experience reduced need for home care after the programme is completed. Training for 10-12 hours results in a 50-75 hour reduction in the need for home care. | (Healthcare Denmark, 2019[52]) |
| Remote care and disease management technologies | Finland | Remote Care | In Helsinki, Finland, Remote Care has been introduced to provide remote access to nursing and care services. Helsinki residents can contact a care professional using an easy-to-use computer and a pivoting camera. Care recipients are not only monitored and their medications checked, but also joint lunch meetings are held. | (The Guardian, 2019[53]) (The Economist, 2020[54]) |
| Self-management technologies | Germany | Smart Service Power | The Smart Service Project is a programme that was implemented in Dortmund, Germany, to assist older people in their daily lives by providing them with a smart home system. The installed sensor system monitors older people and predicts the deterioration of their health based on collected data. | (Count me in, 2019[55]) |
| Assistive technologies for LTC workers | Japan | Night-time monitoring of older people | A variety of monitoring equipment has been installed at a LTC provider in Tokyo. Sensors installed under the mattresses of beds estimate the depth of sleep. Sensors worn on the lower abdomen to predict urination use ultrasonic waves to detect the bulge of the bladder and measure the amount of urine. A sensor installed on the ceiling detects if the care recipient falls over or falls off the bed. As a result, the system has reduced the burden on facility staff, who now spend 37% less time watching over patients at night. | (NHK, 2022[56]) |
| Remote care and disease management technologies | United States | WellSky Personal Care | WellSky Personal Care is a software-as-a-service that provides a comprehensive set of functions necessary for the operation of a home care agency. It offers a variety of services such as scheduling tools, caregiver training tools, recruiting tools, care co-ordination tools, billing management tools, marketing tools, customer relationship management etc. all in one place. | (WellSky, 2022[57]) |

However, the use of complex and expensive technologies such as robots is still uncommon among LTC providers. Only around 1% of LTC providers in Japan (CWF, 2021[47]) and in the United Kingdom (Skillsforcare, 2021[48]) make use of expensive equipment such as robots. This is likely the result of budget constraints and a concern among LTC providers that the returns on such technologies are not high enough.

As robot technologies are relatively expensive, some LTC providers in Japan are overcoming budget constraints by renting robots rather than purchasing them (Box 5.2). More than half of providers in the United Kingdom have adopted desktop PCs, laptops, video-calling software, mobile tablets, smartphones, digital care records, planning software, monitoring equipment with sensors, and alarm systems, while only 19% of providers are considering the introduction of robots (Skillsforcare, 2021[48]). In Japan, only 16% of providers consider the introduction of robots to be critical in the future (CWF, 2021[47]). Various reasons could play a role in the relatively small share of providers thinking that the introduction of robots will be critical in the future. Yet, these reasons are likely specific to robotic technologies (e.g. cost or scepticism about older people's willingness to engage with robots) rather than related to concerns about the introduction of new technologies more generally (e.g. LTC workers' digital skills or data security), as at the same time more than half of Japanese providers consider the introduction of ICT technologies as critical in the future.

### Box 5.2. A good practice of robotic technologies in Japan

In Japan, most care robots such as PALRO can be rented rather than purchased, which is also considered cheaper than hiring more LTC workers. PALRO, a humanoid robot, is a communication robot that can be handled with one hand, measuring 40 cm in length, and weighing 1.8 kg. PALRO can communicate with older people through nursing care recreation and daily chats and can also serve as an instructor for health exercises. PALRO is a particularly useful social tool during the COVID-19 pandemic as it reduces the risk of droplet infection when LTC workers communicate directly with older people. Thanks to PALROs taking care of such communication and recreation, LTC workers can concentrate on caring tasks (MHLW and ATA, 2021[58]; FUJISOFT, 2022[59]).

Specifically, the purchase cost is around USD 5 500 (JPY 737 000), and the monthly rental cost is around USD 250 (JPY 33 000) (FSI, 2022[60]). By contrast, the wages of Japanese care workers are USD 2 375 (JPY 323 190) per month on average (MHLW, 2022[61]). The monthly rental cost is relatively low, and renting can be stopped immediately if not effective. However, as robots cannot replace, at least today, most tasks accomplished by LTC workers, they only play a supporting role, with its main effect being to reduce the workload.

One local government in Japan has loaned robots to LTC providers in the form of rentals, and many providers reported that the psychological burden on LTC workers was reduced as a result; LTC workers were able to accurately assess the care recipients' situation, and to provide appropriate care in a timely manner. In addition, while only around 10% of LTC providers were aware of the robot's availabilities for LTC tasks prior to its use, about half of LTC providers were positive about the future use of robots after their experimentation (MHLW, 2022[62]).

#### *Robotic technology could be used for a variety of tasks in LTC*

Currently, the introduction of robot technologies in the LTC sector has made little progress. However, there are still many tasks in the LTC sector for which robotic technologies could be used today (Table 5.4). This includes mobility support in a variety of settings, as well as collecting and transmitting data for monitoring and communication.

### Table 5.4. Main tasks for which robotic technologies could be used in the LTC sector

| Task | Examples |
|---|---|
| Transfer support | Robotic power assist devices to assist a LTC worker in lifting an older person. |
| Mobility Assistance | Walking support equipment that supports older people in going out and safely carrying luggage (non-wearable).<br>Walking support equipment that supports older people in moving around indoors and sitting up, especially to and from the toilet and maintaining posture in the toilet (non-wearable).<br>Wearable mobility aids that support older people in going out, preventing falls, and assisting with walking. |
| Toiletry support | Toilets with adjustable installation positions.<br>Equipment to predict when an older person will defecate and guide the person to the toilet at the right time.<br>Equipment to support a series of movements in the toilet, such as putting on and taking off undergarments. |
| Monitoring and communication | Platform devices equipped with sensors and external communication functions for use by LTC providers.<br>Platforms for home care equipment equipped with fall detection sensors and external communication functions.<br>Lifestyle support devices to communicate with older people. |
| Bathing support | Equipment to assist an older person in a series of movements when entering and exiting the bathtub. |
| Support for LTC workers | Equipment to collect and store information associated with LTC tasks, including monitoring, mobility support, and elimination support, and use this information as the basis for necessary support for older people. |

Source: MHLW (2017[63]), *Priority Areas in the Use of Robot Technologies for the LTC sector*, https://www.mhlw.go.jp/stf/houdou/0000180168.html.

Looking forward, several OECD countries are actively supporting the development of robot technologies in the LTC sector. In the EU, a funding programme aimed at the development of innovations that improve the quality of life of older people and enable them to lead more healthy lives (Active Assisted Living Programme) has funded more than 300 projects since 2008.[22] Japan promotes the development of LTC robotic technologies in 13 priority areas (MHLW, 2017[63]).

The use of robots in LTC is likely to increase for several reasons. A fall in the price of the robots will probably boost the introduction of robot technologies in the LTC sector. Also, based on the past and recent diffusion of other technologies, it is likely that the resistance to robots will fade as robots become more versatile and people gain experience with them. In European countries with ageing populations, robots that extend the independent living capabilities of older people are likely to be available for purchase within the next decade (Whiting, 2022[64]). Japan is at the forefront in this area.

According to the Development Bank of Japan (2014[65]), Japan's LTC robot market would be five times larger by 2035 compared to 2020. Another report predicts major cost-effective developments in robot technologies including artificial intelligence (AI) in the next decades (MRI, 2020[66]). However, the technological difficulty of providing robots to assist with tasks such as transfers and bathing is still large in order to accommodate the various physical conditions of people who need care. Over time, the use of robots may become the norm in LTC to maintain and improve the quality of life of older people through independence support and to reduce the burden on LTC workers (Japan Association of GHSF, 2020[67]). Avatar (alter ego) robots are also rarely used today but may have a promising future in the LTC sector. Avatar robots can perform tasks remotely, with a person in another location to operate them. Although Avatar robots require a person to operate it, it may allow people who were previously unable to provide LTC to do so. For example, a healthy older person or a person who is unable to leave the house due to childcare or nursing care could operate the robot to provide LTC. Since Avatar robots are operated by a person rather than being programmed robots, older people and their families may feel more comfortable with them. It may thus help alleviate the labour shortage in the LTC sector (Nikkei, 2020[68]).

### *5.4.3. New technologies may help limit the demand for LTC workers in the future*

New technologies may help limit the demand for LTC workers in the future. Working conditions of LTC workers are subpar as their wages are low compared to those in other sectors (Chapter 2), the work is physically demanding and both night work and work overload are common (Chapter 3). New technologies can reduce the workload of LTC workers and increase the quality of the care provided. To the extent that

new technologies develop within LTC, political preferences will shape how this labour-saving effect is used to reduce labour shortfalls, improve working conditions and raise the quality of services.

### *New technologies may reduce demand for LTC workers and improve working conditions*

Implementing new technologies in the LTC sector is likely to contribute to raising labour productivity. In the United Kingdom, 75% of surveyed care providers answered that new technologies led to productivity gains (Skillsforcare, 2021[48]). Also, in a Japanese survey, 61% of LTC providers reported an increase in the amount of time their staff spent in direct care, and 61% of LTC providers as well reported a reduction in the workload of their staff (MHLW, 2020[69]).

Even in the future, while new technologies are unlikely to replace completely the work of LTC workers, they may serve to supplement it. Indeed, based on PIAAC data the risk of automation for LTC jobs is relatively low compared to jobs in other sectors: health associate professionals and personal care workers are estimated to have jobs that have similar risks of automation as ICT professionals, meaning that these risks are low compared with those applying to workers in mining, construction, manufacturing, transportation, or sales for example (OECD, 2020[41]).

There are examples in OECD countries where new technologies have contributed or are likely to contribute to reducing the workload of LTC workers. However, few studies have quantitatively investigated whether new technologies can replace or reduce caregiving time (European Commission, 2020[42]). Moreover, emerging technologies may facilitate LTC provision yet be less capable of mitigating the workforce shortage (Chapman S, Miller J, Spetz J, 2019[70]). By contrast, some estimates suggest that the Netherlands will lack 67 300 workers in LTC in 2031, and that wider implementation of existing technologies can compensate for 64 500 of these (FME, 2022[71]). For example, implementing new technologies in reporting and communications could replace about 27 000 workers. In Japan, the introduction of new technologies, such as alarms and monitoring sensors warning the LTC provider when assistance is required, has reduced the amount of time spent looking after recipients at night by 37%. During night-time, LTC workers were previously assigned at a ratio of 1 per 10 recipients, but because of these new technologies, the ratio was reduced to 1 per 20 recipients (NHK, 2022[56]).

The spread of telecare in the future may maximise direct care provision, in particular in home-care settings, and greatly reduce the demand for LTC workers. Remote Care in Finland (Table 5.3 above) currently has 800 home care recipients and workers make 24 000 telecare visits per month. This is because Remote care can perform more than 50 virtual visits during one home-care shift (The Guardian, 2019[53]). Overall, telecare can reduce the time LTC workers spend traveling, improving their productivity.

Technologies can be implemented to reduce the time LTC workers spend on non-direct-care tasks, such as administration and co-ordination, which are an important source of work overload in LTC workers (OECD, 2020[41]). Tablet- and smartphone-based online tools for home care providers can reduce administrative and managerial workloads. An application used in the United Kingdom for instance simplifies planning and co-ordination of care provision. Comprehensive software services can include home care scheduling tools, billing management tools, payroll management tools, and tools to manage interactions with care recipients, and thus reduce the amount of time spent on paperwork Table 5.3. The introduction of an electronic record for medication administration in several Canadian LTC facilities reduced medication delivery times and medication incidents, resulting in LTC workers having more time for direct care provision and an overall safer care environment for older people (Fei, Robinson and Macneil, 2019[72]). In surveys of LTC workers in Japan (MHLW, 2020[73]) and the United Kingdom (Skillsforcare, 2021[48]), a large majority of staff indeed indicates that the introduction of new technologies have increased the amount of time they effectively spend providing care. Despite this experience, 38% of the surveyed LTC workers in the United Kingdom expressed concerns about new technologies replacing face-to-face care (Skillsforcare, 2021[74]).

New technologies can also alleviate the arduousness of care work. Robots can reduce the physical burden on LTC workers by taking over the most physically demanding tasks. One Japanese-developed robot, for instance, can lift people, tackling one of the main sources of physical arduousness of LTC work as discussed in Chapter 3.

### *New technologies may facilitate independent living of older people*

New technologies can contribute to increasing the length of time older people can live independently, which would result in reducing the demand for LTC or improving both working conditions and the quality of care. The use of social and self-management technologies can contribute to the maintenance of cognitive as well as physical functions, improving older people's ability to continue living independently (Carretero, 2015[75]).

Cognitive decline is an important driver of care needs among older people, but the decline can be slowed down through rehabilitation and cognitive training.[23] New technologies are increasingly becoming effective and easy-to-use tools for both rehabilitation and cognitive training. One smartphone application originating in the United States, for instance, contains easily accessible tools for assessing the cognitive function, and provides cognitive training and lifestyle advice to improve cognitive function. New technologies can also help older people to continue living independently even after the decline of cognitive functions. For example, medication management tools can help people with mild dementia take their medications correctly without the need for human assistance.

While falling is a major physical health hazard and source of care needs among older people, the risk of falling can be reduced through the use of social technologies.[24] Social technologies are promising tools for fall prevention. For instance, a route planner that provides the safest route for pedestrians based on falling risk (Minakata et al., 2022[76]) or applications with exercises that improve strength and balance to reduce falling can contribute to reducing the number of older people requiring care as a result of falling.

Self-management technologies can reduce the need for LTC by helping older people to live independently. This includes smart home technology that comprehensively implements ICT in various aspects of daily living (Box 5.3). Smart home technologies such as door and light sensors and on/off switches of various home appliances can enable some older people to continue living in their own homes in comfort and safety, which can have a positive impact on mental health and reduce loneliness (Marikyan, Papagiannidis and Alamanos, 2019[77]).

#### Box 5.3. An example of a smart home in Japan

In Japan, smart home technologies have increasingly been implemented in residential facilities for older people in recent years. For example, one such facility in Tokyo has introduced smart curtains, open/close sensors, environmental sensors, smart remote controls, and smart speakers to assist older people in living independently. The smart curtains automatically open and close to support a regular lifestyle and improve the quality of sleep. The open/close sensor detects the opening and closing of doors and windows and notifies LTC workers to prevent accidents. The environment sensors are four sensors that detect temperature, humidity, brightness, and human movement, and allow LTC workers to remotely monitor conditions in the room, for instance to prevent heat stroke, as well as to monitor when the user leaves the room or is using the restroom as reduced toilet visits may indicate a health issue. The smart remote control can check the operating status of the air conditioner in real time and remotely control it and can also be used in conjunction with the smart speaker to control multiple home appliances at once through voice commands. Smart speakers can be linked to other smart home appliances such as the curtains or the air conditioner so that the user can operate them using voice commands.

Source: KURACI (2022[78]), 新型コロナ感染症や防災対策万全の災害対応型ホーム。[Disaster-responsive homes with full measures for new corona infections and disaster prevention], https://www.kuraci.co.jp/house/famila/hikarigaokakoen/.

### 5.4.4. Needed skills to successfully implement new technologies

#### *Acquiring standard digital skills is the first step*

LTC workers need to first have digital skills to be able to use new technologies properly. Digital skills range from using tablets and smartphones, sending emails, and using software to advanced skills such as coding (OECD, 2019[79]). LTC workers do not require advanced digital skills in many cases, as the setup of equipment is not done by LTC workers even when using complex technologies such as robots. The digital skills LTC workers do need include the ability to find and manage information, to share data digitally, to use digital technology and to make use of e-learning (Skillsforcare, 2016[80]). These skills enable LTC workers to use assistive technology, such as fall monitors; to securely store care records; and, to use telecare systems, such as remote prescribing and remote consultation.

Many LTC workers indicate that their level of digital skills is insufficient. In the United Kingdom, only about half of the LTC workforce is confident in their digital skills, and nearly half of LTC providers are concerned about their staff's lack of digital skills (Skillsforcare, 2021[74]). Important barriers for LTC workers to learn digital skills include a lack of time available to develop the skills and employers not providing the required training, as indicated by respectively 21% and 16% of LTC workers in the United Kingdom (Skillsforcare, 2021[74]).

Providing sufficient training is essential to make sure that all workers can adjust to the implementation of new technologies. Computer skills of older LTC workers are somewhat weaker than those of their younger colleagues (Konttila et al., 2019[81]; Yu, Li and Gagnon, 2009[82]) in line with differences in ICT use between generations in general (OECD, 2020[83]). Progress is under way as, for example, older staff members in the United Kingdom are more likely than younger staff members to want to improve their digital skills: 68% of those aged 55+ and 64% of those aged 45-54 want to improve their digital skills compared to 54% of those aged 18-34 (Skillsforcare, 2021[74]). However, data from a Japanese survey warn against relying solely on on-the-job training for LTC workers to get accustomed to using new technologies: some LTC workers with a high level of proficiency with digital equipment may experience having to teach workers with less proficiency as a burden as it slows them down and does not allow them to make full use of the technology available (CWF, 2021[47]). This illustrates the important role formal training programmes play for the successful introduction of new technologies.

#### *Boosting older people's digital skills to improve use of new technologies*

Stronger digital skills of care recipients can contribute to reducing LTC needs fulfilled by LTC workers. With sufficient digital skills and health literacy, older people can make use of social and self-management technologies. Health literacy refers to the degree to which individuals can find, understand, and use information and services to inform health-related decisions and actions for themselves and others (CDC, 2022[84]). Through self-management technologies older people can monitor their health status, identify any needs, and access appropriate services. Social technologies are relevant not only to boost informal support networks, but also because social interaction is an important driver for many older people to start learning to work with digital technologies, which can provide the basic digital skills needed to start working with self-management technologies (Pihlainen et al., 2022[85]).

In order to successfully implement self-management technologies, it is important to improve digital skills and health literacy of older people. On average in the European Union, 24% of people aged 55-74 have not used internet in the three months prior to being surveyed, in particular people with lower and medium education attainment, with 42% and 21%, respectively (OECD, 2022[86]). At the same time, at least one-third of the population in OECD countries may have low levels of health literacy (OECD, 2020[41]).

LTC workers can help older people improve their health literacy and digital skills. Through teaching them basic smartphone usage, for instance, LTC workers can boost older people's digital skills and enable them

to use cognitive training applications on their own. Also, teaching older people how to access health information online could improve their health literacy. Several OECD member countries have developed guidelines and toolkits to improve health literacy. For example, in the United States, the Agency for Healthcare Research and Quality has developed a Health Literacy Universal Precautions Toolkit that includes evidence-based guidance for communication so as to improve care recipients' health literacy (The Agency for Healthcare Research and Quality, 2020[87]).

It is important that LTC workers support older people in selecting and adopting technology that meets their needs. New technologies range from cognitive training apps to tools to assist medication use, and LTC workers can provide guidance to find appropriate tools fulfilling older people's needs. Many LTC workers are able and willing to play this role: 65% of surveyed staff providing direct care in the United Kingdom indicate that they could assist caregivers in choosing the technology that best suits their needs (Skillsforcare, 2021[48]).

## References


AAL (2020), *AAL programme*, http://www.aal-europe.eu/. [88]

AHCA/NCAL (2022), *ICYMI: Workforce Shortages In Long Term Care Facilities Continue To Worsen*, https://www.ahcancal.org/News-and-Communications/Press-Releases/Pages/ICYMI-Workforce-Shortages-In-Long-Term-Care-Facilities-Continue-To-Worsen.aspx. [15]

ASPE (2022), *Impact of the COVID-19 Pandemic on the Hospital and Outpatient Clinician Workforce*, U.S. Department of Health and Human Services, https://aspe.hhs.gov/sites/default/files/documents/9cc72124abd9ea25d58a22c7692dccb6/aspe-covid-workforce-report.pdf. [13]

Barnow, B., J. Trutko and J. Piatak (2013), "How Do We Know Occupational Labor Shortages Exist?", *Employment Research*, Vol. 20/2, pp. 4-6, https://doi.org/10.17848/1075-8445.20(2)-2. [28]

Barnow, B., J. Trutko and J. Schede Piatak (2013), *Occupational Labor Shortages: Concepts, Causes, Consequences, and Cures*, W.E. Upjohn Institute, https://doi.org/10.17848/9780880994132. [2]

Baumol, W. (1967), *Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis*, American Economic Association, pp. 415-426, https://www.jstor.org/stable/1812111. [34]

Boise, L. et al. (2013), "Willingness of older adults to share data and privacy concerns after exposure to unobtrusive in-home monitoring", *Gerontechnology*, Vol. 11/3, https://doi.org/10.4017/gt.2013.11.3.001.00. [49]

Bontadini, F. et al. (2021), *EUKLEMS & INTANProd: methods and data descriptions*, https://euklems-intanprod-llee.luiss.it/. [46]

Carretero, S. (2015), *Technology-enabled Services for Older People Living at Home Independently: Lessons for public long-term care authorities in the EU Member States*, Publications Office of the European Union, https://doi.org/10.2791/559325. [75]

Causa, O. et al. (2022), "The post-COVID-19 rise in labour shortages", *OECD Economics Department Working Papers*, No. 1721, OECD Publishing, Paris, https://doi.org/10.1787/e60c2d1c-en. [4]

CDC (2022), *What Is Health Literacy?*, https://www.cdc.gov/healthliteracy/learn/index.html#wnd. [84]

Chapman S, Miller J, Spetz J (2019), *The Impact of Emerging Technologies on Long-Term Care and the Health Workforce*, https://healthforce.ucsf.edu/sites/healthforce.ucsf.edu/files/publication-pdf/ImpactEmergingTechnologiesLongTermCareWorkforce_0.pdf. [70]

Count me in (2019), *SMART Projects*, https://countmein.eu/project/smart-service-power/. [55]

CVLibrary (2021), *More than three quarters (76.4%) of UK professionals intend to look for a new job in 2022 with over half (57.6%) looking to re-skill*, https://www.cv-library.co.uk/recruitment-insight/three-quarters-76-4-uk-professionals-intend-look-new-job-2022/. [20]

CWF (2021), *Care Work Survey (Special Survey)*, Care Work Foundation, http://www.kaigo-center.or.jp/report/2021r01_t_chousa_result_01.html(in Japanese). [47]

DBJ (2014), *Challenges and Prospects for the Development of Japan's Care Robot Industry*, https://www.dbj.jp/pdf/investigate/mo_report/0000015497_file4.pdf. [65]

Department of Health (2022), *Aged Care Workforce Action Plan: 2022–2025*, Australian Government Department of Health and Aged Care, https://www.health.gov.au/sites/default/files/documents/2022/03/aged-care-workforce-action-plan-2022-2025.pdf. [23]

Department of Health (2022), *Report of the Strategic Workforce Advisory Group on Home Carers and Nursing Home Healthcare Assistants*, Department of Health, Ireland, https://www.gov.ie/en/publication/492bc-report-of-the-strategic-workforce-advisory-group-on-home-carers-and-nursing-home-health-care-assistants/. [5]

Dotson, M., D. Dave and J. Cazier (2012), "Addressing the Nursing Shortage: A Critical Health Care Issue", *Health Marketing Quarterly*, Vol. 29/4, pp. 311-328, https://doi.org/10.1080/07359683.2012.732861. [30]

ELA (2021), *Report on Labour Shortages and Surpluses*, European Labour Authority, https://doi.org/10.2883/746322. [9]

Eurofound (2020), *Long-term care workforce: Employment and working conditions*, Publications Office of the European Union, Luxembourg, https://www.eurofound.europa.eu/publications/customised-report/2020/long-term-care-workforce-employment-and-working-conditions. [10]

European Commission (2022), *Labour Market and Wage Developments in Europe: Annual Review 2022*, Publications Office of the European Union, https://data.europa.eu/doi/10.2767/128906. [21]

European Commission (2020), "The role of new technologies in modernising long-term care systems: a scoping review", Publications Office, https://data.europa.eu/doi/10.2767/626467. [42]

Fei, L., J. Robinson and A. Macneil (2019), "Case Study: Using Electronic Medication Administration Record to Enhance Medication Safety and Improve Efficiency in Long-Term Care Facilities", *Canadian Journal of Nursing Leadership*, Vol. 32/2, pp. 102-113, https://doi.org/10.12927/cjnl.2019.25958. [72]

FME (2022), *Uitweg uit de schaarste: Over noodzaak en belofte van medische technologie in de aanpak van personeelstekort in de zorg*, https://gupta-strategists.nl/storage/files/220525-Gupta-Strategists-FME-Uitweg-uit-de-schaarste.pdf. [71]

FOA KL (2017), *Rekrutteringsudfordringer for social- og sundhedspersonale i kommunerne*, https://www.foa.dk/~/media/faelles/pdf/rapporter-undersoegelser/2018/rekrutteringsudfordringer%20for%20social-%20og%20sundhedspersonale%20i%20kommunerne%20pdf.pdf. [11]

FSI (2022), *PALRO*, https://palro.jp/product. [60]

FUJISOFT (2022), *Communication Robot PALRO Model III for Elderly Facilities*, https://palro.jp/preventive-care/nursing-home.html. [59]

Gittleman, M. (2022), "The "Great Resignation" in perspective", *Monthly Labor Review*, https://doi.org/10.21916/mlr.2022.20. [19]

Harmuth, S. (2002), "The Direct Care Workforce Crisis in Long-Term Care", *North Carolina Medical Journal*, Vol. 63/2, https://www.ncmedicaljournal.com/content/ncm/63/2/87.full.pdf. [32]

Hartwig, J. (2010), "Testing the Baumol-Nordhaus model with EU KLEMS data", *Review of Income and Wealth*, Vol. 57/3, pp. 471-489, https://doi.org/10.1111/j.1475-4991.2010.00409.x. [35]

Healthcare Denmark (2019), *A dignified elderly care in Denmark*, https://www.healthcaredenmark.dk/media/plvbj4yz/elderly-care-v10919.pdf. [52]

Hickey, S., M. Sawo and J. Wolfe (2022), *The state of the residential long-term care industry*, Economic Policy Institute, https://files.epi.org/uploads/249221.pdf. [12]

Japan Association of GHSF (2020), *The Future of Long-Term Care: What Will Long-Term Care Look Like in 30 Years?*. [67]

Konttila, J. et al. (2019), "Healthcare professionals' competence in digitalisation: A systematic review", *Journal of Clinical Nursing*, Vol. 28/5-6, pp. 745-761, https://doi.org/10.1111/jocn.14710. [81]

Kotschy, R. and D. Bloom (2022), "A comparative perspective on long-term care systems", *International Social Security Review*, Vol. 75/3-4, pp. 47-69, https://doi.org/10.1111/issr.12307. [38]

KURACI (2022), *新型コロナ感染症や防災対策万全の災害対応型ホーム。[Disaster-responsive homes with measures for new corona infections and disaster prevention]*, https://www.kuraci.co.jp/house/famila/hikarigaokakoen/. [78]

MAC (2022), *Adult Social Care and Immigration: A Report from the Migration Advisory Committee*, Migration Advisory Comittee, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1071678/E02726219_CP_665_Adult_Social_Care_Report_Web_Accessible.pdf. [22]

Marikyan, D., S. Papagiannidis and E. Alamanos (2019), "A systematic review of the smart home literature: A user perspective", *Technological Forecasting and Social Change*, Vol. 138, pp. 139-154, https://doi.org/10.1016/j.techfore.2018.08.015. [77]

Matsudaira, J. (2014), "Monopsony in the Low-Wage Labor Market? Evidence from Minimum Nurse Staffing Regulations", *The Review of Economics and Statistics*, Vol. 96/1, pp. 92-102, https://doi.org/10.1162/rest_a_00361. [29]

MHLW (2022), *Annual Health, Labour and Welfare Report 2022*, Ministry of Health, Labour and Welfare, https://www.mhlw.go.jp/stf/wp/hakusyo/kousei/21/index.html. [62]

MHLW (2022), *Survey on Working Conditions of Long-term Care Workers*, https://www.mhlw.go.jp/toukei/list/151-2.html. [61]

MHLW (2020), *ICT Introduction Support Project Summary of Introduction Effectiveness Report*, https://www.mhlw.go.jp/content/12300000/000833330.pdf. [69]

MHLW (2020), *Summary of Reports on the Effects of the ICT Introduction Support Project in FY2020*, https://www.mhlw.go.jp/content/12300000/000833330.pdf. [73]

MHLW (2019), *Comprehensive survey of living conditions*, https://www.mhlw.go.jp/toukei/saikin/hw/k-tyosa/k-tyosa19/dl/05.pdf. [89]

MHLW (2017), *Priority Areas in the Use of Robot Technologies for the LTC sector*, Ministry of Health, Labour and Welfare, Japan, https://www.mhlw.go.jp/stf/houdou/0000180168.html. [63]

MHLW and ATA (2021), *Case Studies of the Introduction of Nursing Care Robots 2021*, https://www.mhlw.go.jp/content/12300000/000765226.pdf. [58]

MIC (2015), *White Paper on Information and Communication*, https://www.soumu.go.jp/johotsusintokei/whitepaper/ja/h27/html/nc241350.html. [43]

Minakata, M. et al. (2022), "Safe Walking Route Recommender Based on Fall Risk Calculation Using a Digital Human Model on a 3D Map", *IEEE Access*, Vol. 10, pp. 8424-8433, https://doi.org/10.1109/access.2022.3143322. [76]

MRI (2020), *Robotic technologies will change long-term care in 2030 and 2040*, https://www.mri.co.jp/50th/columns/robotics/no03/. [66]

MTSSS (2021), *Carta social: Rede de serviços e equipamentos 2020*, Ministério do Trabalho, Solidariedade e Segurança Social, https://www.cartasocial.pt/documents/10182/13834/csocial2020.pdf/54b90a92-0a88-4d78-b99a-c53b7061fd0e. [7]

NAV (2022), *Bedriftsundersøkelsen*, https://www.nav.no/no/nav-og-samfunn/kunnskap/analyser-fra-nav/arbeid-og-velferd/arbeid-og-velferd/bedriftsundersokelsen. [6]

Nguyen, M. et al. (2021), "Trading spaces: How and why older adults disconnect from and switch between digital media", *The Information Society*, Vol. 37/5, pp. 299-311, https://doi.org/10.1080/01972243.2021.1960659. [50]

NHK (2022), *Close-Up Today(in Japanese)*, https://www.nhk.or.jp/gendai/articles/4635/index.html. [56]

NHS (2019), *Preparing the healthcare workforce to deliver the digital future - The Topol Review, Health Education England, London,*, https://topol.hee.nhs.uk/wp-content/uploads/HEE-Topol-Review-2019.pdf. [45]

Nikkei (2020), *Avatar robots expand to serve customers in cafes and do shopping at home.*, https://style.nikkei.com/article/DGXMZO57206730V20C20A3EAC000/. [68]

NOS (2020), *270 KLM'ers overwegen carrière in de zorg: 'Het is heel dankbaar werk'*, https://nos.nl/nieuwsuur/artikel/2343893-270-klm-ers-overwegen-carriere-in-de-zorg-het-is-heel-dankbaar-werk. [26]

NRI (2016), *Consumer acceptance and issues surrounding the introduction of robotics and AI technologies*, https://www.nri.com/-/media/Corporate/jp/Files/PDF/knowledge/publication/chitekishisan/2016/05/cs20160509.pdf. [44]

OECD (2022), *OECD Employment Outlook 2022: Building Back More Inclusive Labour Markets*, OECD Publishing, Paris, https://doi.org/10.1787/1bb305a6-en. [18]

OECD (2022), *The OECD Going Digital Toolkit: Share of individuals aged 55-74 years using the Internet*, https://goingdigital.oecd.org/en/indicator/50. [86]

OECD (2021), *Bringing Household Services Out of the Shadows: Formalising Non-Care Work in and Around the House*, Gender Equality at Work, OECD Publishing, Paris, https://doi.org/10.1787/fbea8f6e-en. [24]

OECD (2021), "Long-term baseline projections, No. 109 (Edition 2021)", *OECD Economic Outlook: Statistics and Projections* (database), https://doi.org/10.1787/cbdb49e6-en. [33]

OECD (2021), *Main Findings from the 2020 Risks that Matter Survey*, OECD Publishing, Paris, https://doi.org/10.1787/b9e85cf5-en. [1]

OECD (2020), *OECD Digital Economy Outlook 2020*, OECD Publishing, Paris, https://doi.org/10.1787/bb167041-en. [83]

OECD (2020), *Who Cares? Attracting and Retaining Care Workers for the Elderly*, OECD publishing, https://doi.org/10.1787/92c0ef68-en. [41]

OECD (2020), "Workforce and safety in long-term care during the COVID-19 pandemic", *OECD Policy Responses to Coronavirus (COVID-19)*, OECD Publishing, Paris, https://doi.org/10.1787/43fc5d50-en. [17]

OECD (2019), *OECD Skills Outlook 2019: Thriving in a Digital World*, OECD Publishing, Paris, https://doi.org/10.1787/df80bc12-en. [79]

ONS (2022), *Public service productivity, adult social care, England: financial year ending 2021*, Office for National Statistics, https://www.ons.gov.uk/economy/economicoutputandproductivity/publicservicesproductivity/articles/publicserviceproductivityadultsocialcareengland/financialyearending2021. [40]

Paat-Ahi, G. and M. Masso (2018), *ESPN Thematic Report on Challenges in long-term care Estonia*, https://ec.europa.eu/social/BlobServlet?docId=19848&langId=en. [37]

Paat, G. and M. Merilain (2010), "Long-Term Care in Estonia", *Enepri Research Report No. 75*, https://www.files.ethz.ch/isn/122398/Estonia.pdf. [36]

Paulin, E. (2022), *Inside the 'Staffing Apocalypse' Devastating U.S. Nursing Homes*, https://www.aarp.org/caregiving/health/info-2022/labor-shortage-nursing-homes.html. [14]

Pihlainen, K. et al. (2022), "Older adults' reasons to participate in digital skills learning: An interdisciplinary, multiple case study from Austria, Finland, and Germany", *Studies in the Education of Adults*, pp. 1-19, https://doi.org/10.1080/02660830.2022.2133268. [85]

Pindus, N., J. Tilly and S. Weinstein (2002), *Skill shortages and mismatches in nursing related health care employment*, The Urban Institute, https://webarchive.urban.org/UploadedPDF/410485.pdf. [3]

Rocard, E., P. Sillitti and A. Llena-Nozal (2021), "COVID-19 in long-term care: Impact, policy responses and challenges", *OECD Health Working Papers*, No. 131, OECD Publishing, Paris, https://doi.org/10.1787/b966f837-en. [16]

Skillsforcare (2021), *Digital skills review*, https://www.ipsos.com/en-uk/nhsx-reviews-published-digital-technology-innovation-and-digital-skills-adult-social-care. [74]

Skillsforcare (2021), *Technology innovation review*, https://www.ipsos.com/en-uk/nhsx-reviews-published-digital-technology-innovation-and-digital-skills-adult-social-care. [48]

Skillsforcare (2016), *What are core skills in social care*, https://www.skillsforcare.org.uk/resources/documents/Developing-your-workforce/Care-topics/Core-Skills/What-are-core-skills-in-social-care.pdf. [80]

Sociale Zekerheid (2020), *Vorming 600*, https://www.socialsecurity.be/citizen/nl/werk-en-werkloosheid/tewerkstellingsmaatregelen/vorming-600. [31]

Sumption, M. and Z. Strain-Fajth (2022), "Work visas and migrant workers in the UK", *The Migration Observatory*, https://migrationobservatory.ox.ac.uk/resources/briefings/work-visas-and-migrant-workers-in-the-uk/. [25]

The Agency for Healthcare Research and Quality (2020), *Health Literacy Universal Precautions Toolkit, 2nd Edition*, https://www.ahrq.gov/health-literacy/improve/precautions/index.html. [87]

The Economist (2020), *Finland turns to technology to help frail old people live at home*, https://www.economist.com/europe/2020/01/09/finland-turns-to-technology-to-help-frail-old-people-live-at-home. [54]

The Guardian (2022), *Nurse recruitment drive launched by NHS England amid acute shortages*, https://www.theguardian.com/society/2022/oct/24/nurse-recruitment-drive-launched-by-nhs-england-amid-acute-shortages. [8]

The Guardian (2019), *Virtual visits: how Finland is coping with an ageing population*, https://www.theguardian.com/society/2019/jun/26/virtual-visits-finland-remote-care-ageing-population. [53]

United Nations (2022), *World Population Prospects 2022*, Department of Economic and Social Affairs, Population Division, https://population.un.org/wpp/. [27]

Wang, S. et al. (2019), "Technology to Support Aging in Place: Older Adults' Perspectives", *Healthcare*, Vol. 7/2, p. 60, https://doi.org/10.3390/healthcare7020060. [51]

WellSky (2022), *WellSky*, https://www.clearcareonline.com/. [57]

Whiting, A. (2022), *Elderly care? Bring in the robots!*, https://ec.europa.eu/research-and-innovation/en/horizon-magazine/elderly-care-bring-robots. [64]

WHO (2021), *Falls*, World Health Organization, https://www.who.int/news-room/fact-sheets/detail/falls. [90]

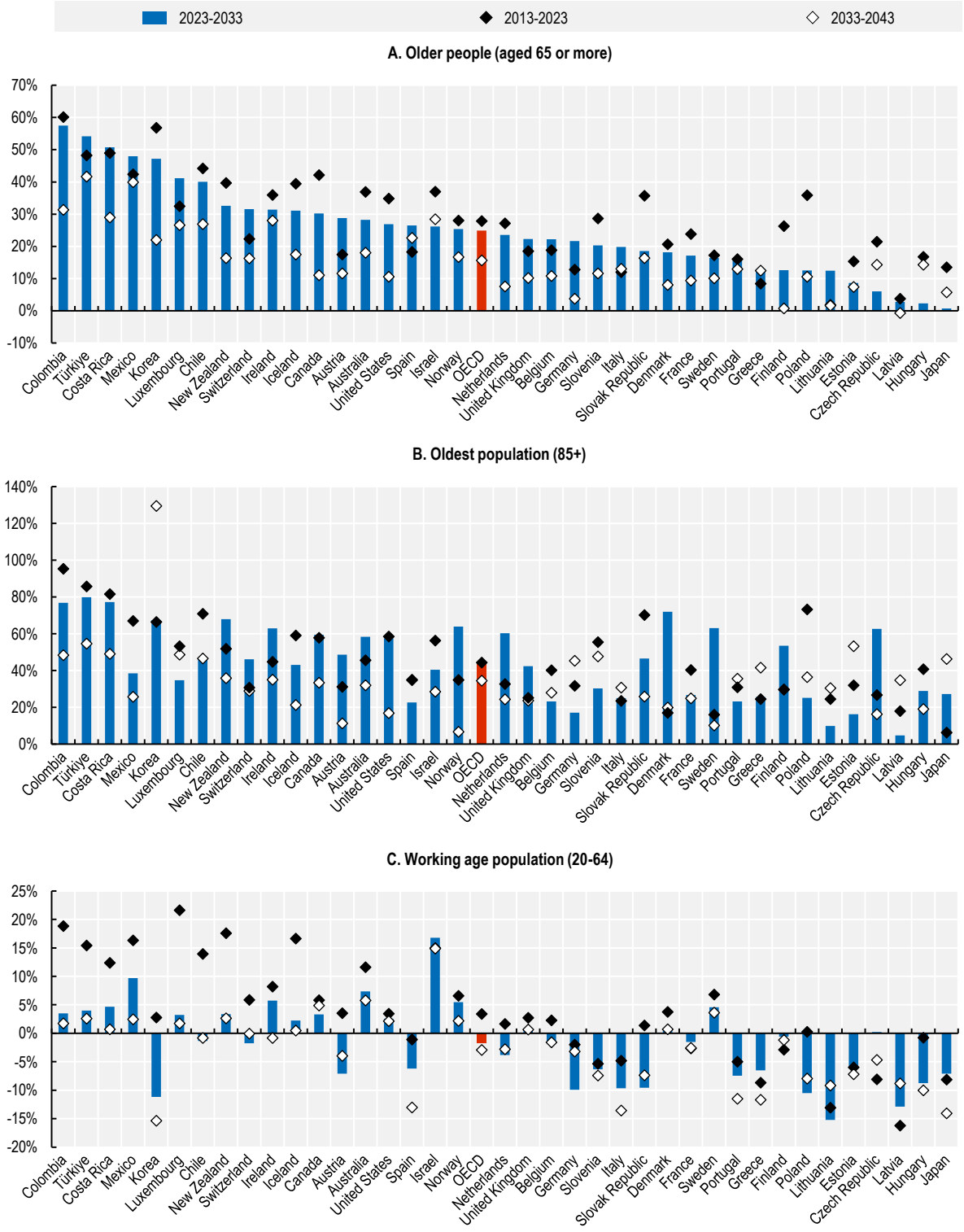
Yang, W., J. Forder and O. Nizalova (2016), "Measuring the productivity of residential long-term care in England: methods for quality adjustment and regional comparison", *The European Journal of Health Economics*, Vol. 18/5, pp. 635-647, https://doi.org/10.1007/s10198-016-0816-z. [39]

Yu, P., H. Li and M. Gagnon (2009), "Health IT acceptance factors in long-term care facilities: A cross-sectional survey", *International Journal of Medical Informatics*, Vol. 78/4, pp. 219-229, https://doi.org/10.1016/j.ijmedinf.2008.07.006. [82]

# Annex 5.A. Projections of the number of people in selected age groups

## Annex Figure 5.A.1. Oldest population grows fast while working-age population starts to shrink

Relative change of selected population size in selected decades



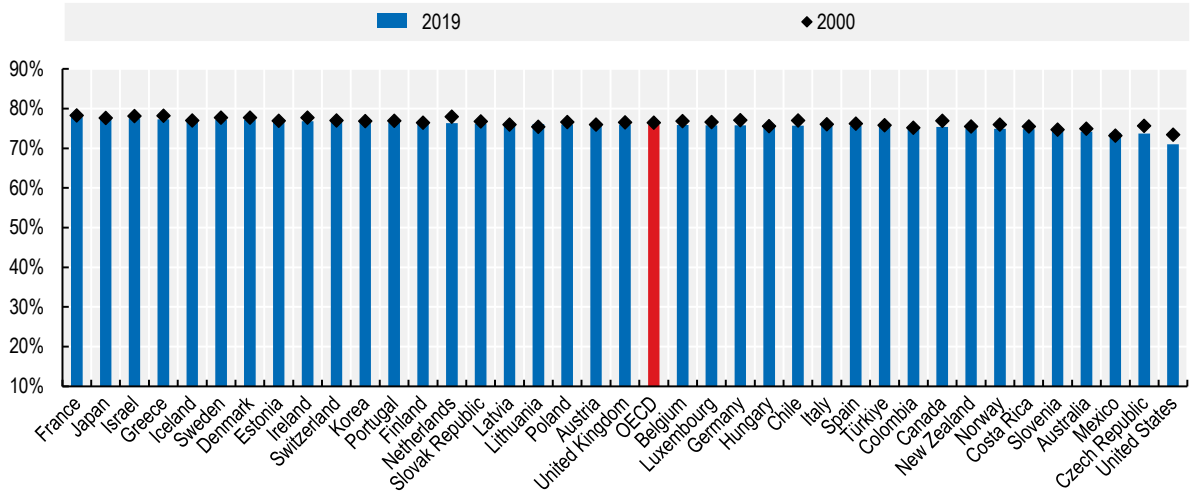

Note: Countries in all panels are sorted by change in population 65+ in 2022-32 (Panel A).
Source: OECD calculations based on UN (2022[27]), *World Population Prospects 2022*, https://population.un.org/wpp/.

StatLink https://stat.link/ediknl

# Annex 5.B. Longevity and disability-free years of life

## Annex Figure 5.B.1. Share of healthy years in remaining life expectancy at age 60, WHO measure

Disability-free life expectancy as a share of remaining life expectancy at age 60 in 2000 and 2019, WHO measure

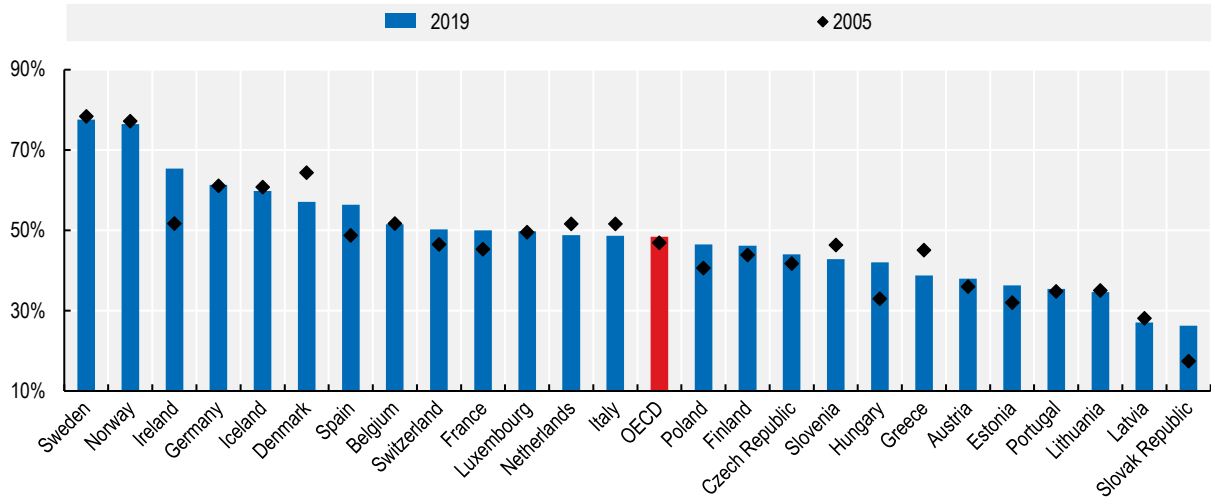



Note: WHO defines healthy life expectancy as (HALE) as follows: the average number of years in full health a person (usually at age 60) can expect to live based on current rates of ill-health and (period) mortality. The HALE calculation uses the equivalent lost healthy measure which is estimated as the all-cause years lost due to disability (YLD) rate per capita, adjusted for independent comorbidity, by age, sex and country. Sullivan's method uses the equivalent lost healthy year fraction (adjusted for comorbidity) at each age in the current population (for a given year) to divide the hypothetical years of life lived by a period life table cohort at different ages into years of equivalent full health and equivalent lost healthy years, https://www.who.int/data/gho/data/indicators/indicator-details/GHO/gho-ghe-hale-healthy-life-expectancy-at-age-60.
Source: OECD calculations based on WHO data.

StatLink https://stat.link/fsom0l

## Annex Figure 5.B.2. Share of healthy years in remaining life expectancy at age 65, EUROSTAT measure

Healthy life expectancy a share of remaining life expectancy at age 65 in 2005 and 2019, Eurostat




Note: EUROSTAT measures health life expectancy (HLE) as the number of remaining years that a person of specific age is expected to live without any severe or moderate health problems. The notion of health problem for Eurostat's HLE is reflecting a disability dimension and is based on a self-perceived question which aims to measure the extent of any limitations, for at least six months, because of a health problem that may have affected respondents as regards activities they usually do (the so-called GALI – Global Activity Limitation Instrument foreseen in the annual EU-SILC survey, https://ec.europa.eu/eurostat/cache/metadata/en/hlth_hlye_esms.htm). Due to series breaks periods differ for some countries.
Source: OECD calculations based on Eurostat data.

StatLink https://stat.link/g0ou7x

## Notes

[1] https://www.nationalskillscommission.gov.au/topics/skills-priority-list.

[2] https://www.gov.uk/government/publications/skilled-worker-visa-eligible-occupations/skilled-worker-visa-eligible-occupations-and-codes (retrieved on 29 March 2023).

[3] This is based on data from administrative sources, including Public Employment Services and national occupational forecasts.

[4] Job offers for personal care workers from all sectors are analysed together because data by sectors are missing for many job offers and workers are mobile between sectors.

[5] Based on the questionnaire filled in by Portugal for this report.

[6] OECD Statistics: https://stats.oecd.org/Index.aspx?DataSetCode=MIN2AVE.

[7] Based on the questionnaire filled in by countries for this report.

[8] Based on the questionnaire filled in by countries for this report.

[9] https://www.dewr.gov.au/skills-reform/fee-free-tafe.

[10] This implies that especially in periods of low unemployment and economic boom potential LTC workers might be attracted by other sectors. Additionally, high turnover in LTC sector, for which evidence is mixed (Chapter 3), would reduce the effective care time because of inevitable frictions related to recruitment and onboarding of new workers.

[11] Over 2013-21, the cumulative inflation was 3.7% in Ireland.

[12] A limitation refers to any difficulty a person has in executing a one activity from a list of fourteen activities as a result of a physical, mental, emotional or memory problem. The fourteen activities cover six activities of daily living (ADLs – getting dressed, walking across the room, bathing, eating, getting in/out of bed, going to the toilet) and eight instrumental activities of daily living (IADLs – cooking, shopping, making a call, taking medicine, doing work around the house or garden, managing money, leaving the house independently and using public transport, doing laundry).

[13] These durations are based on period mortality rates for 22 OECD countries in 2019. At younger ages, e.g. 50 years, the low incidence applies to a larger group of people given increasing mortality with age, For example, about 50% and 30% of people being 50 years old in 2023 would survive until age 85 and 90, respectively, on average across OECD countries.

[14] A few countries are expected see the number of people aged 65 or more increasing by more than 40% by 2033: Chile, Colombia, Costa Rica, Korea, Luxembourg, Mexico and Türkiye, while it is projected to increase by less than 10% in the Czech Republic, Estonia, Hungary, Japan and Latvia (Annex 5.A).

[15] Over the last decade in Korea, the number of people aged 85 or more increased by 130%, more than twice than in second Türkiye (55%). Strong increases of more than 60% are projected for this decade in

relatively young countries: Colombia, Costa Rica, Türkiye, and also in Canada, the Czech Republic, Denmark, Ireland, Korea, New Zealand, Norway, the Netherlands and Sweden (Annex 5.A

[16] Similarly, the WHO's metric of disability-free life expectancy increased by 1.8 years on average across OECD countries between 2000 and 2019, out of the 2.6-year gains in life expectancy at age 60. Hence, 72% of the increases in remaining life expectancy at age 60 were free of disability, which is very similar to the 74% value reported above. Furthermore, Eurostat numbers show less optimistic picture. According to them, at age 65, 50% of life expectancy was disability-free in 2019 and disability-free life expectancy increased by 66% of improvements in longevity between 2005 and 2019 in European OECD countries. Cross-country differences in the WHO and Eurostat measures are shown in the Annex 5.B.

[17] Care sectors include LTC sectors as discussed in Chapter 2.

[18] The Baumol model shows that sectors with slow productivity growth are likely to see strong employment growth because demand for products or services is set independently from productivity developments. Additionally, sectoral wages tend to follow economy-wide rather than sector-specific productivity trends.

[19] In the pessimistic scenario the demand for LTC workers is projected to increase from 1.9% to 3.1% of total employment between 2023 and 2043.

[20] LTC is defined based on NACE sectors: LTC sector comprises both Q87 residential care and Q88 non-residential care.

[21] Investments are measured as Gross fixed capital formation (GFCF) values and reported numbers are based on EU Klems and the Intanprod database (Bontadini et al., 2021[46]).

[22] AAL is co-financed by the European Commission and 17 countries (AAL, 2020[88]).

[23] Dementia is one of the main causes of care needs in older people, with one in four older care recipients in Japan requiring care as a result (MHLW, 2019[89]).

[24] The WHO estimates that over 40 million people worldwide require medical attention each year due to falls, many of whom are older people (WHO, 2021[90]), and the care needs of one in eight older Japanese care recipients are the result of falling (MHLW, 2019[89]).

# Beyond Applause? Improving Working Conditions in Long-Term Care

This report presents an in-depth cross-country analysis of how long-term care workers fare along the different dimensions of job quality. In the initial stages of the COVID-19 pandemic, the applause for care workers was a clear expression of the strong recognition of their hard work and exposure to risks in their job. However, as the applause faded after the peak of the crisis, questions have re-emerged about how to improve the working conditions of long-term care workers in a sustainable way. Over the coming decades, the demand for these workers will increase substantially. Several countries are already facing shortages as the large baby-boom generation joins the older population.

To go *Beyond Applause*, a comprehensive policy strategy is needed to tackle poor working conditions and insufficient social recognition of long-term care work, attract workers in the sector and avoid labour shortages reaching unacceptable levels. Such a strategy should cover several dimensions, with different priorities across countries depending on their specific context, including: direct interventions to raise wages and increase staff requirements; increasing public financing and fostering the leading role by governments; supporting collective bargaining and social dialogue; strengthening training; increasing use of new technologies; and, strengthening health prevention policies.

**PRINT ISBN 978-92-64-37804-9**
**PDF ISBN 978-92-64-44558-1**

9 789264 378049