
Extension of Social Security

Long-term care protection for older persons: A review of coverage deficits in 46 countries

Xenia Scheil-Adlung

ESS – Working Paper No. 50

INTERNATIONAL LABOUR OFFICE, GENEVA

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First published 2015

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ILO Cataloguing in Publication Data

Scheil-Adlung, Xenia

Global estimates of deficits in long-term care protection for older persons / Xenia Scheil-Adlung; International Labour Office. - Geneva: ILO, 2015
(Extension of Social Security series; No. 50)

International Labour Office

social protection / long term care / older people / elder care / care worker / working conditions / social policy / public expenditure / deficit / developed countries / developing countries

02.03.1

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Printed in Switzerland

Foreword

Due to the global demographic ageing, all countries are challenged by growing long-term care (LTC) needs for older persons. However, these needs are largely ignored and range very low on the policy agendas of most countries.

The neglect of LTC needs is also reflected in the widespread lack of national, regional and global data on coverage and access to related benefits and services. As a result, the impacts of LTC deficits experienced by older persons cannot be evaluated and remain hidden. Further, in the absence of such information, policy makers cannot identify priority areas for political interventions and prepare for the growing LTC demand of older persons in ageing societies.

Against this background, this paper has developed for the first time global estimates on LTC protection of persons aged 65 and over. This study presents these estimates. It is following up on discussions held during the International Labour Conference in 2014 and the ILO Governing Body focusing on demographic change and the care economy.

The data reveal huge gaps in coverage and access to LTC benefits. In fact, globally in most countries no form of public support for LTC exists at all and only very few countries have decided to provide social protection for older people in need of LTC. The study highlights the need to:

- Guarantee LTC for older persons as an own right in social security for all.
- Develop solidarity in financing LTC for older persons.
- Increase the availability and affordability of public services and better balance public, community, private and family care.
- Ensure workers' rights for care givers, both formal and informal LTC workers.
- Improve the gender balance and ensure public support for family members providing care to older relatives including paid leave for care responsibilities.

The evidence made available through this study should contribute to addressing these challenges. Key policy options focus on extending national social protection floors with a view to achieving universal LTC coverage and generating millions of jobs on care services.

Isabel Ortiz
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Acknowledgements

This paper was made possible by substantial support received from a team of international and national experts, ministries and institutions in charge of LTC, UN agencies, planning agencies, academics, civil society and many others. The paper was edited by Xenia Scheil-Adlung based on important inputs from Monika Riedel and Markus Kraus, Institute for Advanced Studies, Vienna, Austria regarding methodological approaches and country specific information. Lorraine Wong contributed to the overall data development. We would like to express our thanks for their contributions and discussions hold throughout the development of the project. In addition, we are thankful to the secretariat of the SHARE Data Base that provided all support needed for the data development in the context of SHARE countries.

Further, many colleagues of the ILO Global Social Protection Team supported the development of the study including Thorsten Behrendt, Fabio Bertranou, Theo Butare, Luis Casanova, Pablo Casali, Maria-José Chamorro, Luis Frota, Kenichi Hirose, Aidi Hu, Markus Ruck, Valerie Schmitt, Fabio Duran Valverde and Sergio Velasco. In addition, Frank Hoffer, Christiane Wiskow and Dorothea Schmidt-Klau supported the study in the context of developing an ILO research agenda on the care economy with a specific focus on long-term care. The paper also benefited from deliberations of the editor of the publication series, the Director of the Social Protection Department, Isabel Ortiz. Karuna Pal, James Canonge, Victoria Giroud-Castiella contributed to the final editing and layout of the paper. We would like to thank all of them for their valuable contributions.

Our thanks are extended to those who were involved in the broad consultation process regarding data verification and quality control in the regions of Africa, Americas, Asia and the Pacific, and Europe. They included in:

- *Africa*: Ministry of Public Health, Algeria, Ministry of Labour, Employment and Social Affairs, Algeria, Cécile Perret, Université de Savoie-France, Algeria; Ministry of Health, Ghana, Ministry of Gender, Children and Social Affairs, Ghana, Emmanuel Owusu-Ansah, Ministry of Health, Policy, Planning, Monitoring and Evaluation Directorate, Ghana; Abraham Hodgson, Ghana Health Service, Research and Development Division; Chuks J. Mba, University of Ghana, Regional Institute for Population Studies; Federal Ministry of Health, Nigeria, National Health Insurance Scheme, Nigeria, Emem Omokaro, National Universities Commission, Nigeria; Ministry of Health South Africa, Nonhlanhla Mtimkulu, Ministry of Social Development, Social Work Advisory Services, South Africa; André Pelsler, University of the Free State, Bloemfontein, South Africa; Wade Goodrick, University of the Free State, Bloemfontein, South Africa.
- *The Americas*: Ministry of Health, Argentina, Ministry of Labour and Social Affairs, Jonatan Konfino, Ministry of Health, Department for the Promotion of Health and non-transmittable diseases, Argentina; Roberto E. Barca, Gerontological association of Argentina (AGA); Nelida Redondo, National Institute of Statistics and Census of Argentina; María Isolina Dabove, University of Buenos Aires; José Ricardo Jauregui, University of Buenos Aires; Carlos G. Musso, University of Buenos Aires; Benedito Adalberto Brunca, Ministry of Social Security, Brazil; Simplicia Sinibaldi, Sociedade Brasileira de Geriatria e Gerontologia, Brazil; Luiz E. Garcez-Leme, University of Sao Paulo; Kênia Lara Silva, University of Minas Gerais, Brazil; Sônia Maria Soares, University of Minas Gerais, Brazil; Ministry of Health, Chile, Ministry of Social Development, Chile, Ministry for social Development, National Service for older persons, SENAMA, National Service for the Elderly, David Bravo, University of Chile; Esteban Puentes, University of Chile; Pedro Paulo Marín, Pontifical Catholic

University of Chile; Jaime Perez, Ministry of Health and Social Protection, Colombia; Fernando Gomez, University of Caldas, Colombia; José Adán Ignacio, Secretariat of Labour and Social Security, Mexico; Mariana Lopez-Ortega, National Institute of Geriatrics, Mexico; Sergio Salvador Valdes Rojas, National Institute for the Elderly, Mexico; Joel Climaco Toledo, National Institute for the Elderly, Mexico; and Mauricio Hernández Ávila, National Institute for Public health, Mexico.

- *Asia and the Pacific:* Carolyn Smith, Australian Government, Department of Social Services, Ageing and Aged Care Sector Division; Caiwei Xiao, China National Committee on Ageing; National Health and Family Planning Commission, Yu Cheung Wong, The Chinese University of Hong Kong; Arun Kumar Panda, Ministry of Health and Family Welfare, Department of Health Research, India; Sunil Gulati, Ministry of Urban Development, India; Matthew Cherian, HelpAge India; Prakin Suchaxaya, SEARO/WHO; Paul Prabhakar Francis, WHO; Charan Singh, Indian Institute of Management Bangalore; Katsunori Hara, Ministry of Health, Labour and Welfare (MHLW), Health and Welfare Bureau for the Elderly, Japan; Mie Morikawa, National Institute of Public Health, Japan; Mutsumi Tokunaga, University of Tokyo; Nanako Tamiya, University of Tsukuba, Japan; Seoul Welfare Foundation, Chang Won Won, Kyung Hee University, South Korea; Nayoung Kim, Yonsei University, South Korea; Hyunsook Yoon, Hallym University, South Korea; Nantasak Thamanavat, Ministry of Public Health, Thailand; Siriwan Aruntippaitune, Ministry of Social Development and Human Security, Thailand; Thaworn Sakulpharit, Health Insurance System Research Office, Thailand; Vajiraya Buasri, National Council on Social Welfare of Thailand (NCSWT); Siriphan Sasat, Faculty of Nursing, Chulalongkorn University, Thailand;
- *Europe:* Regina Kraushaar, Ministry of Health, Germany, Martin Schölkopf, Ministry of Health, Germany, Jerzy Clechanski, Ministry of Labour and Social Policy, Poland, Joanna Maciejewska, Ministry of Labour and Social Policy, Poland, Staislawa Golinowska, CASE and Collegium Medicum UJ Krakow, Poland, Ministry of Labour and Social Protection, Russian Federation, Angel Bashkireva, Mechnikov Northwestern State Medical University, Russian Federation, Aylin Ciftci, Ministry of Family and Social Policy of Turkey, Turkey, Duygu Ahi, Ministry of Family and Social Policy of Turkey, Turkey, Gulden Okem, Department of International Entrepreneurship, TOBB University of Economic and Technology, Clare Talbot, Department for Work and Pensions, United Kingdom, Adelina Comas-Herrera, London School of Economics, United Kingdom.

Key messages

- This paper: (i) examines long-term care (LTC) protection in 46 developing and developed countries covering 80 per cent of the world's population; (ii) provides (data on LTC coverage for the population aged 65+; (iii) identifies access deficits for older persons due to the critical shortfall of formal LTC workers; (iv) presents the impacts of insufficient public funding, the reliance on unpaid informal LTC workers and high out-of-pocket payments (OOP); and (v) calls for recognizing LTC as a right, and mainstreaming LTC as a priority in national policy agendas given the benefits in terms of job creation and improved welfare of the population.
- Due to the demographic ageing of the world's population the number of older persons in need of long-term care (LTC) is expected to grow significantly in all countries. However, for the time being the very limited information available on LTC protection such as coverage, access to services and shares of public and private financing does not allow policy makers to take informed decisions addressing current and future deficits. Against this background, this paper has developed for the first time internationally comparable global, regional and national data that provide estimates on deficits in long-term care (LTC) protection for persons aged 65 and over.
- The study reveals that globally, the majority of countries do not provide any LTC protection. More than 48 per cent of the world's population is not covered by any national legislation. Another 46.3 per cent of the global population is largely excluded from coverage due to narrow means-testing regulations that force persons aged 65+ in need of LTC to become poor before they become eligible for LTC services. Only 5.6 per cent of the global population lives in countries that provide LTC coverage based on national legislation to the whole population. Most seriously concerned by the public neglect of LTC needs for older persons are women.
- Public underfunding and high OOP jeopardize access to LTC for the majority of the global population aged 65+:
 - Globally, the average public expenditure for LTC is less than 1 per cent of GDP:
 - In Africa, most countries spend 0 per cent of GDP on LTC – only in South Africa public expenditure of 0.2 per cent of GDP is observed.
 - In the Americas, expenditure varies between 1.2 (USA), 0.6 (Canada) and 0 per cent of GDP in countries of Latin America.
 - In Asia and the Pacific, highest amounts in per cent of GDP are spent on LTC in New Zealand (1.3) and lowest in Australia (0), while countries such as China, India and Indonesia spend around 0.1 per cent of GDP on LTC.
 - In Europe, average public expenditure between 2006 and 2010 was globally highest reaching more than 2 per cent in Denmark, the Netherland and Norway whereas lowest public expenditure occurred with 0 per cent in Turkey and the Slovak Republic.
 - In all countries, the majority of persons aged 65+ in need of LTC is challenged by high, often impoverishing out-of-pocket payments (OOP):
 - In South Africa, the share of OOP for home-based LTC amounts to 100 per cent of total expenditure given the absence of public home care services.

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- In Thailand, OOP is estimated between 80 and 100 per cent of total LTC expenditure.
 - In Argentina, 60-80 of total LTC expenditure are OOP and in Turkey, 100 per cent of total LTC expenditure is OOP.
- Critical shortages of LTC workers make quality services unavailable for large parts of the global population aged 65 and over:
 - Due to a global shortfall of 13.6 million formally employed LTC workers in 2015, major gaps in the availability of services for older persons are observed. Filling these gaps would create employment – particularly for women and in rural areas where gaps are most severe – and provide access to urgently needed services:
 - Most severe shortages are found in Asia and the Pacific where 8.2 million LTC workers are missing.
 - In Europe, 2.3 million formal LTC workers are needed.
 - In the Americas, 1.6 million LTC workers are required.
 - In Africa, to 1.5 million LTC workers are needed.
 - In all regions, the absence of formal LTC workers results in the exclusion of large parts of the older population from quality services:
 - In Africa, more than 92 per cent of the older population is excluded.
 - In Asia and the Pacific, 65 per cent of the population aged 65+ remains without formal services.
 - In the Americas, some 15 per cent of the older population does not receive quality services.
 - In Europe, about 30 per cent of the older population is concerned. However, national figures vary significantly, e.g. in Portugal more than 90 per cent of the population is excluded while the related percentage in Estonia is 0 per cent.
 - The number of *informal LTC workers* – often unpaid female family members – is by far exceeding that of the formal LTC workers who provide the bulk of LTC. Per 100 persons aged 65+ the following numbers of informal and formal LTC workers are observed in selected countries:
 - In the USA, 123 informal LTC workers (head count/HC) exist compared to 6.4 formal LTC workers (full time/FTE).
 - In Australia, as much as 83.8 informal LTC workers (HC) support 4.4 formal LTC workers (FTE).
 - In Norway, 87.2 informal LTC workers (HC) back up 17.1 formal LTC workers (FTE).

-
- Based on the evidence provided, the study finds that the disregard of LTC needs points to age and gender discrimination:
 - Age discrimination with a systemic nature is expressed in:
 - The ignorance of (human) rights to social security and health of older persons in need of LTC.
 - Wide gaps of social protection coverage in LTC, LTC infrastructure, funding and the formal LTC workforce.
 - Unequal treatment of older persons in need of LTC compared to younger persons with similar needs such as health care.
 - The irrational fear that LTC will incur extremely high public expenditure despite the fact that only a small group of older persons is concerned and current expenditure is globally extremely low.
 - Gender discrimination identified in the context of LTC relates to societal expectations and patriarchal family structures. They require from female family members to be available for “family work” while ignoring their own needs in terms of income, social protection and career. As a result, the bulk of LTC services are delivered by female family members – which are in some countries even forced by law to do so – without receiving any income compensation or a minimum of social protection coverage. Thus, informal care giving has the potential to aggravate existing gender gaps.
 - The observed discrimination in LTC is rarely resulting in public or societal criticism and frequently ageism is not even considered as a serious concern. However, the study shows that it has the same social and economic impacts than other forms of discrimination such as impoverishment, exclusion and sometimes even abuse and violence in LTC environments. Further, preventive care is hardly being provided as the potentials of capacity improvements of older persons are often neglected and positive developments that can be achieved by providing adequate quality LTC services are underreported in public debates.
 - The study suggests addressing the above issues and creating age inclusive societies by three milestones towards resilient LTC protection for all. They focus on:
 - recognizing LTC as a right in its own, guaranteeing universal LTC protection and providing access to quality services and cash benefits estimated at 1,461.8 PPP\$ per person aged 65+ and year;
 - addressing the workforce shortages by employing at least 4.2 formal LTC workers per 100 persons aged 65 or over in jobs providing decent working conditions;
 - making LTC a top priority on the policy agenda of all countries and empowering older persons in need of LTC.

List of abbreviations and acronyms

AAAQ	Availability, accessibility, acceptability and quality (criteria)
ADB	Asian Development Bank
ADL	Activities of daily living like bathing, eating etc.
BRIICS	Brazil, Russian Federation, India, Indonesia, China, South Africa
DHS	Demographic and Health Surveys
EU	European Union
EHCP	Essential health care package
FD	Financial deficit
GDP	Gross Domestic Product
HC	Head count (of numbers of LTC workers)
HIC	High-income country
FTE	Full-time equivalent (of numbers of LTC workers)
GFATM	Global Fund to Fight AIDS
GHWA	Global Health Workforce Alliance
GHO	The WHO Global Health Observatory database
HDI	Human Development Index
HPI	Human Poverty Index
HRH	Human Resource for Health
ILO	International labour Organization/Office
IMF	International Monetary Fund
ISSA	International Social Security Association
ISSR	International Social Security Review
LC	Legal coverage
LTC	Long-term care
MDG	Millennium Development Goals
MMR	Maternal mortality ratio
MOH	Ministry of Health
NGO	Non-governmental organization
NHA	National health accounts
OECD	Organisation for Economic Co-operation and Development
OOP	Out-of-pocket payments

PPP	Purchasing power parity
R202	ILO Recommendation concerning national floors of social protection (2012)
SAD	Staff Access Deficit
SDGs	Sustainable Development Goals
SPFs	Social Protection Floors
UHC	Universal Health Coverage
UDHR	Universal Declaration of Human Rights, 1948
UN	United Nations
WB	World Bank
WHO	World Health Organization
WSPR	World Social Protection Report

1. Neglect of older persons' needs in times of global ageing

Globally, many politicians neglect LTC needs of older persons and assign a very low priority to public support provided through social protection – despite the dramatic ageing of the world's population (PNUD et al., 2014) and the growing number of older persons with physical or mental incapacities in need of LTC. However, currently, very few countries provide such protection or are planning related reforms to offer public support for LTC. Also in the recent discussions around the post 2015 agenda and the Sustainable Development Goals (SDGs), LTC has not been considered as an issue to be addressed with high priority.

One of the reasons the need for LTC is disregarded relates to the perceived availability of “free” care provided primarily by female family members. Stereotypes that female family members can and should take over the full burden of providing LTC are widespread and exist in countries of all regions, developed and developing. However, these viewpoints ignore that LTC requires by far more than compassion for relatives:

- LTC requires professional and skilled workers to provide quality services, as well as coverage of the related expenditure.
- It also requires funds that empower and enable persons in need of LTC, for example to develop enabling living environments.
- Family care involves significant costs due to foregone income of caregivers and associated risks of impoverishment due to a lack of social protection during times of care, for example in case of sickness, accident or old age.

Politicians should also be aware that the number of potential family care givers will shrink due to demographic ageing, growing female labour market participation and the impact of reversing early retirement policies. Thus, while the role of families in providing informal care will remain important, such approaches are not sufficient in the context of demographic ageing and might involve in the longer term higher costs in the form of lost income and productivity than if comprehensive public support was provided through social protection schemes and systems.

The neglect of making public LTC solutions available can also be interpreted in the context of discrimination and negative attitudes towards older persons: Ageism is a global phenomenon that is sometimes even laid down in regulations and legislation, for example higher costs or unfavourable conditions of certain insurance policies for older persons or being refused for specific medical services due to age (Naish, 2012).

Negative myths about older persons can even be found in text books for health and LTC workers that often ignore the potential of health and functional capacity improvements of older persons and under-report positive developments that can be achieved by providing adequate quality LTC services including prevention for older persons.

The situation is aggravated by the fact, that the training and skills development of formal LTC workers is often at very low levels compared to e.g. health workers (Colombo et al., 2011). Thereby the dependency and functional incapacities of older persons are likely to increase and a self-fulfilling prophecy occurs. In the worst cases, ageism results in abuse and violence against older persons in need of LTC, both in institutions and when receiving home-based care. Reasons often relate to a lack of adequate training and skills and result from perceived excessive demands (OHCHR, 2014). It is estimated that in

Europe alone at least 4 million older persons experience such abuses every year (WHO Euro, 2011).

Finally, in many countries a cultural aversion to LTC exists, as it is understood as institutional care only while ignoring other forms of care, such as home-based services. In these countries, it is regarded as dishonorable if family members do not take care of older relatives. In Algeria, for example, a study among 115 people (the majority younger than 35 years) revealed that none of the respondents supported the idea of sending their parents to a care institution (Paranque & Perret, 2013).

1.1. Current LTC approaches: Frequently unsystematic and inadequate

LTC refers to support that is needed by older persons with limited ability to care for themselves due to physical or mental conditions, including chronic diseases and multi-morbidity. The needed support, depending on the degree of limitation, can be provided at home, in the community or in institutions and includes for example assistance with daily living activities such as dressing, medication management but also basic health services. Such services are usually provided by formal or informal workers, paid or unpaid. Formal workers might be skilled health or social workers that are employed, for example in nursing homes. Informal care workers include unpaid family workers and paid caregivers who are undeclared to social security authorities and work outside formal employment regulations.

A comprehensive policy framework to provide LTC relates to ILO Recommendation No. 202 on national social protection floors (R. 202). It aims at providing guarantees by governments that ensure all in need can access essential health care and basic income security which together secure effective access to goods and services defined as necessary. Such services should meet at least some key criteria such as availability, accessibility, acceptability and quality of services and basic income security for older persons. The basic social security guarantees should be established by law specifying the range, qualifying conditions and level of benefits. Persons in need should not face hardship or increased risk of poverty due to the financial consequences of accessing essential health care.

However, only a small number of countries have decided to develop specific LTC schemes and systems within a comprehensive social protection policy framework. These are countries that use (Table 1):

- social LTC insurances, for example Germany, Japan and Korea;
- a variety of schemes and systems including health systems, general social care and/or social assistance systems and/or old age pension schemes to provide LTC services (France, UK).

Table 1. Overview of common organizational and financial approaches providing for LTC

Organizational Characteristic	Financing	Financing mechanism	Country examples
Specific LTC Scheme or system	Contribution-based (social insurance)	– Risk-pooling through social insurance – Co-payments required	Germany Japan Korea
Social assistance	Tax-funded	– Taxes – Co-payments required	Sweden
Mix of schemes and systems (Health and social assistance schemes)	Tax-funded Contribution-based (social insurance)	– Mixed (Taxes and social insurance) – Co-payments required	UK France South Africa

Source: Scheil-Adlung, 2013.

Whatever the organizational or financial arrangements chosen by the few countries that provide any public support for LTC, in no case are essential LTC services provided without co-payments. These co-payments occur due to limited benefit packages that often do not cover expenditure of essential care to the extent necessary – both in institutions and/or at home – and investments in creating enabling living conditions at home.

The majority of countries are using a mix of social assistance and health care schemes and systems to provide LTC. Unfortunately, given the frequent lack of coordination and mismatch between the schemes and systems in terms of LTC, they often fail to adequately cover LTC needs:

- As health and social systems are designed for purposes and objectives other than LTC, institutional structures and different professional approaches have the potential to impact negatively on coverage and access to services. Fragmentation and disintegration of LTC services might result in a lack of attention to LTC needs and lead for example to the medicalization of social or daily life needs, unnecessary hospitalization, inappropriate support in case of multi-morbidity or non-assistance if basic medical care is needed and as a result in inefficiencies and waste of scarce resources. Addressing these issues requires among others shifting to a model that provides coordinated services across different care settings on a continuing basis.
- Also, cash benefits, e.g. designed to provide basic income support in social assistance schemes, are often insufficient to cover LTC expenditures, such as costs of informal workers or developing an enabling living environment.

In addition, older persons in need of LTC are frequently not able to navigate highly complex health and social schemes and systems and will thus, often forgo possible services or cash benefits. As a result, high private expenditure occurs.

Further, the unsystematic and fragmented approaches for public LTC support raise significant equity concerns:

- The use of uncoordinated financing mechanisms involving different shares of public and private expenditure such as taxes, insurance based financing and OOP result in access inequities and barriers due to more or less progressive impacts on income, particularly as regards private expenditure
- Unbalanced resource allocation to specific services – for example to health services as compared to social services – or cash benefits result in access inequities for persons with different needs.

-
- Variations in eligibility rules of different schemes and systems, such as the use of both needs- and means-tests result in inequities in access of persons with same needs.
 - Varying availability of informal LTC workers as compared to formal LTC workers, and the related public/private costs involved also result in access inequities.
 - In many countries, however, no LTC services through social protection are made available at national level. Such services might exist only in some communities or areas. Often these services remain “piecemeal” as they cannot expand due to various reasons, including lack of infrastructure, lack of LTC workers or insufficient public funding.

1.2. Lack of data on critical issues

Globally, the discussion of public support for LTC for older persons is not visible and at regional or country level it is often a non-issue. Further, there is frequently no clear policy vision on how to address critical issues. While there are many explanations for the lack of reform agendas to address LTC needs, such as the low representation of voice of older persons at policy level, a key reason relates to the lack of awareness due to the absence of comprehensive data on LTC. Particularly, the impacts of demographic ageing on LTC have hardly been identified. Currently there is no consistent data collection on LTC at the global and regional level and there is often a gap at national level. In the absence of such data informed decision-making is hardly possible and issues regarding LTC remain unclear and even confusing.

Among the limited number of studies providing data, quantitative and qualitative analyses of the policy challenges caused by LTC needs in low- and middle-income countries are much harder to find than for high-income countries. Findings from the WHO case studies compiled in 2003 (Brodsky et al., 2003; Howse, 2007) explain this with the fact that in low and middle-income countries, two additional looming social protection issues overshadow LTC challenges:

- inadequate old age pension coverage;
- lack of coverage and access to adequate health protection.

More than a decade later, there is still a severe shortage of evidence on LTC in low and middle-income countries. A systematic review in 2014 still found an extreme bias towards more developed regions (Lloyd-Sherlock, 2014). According to this review, 95.5 per cent of relevant publications dealt with more developed regions, while these regions represented only 37.5 per cent of people aged 65+ years worldwide in 2010. The review found that Africa, Latin America and the Caribbean, and India stand out as particularly under-represented and account for only 0.7 per cent of relevant PubMed listings, while 27.6 per cent of the relevant population is living there. Thus, the extreme bias towards high-income countries and a gap in research on LTC in low and middle-income countries still persists. The continued imbalance in data and research availability reflects and contributes to ongoing neglect by policymakers.

Lack of data and research on low and middle-income countries impedes the design of effective and efficient support mechanism and ultimately tends to reinforce existing inequities with regard to care. Generating this knowledge is even more important as developing countries are facing the challenges of an ageing society at far lower income levels than high-income countries and are also ageing at far higher speed than high-income countries (Lum, 2012).

However, even for well-developed countries as represented in the OECD, data availability for the indicators is still rather patchy, especially regarding more detailed indicators and their aggregation. Against this background, more and better data that highlight gaps and impacts are needed to help policy makers address the needs of those concerned and develop urgently needed reform agendas. Priority areas of data development thus include:

- **Coverage gaps in national legislation** and regulations establishing rights towards universal coverage of LTC services: Data should cover shortcomings observed at global, regional and national level in all regions.
- **Availability of adequate quality services** and benefits provided by formal and informal LTC workers to meet the needs of care users and caregivers: The gaps in data on the availability of needed LTC workers towards achieving universal LTC coverage often result in service delivery issues of formally trained and employed staff and unawareness of the numbers of family members or other LTC workers that are providing care in informal contexts. Data collection should also cover issues related to migrant care workers and the fact that care users are leaving their countries to receive urgently needed care elsewhere.

Additionally and most relevant is the need for data on infrastructure that is often complete absent, for example regarding institutions, enabling living environments and communities of older persons. Data will allow addressing frequent issues, such as long waiting periods, in some cases even years, before receiving the needed services. Further, data should be disaggregated to capture for example the situation of single persons; persons in need of transportation or specific housing arrangements.

- **Affordability of LTC services**, particularly financial protection from often impoverishing out-of-pocket payments (OOP): In the absence of data on the affordability of LTC services, inequities in access and impoverishment due to LTC remain hidden as OOP is only affordable for the more affluent. This is the most inequitable and regressive form of financing as it disproportionately burdens lower income groups and acts as a barrier to access needed services.

Data on affordability of services should also cover public support for informal workers such as family members who cannot (fully) participate in the labour market due to the care work they provide. Thus, the resulting loss of income and loss of social protection, such as health and old age protection need to be considered.

- More and better data on **LTC financing** are urgently needed. Information should be made available that allows assessing the extent of risk pooling. Risk pooling in LTC has been neglected in the majority of countries and related public funds have been reduced by budget cuts over recent years (ILO, 2014). Information is also needed on the source of financing, for example proven social protection financing mechanisms outlined in R202 such as those based on taxes or contributions are the backbone of fair financing, sustainability and effective access to LTC. Such mechanisms also allow improving efficiency and effectiveness of LTC schemes and systems, particularly if complemented by monitoring of income and expenditure with a view to achieve equitable access to LTC.

The development of related data will highlight the most important aspects and dimensions of LTC including the access of older persons to needed services and cash benefits in any country. Thus, it will allow countries developing a comprehensive vision for the future of ageing societies and their LTC needs. It will also allow for efficient and effective national planning in the context of global ageing and will facilitate the establishment of legislation and reforms of legal norms that lag behind developments and

better coordination of schemes and systems that provide currently fragmented services and benefits. Finally, such data permit to reduce unexpected fiscal pressures due to ageing societies and has the potential to proactively address impoverishment due to LTC needs in ageing societies.

Against this background, this study aims at developing evidence and identifying global, regional and national LTC deficits for older persons towards achieving universal coverage. Further, it suggests policy options based on a contemporary approach to achieve universal coverage of LTC in the context of national social protection floors. Finally, the study highlights essential components and key barriers to coverage and access to LTC, particularly regarding rights and affordability, availability and financial protection of needed services. However, given the large absence of data and the complexity of the various schemes and systems involved in the provision of LTC services, the assessment provided should be considered as a rough first estimate sketching the current situation rather than painting a complete picture.

2. Identifying and assessing LTC deficits in developing and developed countries: Methodological approaches

2.1. Assessment of LTC in the context of national social protection floors

For this study we define LTC as a range of services, assistance, cash benefits and in kind benefits such as social protection for informal carers required by persons aged 65+ with reduced functional capacities, both physical and/or cognitive.

Services consist of home-based care and institutional care including essential health services and domestic help. They are provided by formal and informal LTC workers. Formal LTC workers include for example salaried nurses and domestic workers and informal workers include unpaid care givers such as family members and paid workers without formal contracts. Informal care workers are often not covered or undeclared under social protection legislation and thus require benefits to compensate or replace income and social protection coverage e.g. in health and old age schemes and systems. Benefits also include cash payments. They might be provided to address specific needs such as transportation or delivery of meals.

LTC is part of social protection as defined by the ILO and anchored in various international standards. Although the risk of LTC services is not explicitly mentioned in the most recent international legal standard (R202) it can be understood as being part of other areas mentioned, specifically health, and to some degree housing and income security. Further, the intention of the social protection floor approach is to be comprehensive and covering individuals throughout their life-cycle.

The social protection floor approach consists of an integrated set of social protection policies designed to guarantee income security and access to essential social services for all, paying particular attention to vulnerable groups and protecting and empowering people of all ages. It includes guarantees of basic income security and universal access to essential affordable social services defined according to national priorities. The social protection floor approach contributes to a two-dimensional strategy for the extension of social security, comprising a basic set of social guarantees for all (horizontal dimension), and the gradual implementation of higher standards (vertical dimension), as countries develop fiscal and policy space.

National social protection floors differ significantly from a safety-net approach. The implementation of safety-net measures was often driven by the need to provide relief to the poor and vulnerable during structural reform, thus being temporary in nature and targeted to the poor and vulnerable. However, national social protection floors are based on rights guaranteeing that over the life-cycle all in need have access to essential goods, services and basic income.

Against this background, we assess LTC coverage in the context of R202. Accordingly, coverage should be understood as a multidimensional concept that results in access to needed services for all (ILO, 2014; WHO, 2013 with focus on health services, Colombo et al., 2011 with focus on LTC). The concept refers to a set of key principles including rights-based approaches, availability of services, accessibility, acceptability and quality. When translating these principles into measureable indicators assessing social protection of LTC we focus on.

- **Legal (population) coverage**

This denotes the population dimension (i.e. how many people are covered). It can be defined as the percentage of persons covered by legislation within the total population or a specific target group. In the following we will specify this dimension as legal coverage and refer to national legislation.

- **Access to LTC evaluated through:**

- **Affordability and financial protection:** This signifies the service/benefit dimension (i.e. which services and other benefits are financially protected and affordable?). It refers to the scope of services, in kind or cash benefits to which the protected person has access. It includes costs involved in taking up benefits, specifically co-payments or other OOP that might result in access barriers. The proxy indicator to assess the dimension of affordability and financial protection will be OOP as a percentage of total LTC expenditure and as a share of household income.
- **Availability of LTC services:** Access to needed services might be hindered by gaps in service delivery, for example through deficits in the availability of a sufficient number of LTC workers or gaps in infrastructure such as institutions or day-care facilities.
- **Financial deficit:** This denotes the gap between public per capita LTC expenditure and that needed to ensure access to quality care.

These dimensions are similar to those used in the area of health protection (ILO, 2014). However, there are clear conceptual differences between health and LTC services. First, in the area of health care, it is generally accepted that the vast majority of required services ought to be performed by health professionals, while in LTC, it seems to be generally accepted that the vast majority of services are performed by family members or other informal carers (European Commission, 2007). Second, risks for LTC are far more concentrated in old age, but even among the older population do not affect everybody. In health care, on the other hand, use of and need for services also grow with increasing age, but there is a rather high likelihood for use of at least a small amount of services across all ages. Third, while everybody uses some health services sooner or later in life (and in large parts of the world already at birth), even among the older population there is a large variety in the use of LTC services, with many individuals never developing a need for LTC, and a high degree of service needs among others.

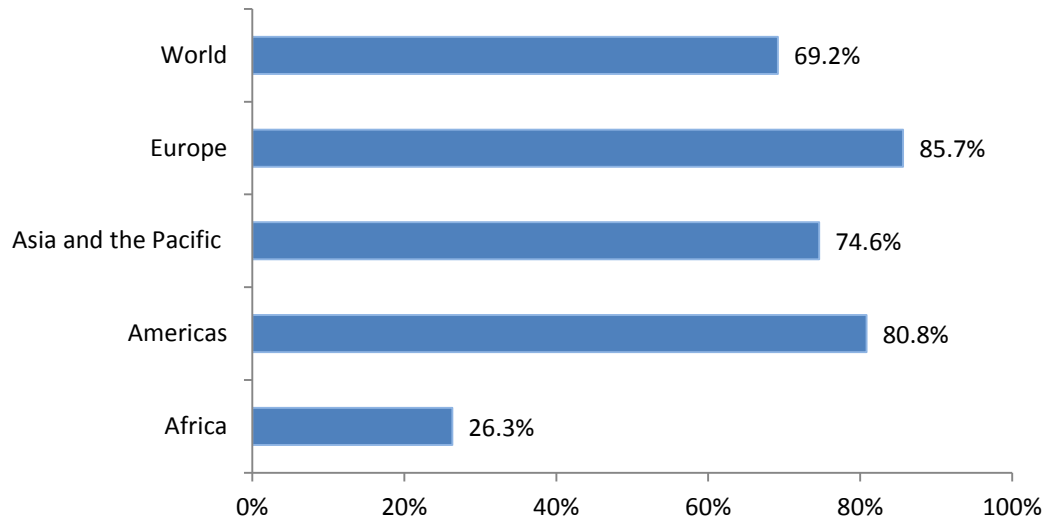
2.2. Country selection covering more than 80 per cent of the world's population aged 65 and over

For this study we have selected a group of 46 representative countries from all region of the world in order to assess global gaps and deficits in LTC for persons aged 65+.

The aim was to cover both developed and developing countries with high population density at different income levels (in terms of per capita GDP) which are representative for each region. Thus, the analyses include a mixed group of countries with different income-levels in Africa, Asia/Asia Pacific, Western/Eastern Europe and America and the Caribbean. However, the country group does not include low income countries, as we could not identify any information on LTC from these countries.

Globally, the countries assessed in this study represent about 70 per cent of the world’s population in 2015: More than 80 per cent of the population in the Americas (about 81 per cent), some 75 per cent in Asia and the Pacific and 86 per cent of the population in Europe. The coverage in Africa is the lowest with about 26 per cent of the population (Figure 1).

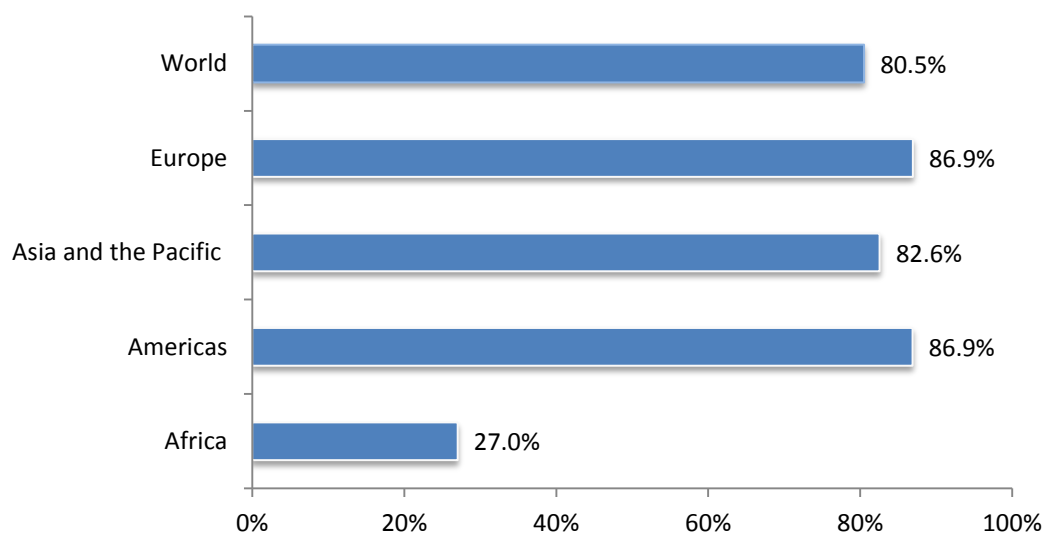
Figure 1. Representativeness of countries selected (in percentage of the global and regional populations)



Source: ILO estimates, 2015; World Bank, 2015 (population data in 2013).

When assessing the population group most in need of LTC – persons aged 65 and over – the representativeness of the study amounts to about 81 per cent of the world’s population that is 65 years and over. The selected group of countries represent up to 87 per cent of the regional populations aged 65 years and over (Figure 2).

Figure 2. Representativeness of the global population aged 65+ in the countries selected (in percentage of population 65 years and over, total and regional)



Source: ILO estimates, 2015; World Bank, 2015 (population data in 2013).

A complete list of the countries selected is available in Annex II.

2.3. Data development and assessment

The data development for this paper consisted of three steps. First, existing international data bases and relevant reports by international organizations like OECD, WHO, World Bank, and ILO were cross-checked for comparable information on relevant aspects. The databases used are listed in Annex II. In addition, well known data bases such as the SHARE data base¹ were also used. Second, for each selected country, we conducted a literature search using a fixed set of search terms to identify legislation, LTC policies and provision of services and cash benefits. Third, after synthesizing the collected material, we contacted national experts, academics, authors, government representatives and policy makers from the selected countries for a quality control of the collected material.

However, country specific information on legal coverage and access to services related to affordability, availability and financial protection data were not always available. Further, statistics and definitions of formal and informal LTC workers used might not be fully comparable across countries.

For the core group of countries we have complete national data sets, while for a broader group only selected data is available. Against this background, new methodologies had to be developed in order to assess gaps in deficits in access to LTC:

- The *legal coverage deficit* of the population has been estimated based on analyses of national legislation. The indicator used to measure the legal coverage deficit is the share of the population (either percentage of total population or population aged 65+) without coverage in national legislation.
- The evaluation of *deficits in affordability* of LTC is based on OOP indicating the amount of private expenditure directly paid to LTC providers. It is calculated as follows:

$$\begin{aligned} & \text{The weighted average \% of household income spent on } OOP_{\text{long term care}} \\ = & \frac{\text{weighted \% of household income spent on } OOP_{\text{long term care}}}{\text{Total number of persons who spent OOP on long term care}_{\text{home care+institutional care}}} \end{aligned}$$

¹ This paper uses data from SHARE wave 4 release 1.1.1, as of March 28th 2013 (DOI: 10.6103/SHARE.w4.111). The SHARE data collection has been primarily funded by the European Commission through the 5th Framework Programme (project QLK6-CT-2001-00360 in the thematic programme Quality of Life), through the 6th Framework Programme (projects SHARE-I3, RII-CT-2006-062193, COMPARE, CIT5- CT-2005-028857, and SHARELIFE, CIT4-CT-2006-028812) and through the 7th Framework Programme (SHARE-PREP, N° 211909, SHARE-LEAP, No. 227822 and SHARE M4, 261982). Additional funding from the U.S. National Institute on Aging (U01 AG09740-13S2, P01 AG005842, P01 AG08291, P30 AG12815, R21 AG025169, Y1-AG-4553-01, IAG BSR06-11 and OGHA 04-064) and the German Ministry of Education and Research as well as from various national sources is gratefully acknowledged (see www.share-project.org for a full list of funding institutions). The authors would like to thank the SHARE team (email: info@share-project.org) for their support.

- The assessment of the *financial deficit* uses the deficit between public LTC expenditure (excluding OOP) and a threshold deriving from the population weighted median expenditure in a group of 34 countries in the Americas, Asia and Pacific and Europe. These countries spend between 0 and about 2 per cent of GDP on average per year on public LTC expenditure. Given their socio-economic status, e.g. in terms of poverty rate and income level, they are considered to be in a position to provide universal access to at least essential LTC benefits. The threshold amounts in 2015 to 1,461.8 PPP\$ per person aged 65+ and is calculated as follows:

$$\text{Financial Deficit} = \frac{(\text{Threshold} - \text{value country } x)}{\text{Threshold}} \times 100$$

- In order to identify the gaps in availability of LTC we use as a proxy the density of formal LTC workers necessary for service delivery in institutional and home settings. The coverage gap indicates the proportion of the population without access to LTC due to the absence of sufficient numbers of formal LTC workers.

When estimating the number of existing LTC workers and the extent of the shortfall, it is necessary to take into account that many of the care workers do not work full time but part time. Thus, rather than a “head count” (HC) of absolute numbers, the estimations of available LTC workers are based on the “full time equivalent” (FTE) employees.

The estimate of the shortfall in numbers of LTC workers is based on a relative threshold of 4.2 formal LTC workers per 100 persons aged 65+ in 2015. This threshold derives from the population-weighted median value of formal LTC workers (FTE) per 100 persons that are 65 or older in a group of 18 selected countries in the Americas, Asia and the Pacific and Europe. These countries provide LTC in a variety of schemes and systems using different financing mechanisms and benefit packages and are considered to provide an acceptable minimum of LTC services. Given the broad range of staff ratios across the world – from 0 workers in the majority of countries to a maximum of 17.1 LTC workers (FTE/Norway) the threshold used represents the lower end of the range observed and thus tends to underestimate the needs. We use the relative difference between the density of LTC workers per 100 persons aged 65+ as a proxy. The threshold is calculated as follows:

$$\text{LTC Staff Access Deficit} = \frac{(\text{Threshold} - \text{value country } x)}{\text{Threshold}} \times 100$$

Given the scarce data available on LTC workers; we base our estimations on the following assumptions: For countries where data are not available in Africa, the number of formal LTC workers (FTE) is estimated at 0.4 workers per 100 persons aged 65+. This is based on the value in South Africa which is likely to overestimate other countries values. The related value for the Americas is estimated at 1.69 workers per 100 persons aged 65+ based on the population weighted average of the values in Argentina, Brazil, Canada, Chile, Colombia, Mexico and the United States. For Asia and the Pacific we estimate for countries with data gaps 2.34 LTC workers per 100 persons aged 65+ which derives from the population weighted average of the values in Australia, China, India, Japan, Korea, New Zealand and Thailand. In Europe the related figure amounts to 2.9 workers per 100 persons aged 65+ based on a population weighted median value of 26 European countries at high and upper-middle income level. For a few countries for which formal and/or informal headcount data were available only, best estimations had to be developed to arrive at FTE figures using population weighted ratios of FTE/HC and formal (FTE)/informal LTC workers given the statistical significance in predicting FTE as indicated in Annex II.

Also, we assume that informal workers are mostly family members, but are aware that some of them might be trained and not declared as formally employed. Migrants with

recognized training may keep their licenses open in the home country, in order to facilitate their return home one day. Such people may be included in official statistics of the home-country, even though these workers are not available back home. In the destination countries, not all migrants provide care work in the formal sector of the economy, and therefore will not be counted in national statistics.

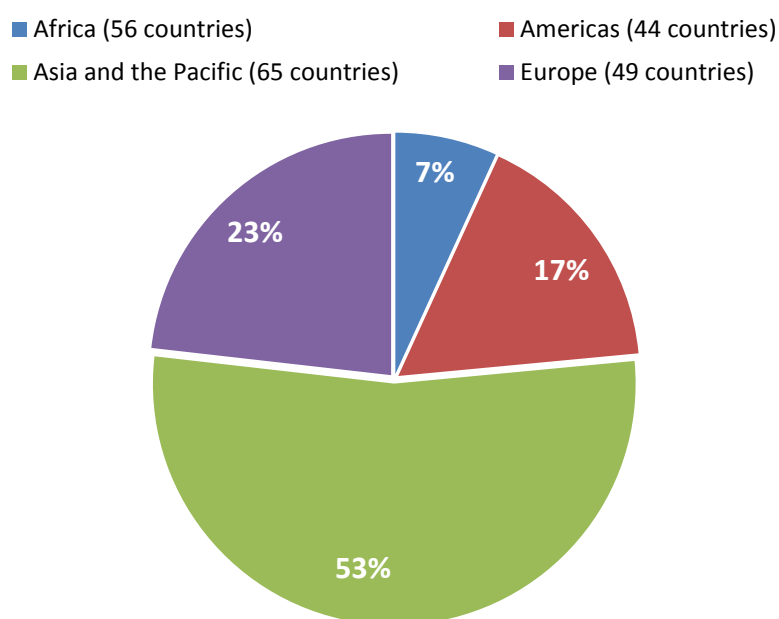
With these limitations, we are estimating the number of LTC workers available in the countries observed.

When assessing LTC needs we consider that these needs most often arise in the course of frailty usually related to old age or very old age. Across high-income countries, the onset of old age is mostly defined at age 65. These considerations, however, apply to a more general concept of social security. With regard to the need for LTC services, observed patterns of need and service use suggest that the relevant age group is older and therefore, in reality, smaller. For instance, the prevalence of dementia doubles with every five-year increase after the age of 65, starting from a prevalence of about 1.5 per cent in the age group 65-69. This is highly relevant because dementia is one of the major causes of disability in later life (Prince & Jackson, 2009). Against this background, this report uses the age bracket of 65+ for any assessment.

3. Assessment of global coverage and access deficits in LTC for older persons

Today, we find that a majority of the global population aged 65 and older lives in the Asia-Pacific region (53 per cent or 300 million persons). Elsewhere, 23 per cent (131 million people) live in Europe and 17 per cent (94 million older persons) in the Americas. The lowest proportion and number of persons aged 65+ live in Africa amounting to just 7 per cent or 39 million persons (Figure 3).

Figure 3. Global population aged 65+ (in per cent of world population aged 65+) by region, 2011



Source: World Bank, 2015 (population data from 2013).

LTC recipients are particularly found within this group of persons aged 65 and older. Their coverage and access to LTC depends on a variety of conditions, including the existence of inclusive national legislation to ensure universal coverage as a prerequisite for equity in access to LTC. Furthermore, such legislation should provide for entitlements to adequate benefits for all in need – be they services, cash or other forms of benefits – that are financed with a view to burden-sharing and avoiding financial hardship. Finally, quality services and cash benefits must be available when needed and not be constrained due to underfunding or the absence of professional long-term care workers. Thus, it is important that national legislation or legal LTC coverage results in affordability, availability and sufficient funding of quality services and other benefits for those in need of LTC. The following section assesses these criteria at global, regional and national levels.

3.1. Legal coverage gaps: Globally, universal LTC coverage of older persons is the exception, exclusion is the rule

To provide equitable access to LTC services through social protection for all in need, the whole population should be covered by national legislation according to international standards such as R202. This can be achieved through mandatory coverage in social LTC

insurances or universal tax funded systems such as national LTC systems or cash benefits delivered through social assistance providing rights to access to needed LTC.

Against this background, legal coverage is defined as the percentage of the total population in a country that is protected by *national* legislation providing entitlements to access a LTC scheme or system. Thus, coverage of small pockets of the population at the discretion of communities or district governments or coverage by private LTC insurance schemes found in some countries are not taken into account in the following. This is also due to the scarce data on coverage rates available for such arrangements and the fact that they usually provide relatively low levels of coverage.

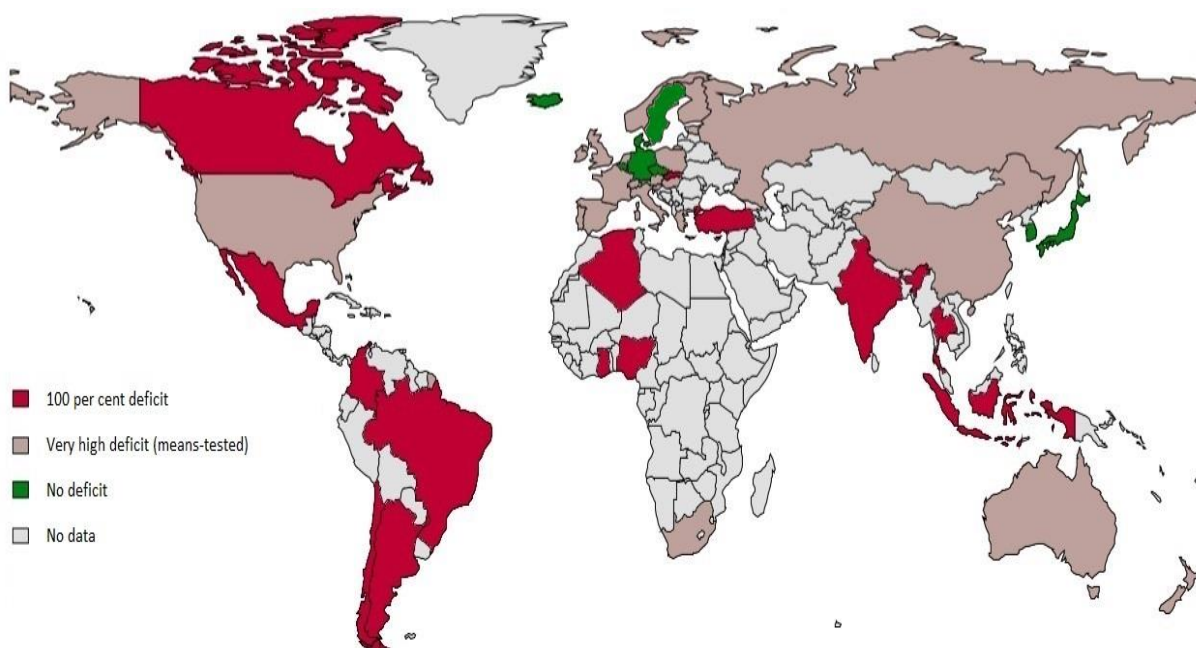
3.1.1. In most countries persons aged 65 and over have no rights to LTC

Unfortunately, quantitative information on LTC coverage is very scarce; this is mostly due to the fact that very few countries consider it a public need to provide LTC at all and have developed related legislation. The most complete and reliable data are available from countries with separate universal coverage schemes or systems such as Germany or Japan: In these countries the total population – 100 per cent – is covered.

In other countries, such as South Africa, there are regulations establishing a right to social assistance which cover some LTC provisions based on means-testing. In these countries only persons that fall under certain income and wealth thresholds enjoy legal coverage for LTC. Thus, older people with income or wealth above the thresholds have to first use up their savings and assets – sometimes even support of their relatives is taken into account – before being entitled to services. Thus, they are forced to become “poor” before they become eligible for LTC. Such legislation results in the fact that the majority of the population is deprived of their right to LTC as they do not fall under these conditions.

Figure 4 shows the current situation regarding deficits in legal LTC coverage towards universal coverage of the total population based on national legislation.

Figure 4. Deficits in legal LTC coverage towards universal coverage based on national legislation, 2015 (total population, percentages)



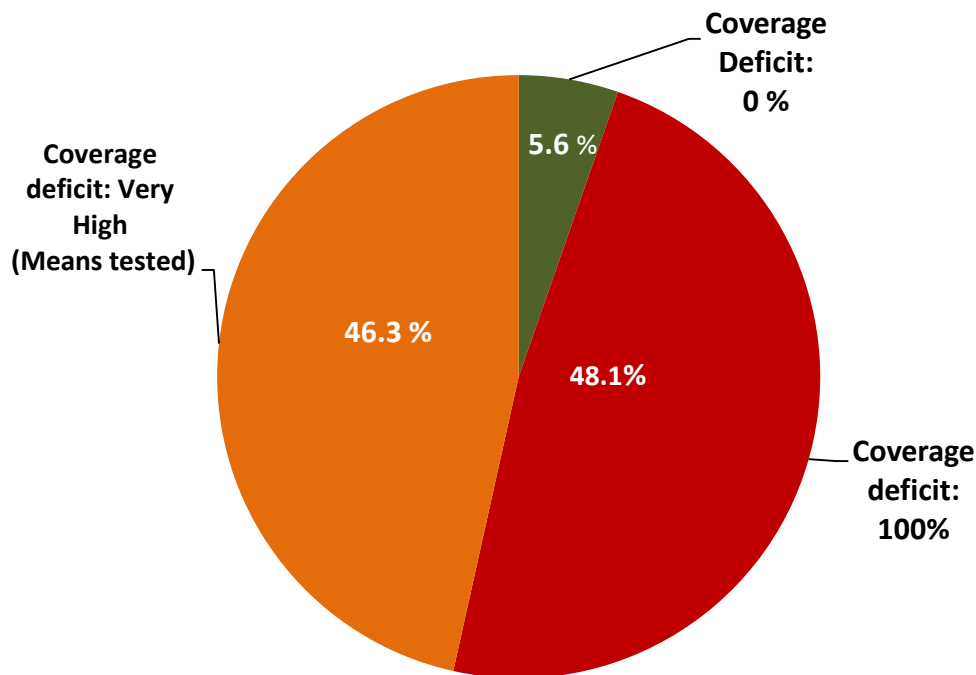
Source: ILO estimates 2015, World Bank, 2015 (population data in 2013).

We observe that:

- In many countries of all regions and at all income levels, 100 per cent of the population is lacking legal coverage for LTC. These countries include in:
 - Africa: Algeria, Ghana and Nigeria;
 - The Americas: Argentina, Brazil, Canada, Chile, Colombia and Mexico;
 - Asia and the Pacific: India, Indonesia and Thailand;
 - Europe: Slovakia and Turkey.
- The regions with the lowest coverage rates are Africa and Latin America. In Latin America no country has established national legislation to provide LTC coverage.
- Legal entitlements to LTC services are mainly present in high-income countries, while governments in most low and middle-income countries have not established legal entitlements to public LTC services.
- Very few high-income countries provide universal legal coverage. In Europe these are for example Belgium, Czech Republic, Denmark, Germany, Iceland, Luxemburg and Sweden and in Asia countries such as Japan and South Korea.
- While there is globally an extreme bias in the provision of legal LTC entitlements towards high-income countries, by far not all high-income countries provide legal coverage for LTC (for example Chile does not have any national legislation).
- Very limited, non-universal LTC coverage based on means-tested approaches that limit publicly funded LTC to the poorest parts of the population is provided in many high-income and some upper middle-income countries, such as:
 - in Africa: South Africa;
 - in the Americas: United States;
 - in Asia and the Pacific: Australia, China and New Zealand;
 - in Europe: Austria, Estonia, Finland, France, Greece, Hungary, Ireland, Israel, Italy Netherlands, Norway, Poland, Portugal, Russia, Slovenia, Spain, Switzerland and the United Kingdom.

Based on these results, the assessment of national legislation reveals that a large proportion of the global population lacks the right to LTC and remains without legal coverage in national legislation. In fact, more than 48 per cent of the world's population is not covered by any national legislation and another 46.3 per cent is largely excluded from coverage due to narrow means-testing regulations. Only, 5.6 per cent of the global population lives in countries that provide universal LTC coverage (Figure 5).

Figure 5. Global estimates of coverage deficits in LTC: Proportion of the world's population not protected by legislation, 2015



Source: ILO estimates 2015, OECD 2011, World Bank, 2015 (population data in 2013)

Particularly concerned by the absence of rights to LTC are the most vulnerable. Recent analyses point to the fact that these are particularly (Scheil-Adlung and Bonan, 2013):

- *Women* as the ageing of the population disproportionately impacts on women;
- *Older persons that are single* without family members who are at frequent risk with growing age;
- *The very old*, aged 80+, often without family members; and
- *The poor* unable to afford the high cost of LTC.

3.1.2. Many countries have established legal obligations for family members to provide LTC services to their relatives

Rather than providing for rights and financial support to access LTC, many countries have decided to enact legislation that shifts the burden of LTC from government entirely to families (Table 2).

The legislation of these countries forces family members by law to provide LTC to their relatives. In some countries, such as India, these responsibilities are even linked to strong punishment including jail time for failure to perform. While in many of these countries the immediate family is held responsible for providing LTC, this obligation is felt by a wider defined family in African countries, such as in Algeria.

Table 2. Legally established family obligations for LTC

Regions	Legally established family responsibilities
Africa	Algeria
Americas	Argentina Brazil Chile Mexico
Asia and Pacific	China India
Europe	Russian Federation Turkey

Source: ILO based on national legislation.

Countries that have established related legislation acknowledge the need for LTC as a risk for older citizens; however, the State refuses to take the responsibility for this social contingency and provide public support such as financial protection of LTC expenditure. The legislation enforcing family responsibilities for LTC results in severe inequities in access to LTC and an unequal gender balance of family care workers; those affected by such legislation are female family members that have to provide LTC services without being reimbursed for their care work, time or lost income from employment. However, in some of these countries, the State provides support in the absence of family members.

3.1.3. Rigid eligibility rules, targeting, insufficient benefit levels and mismatch between health and social services result in exclusion

Among older persons covered by LTC benefits, does everybody have the right to use services when in need in necessary quantities and qualities? In other words, do eligibility rules include all in need and is the scope of benefits adequate for older persons?

When discussing these questions, a range of essential services and cash benefits that are required to address reductions in functional, physical or mental capacity should be considered. They include, among others:

- basic medical and nursing services at home or in institutions as well as various forms of home-based support such as personal care to provide help for dressing and eating;
- cash benefits aiming at empowering care recipients and/or compensating for costs, for example in case of insufficient quality or absence of public services forcing those in need to purchase services privately. Such benefits are also necessary to cover the costs of other needs such as adaption of living environments and nutrition restrictions;
- benefits directed at informal carers, such as compensation for loss of income, social protection during times of care, family leave and others. Given the fact that the large majority of caregivers are informal carers such as family members, these benefits are important and should be defined with a view to avoid the risk of impoverishment of caregivers and compensate for loss of income in formal employment. When establishing related benefits it should be considered that they involve much less public expenditure than formal care.

However, in many countries benefit packages do not meet the minimum requirements that allow receiving care either at home or in institutions as well as cash compensation for LTC and employment protection of LTC workers at home.

In the majority of countries no cash benefits are available for persons aged 65+ in need of LTC. Empowering persons in need of care via cash benefits works only, if formal care is actually available. But this precondition often does not hold true even in high-income countries, particularly in rural areas.

In the majority of countries informal care givers are not compensated for their work in the form of income replacement, social protection or rights to family leave. However, some countries in Europe offer special care leave e.g. for family members providing LTC. This is often linked to specific conditions, such as agreement with the employer, size of employer or medical conditions (European Commission, 2012). In such instances, the regulations do not allow for the necessary flexibility to provide needed LTC.

In some countries the tight eligibility rules based on the availability of families and means-tests result in very limited rights to services, for example limited to institutional care such as in some regions of Algeria, Brazil and Mexico.

More generally, means-tests limiting public funded LTC to the poor parts of the population were found to create extreme inequities in access to LTC and exclude the majority of the countries' non-poor population from related coverage: Model estimates based on the UK show that such safety-net approaches place those whose income is in the countries' medium income quintiles in the weakest position being too "rich" to qualify for publicly funded services but not possessing sufficient means to pay privately for needed services (Forder and Fernandez, 2012). However, means-testing rules vary significantly across countries and might not apply to all benefit components, for example only to services or only to cash benefits.

In addition to narrowly targeted public support to the very poor and/or people without families further requirements often limit access to LTC. Such limiting eligibility rules for access to legally promised LTC are found in all regions of the world. They include:

- needs-tests based on tight assessment rules (most European countries) limiting for example the hours of care compensated per month (for example 15 hours/month in Luxemburg);
- high minimum ages (such as 75 years in Poland); and
- receipt of social security pensions (for example in South Africa).

Often, these rules are perceived as inadequate in absolute terms but also as they do not recognize care needs for example arising from cognitive limitations.

Key eligibility rules and scope of benefit packages in selected countries are presented in Table 3.

Table 3. Overview of key eligibility rules, services and cash benefits for older persons in need of LTC, selected countries, 2015

Region	Country	Eligibility rule	Scope of services covered	Cash benefits/ benefits for carers
Africa	Algeria	Lack of family Means-tested	Institutional care	
	Nigeria		Institutional care	
	South Africa	Receipt of a pension	Institutional care	Cash benefits
Americas	Argentina	Lack of family Means-tested Covered by social security insurance	Institutional care Home care	Cash benefit
	Brazil	Lack of family	Institutional care	
	Chile	Means-tested Needs-tested		Cash benefit
	Colombia	Means-tested Needs-tested		
	Mexico	Lack of family Means-tested Needs-tested	Institutional care	
Asia and the Pacific	Australia	Means-tested Needs-tested	Institutional care Home based care	
	China	Lack of family Means-tested	Institutional care	
	Japan	Needs-tested	Institutional care Home based care	
	South Korea	Needs-tested	Institutional care	Cash benefits
	Thailand	Needs-tested	Home based care	
Europe	Germany	Needs-tested	Institutional care Home based care	Cash benefits Care leave and other benefits for carers
	Poland	Minimum age 75 Means-tested Needs tested	Institutional care Home care	Cash benefits
	Russian Federation	Lack of family Means-tested Needs-tested	Institutional care Home based care	
	Turkey	Means-tested Needs-tested	Institutional care	Cash benefits
	United Kingdom	Means-tested Needs-tested	Institutional care Home based care	Cash benefits Care leave

Source: ILO based legislation and literature review; Colombo et al., 2011.

Further gaps in the coherence of legislation are found regarding the scattered coverage of LTC rights in numerous schemes and systems. As many countries lack comprehensive LTC schemes or systems, often related services and benefits are not integrated into *one* scheme but need to be accessed through various schemes and systems, such as social assistance schemes, old age pension schemes, national health services, health insurance schemes and others.

This disintegration and fragmentation of social and health benefits often results in highly complicated access procedures. It has the potential to exclude older persons from access to services, particularly if they are illiterate concerning these schemes and systems and not aware of their rights.

Against this background, it can be concluded that many older persons in need of LTC are:

- excluded by narrow means-tests and tight needs-tests;
- inadequately protected due to incomplete and meagre benefit packages particularly with regard to institutional care, cash benefits and benefits for informal carers; and
- experiencing severe difficulties to realize their rights to LTC as they face challenges to navigate the overly complex LTC and health schemes and systems that often lack coordination.

3.2. LTC is hardly accessible due to major gaps in the availability of LTC workers and infrastructure

Effective access to LTC benefits requires at least a sufficient:

- number of formal and informal LTC workers that are available to deliver needed services; and
- infrastructure available to provide for LTC care at home, in institutions or communities.

The following section broadly assesses whether critical numbers of LTC workers are available and whether the existing infrastructure is considered to be sufficient for all in need.

3.2.1. The forgotten LTC workforce: Mostly low-paid or unpaid women lacking social protection coverage

The delivery of LTC requires a wide range of professional skills and work addressing the functional incapacities in the area of basic medical services and nursing, prevention, rehabilitations etc. Further, instrumental activities of daily living such as domestic help are needed. Accordingly, the composition of the LTC workforce is heterogeneous and includes health and social workers, household helpers and assistants among others. Further, we find in all countries workers that are formally employed, e.g. in institutions such as nurses and care assistants and a group of workers that is significantly larger - informal LTC workers.

Informal workers are mostly unpaid family workers – sometimes at the same age as the relatives they care for – and migrant workers. Usually, care work is carried out by wives, daughters and daughters-in-law. Their tasks are complex and include many of those of formal workers and related risks, such as medication errors, dealing with physical or

mental constraints of persons that are often not cooperative. However, many of them are without any formal training for this work and without professional support.

While LTC politics in all countries place a significant amount of responsibility and financial burden on informal carers, particularly family members, they remain largely forgotten in terms of public support in cash or in kind, such as in the form of social protection benefits or training (Table 4).

We observe that the LTC workforce is highly unbalanced in terms of gender and age. Further, working conditions such as wages and social protection coverage are poor, even in the most advanced high-income countries. In these countries we find that 86 per cent of the LTC workforce is made up of women aged 40 and above. The majority of them – up to 70 per cent – are foreign-born.

Table 4. Common characteristics of the LTC workforce and core working conditions
(selected countries, 2015)

Characteristics	Majority of the global formal LTC workforce	Majority of the global informal workforce
Gender	Women: More than 86 % of the workforce	
	– Canada: 92.0 %	
	– Denmark: 96.2 %	
	– Japan: 86.9 %	
	– Korea: 92.9 %	
	– USA: 89.7 %	
Age	Average age 40+	
	– Australia: Up to 70 % aged 45+	
	– Japan: 60 % aged 50+	
	– New Zealand: 50 % aged 40-60	
	– USA: Average age home-care workers: 43	
Nationality	Foreign-born workers/Migrants: Up to 70 %	
	– Austria: 50.0 %	
	– Italy: 70.0 %	
	– Sweden: 20.0 %	
	– New Zealand: 24.3 % (foreign-trained)	
	– United States: 33.0 %	
Working hours	Often full time	Mostly part time, particularly if family members
Wages	Low: – USA: Approx. 51 % of average wages – UK: 14 % above minimum wages	Low or no: – France: Minimum wages – Most countries: None for family workers
Skills	Low	Low or no
Work place	Institutions	Providing home-based care in private homes
Social protection	Covered accordingly to country regulation	No social protection coverage (few exceptions, e.g. Germany)

Source: ILO based on Colombo et al., 2011.

Formal LTC workers are facing very low wages and the majority of informal LTC workers is not remunerated at all. On average, LTC workers have very low wages (for example 50 per cent of the average wage in the USA or 14 per cent above the minimum wage in the UK).

Recent studies point to the fact that the wages are particularly low for workers providing formal LTC services at the home of older persons: In OECD countries formal LTC workers with basic qualifications receive just a small fraction of between half and

three fourths of the average national wages (European Commission, 2012a). Skilled LTC workers are better paid and receive about average wages.

When assessing the LTC workforce in low and middle income countries of Africa, Asia and Latin America the different stages of development (e.g. concerning LTC, health and social protection schemes and systems) should be considered (ILO, 2014b). Usually, family support is not taken into account in the social protection framework of these countries and thus no income replacement, regulated working conditions or cost reimbursements are provided.

However, the role of family members in providing LTC is central and allows concluding that in these countries key characteristics of the LTC workforce relate to a higher percentage of unpaid informal work than in high-income countries.

The formal LTC workforce in low and middle income countries is frequently limited to home *health* care or institutional care, such as in Mexico and China (Piensriwatchara, 2012) and their working conditions equal that of the health and/or lowest level of the public sector.

3.2.2. Globally, a critical shortfall of 13.6 million formal LTC workers is observed

Shortages in the LTC workforce are a severe barrier to access services for persons aged 65+, as LTC is highly labour intensive, irrespective of where it is provided – in an institution or at home – if delivered by formal or informal workers, through paid or unpaid work.

How many LTC workers in formal employment exist globally and how many are needed? While some reports point to the existence of LTC workforce shortages (Colombo et al., 2011), few quantitative assessments at the global level have been carried out. However, in order to assess the current situation and to plan for ageing populations, such data will be necessary.

Against this background and with scarce data available we estimate the global number of existing formal and informal LTC workers as well as the shortfall. In this section, we focus on formally employed LTC workers (FTE) excluding informal workers.

We assess the global and regional numbers of LTC workers using the most current existing data where available and population weighted regional proxies based on values from one or several representative countries where no information is available.

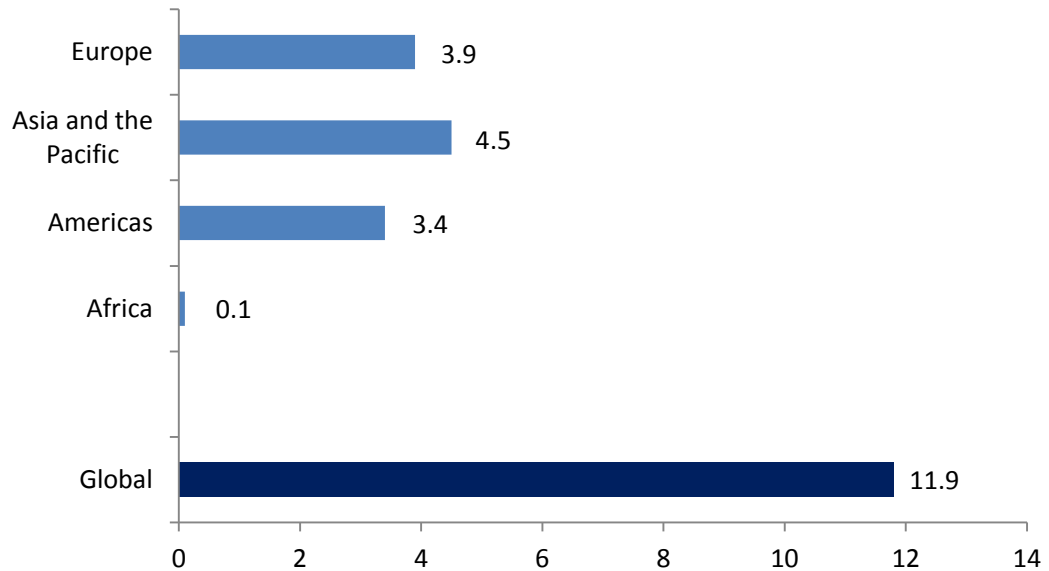
The estimation does not allow for differentiation between skill mixes and workers in different care settings as no globally comparable data are available. Even more, the large variation in qualification standards across countries cannot be reflected using the limited information available. However, it is safe to assume that in non-OECD countries the share of LTC workers with relevant qualifications is not higher than in OECD countries.

Further, we cannot differentiate between workers in different care settings, such as institutional care and home-based care. However, when interpreting the data it should be taken into account that the better qualified care workers are more often employed in institutional settings.

Figure 6 summarizes the related information on formal employment in LTC at global level and staffing in Africa, Asia and the Pacific and Europe.

The global LTC workforce formally employed is estimated at 11.9 million workers. With 4.5 million LTC workers, the Asia-Pacific region contains the majority, followed by Europe with 3.9 million workers and the Americas with 3.4 million. The fewest LTC workers are found in Africa; only 0.1 million LTC workers are available on the continent.

Figure 6. Estimated number of formally employed LTC workers (FTE) in the world and its regions

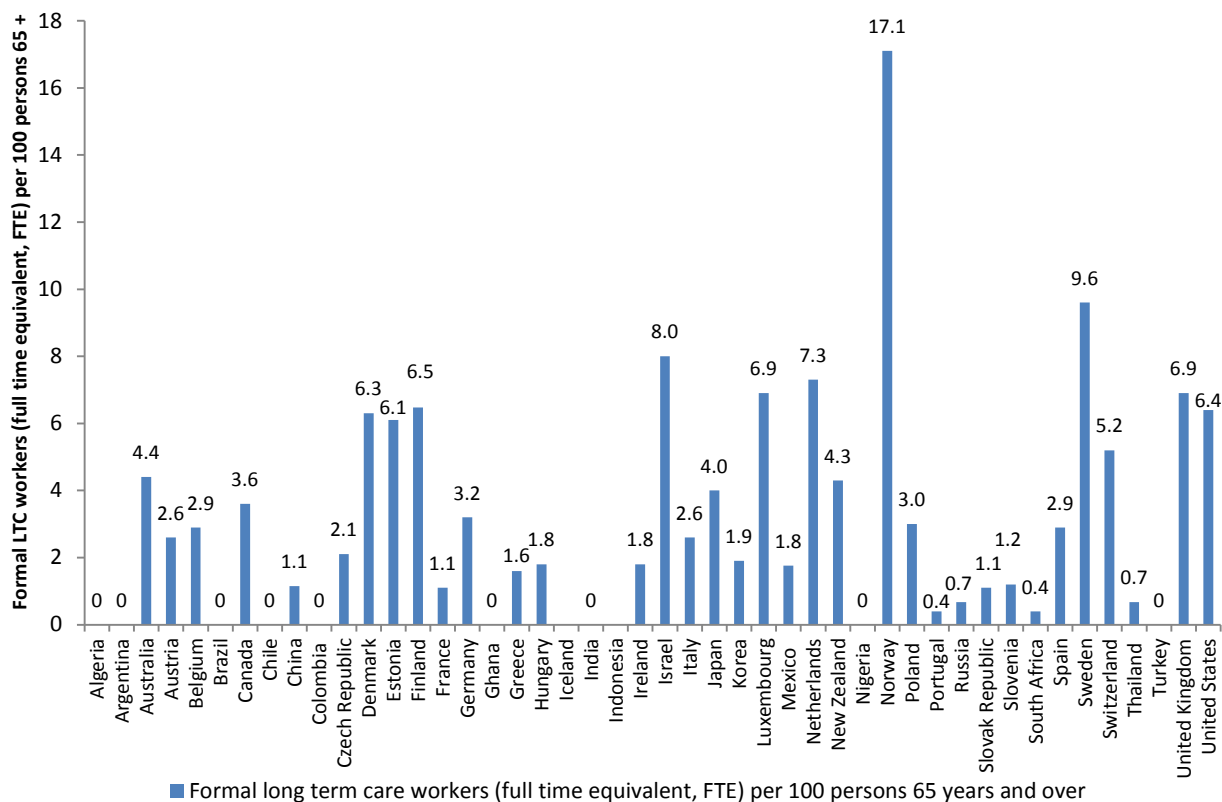


Source: ILO estimates 2015; OECD 2014.

However, the number of LTC workers varies significantly by country and region as shown in figure 7. We find that the population weighted average of formal LTC workers (FTE):

- for European countries ranges from 0.4 LTC workers per 100 population 65+ in Portugal to a peak of 17.1 LTC workers per 100 population 65+ in Norway;
- the number of LTC workers in Portugal equals the number of LTC workers in South Africa while it is estimated at zero for other African countries; and
- in Asia and the Pacific, the range is between 4.4 formal LTC workers per 100 persons aged 65+ in Australia, 0.7 in Thailand and 0 in India.

Figure 7. Formal LTC workers (FTE) per 100 persons 65 years and over, selected countries, 2014



Source: ILO estimates 2015; OECD 2014.

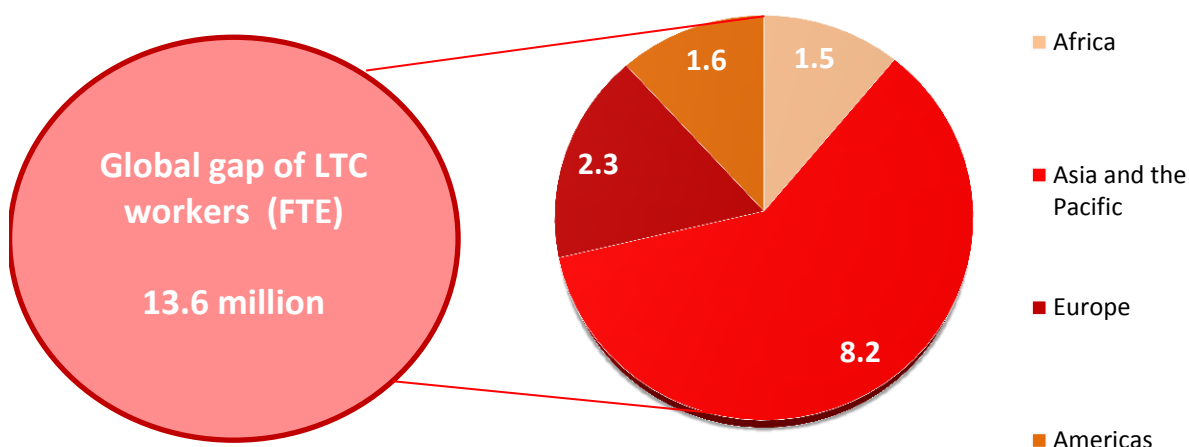
Many of the best staffed high-income OECD countries do not rate the availability of LTC workers in their country as satisfactory (European Commission, 2012a and Colombo et al., 2011). Given this fact we consider that the number of LTC workers available in these countries constitute at least a minimum for the provision of care and can serve as a rough basis for a deficit assessment until more detailed and reliable data are available. Thus, the threshold we use to assess the LTC workforce deficit is calculated on the median population weighted value of selected OECD countries representing:

- a large range of LTC approaches in terms of coverage, financing, services and cash benefits provided; and
- a large diversity in the density and ratio of formal and informal LTC workers per population aged 65+.

The median population weighted number of formal LTC workers (FTE) in OECD countries amounts to 4.2 workers per 100 persons aged 65+.

Taking this value as a threshold for the basic provision of care services and including all countries with related deficits, across the globe about 13.6 million LTC workers (FTE) are missing to provide universal coverage to all persons aged 65 and over in need (Figure 8).

Figure 8. Global and regional deficits of formal LTC workers (FTE), in millions, 2015



Source: ILO estimates, 2015; OECD, 2014.

The estimated deficits taking into account the size of the population aged 65+ currently living in the various regions are:

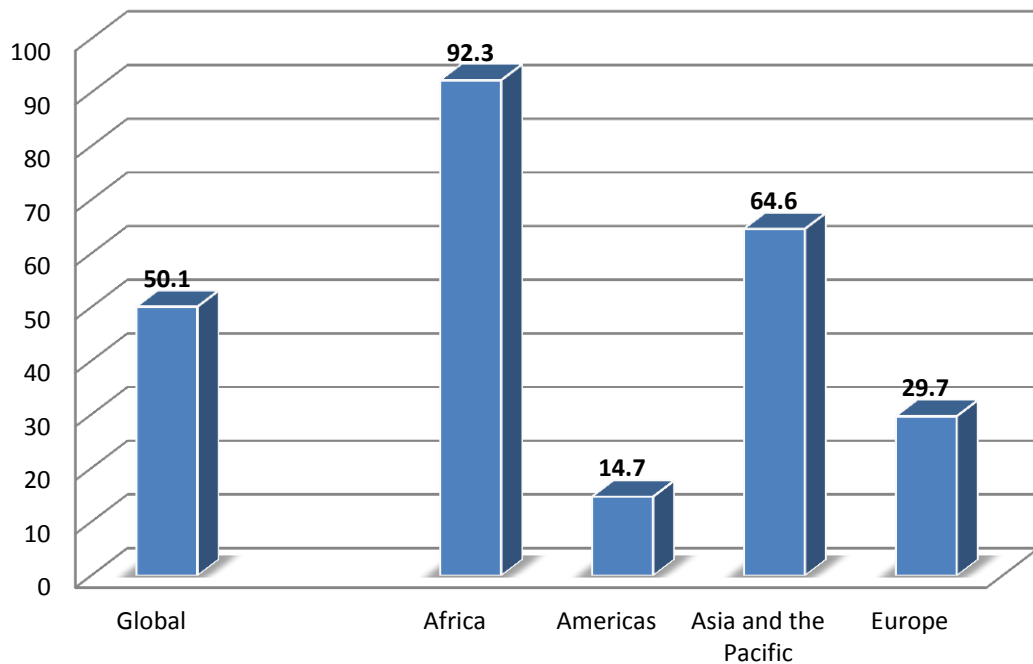
- The highest deficits were found in Asia and the Pacific where 8.2 million formal LTC (FTE) workers are missing to serve the very large population aged 65+ which represents 53 per cent of the global population that is 65 years and older.
- There are very large gaps in Europe: An additional 2.3 million formal LTC workers (FTE) need to be employed to fill the gaps in service delivery for the 23 per cent of the global population aged 65 and above who is living in European countries.
- 1.6 million formal LTC workers (FTE) are missing in the Americas.
- 1.5 million formal LTC workers (FTE) are missing in Africa, where just 7 per cent of the global population aged 65 and more is living.

When interpreting these data it should be taken into account that figures reflect the current situation. However, the demand for LTC workers is expected to significantly increase in the future due to demographic ageing. Data sources suggest that the number of LTC workers will need to double between the years 2008 and 2050 to maintain existing staffing ratios (OECD, 2014).

Which percentage of the older population is excluded from access to formal LTC services in the absence of a sufficient number of LTC workers?

Figure 9 shows the estimated staff access deficit to LTC of the global population aged 65 and over.

Figure 9. Global and regional staff access deficits due to insufficient numbers of formal LTC workers
(in percentage of the population aged 65+; relative to threshold 4.2 formal FTE workers per 100 persons aged 65+)

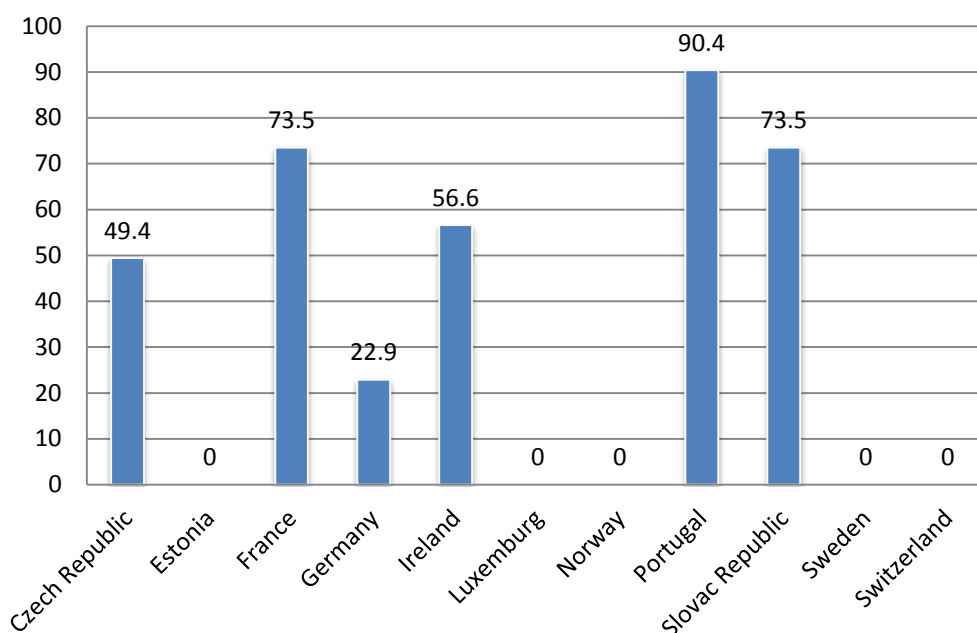


Source: ILO estimates, 2015; OECD, 2014.

- Globally, more than half of the older population does not have access to LTC due to the absence of a sufficient number of formal LTC workers.
- The staff related access deficit (SAD LTC) is with 92.3 per cent of the population aged 65+ highest in Africa. Thus, more than 90 per cent of Africans aged 65 or older remain without quality services provided by formal LTC workers.
- In Asia and the Pacific, some 65 per cent of the older population remains without such services due to deficits in the number of needed formal LTC workers.
- In Europe, the access deficit amounts to as much as 29.7 per cent of the population who have no access to LTC due to missing LTC workers.
- In the Americas, 14.7 per cent of the population remain without LTC services given gaps in the LTC workforce.

Data at country level reveal that even in the high-income countries of Europe such as Ireland, France, Slovakia and Portugal between 56.6 and 90.4 per cent of the population aged 65+ cannot access quality LTC services due to the absence of formal LTC workers (Figure 10).

Figure 10. LTC Staff access deficits as percentage of the population aged 65+, selected European countries, 2015 (Threshold 4.2 formal LTC workers (FTE) per 100 persons aged 65+)



Source: ILO estimates, 2015; OECD, 2014.

3.2.3. The reliance on unpaid informal LTC workers is unacceptable

While formal LTC workers are at the centre of the few international debates that exist on LTC, they are only providing a small percentage of the bulk of care giving currently provided: In some countries, such as Austria, it is estimated that about 80 per cent of care is covered informally (BMASK, 2011). The very high numbers of informal care workers reflect the gaps in the formal workforce.

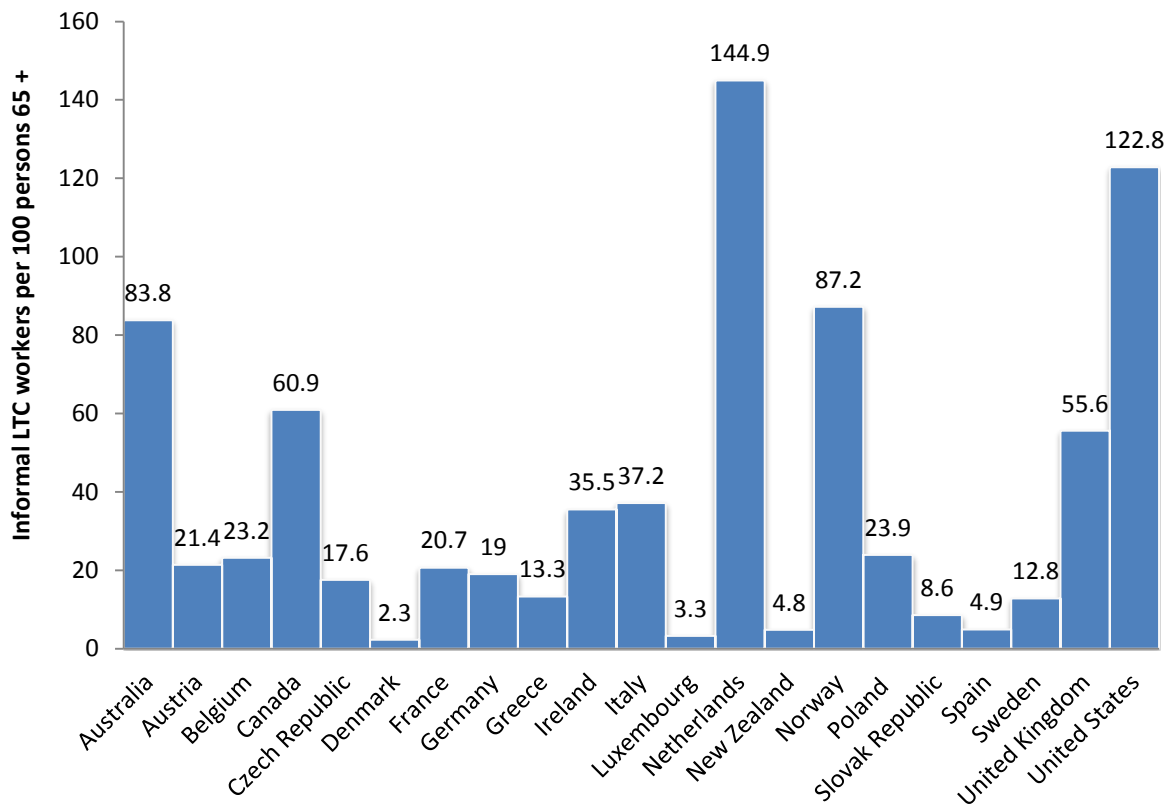
Informal LTC services are carried out by paid and/or unpaid LTC workers that work in private homes and are not declared to tax or social security authorities. This group includes professional workers as well as family members, neighbours, friends and others.

Reasons for informally employing LTC workers in private homes are often related to the severe gaps in availability of formal LTC workers and the high costs and difficult administrative procedures involved in private employment of formal LTC workers. Thus, the reliance upon informal LTC workers often arises from the absence or under funding of public LTC schemes. It often results in impoverishment of the “employers” – older persons and/or their families – despite low wage payments.

Figure 11 provides an overview of the number of currently available informal care workers per 100 persons aged 65 years of more.

The wide range within regions is striking. In the Americas, for example the United States we find nearly 123 informal LTC workers per 100 persons aged 65+ as compared to about half of this number – some 61 informal LTC workers – in Canada. In Asia and the Pacific, countries such as Australia have nearly 84 informal care workers per 100 aged 65 years and older as compared to 4.8 in New Zealand. In Europe, figures range from just 2.3 informal care workers per 100 older persons in Denmark compared to as many as nearly 145 informal care workers in the Netherlands.

Figure 11. Informal LTC workers (HC) per 100 persons 65 years and over in selected countries, 2014



Source: OECD 2014.

Thus, the quantity of the care work provided by informal LTC workers is by far exceeding those of the formal workforce – even if we consider that informal LTC worker numbers are head counts as compared to full-time equivalents of formal LTC workers.

Paid informal LTC workers' wages are usually far below those of formally employed LTC workers and working hours are often extreme, if specified at all, and usually not in line with national legislation. In some countries they include a high share of migrant workers, such as in the Canada, USA, UK and Ireland (Spencer et al., 2010), often due to low payment and poor working conditions in their home countries.

However, the majority of the *informal care workers are unpaid family members*, often also aged 65 or more: Even in Europe with its smaller family sizes than in other regions of the world, some 90 per cent of all informal care givers are relatives of the persons in need of LTC (Leichsenring et al., 2013). In addition, informal care givers are often providing care to more than one person for example to both parents (Department of Health, UK, 1999).

Other than formal LTC workers, many of the informal care workers are not trained for giving care. In addition, they often spend as much time for giving informal care as working in a part time job, sometimes in addition to full-time work in the formal sector. As a result, many informal family care workers experience a high degree of work-family conflict:

- For those who provide care and are additionally formally employed the risk of frequent absenteeism occurs: they are, due to ill health, more often absent from work as non-carers (Zuba and Schneider, 2013) and are likely to experience signs of burn-out.

-
- For others, the need to provide informal care requires the decision to leave the formal labour market and forego related income. As a result, informal care giving has the potential to aggravate existing gender gaps.

Further, it is most likely that informal care giving results in a divide of those who can afford to stay at home and provide care to their relatives and those who cannot and whose relatives might be challenged by severe gaps regarding needed services.

Often the type of care provided by informal family care givers is very demanding, particularly if care is needed not only for activities of daily living such as dressing and eating, but for persons with mental disorders. In most countries, the majority of persons aged 65+ challenged by mental disorders are living at home and require very challenging support from informal care workers. This does not only have an adverse impact on the informal care workers, but due to the lack of professionalism also on those persons in urgent need of specialized LTC services: The related lack of quality in LTC services might increase the level of dependence of older persons in need.

When assessing the high numbers of informal LTC workers, it is important to keep in mind that in the majority of the countries in all regions, no professional care is publicly financed and thus informal care is the only form of care available and/or affordable. In other countries, the only alternative to informal care might be institutional care that is often of very poor quality and has a negative reputation.

Thus, from both viewpoints – the informal family care workers and the persons in need of care – it is important to clearly set in legislation or regulation boundaries between tasks and responsibilities of formal and informal LTC workers and to develop successive chains of formal and informal care. Further it is important to define quality standards for formal and informal LTC workers and to limit work burdens that can be shouldered by formal and informal LTC workers.

3.2.4. The availability of the LTC infrastructure is deplorable

Access to needed LTC services is also hampered by absent infrastructure, in both developed and developing countries, particularly in rural areas. This concerns mostly the availability of services in settings that are person-centred and culturally responsive. Further, we find a large gap in infrastructure that is allowing for older persons to stay at home, to receive quality care in institutions and to live in enabling community environments including retirement communities such as in Florida or Spain.

Unfortunately, globally all forms of LTC infrastructure are extremely scarce. The low availability of care institutions is particularly deplorable as institutional care remains a crucial backbone of LTC for those who cannot be cared for at home despite the fact that institutional care is often avoided as many LTC users and their families prefer home-based care.

Table 5 illustrates the significant shortages of infrastructure for institutional and home-based care that exist in all regions:

- Globally, publicly supported home care is even more restricted than institutional care. Where LTC infrastructure is available, it is rather in urban than in rural areas (for example in Brazil, Colombia and China).
- Extreme shortages of LTC capacities are observed in African countries, where capacities are close to non-existent, with only some very limited capacities in South Africa. The situation in Africa is worsened by the largely insufficient health

protection coverage for older persons, particularly given the severe lack of trained professionals in geriatric care, such as in Nigeria (Okoye, 2013).

- Very limited availability of LTC infrastructure exists in most countries of Asia and Latin America and in some European countries with the exception of high-income countries.

In Asia, particularly India faces most severe shortages and public services are only scarcely available. Further, in some countries of Asia there is no clear distinction between retirement homes for the poor and institutional care: For example in China no distinction is made between retired persons needing housing and those needing care (Wong and Leung, 2012). As a result the quality of services is inadequate in terms of infrastructure, staffing and other resources.

Among the Latin American sample countries, Argentina has the most developed infrastructure. The state, regions or private organizations provide services nationwide. Still, supply is rather scarce and only 2 per cent of the elderly population have the possibility to live in nursing homes, residential homes, or adapted housing (Jauregui et al., 2011). In Brazil, the respective proportion is below 1 per cent and LTC institutions are relatively small, accommodating only 23.3 people on average. Moreover, the Brazilian institutions are concentrated in urban areas and in the North-east part of the country (e.g. 34.3 per cent of the overall capacity is situated in São Paulo) (Gragnolati et al., 2011). Similarly, in Colombia LTC institutions exist almost exclusively in metropolitan areas and are mainly supported by religious institutions (Gómez et al., 2009). In Mexico, a very limited amount of institutional services is available across the country, while home-based care is concentrated only in some communities:

- No availability of nationwide services exist in countries that have legally established family responsibilities even if eligibility rules foresee LTC provisions in the absence of family members.
- Nationwide services both in terms of institutional care and home-based care are only available in countries that provide universal coverage for LTC.

As a result, most of those who have no legal LTC coverage, also suffer from a lack of access to both institutional and home based care.

Table 5. Gaps in availability of quality services due to shortages in infrastructure, selected countries, 2015

Country	Institutional care	Home-based care
Africa		
Algeria	Very limited nationwide services	<ul style="list-style-type: none"> - No nationwide services - No services in communities
Ghana	No nationwide services	No nationwide services
Nigeria	<ul style="list-style-type: none"> - No nationwide services - Very limited capacities in communities 	<ul style="list-style-type: none"> - No nationwide services - No services in communities
South Africa	<ul style="list-style-type: none"> - No nationwide services - Very limited capacities, concentrated in two regions (Gauteng and Western Cape) 	<ul style="list-style-type: none"> - No nationwide services - No services in communities

Country	Institutional care	Home-based care
Americas		
Argentina	Limited nationwide services	Limited nationwide services
Brazil	<ul style="list-style-type: none"> – No nationwide services – Very limited capacities, mainly concentrated in urban areas and in the North-East – In some communities only 	<ul style="list-style-type: none"> – No nationwide services – Very limited capacities in communities
Chile	Very limited nationwide services	Very limited nationwide services
Colombia	<ul style="list-style-type: none"> – No nationwide services – Very limited capacities, concentrated in urban areas 	<ul style="list-style-type: none"> – No nationwide services – No services in communities
Mexico	Very limited nationwide services	<ul style="list-style-type: none"> – No nationwide services – Very limited capacities in communities
Asia and the Pacific		
Australia	Nationwide services	Nationwide services
China	Very limited nationwide services/ In some communities only	<ul style="list-style-type: none"> – No nationwide services – Very limited services, concentrated in urban areas
India	No nationwide services	No nationwide services
Japan	Nationwide services	Nationwide services
South Korea	Nationwide services (lower availability in rural and “fishery” regions)	Nationwide services (lower availability in rural and “fishery” regions)
Thailand	<ul style="list-style-type: none"> – No nationwide services – Limited capacities (mainly private ones), concentrated in the capital city Bangkok and some other cities 	<ul style="list-style-type: none"> – No nationwide services – Very limited services, concentrated in a few areas (pilot areas)
Europe		
Germany	Nationwide services	Nationwide services
Poland	Nationwide services	Nationwide services
Russian Federation	Limited nationwide services	(Very) limited nationwide services
Turkey	<ul style="list-style-type: none"> – No nationwide services – Very limited capacities, concentrated in big cities <p>in some communities only</p>	<ul style="list-style-type: none"> – No nationwide services – Very limited services, concentrated in municipalities such as Istanbul, Ankara, Kocaeli, Trabzon
United Kingdom	Nationwide services	Nationwide services

Source: ILO based on legislation and literature review.

In conclusion, in addition to the tight eligibility rules, limited scope of benefits, and absence of a sufficient LTC workforce, access to needed LTC is significantly hampered by the large absence of infrastructure for institutional and home-based care.

3.3. The LTC financing crisis: Insufficient public funding results in intolerable high private expenditure, access gaps and inequalities

The choice of financing mechanisms for social protection including LTC defines the overall amount of funds available and creates different distributional effects. If LTC funds derive from taxes, governments often use progressive income taxes or sometimes revenues

from value added taxes that burden particularly persons with low income. In tax funded schemes the minister of finance will decide each year on the amount made available for public LTC support. Thus, related decisions often reflect tradeoffs with other government priorities.

In social insurance settings the generation of funds is based on income-related contributions, usually from employers and their employees holding formal employment contracts. As a result, distributional effects of LTC financing will occur among those who contribute. Furthermore, intergenerational effects will arise between contributors and LTC recipients. The overall amount of funds generated reflects the contributory capacity of those who are legally covered, usually the entire formal economy. Special regulations might apply for informal economy workers.

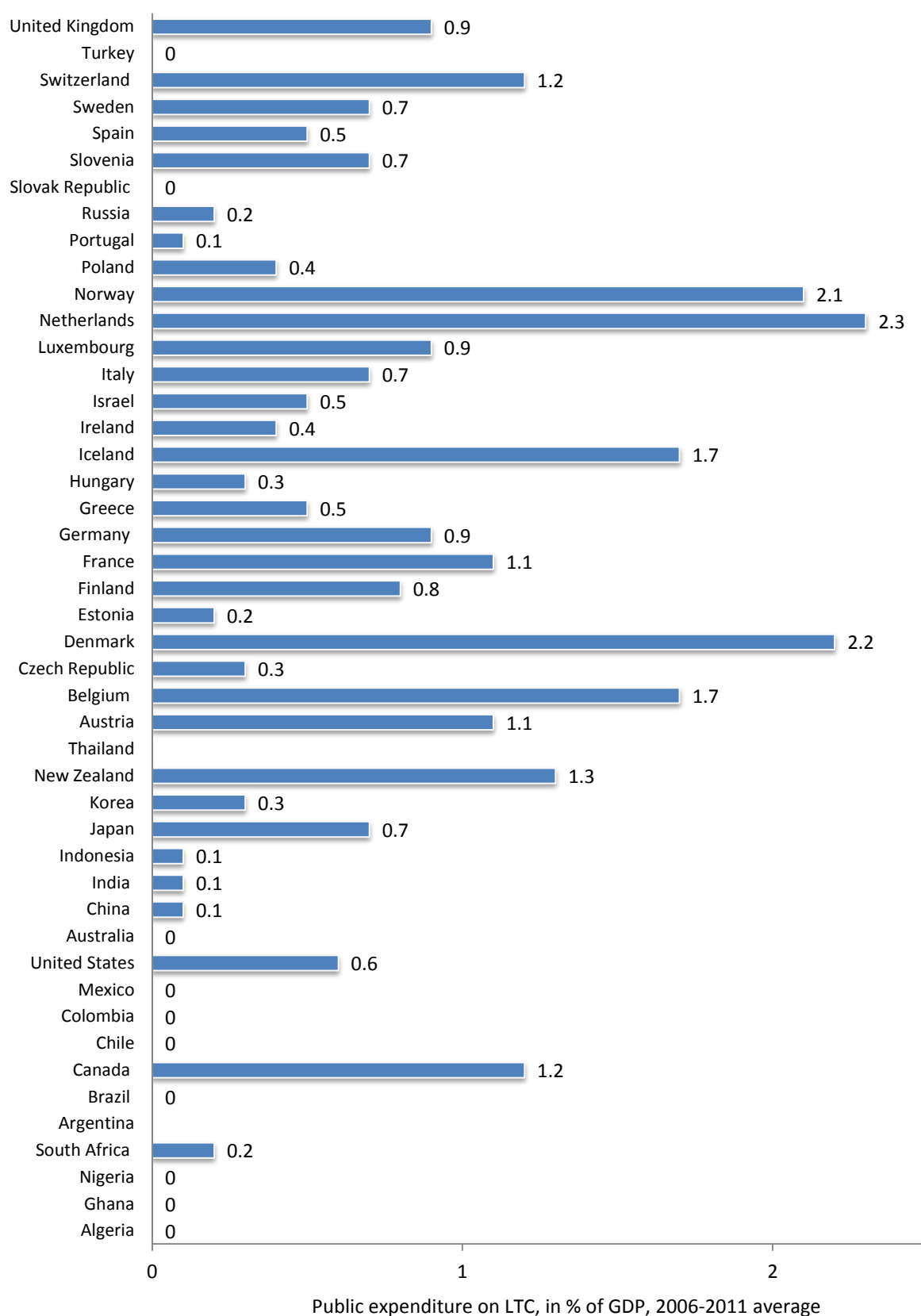
Another form of funds that governments frequently use to finance LTC relates to private OOP including private insurance arrangements. Such direct payments to providers of LTC show regressive income impacts thus burdening particularly persons with low or no income and might even result in impoverishment.

3.3.1. The average public expenditure for LTC is less than one per cent of GDP

Figure 12 provides an overview of the amount of public LTC expenditure spent on average between 2006 and 2010 in selected countries. The data reveal very low shares of public LTC financing in most countries. The average public expenditure for formal LTC among the countries observed is as little as less than 1 per cent of GDP:

- In Africa, most countries spend 0 per cent of GDP on LTC – only in South Africa is a public expenditure of 0.2 per cent of GDP observed.
- In the Americas, expenditure varies between 1.2 (Canada), 0.6 (USA) and 0 per cent of GDP in countries of Latin America
- In Asia and the Pacific, the highest amount as a per cent of GDP is spent on LTC in New Zealand (1.3) and lowest in Australia (0), while countries such as China, India and Indonesia spend around 0.1 per cent of GDP on LTC.
- In Europe, public expenditure is the highest globally reaching on average in the time period indicated more than 2 per cent in Denmark, the Netherlands and Norway whereas the lowest public expenditure occurs with 0 per cent in Turkey and Slovakia.

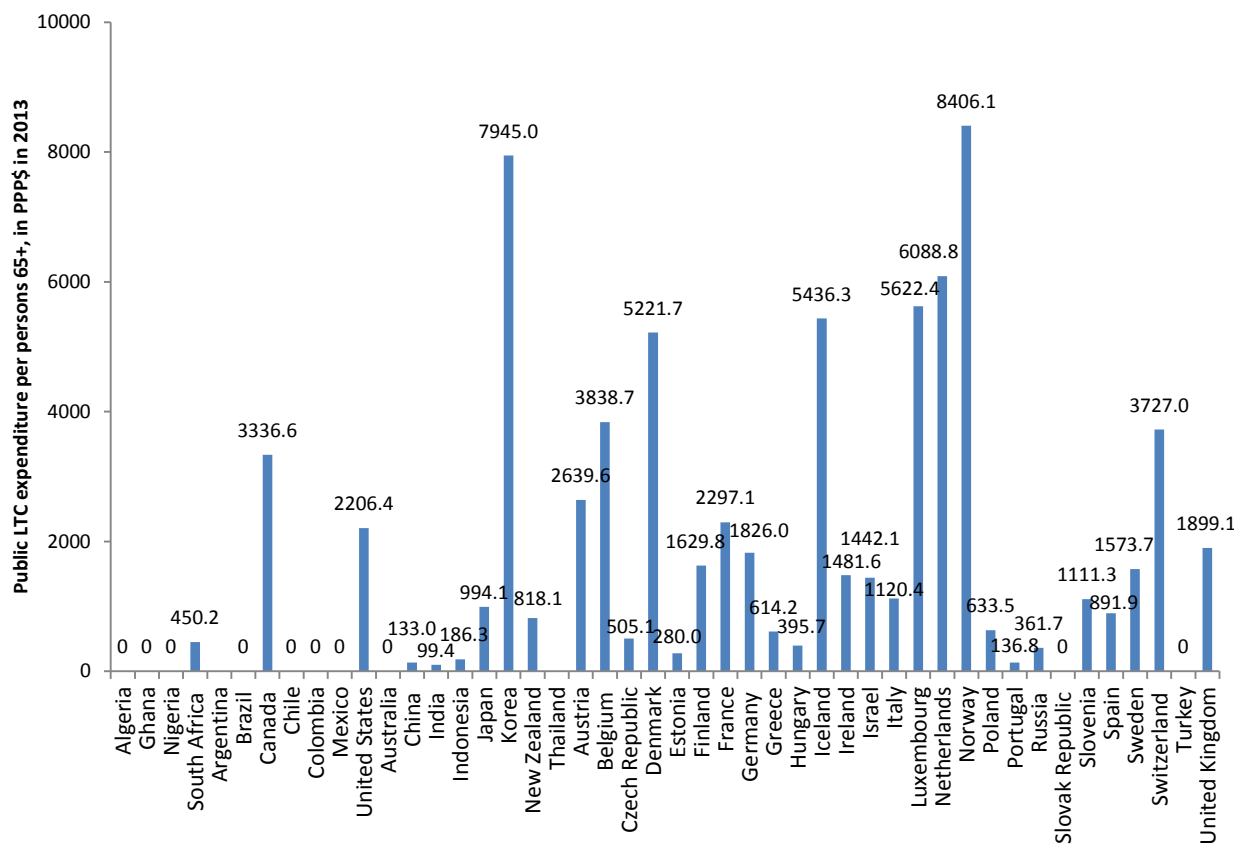
Figure 12. Public expenditure for LTC in per cent of GDP, 2006-2010, average in selected countries



Source: ILO estimates 2015; OECD 2012.

The generosity of benefits provided can be assessed using public expenditure on LTC spent per person aged 65+ as shown in figure 13.

Figure 13. Public expenditure on LTC per person 65 years and over in selected countries, in PPP dollars, 2013



Source: OECD 2013; World Bank 2015 (population data 2013).

It reveals that with the exception of one high-income country the majority of high and middle-income countries are providing some kind of financial support to cover the costs of LTC. Globally public LTC support ranges between lowest expenditure of 0 PPP\$ per capita and highest amounts of up to more than 8,000 PPP\$ per person. The globally highest amounts of public financing on LTC per person aged 65+ are spent in Europe (Norway with 8,406.1 PPP\$) followed by an Asian country (Korea spends 7,945 PPP\$ on LTC per capita).

When grouping public expenditure into five categories (0-200 PPP\$; 200-500 PPP\$; 500-1,000 PPP\$; 1,000-5,000 PPP\$, and more than 5,000 PPP\$) it can be concluded that public expenditure of African countries ranges in the lowest categories between 0 and 500 PPP\$, while countries of other regions are found in each of the categories. The range of public expenditure per capita in selected countries is shown below:

- **0 and 200 PPP\$** per year and persons aged 65+:
 - *Africa:* Algeria, Ghana and Nigeria;
 - *Americas:* Brazil, Chile, Colombia, and Mexico;
 - *Asia:* Australia, China, Indonesia and India;
 - *Europe:* Portugal, Slovakia and Turkey;

-
- **200 and 500 PPP\$** per year and person aged 65+:
 - *Africa:* South Africa;
 - *Europe:* Estonia, Hungary and Russia;
 - **500 and 1,000 PPP\$** per year and person aged 65+:
 - *Asia:* Japan and New Zealand;
 - *Europe:* Czech Republic, Greece, Poland, and Spain;
 - **1,000 and 5,000 PPP\$** per year and person aged 65+:
 - *Americas:* Canada and USA;
 - *Europe:* Austria, Belgium, Finland, France, Germany, Ireland, Italy;
 - Israel, Slovenia, Sweden Switzerland and the UK; and
 - **5,000 PPP\$ and more** per year and person aged 65+:
 - *Asia:* Korea;
 - *Europe:* Denmark, Iceland, Luxembourg, Netherlands, and Norway.

3.3.2. The financial resource gap excludes up to 100 per cent of the population in countries of all regions from LTC services

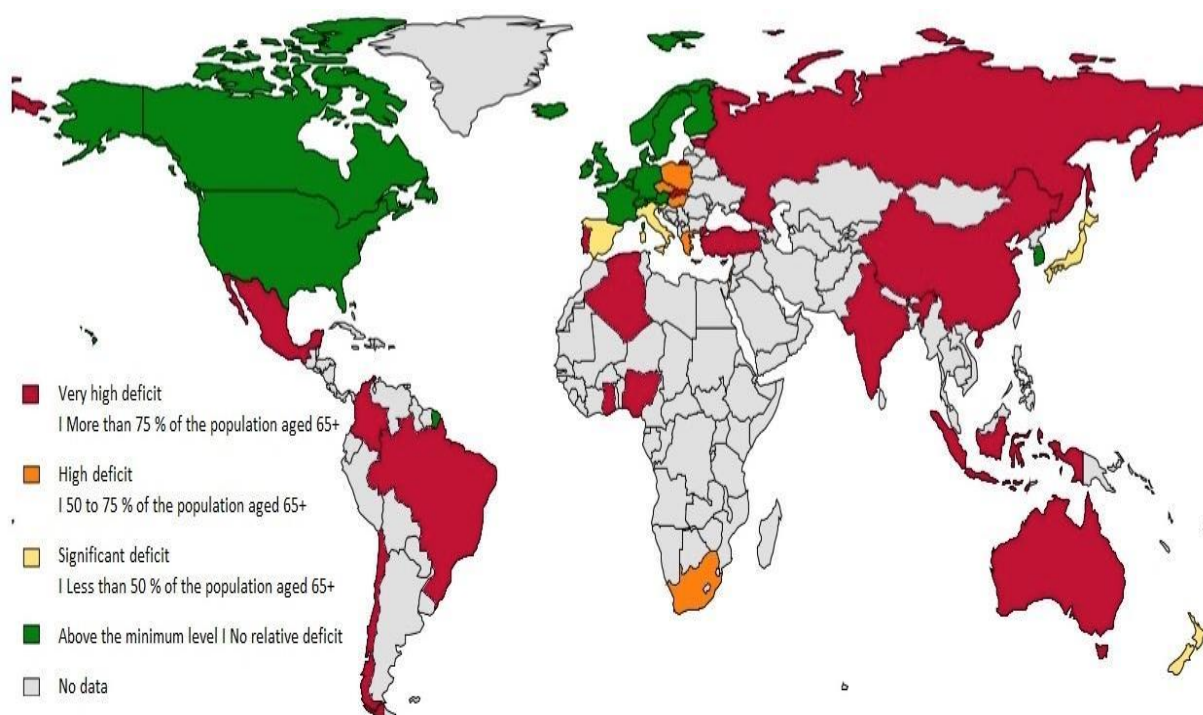
Based on the per capita expenditure observed we conclude that the majority of countries provide support that can be considered as largely inadequate when taking into account the real costs occurring due to LTC in terms of services needed: In high-income countries, the onset of the need for LTC is often considerably later than at age 65. The average expenditure per LTC user is therefore higher than the average expenditure per person aged 65 or above, regardless of their care needs.

We assume that a minimum benefit covering LTC costs for persons aged 65+ can be calculated using a population based median generated from a group of 34 representative countries that include all financing, coverage and benefit approaches – including none. The calculation serves as a rough and far from satisfactory indicator for assessing coverage deficits due to financial resource gaps.

In countries with the typical onset of care needs at a younger age already – mostly countries with poorer population and lower life expectancy – this need is underestimated in our assessment. Furthermore, the indicator does not reflect the large international wage differences for LTC workers. In addition, the data used is restricted to nursing care only and thus excluding social care. In financial terms this can make a huge difference both for public and private expenditure which is most likely higher than indicated.

The related threshold value amounts to 1,461.8 PPP\$ per person aged 65+ per year. Based on this value we conclude that globally the large majority of the population aged 65+ – almost 80 per cent – is concerned by an unprecedented LTC financing crisis (Figure 14).

Figure 14. Global LTC coverage deficit due to financial resource gaps, in per cent of the population 65 years and over excluded (Threshold: 1,461.8 PPP\$)



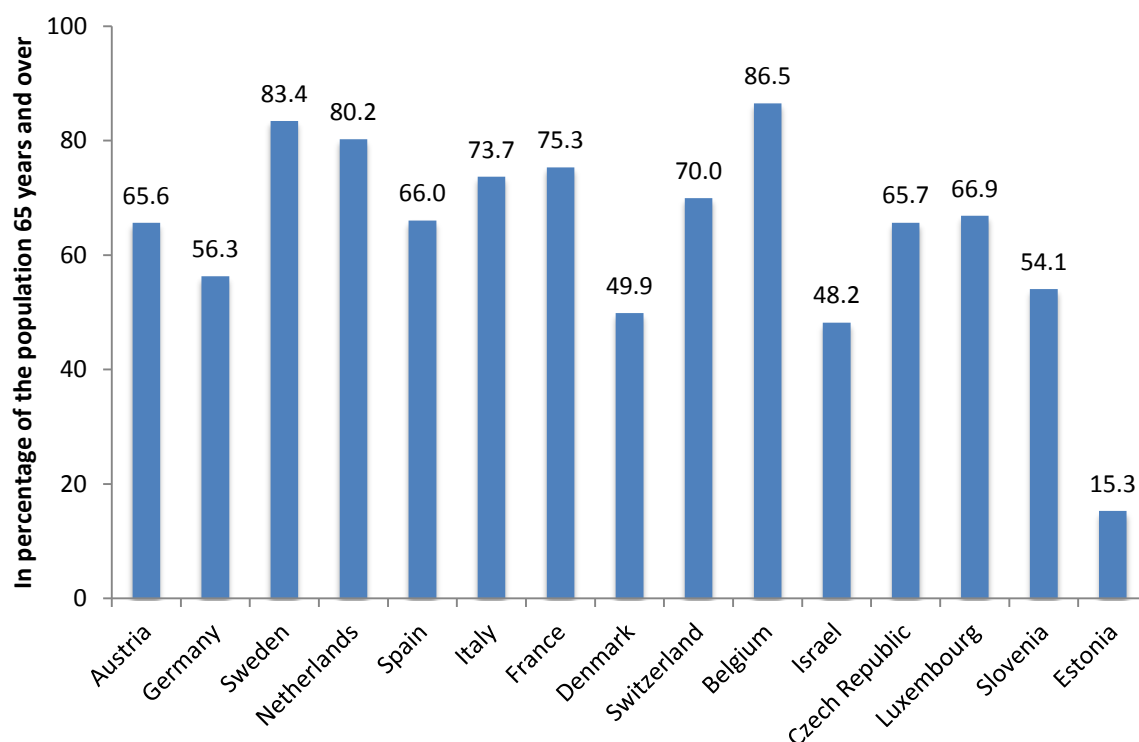
Source: ILO estimates 2015; OECD, 2013; World Bank, 2015 (population data and national accounts in 2013).

- We find in all regions countries where between 75 and 100 per cent of the population is excluded from access due to the financial resource gap, for example Ghana in Africa, Chile in the Americas, Australia in Asia and Slovakia in Europe.
- In the regions of Africa and Europe we find countries where completely inadequate levels of financing exclude from more than half up to 75 per cent of persons aged 65+ from access to formal LTC services, for example in South Africa, Poland, and Russia.
- Countries where deficits hampering access to formal LTC for up to 50 per cent of the older population include Japan and New Zealand in Asia and the Pacific and several European countries, such as in Italy and Spain.
- Zero deficits are observed in few high-income countries of the Americas including Canada and the USA, and in Europe, among them Austria, Germany and Luxembourg and South Korea in Asia.

3.3.3. In all countries OOP occur when accessing formal LTC services

The financial resource gaps are reflected in the fact that the majority of the global population aged 65+ is concerned by OOP for LTC. This involves even countries that spend comparatively high amounts on public support such as the Netherlands where more than 80 per cent of persons aged 65+ are concerned by OOP (Figure 15).

Figure 15. Share of population experiencing OOP for LTC (home and institutional care), 65 years and over, selected countries, 2015



Source: ILO estimates 2015; SHARE, 2015.

However, the data shown in figure 15 do not reflect the population that has no access to LTC because they cannot afford any private expenditure on LTC given their individual income level. This most likely concerns a relatively large group given the impact of OOP on household income of persons aged 65+.

Based on the information available it can be observed that very high amounts of OOP ranging up to 90 per cent and more of total LTC expenditure are needed to access LTC services as indicated below:

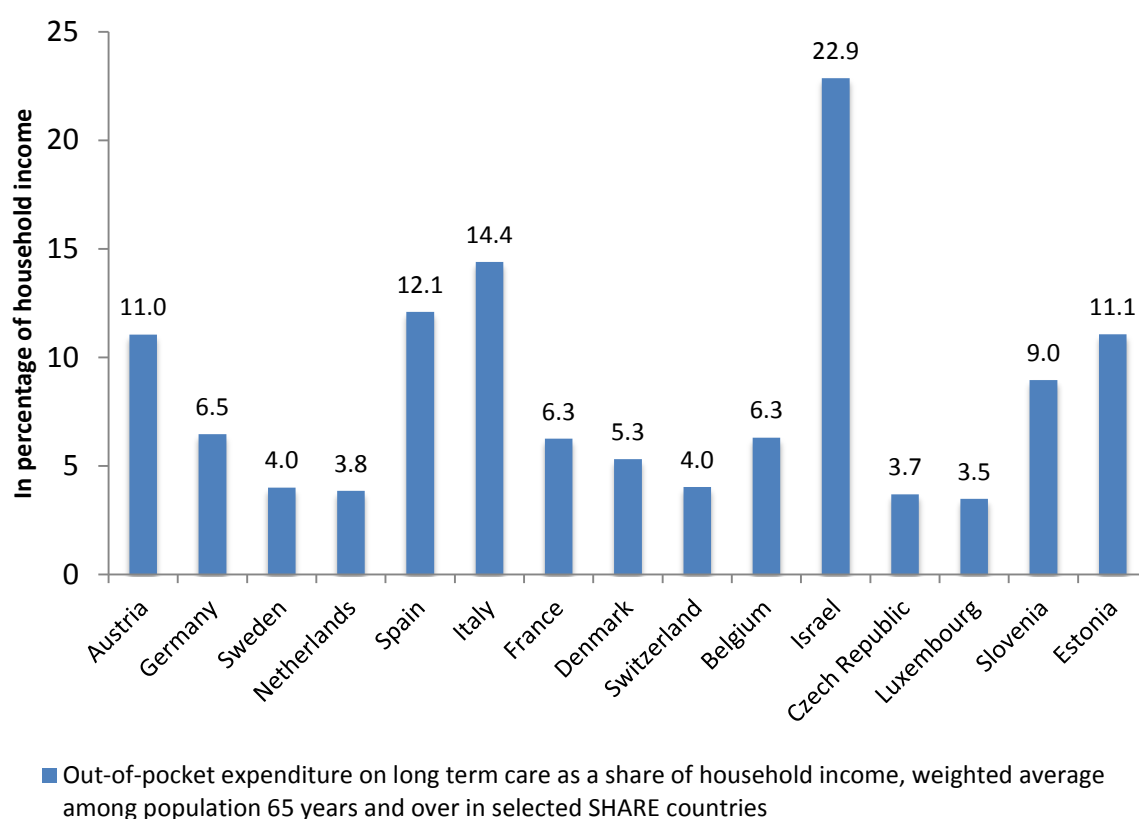
- Africa:
 - In South Africa, no public home care services are available for free (van Zyl, 2013).
- Americas:
 - In Argentina, 60 to 80 per cent of the total LTC expenditures are paid privately.
 - In Canada and the USA, older persons (with low care needs) with income falling into the second income decile face LTC costs of roughly 90 per cent of their disposable income, those in the fourth income decile more than 60 per cent (Colombo, et al., 2011).
- Asia and the Pacific:
 - In Australia, OOP payments consume a major share of the overall income of residents in institutional care, while the regulations installed an upper limit on

OOP for home-based care (Australian Government, 2011a; Australian Government, 2011b).

- In China, institutional care had been increasingly financed through OOP rather than by government funding, which used to support institutional services. For example in Nanjing, current facilities rely on OOP and other non-governmental resources to more than 80 per cent of their daily operating revenues. The revenue share of OOP and other non-government sources is higher in the newer facilities (92 per cent) than in homes built in the 1990s (81 per cent) or before 1990 (39 per cent) (Feng et al., 2011).
 - In India, private households are the main funders of LTC.
 - In Japan, older persons receiving LTC need to contribute 10 per cent of their LTC expenditures, as long as their expenditures do not exceed a certain reimbursement limit, which increases with care needs. Above that, OOP raise to 100 per cent (Takashi, 2013).
 - In Korea, if care needs are defined as “high”, OOP reach or exceed disposable income for older persons in the fourth income decile (Colombo et al., 2011).
 - In Thailand, OOP are estimated to contribute to 80 to 100 per cent of total LTC expenditures.
- Europe:
- In Turkey, we can assume that older persons pay close to all of LTC expenditures directly given the absence of any LTC scheme.
 - In Poland, OOP for institutional care can reach up to 70 per cent of income.
 - In France and Spain, older persons with low levels of care falling into the second income decile face LTC OOP of about 90 per cent of their disposable income, those in the fourth income decile more than 60 per cent.
 - In France, Spain and the Netherlands if care needs are defined as “high”, OOP reach or exceed disposable income for people in the fourth income decile (Colombo et al., 2011).

Figure 16 shows OOP as a share of household income in selected countries. Among these countries OOP for LTC reaches nearly 23 per cent of household income in Israel and more than 10 per cent in countries such as Austria, Spain, Italy and Estonia. In the Netherlands, among the countries with the highest expenditure on LTC, OOP still account for 3.8 per cent of household income of persons aged 65+.

Figure 16. OOP on LTC as a share of household income, 65 years and over in selected countries, 2015



Source: ILO estimates 2015; SHARE, 2015.

When assessing OOP and public expenditure, it is important to consider the close link between poverty and LTC needs: This link is more pronounced with regard to institutional care than with regard to home-based care. A survey of LTC provision in 21 EU member states found that all 21 countries require OOP payments for institutional care, while LTC provided in other care settings is free of OOP payments in at least some of these countries (Kraus et al., 2011).

Apart from consuming the income, OOP payments also reduce accumulated wealth. In the USA it was found that nursing home stays have strong and statistically significant negative effects on every type of household asset holding except higher-risk assets such as stocks, bonds, and mutual funds (which are not very common among low-income households). After the first entry into a nursing home, the resident's total household wealth fell steadily over a six-year period, in contrast to increasing household wealth among those who never entered a nursing home.

Furthermore, among nursing home entrants, median housing wealth fell to zero within six years after the first nursing home entry. But effects on wealth are not limited to users of institutional care settings. Both mean and median levels of every type of wealth were found to be much higher for those who did not use professional home health-care than for those who did (Banerjee, 2012).

4. Three milestones towards resilient LTC protection for all older persons

This study has highlighted a number of critical issues in countries at all income levels and in all regions:

- the nearly universal absence of solidarity in financing LTC protection of older persons and related barriers to access formal LTC;
- the burdening of often female family members with LTC responsibilities for older relatives without provision of training and compensation for the time allocated and services provided;
- the impact of fragmented social protection coverage and insufficient LTC benefit packages on equity in access to services and potential impoverishment;
- the deficits in the availability of formal LTC services due to the absence or insufficient numbers of LTC workers; and
- the mismatch between the existing LTC, health, old-age pension, disability and other social protection schemes and systems with regard to providing quality LTC services in an efficient and effective way.

The troubling situation of LTC observed at the global, regional and national level can be explained in the context of both, age and gender discrimination. In the area of LTC, ageism manifests itself in ignorance of the care needs of older persons and systematic exclusion from social protection, participation and voice resulting in important disadvantages as compared to younger generations. Ageism creates a perception of older persons in need of LTC as burdens and allows for a lack of formal services to become the rule, failing to recognize the potential for physical and mental improvements made possible through quality services and enabling environments.

This perception is mirrored for example in health systems where depression of older persons often remains untreated and rights to health and social protection are ambiguous or obscure. The worst forms of age discrimination even result in inaccessibility of needed LTC, fraud, abuse and violence against older persons.

The observed age discrimination is anchored in the prejudice that older persons should not consume a lot of public resources such as health and LTC and in the assumption that less money and less mobility is needed once aged 65+. This results in a preferential public support of younger generations and very low shares of public resources spent on persons aged 65+ for LTC. Such ageism is also expressed in the highly irrational fear of unaffordable public LTC expenditure occurring due to aging populations.

A further manifestation of age discrimination in LTC relates to social exclusion and the absence of empowerment of older persons through rights and voice as well as the scarcity of research and data on LTC in all countries. As a result we find the observed lack of adequate social protection to maintain the physical independence of older persons and their income.

In addition, such ageism does not often result in public or societal criticism such as other forms of discrimination and is treated less seriously.

Also allusions to gender discrimination occur in the context of LTC. They can be found in societal expectations – sometimes even enshrined in legislation – and patriarchal

family structures requiring from often female members to be available for “family care work” ignoring their own needs in terms of income, social protection, career, and others.

Against this background, it is important to develop policies that have the potential to value older persons in need of LTC instead of presenting them as a burden. Further, rather than just appreciating older persons accordingly to their “economic value” in terms of savings accounts and wealth, human and civil rights as highlighted in R202 should be considered and used as a key tool to address ageism and LTC deficits.

This requires that all older persons are protected by legislation covering LTC needs. In addition, related State guarantees should be implemented with a view to avoid any financial or other barriers that might occur when taking up LTC benefits.

4.1. Milestone One: Recognizing LTC as an own right

4.1.1. LTC: A right in its own

This study observed important deficits in legal coverage at the global level, including in high- income countries. As a result, persons aged 65+ in need of LTC are facing high private expenditure and severe coverage deficits that often result in access barriers and inequities among those who can afford the needed services and those who cannot.

An analysis for Spain found a considerable degree of inequity in access to LTC services, both in terms of use and unmet needs of LTC (Garcia-Gomez et al., 2014). In particular, use of community care services was found to be subject to pro-rich inequity, while intensive use of informal care services appeared to be disproportionately concentrated on the worse-off, with families acting as safety nets. Among persons with higher levels of LTC dependency, the pro-rich inequity in the use of formal services was found to be even more pronounced. With regard to unmet needs, the analysis unveiled pro-poor inequity.

Further problems arise where private LTC insurance is supposed to fund LTC services. In such a regime it is mostly the less wealthy population that suffers from coverage and access gaps. Transferring these observations from high-income countries to low and middle-income countries, the concerns about private LTC insurance as a main funder of LTC are exacerbated further. In many of these countries the distribution of wealth and income is even more unequal than in high-income countries, thus leaving an even larger and more vulnerable proportion of the population with limited or even non-existent access to affordable protection against the financial risks associated with LTC needs.

In addition, poverty risks arise where families are responsible for providing care for older family members with needs so extensive that they necessitate reducing working hours and thus income. As such tasks are most often delegated to female family members this problem affects women to a larger degree than it does men.

Where LTC coverage exists but is limited, for example due to means-testing or the use of a variety of uncoordinated schemes and systems, an increased risk of catastrophic LTC expenditure and unmet needs (under-utilization) might occur. Where eligibility for services is subject to means-testing, a very low income threshold may result in prohibitive expenditure for persons just above this threshold. This is the case in Poland.

Against this background, it seems most appropriate to ensure efforts are taken to effectively address the issues observed in legal coverage. The most important step in this regard is to recognize LTC as a social risk in its own right.

Thus, LTC should not be included as an annex or complement in existing social protection systems or schemes but organized separately in order to prevent it from becoming further marginalized compared to “traditional” risks such as health or social assistance and exclude medicalization or stigmatization. Experience in OECD countries proved, that separate budgets for example for health protection and LTC generally help reduce inappropriate admission of persons needing LTC services to health care institutions (Colombo et al., 2011).

In addition, LTC schemes or systems should be embedded in overall social policies and coordinated with other social protection schemes and systems such as health, pension and social assistance.

4.1.2. Developing inclusive legislation in the context of national social protection floors

It should be ensured that the provision of LTC services is a universal right anchored in national legislation. The most appropriate framework for achieving rights-based universal coverage is highlighted in R202.

R202 specifies that social protection floors consist of nationally defined sets of basic social security guarantees which secure protection aimed at preventing or alleviating poverty, vulnerability and social exclusion. It highlights the role of governments in ensuring these guarantees based on legislation, financing and provision of related services.

Applying R202 in the context of LTC requires setting up a comprehensive framework that is based on some core principles: While R202 does not describe concrete national policy steps to be taken towards achieving universal coverage with regard to health, pensions and other services and benefits, it is necessary for governments to consider some essential principles. They include among others universality of protection based on social solidarity, entitlements to benefits prescribed by national law, adequacy of benefits, non-discrimination and social inclusion.

Based on these principles, LTC coverage should be universal and inclusive – thus all persons should be covered by national legislation. Benefits – including prevention and health promotion – should meet the criteria of availability, accessibility, acceptability and quality of LTC services. They should consist of several components:

- In-kind benefits – all kind of medical and non-medical services provided by paid or unpaid workers – that allow older persons staying at home, in institutions or day care facilities. The quality of services should be acceptable. Additional in-kind benefits should be established to support informal LTC workers such as family members. They include social security coverage and enabling work/family arrangements such as care leave.
- In-cash benefits to compensate for expenditure such as wages and social security coverage of informal LTC workers or developing an enabling environment that allow for a life in dignity.

Furthermore, persons in need should not face financial hardship and an increased risk of poverty due to the financial consequences of accessing care. Basic income support should allow for a life in dignity. Thus, the scope of benefits should ensure that services in institutions, day care facilities or at home are affordable. This should be taken into account with regard to co-payments but also when developing eligibility rules, particularly means and needs-testing. Related assessment systems should consider cognitive limitations and not exclusively focus on activities of daily living (ADL).

According to R202 national social protection floors should be financed by national resources. OOP is not considered as a financing mechanism that should be used to generate social protection revenues. Resources can derive from taxes or – in case of social insurance schemes – from contributions or a mix of both resources. In this context, it is key to ensure effective enforcement of tax and contribution obligations and develop fiscal space if needed, for example by re-prioritizing government expenditure.

R202 also highlights the need to develop monitoring approaches that allow assessing progress and performance. It requires collecting, compiling, analysing and publishing a range of data, statistics and indicators that are disaggregated, particularly by gender. Appropriate monitoring in the context of social protection floor policies also involves participatory approaches, consultations and voice.

Based on the outlined framework of R202, inclusive LTC legislation should be developed that clearly stipulate rights to LTC for older persons.

4.2. Milestone Two: Implementing the right to LTC

Governments should ensure that national legislation providing guarantees for LTC is fully implemented. This requires adequate funding to ensure the affordability of needed services and the accessibility of such services due to a sufficient number of LTC workers and infrastructure.

4.2.1. Ensuring sustainable funds and affordability of LTC

Globally and in all countries, public and private expenditure on LTC are significantly lower than those on health. This is due to the considerably smaller number of persons concerned. However, related figures should be assessed with caution as family members providing LTC often face high opportunity costs (reduced working and recreational hours, emotionally demanding care management etc.) These costs might be significant but are included nowhere in official statistics on LTC expenditure. Further, statistics might underestimate the private expenditure on informal care as informally employed LTC workers are not declared to taxes and social security and are not taken into account. Underestimations of expenditure also occur due to the fact that many persons aged 65+ and their families might be too poor to afford any LTC and thus persons in need remain without adequate care.

Generally, LTC services are funded using one or more of the following financing mechanisms:

- **Tax-based financing:** Taxes are based on a large “risk-pool” of the whole population that shares the financial burden of LTC expenditure. However, there is a wide variety of tax-financing in the area of LTC systems ranging from safety-net approaches such as in the UK to systems with wide scope and depth of coverage as in Scandinavian welfare states that are based on needs-testing:
 - In Spain, providing the necessary care has traditionally been a responsibility of the family and the public provision of LTC is means-tested, thus restricted to poor households.
 - In Sweden, services concentrate on individuals with the highest care needs, but no means-test is applied and co-payments are limited to certain income levels.
 - Furthermore, some issues should be considered if tax revenues are not earmarked: (1) Taxes are not protected from use for other purposes, such as

health care or pensions. These are usually of higher public visibility and are often supported by stronger lobbies and thus LTC might not receive sufficient public funding as observed in many countries. (2) Taxes do not create legal claims for specific services and older persons in need of LTC might face difficulties to take up these services when in need.

- **Social LTC insurance:** Social LTC insurance schemes such as in Germany or Korea are using income related contribution payments – sometimes shared between employers and employees – as the basis for financing LTC benefits.

Generally, contribution setting requires taking into account the contributory capacities of the population in order to avoid financial hardship. Social insurance schemes, particularly if combined with tax subsidies for those who cannot afford contribution payments or who have no income, fully respect the criterion of affordability.

However, some equity concerns might arise if upper ceilings for contributions apply such as in Germany. Furthermore, it is necessary to ensure that persons both in the formal and informal economy are covered to achieve universality. Given the absence of formal labour contracts in the informal economy it might be necessary to develop mixed financing mechanisms that ensure e.g. contribution coverage through tax subsidies for persons in the informal economy.

As social insurance funds are strictly separated from government budgets they cannot easily be used for other public purposes or shifted to other priorities within government budgets. This is an important consideration where LTC as a social risk in its own right has not yet found broad acceptance or recognition in social policy.

- **OOP:** Globally, the most frequently used method to finance LTC is OOP. A direct private payment to LTC providers without any risk pooling or prepayment. OOP occur in the absence of LTC schemes or systems or if benefit packages or service quality provided are too low to meet the criteria of acceptability.

Many older persons – even recipients of old-age pensions in high-income countries – often do not have sufficient private means at their disposal to finance long-term institutional care. Also home-based care needs often exceed the financing means of older persons.

The situation is worsened by the fact, that in many countries, the obligation to pay a private share to finance LTC services relates not only to income, but also to wealth. For large parts of the older population, a major part of accumulated wealth consists of owning the residence where they live. The obligation to spend down wealth to finance LTC services may or may not include housing, but housing wealth is increasingly being included (Costa-Font et al., 2006). For the United States, it was found that housing wealth of nursing home entrants fell steadily over a six-year period, resulting in a median housing wealth of zero within six years after the initial nursing home entry (Banerjee, 2012).

Against this background, OOP should be minimized and not be considered as a financing mechanism for LTC given its impoverishing potential and the fact that it often completely prohibits access to needed services. Furthermore, it is the most regressive way to finance LTC services. Yet, OOP are the single LTC financing mechanism in most countries and have typically been implemented in most high-income countries, often to alleviate the burden of public payers (Colombo et al., 2011).

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- **Private LTC insurances:** In a few countries, we find private LTC insurances that provide a narrowly defined range of LTC benefits. Nowhere is voluntary private LTC insurance a large funder of LTC services. There are several reasons why most governments and people abstain from purchasing private LTC insurance policies if available. They include high premium payments that cannot be afforded by the majority of the population and uncertain benefits (Pestieau and Ponthière, 2010). Furthermore, when insured privately, a worsening income situation might lead to a loss of insurance coverage due to the inability to continue premium payments.

While the use of taxes and social insurance contributions can be mixed in order to balance pros and cons of both approaches it is difficult to balance the negative impacts on equitable access to LTC services created by OOP or private LTC insurances. Thus, the most appropriate LTC financing mechanisms to be considered by countries should exclude the involvement of high private expenditure for OOP including premium payments. In fact, LTC financing mechanisms should be based on broad risk pools – in the case of insurance based on mandatory coverage – and OOP should be minimized.

Key criteria for selecting taxes – including means and needs-tests – or insurance-based approaches or a mix of both should include the poverty rate, the extent of the formal economy, structure and performance of existing social protection schemes, the size of the tax base, the capacity to collect taxes and/or contributions, and the availability of the LTC workforce and infrastructure. These criteria should be taken into account with a view toward achieving sustainable LTC funding for the whole population.

In addition to generating funds through the above financing mechanisms, fiscal space for LTC will be gained through returns on investments in formal LTC employment. Given the fact that the current – already extreme – workforce shortage of 13.6 million formal LTC workers will increase with the growing needs of aging populations substantial investments are necessary. Filling the gaps in numbers and creating decent working conditions including adequate wages for formally employed LTC workers, will significantly contribute to the growth of countries' GDP, reduce unemployment, and reduce the risk of impoverishment and associated costs of public support. These returns on investments should be taken into account when assessing fiscal space for LTC.

Furthermore, fiscal space might be created through appropriate policies such as reallocating government budgets to LTC or governing insurance funds more efficiently. In addition, complementary policies might be considered to increase and sustain LTC funding, such as poverty alleviation policies or increasing the tax revenues and contributions for example through transforming informal into formal labour markets and providing decent wages.

In addition, when deciding on adequate funding through LTC financing mechanisms it should be taken into account that adequate resources for LTC service and infrastructure can significantly reduce demands for acute health care services, which are typically more costly than LTC. The employment of nurse practitioners or physician assistants in nursing homes, the provision of intravenous therapy, and the operation of certified nurse assistant training programs have been found to reduce ambulatory care sensitive hospitalizations. In a different institutional context, a geriatric consultancy service in nursing homes appeared to reduce hospitalizations of nursing home residents (Schippinger et al., 2012). A similar example relates to Poland, where institutional care is provided free of charge in the health sector, but means-tested in the social sector. Thus, health facilities might not be used appropriately (Golinowska et al., 2014).

4.2.2. Ensuring accessibility of LTC services: Addressing shortages and mismatching schemes and systems

Ensuring accessibility of LTC for older persons requires that services are available given a sufficient number of LTC workers and infrastructure for example to provide institutional care. Further, accessibility requires that various schemes and systems that provide services and other benefits are coordinated so as to ensure integrated service delivery and policy coherence.

However, a significant shortage of LTC workers and infrastructure is observed throughout the world. It is expected that the shortages will even increase significantly with global ageing. Current estimates concerning the formal LTC workforce point to the fact that the number of formal LTC workers will have to double in OECD countries by 2050 in order to meet the needs (Colombo et al., 2011).

LTC services are provided by two inherently different groups of providers – formal LTC workers and informal carers. Generally, the majority of both groups constitute of female workers that are particularly exposed to inequities given low or no wages, poor working conditions or in the case of family care givers missed opportunities to generate income from remunerated work. Given the heterogeneous current and future challenges each of these groups face, two coordinated sets of policies are necessary to ensure sufficient and sustainable availability of quality LTC services.

Policies ensuring accessibility of services should address LTC workforce shortages that include enlarging the inflow of LTC workers into the labour market and reducing or delaying the outflow from the labour market while also increasing retention (Joyce et al., 2006). Further, it is necessary to develop effective support measures for informal LTC workers. Finally, infrastructure should be extended so as to meet current and future needs.

Enlarging the inflow of formal LTC workers into the labour market

Increasing and/or improving skill development and training has the potential to support all routes of enlarging the LTC workforce capacity at the same time and can therefore be seen as a primary measure.

In several countries, the broad range of tasks in LTC and the different qualification requirements going along with these tasks are fulfilled by separate training curricula. While training curricula for nurses are more homogenous across countries, there is a wide range of training requirements in specific programs for LTC workers. Differences pertain to scope, the mix of theory and practice, and most notable to the duration of programs, ranging from 75 hours in some states of the United States to up to a few years in Denmark and Japan.

As there is no international minimum requirement on training standards, comparisons across countries are hampered. Not even all OECD countries regulate training standards, those that do it typically regulate but not in every case on the national level (Hu and Stewart, 2009). The heterogeneous qualification schemes can impede migration of personnel, in addition to posing an obstacle to collecting meaningful data for planning and evaluations.

Where staffing levels in LTC are regulated, typically lower numbers of better qualified workers and higher numbers of workers with lower qualifications are prescribed (Mayr, 2010; Sasat, 2013). As nursing aids and helpers provide the bulk of care work, their qualification is of specific concern for the provision of quality services. But also in high-income countries, care workers without any relevant formal training constitute a sizeable proportion of the workforce (Colombo et al., 2011). On the international level, there is

considerable variation whether predominantly external or internal trainings are provided. Many care providing facilities are rather small, which can be an obstacle for providing efficient and effective quality-based trainings. Furthermore, quality monitoring of such facility-based trainings may prove to be overly resource intensive. There is therefore a case for providing external training programs (Gospel et al., 2011).

However, attracting a sufficient number of future LTC workers into LTC training facilities is difficult as work in LTC is usually low-paid and often perceived as a low-status job. This holds for high-income countries (Simonazzi, 2009) as well as for middle-income countries:

- In China, although some laid-off workers find employment as caregivers, the majority of local laid-off workers are not willing to work in LTC, primarily because these jobs do not pay well, are labour intensive, and tend to be viewed as having low social status. Furthermore, laid-off workers reported in a survey that they were discouraged by family members from seeking employment as a domestic care worker (bao mu) because they do not want to “lose face” among neighbors and associates who are aware of their relatives’ poor working status (Wu et al., 2012).
- A study on nurse aids in the United States found that about 35 per cent of respondents that left nurse aide work moved into better paid lines of work. An additional 15 per cent of former nurse aides became registered nurses to develop careers (Ribas et al., 2012).

Thus, it is important to ensure that wages in LTC jobs are reassessed and set at adequate levels. This also concerns other conditions of work such as occupational safety and health conditions, career perspectives etc. Furthermore, acknowledged training certificates can provide a route to improve the status as well as a better basis for achieving raises in wage negotiations.

Therefore, increased training investments offer not only the potential to provide a higher quality of services, but also to support the attractiveness of LTC work via better remuneration and higher public recognition of this type of work. Both should support recruitment for as well as retention on the job.

LTC workers across the globe are mostly women, and training programs traditionally focus on young people. Widening the focus to include population groups other than young women seems worthwhile. In some countries, programs have been enacted that focus on recruitment from underrepresented or inactive populations (like older persons, unemployed, underrepresented groups like men). Such programs can simultaneously serve additional goals, like providing income and meaningful work for persons with low prospects of finding jobs, and making the pool of LTC workers more heterogeneous. Higher diversity among care workers is likely to increase acceptance of formal care also in cultures with higher barriers to accept professional (as opposed to family) care.

A relevant example consists of the Chilean National Service for the Elderly People (SENAMA) which developed a project called “The Community Helps their Elderly People” (“La Comunidad Ayuda a sus Mayores”) so far executed in three communities of Santiago. The project focusses on households with a non-institutionalized dependent member, for whom the family provides care. The program is a combination of education and remuneration for informal carers and formal home-based care provided by so-called Health Assistants. These assistants are selected by the Municipal Offices of Labor Intermediation and many of them are housewives, unemployed women or women for whom this work contributes to social and personal development (SENAMA, 2009).

Facing a “looming crisis” (Ono et al., 2013) in supply of health and LTC workers, many countries have resorted to rely heavily on migrants, especially but not only in high-income countries. Across Europe, there are two predominant patterns of migrant LTC workers: In Northern and Western Europe, migrant workers are typically employed by LTC organizations, funded from public sources and have in general a higher level of training. Their relationship to the person in need of care is that to a consumer or patient. In the Mediterranean, Eastern and Continental Europe most migrant workers are employed and remunerated by the person in need of care or their families, and often live in the household of the care recipient (Lamura et al., 2013).

The latter group of migrant workers faces particular challenges. These LTC workers are in a weak position from a sometimes legal, sometimes linguistic point of view, which may lead to very low wages and often to irregular employment. Qualifications for care work are sometimes present but not accredited, and often lacking. Linguistic and cultural differences may lead to different perceptions about the kind and quality of care expected. The combination of challenges gives rise to concerns over the quality of care ultimately provided. The situation may cause hardships for the migrant care workers themselves, but also for those in need of care in their home countries which may suffer the effects of “care drain” (Lamura et al., 2013).

It is noteworthy that by far not only traditional high-income countries form destination countries for migrant care workers. The phenomenon is also present in China, among other countries with migration between less-developed rural regions and urban centers and with very similar problems, including language barriers. Such *bao-mu* are literally domestic workers, often earning lower wages than other service workers and without any LTC-related training, but are mostly employed for the purpose of supporting older persons with care needs (Glass et al., 2013; Wu et al., 2012).

Reducing/delaying the outflow from the labour market and increasing retention

The turnover in the LTC workforce is rather high, and there is evidence that a considerable share of workers remains in the profession for only several years after completion of training (Ono et al., 2013). An example relates to the Netherlands, where insufficient development and career opportunities are found to be the strongest among reasons cited for nurses’ motivation to leave the profession. A negative working atmosphere also contributed to dissatisfaction (Tummers et al., 2013).

Furthermore, population ageing is not only a challenge for LTC systems due to the increasing number of seniors in need of care, but also due to ageing of the LTC workforce. The changing needs of older compared to younger LTC workers therefore need to be kept in mind in order to increase retention. A literature survey on retention of older nurses points to the importance of a favorable work culture in LTC institutions. Respecting and recognizing the achievements of older staff, valuing their expertise, and creating a sense of community can all contribute to keep older nurses in their line of work. But also education and peer development, flexible shifts of working hours and adequate wages also play a role. The results suggest that often low-cost measures can contribute to improve the work environment and satisfaction on the job (Moseley et al., 2008).

Good practices and policies on improving retention can be found in several countries:

- In Canada, retention based on job satisfaction among nurses was linked to programs enhancing the work-life balance. After controlling for personal and work-related characteristics (such as overtime, shift work, weekly hours, staffing inadequacy etc.), employer-supported child care and fitness programs were also associated with levels of job (dis)satisfaction (Wilkins and Shields, 2009).

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- In China, organizational support has been found to reduce burnout among community nurses (Cao et al., 2015).
 - In Korean nursing homes, organizational commitment appears to be linked to higher retention as well as to higher quality of care (Ha et al., 2014).
 - Among nurses working in the British NHS, dissatisfaction with promotion and training opportunities were found to have a stronger impact on retention than workload or pay (Shields and Ward, 2001).

In countries like Germany or Japan, training curricula are regulated at the national level and are designed mostly as trainings en bloc in the initial phase of a career. Such curricula do not facilitate continuing education or adjustments in the focus of work. Training systems with a modular structure which can be extended in the course of a career offer more potential for career development (Gospel et al., 2011).

The need for effective support measures for informal LTC workers

The availability of informal LTC workers, mainly family members, needs to be accommodated by policies. Given the aging of the population, it can be expected that a growing share of the workforce must balance caregiving with paid employment. Combining these two roles currently presents a key challenge for many informal care workers often resulting in a higher degree of work-family conflict than workers without care obligations. Furthermore, informal care workers show higher rates of both family-related and health-related absences from work than non-carers (Zuba, Schneider 2013). The intensity of care has been identified as the key factor to determine the labour market attachment of informal carers (Simonazzi, 2009; Colombo et al., 2011; Jakobsson et al., 2013).

In this context, it should also be considered that international comparisons have identified stronger ties between the provision of informal care and employment in countries with less developed formal care services (Bolin et al., 2008; Kotsadam, 2011). The expected upward surge in the average intensity of informal caregiving (for example due to widespread policies to postpone the transfer from home care to institutional care as long as possible) stresses the need for effective support measures for informal LTC workers.

Care giving can trigger reductions in paid work time of informal LTC workers placing family care workers at higher current and future poverty risks. Thus, failing to properly support informal care may interfere with employment and inclusion goals. Because women are the main providers of informal care in most countries, such tendencies have the potential to aggravate existing gender gaps.

Currently, it can be assumed that middle and low-income countries are providing a higher share of LTC through informal care workers than do high-income countries. This assumption is based on the fact that in these countries a significant higher number of parents are observed to be living with their adult children and with non-working women aged 55-64 (Reimat, 2009 cited following Golinowska, 2010).

Additionally, the family composition can be linked to the provision of informal care: In Chile, provision of informal care is lower for women with sisters, but not for women with brothers, corroborating the persistent gender roles regarding cultural care obligations. Furthermore, women with spouses were found less likely to become informal LTC workers (Bravo and Puentes, 2012).

In recent years, several countries have invested in support mechanisms for informal LTC workers resulting in a very heterogeneous landscape of policy support (Courtin et al., 2014):

- **Cash benefits:** LTC policy in several European countries allotted an increasing role to cash benefits. A comparison of cash benefit designs finds that well-designed cash benefits can contribute to raising employment by improving funding for formal care (Riedel and Kraus, 2015). However, experience shows that mainly low-skilled, part-time jobs with low wages have been created (Morel, 2007). Furthermore, the provision of cash benefits in the absence of sufficient formal home care services is likely to provide an incentive for informal LTC workers to withdraw (partly or completely) from the labour market, and even more so for persons with rather low education levels, skills and wages. This effect might be higher in rural than in urban areas given the more important deficits of formal workers in rural areas such as in health care (Scheil-Adlung, 2015).
- **Benefits in kind:** Only a few countries provide specific benefits to informal care workers, including the rights to care leave for family members and social protection in health, old age and other schemes and systems during the times of care. These benefits proved to be highly important to avoid negative impacts on informal LTC workers.
- **Training:** The introduction of training for informal care workers should be considered as a means of public support given the difficulties involved in LTC work including nursing skills, providing physical and psychological support, and ensuring coordination of daily activities including administration.
- **Investing in the LTC workforce:** Rather than aiming at “cheap” labour, governments should aim at supporting informal care workers by removing the heavy burden of family responsibilities. The mostly female informal LTC workers can be significantly relieved by providing sufficient public funding and decent working conditions for formal LTC workers both home-based and in institutions. Making sufficient formal staff available and addressing the severe workforce shortages in the formal care sector is a key policy in this context. Sufficient professional services including in rural areas will allow informal LTC workers to limit their work to “family care” rather than having informal LTC workers serve to fill in the gaps and deficits in formal care. This is also important to keep informal LTC workers employed in remunerated work.
- **Developing the necessary infrastructure:** Developing infrastructure for efficient and effective LTC should be seen as a key priority ensuring access to needed services. This includes particularly enabling housing and living environments such as retirement communities that include older persons with LTC needs. These forms of support are among the most cost effective methods to support care for persons aged 65+ and provide the most decent living conditions, respond to the desire of older persons requiring LTC services and can be considered as both preventive and rehabilitative measures.

Creating enabling environments for older persons ranges from developing housing infrastructure facilitating daily living for persons that are physically or mentally constrained to the development of communities that provide shared services such as meals, social services, transport, leisure activities or co-housing. They also include subsidized housing for low-income persons aged 65+ or day care facilities. However, without public support, these options remain affordable to a minority only.

Creating enabling living conditions may also involve the development of home case management and coordinated interaction of health and social care, including for end-of-life

care. Currently some 65 per cent of all older persons in need of LTC in OECD countries receive home-based care – in Japan and Norway these figure even reaches 75 per cent (Colombo et al., 2011).

It is further important to significantly develop the availability of institutional care. While living in institutional care is seen as the least favorable option of receiving necessary care in many parts of the world it cannot be completely avoided in cases that require high levels of quality care. Thus, it needs to be ensured that institutional care is reserved for these cases. However, it should be kept in mind that if appropriately equipped, home-based care has the potential to avoid institutionalization as well as hospitalization.

New facilities in the growing market of institutional LTC in China as well as Korea are mostly private or semi-private institutions. There is fierce competition for sufficiently wealthy costumers. In Korea, unlawful and/or unethical behavior has been observed at two thirds of all providers (Chon, 2014). For China, only minimal standards for the regulation of providers of care exist on the national level. These need to be implemented at the provincial level and eventually should reach cities and counties. Strengthening regulatory oversight has been recommended (Feng et al., 2012).

Among African countries, public LTC capacities are nearly non-existent, with only some limited capacities in South Africa. In Asia, particularly India faces most problematic situations as public institutional services are hardly available anywhere. Thus, in these regions significant investments in adequate institutional care are necessary to address the growing care needs in ageing populations.

Finally, ensuring the accessibility of services requires ending the mismatch between health and social schemes and systems resulting in disintegrated service delivery and increased fragmentation and impoverishment. This is due to various reasons:

- The disintegrated delivery of services, which are often organized by different specialist domains, for example in acute chronic and social care.
- The difficult navigation across and within the different schemes and systems that pose enormous problems for older persons. This is also due to the fact that the boundaries of health, LTC and social schemes are often unclear: Health care includes for example home health care and rehabilitation, but often excludes mental care that is needed due to cognitive impairments. Thus, even professionals sometimes tend to be insecure about most appropriate approaches in specific cases of care.
- Given the defined responsibilities of various professionals involved in medical and non-medical care, in institutions, home and day care facilities overlaps or gaps might occur that are hampering efficient and effective service quality and delivery. Against this background, in some countries efforts were needed to ensure adequate care. They include the implementation of case management, the cooperation within multidisciplinary teams and the personalization of care.
- Dysfunctions at scheme and system level: An example relates to China where poverty plays an even larger role than care needs, and it is difficult to distinguish between nursing homes and mere residential homes. Institutional care provided by the public sector is considered as a means to provide housing for seniors without family or insufficient financial means, but not necessarily in need of LTC. In contrast to community-based LTC institutions in high-income countries often require the absence of care needs, and it has been estimated that only 17 per cent of institutionalized older persons have problems with activities of daily living such as eating and dressing (Hu, 2012).

Further, it is most important to build coordinated schemes and systems with a view to ensure policy coherence across social protection and with other policy objectives, such as labour market or developmental policies. Coordinating LTC, health and pension and other social protection schemes and systems is a pressing issue and a major area of concern since in many countries LTC is financed and organized separate from health care (such as in Austria, Germany, the Netherlands, Japan, Sweden and the United States) or the medical component of home-based care is part of the health care system, while the social component belongs to the social service system (for example in Belgium, France, Italy, Poland, Portugal, Spain, the United Kingdom) (WHO, 2008; Riedel and Kraus, 2011; Wiener, 2013).

Coordination at the system level needs to consider that current health systems have been developed without respecting the need for formal LTC. There is the risk that acute care infrastructure will be blocked by patients requiring care rather than a cure. In the long run, concentrating on health care alone therefore may effectively reduce the resources available for acute care (Watson, 2012; Holland et al., 2014).

It has been common in several high-income countries that acute-care beds were used for LTC patients. The widespread use of prospective payment systems in acute care and the higher availability of formal LTC services meanwhile decreased this misallocation of resources. For example the 1992 reform in Sweden aimed at more closely aligning responsibilities along the border between health and LTC, in order to reduce the backlog in hospital admissions (Wiener, 2013).

4.3. Milestone Three: Making universal LTC protection a top priority on the policy agendas of all countries

4.3.1. *Developing evidence for decision-making and monitoring progress*

While comprehensive information has the potential to influence priority setting in politics, on LTC even the most basic data are missing at global, regional and often national level, let alone disaggregated data by income, gender and place of residence. Currently, only fragmented information is available on mostly high-income countries. However, these data do not provide sufficient information for policy-makers to fully understand needs of in-kind and in-cash benefits, impacts of eligibility rules and cost impacts on income and wealth of older persons. Also research on LTC is scarce and results are rarely shared beyond national level so as to develop a common understanding of policy approaches, such as in the area of migrant LTC workers.

The lack of data can be considered as one of the core reason for the large public neglect of LTC needs of older persons, the funding deficits observed throughout the world and the shortage of formal LTC workers. In addition, the absence of such data hinders evidence-based decision making and might result in biased thinking, overstating costs and understating issues in the delivery of LTC services.

Thus, systematic and relevant data for policy development, monitoring and evaluation are a key tool to address deficits in LTC. Such data will allow for realistic estimations of current and future LTC expenditure and highlight areas of most important political intervention. Core aspects for data development on LTC including monitoring and evaluation comprise disaggregated data in the following areas:

- characteristics of the population aged 65+ in need of LTC;
- number of persons concerned by gender and income level;

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- coverage and access in terms of affordability and availability of quality services as well as in-cash and in-kind benefits for informal care workers;
 - utilization of services and benefits;
 - follow-up on services and other benefits provided;
 - public and private cost sharing of expenditure including fees and co-payments;
 - sustainability of public funding;
 - administrative efficiency and effectiveness of public LTC provisions;
 - development of formal LTC workforce, including density, gender and working conditions such as wage levels;
 - availability of informal LTC workers including gender, age, and indirect costs provided;
 - impact and progress of LTC coverage and access over time.

In order to set up a comprehensive framework for LTC protection it is suggested to monitor progress towards achieving the objective of universal coverage. Data development should involve national consultation mechanisms, particularly tripartite participation of relevant stakeholders, employers, employees and voices of older persons in need of LTC. Further, data should be *regularly* collected, compiled, analysed and published using adequate indicators. Guidance regarding concepts, definitions and methodologies for the production of data can be sought by ILO.

4.3.2. Empowering older persons to combat ignorance, fraud and abuse

While we find in most cultures reference to respect and recognition of life achievements of older persons, their daily reality does not reflect appreciation and is often characterized by ignorance of needs and sometimes ageism which in its worst forms is expressed as fraud and abuse.

A key barrier to achieving progress and stopping ageism relates to the large absence of power exercised by persons aged 65+. In the areas of LTC, this lack of power is observed within families, regarding the choice of LTC services and workers, and in politics. Ageism is most significant in cases where age is combined with frailty, mental health or poverty which might result in exclusion, marginalisation and inequities in accessing resources and entitlements.

The absence of influence, control and authority of persons aged 65+ in need of LTC often leads to resignation and lack of expression regarding own needs. Thus a vicious circle of ever growing power deficits and unmet needs is created. Against this background, it is indispensable to empower older persons so as to allow them to express and defend their basic needs and to advocate that their needs be met.

A meaningful empowerment that has the potential for change includes fostering the political influence of older persons and improving their physical and socio-economic situation. This can be achieved through various approaches:

- **Legal empowerment:** Rights-based approaches build respect for “rights-holders” – older persons – and hold “duty bearers”, such as governments responsible to fulfil

the rights guaranteed in legislation or in international conventions and recommendations such as ILO R202.

In the area of LTC, it is important to develop universal rights to LTC through inclusive legislation providing coverage and access to needed LTC services and benefits in cash. Such legislation should specify the range of services and benefits, eligibility rules, levels of benefits and others. Further, these rights should open access to complaint and appeal procedures.

- **Economic empowerment:** Income is a key foundation of empowerment for older persons. It acts as an enabler for older persons to bring about change for themselves. Economic strengthening of older persons advances independence through the use and control of expenditure and increases the choices that can be made for example regarding the purchase of services and decisions on quality levels.

Thus, adequate income should be available to all. Besides sufficient public funds to cover LTC expenditure, at ages 65+ such income often needs to be provided through old-age pension schemes or other social protection benefits in kind or in-cash as outlined in R202.

- **Physical empowerment** through universal access to fully funded LTC services: A prerequisite for empowerment is physical and mental wellbeing. However, in many countries throughout the world such services are poorly funded. As a result, access to needed services is hampered. In addition, where financial protection from OOP is lacking, the required private expenditure acts as a barrier to access.

Thus, at least essential LTC services of adequate quality need to be guaranteed. This requires sufficient public support and appropriate numbers of LTC workers, particularly in rural areas where the greatest deficits have been observed, including in social protection in health (Scheil-Adlung, 2015).

- **Administrative empowerment:** Access to LTC (and health services) involves the knowledge of rights, availability and quality of benefits and the understanding of administrative processes necessary to claim them. However, many older persons are not in a position to navigate the extremely complex schemes and systems.

Against this background, it is recommended to improve health and LTC literacy and reduce complexity and administrative procedures. Further, it should be considered to develop the capacities and understanding of older persons with regard to rights, services and administrative procedures through providing training and information sessions.

Finally, it is necessary to better match health and LTC schemes and systems, for example by using efficient models of care management and integrated care approaches. This also includes better coordination of professionals, paraprofessionals, informal family workers and institutions such as social insurance funds.

- **Empowerment through enabling environments and infrastructure:** Empowering persons aged 65+ requires enabling environments for example concerning housing, transport, accessing services and institutional care.

Thus, policies strengthening the impact of older persons in need of LTC should facilitate and financially support the development of related settings. Within institutions providing LTC, specific attention needs to be paid to reducing negative experiences of older persons, for example related to an oppressive or paternalistic

nature of service delivery. Possible actions include raising standards of care and staffing and introducing regular monitoring.

- **Empowerment through evidence:** Regular evaluation of the needs, coverage and access to LTC services as well as the socio-economic situation of persons aged 65+ in need of LTC should be undertaken. In this context a particular focus should be set on the cost and poverty impacts of taking up LTC services, quality aspects as well as the overall efficiency and effectiveness of schemes and systems. This will allow policy makers to take priority action where needed.
- **Empowerment through voice and participation:** Voice and participation are instrumental for empowerment. The ability to advocate and emphasise needs and preferences through formal or informal channels is key in democracies and often a prerequisite for change. However, currently the level of involvement of older persons in decision-making processes is very low. Particularly underrepresented are persons in need of LTC living in middle and low-income countries. In these countries only very few self-help groups or NGOs are active in the area of advocacy.

Against this background, it is important to significantly increase the level of representation and participation of older persons at all levels of decision and policy making. This includes for example LTC institutions, local and national governments, political parties, mass media and networks that impact on policy decisions and provide access to information. In this context it should be understood that voices of persons aged 65+ needing LTC are not necessarily homogenous and include various groups – marginalized, excluded, crowded out or in. As a result, voices of several representatives might have to be considered for adequate decision making of policy makers, service providers or others that exercise influence over LTC users.

5. Concluding remarks

Despite the globally increasing LTC needs due to demographic ageing, LTC protection remains a privilege for very few persons while the vast majority of the global population aged 65 and more remains without any rights and access to services. Many of these persons suffer from a complete lack of quality services needed to recreate or maintain their physical and mental state. Further, the absence of rights to LTC and related public support has the potential to result in impoverishment of millions of older persons. Particularly concerned are women, both as recipients of LTC and as LTC workers, the poor and the very old.

The situation is worsened by extreme workforce shortages. Globally about 13.6 million formal LTC workers are missing and the bulk of LTC work is carried out by informal workers that exceed by far the number of formal LTC workers. However, even if informal LTC workers such as family members do the utmost to replace the wide gaps observed in public support, in the future they will reach the limits of their ability to provide such support as they themselves grow older.

Major barriers to access needed services are also observed in a significant public underfunding present in nearly all countries. Other barriers include high OOP, mismatching schemes and systems, and a lack of disaggregated data and monitoring that would allow for future planning and decision making.

For the time being, these challenges have not been addressed sufficiently in the political agendas of most countries. In fact, a nearly total lack of political priority has been given to LTC for many years. In addition, the advocacy efforts of civil society on LTC needs are very limited and hardly visible in many countries.

Against this background, all efforts must be undertaken to set LTC issues high on the global and national policy and development agendas. Raising political awareness on these issues requires voice and participation of older persons in LTC decision making as well as the development of statistical evidence to allow for informed policy choices.

Furthermore, inclusive legislation should be developed that provide rights to LTC services and cash benefits guaranteed by governments. Such legislation should be implemented with a view to ensuring full access to quality services provided by a workforce that enjoys decent working conditions.

This involves reforms of LTC financing that minimize the extreme OOP observed in all countries and making urgently needed public funds for LTC available. They should be generated based on large risk pools, such as taxes or income-related contributions to ensure burden sharing and sustainability. An appropriate threshold of public funding per person aged 65+ and year is estimated at 1,460 PPP\$.

OOP should not be used as a financing mechanism. Quality services and benefits of an acceptable standard should be “affordable” in a way that co-payments, user fees or other cost incurred by utilizing services are minimized and reflect the individual’s ability to pay.

The development of a sufficient LTC workforce is required. Adequate staffing – estimated at 4.2 LTC workers (FTE) per 100 persons aged 65+ – combined with decent working conditions has the potential to reduce burn out effects and ensure that persons in need of LTC are better protected against fraud and abuse and should reduce ageism.

It involves important training efforts from all countries – including coaching for informal LTC workers –, developing career perspectives for formal workers to increase

retention and recognition and setting common standards for quality services. In addition, training should focus on respect, inclusion and appreciation of older persons as a standard of conduct for all persons involved in LTC, including providers of care and administrators of schemes and systems. Such training will result in efficiency and effectiveness gains as it reduces diverting for example nurses in charge of acute care from providing care services that require different levels of skills.

When developing fiscal space for LTC, returns on investments should be considered, for example stemming from job growth for formal workers and increases in employment rates for related sectors and contributions to GDP. In addition, it should be taken into account that appropriate investments in LTC facilities can reduce demands for acute care services, which are typically more costly than LTC. Finally, developing LTC schemes and systems in line with health systems will foster the most appropriate allocation of public funds and at the same time ensure a continuum of service provisions for all in need.

In many countries, immigration of LTC workers has been a popular means to accommodate existing staff shortages. However, a multitude of challenges connected to migrant care workers calls for a comprehensive strategy, taking into account needs of people in both origin and destination countries. Potential gains, such as reduction of LTC workforce shortages in destination countries and the reduction of unemployment in source countries should be balanced with the detrimental impacts created such as low wages and non-registration, for example with tax and social security authorities.

Informal LTC workers, mostly female family members, are allotted the main care responsibilities in all countries. However, often no financial compensation for the work delivered, registration in social protection or acknowledgement in society at large are provided. Thereby, women workers are at increased risk of impoverishment in later life. In the future, with increasing inclusion of women in the workforce such care models will not prove possible and LTC benefits should include compensation for loss of social protection, income and care leave.

Adequate benefits in kind and in cash should be made available and be flexible to offer a choice for LTC recipients on how to use them. While a priority should be given to home-based care and enabling environments such as retirement communities, institutional and community care should be developed and made acceptable based on significantly raised quality standards for all in need of higher care levels.

Finally, it is of key importance to embed LTC strategies into broader social protection floor strategies in order to ensure financial protection for all in need and coordinated social and economic policies that reveal the full potential of returns on investments and contribute to efficient and effective LTC schemes for all.

Annex I. Snapshot on LTC protection for persons aged 65 and over in selected countries

Africa: Ghana and South Africa

Ghana

In Ghana, the proportion of people aged 65 and above will double within the next 35 years and is estimated to reach 6.8 per cent in 2050, from 3.4 per cent in 2015 (United Nations Population Division, 2015). In a cross-country study of health and wellbeing of older persons, 88.1 per cent of the Ghanaian population aged 70 and over reported at least one functional disability. Moreover, 63.4 per cent had difficulties moving around, 35.8 per cent encountered problems with self-care in their daily life and 74.3 per cent said they had difficulties with cognition. Over 40 per cent of those aged 75 and over stated they needed at least some kind of assistance (He et al., 2012).

Traditionally, family members support each other in times of need and the family serves as a cohesive unit that provides support to older persons. Therefore, children are generally viewed as a source of security for older persons and as a result African families have tended to be large (Tawiah, 2011). The extended family system is also perceived as being responsible for providing help for older persons with LTC needs (Boon, 2007).

Current legal LTC coverage

However, traditional systems that support older persons are increasingly being compromised by the processes of modernization and globalization, for example when younger people migrate to urban areas or other destinations outside the country. As a result, family ties have become weaker and particularly in urban areas a gradual shift from extended towards nuclear families has been identified (Tawiah, 2011).

Today, 10 per cent of older persons aged 65 and above already live alone (Ghana Statistical Service, 2013). Without the supportive environment of an extended family and in the absence of comprehensive social protection schemes, older persons with LTC needs are at risk of being marginalized and dying prematurely. Moreover, particularly older women who live alone have become victims of neglect and abuse – partly due to traditional superstitions (Ghana Statistical Service, 2013). This indicates an urgent need for LTC services, but no legal entitlements for older persons to access such services exist in national law (Table 6).

Public funding and the availability of LTC services

Although LTC needs are high and increasing, no public funding has been made available so far and a public LTC system providing access to quality care provided by formal LTC workers does not exist. As a result, 100 per cent of the population aged 65 and over is excluded from coverage and access to quality care provided by formal LTC workers (Table 6).

A total of 37,436 formal LTC workers would be needed to close the gap. The private sector has already reacted to the vacuum by offering home-based LTC services to the few who can afford them (Ghana Statistical Service, 2013). Institutional care for the elderly has been provided as a charity by HelpAge Ghana, an international NGO, but remains unavailable in most regions of the country (Ghana Statistical Service, 2013).

Table 6. Statistical snapshot on LTC in Ghana

Indicators	
Deficit in legal LTC coverage in per cent of the population aged 65+	100
Public long term care expenditure per person 65 years and over, in percentage of GDP per capita in 2013	0
Public LTC expenditure, in % of GDP, 2006-2010 average	0
Coverage gap, per cent of population 65+ not covered due to lack of financial resources (relative threshold: 1,461.8 PPP\$)	100
Formal LTC workers (FTE) per 100 persons 65+	0
Coverage gap, per cent of population 65+ not covered due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over)	100
Number of formal LTC workers needed to fill the gap	37,436

Source: ILO estimates based on Ghana Statistical Service, 2013.

South Africa

In South Africa, the share of the population 65 years and older will almost double by 2050, from 5.7 per cent currently to 10.5 per cent (United Nations Population Division, 2015). This looming demographic change will significantly increase the demand for LTC services in a country in which the high HIV/AIDS prevalence places an enormous burden on older persons: They may not only have to care for their often unemployed adult children and sick family members, but also for their orphaned grand-children while being in need of care themselves (Goodrick and Pelsler, 2014).

In South Africa, 86 per cent of people aged 70 years and over reported at least one functional disability. More than 50 per cent had difficulties moving around and 24.8 per cent stated that they had difficulties caring for themselves. In addition, 67.6 per cent also reported cognitive problems (He et al., 2012).

Hence, there is a high demand for LTC services, but socio-economic inequalities created by decades of apartheid persist and are also reflected in the inequitable access to LTC services. Moreover, in the area of public support the interests of younger population groups have gained precedence compared to those of older persons (Goodrick, 2014). For example, three quarters of granted cash allowances are related to children, and only one quarter goes to older persons (Department of Social Development, 2014).

Current legal LTC coverage

The South African constitution states that “everyone has the right to have access to social security including, if they are unable to support themselves and their dependents, appropriate social assistance” (Section 27(1c)). However, concerning social assistance, strict eligibility criteria and means-testing for home-based care as well as the absence of rights to institutional care have resulted in high deficits in legal LTC coverage (Table 7). Thus, older persons in need of LTC depend highly on family care and (unaffordable) private solutions.

The Social Assistance Act from 2004 has introduced the so-called Grant in Aid that pays dependent persons ZAR 330 (~ US\$ 26.4) per month. Eligible persons must:

- already receive a social grant, namely the Older Persons Grant (and thus be poor);
- not be able to look after themselves owing to their physical or mental disability, and therefore be in need of full-time care from someone else; and
- not be cared for in an institution that receives a subsidy from the government for their care or housing (South African Government, 2015).

Thus, in the case of home-based care needs, the Social Assistance Act has established some means-tested entitlements for dependents to receive a cash allowance. Such entitlements, however,

do not exist for institutional care which in South Africa is subsidized by the government and operated by NGOs.

The Older Persons Act 2006 defines rights of recipients of home-based and institutional care services but has not established a legal right to such services. Admission to an older persons' residential facility therefore depends on the availability of beds. In this context and due to the large shortages in institutions, no more than 2 per cent of the older population is allowed to be accommodated in state subsidised care facilities – a policy which has resulted in very long and sometimes prohibitive waiting times (Ferreira, 2013). Admission criteria for subsidized institutional care require an applicant to:

- be a South African citizen;
- be 60 years or older;
- be a recipient of the Older Persons Grant;
- be in need of full-time attendance.

The need for full-time attendance has to be verified by a screening test (needs-based assessment) and a social worker arranges a home visit to assess the current living situation including income and assets owned (South African Government, 2015).

Public funding and the affordability of LTC services

Due to the high deficits in legal coverage, OOP are a considerable problem for most of the (non-poor) LTC dependents. This includes the opportunity costs and income losses of informal family carers involved in LTC.

Public LTC expenditure is low, per person 65 years and over South Africa spent 3.6 per cent of GDP per capita in 2013. This is about 0.2 per cent of the total GDP. As a result, 69.2 per cent of people who are 65 and older are excluded from LTC services due to a lack in financial resources (Table 7).

Public expenditure on LTC is mostly spent on the Grant in Aid as well as on the subsidies for institutional care. In 2014, from the 3 million recipients of the Older Persons Grant, 96,433 also received the Grant in Aid (South Africa Social Security Agency, 2014). Moreover, 74 per cent of the 605 institutional LTC facilities are government-subsidized. The subsidy is paid per dependent person, but has not been sufficient to cover the costs of providing care. Thus, subsidized institutions have to look for alternative financing sources including donations and OOP (Van Zyl, 2013).

The availability of LTC services and workers

The South African government has encouraged age-in-place initiatives where dependent persons stay in their communities and are cared for by their families – with support from NGOs and religious institutions rather than the government (Goodrick, 2013).

Most of the government-subsidized institutional care facilities are found in urban areas (mostly Cape Town and Johannesburg) with relatively low concentrations of older people and are primarily used by white South Africans (Goodrick, 2013).

South Africa has a high deficit in sufficiently trained formal LTC workers; only 0.4 formal LTC workers (FTE) exist per 100 persons aged 65 and over. As a result, 90.5 per cent of the population aged 65 and over is excluded from LTC services due to insufficient numbers of formal LTC workers. It is estimated that about 86,000 formal LTC workers would be needed to fill the gap (Table 7). Against this background, the government has put several measures in place to educate and recruit social workers. However, these are workers who do not deal with older people only but more in general with people affected by poverty and/or HIV/AIDS. LTC facilities (government subsidized, not-for-profit and private) face severe problems to find sufficiently trained staff and often hire nurses who have already retired (Goodrick, 2013).

Table 7. Statistical snapshot on LTC in South Africa

Indicators	
Deficit in legal LTC coverage in per cent of the population aged 65+	Very high deficit (means-tested)
Public LTC expenditure per person 65+, in percentage of GDP per capita in 2013	3.6
Public LTC expenditure, in per cent of GDP, 2006-2010 average	0.2
Coverage gap, per cent of population 65+ not covered due to lack of financial resources (relative threshold: 1,461.8 PPP\$)	69.2
Formal LTC workers (FTE) per 100 persons aged 65+	0.4
Coverage gap, per cent of population 65+ not covered due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over)	90.5
Number of formal LTC workers needed to fill the gap	86,165.0

Source: ILO estimates based on OECD, 2013.

Americas: Argentina, Brazil and Chile

Argentina

In Argentina, the share of the population 65 years and older will increase from 10.5 per cent currently to 11.2 per cent in 2030 and then to 19.3 per cent in 2050 (United Nations Population Division, 2015). Already today, 9.5 per cent of older persons aged 60 years and older are dependent on some kind of LTC services (Edwin, 2012). However, direct government support for LTC in Argentina remains limited. There is no distinct LTC system. Instead, LTC in Argentina is embedded in the framework of the general health care system. The health system being very fragmented is resulting in multiple forms of coverage for some citizens, while about 18 per cent of the population aged 65 or above is not covered at all (Jauregui et al., 2011).

Current legal coverage

The gap of legal rights at the national level on LTC amounts to 100 per cent of the population (Table 8). The responsibility to provide LTC for older persons remains mainly with their families, especially with the female family members (PNUD et al., 2013), though some provinces have local regulations or laws directed at meeting health and social needs of older persons (Jauregui et al., 2011).

According to Comes and Fernández (2011), this lack of national legislation concerning LTC institutions causes excessive regulations regarding LTC institutions with ambiguous and contradictory contents at the local level. For example, in Buenos Aires, the four public institutions for the elderly are governed by the Aging Secretariat of the Ministry of Social Development of the City of Buenos Aires. Their operation is governed by resolutions No. 7 and 17 – SSTED/08, which refer to the rules of admission, continuance, expenses, rights and obligations concerning institutions for the elderly population. These documents define the rights of elderly residents as stipulated in Article 2 of Law 661/01. Some rights are: a permanent communication and information, privacy and non-disclosure of their data, to consider the residence as his or her home, non-discrimination, to express complaints and claims, to maintain emotional ties, family and social surrounding, to come and go freely provided that the house rules are respected, to medical treatment and psychosocial well-being ensuring access to medical records (Comes and Fernández, 2011).

Concerning the admission criteria, this local law states that admission is subject to a minimum age of 60 years, a lack of own resources and sufficient income for survival (i.e. if the social security income or any other income is lower than a certain poverty line) (Government of Buenos Aires, 2008).

Public funding and the affordability of LTC services

The LTC system is mainly based on OOP payments, since support from the government and social protection for LTC is very limited. Most of the senior citizens are covered by the public health insurance PAMI (Comprehensive Medical Attention Program, whose tasks have been compared to the US Medicare and Medicaid) or by the Obras Sociales, which are funded by contributions of employers and employees.

Only a few nursing homes are funded by the government, while the private sector covers a variety of care programs, including LTC institutions and nursing homes. Religious organizations play some role in provision of services. Altogether, there are 70,000 LTC beds in the country, based in 600 facilities. Only 2.9 per cent of older persons live in nursing homes, residential homes, or adapted housing (Lupica, 2014; Jauregui et al., 2011). With regard to home care, according to Pugliese (2008), in Argentina some public services exist that are directed to helping people in need of care with their ADLs.

Generally, the availability of nursing homes and home care services is very limited, and so is their affordability for older persons in need of care. Private schemes, which are provided by some LTC institutions and nursing homes, cover no more than 8 per cent of older persons because only higher income groups can afford the fees. Additionally, the private schemes do not cover nursing home care, leaving a heavy burden on families (Jauregui et al., 2011).

The availability of LTC services and workers

Public institutional care services as well as public home care services are seldom available. Furthermore, private institutional care facilities tend to be located in the main cities. Home care is rarely available; most medical doctors offering home care do so as a second job (Bernardini, 2012).

In general, there is no law which regulates the work of LTC workers, neither for defining their function and licensing, nor for stating continuing capacities (PNUD et al., 2013). Nursing homes must have a medical director who, however, does not have to be a certified geriatrician. Furthermore, there is no comprehensive training program available for nurses who want to specialize in geriatrics (Jauregui et al., 2011).

Table 8. Statistical snapshot on LTC in Argentina

Indicators	
Deficit in legal LTC coverage in per cent of population aged 65+	100
Public LTC expenditure per person 65 years and over, in percentage of GDP per capita in 2013	n/a
Public LTC expenditure, in per cent GDP, 2006-2010 average	n/a
Coverage gap, per cent of population 65+ not covered due to lack of financial resources (relative threshold: 1,461.8 PPP\$)	n/a
Formal LTC workers (FTE) per 100 persons aged 65 years and over	0
Coverage gap, per cent of population not covered due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over)	100
Number of formal LTC workers needed to fill the gap	188,307

Source: ILO estimates 2015.

Brazil

In Brazil, the share of the population 65 years and older among the total population is currently at 11.2 per cent and will increase to 13.6 per cent in 2030 and 22.5 per cent in 2050 (United Nations Population Division, 2015). While there is no national legislation providing public support for older persons in need of LTC, legislation in Brazil emphasizes that the main provider of LTC for older persons is the family. Furthermore, there is a strong prejudice against institutional care and the task of sheltering older persons in need of care is left to Christian philanthropy. As a result, LTC institutional care facilities in Brazil are scarce (Camarano, 2013).

Current legal coverage

In the absence of national legislation that provides entitlements to formal LTC coverage 100 per cent of the population aged 65+ remains without legal coverage (Table 9).

While legislation assigns the responsibility of LTC to families, there is a lack of government support for family care. The 1988 Federal Constitution, the 1994 National Policy for the Old Person and the 2003 Elder's Bill of Rights stress that nursing and residential home care should only be offered in cases of poverty, abandonment or lack of family. The few governmental actions addressing people in need of care focus on sheltering the poor older persons (Camarano, 2013).

Public funding and the affordability of LTC services

OOP payments are the main source of funding for LTC in Brazil and are often paid from the social benefits received by the older population. The primary funding source for formal care in LTC institutions are fees paid by residents or their relatives. According to the Elder's Bill of Rights of 2003, 70 per cent of the older person's social benefit can be paid directly to an institution (Gragnolati et al., 2011). Only a minority of the older population has the resources to afford private institutional LTC (Nóbrega et al., 2009).

Eighty-five per cent of the people in need of LTC receive old-age benefits, and 90 per cent of their income derives from social protection. This might be used to get support from family members, particularly when considering that for example women in need of LTC living with their relatives contributed one third to the household income in 2003 (Gragnolati et al., 2011).

The availability of LTC services and workers

The Brazilian Society of Geriatrics and Gerontology required that institutions for the older population become integrated not only in the social protection system but also in the health care system. These institutions became to be known as LTC Institutions for Elders (ILPIs), which include not only nursing homes but also residential homes. ILPIs can be either governmental or non-governmental institutions (Camarano, 2013). Nevertheless, the amount of LTC institutions in Brazil is limited (3,549 sites) and less than 1 per cent (96,969 individuals) of the older persons in need of LTC are utilizing these institutions.

The LTC institutions are concentrated in the larger cities and in the North-East (34.3 per cent in São Paulo), since the majority of the older population resides in this region. Still, 72 per cent of the municipalities in this region have no LTC institutions at all. In the North, this figure even rises to 90 per cent (Gragnolati et al., 2011). Moreover, the LTC institutions are relatively small, accommodating only 23.3 persons on average.

However, there have been efforts to standardize services in nursing homes, but often these standards are not enforced. For example, a law has been passed in São Paulo State in 2007, which obliges nursing homes to provide at least one physician with geriatric training on-site. However, few have complied since then (Nóbrega et al., 2009).

No data is available concerning the number of informal LTC workers in Brazil. However, it can be assumed that the majority of older persons in need of LTC are cared for by informal carers (Garcez-Leme and Decker Leme, 2014) as only 1 per cent of the persons in need are living in institutions.

Table 9. Statistical snapshot on LTC in Brazil

Indicators	
Deficit in legal LTC coverage in per cent of population aged 65+	100
Public LTC expenditure per person 65 years and over, in percentage of GDP per capita in 2013	0
Public LTC expenditure, in per cent of GDP, 2006-2010 average	0
Coverage gap, per cent of population 65+ not covered due to lack of financial resources (relative threshold: 1,461.8 PPP\$)	100
Formal LTC workers (FTE) per 100 persons aged 65 years and over	0
Coverage gap, % of population not covered due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over)	100
Number of formal LTC workers needed to fill the gap	625,762

Source: ILO estimates 2015.

Chile

Compared to other Latin American countries such as Brazil and Argentina, the share of older persons aged 65 years and older among the total population in Chile will increase more rapidly: From currently 10.6 per cent to 17.6 per cent in 2030 and to 24.6 per cent in 2050 (United Nations Population Division, 2015).

The Chilean state plays only a secondary role in providing LTC services to older persons. For instance, the National Policy for the Elderly (Política Nacional para el Adulto Mayor) states that the problematic situation of the older population cannot be solved by the state alone. On the contrary, a significant amount of problems the population aged 65+ is facing should be solved by their own communities and by the family, with support from the whole society (Miranda and Yanet, 2013). Also in Chile, mostly women assume the role of taking care of older persons. In the "National Study of the Elderly" in 2009, 86 per cent of caregivers were women, most of them daughters or spouses (Bravo and Puentes, 2012).

Current legal coverage

There is no national legislation that provides for LTC protection in Chile (Table 10). However, in August 2010, a regulation was approved that addresses the functioning of LTC institutions for older persons (D.S. No. 14, Ministry of Health MINSA). It defines an LTC institution as a place giving residence and care to people aged 60+, who need a protected surrounding and different forms of care for biological, psychological or social reasons.

The authorization for LTC institutions is provided by the Regional Ministerial Secretariats of Health corresponding to where the institution is located. The regulation states that residents have to be evaluated and qualified according to the Katz Index of Independence in Activities of Daily Living (Miranda and Yanet, 2013; Biblioteca Nacional de Chile, 2010).

In general, the regulation is applicable for for-profit and not-for-profit LTC institutions (Miranda and Yanet, 2013). However, there is no information available on eligibility rules regarding LTC. According to the regulation No. 14, Article 3, people who suffer from strong acute impairments or from other pathologies which require permanent medical assistance have no access to these LTC institutions. In cases of acute sicknesses during the stay or if there is an exacerbation of a chronic condition, the resident can only stay in the facility if adequate human resources and equipment, as well as appropriate clinical and therapeutic support for their care, are present and provided that the stay will not endanger the person or others. In the absence of such circumstances, the person shall be transferred to a health facility appropriate to their condition.

The regulation about LTC institutions also details which services are to be provided for residents with certain conditions (e.g. residents who are fully incapable of practicing ADLs are provided with a 12-hour-care-assistant during the day and one on call during the night etc.) (Title IV, Article 16 and Article 17).

Eight per cent of informal carers receive some monetary compensation (Bravo and Puentes, 2012). Furthermore, in Chile there is a special program interlinking home-based care with support for poor informal LTC workers, called Measure 6B. The program consists of three tiers. First, it includes home-based care by a professional health care team. Second, informal carers receive education and communal support. Third, families providing informal care for a poor family member in need of care can receive a cash benefit amounting to 20,000 Chilean Pesos. Eligibility criteria for the cash benefit are: the person in need of care is dependent according to Katz criteria, participates in a certain Home Care Program (programa Postrados de Atención Domiciliaria en Atención Primaria en Salud), is not institutionalized, and the informal carers are empowered by a health care team (SENAMA, 2009).

Out of 712 LTC institutions, 79.6 per cent confirmed that an older person being represented by an authorized person is an admission criterion and 70.1 per cent named the individual's or his or her family's capacity to pay (multiple answers possible). 51.3 per cent stated a minimum age, 48.3 per cent the absence of a psychiatric sickness, 35.1 per cent the absence of dementia, 27.8 per cent the socio-economic vulnerability of the older person, and 21.9 per cent an autonomous profile of functioning as an admission criterion. 59.0 per cent of private not-for-profit and 52.6 per cent of public LTC institutions use socio-economic vulnerability as an admission criterion, and 58.1 per cent (not-for-profit) and 31.6 (public) per cent require an authorized person. Furthermore, 49.3 per cent of private not-for-profit institutions and 15.8 per cent of public institutions do not admit people with a psychiatric sickness (SENAMA, 2013).

Public funding and the affordability of LTC services

Almost all LTC institutions in Chile are funded by OOP. Of 723 LTC institutions, only 1.9 per cent are not collecting any form of OOP from the residents or their families, and of these 1.9 per cent, most institutions demand to secure their payment via the person's old-age pension (SENAMA, 2013).

The availability of LTC services and workers

In 2012, there were 726 LTC institutions for the population aged 65+ across all of the 15 regions of Chile, providing 19,634 places for institutional care, where a total of 17,003 people resided; 65.8 per cent of these institutions are private for-profit, 31.5 per cent are private not-for-profit (religious institutions, foundations or congregations) and only 2.6 per cent are public. 41.4 per cent (7,064 people) of all residents in LTC institutions live in private for-profit LTC institutions, 56.2 per cent live in private not-for-profit LTC institutions and 2.4 per cent live in public institutions (SENAMA, 2013).

Most formal LTC workers in home-based care are nurse assistants or have had some kind of training for LTC, although there is no legal requirement for training whatsoever (Garrido Urrutia et al., 2012).

Table 10. Statistical snapshot on LTC in Chile

Indicators	
Deficit in legal LTC coverage of the population aged 65+	100
Public LTC expenditure per person 65 years and over, in percentage of GDP per capita in 2013	0
Public LTC expenditure, in per cent of GDP, 2006-2010 average	0
Coverage gap, per cent of population 65+ not covered due to lack of financial resources (relative threshold: 1,461.8 PPP\$)	100
Formal LTC workers (FTE) per 100 persons aged 65 years and over	0
Coverage gap, per cent of population 65+ not covered due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over)	100
Number of formal LTC workers needed to fill the gap	72,913

Source: ILO estimates 2015.

Asia: China, India, Japan and Thailand

China

In China, the Confucian norm of “filial piety”, i.e. the respect for one’s parents and the obligation to care for them whenever there is a need for it, is deeply rooted in society. The Chinese constitution and the Law on the Protection of the Rights and Interests of Older Persons from 1996 (amended in 2012) highlight that family members have a responsibility to take care of older persons. If they do not they are under the threat of fines and even jail. As a result, there is an increasing number of court disputes over the support of older persons including between children and their parents (Wong and Leung, 2012).

However, due to the baby-boom between the 1950s and 70s, and the abrupt introduction of its one-child policy, China faces changing family structures and an especially severe ageing process. Particularly in cities the “4-2-1” family structure has become common. This structure includes four grand-parents, two parents without siblings; and one child (Feng et al., 2012). In 1982, 73 per cent of older persons were living with their children. By 2005, this number had declined to 57 per cent as younger people migrate to bigger cities (Wong and Leung, 2012). Moreover, the proportion of older persons aged 65 and above among the total population will dramatically increase from 9.5 per cent in 2015 to 16.2 per cent in 2030 and 23.9 per cent in 2050 (United Nations Population Division, 2015). While in 2010 there were 117 million Chinese people aged 60 years and older, this number will rise to 240 million in 2030 and 450 million in 2050 (Wong and Leung, 2012).

Current legal LTC coverage

Article 30 of the Law on the Protection of the Rights and Interests of Older Persons from 2013 obliges local governments to provide a needs and means tested care subsidy to older persons who cannot care for themselves over a longer period of time (China Internet Information Center, 2015). The law further indicates that the state will gradually expand its efforts to provide LTC services to those in need but does not specify should provide care and which services should be made available. As such, high deficits in legal LTC coverage exist across China. Local governments largely apply the very strict and means-tested eligibility criteria of the so-called “Three Nos” (i.e. no children, no income and no relatives), while anybody else remains legally unprotected.

Means-testing but no LTC needs assessment implies that older persons mostly get access to government-operated homes for social reasons. As a result, many older persons in need of LTC services are excluded and it is estimated that only 17 per cent of older persons living in government-operated homes actually need help to perform ADLs (Hu, 2012) (Table 11).

Public funding and the affordability of LTC services

For LTC dependents who do not fulfil the Three Nos criteria, the affordability of LTC services is significantly reduced and the capacity to pay largely determines whether or not one has access to LTC services. Although the government has opened doors to wealthy fee-paying residents who do not have to fall under the Three Nos. criteria, 78 per cent of older persons in government-operated homes were still subsidized in 2009. But if all institutional care facilities are taken together including private ones, 80 per cent of older persons in institutional care have to pay high fees for their stay (Wong and Leung, 2013).

In general, private insurance plans cover LTC services; however, they are usually unaffordable for medium- and low-income families. The majority of dependent persons thus pays for LTC services with OOP – through pensions, remittances from adult children, or other private sources. Public expenditure on LTC is low and largely derived from general tax revenues and the welfare lottery (Hu, 2012): Per person 65 years and over China spent 1.1 per cent of the GDP in 2013. As a result, 90.9 per cent of people who are 65 and older are excluded from LTC services due to a lack of financial resources (Table 3).

The availability of LTC services and workers

As to the availability of LTC services, it is estimated that in between 1.5 and 2.5 per cent of the population aged 65 years lives in institutional care facilities (Feng et al., 2012). To reduce shortages, local governments such as those in Beijing and Shanghai have launched programs that

invest in the institutional care infrastructure. Between 2006 and 2009 alone, the number of care facilities has increased by 52 per cent (Wong and Leung, 2012; Glass et al., 2013). Due to the absence of standardization and regulation the quality of LTC services, however, varies significantly and may range from well-equipped nursing homes to mere hostels (Feng et al., 2012). Moreover, only 60 per cent of institutional care facilities have rooms and staff for medical treatment (Wong and Leung, 2012). Homes are also not equally distributed across the country and even in urban areas it is estimated that only 16 per cent of the expressed needs for institutional care are satisfied (Wong and Leung, 2012).

There is also a significant gap in the LTC workforce as only 1.1 formal LTC workers (FTE) exist per 100 persons aged 65 and over. As a result, 72.3 per cent of the population aged 65 and over is excluded from LTC services. Feng et al., 2012 found that two thirds of care facilities did not employ a doctor or professional nurse. Moreover, very few educational programs for formal LTC workers exist in China (Feng et al., 2012). It is estimated that as many as 3.6 million formal LTC workers would currently be needed to fill the gap (Table 11). This, however, could only be achieved gradually and would require significant investments in the education and working conditions of the LTC workforce, including adequate wages.

High demands also exist for (formal) home-based care services and workers. Recent programs of local governments have focused on improving home and community-based services and the relatively advanced system of community support were established e.g. in Shanghai and the Zhejiang province (Lum, 2012)

Young women increasingly migrate to cities and provide home-based care for older persons who can afford it – a phenomenon that is known as “bao mu” which literally means “housemaid” (Hu, 2012). In contrast, rural areas face a complete lack of home- or community-based LTC services. As a result, “lai zhang” has emerged, meaning that older persons refuse to leave the hospital after medical treatment because they fear they would not get any treatment at home (Hu, 2012).

Table 11. Statistical snapshot on LTC in China

Indicators	
Deficit in legal LTC coverage of the population aged 65+	Very high deficit (means-tested)
Public LTC expenditure per person 65+, in percentage of GDP per capita in 2013	1.1
Public LTC expenditure, in per cent of GDP, 2006-2010 average	0.1
Coverage gap, per cent of population 65+ not covered due to lack of financial resources (relative threshold: 1,461.8 PPP\$)	90.9
Formal LTC workers (FTE) per 100 persons aged 65+	1.1
Coverage gap, per cent of population 65+ not covered due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over)	72.3
Number of formal LTC workers needed to fill the gap	3,615,184.0

Source: ILO estimates based on OECD, 2013.

India

India has a large and increasing old-age population. Although growth takes place at a slower pace than in China, the population over the age of 60 years has tripled in the last 50 years and will persistently grow in the near future (Verma and Khanna, 2013). The proportion of persons aged 65 and over among the total population will increase from currently 5.4 per cent to 8.2 per cent in 2030 and 12.7 per cent in 2050 (United Nations Population Division, 2015). While in 2011 there were almost 100 million Indian people aged 60 years and older, this number will rise to 178 million in 2030 and 300 million in 2050 (Verma and Khanna, 2013).

Traditionally and because of the absence of support from the government, the (nuclear) family has been the main source of support for older persons. But while more than 75 per cent of older persons in India still live with their children, today this is slowly changing (Bloom et al., 2010).

India's economy is rapidly developing – a situation that often leaves older people in precarious situations. Due to the migration of working-age people to other parts of India and destinations abroad, children often live far away from their parents. This undermines co-residence of older persons with larger families and decreases the availability of informal LTC for the older parents. Second, increased life expectancy has augmented the costs of LTC and older people are increasingly at risk of being pushed into (more severe) poverty. This is particularly the case for older women who usually live longer than men and tend to rely to a great extent on employment in the informal sector. As a result, they are often excluded from social protection. Moreover, due to lower income, women are not able to save as much as their male counterparts.

Current legal LTC coverage

India's constitution recognizes in Part IV, Section 41 that “the State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement, and in other cases of undeserved want” (Government of India, 2015). In 1999, the government adopted the National Policy for Older Persons and referred to Section 41 of the constitution. However, the policy considers institutional care only as the very last resort and recognizes that the care of older persons has to remain vested in the family. It further enables and supports voluntary and non-governmental organizations to supplement care provided by the family (Krishnaswamy et al., 2008). In 2007, the government passed the Maintenance and Welfare of Parents and Senior Citizens Act. The act obliges children to provide “maintenance” to their parents if in need. Maintenance is defined as the provision of food, clothing, medical attendance and treatment (Krishnaswamy et al., 2008). As in China, children can be prosecuted if they do not fulfil the responsibility to care for their parents (ILO, 2014b). Thus, the State does not provide LTC protection through national legislation and the legal LTC coverage deficit amounts to 100 per cent of the population aged 65+ (Table 12).

Public funding and the affordability of LTC services

LTC services are either provided by family carers, NGOs, or have to be paid by OOP to mostly private providers. Public LTC expenditure is low and is mostly spent in a fragmented way on different national programmes and initiatives that do not seek to establish a comprehensive LTC protection but focus on the provision of selected and relatively specialized (tertiary) health care services for older persons. As a result, 93.2 per cent of people who are 65 and above cannot access LTC services due to a lack of public financial resources (Table 12).

The availability of LTC services and workers

In addition to the family, NGOs have sought to reduce the wide gaps in LTC coverage in India. Given the very low or even complete absence of formally employed LTC workers (Table 12), some organizations such as HelpAge India, the Agewell Foundation and the Dignity Foundation provide some (non-institutional) LTC services to older persons such as mobile medical units (HelpAge), helplines, day care services, and companion services for social support (Krishnaswamy et al., 2008).

In 2011, the Ministry of Health and Family Welfare formulated a National Program for the Health Care of Elderly that seeks to provide accessible and affordable LTC services to older persons in need. However, these rather focus on health care than social services, e.g. by increasing the availability of in-patient geriatric services (Verma and Khanna, 2013).

Table 12. Statistical snapshot on LTC in India

Indicators	
Deficit in legal LTC coverage of the population aged 65+	100.0
Public LTC expenditure per person 65+, in percentage of GDP per capita in 2013	1.9
Public LTC expenditure, in per cent of GDP, 2006-2010 average	0.1
Coverage gap, per cent of population 65+ not covered due to lack of financial resources (relative threshold: 1,461.8 PPP\$)	93.2
Formal LTC workers (full time equivalent, FTE) per 100 persons aged 65+	0
Coverage gap, per cent of population 65+ not covered due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over)	100.0
Number of formal LTC workers needed to fill the gap	2,740,904.0

Source: ILO estimates 2015 based on OECD 2013.

Japan

Japan has the world's oldest population and the proportion of persons aged 65 and above will further increase from 26.4 per cent in 2015 to 30.6 per cent in 2030 and then to 36.5 per cent in 2050 (United Nations Population Division, 2015). Moreover, the fertility rate is low, and the proportion of single households among people aged 65 years and above is expected to increase significantly in the future (Shimizutani, 2014). At the same time, traditional support for older persons is eroding. In response, the Japanese government introduced a public LTC insurance in 2000 with the aim of helping older persons to lead more independent lives and to relieve family carers. Today, 16 per cent of those aged 65 and over receive LTC services – in total about 5 million older persons (Tamiya et al., 2011). In only one decade, the number of older persons in institutional care has increased by 83 per cent and there has been a 203 per cent increase in those receiving home- and community-based LTC services (Tamiya et al., 2011).

Current legal LTC coverage

Japan is among the very few countries that provide universal legal LTC coverage. The social LTC insurance scheme covers everyone and provides benefits irrespective of income or the availability of informal family carers. Thus, no means-testing is applied and legal coverage is as high as 100 per cent (Table 13).

Compared to other universal LTC schemes such as in Germany, LTC dependent persons cannot choose between benefits in-kind and benefits in-cash. Only benefits in-kind are available for all persons aged 65 years and above (Tamiya et al., 2011). Needs assessments take the physical and mental status of each applicant into account and are based on a 74-item questionnaire. The result is reviewed and finalised by a certification committee consisting of experts from public health, medicine and social protection (Ohwa and Chen, 2012).

The assessments categorize the applicant's dependency according to seven support levels. The first two levels indicate that the respective older person needs some preventive medical care services and support with ADLs, but can still live independently. Besides help with housework, shopping and transportation, services include physical rehabilitation, exercising and counselling on daily nutrition intake. For older persons who belong to one of the other five dependency levels the amount of entitlements increases by each level and consists of a wide variety of institutional, home-based and community-based LTC services (Ohwa and Chen, 2012). Each level sets the ceiling amount of services that can be purchased as benefits, ranging from JPY 49,500 (~ US\$ 400) to JPY 359,000 (~ US\$ 2,900) per month (Tamiya et al., 2011). Eligibility is re-evaluated every two years or every 6 months for those who need lower levels of care, but it is also possible to request a new evaluation if the health status of the LTC dependent person is declining (Shimizutani, 2014).

Public funding and the affordability of LTC services

Japan's social LTC insurance is financed by a share of 50 per cent of public funds and 50 per cent of contributions from employers and employees. Half of the public funding comes from the central government while the remainder derives from prefectural governments and local municipalities, each contributing a quarter (Shimizutani, 2014). Participation is mandatory and everyone aged 40 years and older pays income-related contributions. For example, people who receive public assistance or have an annual income that is below the taxable level of JPY 0.8 million (~ US\$ 6,456) pay only half of the basic premium amount. For people whose taxable income exceeds 2 million yen (~ US\$ 16,139), the premium rate is 1.5 times the basic premium amount (Shimizutani, 2014). Depending on each municipality's projection of needed financial resources for the next period, the contribution rates are revised every three years. The average monthly contribution was JPY 2,911 (~ US\$ 23.50) from 2000 to 2002, but the amount increased to JPY 4,160 (~ US\$ 33.59) in the period of 2009 to 2011 (Shimizutani, 2014).

Persons in need of home-based LTC have to pay 10 per cent co-payments. This might have impacts on the affordability of LTC services as recipients of home-based LTC services only use 40 to 60 per cent of their entitlements on average. Those in institutional care pay JPY 25,000 (~ US\$ 200) per month, but this amount is waived for low-income individuals (Tamiya et al., 2011).

The total expenditure on LTC, including in co-payments, amounted to JPY 3.97 trillion (~ US\$ 32 billion) in 2000, and increased to 8.37 trillion YEN in 2011 (~ US\$ 68 billion). In 2000, institutional LTC services made up 67 per cent of the total expenditure. Although absolute expenditures increased, this institutional share decreased to 40.7 per cent in 2011. Thus, the increases of total expenditure are mostly attributed to growing home-based LTC services, which tripled in the period of observation, and reached 49.8 per cent of the total expenditure in 2011.

Remaining expenditures are associated with community-based LTC services, which accounts for a relatively small percentage of the overall costs (Shimizutani, 2014). In 2008, the Japanese government estimated that the total expenditure on LTC may increase to JPY 19 to 24 trillion (~ US\$ 244 to 209 billion) by 2025. Per person 65 years and over Japan spent 2.8 per cent of the GDP per capita in 2013. However, it is estimated that 32 per cent of the population 65 years and above is still not adequately covered by LTC services due to a lack of financial resources (Table 13).

The availability of LTC services and workers

In Japan, the central government decides who is eligible for LTC services, which services have to be provided, and how much should be spent for services. The providers are approved by prefectural governments. As a result, Japan experiences regional disparities in terms of the availability of LTC services (Shimizutani, 2014). The different providers, including local governments, semi-public welfare corporations, non-profit organizations, hospitals and for-profit companies are licensed and supervised by the prefectural government and have to sign a contract with the local municipality. For-profit companies are not allowed to provide institutional care. The providers are not able to set the price individually since the fee schedules are set by the central government. As such, the providers are expected only to compete on the quality of care (Shimizutani, 2014).

LTC services at home and in the community include social care services for housekeeping, personal care, and transport; home-visits during the day and at night from nurses who provide medical services; as well as daily care in the community, e.g. for older persons with dementia (Ohwa and Chen, 2012). Institutional LTC services include three types of facilities: LTC welfare facilities, where most residents stay for the rest of their life; LTC rehabilitation facilities for older persons who need LTC services temporarily (e.g. after longer hospital stays); and LTC medical facilities for older people with relatively severe chronic conditions (Shimizutani, 2014).

Although the number of formal LTC workers has more than doubled since the introduction of the public LTC insurance in 2000 (OECD, 2013), Japan faces a looming LTC workforce crisis. Currently, 4 formal LTC workers (FTE) exist per 100 persons aged 65 and over. As a result, 3.6 per cent of the population aged 65 and over are excluded from quality LTC services due to insufficient numbers of formal LTC workers. To fill the current gap, about 92,000 additional formal LTC workers would be needed (Table 13).

In addition, 1.4 to 1.6 million formal care workers will be needed to cope with the annual increase of 0.4 to 0.6 million older people who are in need of LTC services over the next 10 years (Ohwa and Chen, 2012). Already today, 55.7 per cent of institutional care facilities and 75.2 per cent of home care service agencies state that they are confronted with a lack of formal LTC workers (Ohwa and Chen, 2012).

Moreover, due to the lack of places in institutional care facilities, 45 per cent of LTC beds were in hospitals – the second highest figure among OECD countries (OECD, 2013). In 2009, 500,000 older persons with LTC needs practically lived in hospitals and were on a waiting list for a place in an institutional care facility (Tamiya et al., 2011). The large number of people in need of care waiting for a bed is an omnipresent phenomenon, which is called “kaigo nanmin” (“LTC refugee”) (Ohwa and Chen, 2012).

Current or planned reforms

In response to the system’s increasingly high costs and to reduce institutional care coverage gaps, Japan’s LTC Insurance Act was revised in 2005-06 and 2011 in order to establish a better integrated, community-based LTC system that would enable older persons in need of LTC to live at home for as long as possible. The aim was to increase efficiency and responsiveness to individual needs through the integration of various social and health care services as well as the coordination of formal and informal (family) care.

Today, local governments and public community centres coordinate and manage LTC services. The centres also provide comprehensive consultation services for older persons with LTC needs and inform them about their rights and how to prevent abuse. In 2011, 3,976 centres existed across the country (Morikawa, 2014). Also, the working conditions of formal LTC workers were improved to reduce the high turn-over rates, through inter alia increased wages and shifts in responsibilities. For example, LTC workers now receive training to carry out medical tasks such as intravenous feeding and assistance in palliative care (Ohwa and Chen, 2012).

Table 13. Statistical snapshot on LTC in Japan

Indicators	
Deficit in legal LTC coverage in per cent of population aged 65+	0
Public LTC expenditure per person 65+, in percentage of GDP per capita in 2013	2.8
Public LTC expenditure, in per cent of GDP, 2006-2010 average	0.7
Coverage gap, per cent of population 65+ not covered due to lack of financial resources (relative threshold: 1,461.8 PPP\$)	32.0
Formal LTC workers (FTE) per 100 persons aged 65+	4.0
Coverage gap, per cent of population 65+ not covered due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over)	3.6
Number of formal LTC workers needed to fill the gap	91,648.0

Source: ILO estimates 2015 based on OECD 2013.

Thailand

In Thailand, the proportion of older persons aged 65 and over among the total population is high and increases constantly; from currently 10.4 per cent to 19.5 per cent in 2030 and 30.4 per cent in 2050 (United Nations Population Division, 2015). The number of those over 60 quintupled in the last sixty years and now constitutes more than 14 % of the population (Knobel et al., 2013). In 2009, the National Health Assembly accepted LTC as a national health priority, and the Commission on Older Persons has established a specific Committee on LTC. The current LTC policy is focusing on supporting informal home care (which is mostly provided within the family) and informal community-based care. In particular, people in need of high levels of care are having problems since only few institutional LTC services are provided.

Current legal coverage

In 2009, the Thai government adopted a resolution which urges all institutions responsible for the older population to launch LTC programs. The Elderly People Act (2003) and the 2nd National Plan for the Elderly People (2002-2021) already contain supportive programs for the population aged 65+ (Piensriwatchara et al., 2012). However, in Thailand no national legislation for LTC coverage exists and LTC services or benefits are not covered by any federal scheme (Table 14). LTC services are provided by what are often private organizations (for-profit, non-profit) and governmental organizations (ministry of public health, department of welfare, local administration organizations) (Sasat, 2013b).

In 2009, there were 138 LTC facilities in Thailand, mainly concentrated in the capital city Bangkok and some other big cities. The majority of the residents in these facilities were there because their families were not able to take care of them or they needed high levels of care from skilled staff (Sasat, 2013b).

Since the capacity of institutional care facilities is very limited, and the private LTC services are costly (and located in cities), the need for LTC is mostly met by informal LTC workers within the family (Rittapol, 2013). Another problem is the shortage of skilled nurses. Many care recipients in institutional care facilities need high-level care, but these facilities are not able to meet these needs, due to the shortage of skilled nursing staff (Sasat, 2013b).

Relatively significant inequalities are observed in access to LTC services due to differences in regional availability of LTC services: 49.3 per cent of the institutional care facilities are located in Bangkok, 30.4 per cent in the central part of Thailand and 3.6 per cent in the south (Sasat et al., 2013).

The availability of LTC services and workers

There is a shortage of skilled LTC staff. It is estimated that 0.7 formal LTC workers exist per 100 persons aged 65 years and over. As a result, 83.9 per cent of older persons aged 65 and over are excluded from formal LTC services. (Table 14) Especially in institutional care facilities, there is a lack of nurses, physiotherapists etc. Sasat et al. (2013) report that only 69 per cent of the care staff in analyzed facilities had a certificate in caring for older people (420 h training). In response, the Ministry of Labour, Ministry of Health and the Ministry of Education offer different certified training courses for professional/paid caregivers and also training courses for volunteers in LTC (Sasat, 2013a).

Table 14. Statistical snapshot on LTC in Thailand

Indicators	
Deficit in legal LTC coverage of the total population aged 65+	100.0
Public LTC expenditure per person 65 years and over, in percentage of GDP per capita in 2013	n/a
Public LTC expenditure, in per cent of GDP, 2006-2010 average	n/a
Coverage gap, per cent of population 65+ not covered due to lack of financial resources (relative threshold: 1,461.8 PPP\$)	n/a
Formal LTC workers (FTE) per 100 persons aged 65 years and over	3
Coverage gap, per cent of population not covered due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over)	27.7
Number of formal LTC workers needed to fill the gap	226,412.0

Source: ILO estimates 2015 based on OECD 2013.

Europe: Poland and the Russian Federation

Poland

In Poland, while the total population is decreasing, the share of persons aged 65 and over is growing; from currently 15.3 per cent to 22.1 per cent in 2030 and 29.0 per cent in 2050 (United Nations Population Division, 2015). Existing LTC services are either integrated into the health system or they form part of social services. As such, there is the tendency to separate LTC services related to “cure” and “care”. Due to lacking definitions for LTC the actual demand is also not adequately assessed at the national level. Regional governments prepare plans for health and social care needs, but these are not standardized and thus don’t provide a proper base for nationwide planning (Golinowska, 2010).

Current legal coverage

LTC services provided through the health system derive from the obligatory health insurance that is universal (Żukowski, 2014). LTC services provided through the social assistance system are subject to means-tests, which also apply to LTC services provided through other relevant social protection schemes. For example, residents are to pay for their stay in care homes (up to 70 per cent of their income) and their families are obliged to contribute, too. If this is not sufficient, the local government pays the rest (Golinowska, 2010). LTC benefits in-kind are provided by:

- residential social assistance homes (DPs);
- residential nursing and care homes in the health sector (ZOL and ZOP);
- community day care centers;
- environmental nurses (individual services);
- private commercial and non-profit care homes.

Benefits in cash are provided by social insurance institutions or consist of means and needs-tested social assistance benefits. For people aged 75 or above who do not live in an institution, a nursing care allowance is granted, independent of the actual care need. While these care allowances are neither needs- nor means-tested, they are rather low and amount to PLN 153 (about US\$ 40) or PLN 173,10 (about US\$ 46) per month, depending on the applicable scheme (Beck et al., 2014).

Since 2008, in order to qualify for LTC services within the health sector, scoring below 40 (of 100 possible) points on a specific index (Barthel) and is the only eligibility criterion. This threshold significantly restricts access to LTC services financed by the national health insurance, as this index relates to the inability of individuals to execute ADLs only, but ignores mental or psychiatric conditions as well as social or living conditions. A further critique is that the allotted scale of LTC services mirrors the provider potential but not necessary the actual degree of need (Beck et al., 2014).

Public funding and the affordability of LTC services

LTC services are integrated into either the health or the social system, with hardly any funding specifically for LTC. Therefore, LTC services from the health sector are financed from health insurance contributions, while social assistance services are financed from general taxes. Overall expenditures for LTC are estimated at 0.7 per cent of GDP for 2010 (0,30 per cent institutional care, 0,07 per cent home-based care, 0,37 per cent cash benefits). Estimates indicate that the growth of expenditure on LTC will be much more pronounced than in most EU member states (Żukowski, 2014). Government and social insurance were covering about 90 per cent of LTC expenditures in 2007 (Colombo et al., 2011).

All in-kind services are subject to OOPs. Institutional care provided via the health sector requires private coverage of the cost of accommodation and board. The upper limit for OOP is as high as 70 per cent of the monthly individual income of the care recipient (Żukowski, 2014).

However, a small care allowance for all persons aged 75 or above is granted irrespective of the health status and care needs. It remains unclear whether and to what degree poverty is reduced by this allowance. Among the older population with (severe) care needs the risk of poverty has been increasing, especially among former recipients of disability pensions (Żukowski, 2014).

The availability of LTC services and workers

In 2011, institutional care was provided in 635 so-called social assistance homes in the public sector and in 230 private ones. In the health care sector, there were 32.3 non-psychiatric LTC beds per 100,000 residents (Żukowski, 2014).

The number of LTC workers providing institutional LTC in the Polish health and social sectors is estimated at 53,384. In home-based care 19,013 people are employed (Golinowska et al., 2014). The total number of users of LTC services is estimated at 149,052 for home-based care and 139,779 for institutional care in 2010 (Golinowska et al., 2014). There are 0.7 formal LTC workers per 100 older persons aged 65 years and over (Table 15). As a result, 83.9 per cent of older persons are not covered due to insufficient numbers of professional LTC workers (Table 15).

The “medicalized” emphasis of LTC services provided in health sector institutions becomes evident by the occupational structure of the staff, consisting of 52 per cent nurses, 15 per cent nursing assistants 13 per cent medical workers, and 13 per cent physicians. The remaining share includes psychologists, physiotherapists, social workers and educators (Golinowska et al., 2014).

Among the workers providing home-based care via the health care sector, statistics are available for home-nursing care providers employed by primary care units (11,690 in 2012), but not for e.g. those whose services have been contracted out, or for other for example technical specialists who are supporting or providing home-based care (Golinowska et al., 2014). The number of employees providing nursing in social assistance facilities decreased by almost 12 per cent between 2001 and 2012, when the number reached 6,300 employees. This development included a slightly stronger decrease among specialized workers, resulting in a share of 13 per cent in 2012. Furthermore, the decrease in staff was accompanied by an increase in recipients of services (Golinowska et al., 2014). Today, home-based LTC workers are increasingly female migrants from Ukraine who on the basis of tourist visas are filling gaps in Poland’s labour market while a growing number of Polish women seek employment abroad (e.g. in Germany and Italy). As such, Poland is both a country of emigration and immigration of care-givers (Golinowska, 2010).

In the National Strategy on Social Protection and Social Inclusion of 2008-2010, five policy goals were formulated and later approved by the government, including further education of professional LTC personnel, especially nurses and medical care providers. Consequently, nurses now need to meet increasing qualification requirements, and there are only some older nurses who have completed the secondary education level. A new LTC profession, medical workers with secondary level education, was introduced recently (Golinowska et al., 2014).

Current or planned reforms

The current LTC system in Poland has been criticized as being too fragmented, underfunded, with very limited access and weak coordination between social and health sectors. The introduction of an obligatory LTCI following the German model has therefore been proposed, but efforts to establish a single LTC system have not yet been taken up. Likewise, the introduction of nursing vouchers (for care delivered either at home, in semi-residential settings or in an institution) was announced, but has not yet been implemented (Żukowski, 2014).

Table 15. Statistical snapshot on LTC in Poland

Indicators	
Deficit in legal LTC coverage in per cent of total population aged 65+	Very high deficit (means-tested)
Public LTC expenditure per person 65 years and over, in percentage of GDP per capita in 2013	n/a
Public LTC expenditure, in per cent of GDP, 2006-2010 average	0.7
Coverage gap, per cent of population 65+ not covered due to lack of financial resources (relative threshold: 1,461.8 PPP\$)	n/a
Formal LTC workers (FTE) per 100 persons aged 65 years and over	3.0
Coverage gap, per cent of population not covered due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over)	27.7
Number of formal LTC workers needed to fill the gap	226,412.0
Source: ILO estimates 2015 based on OECD 2013.	

Russian Federation

In Russian Federation, as in Poland the general population is shrinking, while the share of persons aged 65 and over will increase; from currently 13.2 per cent to 18.1 per cent in 2030 and 20.5 per cent in 2050 (United Nations Population Division, 2015). In the Russian Federation, the majority of LTC services are provided informally. However, the provision of formal care has increased slightly in the last decade. LTC services are jointly provided and administered by the Federal Ministry for Healthcare and Social Development of the Russian Federation and regional counterparts of the ministry.

Current legal coverage

In 1995, Russian Federation passed federal legislation for older people in need of care, the two “On Social Service for Elderly and Disabled Citizens” (No. 122-FZ) and “On Social Service Principles in the Russian Federation” (No. 195-FZ). Additionally, the regional social service administrations can create their own legislative and regulatory acts in order to support provision of LTC services (World Bank, 2011). Both laws regulate the following topics:

- rights to social services in the public system of social services;
- rejection of social services;
- free information on opportunities, forms, procedures, and conditions for social services;
- the range of institutions and forms of social service;
- information about rights, responsibilities, and conditions in the provision of social services;
- humane and respectful attitude of social workers;
- confidentiality of personal information, which has become known to the employees of social service agencies during the provision of social services; and
- protection of rights and legitimate interests, including in the courts (Bashkireva et al., 2014).

In order to be eligible for LTC services, men must be over 60 and women over 55 years of age. Furthermore, disabled people must need assistance for their ADL. In addition, the regulation requires the inability to self-care due to old age and illness, low income, conflict and abuse in the family, or loneliness. The local social security finally decides whether an individual is eligible or not (Hussein et al., 2009; Bashkireva et al., 2014).

Public funding and the affordability of LTC services

LTC services are funded by regional governments. It is estimated that US\$ 447 million were spent on institutional care for older persons and US\$ 4.02 billion on social services including home based care, shelters and day care centers for juveniles and shelters for the homeless. Unfortunately, no further disaggregation of these data is available (World Bank, 2011). Per person 65 years and over Russian Federation spent 0.7 per cent of the GDP per capita in 2013 (0.2 per cent of total GDP). As a result, 83.7 per cent of people who are 65 and older are excluded from LTC services due to a lack in financial resources (Table 16).

The availability of LTC services and workers

LTC services are jointly provided and administered by the Federal Ministry for Healthcare and Social Development and regional counterparts of the ministry. Most LTC services are publicly provided, and only a small proportion of services are provided by private non-profit and for-profit organizations. Although the government supports and encourages private organizations to provide LTC services, the role of non-public organizations is only marginal (World Bank, 2011).

The provision of institutional care is very limited. There are 1,153 governmental institutional care facilities for older persons and persons with disabilities, with a capacity of about 247,000 beds. There are two types of institutional facilities, general institutions for the old and disabled (64 per cent; for 102,100 residents) and specialized psycho-neurological institutions (30 per cent; for 132,800 residents). The remaining 5 per cent are rehabilitation centers, geriatric centers and charity homes (World Bank, 2011).

Since 2005, the network of social protection facilities providing medical and social care has been slowly increasing. However, 10 per cent among the adult population in need of LTC cannot access any LTC services (Popovich et al., 2011). The capacity of institutional care facilities is limited. Data show that the occupancy rates are very high as almost all regions are running above 95 per cent. In 2007, 21,800 people were waiting for institutional care places.

Furthermore, there are big regional disparities in the availability of institutional care beds (World Bank, 2013). The capacities of home care services are also very limited. In 2007, the number of people waiting for domestic/social home care services was 80,500 persons, those waiting for medical home care services were 11,400. Consequently, the Russian government currently prioritizes the extension of home care service capacities (World Bank, 2011). The private for-profit organizations that provide paid nursing care are mostly allocated in the big cities. Furthermore, they are expensive and therefore only accessible by high income households (Popovich et al., 2011).

In 2011, 184,000 care workers were providing the LTC services for older persons and persons with disabilities. 0.7 formal LTC workers (FTE) exist per 100 persons aged 65 and over. As a result, 83.7 per cent of the population aged 65 and over is excluded from LTC services due to insufficient numbers of formal LTC workers. It is estimated that 24,381 formal LTC workers would be needed to fill the gap (Table 16).

Large regional variations are observed in regions such as Tyumen Oblast and Dagestan Republic where are less than 0.5 staff per bed exist as compared to Khanti-Mansi and Khamchatka which have more than one staff person per bed available. The shortage of skilled staff is also causing the long waiting times, especially in psycho-neurological nursing homes (World Bank, 2011).

Table 16. Statistical snapshot on LTC in the Russian Federation

Indicators	
Deficit in legal LTC coverage of the total population aged 65+	Very high deficit (means-tested)
Public LTC expenditure per person 65 years and over, in percentage of GDP per capita in 2013	0.7
Public LTC expenditure, in per cent of GDP, 2006-2010 average	0.2
Coverage gap, per cent of population 65+ not covered due to lack of financial resources (relative threshold: 1,461.8 PPP\$)	75.3
Formal LTC workers (FTE) per 100 persons aged 65 years and over	3
Coverage gap, per cent of population not covered due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over)	27.7
Number of formal LTC workers needed to fill the gap	24,381.0

Source: ILO estimates 2015 based on OECD 2013.

Annex II. Statistics

The Legal LTC Coverage Deficit, by country, 2015

Region/Country	Population aged 65 and above, as percentage of total population in 2013 ¹	Population, total in 2013 ¹	Population aged 65 and above, total in 2013 ¹	Deficit in legal LTC coverage, as percentage of population not protected by national legislation ²⁻³⁶
World		7,101,752,708	563,733,738	
Representative countries selected		4,888,446,866	450,180,509	
Africa				
Algeria	4.60	39,208,194	1,802,554	100
Ghana	3.48	25,904,598	902,082	100
Nigeria	2.74	173,615,345	4,764,597	100
South Africa	5.53	53,157,490	2,941,212	Very high deficit (means-tested)
Americas				
Argentina	10.95	41,446,246	4,537,520	100
Brazil	7.53	200,361,925	15,078,596	100
Canada	15.18	35,154,279	5,337,669	100
Chile	9.97	17,619,708	1,756,933	100
Colombia	6.16	48,321,405	2,978,161	100
Mexico	6.41	122,332,399	7,838,255	100
United States	13.96	316,128,839	44,136,229	Very high deficit (means-tested)
Asia and the Pacific				
Australia	14.33	23,129,300	3,313,928	Very high deficit (means-tested)
China	8.88	1,357,380,000	120,474,979	Very high deficit (means-tested)
India	5.27	1,252,139,596	66,045,874	100
Indonesia	5.22	249,865,631	13,050,119	100
Japan	25.08	127,338,621	31,933,383	0
New Zealand	13.95	4,442,100	619,781	Very high deficit (means-tested)
South Korea	9.46	24,895,480	2,354,859	0
Thailand	9.71	67,010,502	6,504,151	100
Europe				
Austria	18.36	8,479,823	1,556,840	Very high deficit (means-tested)
Belgium	17.98	11,182,817	2,011,005	0
Czech Republic	16.71	10,514,272	1,756,496	0
Denmark	17.90	5,614,932	1,005,009	0
Estonia	18.04	1,317,997	237,706	Very high deficit (means-tested)
Finland	19.04	5,438,972	1,035,547	Very high deficit (means-tested)
France	17.86	65,939,866	11,777,556	Very high deficit (means-tested)
Germany	21.14	80,651,873	17,046,807	0

Region/Country	Population aged 65 and above, as percentage of total population in 2013 ¹	Population, total in 2013 ¹	Population aged 65 and above, total in 2013 ¹	Deficit in legal LTC coverage, as percentage of population not protected by national legislation ²⁻³⁶
Greece	19.67	11,027,549	2,168,948	Very high deficit (means-tested)
Hungary	17.22	9,893,899	1,703,372	Very high deficit (means-tested)
Iceland	12.81	323,764	41,468	0
Ireland	12.05	4,597,558	554,197	Very high deficit (means-tested)
Israel	10.72	8,059,500	864,190	Very high deficit (means-tested)
Italy	21.13	60,233,948	12,729,637	Very high deficit (means-tested)
Luxembourg	14.22	543,360	77,280	0
Netherlands	17.01	16,804,432	2,857,852	Very high deficit (means-tested)
Norway	15.82	5,080,166	803,541	Very high deficit (means-tested)
Poland	14.43	38,514,479	5,558,820	Very high deficit (means-tested)
Portugal	18.77	10,457,295	1,962,879	Very high deficit (means-tested)
Russian Federation	13.03	143,499,861	18,695,637	Very high deficit (means-tested)
Slovakia	12.96	5,413,393	701,790	100
Slovenia	17.24	2,059,953	355,117	Very high deficit (means-tested)
Spain	17.76	46,617,825	8,279,823	Very high deficit (means-tested)
Sweden	19.33	9,600,379	1,855,420	0
Switzerland	17.71	8,087,875	1,432,046	Very high deficit (means-tested)
Turkey	7.38	74,932,641	5,527,954	100
United Kingdom	17.49	64,106,779	11,212,690	Very high deficit (means-tested)

Source: ILO calculations based on World Bank: World Development Indicators database, April 2015, available at: <http://data.worldbank.org/data-catalog/world-development-indicators> (29 June 2015).

Notes: (1) Algeria: Based on legislation and literature review including Paraque and Perret, 2013. (2) Ghana: Based on legislation and literature review including Boon, 2007; Mba, 2010. (3) Nigeria: Based on legislation and literature review including Okoye, 2013. (4) South Africa: Based on legislation and literature review including Goodrick, 2013; Ferreira, 2013. Further, according to the South African constitution 'everyone has the right to have access to social security including, if they are unable to support themselves and their dependents, appropriate social assistance' (Sec. 27(1c)). (5) Argentina: Based on legislation and literature review including Jauregui et al., 2011; Comes and Fernandez, 2011; PNUD et al., 2013. (6) Brazil: Based on legislation and literature review including Camarano, 2013. Further, the 1988 Federal Constitution, the 1994 National Policy for the Old Person and the 2003 Elder's Bill of Rights stress that nursing and residential home care should only be provided in cases of poverty, abandonment or lack of family. (7) Canada: Based on legislation and literature review including Randall, 2011. Institution-based and home-based long term care does not fall under the Canada Health Act (1984) and no national legislation on long term care exists. (8) Chile: Based on legislation and literature review including Bravo and Puentes, 2012. (9) Colombia: Based on legislation and literature review including Gómez et al., 2009. (10) Mexico: Based on legislation and literature review including Gómez et al., 2009. (11) USA: Based on legislation and literature review including Colombo et al., 2011. (12) China: Based on legislation and literature review including Colombo et al., 2011. (13) India: Based on legislation and literature review including Berkman et al., 2011. (14) Indonesia: Based on legislation and literature review including Koestoer, 2014. (15) Japan: Based on legislation and literature review Shimizutani 2014. (16) South Korea: Based on legislation and literature review including Chon 2014. (17) Thailand: Based on legislation and literature review including Sasat, 2013a and Sasat, 2013b. (18) In Austria, Australia, France, Ireland, Italy, New Zealand, Sweden, and the United Kingdom needs-assessments apply (Colombo et al., 2011). (19) Czech Republic: Based on legislation and literature review including Sowa, 2010. (20) OECD countries: Based on legislation and literature review including OECD, 2013. (21) Estonia: Based on legislation and literature review including Jorens et al., 2011. (22) Finland: Based on legislation and literature review including Jorens et al., 2011. (23) Greece: Based on legislation and literature review including OECD, 2013. (24) Hungary: Based on legislation and literature review including Colombo et al., 2011. (25) Israel: Based on legislation and literature review including Asiskovitch, 2013. (26) The Netherlands: Based on legislation and literature review including Mot et al., 2010. (27) Norway: Based on legislation and literature review including Jorens et al., 2011. (28) Poland: Based on legislation and literature review including Żukowski, 2014. (29) Portugal: Based on legislation and literature review including Colombo et al., 2011. (30) Russian Federation: Based on legislation and literature review including World Bank, 2011. (31) Slovak Republic: Based on legislation and literature review. (32) Slovenia: Based on legislation and literature review including Colombo et al., 2011. (33) Spain: Based on legislation and literature review including Costa-Font, Mascarilla-Miro, Elvira, 2006. (34) Switzerland: Based on legislation and literature review including Colombo et al., 2011. (35) Turkey: Based on legislation and literature review including Bettio and Verashchagina, 2010.

The LTC Workforce

Region/Country	Formal LTC workers (FTE) per 100 persons 65 years and over ¹				Formal LTC workers (FTE), absolute values ¹				Formal LTC worker (HC ¹)			Coverage gap due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over) ^{1,2,4}	Informal LTC workers (HC) ^{1,3}		
	Total	Year	Institution-based	Home-based	Total	Year	Institution-based	Home-based	Per 100 persons 65 years and over	Absolute	Year		Per 100 persons 65 years and over	Absolute	Year
Africa															
Algeria ⁸	0.0	2006	N/A	N/A	0	2006	N/A	N/A	N/A	N/A	N/A	100.0	N/A	N/A	N/A
Ghana ⁹	0.0	2007	N/A	N/A	0	2007	N/A	N/A	N/A	N/A	N/A	100.0	N/A	N/A	N/A
Nigeria ¹⁰	0.0	2014	N/A	N/A	0	2014	N/A	N/A	N/A	N/A	N/A	100.0	N/A	N/A	N/A
South Africa ⁷	0.4	2012	N/A	N/A	11,562	2012	N/A	N/A	0.6	16,740	2012	90.5	N/A	N/A	N/A
Americas															
Argentina ¹¹	0.0	2012	N/A	N/A	0	2012	N/A	N/A	N/A	N/A	N/A	100.0	N/A	N/A	N/A
Brazil ¹²	0.0	2014	N/A	N/A	0	2014	N/A	N/A	N/A	N/A	N/A	100.0	N/A	N/A	N/A
Canada	3.6	2006	N/A	N/A	157,575	2006	N/A	N/A	5.2	226,715	2006	13.3	60.9	2,700,000	2007
Chile ¹³	0.0	2012	N/A	N/A	0	2012	N/A	N/A	N/A	N/A	N/A	100.0	N/A	N/A	N/A
Colombia ¹⁴	0.0	2009	N/A	N/A	0	2009	N/A	N/A	N/A	N/A	N/A	100.0	N/A	N/A	N/A
Mexico ⁷	1.8	2008	N/A	N/A	137,845	2008	N/A	N/A	2.6	169,358	2008	57.6	N/A	N/A	N/A
United States	6.4	2012	5.3	1.1	2,769,442	2012	2,302,002	467,440	11.9	5,123,639	2012	0.0	122.8	44,443,800	2004
Asia and the Pacific															
Australia	4.4	2012	2.8	1.6	140,135	2012	89,797	50,338	7.1	226,956	2012	0.0	83.8	2,694,600	2012
China ¹⁵	1.1	1999	N/A	N/A	1,384,528	1999	N/A	N/A	N/A	N/A	N/A	72.3	N/A	N/A	N/A
India ¹⁶	0.0	2015	N/A	N/A	0	2015	N/A	N/A	N/A	N/A	N/A	100.0	N/A	N/A	N/A
Indonesia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Japan	4.0	2012	1.3	2.7	1,233,587	2012	404,994	828,593	5.8	1,797,827	2012	3.6	N/A	N/A	N/A
Korea	1.9	2012	1.0	1.0	114,286	2012	57,013	57,273	3.0	176,754	2012	54.2	N/A	N/A	N/A
New Zealand	4.3	2011	3.0	1.4	25,413	2011	17,436	7,977	7.3	37,203	2006	0.0	4.8	24,500	2006
Thailand ⁷	0.7	2000	N/A	N/A	13,511	2000	N/A	N/A	1.0	36,179	2000	83.9	N/A	N/A	N/A

Region/Country	Formal LTC workers (FTE) per 100 persons 65 years and over ¹				Formal LTC workers (FTE), absolute values ¹				Formal LTC worker (HC ¹)			Coverage gap due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over) ^{1,2,4}	Informal LTC workers (HC) ^{1,3}		
	Total	Year	Institution-based	Home-based	Total	Year	Institution-based	Home-based	Per 100 persons 65 years and over	Absolute	Year		Per 100 persons 65 years and over	Absolute	Year
Europe															
Austria ⁶	2.6	2006	N/A	N/A	40,478	2006	N/A	N/A	N/A	N/A	N/A	37.3	21.4	289,882	2006
Belgium ⁶	2.9	2006	2.0	N/A	58,319	2006	37,089	N/A	N/A	N/A	N/A	30.1	23.2	420,231	2006
Czech Republic	2.1	2009	1.3	0.8	32,153	2009	20,127	12,026	2.4	38,041	2009	49.4	17.6	281,227	2010
Denmark	6.3	2009	N/A	N/A	55,419	2009	N/A	N/A	9.0	79,067	2009	0.0	2.3	19,613	2008
Estonia	6.1	2012	0.6	5.6	14,406	2012	1,362	13,044	6.2	14,484	2012	0.0	N/A	N/A	N/A
Finland ¹⁷	6.5	2006	N/A	1.2	67,000	2006	N/A	12,000	N/A	N/A	N/A	0.0	N/A	N/A	N/A
France	1.1	2003	1.4	N/A	108,197	2003	140,670	N/A	1.6	160,029	2003	73.5	20.7	2,101,795	2006
Germany	3.2	2011	2.1	1.0	534,815	2011	361,792	173,023	4.4	745,932	2011	22.9	19.0	3,199,384	2012
Greece ⁶	1.6	2006	N/A	N/A	34,703	2006	N/A	N/A	N/A	N/A	N/A	61.4	13.3	273,234	2006
Hungary ⁵	1.8	2012	N/A	N/A	30,509	2012	N/A	N/A	2.6	43,527	2012	56.6	N/A	N/A	N/A
Iceland	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ireland	1.8	2013	1.1	0.6	9,915	2013	6,293	3,621	2.8	17,358	2013	56.6	35.5	187,112	2011
Israel	8.0	2012	0.7	7.3	68,573	2012	6,035	62,538	10.7	84,450	2012	0.0	N/A	N/A	N/A
Italy ⁵	2.6	2003	N/A	N/A	330,971	2003	N/A	N/A	3.7	406,669	2003	37.3	37.2	4,034,696	2003
Luxembourg	6.9	2012	4.4	2.5	5,043	2012	3,217	1,826	N/A	N/A	N/A	0.0	3.3	2,439	2012
Netherlands ⁵	7.3	2012	N/A	N/A	45,244	2012	N/A	N/A	10.6	288,000	2012	0.0	144.9	3,500,000	2008
Norway	17.1	2012	N/A	N/A	131,180	2012	7,186	N/A	23.5	180,406	2012	0.0	87.2	670,000	2012
Poland ⁶	3.0	2006	N/A	N/A	58,886	2006	N/A	N/A	N/A	N/A	N/A	27.7	23.9	1,214,331	2006
Portugal	0.4	2013	0.4	0.0	8,151	2013	5,146	965	0.6	10,872	2013	90.4	N/A	N/A	N/A
Russian Federation ¹⁸	0.7	2011	N/A	N/A	4,743	2011	N/A	N/A	1.0	184,000	2011	83.7	N/A	N/A	N/A
Slovakia	1.1	2012	0.7	0.4	7,878	2012	N/A	2,732	1.5	10,449	2012	73.5	8.6	59,187	2012
Slovenia	1.2	2010	N/A	1.2	4,249	2010	N/A	4,249	N/A	N/A	N/A	71.1	N/A	N/A	N/A
Spain ⁵	2.9	2012	N/A	N/A	235,456	2012	N/A	N/A	4.2	335,929	2012	30.1	4.9	408,401	2013
Sweden	9.6	2011	N/A	N/A	166,179	2011	N/A	N/A	12.8	222,446	2011	0.0	12.8	200,060	2006
Switzerland	5.2	2012	4.1	1.1	71,339	2012	56,299	15,040	8.5	116,409	2012	0.0	N/A	N/A	N/A

Region/Country	Formal LTC workers (FTE) per 100 persons 65 years and over ¹			Formal LTC workers (FTE), absolute values ¹				Formal LTC worker (HC ¹)			Coverage gap due to insufficient numbers of formal LTC workers (relative threshold: 4.2 FTE workers per 100 persons 65 years and over) ^{1,2,4}	Informal LTC workers (HC) ^{1,3}			
	Total	Year	Institution-based	Home-based	Total	Year	Institution-based	Home-based	Per 100 persons 65 years and over	Absolute		Year	Per 100 persons 65 years and over	Absolute	Year
Turkey	0.0	2000	N/A	N/A	0	2000	N/A	N/A	N/A	N/A	N/A	100.0	N/A	N/A	N/A
United Kingdom ⁶	6.9	2009	N/A	N/A	773,676	2009	N/A	N/A	N/A	N/A	N/A	0.0	55.6	5,550,000	2009

Source: ILO calculations based on OECD: Strengthening data on long-term care systems, 2014, available at: <http://www.oecd.org/els/health-systems/Long-Term-Care-Dataset-OECD-Health-Statistics-2014.xls> (5 June 2015).

Notes: (1) A group of 18 countries representing a broad range of legal, financing and organizational approaches towards LTC is used to generate the population weighted median threshold of 4.2 long term care workers (full time equivalent, FTE) per 100 persons 65 years and over in 2013 (or latest available year). The country group consists of Australia, Canada, Czech Republic, Estonia, France, Germany, Ireland, Israel, Japan, Korea, Luxembourg, New Zealand, Norway, Portugal, Slovakia, Sweden, Switzerland, and United States. (2) In 21 countries data on numbers of informal LTC workers is available as head count only. Thus, figures indicated include both part time and full time workers. Countries with data availability include Australia, Austria, Belgium, Canada, Czech Republic, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, New Zealand, Norway, Poland, Slovakia, Spain, Sweden, United Kingdom, and United States. (3) Coverage gap due to staff access deficit based on the median value in the selected group of countries. The relative median value amounts to 4.2 formal long term care workers (full time equivalent, FTE) per 100 persons 65 years and over in 2013. The indicator shows the percentage of the population 65 years and over that is excluded from access to long term care services due to insufficient numbers of formal long term care workers. It is calculated as follows:

$$\text{Staff Access Deficit} = \frac{(\text{Threshold} - \text{value country } x)}{\text{Threshold}} \times 100$$

	Australia	Canada
Formal long term care workers (full time equivalent, FTE) per 100 persons 65 years and over	4.4	3.6
Threshold based on the median value of OECD countries: 4.2	4.2	4.2
The ILO Staff Access Deficit indicator [(threshold- value country x)+ threshold × 100]	0 (above threshold)	13.3

(4) Best approximation based on the median ratio of 'Formal long term care workers (full time equivalent, FTE) per 100 persons 65 years and over' to 'Formal long term care workers (head count, HC) per 100 persons 65 years and over' (i.e. FTE:HC) from 2013 or latest year available. The median FTE:HC ratio is 0.69 in the representative group of countries. Using the high correlation between FTE and HC (at correlation coefficient of 0.81), the median FTE:HC ratio enables the best prediction for FTE where country data is not available. (5) Approximation based on the median ratio of 'Formal long term care workers (full time equivalent, FTE) per 100 persons 65 years and over' to 'Informal long term care workers per 100 persons 65 years and over' (i.e. FTE:INF) from 2013 or latest year available. The median FTE:INF ratio is 0.12 deriving from countries mentioned in note 3. As most of these countries have means-tested long term care systems, the median FTE:INF ratio enables the second best prediction for FTE (with tendency for over estimation) where country data is not available. (6) Formal long term care workers (FTE) per 100 persons 65 years and over is based on the following references: South Africa (Goodrick and Pelsler 2014). For Mexico, the number of long term care workers in Mexico is expressed as "% of personal carers for total population aged 65 years old and over" in 2008 (OECD 2014). For Thailand, personal care workers can be classified as formal long term care workers (head count, HC) as its definition includes institutional-based personal care workers, home-based personal care workers, and health care assistants (WHO 2015). It amounts to 36,179 personal care workers in 2000 (*ibid.*). Using the median FTE:HC ratio 0.69, it is calculated as follows: $36,179 \text{ personal care workers} / 6,504,151 \text{ population aged 65 and over in Thailand} * 0.69 = 0.7 \text{ FTE per 100 persons aged 65 years and over}$. (7) Algeria: Based on literature review including Lamura et al., 2013. (8) Ghana: Based on literature review including Boon, 2007. (9) Nigeria: Based on literature review including Okoye, 2013. (10) Argentina: Based on literature review including Bernardini, 2012 and Jauregui et al., 2011. (11) Brazil: Based on literature review including Garcez-Leme and Decker Leme, 2014. (12) Chile: Based on literature review including Bravo and Puentes, 2012. (13) Colombia: Based on literature review including Gómez et al., 2009. (14) China: Based on literature review including Chen et al, 2000. (15) India: Based on email correspondence with Sunil Gulati, Ministry of Urban Development, India; Arun Kumar Panda, Ministry of Health and Family Welfare, India; and Mathew Cherian, HelpAge India. (16) Finland: Based on literature review including Johansson, 2010. (17) World Bank, 2011.

Public and Private LTC Expenditure

Region/ Country	Public expenditure on LTC				Out-of-pocket expenditure on LTC			
	Public expenditure on LTC, in % GDP, 2006-2010 average ²	Public expenditure on LTC per person 65 years and over ^{2,3,4}	Public expenditure on LTC per population 65 years and over, in % GDP per capita ^{2,3,4}	Percentage of population 65 years and over excluded from access to LTC services due to financial resource deficit (Threshold:1,461.8 PPP\$) ^{5,6}	The percentage of the population experiencing out-of-pocket expenditure for LTC, 65 years and over ^{1,12}	Out-of-pocket expenditure on LTC among population 65 years and over ¹³		
						As a share of household income, weighted average ^{1,14}	As a share of per capita household income, weighted average ^{1,15}	
Africa								
Algeria ⁷	0	0	0	100.0	N/A	N/A	N/A	N/A
Ghana ⁸	0	0	0	100.0	N/A	N/A	N/A	N/A
Nigeria ⁹	0	0	0	100.0	N/A	N/A	N/A	N/A
South Africa	0.2	450.2	3.6	69.2	N/A	N/A	N/A	N/A
Americas								
Argentina ¹⁰	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Brazil	0	0	0	100.0	N/A	N/A	N/A	N/A
Canada	1.2	3,336.6	7.9	0	N/A	N/A	N/A	N/A
Chile	0	0	0	100.0	N/A	N/A	N/A	N/A
Colombia ¹¹	0	0	0	100.0	N/A	N/A	N/A	N/A
Mexico	0	0	0	100.0	N/A	N/A	N/A	N/A
United States	0.6	2,206.4	4.3	0	N/A	N/A	N/A	N/A
Asia and the Pacific								
Australia	0	0	0	100.0	N/A	N/A	N/A	N/A
China	0.1	133.0	1.1	90.9	N/A	N/A	N/A	N/A
India	0.1	99.4	1.9	93.2	N/A	N/A	N/A	N/A
Indonesia	0.1	186.3	1.9	87.3	N/A	N/A	N/A	N/A
Japan	0.7	994.1	2.8	32.0	N/A	N/A	N/A	N/A
Korea, Republic of	0.3	7,945.0	24.3	0	N/A	N/A	N/A	N/A
New Zealand	1.3	818.1	2.5	44.0	N/A	N/A	N/A	N/A
Thailand	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Region/ Country	Public expenditure on LTC				Out-of-pocket expenditure on LTC			
	Public expenditure on LTC, in % GDP, 2006-2010 average ²	Public expenditure on LTC per person 65 years and over ^{2,3,4}	Public expenditure on LTC per population 65 years and over, in % GDP per capita ^{2,3,4}	Percentage of population 65 years and over excluded from access to LTC services due to financial resource deficit (Threshold:1,461.8 PPP\$) ^{5,6}	The percentage of the population experiencing out-of-pocket expenditure for LTC, 65 years and over ^{1,12}	Out-of-pocket expenditure on LTC among population 65 years and over ¹³		
						As a share of household income, weighted average ^{1,14}	As a share of per capita household income, weighted average ^{1,15}	
Europe								
Austria	1.1	2,639.6		6.0	0	65.6	11.0	9.2
Belgium	1.7	3,838.7		9.5	0	86.5	6.3	5.1
Czech Republic	0.3	505.1		1.8	65.5	65.7	3.7	3.2
Denmark	2.2	5,221.7		12.3	0	49.9	5.3	4.5
Estonia	0.2	280.0		1.1	80.8	15.3	11.1	10.5
Finland	0.8	1,629.8		4.2	0	N/A	N/A	N/A
France	1.1	2,297.1		6.2	0	75.3	6.3	5.2
Germany	0.9	1,826.0		4.3	0	56.3	6.5	5.1
Greece	0.5	614.2		2.5	58.0	N/A	N/A	N/A
Hungary	0.3	395.7		1.7	72.9	N/A	N/A	N/A
Iceland	1.7	5,436.3		13.3	0	N/A	N/A	N/A
Ireland	0.4	1,481.6		3.3	0	N/A	N/A	N/A
Israel	0.5	1,442.1		4.7	1.3	48.2	22.9	14.5
Italy	0.7	1,120.4		3.3	23.4	73.7	14.4	8.9
Luxembourg	0.9	5,622.4		6.3	0	66.9	3.5	2.7
Netherlands	2.3	6,088.8		13.5	0	80.2	3.8	3.2
Norway	2.1	8,406.1		13.3	0	N/A	N/A	N/A
Poland	0.4	633.5		2.7	56.7	N/A	N/A	N/A
Portugal	0.1	136.8		0.5	90.6	N/A	N/A	N/A
Russian Federation	0.2	361.7		1.5	75.3	N/A	N/A	N/A
Slovakia	0	0		0	100.0	N/A	N/A	N/A
Slovenia	0.7	1,111.3		4.1	24.0	54.1	9.0	8.3
Spain	0.5	891.9		2.8	39.0	66.0	12.1	8.4
Sweden	0.7	1,573.7		3.6	0	83.4	4.0	3.3
Switzerland	1.2	3,727.0		6.8	0	70	4.0	3.0

Region/ Country	Public expenditure on LTC				Out-of-pocket expenditure on LTC		
	Public expenditure on LTC, in % GDP, 2006-2010 average ²	Public expenditure on LTC per person 65 years and over ^{2,3,4}	Public expenditure on LTC per population 65 years and over, in % GDP per capita ^{2,3,4}	Percentage of population 65 years and over excluded from access to LTC services due to financial resource deficit (Threshold:1,461.8 PPP\$) ^{5,6}	The percentage of the population experiencing out-of-pocket expenditure for LTC, 65 years and over ^{1,12}	Out-of-pocket expenditure on LTC among population 65 years and over ¹³	
						As a share of household income, weighted average ^{1,14}	As a share of per capita household income, weighted average ^{1,15}
Turkey	0	0	0	100.0	N/A	N/A	N/A
United Kingdom	0.9	1,899.1	5.1	0	N/A	N/A	N/A

Sources: (1) ILO calculations based on The Survey of Health, Ageing and Retirement in Europe (SHARE), wave 5, March 2015. Available at: <http://www.share-project.org/home0/wave-5.html> [15 June 2015]. (2) OECD: Public spending on health and long-term care: a new set of projections, June 2013. OECD Economic Policy Papers No. 6. Available at: <http://www.oecd.org/eco/growth/Health%20FINAL.pdf> [5 June 2015]. (3) World Bank: World Development Indicators database, April 2015. Available at: <http://data.worldbank.org/data-catalog/world-development-indicators> [5 June 2015].

Notes:

- (4) Total population and the percentage of population 65 years and over are extracted from the World Bank: World Development Indicators in 2013. GDP per capita, PPP (constant 2011 international \$) and GDP, PPP (constant 2011 international \$) are also extracted from the World Bank: World Development indicators in 2013.
- (5) All OECD countries are used to generate the population weighted median threshold of 1,461.8 PPP\$ per person 65 years and over in 2013. Countries are Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Israel, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States.
- (6) Coverage gap due to financial resources deficit calculated on the population weighted median value of all OECD countries. The relative population weighted median value is based on the average long term care expenditure between 2006 and 2010. It amounts to 1,461.8 PPP\$ per person 65 years and over per year. The indicator shows the percentage of the population 65 years and over that is excluded from access to LTC services due to a lack of financial resources. It is calculated as follows:

	China	Russian Federation
Public expenditure on LTC, in % GDP, 2006-2010 average	0.1	0.2
GDP per capita, PPP (constant 2011 international \$) (2013)	11,805.1	23,561.4
GDP, PPP, in million (constant 2011 international \$) (2013)	16,023,988.5	3,381,219.1
Population ages 65 and above (absolute) (2013)	120,474,979.0	18,695,637.1
Public expenditure on LTC, PPP\$, in million (2013)	16,024.0	6,762.4
Public expenditure on LTC per person 65 years and over	133	361.7
Public expenditure on LTC per person 65 years and over, in % GDP per capita	1.1	1.5
Population weighted median threshold of OECD countries, in PPP\$	1,461.8	1,461.8
The ILO Financial Deficit Indicator	90.9	75.3

(7) Algeria: Based on literature review including Lam et al., 2006.

(8) Ghana: Based on literature review including Boon, 2007.

Region/ Country	Public expenditure on LTC				Out-of-pocket expenditure on LTC		
	Public expenditure on LTC, in % GDP, 2006-2010 average ²	Public expenditure on LTC per person 65 years and over ^{2,3,4}	Public expenditure on LTC per population 65 years and over, in % GDP per capita ^{2,3,4}	Percentage of population 65 years and over excluded from access to LTC services due to financial resource deficit (Threshold:1,461.8 PPP\$) ^{5,6}	The percentage of the population experiencing out-of-pocket expenditure for LTC, 65 years and over ^{1,12}	Out-of-pocket expenditure on LTC among population 65 years and over ¹³	
						As a share of household income, weighted average ^{1,14}	As a share of per capita household income, weighted average ^{1,15}

(9) Nigeria: Based on literature review including Okoye, 2013.

(10) Argentina: Based on literature review including Jauregui et al., 2011.

(11) Colombia: Based on literature review including Gómez et al., 2009.

(12) The percentage of the population experiencing out-of-pocket expenditure for LTC is based on a population from 15 European countries amounting to 92689 persons, 33,794 of whom are between the age of 50-64 years and 42,441 of whom are 65 years and over. Based on the 'health care utilization and out-of-pocket expenses' module of the SHARE survey, it captures the percentage of the population experiencing out-of-pocket expenditure for long term care on home care (*hc128_*) and institutional care (*ho062_*) in the last 12 months. It is calculated as follows:

$$\frac{\text{Number of persons 65 years and over who spent OOP on (home care + institutional care)}}{\text{Total number of persons 65 years and over}} \times 100\%$$

(13) The amount of out-of-pocket expenditure on LTC among the population 65 years and over is the weighted average of the out-of-pocket expenses on home care (*hc129e*) and institutional care (*hc085e*) in the last 12 months.

(14) Due to differences in standard of living across sample European countries, out-of-pocket (OOP) expenses are expressed in the percentage of household (HH) income per year. It is a weighted average of out-of-pocket expenditure spent on home care and institutional care calculated as follows:

$$+ \frac{\% \text{ HH income spent on OOP}_{\text{homecare}} \times \text{number of respondents}_{\text{homecare}}}{\text{weighted \% HH income spent on OOP}_{\text{long term care}}} \\ = \frac{\% \text{ HH income spent on OOP}_{\text{institutional care}} \times \text{number of respondents}_{\text{institutional care}}}{\text{weighted \% HH income spent on OOP}_{\text{long term care}}}$$

Thus, the weighted average % household income spent on $OOP_{\text{long term care}}$

$$= \frac{\text{weighted \% HH income spent on } OOP_{\text{long term care}}}{\text{Total number of respondents who spent OOP on long term care}_{\text{home care+institutional care}}}$$

(15) Out-of-pocket (OOP) expenses on LTC is also expressed as percentage of per capita household income per year and is calculated as follows:

$$+ \frac{\% \text{ per capita HH income spent on OOP}_{\text{homecare}} \times \text{number of persons}_{\text{homecare}}}{\text{weighted \% per capita HH income spent on OOP}_{\text{long term care}}} \\ = \frac{\% \text{ per capita HH income spent on OOP}_{\text{institutional care}} \times \text{number of persons}_{\text{institutional care}}}{\text{weighted \% per capita HH income spent on OOP}_{\text{long term care}}}$$

Thus, the weighted average % per capita household income spent on $OOP_{\text{long term care}}$

$$= \frac{\text{weighted \% per capita household income spent on } OOP_{\text{long term care}}}{\text{Total number of respondents who spent OOP on long term care}_{\text{home care+institutional care}}}$$

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