

# Part **B**

## **Demand and Supply of Long-Term Care for Older Persons in Asia (Updated)**

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## Part B

# Demand and Supply of Long-Term Care for Older Persons in Asia (Updated)

### 1. Introduction

In 2018, this research team compiled data on population ageing and long-term care in East and Southeast Asia on the following population aspects (Hayashi et al., 2019):

- 1) the proportion of older persons in target countries by subnational level
- 2) the proportion of older persons living alone by subnational level
- 3) long-term care workforce
- 4) long-term care facility population

This updated version extends the comparisons to South and West Asia. The available census data reached 4.133 billion people, 89.1% of the total population of Asia (Table B-1).

**Table B-1. List of Covered Countries with Available Census Data, Asia**

<i>Region</i> Country	Pop in 1,000	Source	Latest Year
<i>Eastern Asia</i>			
China	1,439,324	COSC 2012	2010
China, Hong Kong SAR	7,497	PCO 2012	2011
China, Macao SAR	649	SCS 2012	2011
China, Taiwan Province of China	23,817	DGBAS 2012	2010
Dem. People's Republic of Korea	25,779	CBS 2015	2014
Japan	126,476	SB 2017	2015
Mongolia	3,278	IPUMS	2000
Republic of Korea	51,269	SK 2017	2010
<i>South-Eastern Asia</i>			
Cambodia	16,719	IPUMS	2013
Indonesia	273,524	IPUMS	2010
Lao People's Democratic Republic	7,276	IPUMS	2005
Malaysia	32,366	DS 2011	2010
Myanmar	54,410	DP 2015	2014

Philippines	109,581	IPUMS	2010
Singapore	5,850	SDS 2011	2010
Thailand	69,800	NSO 2011	2010
Viet Nam	97,339	IPUMS	2009
<b><i>Southern Asia</i></b>			
Bangladesh	164,689	IPUMS	2011
India	1,380,004	IPUMS	2009
Iran (Islamic Republic of)	83,993	IPUMS	2011
Nepal	29,137	IPUMS	2011
Sri Lanka	21,413	DCS 2015	2012
<b><i>Central Asia</i></b>			
Kyrgyzstan	6,524	IPUMS	2009
<b><i>Western Asia</i></b>			
Armenia	2,963	IPUMS	2011
Jordan	10,203	IPUMS	2004
State of Palestine	5,101	IPUMS	2007
Turkey	84,339	IPUMS	2000
<b><i>Total Covered</i></b>	4,133,321		
<b><i>Total Asia</i></b>	4,641,055		(89.1%)

Sources:

COSC: Census Office under the State Council, Department of Population and Employment Statistics, National Bureau of Statistics, The People's Republic of China, (2012), Tabulation on the 2010 Population Census of the People's Republic of China. China Statistics Press. <http://www.stats.gov.cn/tjsj/pcsj/rkpc/6rp>

PCO: Population Census Office, Census and Statistics Department, The Government of the Hong Kong Special Administrative Region, (2012), 2011 Population Census. <https://www.censtatd.gov.hk/en/scode170.html>

SCS: Statistics and Census Service, Government of Macao Special Administrative Region (2012), Results of 2011 Population Census. <https://www.dsec.gov.mo/Statistic/Demographic/PopulationCensus/2011PopulationCensus.aspx>

DGBAS: Director-General of Budget, Accounting and Statistics, Executive Yuan, Republic of China (Taiwan) (2012), General Report of 2010 Population and Housing Census. <https://eng.stat.gov.tw/lp.asp?ctNode=1627&CtUnit=777&BaseDSD=7>

CBS: Central Bureau of Statistics, Democratic People's Republic of Korea (2015), Socio-Economic, Demographic and Health Survey 2014. [https://www.undp.org/content/dam/unct/dprk/docs/2014%20SDHS%20Report\\_E\\_final.pdf](https://www.undp.org/content/dam/unct/dprk/docs/2014%20SDHS%20Report_E_final.pdf);

SB: Statistics Bureau, Ministry of Internal Affairs and Communications, Japan (2017), The 2015 Population Census. <https://www.stat.go.jp/data/kokusei/2015>.

IPUMS: Minnesota Population Centre (2019), Integrated Public Use Microdata Series,

International. Version 7.2 [dataset], Minneapolis, MN.  
<https://doi.org/10.18128/D020.V7.2>.

SK: Statistics Korea, The Republic of Korea (2017), Results of the 2010 Population and Housing Census

[https://kosis.kr/statHtml/statHtml.do?orgId=101&tblId=DT\\_1IN1002&conn\\_path=I2&language=en](https://kosis.kr/statHtml/statHtml.do?orgId=101&tblId=DT_1IN1002&conn_path=I2&language=en);

DS: Department of Statistics, Malaysia (2011), Population and Housing Census of Malaysia 2010;  
<https://www.mycensus.gov.my/index.php/census-product/publication/census-2010>

DP: Department of Population, Ministry of Immigration and Population, Myanmar (2015), The 2014 Myanmar Population and Housing Census. <https://www.dop.gov.mm/en/publication-category/2014-reports>.

SDS: Singapore Department of Statistics, Ministry of Trade & Industry, Republic of Singapore (2011), Census of Population 2010. <https://www.dop.gov.mm/en/publication-category/2014-reports>.

NSO: National Statistical Office, Ministry of Information and Communication Technology, Kingdom of Thailand (2011), 2010 Population and Housing Census. [http://www.nso.go.th/sites/2014/Documents/pop/2553/Results\\_report2553.pdf](http://www.nso.go.th/sites/2014/Documents/pop/2553/Results_report2553.pdf).

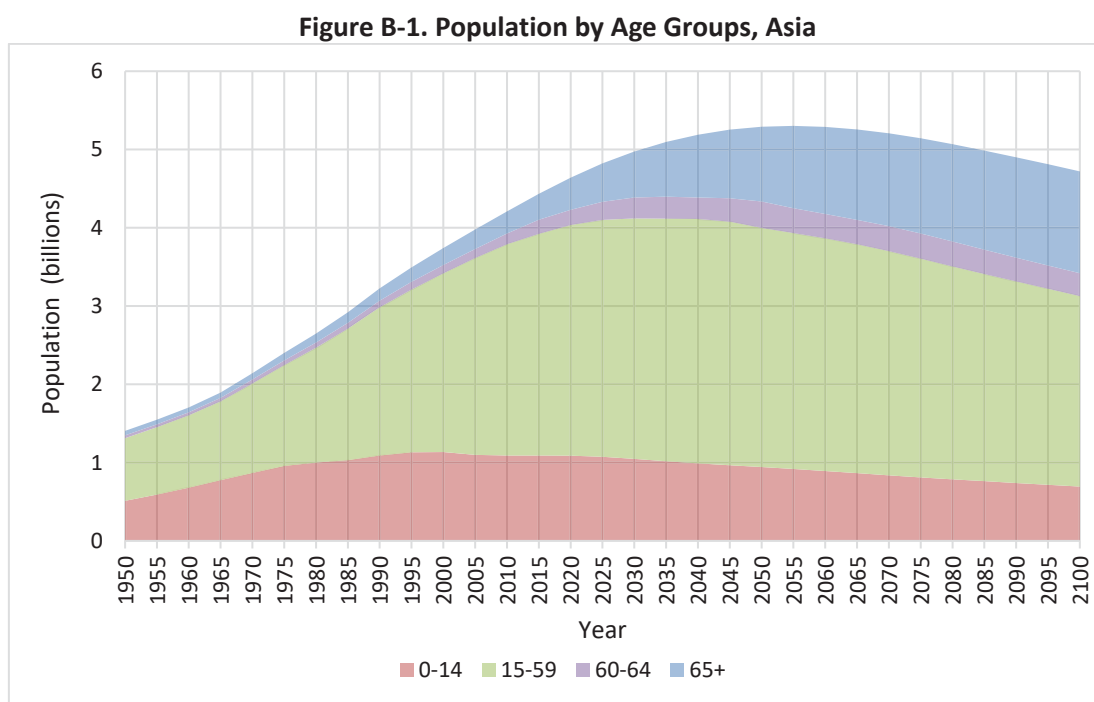
DCS: Department of Census & Statistics, Ministry of Policy Planning and Economic Affairs, Democratic Socialist Republic of Sri Lanka (2015), Census of Population and Housing 2012. <http://www.statistics.gov.lk/pophousat/cph2011/pages/activities/reports/finalreport/finalreporte.pdf>.

\*All url accessed 30/7/2021.

## 2. The General Trend of Ageing

### 2.1. Population by Broad Age Group

Population ageing is proceeding in all parts of Asia. The ageing population can be expressed with various demographic indicators, with the number of older persons as the most fundamental indicator (Figure B-1).



Source: UN (2019).

In Asia – East, Southeast, South-Central, and West Asia combined – the number of young people, aged 0 to 14, has been declining since 2005, according to the population projections of the United Nations Population Division in 2019 (UN, 2019). The working-age population will start to decrease around 2045. The total population decline will start in 2060. Throughout the period from 1950 to 2100, the number of older persons, aged 60 years or 65 years and over, will continue to increase.

### 2.2. Definition of Older Persons

Internationally, older persons are defined as those either 60 or 65 years old and over. High-income countries, such as member countries of the Organisation for Economic Cooperation and Development (OECD), tend to adopt the 65 years and over definition. These countries are the forerunners of population ageing. During the 1950s, United Nation reports on ageing defined three broad age groups: 0-14, 15-64, and 65+ (UN, 1956). The pensionable age of the United Kingdom was by 65 years old at the time, and this age was taken as the definition of older persons by UN. In contrast, most middle and low-income countries define older persons

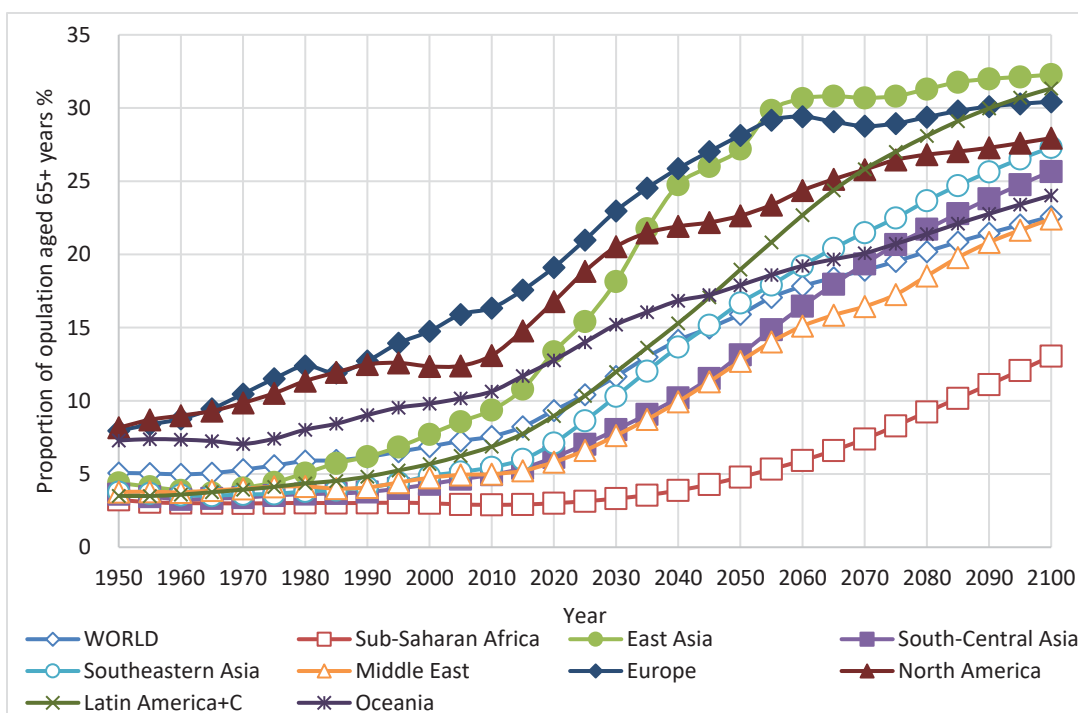
as those 60 years old or over, a definition that came from the World Assembly on Ageing held in Vienna in 1982. Both definitions, either 60 or 65 years old, came from United Nations but in different contexts in different periods.

Although around 70% of older persons reside in middle and low-income countries, indicators on population ageing have been using the 65 years old definition, which this report follows. However, wherever possible, both definitions should be taken into account.

### 2.3. The Proportion of Older Persons

Population ageing is usually expressed as the increase in the proportion of older persons to the total population. In all the world regions, the proportions of older persons have increased and are projected to increase (Figure B-2). This change is caused by declining fertility and mortality, fewer babies being born, and people living longer.

**Figure B-2. Proportion of Older Persons aged 65+ Years, 1950–2100**



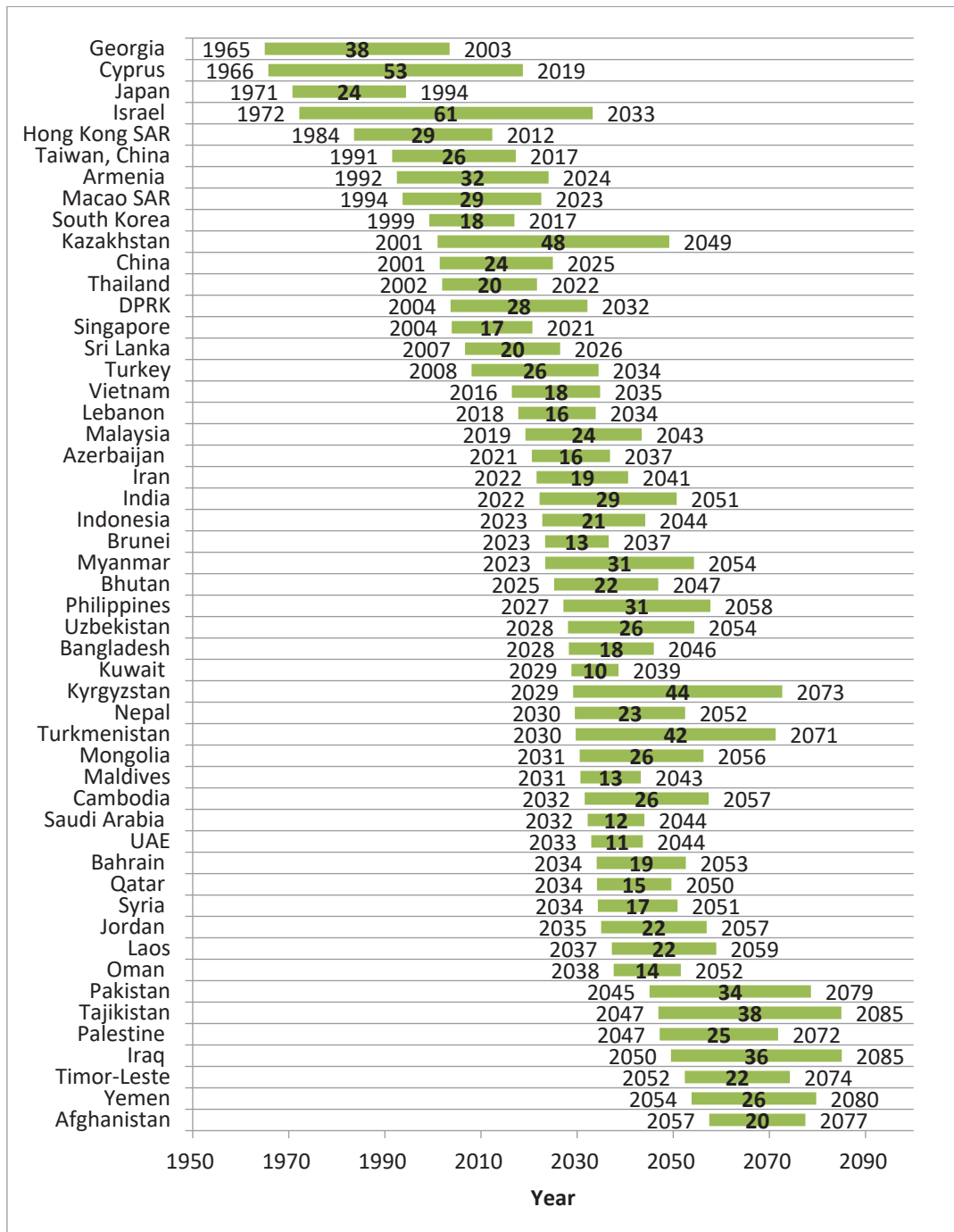
Latin America+C = Latin America and the Caribbean.  
Source: UN (2019).

### 2.4. Ageing Speed

The speed of ageing matters. Compared to European countries, ageing in Japan was much quicker. However, many countries in Asia will age much quicker than Japan. As shown in Figure B-3, amongst the 51 countries in Asia, the fastest ageing country is Kuwait, which will take only ten years that the proportion of 65 years and over to rise from 7% to 14%. It is followed by United Arab Emirates (11 years); Saudi Arabia (12 years); and Maldives and Brunei

(13 years). Though ageing in Arab Gulf countries is not expected to start until the 2030s, it will be extremely rapid compared with East and Southeast Asia.

**Figure B-3. Speed of Ageing, Asia**



Note:

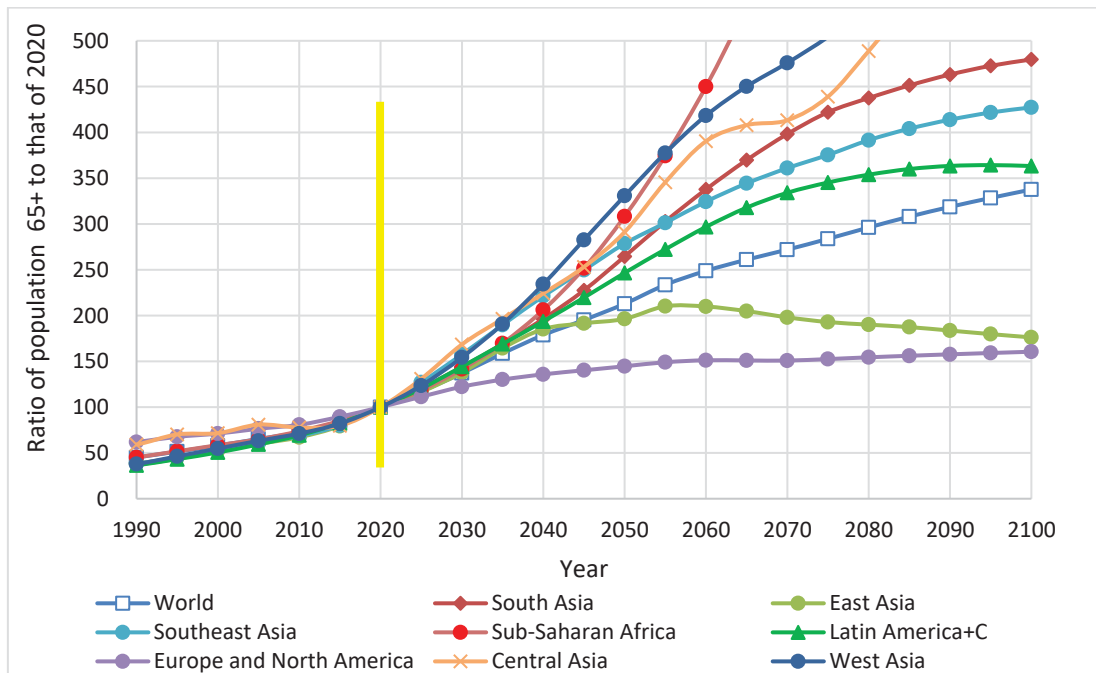
1. The year when the proportion of 65+ becomes 7% is labelled to the left of the green bar, 14% to the right of the bar.
2. Countries sorted by year when the share of older population reaches 7%.
3. Number of years for percentage to increase from 7% to 14% is indicated on the green bar.

Source: Calculated by Author, using data of UN (2019).

## 2.5. Ratio of Population Aged 65 Years and Over

In addition to the proportion of older persons, the actual number of older persons is also an important indicator. It is related to both the number of persons who need care and the corresponding supply of care. In regions such as Europe or North America, where ageing has already begun, the increase of older persons is not too much. However, in the regions with middle- and low-income countries, the number of older persons will rise sharply (Figure B-4), doubling from 2020 to 2040.

Figure B-4. Ratio of Number of Older Persons aged 65+ Years (2020=100)



Latin America+C = Latin America and the Caribbean.

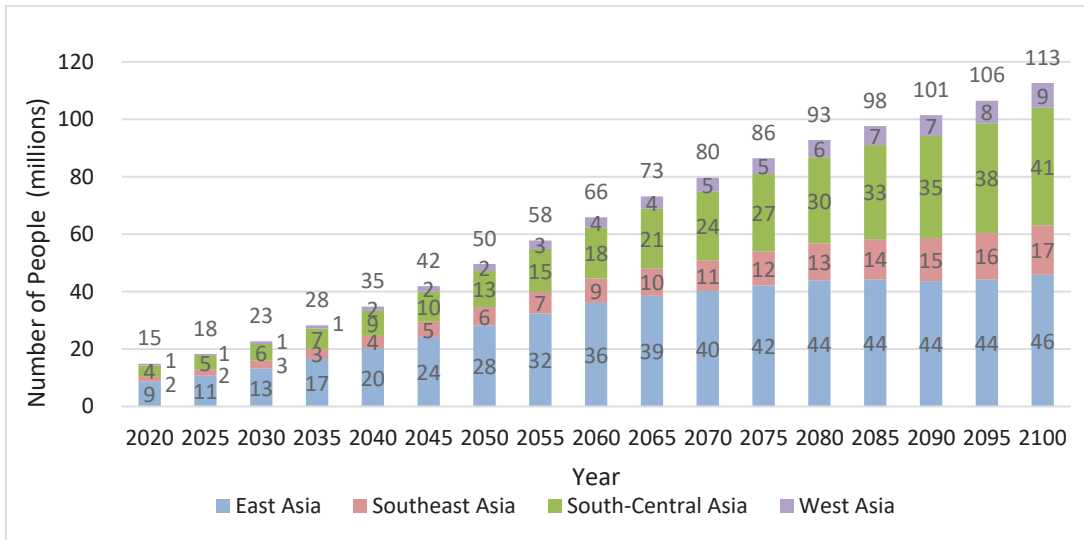
Source: Calculated by Author, using data of UN (2019).

## 3. Demand for Long-Term Care: Number of Older Persons Who Need Care

Following the methodology developed in the previous research project (Hayashi et al., 2019), demand for long term care for each Asian sub-region was calculated (Figure B-5). East Asia remains the region with the most need for care from 2020 to 2100, increasing from 9 million in 2020 to 46 million in 2100. However, the increase will slow down around 2065 and after. The second largest region is South-Central Asia, where the number rose from 4 million in 2020 to 41 million in 2100. For Southeast and West Asia, the number of older persons who need care will increase almost monotonically from 15 million in 2020 to 113 million in 2100.



**Figure B-5. Older Persons who Need Care, Asia**



Note: Calculated by the method employed in Hayashi et al. (2019) using population projection by United Nations (2019).

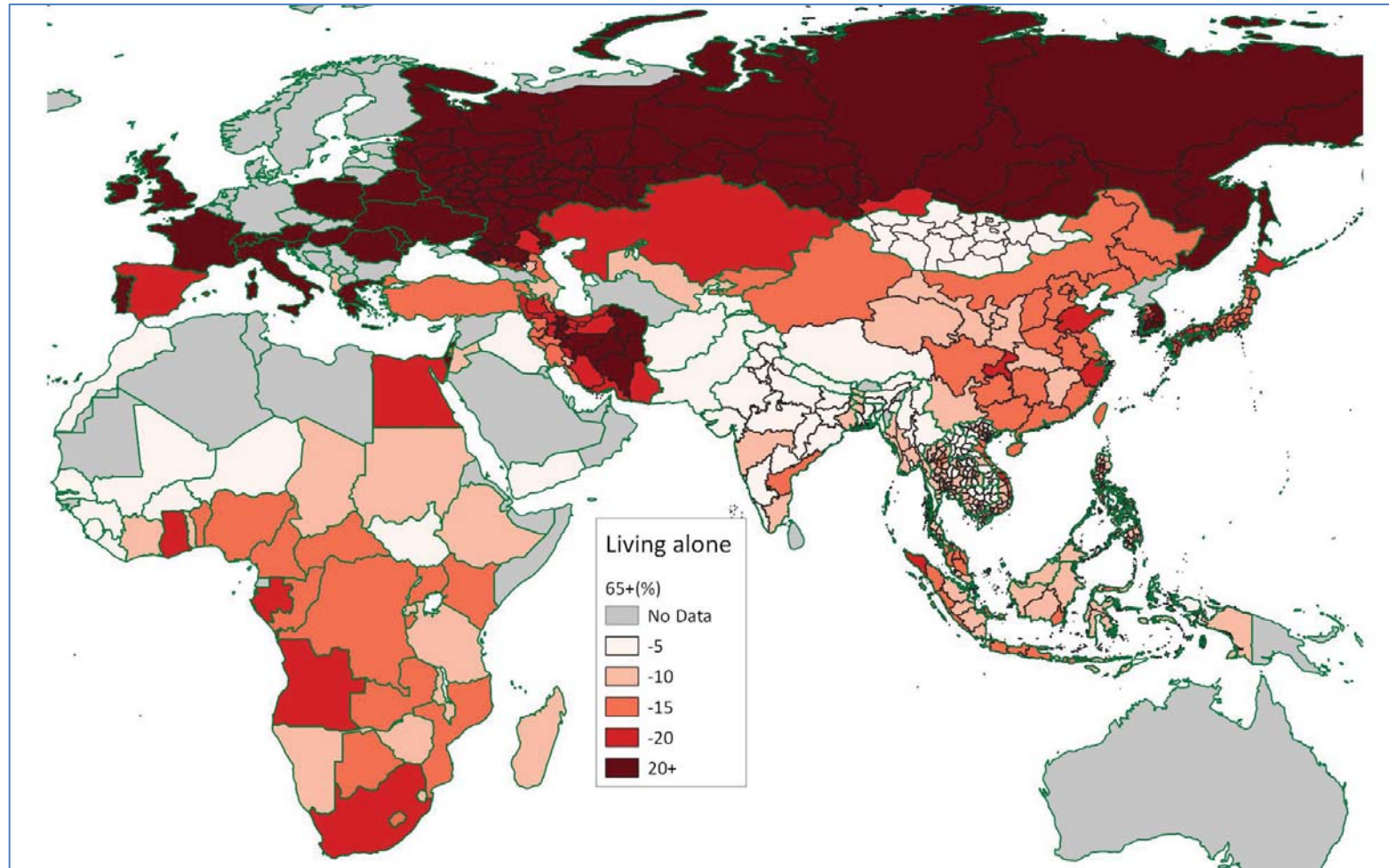
Source:

- Hayash, R. et al. (2019), 'Demand and Supply of Long-term Care for Older Persons in Asia', ERIA Research Project Report 2018, No.08. <https://www.eria.org/publications/demand-and-supply-of-long-term-care-for-older-persons-in-asia/> (accessed 30 July 2021).
- UN (2019).

#### 4. Demand for Long-Term Care: Older Persons Living Alone

Figure B-6 shows the proportion of 65 years and over living alone in Asia, by subnational level where data is available. In FY 2018 study, it became apparent that older persons living alone in South Korea are more abundant than the neighbouring countries such as Japan (Hayashi et al., 2019). A not negligible number of subnational provinces/districts in East and Southeast Asia have a high proportion of older persons living alone. The difference becomes even more apparent when the scope is expanded to South, Central, and West Asia. The proportion is low in most of countries in South Asia, but high in Iran and countries in Central Asia. Outside of Asia, European countries have extremely high proportions of older persons living alone, while proportions in Africa vary substantially. In short, the proportion of older persons living alone varies amongst countries and is independent of the level economy or development.

Figure B-6. Proportion of Older Persons 65+ Years Living Alone



Note: Map created by shapefile of Natural Earth (<https://www.naturalearthdata.com/>) and GADM (<https://gadm.org/>) using QGIS Geographic Information System.

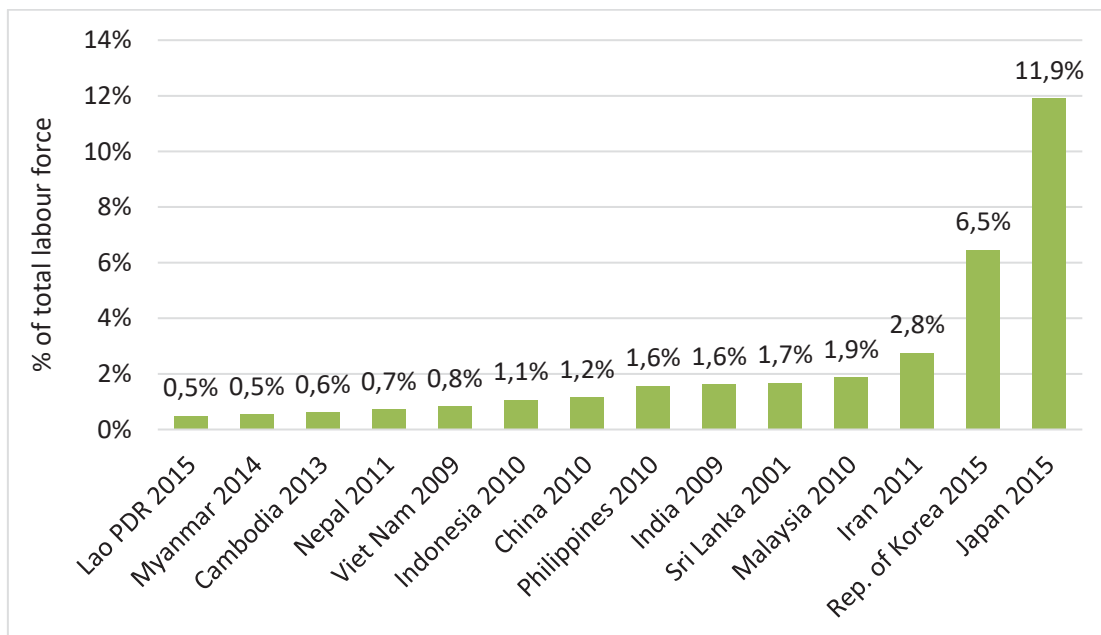
Sources:

Sub-national level data by censuses listed in Table B-1. Country-level data by United Nations, Department of Economic and Social Affairs, Population Division (2018), Households and Living Arrangements of Older Persons 2018. <https://population.un.org/LivingArrangements/index.html#!/countries/840>.

## 5. Supply of Long-Term Care: Workforce

The size of the health and social work industry, as defined by the International Standard Industrial Classification of All Economic Activities (ISIC), depends largely on the development of society. Using available census data listed in Table B-1, the percentage of labor force employed in the health and social work industry is calculated. It spans from 11.9% in Japan, 6.5% in the Republic of Korea, 0.5% in Myanmar, to 0.2% in Laos (Figure B-7).

**Figure B-7. Employed in Health Care and Social Work**

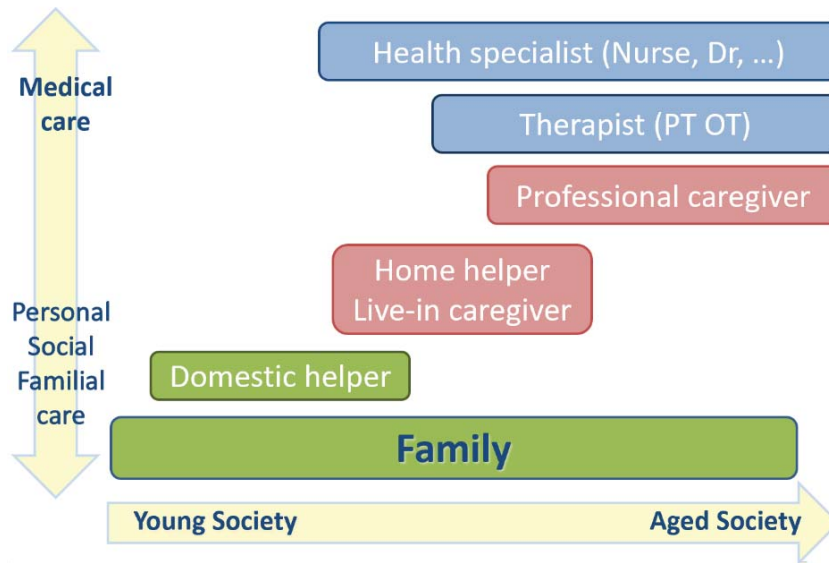


Note: Lao PDR = the Lao People's Democratic Republic

Source: Population censuses listed in Table B-1.

Previously, it was found that long-term care workers are scarce in middle- and low-income countries (Hayashi et al.2019). Most of those employed in the health and social work industry are in health and medical services and those employed in social work, which includes long term care for older persons, are scarce. In some countries, where family members are expected to care for their elderly, occupation categories for long-term care of older persons do not exist. When the needs arise, for example, in China (including Taiwan and Hong Kong) or Singapore, the traditional domestic worker becomes a live-in caregiver. As the population ages, the professional caregiver emerges and coexists with health specialists such as nurses, doctors, and physical or occupational therapists. In young societies, where the need for long-term care is not prevalent, conventional domestic helpers take on the role of providing long-term care at home. In both societies, young or aged, family is always there to provide the care. These situations are summarised in Figure B-8.

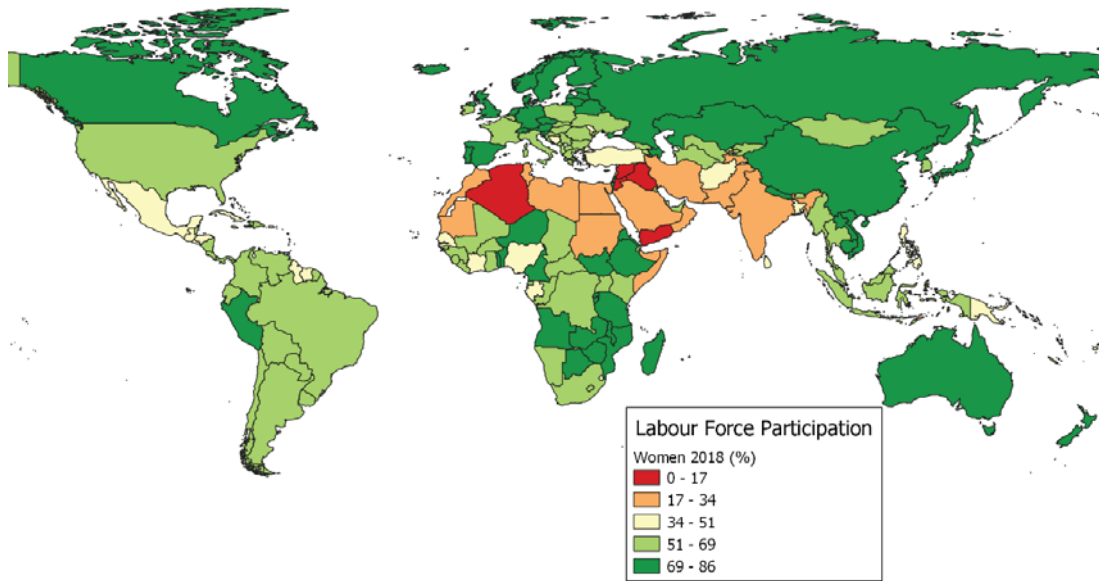
**Figure B-8. Long-Term Care Providers for Older Persons**



Source: Authors.

The situation in South Asia is similar to East and Southeast Asia. The family is in charge of long-term care, and the professions of long-term care workers are not yet developed. However, there are striking differences; in South Asia, the proportion of older persons co-habiting with family is very high and female labour participation is very low. Only 24.8% of Indians, 25.2% of Pakistani, 38.2% of Sri Lankan women participate in the labour force (Figure B-9). The proportion has declined even more in recent years (Dasgupta, 2016). West Asia also has low proportion of female in the labour force.

Figure B-9. Labour Force Participation of Women by Country, 2018

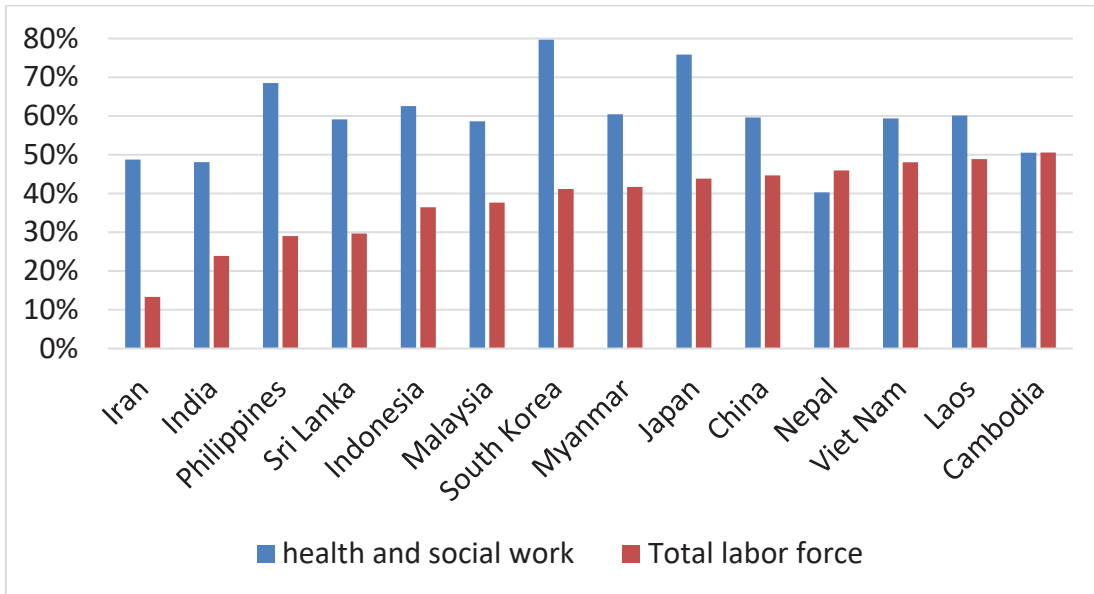


Note: Map created by shapefile of Natural Earth and GADM using QGIS Geographic Information System.

Source: World Development Indicators, modelled ILO estimate, Last updated 2019/7/10.

For example in Cambodia, the total labour force is half women (50.6%) and half men, but in India, only 23.9% of the total labour force is women. However, if we limit the labour force of the health and social work industry, a sector that requires both women and men to do the job, the share of females is not so different between countries. For instance, as shown in Figure B-10, the female proportion of the health and social work labour force is similar in Cambodia (50.5%) and India (48.1%). In many other countries, females comprise more than half of the labour force in the industry: 79.9% in South Korea, 75.9% in Japan, and 68.5% in the Philippines. There are occupation-specific gender imbalances; most doctors are men, and most nurses are women. Suppose there are many nurses in the workforce, the female dominance increases, which would explain the case of South Korea and Japan. The occupational gender imbalance might cause various problems according to the country context. For example, if there are only male doctors, some women would refrain from getting necessary health care such as gynecological examination. If there are only women nurses, men who want to become a nurse are shut out from the workforce, and diversity in the workplace will be reduced. Although gender balance is becoming improved recently, so far at present, the health and social work industry is a promising field for women's participation in the labour force.

**Figure B-10. Females in the Labour Force, Asia**



Source: Population censuses listed in Table B-1.

## 6. Supply of Long-Term Care: Care Facilities

In societies where the family member provides care for the disabled older persons, the long-term care facility is not very common. However, even in these societies, the welfare facilities for older persons exist to provide a place to live for those who cannot live with their families for various reasons. These facilities are maintained either by the government as social welfare policy (e.g. Viet Nam and Japan before the Act on Social Welfare for the Elderly enacted in 1963); by religious organisations (e.g. Sri Lanka); or by charities (e.g. Bangladesh). Along with the increase in the number of older persons, elderly facilities specialised in giving long-term care emerge (e.g. China, Japan, South Korea, and many high-income countries). Figure B-11 shows examples of social welfare elderly facilities and specialised long-term care facilities. These two facility types are not necessarily related to each other, but in countries with limited resources where specialised long-term care facilities are not prevalent, social welfare elderly facilities can be the starting point in responding to the need.

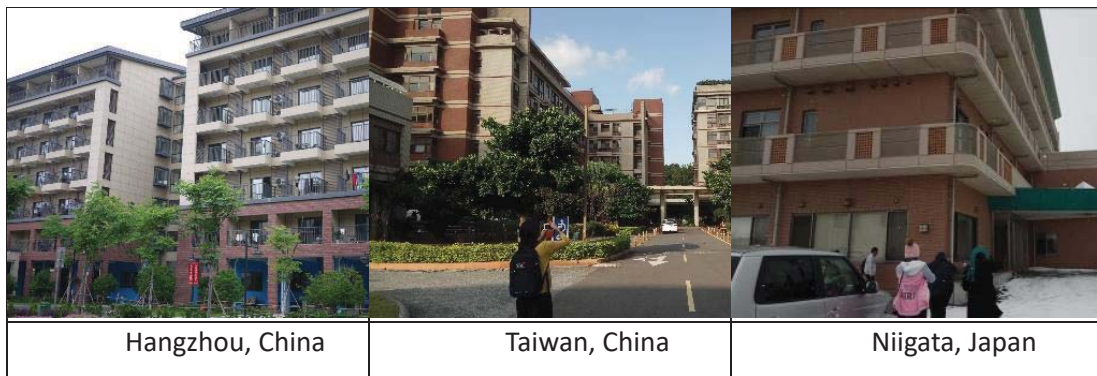


**Figure B-11. Elderly Facilities, Asia**

(a) Social Welfare Facility



(b) Specialised Long-Term Care Facility



Source: Authors.

## 7. Conclusion

Asia must cope with the speed and surge of older persons, especially those who need care, as it faces waves of population ageing. The family is the base for giving long-term care, but the living arrangement of older persons differ considerably. The long-term care industry needs to be developed, but policy is needed to improve them, especially for the workforce that provides the care. Family support systems that utilise a network of community services are required. Existing welfare-based infrastructure should be recognised and developed to respond to increasing needs in the near future.

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\*All internet web addresses (URL) were accessed on 30 July 2021.