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World Population Ageing 2017

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DESA

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Preface

In the area of population ageing, the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat prepares national, regional and global estimates and projections of older populations, monitors levels and trends in population ageing and collects and analyses information on the relationship between population ageing and development. The Population Division also organizes expert group meetings on various aspects of population ageing.

This report is the sixth in the series *World Population Ageing*. The first report was released in 2002 in conjunction with the Second World Assembly on Ageing. The present report, which updates the 2007, 2009, 2013 and 2015 editions, provides a description of global trends in population ageing and includes a presentation of new estimates of patterns and trends in the living arrangements of older persons around the world. This report is accompanied by an interactive database on the *Profiles of Ageing 2017* (https://population.un.org/ProfilesOfAgeing2017/index.html).

This report was prepared by a team led by Sara Hertog, including Yumiko Kamiya and Mun Sim Lai, who carried out research and drafted chapters. Ivan Prlincevic contributed programming and data processing and Donna Culpepper provided formatting and editorial support. Jorge Bravo, Victor Gaigbe-Togbe, Frank Swiaczny and John Wilmoth provided key guidance and useful comments on the draft report.

The present report has been issued without formal editing. Responsibility for the *World Population Ageing 2017* report rests with the Population Division.

Explanatory notes

The following symbols have been used in the tables throughout this report:

Two dots (..) indicate that data are not available or are not separately reported.
An em dash (—) indicates that the amount is nil or negligible.
A hyphen (-) indicates that the item is not applicable.
A minus sign (–) before a figure indicates a decrease.
A point (.) is used to indicate decimals.
A slash (/) indicates a crop year or financial year, for example, 2010/15.

Use of a hyphen (-) between dates representing years, for example, 2010-2015, signifies the full period involved, including the beginning and end years.

Details and percentages in tables do not necessarily add to totals because of rounding.

Reference to “dollars” ($) indicates United States dollars, unless otherwise stated.

The term “billion” signifies a thousand million.

Sources, methods and classifications

Data on demographic trends used in the present report are taken from the *2017 Revision* of the *World Population Prospects*, which contains the official United Nations world population estimates and projections (United Nations, Department of Economic and Social Affairs, Population Division, 2017). Data on the household living arrangements of older persons are taken from the *United Nations Database on the Living Arrangements of Older Persons 2017*.

The population estimates and projections, which are prepared biennially by the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, provide the standard and consistent set of population figures that are used throughout the United Nations system as the basis for activities requiring population information. In the *2017 Revision* of the *World Population Prospects*, standard demographic techniques were used to estimate the population by age and sex, as well as trends in total fertility, life expectancy at birth, infant mortality and international migration for the years 1950 through 2017, from data available from censuses and post-enumeration surveys; demographic and health surveys; population and vital registration systems; scientific reports and data collections; and from data and estimates provided by international agencies. The resulting estimates provided the basis from which the population projections follow. In the *2017 Revision*, the population projections are based on a probabilistic (Bayesian) method for projecting total fertility and life expectancy at birth. This method is based on empirical fertility and mortality trends estimated for all countries of the world for the period 1950 to 2017. The present report draws on the medium variant population projections through the year 2050.[1]

The countries and areas identified as statistical units by the Statistics Division of the United Nations and covered by the above estimates and projections, are grouped geographically into six regions: Africa; Asia; Europe; Latin America and the Caribbean; Northern America; and Oceania. The countries are also summarized, for statistical convenience, into two general groups—more developed and less developed—on the basis of demographic and socio-economic characteristics. The less developed regions include all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean, and Oceania (excluding Australia and New Zealand). The more developed regions include all other regions plus the three countries excluded from the less developed regions. The group of least developed countries, as defined by the United Nations General Assembly in 2017 comprises 47 countries. In addition, the countries are summarized within four groups defined by the World Bank according to the gross national income (GNI) per capita in 2016: high-income countries are those with GNI per capita of $12,236 or more; upper-middle income countries are those with GNI per capita of between $3,956 and $12,235; lower-middle income countries are those with GNI per capita of between US$1,006 and $3,955; and low-income countries are those with GNI per capita of $1,005 or less.[2] See Annex II for further detail on composition of the above mentioned groupings.

[1] Further information about data sources and methods underlying the estimates and projections of population can be found on the website of the Population Division at http://esa.un.org/unpd/wpp/.

[2] https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

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I. Introduction and key findings

The world's population is ageing: virtually every country in the world is experiencing growth in the number and proportion of older persons in the population. Population ageing—the increasing share of older persons in the population—is poised to become one of the most significant social transformations of the twenty-first century, with implications for nearly all sectors of society, including labour and financial markets, the demand for goods and services, such as housing, transportation and social protection, as well as family structures and inter-generational ties. Preparing for the economic and social shifts associated with an ageing population is thus essential to ensure progress in development, including towards the achievement of the goals outlined in the 2030 Agenda for Sustainable Development. Population ageing is particularly relevant for the goals on poverty eradication, ensuring healthy lives and well-being at all ages, promoting gender equality and full and productive employment and decent work for all, reducing inequalities between and within countries, and making cities and human settlements inclusive, safe, resilient and sustainable. The 2002 Madrid International Plan of Action on Ageing (MIPAA), adopted during the Second World Assembly on Ageing, highlighted the need to consider older persons in development planning, emphasizing that older persons should be able to participate in and benefit equitably from the fruits of development to advance their health and well-being, and that societies should provide enabling environments for them to do so. As populations become increasingly aged, it is more important than ever that governments design innovative policies and public services specifically targeted to older persons, including those addressing, *inter alia*, housing, employment, health care, infrastructure and social protection.

This report details the important changes that are taking place in the age structures of populations around the world, updating previous editions of the *World Population Ageing* series published in 2002, 2007, 2009, 2013 and 2015, and drawing on the latest United Nations population estimates and projections from the *2017 Revision* of the *World Population Prospects*. Chapter II describes recent and projected future levels and trends in the number and share of older persons in the population. It also presents trends in the demographic characteristics of the older population with respect to age, sex and urban/rural residence. Chapter III explores the demographic determinants—trends in fertility, mortality and migration—of changes to the size and age structure of the population. By adopting an historical perspective, this chapter identifies the major demographic shocks, as well as the more gradual demographic shifts, that shape current trends in population ageing. Chapter IV focuses on patterns and trends in the household living arrangements of older persons—whether alone, with a spouse only or with their children—reflecting new estimates from the *United Nations Database on the Living Arrangements of Older Persons 2017*. This chapter highlights marked differences across countries and regions in older persons' living arrangements, as well as the widespread trend towards independent living and away from intergenerational households. The key findings of each of these chapters are summarized below:

A. LEVELS AND TRENDS IN POPULATION AGEING

According to data from *World Population Prospects: the 2017 Revision* (United Nations, 2017a), the number of older persons—those aged 60 years or over—has increased substantially in recent years in most countries and regions and growth is projected to accelerate in the coming decades.

- The global population aged 60 years or over numbered 962 million in 2017, more than twice as large as in 1980 when there were 382 million older persons worldwide. The number of older persons is expected to double again by 2050, when it is projected to reach nearly 2.1 billion.

- Globally, the number of people aged 80 years or over is growing even faster than the number of older persons overall. Projections indicate that the number of people aged 80 or over worldwide will increase more than threefold between 2017 and 2050, rising from 137 million to 425 million.

- Two thirds of the world's older persons live in the developing regions, where their numbers are growing faster than in the developed regions. In 2050, it is expected that nearly 8 in 10 of the world's older persons will be living in the developing regions.

- Between 2017 and 2050, the number of older persons is expected to grow fastest in Africa with a projected 229 per cent increase followed by Latin America and the Caribbean (161 per cent), and Asia (132 per cent).

- Globally, during 2010-2015, women outlived men by an average of 4.6 years. As a result, women accounted for 54 per cent of the global population aged 60 years or over and 61 per cent of those aged 80 years or over in 2017. In the coming years, average survival of males is projected to improve and begin to catch up to that of females so that the sex balance among persons aged 80 or over becomes more even. The proportion of women at age 80 years or over is projected to decline to 58 per cent in 2050.

- Both improved longevity and the ageing of larger cohorts, including those born during the post-World War II baby boom, mean that the older population is itself ageing. The proportion of the world's older persons who are aged 80 years or over is projected to rise from 14 per cent in 2017 to more than 20 per cent in 2050.

- The number of older persons is growing faster in urban areas than in rural areas. At the global level between 2000 and 2015, the number of people aged 60 years or over increased by 68 per cent in urban areas, compared to a 25 per cent increase in rural areas. As a result, older persons are increasingly concentrated in urban areas. In 2015, 58 per cent of the world's people aged 60 years or over resided in urban areas, up from 51 per cent in 2000. Those aged 80 years or over are even more

likely to reside in urban areas: the proportion residing in urban areas increased from 56 per cent in 2000 to 63 per cent in 2015.

Globally, the number of older persons is growing faster than the numbers of people in any younger age group. Consequently, the share of older persons in the total population is increasing throughout the world. While population ageing is a global phenomenon, the ageing process is more advanced in some regions than in others, having begun more than a century ago in countries that developed earlier, and getting underway only recently in many countries where the development process has occurred later, including the decline of fertility.

- In 2017, one in eight people worldwide was aged 60 years or over. By 2030, older persons are projected to account for one in six people globally. By the middle of the twenty-first century, one in every five people will be aged 60 years or over.

- By 2030, older persons will outnumber children aged 0-9 years (1.41 billion versus 1.35 billion); by 2050, there will be more people aged 60 years or over than adolescents and youth aged 10-24 years (2.1 billion versus 2.0 billion).

- The ageing process is most advanced in high-income countries. Japan is home to the world's most aged population: 33 per cent were aged 60 years or over in 2017.[1] Japan is followed by Italy (29 per cent aged 60 years or over), Germany (28 per cent) and Portugal (28 per cent).

- The pace of world population ageing is accelerating. Projections indicate that the proportion aged 60 years or over globally will increase more than 4 percentage points over the next 15 years, from 12.3 per cent in 2015 to 16.4 per cent in 2030, compared to the 2.3 percentage point increase in the share of older persons that occurred between 2000 and 2015.

- In 2050, nearly half the world's population will live in relatively aged countries, with at least 20 per cent of the population aged 60 years or over, and one in four people will live in a country where more than 30 per cent of people are above age 60.

- Currently, the pace of population ageing in many developing countries is substantially faster than in developed countries in the past. Consequently, today's developing countries must adapt much more quickly to ageing populations and often at much lower levels of national income compared to countries that developed much earlier.

[1] Of the 201 countries or areas with at least 90,000 inhabitants in 2017.

B. DEMOGRAPHIC DRIVERS OF POPULATION AGEING

Population ageing is in many ways a demographic success story, driven by changes in fertility and mortality that are associated with economic and social development. Progress in reducing child mortality, improving access to education and employment opportunities, advancing gender equality, and promoting reproductive health and access to family planning have all contributed to reductions in birth rates. Moreover, advancements in public health and medical technologies, along with improvements in living conditions, mean that people are living longer and, in many cases, healthier lives than ever before, particularly at advanced ages. Together, these declines in fertility and increases in longevity are producing substantial shifts in the population age structure, such that the share of children is shrinking while that of older persons continues to grow.

- The growth rate of the number of older persons today is related to levels of fertility prevailing some 60 years ago when today's new cohorts of older persons were born, together with changes in the likelihood that members of those birth cohorts survived to older ages. Because fertility rates in the mid-twentieth century were higher in many parts of Africa, Asia and Latin America and the Caribbean—above five live births per woman, on average—the growth rates of the older populations in those regions today are significantly faster than was in Europe, where fertility in 1950-1955 had already fallen below three births per woman in many countries.

- Trends in the growth rate of the number of older persons reveal the powerful influence of major historical events in shaping the age composition of the population. The cohorts that entered their 80's during the late 1990's are those who were born during World War I, a time of depressed fertility in many countries that resulted in smaller birth cohorts. As a result, growth of the global population aged 80 years or over during 1995-2000 was slow relative to previous decades and has accelerated more recently as the cohorts born during the post-war fertility rebound reached their 80s.

- The impact of World War II is evident in population ageing patterns as well. The growth rate of the global population aged 60 years or over peaked in 2010-2015 and the rate of growth of the population aged 80 years or over is projected to peak in 2030-2035, marking the periods during which those born during the post-war baby boom reach older ages.

- Past and current regional levels of fertility predict the present and future rates of growth of their older populations. In Asia, the growth rate of the number of older persons is projected to decline precipitously after 2025, reflecting the rapid decline in fertility that began in the mid-1960s in that region. In Africa, the pace of growth of the population aged 60 years or over is projected to accelerate from just over 3 per cent per year in 2010-2015, reaching nearly 3.9 per cent per year in 2040-2045, reflecting the relatively high fertility rates of the region during the second half of the twentieth century. The pace of growth of the older population of Africa projected for the 2040s is faster than any region has experienced since 1950, when the data series begins.

- The first cause of population ageing is fertility decline. However, improved longevity contributes as well, first by eliminating the demographic necessity of high fertility and second by increasing the number of survivors to older ages. By 2045-2050, life expectancy at birth is projected to surpass 80 years in Europe, Latin America and the Caribbean, Northern America and Oceania; and it will approach 80 years in Asia and 71 years in Africa.

- Improvements in survival at age 60 or over accounted for more than half of the total improvement in longevity in Oceania, Europe and Northern America, while reduced mortality at younger ages was more important in Africa, Asia and Latin America and the Caribbean.

- In 2010-2015, 60-year-old persons globally could expect to live an additional 20.3 years, on average. Across the six regions, life expectancy at age 60 years was highest in Oceania and Northern America, at 23.9 and 23.5 years, respectively, and lowest in Africa, at 16.8 years.

- Among today's young people, survival to age 80 is expected to be the norm everywhere but in Africa. Worldwide, 60 per cent of women and 50 per cent of men born in 2000-2005 are expected to survive to their eightieth birthdays, compared to 39 per cent of the women and 29 per cent of men born in 1950-1955.

- While declining fertility and increasing longevity are the key drivers of population ageing globally, international migration has also contributed to changing population age structures in some countries and regions. However, in most countries, international migration is projected to have only small effects on the pace of population ageing. Between 2017 and 2030, net migration is projected to slow the growth of the proportion aged 60 years or over by at least 1 percentage point in 27 countries or areas, and to accelerate population ageing by at least 1 percentage point in 14 countries or areas.

C. HOUSEHOLD LIVING ARRANGEMENTS OF OLDER PERSONS

The household living arrangements of older persons differ markedly across countries and regions, reflecting differences in family sizes, as well as social and cultural norms regarding intergenerational co-residence. Moreover, economic conditions, the financial support systems available to older persons, and individuals' health status influence the degree of independence that can be maintained into advanced ages.

- Across 143 countries or areas with available data, the proportion of persons aged 60 or over who live "independently"—alone or with a spouse only—varied widely, ranging from a low of 2.3 per cent in Afghanistan to a high of 93.4 per cent in the Netherlands.

- In Afghanistan, Tajikistan and Pakistan, more than 90 per cent of persons aged 60 or over co-resided with their children, but such arrangements were comparatively rare in Germany and the Netherlands, where less than 10 per cent of older persons co-resided with a child.

- Globally, in the period circa 2010, approximately 40 per cent of persons aged 60 years or over lived independently and 50 per cent co-resided with their children.

- The proportion of older persons living alone circa 2010 was highest in Europe (28 per cent), followed by Northern America (25 per cent), Latin America and the Caribbean (13 per cent), Africa (10 per cent) and Asia (7 per cent).

- Co-residence with children was a common household living arrangement for older persons in the developing regions. In Asia, Africa and Latin America and the Caribbean, well over half of persons aged 60 years or over co-resided with a child circa 2010; by contrast, in Europe and Northern America only about 20 per cent of older persons co-resided with their children.

- Of the world's subregions, older persons' co-residence with children was most common in South-Central Asia (73 per cent), followed by South-Eastern Asia (66 per cent). Independent living was most common for older persons in Western Europe (88 per cent), followed by Northern Europe (83 per cent).

- There is a strong income gradient in the living arrangements of older persons: the proportion living independently was highest in high-income countries,[2] at 75 per cent, and declined to 34 per cent in upper-middle-income countries, 22 per cent in lower-middle-income countries and 15 per cent in low-income countries.

- Data for 67 countries indicate that older persons have become more likely in recent decades to live independently (around 37 per cent circa 2010 compared to 24 per cent circa 1990), whereas co-residence with children has become less common (53 per cent circa 2010 compared to 65 per cent circa 1990).

- In general, older women are more likely than older men to live alone. In Africa and Europe, older women were more than twice as likely as their male counterparts to be living alone.

- The shift towards independent living and away from co-residence with children has occurred for both women and men. Globally, the proportion of women aged 60 years or over living independently increased by 12 percentage points between 1990 and 2010, from 24 to 36 per cent, while that for older men increased by 13 percentage points over the same period, from 25 to 38 per cent.

[2] See annex II for the classification of countries according to income group as defined by the World Bank.

- The likelihood of living alone increases with age, especially for women. Nearly one in three women aged 80 years or over lived alone circa 2010, compared to 15 per cent of women aged 60-79 years. For men, 15 per cent of those aged 80 years or over worldwide lived alone circa 2010, compared to 8 per cent of those aged 60-79 years.

- Taken together, the estimates compiled in the United Nations Database of the Living Arrangements of Older Persons 2017 indicate that a shift away from co-residence with children and towards independent living has occurred in many countries of the developing regions as well, but co-residence with children continues to be the dominant living arrangement for older persons in these regions and it remains far from certain that they will see further shifts of the same magnitude as occurred in Europe and Northern America (Ruggles and Heggeness, 2008). Moreover, the persistent differences in the living arrangements of older persons across regions speaks to the resilience of traditional family structures and cultural norms in the context of demographic, economic and social change (Knodel and others, 2000; Ruggles, 1994).

- Changes in living arrangements are important for the contexts in which older persons live their day-to-day lives, and reflect both the positive social changes taking place—for example, higher incomes, better health and longer lives—and the challenges facing families and societies as their populations age—for example, fewer kin and potential vulnerability to social isolation. Governments and policy makers should consider older persons' household composition and how it is changing over time as part of efforts to design and reform social support systems to meet the needs of an ageing population.

II. Levels and trends in population ageing

A. Trends in the number of older persons

The number of older persons in the world has increased substantially in recent years and that growth is projected to continue in the coming decades.

Worldwide, there were 962 million people aged 60 years or over in 2017, an increase of 152 per cent over the 383 million older persons globally in 1980 (table II.1; figure II.1). By 2030, this number is projected to grow to 1.4 billion and, by 2050, to more than double its 2017 size, reaching nearly 2.1 billion.

Globally, the number of people aged 80 years or over is growing even faster than the number of older persons overall. In 1980, there were 36 million people aged 80 years or over worldwide. Since then, their number has increased almost fourfold to 137 million in 2017, and is projected to more than triple between 2017 and 2050, when projections indicate that there will be nearly 425 million people aged 80 years or over in the world.

Two thirds of the world's older persons live in the developing regions and their numbers are growing faster than in the developed regions.

The more developed regions[2] were home to 44 per cent of the world's older persons in 1980, but that percentage fell to 32 per cent in 2017 and is projected to continue to fall to 21 per cent by 2050. After accelerating over the latter half of the twentieth century, the growth rate of the older population of the developed regions is projected to slow in the coming decades. The number of people aged 60 years or over in the developed regions increased by 84 per cent between 1980 and 2017, from 169 million to 310 million, but it is projected to grow by just 38 per cent between 2017 and 2050, reaching 427 million.

By contrast, in the developing regions, the growth of the population aged 60 years or over is continuing at a rapid pace. The number of older persons in the developing regions grew from 214 million in 1980 to 652 million in 2017—an increase of 205 per cent—and it is projected to grow by 154 per cent between 2017 and 2050, when a projected 1.7 billion people aged 60 years or over—nearly 80 per cent of the world's older population—will live in the less developed regions.

In the recent past, the older population of the 48 least developed countries[3] was growing more slowly than in the other less developed countries. Between 1980 and 2017, the number of persons aged 60 years or over in the least developed countries increased by 181 per cent, compared to 208 per cent in the other less developed countries. However, growth in the number of older persons is accelerating in the least developed countries, such that, between 2017 and 2050, the projected 237 per cent increase in the population aged 60 years or over is much higher than that projected for the other less developed countries (146 per cent). Despite such rapid growth however, the least

[2] Following common practice, the "developed regions" or "more developed regions" include Europe and Northern America plus Australia, New Zealand and Japan, while the "developing regions" or "less developed regions" include all other parts of the world. The use of these terms in the present report does not imply any judgement as to the current development stage of a particular country or region.

[3] See annex II for a list of the 48 least developed countries.

developed countries collectively are projected to account for just 6.3 per cent of the global population aged 60 years or over in 2030 and 8.9 per cent in 2050, up from 5.7 per cent in 2017.

TABLE II.1. NUMBER OF PERSONS AGED 60 YEARS OR OVER AND AGED 80 YEARS OR OVER FOR THE WORLD, DEVELOPMENT GROUPS, REGIONS AND INCOME GROUPS, 1980, 2017, 2030 AND 2050

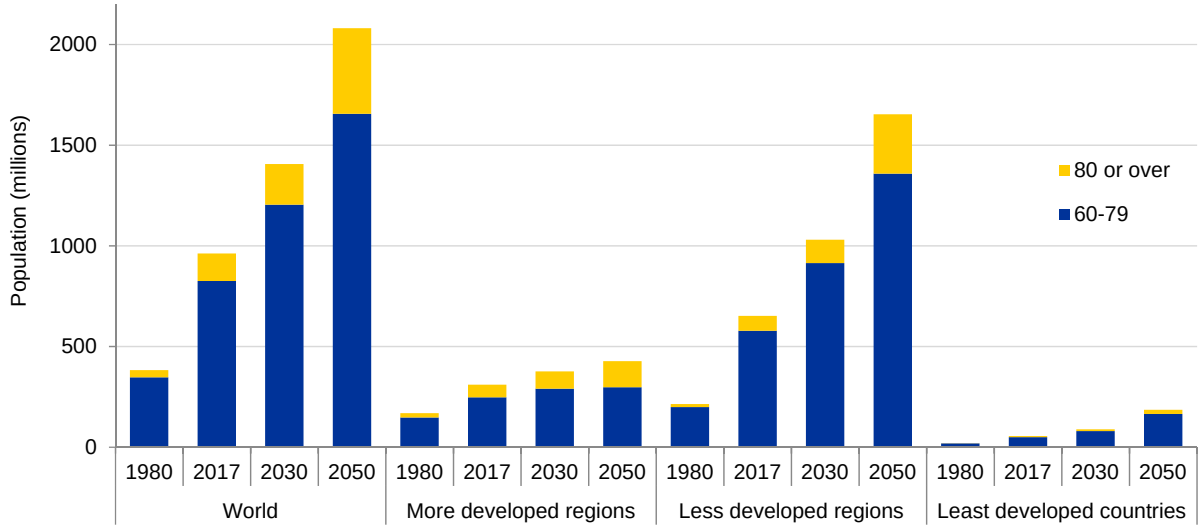
	Persons aged 60 years or over (millions)				Percentage change		Distribution of persons aged 60 years or over (percentage)			
	1980	2017	2030	2050	1980-2017	2017-2050	1980	2017	2030	2050
World	382.5	962.3	1406.1	2080.5	151.6	116.2	100.0	100.0	100.0	100.0
Development groups										
More developed regions	168.8	310.0	375.9	427.2	83.7	37.8	44.1	32.2	26.7	20.5
Less developed regions	213.7	652.2	1030.2	1653.2	205.2	153.5	55.9	67.8	73.3	79.5
Other less developed countries	194.0	597.0	941.5	1467.4	207.7	145.8	50.7	62.0	67.0	70.5
Least developed countries	19.7	55.2	88.7	185.9	180.6	236.5	5.1	5.7	6.3	8.9
Regions										
Africa	24.3	68.7	107.1	225.8	182.5	228.5	6.4	7.1	7.6	10.9
Asia	180.4	549.2	847.5	1273.2	204.4	131.8	47.2	57.1	60.3	61.2
Europe	111.2	183.0	218.8	247.2	64.5	35.1	29.1	19.0	15.6	11.9
Latin America and the Caribbean	23.7	76.0	119.5	198.2	220.3	160.7	6.2	7.9	8.5	9.5
Northern America	40.1	78.4	103.6	122.8	95.6	56.7	10.5	8.1	7.4	5.9
Oceania	2.7	6.9	9.6	13.3	158.6	92.6	0.7	0.7	0.7	0.6
Income groups										
High-income countries	141.1	281.7	359.0	423.1	99.7	50.2	36.9	29.3	25.5	20.3
Upper-middle-income countries	136.2	386.9	593.1	844.1	184.1	118.1	35.6	40.2	42.2	40.6
Lower-middle-income countries	92.8	258.4	399.7	698.7	178.4	170.4	24.3	26.9	28.4	33.6
Low-income countries	12.3	34.8	53.5	113.7	182.8	227.0	3.2	3.6	3.8	5.5

	Persons aged 80 years or over (millions)				Percentage change		Distribution of persons aged 80 years or over (percentage)			
	1980	2017	2030	2050	1980-2017	2017-2050	1980	2017	2030	2050
World	35.8	137.3	201.9	424.7	283.3	209.3	100.0	100.0	100.0	100.0
Development groups										
More developed regions	21.4	62.9	85.5	129.7	194.0	106.2	59.7	45.8	42.4	30.5
Less developed regions	14.4	74.4	116.3	295.1	415.5	296.5	40.3	54.2	57.6	69.5
Other less developed countries	13.4	69.0	107.8	273.9	414.0	297.0	37.5	50.2	53.4	64.5
Least developed countries	1.0	5.4	8.5	21.2	435.5	290.3	2.8	4.0	4.2	5.0
Regions										
Africa	1.5	6.2	9.3	23.0	318.9	273.1	4.1	4.5	4.6	5.4
Asia	12.3	67.2	103.4	244.5	447.9	263.9	34.2	48.9	51.2	57.6
Europe	13.9	37.5	46.6	72.5	169.2	93.5	38.8	27.3	23.1	17.1
Latin America and the Caribbean	2.2	11.3	18.6	43.6	413.1	284.7	6.2	8.3	9.2	10.3
Northern America	5.6	13.9	21.9	37.6	146.3	170.5	15.8	10.1	10.8	8.9
Oceania	0.3	1.2	2.0	3.5	289.8	187.2	0.9	0.9	1.0	0.8
Income groups										
High-income countries	18.3	57.6	83.0	133.1	213.9	131.2	51.2	41.9	41.1	31.3
Upper-middle-income countries	10.1	49.0	73.9	185.5	386.4	278.6	28.1	35.7	36.6	43.7
Lower-middle-income countries	6.7	27.6	40.0	94.6	310.1	243.2	18.8	20.1	19.8	22.3
Low-income countries	0.7	3.1	4.9	11.2	361.4	265.0	1.9	2.2	2.4	2.6

Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

In 2050, two out of every three persons aged 80 years or over will live in the developing regions.

Figure II.1.
Number of persons aged 60-79 years and aged 80 years or over for the world and development groups, 1980, 2017, 2030 and 2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

The cohorts born during World War II will enter their 80s between 2017 and2030. Because fertility was depressed during the war, resulting in smaller birth cohorts, the population aged 80 years or over is projected to grow more slowly over the coming few decades compared to the past.[4] In the more developed regions, the number of people aged 80 years or over has tripled since 1980, growing from 21 million to 63 million in 2017 and is projected to double between 2017 and 2050, reaching 130 million. The number of people aged 80 years or over residing in the less developed regions in 1980, 14 million, was less than the number in the more developed regions. However, the population aged 80 years or over is growing much faster in the less developed regions than in the more developed regions: it increased more than fivefold between 1980 and 2017 and another fourfold increase is projected between 2017 and 2050. Consequently, the world's population aged 80 years or over is increasingly concentrated in the developing regions, from 40 per cent in 1980 to 54 per cent in 2017, and that proportion is projected to rise further to 58 per cent in 2030 and to 70 per cent in 2050.

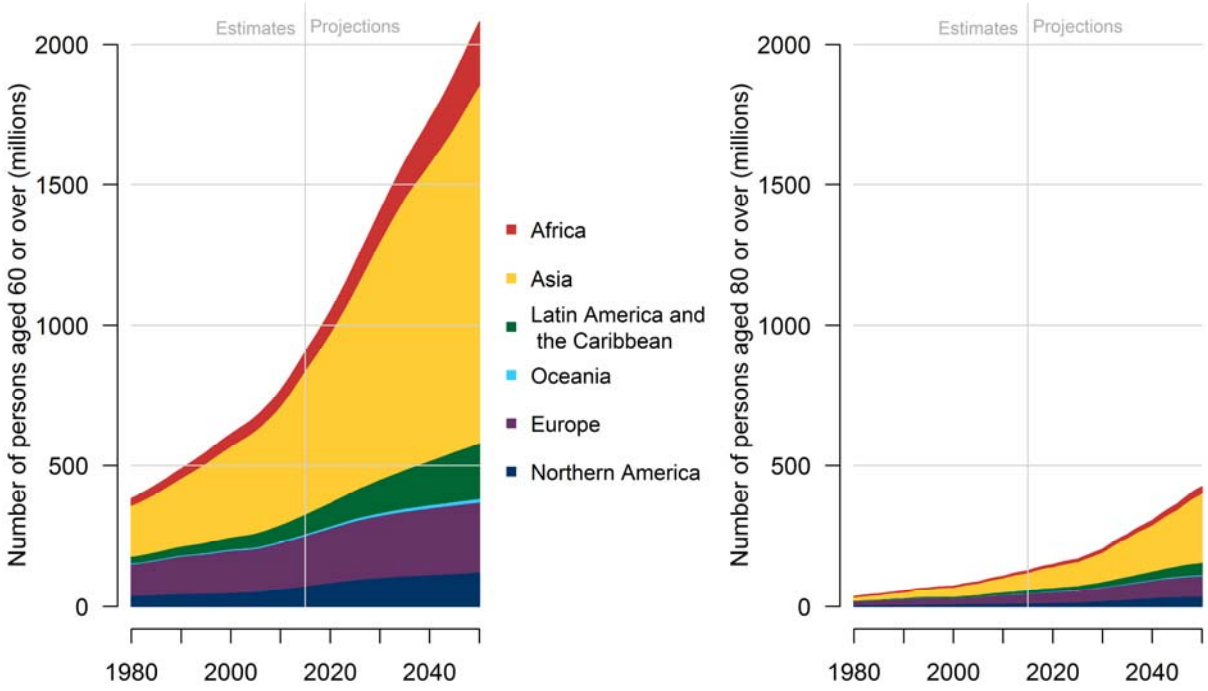
The number of people aged 80 years or over in the least developed countries increased more than fivefold between 1980 and 2017, from 1.0 million to 5.4 million, and it is projected to continue to grow reaching 8.5 million in 2030 and 21.2 million in 2050. In 2017, the least developed countries were home to 4 per cent of the global population aged 80 years or over, and by 2050 their share is projected to rise to 5 per cent.

[4] See chapter III for a discussion on the historical drivers of trends in the size of the older population.

Between 2017 and 2050, the number of older persons is expected to grow fastest in Africa with a projected 229 per cent increase in the population aged 60 years or over, followed by Latin America and the Caribbean (161 per cent) and Asia (132 per cent).

With 549 million people aged 60 years or over in 2017, Asia was home to 57 per cent of the global older population, and, in 2050, this share is projected to increase to 61 per cent when a projected 1.3 billion people aged 60 years or over will reside in that region (table II.1; figure II.2). According to projections, by 2030, Asia will be home to more than half of the world's population aged 80 years or over as well, up from 34 per cent in 1980. Moreover, projections indicate that in 2050, 58 per cent of people aged 80 years or over will reside in Asia.

Figure II.2.
Number of persons aged 60 years or over and aged 80 years or over for regions, 1980-2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

Latin America and the Caribbean's 76 million older persons in 2017 accounted for 7.9 per cent of the global total. The share of the world's people aged 60 or over residing in this region is expected to grow to 9.5 per cent in 2050, when a projected 198 million people aged 60 years or over will live there. Africa was home to a relatively small number of people aged 60 years or over, with 69 million in 2017, representing 7.1 per cent of the global total. In 2050, Africa's projected 226 million older persons could account for 10.9 per cent of the older population worldwide.

Of the six regions, Latin America and the Caribbean is expected to see the fastest growth in the number of persons aged 80 or over, with a projected increase of 285 per cent between 2017 and 2050, which is a legacy of high fertility rates some 80 years ago, along with increasing longevity. This region is followed by Africa with a projected 273 per cent increase in the number

of people aged 80 years or over during the same period, Asia (264 per cent) and Oceania (187 per cent).

Europe and Northern America are projected to see substantial increases in the number of older persons, but the growth will be slower than the other regions.

The share of the world's older persons residing in Europe and Northern America is expected to decline. In 1980, Europe's 111 million people aged 60 years or over accounted for close to one in three older persons globally and while this number grew to 183 million in 2017, its share of the world's older population fell to 19 per cent. The number of older persons in Europe is projected to grow to 247 million in 2050, representing a 35 per cent increase over 2017, but given that this growth is slower than in other regions, the share of the world's older persons residing in Europe is projected to fall to 12 per cent in 2050.

Similarly, the number of people aged 60 years or over in Northern America has grown from 40 million in 1980 to 78 million in 2017 and is projected to rise further to 104 million in 2030 and 123 million in 2050. The share of the world's older persons residing in Northern America is projected to decline from 8.1 per cent in 2017 to 7.4 per cent in 2030 and to 5.9 per cent in 2050.

Between 1980 and 2017, the number of people aged 80 years or over in Europe grew much faster than the overall number of older persons (169 per cent versus 64 per cent), but the rate of increase is expected to slow in the coming years to 94 per cent between 2017 and 2050. Again, these trends are highly influenced by excess mortality and reduced fertility during World War II, when the coming cohorts of persons entering their 80s were born. By contrast, the growth in the number of people aged 80 years or over in Northern America is projected to accelerate: their number grew by 146 per cent between 1980 and 2017, from 5.6 million to 13.9 million and is projected to rise by 171 per cent between 2017 and 2050, when a projected 38 million people aged 80 years or over will reside in Northern America.

Between 2017 and 2050, the growth in the number of older persons will be the fastest in low-income countries.

The 35 million people aged 60 years or over in low-income countries in 2017 represented a 183 per cent increase over 1980 when older persons in those countries numbered 12 million (table II.1; figure II.3). Between 2017 and 2050, low-income countries are expected to experience the fastest growth in the number of older persons: the projected 114 million people aged 60 years or over in 2050 marks a 227 per cent increase over the 2017 number.

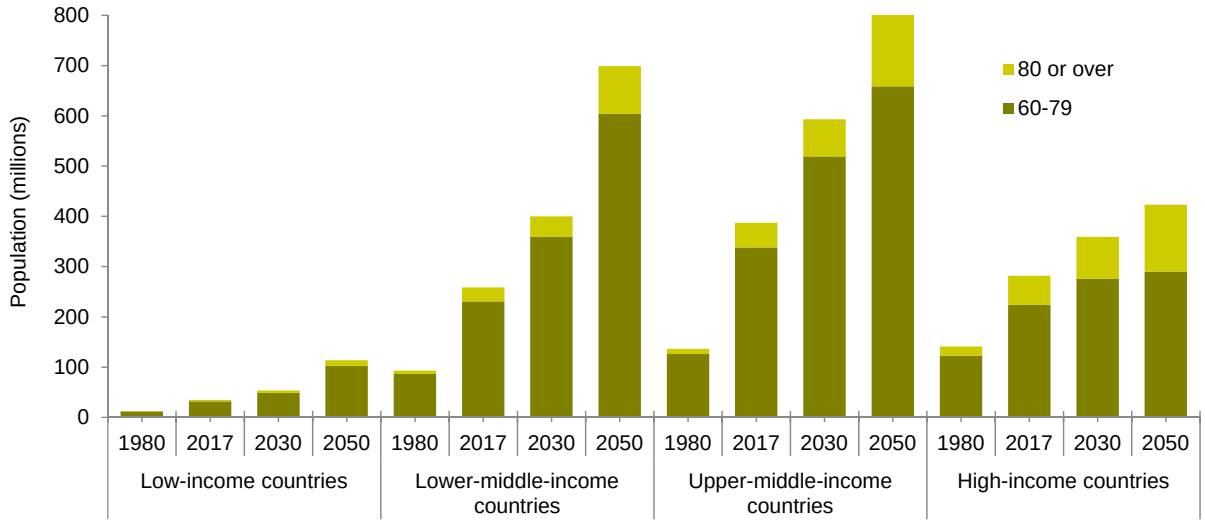
Between 1980 and 2017, the number of older persons in lower-middle-income and upper-middle-income countries grew by 178 per cent and 184 per cent, respectively. However, the growth rates are projected to decline in middle-income countries in the coming years. Between 2017 and 2050, the older population in lower-middle-income countries is projected to grow by 170 per cent while that of upper-middle-income countries is projected to grow by 118 per cent.

The number of older persons in high-income countries grew from 141 million in 1980 to 282 million in 2017, representing a 100 per cent increase over 1980. Between 2017 and 2050, high-

income countries are anticipated to experience a decline in growth rates of the number of older persons: the projected 423 million people aged 60 years or over in 2050 marks a 50 per cent increase over the number in 2017.

Owing to longer average survival in the high-income countries relative to the other income groups, this group of countries holds more of the world's population aged 80 years or over than the other three income groups. In 2017, close to 42 per cent of the global population aged 80 years or over lived in high-income countries and, while the proportion is projected to decline, in 2050 high-income countries are expected to account for 31 per cent of the persons aged 80 years or over in the world. Of the four income groups, the number of persons aged 80 years or over is projected to grow most rapidly in upper-middle-income countries, where the cohorts of persons now approaching their 80s were born during times of very high fertility around the middle of the twentieth century. The upper-middle-income countries as a group are expected to see a 279 per cent increase in the number of persons aged 80 years or over between 2017 and 2050, followed by low-income countries, with a 265 per cent increase in the population aged 80 years or over projected for the same period.

Figure II.3.
Population aged 60-79 years and aged 80 years or over for income groups, 1980, 2017, 2030 and 2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

Virtually every country in the world will experience a substantial increase in the size of the population aged 60 years or over between 2017 and 2050.

Within each of the development groups, income groups and regions, there is a great deal of heterogeneity in the growth rates of the older population. Figure II.4 shows the projected percentage change in the number of older persons between 2017 and 2050, plotted according to the level of gross national income (GNI) per capita in 2016 for the 166 countries with at least 90,000 inhabitants in 2017 and for which GNI information for 2016 was available, with regions distinguished by colour. The chart illustrates that while growth in the population aged 60 years or

over is expected across all major income groups and regions of the world, the projected growth rates vary considerably from country to country.

Among the 31 low-income countries, most of which are located in sub-Saharan Africa, the projected growth in the population aged 60 years or over between 2017 and 2050 ranges from 103 per cent in the Democratic People's Republic of Korea to 333 per cent in Uganda. An overwhelming majority of low-income countries can expect the number of older persons to more than triple by 2050.

Figure II.4.
Projected change in the population aged 60 years or over between 2017 and 2050 versus the level of gross national income per capita in 2016

Data sources: United Nations (2017). *World Population Prospects: The 2017 Revision* and World Bank (2017). World Development Indicators (http://data.worldbank.org/indicator/NY.GNP.PCAP.CD), accessed 24 July 2017.

Many middle-income countries can expect similarly rapid growth in the number of older persons over the coming decades. A tripling of the number of older persons between 2017 and 2050 is projected for 43 of the 103 middle-income countries or areas. In Zambia, the State of Palestine, Kenya and the Maldives, the number of older persons is projected to increase more than fourfold by 2050. In each of these four populations, total fertility exceeded six children per woman during the 1960s and 1970s, when the coming cohorts of older persons were born.[5]

[5] See chapter III for a discussion of the demographic drivers of the pace of growth of the older population.

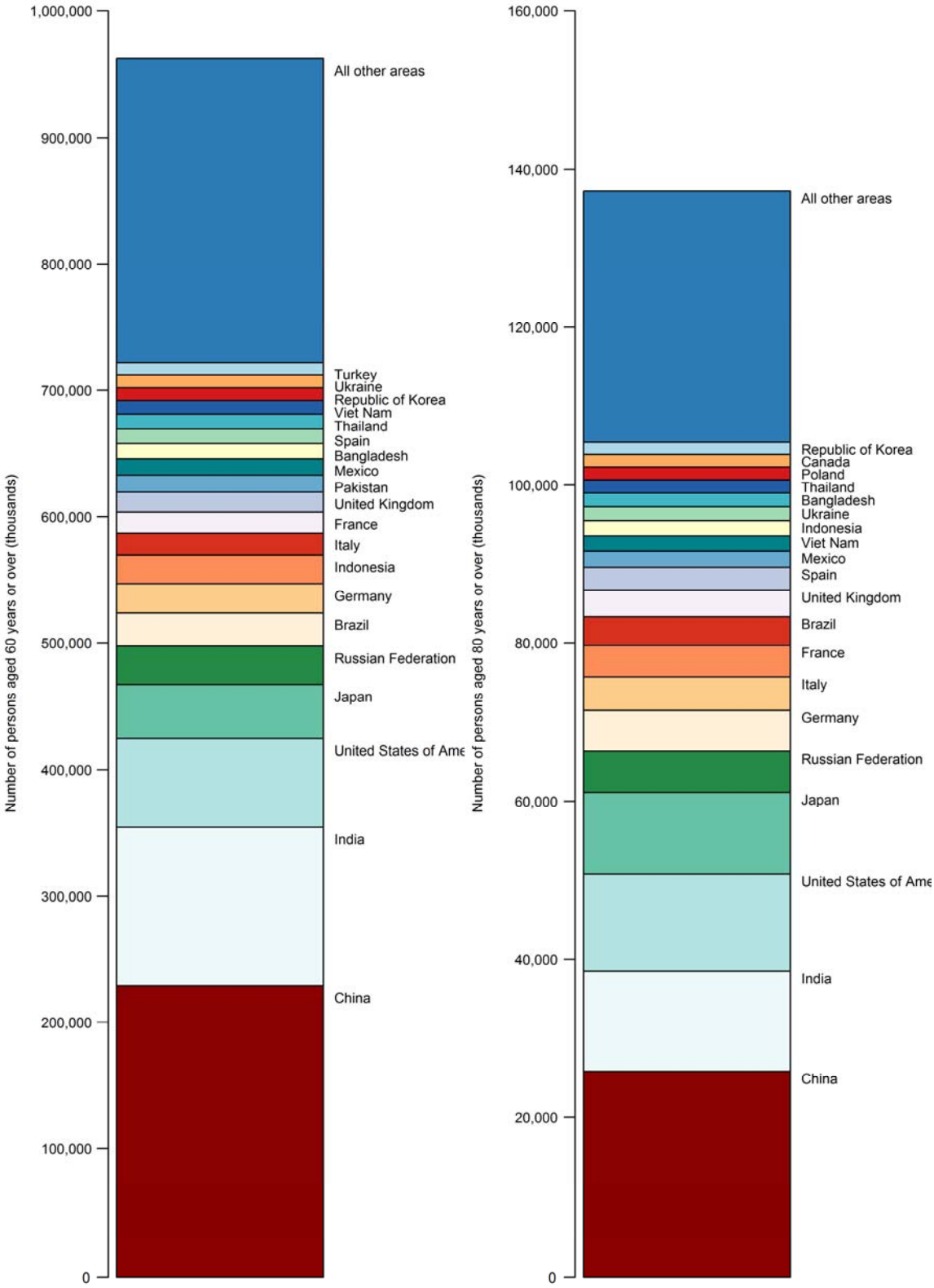
Projected growth rates tend to be slower, on average, for the older populations of high-income countries. In half of the 61 high-income countries, the number of older persons was projected to grow by less than 60 per cent between 2017 and 2050, while the projected growth was greater than 100 per cent in less than a third of high-income countries. Within the high-income group, projected growth in the older population tends to be higher in countries of Asia. Examples include Singapore, which is expected to see a 137 per cent increase in the population aged 60 years or over between 2017 and 2050, and the Republic of Korea with a projected 104 per cent increase over the same period. Projected growth tends to be lower, on average, in the high-income countries of Europe. Examples include Latvia, with a 5 per cent projected increase in the population aged 60 years or over between 2017 and 2050, Finland with 21 per cent and Italy with 27 per cent.

Of the 201 countries or areas with 90,000 inhabitants or more in 2017, only 13 are expected to see an increase of less than 25 per cent in the population aged 60 years or over between 2017 and 2050. This includes several Eastern or Southern European and Baltic States—Bulgaria, Croatia, Estonia, Hungary, Latvia, Lithuania, Romania, Serbia and Ukraine—where multiple demographic factors, such as low levels of fertility at the time the coming cohorts of older persons were born, relatively high mortality among adults and high rates of emigration in some countries, result in little or no growth in the number of older persons. Outside of Europe, Japan is projected to see growth in the number of older persons of only 8 per cent between 2017 and 2050, owing to very low fertility levels over a number of decades.

In 2017, just 20 countries accounted for three quarters of the world's older population.

Nearly one in four persons aged 60 years or over in the world in 2017 lived in China (figure II.5, left chart). Taken together, just five countries—China, India, the United States, Japan and the Russian Federation—accounted for half of the world's population aged 60 years or over in 2017. The world's population aged 80 years or over was similarly concentrated in a small number of countries. The five countries with the largest number of persons aged 80 or over—China, India, the United States, Japan and the Russian Federation—collectively accounted for 48 per cent of the world's population aged 80 or over in 2017 and 19 countries held three quarters of the global population aged 80 years or over (figure II.5, right chart).

Figure II.5.
Population aged 60 years or over and aged 80 years or over by country, 2017



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

B. Demographic characteristics of the older population

Women tend to live longer than men, on average, and thus comprise a majority of older persons, especially at advanced ages.

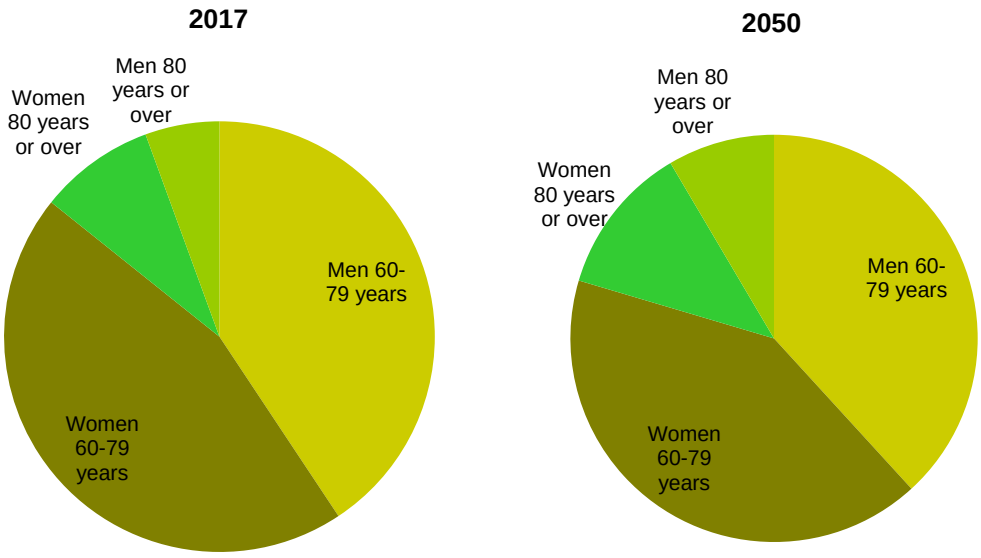
Globally, women outlived men by an average of 4.6 years during the period 2010-2015.[6] In 2017, women accounted for 54 per cent of the global population aged 60 years or over and 61 per cent of those aged 80 years or over (figure II.6).

The sex balance of the older population is projected to remain relatively unchanged at the global level in the coming decades.

Projections indicate that in 2050, women will comprise 53 per cent of the world's population aged 60 years or over. Since average survival of males is projected to gradually close the gap to that of females, the sex balance among those aged 80 or over will become more even. The proportion of women aged 80 years or over is projected to decline to 58 per cent in 2050.

The sex ratio—expressed as the number of men per 100 women—is a measure for describing the sex balance of the older population and trends therein. At the global level, there were 86 men for every 100 women aged 60 years or over in 2017, and 64 men for every 100 women aged 80 years or over. Those ratios are projected to rise to 88 and 71, respectively, in 2050 (figure II.7).

Figure II.6.
Share of the global older population by age group and sex, 2017 and 2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

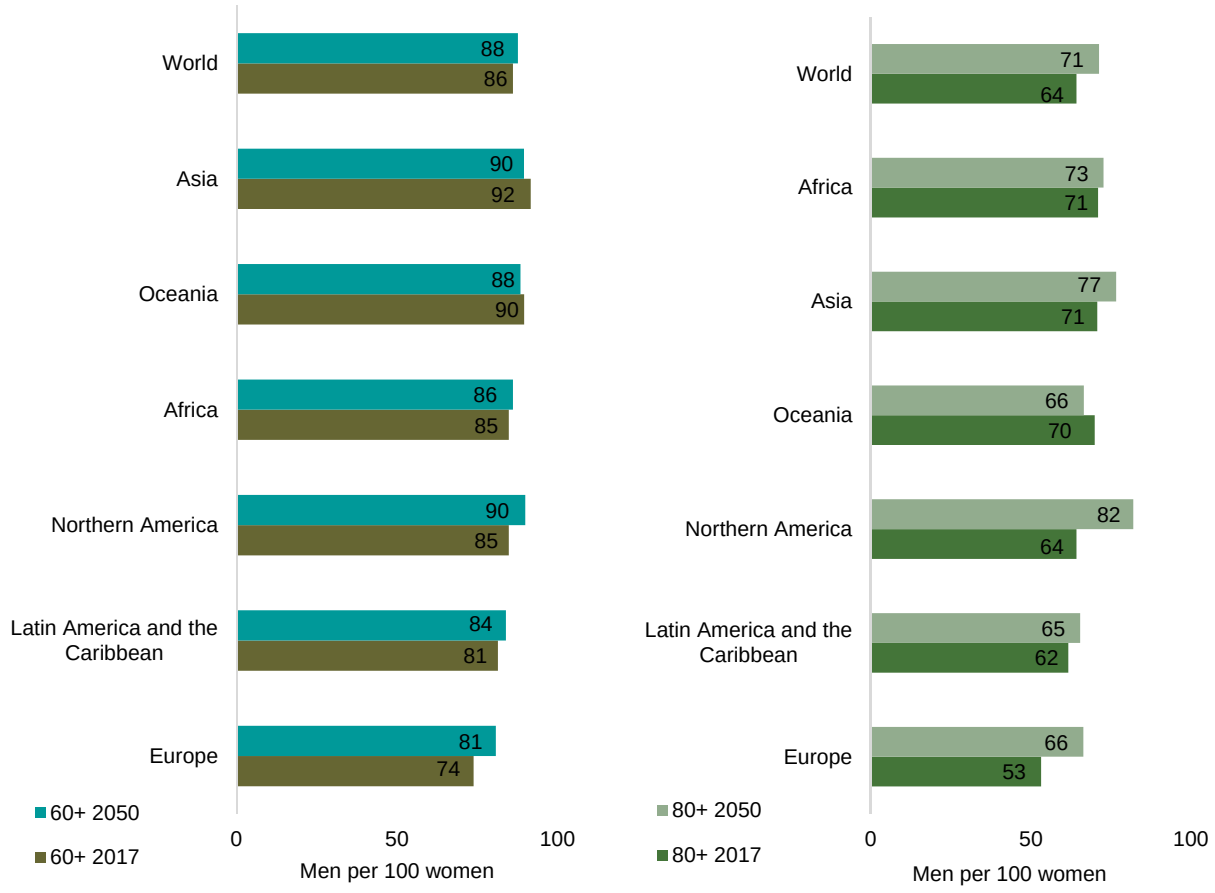
The sex ratio of the older population is lowest in Europe and highest in Asia.

[6] See chapter III for a discussion of trends in the life expectancies at birth and at older ages.

Across the regions in 2017, the sex balance of the older population was most uneven (as indicated by low sex ratios) in Europe, where there were just 74 men per 100 women aged 60 years or over and 53 men per 100 women aged 80 years or over. The sex balance was most even in Asia, where there were 92 men per 100 women aged 60 years or over and 71 men per 100 women aged 80 years or over.

Between 2017 and 2050, the sex balance of the population aged 60 years or over is projected to become more even in Africa, Europe, Latin America and the Caribbean, and Northern America as the female advantage in the life expectancy at age 60 is expected to slightly narrow in these regions. At ages 80 or over, the sex balance of the population is projected to become more even between 2017 and 2050 in all regions except Oceania. In general, increasing sex ratios at age 80 or over reflect that improvements in the life expectancy at age 80 are occurring at a faster pace among males than among females.

Figure II.7.
Sex ratios of the population aged 60 years or over and aged 80 years or over for the world and regions, 2017 and 2050

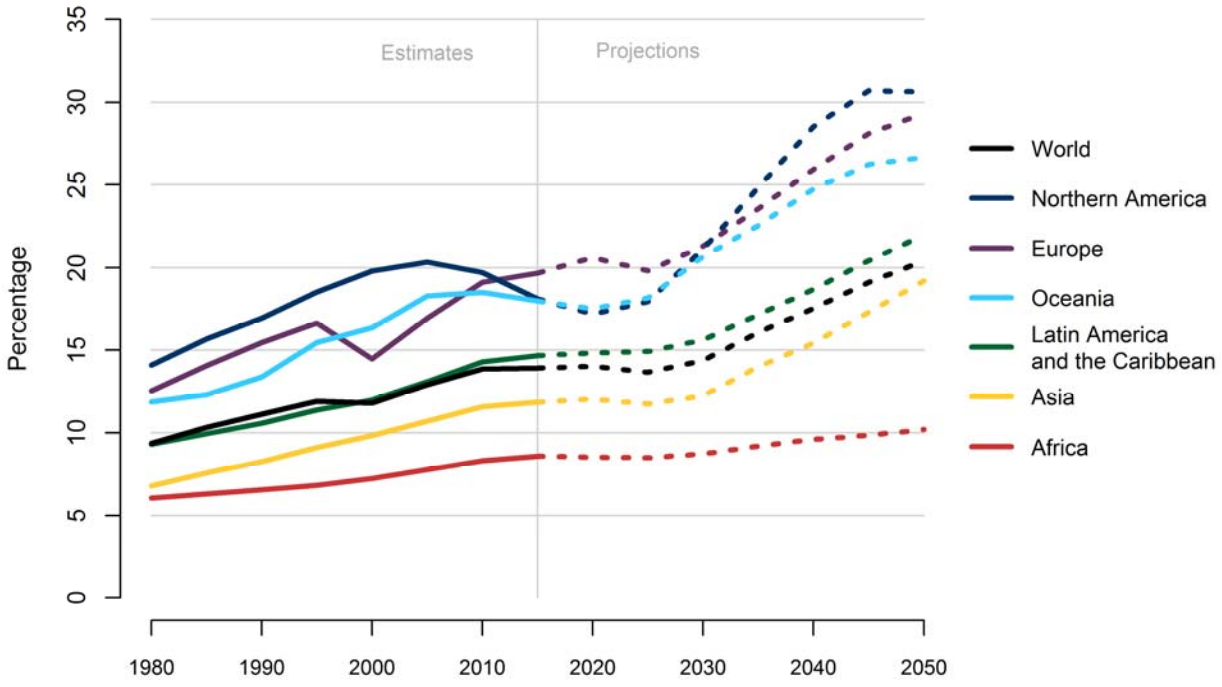


Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

The older population is itself ageing, with an increasing share aged 80 years or over.

As a result of both improved longevity and the ageing of large cohorts (that is, the "baby boomers" born during the post-World War II period), the world's older population is projected to become increasingly aged. Globally, the share of the older population that is aged 80 years or over rose from 9 per cent in 1980 to 14 per cent in 2017 (figure II.8), and it is projected to remain fairly stable between 2017 and 2030. Between 2030 and 2050 however, it is projected to rise to more than 20 per cent.

Figure II.8.
Percentage aged 80 years or over among the population aged 60 years or over for the world and regions, 1980-2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

In 2040, persons aged 80 or over are projected to account for one in four older persons in Europe, Northern America and Oceania.

In 2017, Europe had the most aged population of older persons, with people aged 80 years or over accounting for one in five of those aged 60 years or over. The older populations of Latin America and the Caribbean, Asia and Africa were much younger by comparison in 2017: people aged 80 years or over accounted for just 16 per cent, 12 per cent and 9 per cent, respectively, of the older populations in those three regions. According to projections, the proportion of the population aged 80 years or over will surpass 25 per cent by 2040 in Europe, Northern America and Oceania. By 2050, they are projected to account for 31 per cent of all older persons in Northern America, 29 per cent in Europe and 27 per cent in Oceania. The older populations of Asia and Latin America and the Caribbean are projected to age considerably between 2030 and 2050 as

well. In 2050, those aged 80 years or over are projected to account for 22 per cent of older persons in Latin America and the Caribbean and 19 per cent in Asia. The older population of Africa is projected to age more slowly such that in 2050, people aged 80 years or over will account for just 10 per cent of the overall population of older persons in the region.

The older population is growing faster in urban areas than in rural areas.[7]

At the global level, between 2000 and 2015, the number of people aged 60 years or over increased by 68 per cent in urban areas, compared to a 25 per cent increase in rural areas (figure II.9). Growth in the number of older persons in urban areas outpaced that in rural areas in all regions except Oceania, where the rapidly growing cohorts of older persons in the comparatively rural populations of Melanesia, Micronesia and Polynesia exceeded the pace of growth of the urban older populations in the more urbanized countries of Australia and New Zealand. In Asia, the number of people aged 60 years or over in urban areas in 2015 was more than double the number in 2000 (a 106 per cent increase), while in Asia's rural areas the number of older persons increased by just 28 per cent over the same period. In Europe, the older population in rural areas barely changed in size between 2000 and 2015, growing by just 2 per cent, at the same time the older population in urban areas increased by 26 per cent. In general, the regions that are urbanizing the fastest—Asia, Africa, and Latin America and the Caribbean—saw the biggest differentials in the growth of the number of older persons between urban and rural areas.

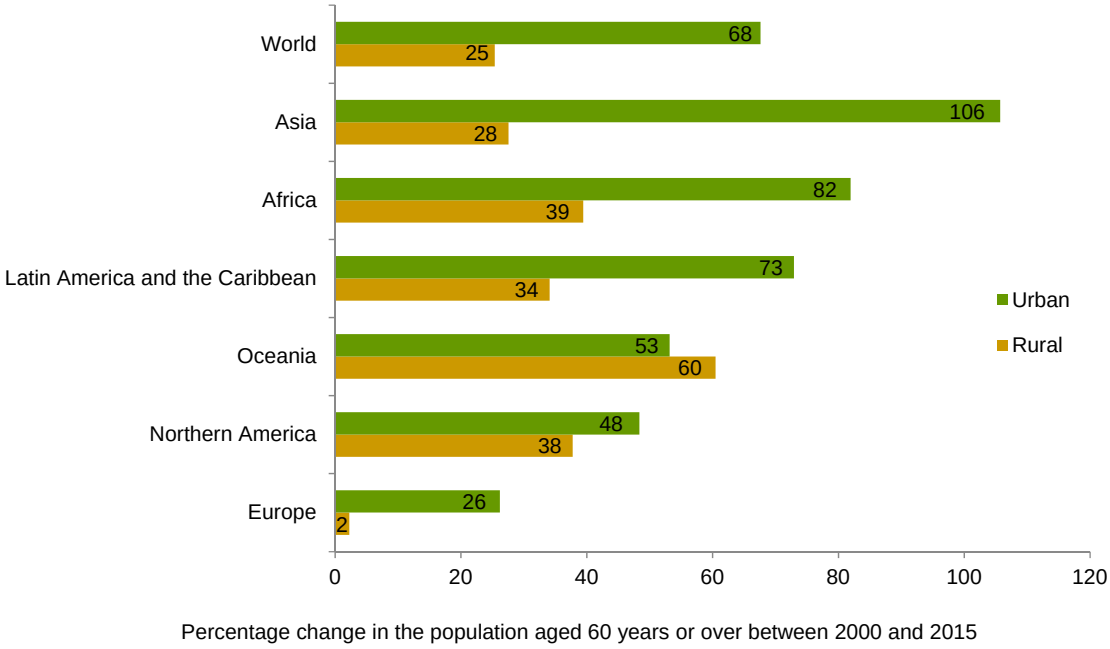
The faster growth of the older population in urban areas compared to rural areas is caused by trends in the urbanization of the population across age groups and differences in mortality risks, which tend to be lower in urban areas relative to rural areas (see, for instance, Singh and Siahpush, 2014; Zimmer, Kaneda and Spess, 2007; Van De Poel, O'Donnell and Van Doorslaer, 2007).

Globally, the proportion of older persons residing in urban areas is higher than that of other age groups.

In 2015, 58 per cent of older persons globally lived in urban areas, compared to 46 per cent of children aged 0 to 14 years, 54 per cent of adolescents and youth aged 15 to 24 years and 57 per cent of people aged 25 to 59 years (figure II.10). The age patterns of urban residence varied somewhat across regions. In Africa, both children and older persons were less likely to live in urban areas (37 per cent each) than people in the working ages (44 per cent). In Asia, Europe and Latin America and the Caribbean, the share residing in urban areas was similar across the 15-24, 25-59 and 60 years or over age groups. In Northern America, older persons were less likely to reside in urban areas (78 per cent) compared to children (82 per cent), adolescents and youth (85 per cent), and people aged 25-59 years (82 per cent). In Oceania, older persons were substantially more likely to live in urban areas relative to children aged 0-14 years (81 per cent versus 60 per cent), reflecting the region's concentration of older persons in the highly-urbanized countries of Australia and New Zealand and the comparatively young age structures of the more rural populations of Melanesia, Micronesia and Polynesia.

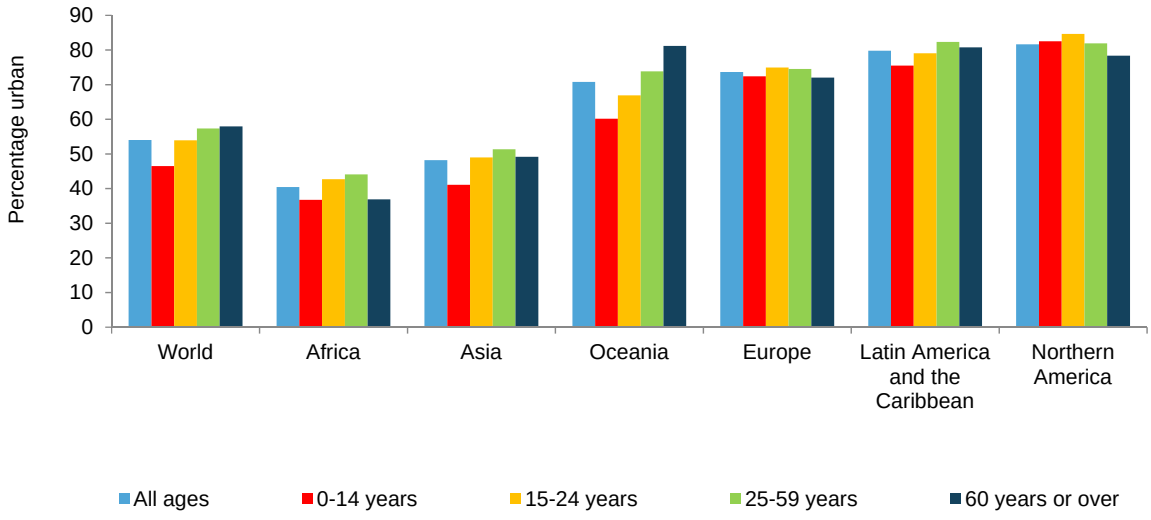
[7] The data presented in this section are from United Nations (2014). *Urban and rural population by age and sex (URPAS), 1980-2015 (version 3, August 2014)*, which reflects estimates of population disaggregated by age, sex and urban and rural residence consistent with the *2012 Revision* of *World Population Prospects*.

Figure II.9.
Percentage change in the population aged 60 years or over between 2000 and 2015 for the world and regions, by urban/rural area



Data source: United Nations (2014). *Urban and rural population by age and sex (URPAS), 1980-2015 (version 3, August 2014).*

Figure II.10.
Percentage urban by age group for the world and regions, 2015



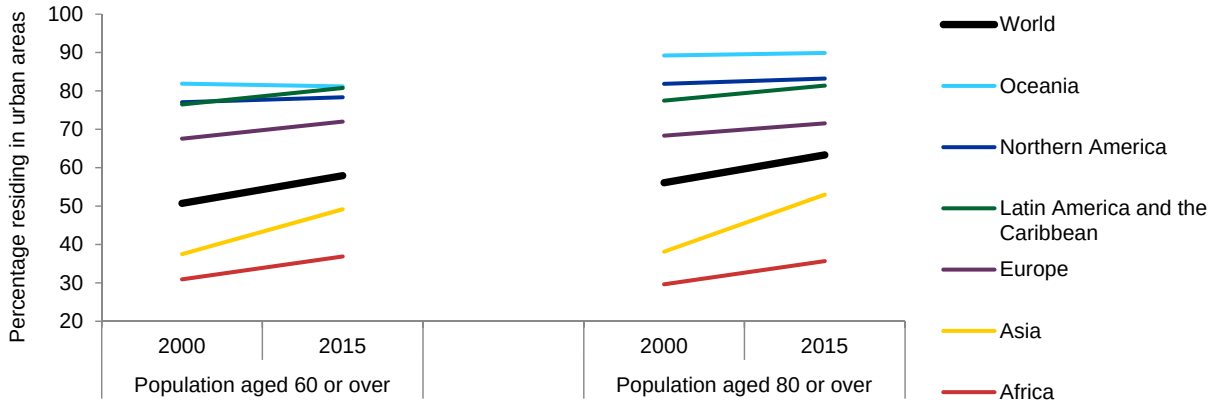
Data source: United Nations (2014). *Urban and rural population by age and sex (URPAS), 1980-2015 (version 3, August 2014).*

The older population is increasingly concentrated in urban areas.

In 2015, 58 per cent of the world's people aged 60 years or over resided in urban areas, up from 51 per cent in 2000 (figure II.11). Those aged 80 years or over are even more likely to reside

in urban areas: the share rose from 56 per cent in 2000 to 63 per cent in 2015. In Oceania, more than 80 per cent of persons aged 60 or over resided in urban areas and 90 per cent of those aged 80 or over resided in urban areas in 2015. In Latin America and the Caribbean and Northern America, 76 per cent of persons aged 60 or over lived in urban areas in 2000 and the proportions rose to 81 per cent and 78 per cent in 2015, respectively. More than 8 in 10 of those aged 80 or over in Northern America and Latin America and the Caribbean resided in urban areas in 2015.

Figure II.11.
Percentage of population aged 60 years or over and aged 80 years or over residing in urban areas for the world and regions, 2000 and 2015



Data source: United Nations (2014). *Urban and rural population by age and sex (URPAS), 1980-2015 (version 3, August 2014).*

The share of older persons residing in urban areas in Europe rose from 68 per cent in 2000 to 72 per cent in 2015. Asia saw the largest increase in the proportion urban among its older population: the percentage of those aged 60 years or over residing in urban areas increased from 37 per cent in 2000 to 49 per cent in 2015. The population aged 80 years or over in Asia urbanized even faster: 53 per cent lived in urban areas in 2015, up from 38 per cent in 2000. In Africa, the world's least urbanized region, close to 37 per cent of persons aged 60 years or over lived in urban areas in 2015, up from 31 per cent in 2000.

C. TRENDS IN THE PROPORTION OF OLDER PERSONS

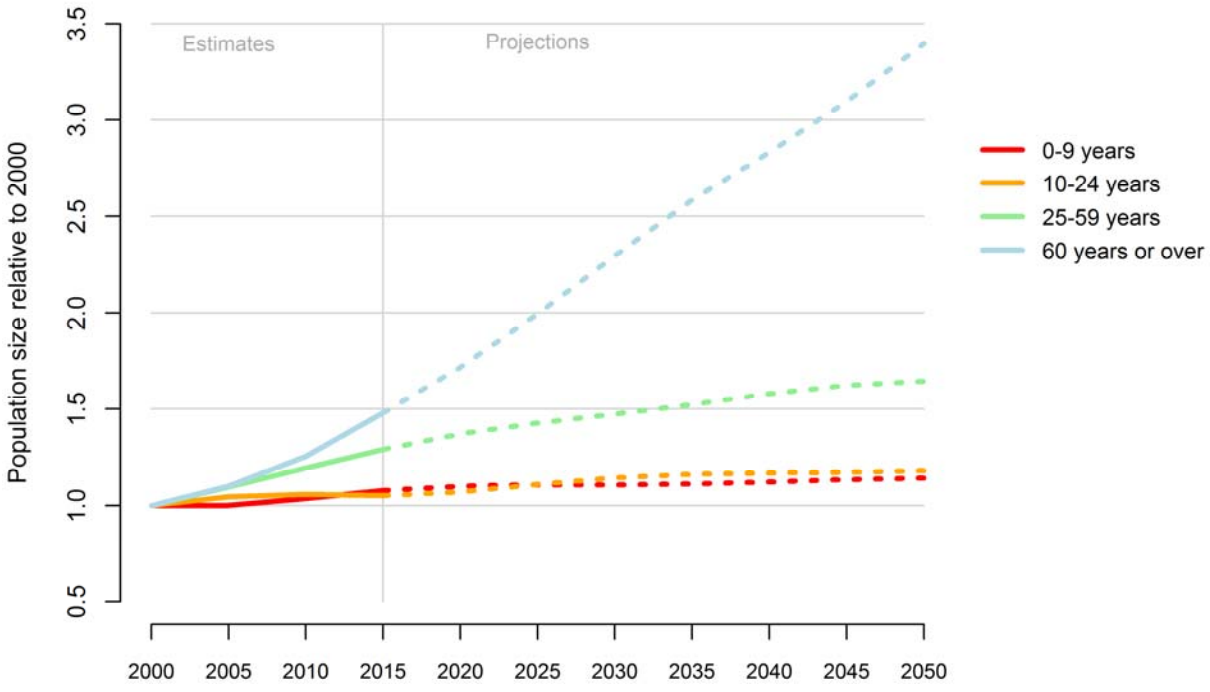
While growth in the number of older persons is an important trend in itself, the process of population ageing, by definition, refers to an increasing proportion of older persons in a population. Thus, ageing is determined not only by the pace of growth of the older population, but also by how that pace compares to the growth rates of the other age groups.

Globally, the number of older persons is growing faster than the numbers of people in any younger age group.

In 2017, there were 57 per cent more people aged 60 years or over worldwide than there were in 2000 and, by 2050, the number of older persons is projected to have more than tripled since 2000 (figure II.12). By contrast, at the global level, the number of children (under age 10) and adolescents and youth (aged 10-24 years) is expected to change very little: the projected number

of children and adolescents and youth in 2050 represents increases of about 14 per cent and 18 per cent, respectively, over the year 2000. The global number of adults aged 25-59 years is growing faster than the number of children, but not as fast as the population aged 60 years or over. In 2017, there were 33 per cent more people aged 25-59 years than there were in 2000, and, projections indicate that by 2050, there will be 64 per cent more of them than there was in 2000.

Figure II.12.
Increase in world population relative to 2000, by broad age groups, 2000-2050



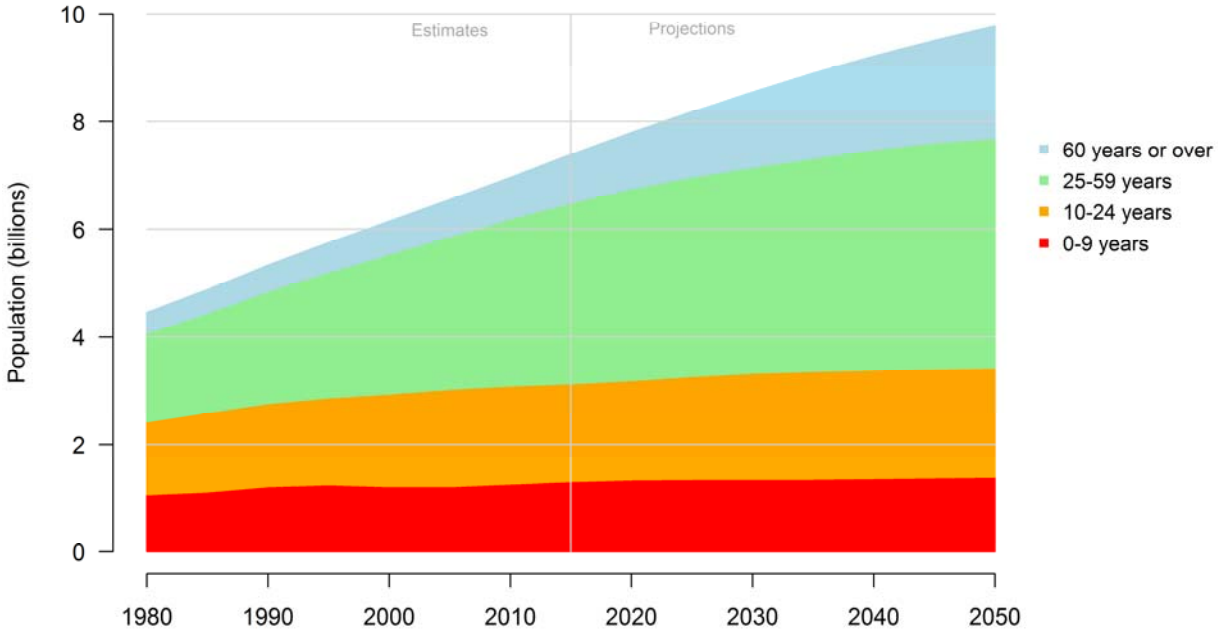
Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

Historically, older persons made up a much smaller proportion of the population compared to younger age groups. In 1980, for example, children under age 10 outnumbered people aged 60 years or over by almost 3 to 1 and there were more than four times as many people aged 25-59 years as older persons (figure II.13). By 2000, however, the ratio of children to older persons had fallen to 2 to 1 (1.2 billion versus 0.6 billion), while that of people aged 25-59 to older persons had fallen close to 4 to 1 (2.3 billion versus 0.6 billion) (figure II.14). In 2030, older persons are projected to outnumber children aged 0-9 years (1.41 billion versus 1.35 billion) and by 2050, there will be more people aged 60 years or over than adolescents and youth aged 10-24 years (2.1 billion versus 2.0 billion).

These shifts over time in the relative sizes of the various age groups have resulted in increases in the proportion of the population at older ages. At the global level, the percentage of older persons increased from close to 9 per cent in 1980 to over 13 per cent in 2017, when about one in every eight people worldwide was aged 60 years or over (table II.2). The proportion of older persons globally is projected to continue to increase to more than 16 per cent in 2030 and to over 21 per cent in 2050. Thus, by the middle of the twenty-first century, it is expected that around one in

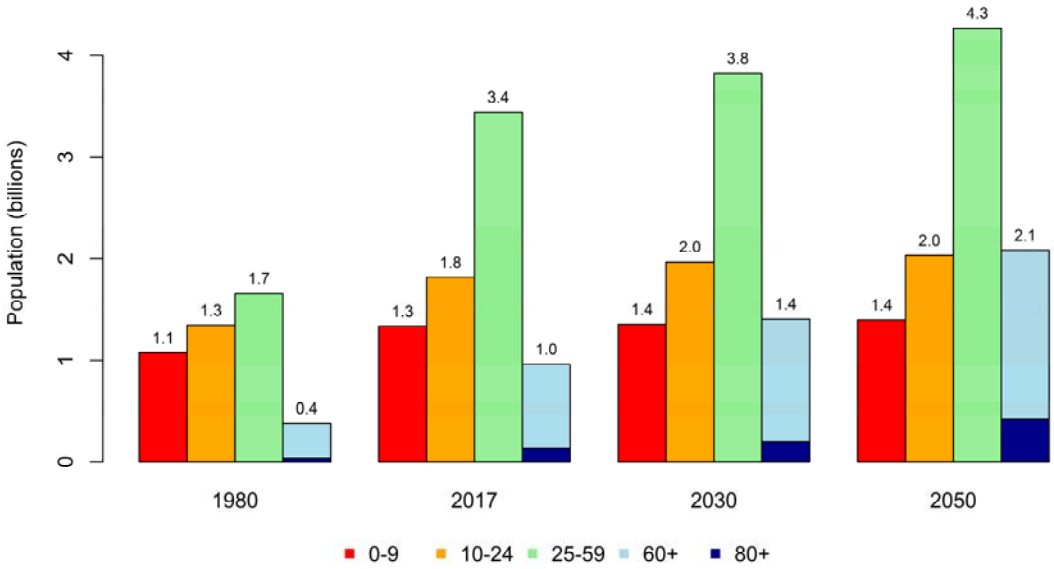
every five people globally will be aged 60 years or over. Older persons already constitute a large share of the population in the more developed regions. In 2017, close to one in four people living

Figure II.13.
Global population by broad age groups, 1980-2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

Figure II.14.
Global population by broad age groups, 1980, 2017, 2030 and 2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

TABLE II.2. PERCENTAGE AGED 60 YEARS OR OVER AND 80 YEARS OR OVER FOR THE WORLD, DEVELOPMENT GROUPS, REGIONS AND INCOME GROUPS, 1980, 2017, 2030 AND 2050

	Percentage aged 60 years or over				Percentage point change	
Location	1980	2017	2030	2050	1980-2017	2017-2050
World	8.6	12.7	16.4	21.3	4.2	8.5
Development groups						
More developed regions	15.6	24.6	29.1	32.9	9.0	8.3
Less developed regions	6.3	10.4	14.2	19.5	4.0	9.1
Least developed countries	5.0	5.5	6.6	9.7	0.5	4.2
Other less developed countries	6.5	11.3	15.9	22.4	4.8	11.1
Income groups						
High-income countries	15.2	23.6	28.7	32.9	8.5	9.2
Upper-middle-income countries	7.8	14.7	21.4	30.2	7.0	15.5
Lower-middle-income countries	6.1	8.5	11.1	16.3	2.4	7.9
Low-income countries	4.9	5.1	5.7	8.0	0.2	2.9
Regions						
Africa	5.1	5.5	6.3	8.9	0.4	3.5
Asia	6.8	12.2	17.1	24.2	5.4	12.0
Europe	16.0	24.7	29.6	34.5	8.6	9.9
Latin America and the Caribbean	6.5	11.8	16.6	25.4	5.3	13.6
Northern America	15.8	21.7	26.2	28.3	5.9	6.6
Oceania	11.6	17.0	20.2	23.3	5.4	6.3
	Percentage aged 80 years or over				**Percentage point change**	
Location	**1980**	**2017**	**2030**	**2050**	**1980-2017**	**2017-2050**
World	0.8	1.8	2.4	4.3	1.0	2.5
Development groups						
More developed regions	2.0	5.0	6.6	10.0	3.0	5.0
Less developed regions	0.4	1.2	1.6	3.5	0.8	2.3
Least developed countries	0.3	0.5	0.6	1.1	0.3	0.6
Other less developed countries	0.5	1.3	1.8	4.2	0.9	2.9
Income groups						
High-income countries	2.0	4.8	6.6	10.3	2.9	5.5
Upper-middle-income countries	0.6	1.9	2.7	6.6	1.3	4.8
Lower-middle-income countries	0.4	0.9	1.1	2.2	0.5	1.3
Low-income countries	0.3	0.5	0.5	0.8	0.2	0.3
Regions						
Africa	0.3	0.5	0.5	0.9	0.2	0.4
Asia	0.5	1.5	2.1	4.7	1.0	3.2
Europe	2.0	5.0	6.3	10.1	3.0	5.1
Latin America and the Caribbean	0.6	1.8	2.6	5.6	1.1	3.8
Northern America	2.2	3.9	5.5	8.7	1.6	4.8
Oceania	1.4	3.0	4.2	6.2	1.7	3.2

Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

in developed regions was aged 60 years or over, and it is projected to continue to rise such that, in 2050, older persons will account for one in three people in the developed regions. People aged 60 years or over comprised nearly 10 per cent of the population in less developed regions in 2017 and

that share is projected to increase to 14 per cent in 2030 and to 20 per cent in 2050. Among the least developed countries, older persons accounted for a relatively small fraction of the total population—5.5 per cent in 2017—but the share of older persons in the least developed countries is also projected to increase in the coming decades, reaching nearly 10 per cent in 2050.

High-income countries tend to be the most aged.

Older persons comprised 24 per cent of the population of high-income countries in 2017, 15 per cent of upper-middle-income countries, 9 per cent of lower-middle-income countries and 5 per cent of low-income countries. Figure II.15 plots the percentage of the population aged 60 years or over in 2017 against each country's gross national income (GNI) per capita in 2016 for countries with at least 90,000 inhabitants in 2017 and for which a GNI estimate for 2016 was available. The size of the bubbles is proportional to the size of the population aged 60 years or over in 2017.

Japan is home to the world's most aged population: 33 per cent were aged 60 years or over in 2017.

Japan had the oldest population in 2017, with 33 per cent aged 60 years or over. It was followed by Italy, with 29 per cent and Germany, Portugal, Finland and Bulgaria, with 28 per cent.[8] Of the 61 high-income countries or areas with total population greater than 90,000, half had populations in 2017 with more than 20 per cent of the population aged 60 years or over. The proportion of older persons also exceeded 20 per cent among several upper-middle-income countries such as Croatia (27 per cent), Romania (25 per cent), the Russian Federation (21 per cent) and Cuba (20 per cent). Comparatively young age structures prevailed among countries at the lower end of the income distribution: in all but one low-income country and 83 per cent of lower-middle-income countries in 2017, less than 10 per cent of the population was aged 60 years or over.

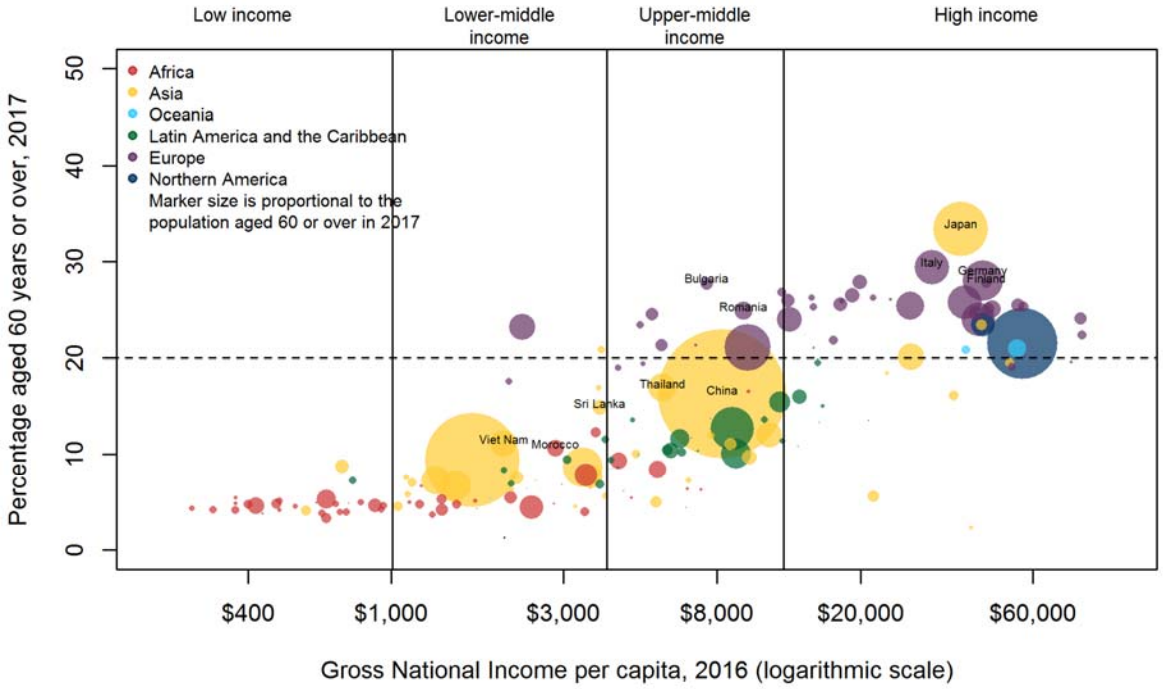
By 2050 many middle-income countries will have aged considerably.

Within the coming decades, most upper-middle-income countries are projected to become as aged as or even more aged than many of today's high-income countries. Between 2017 and 2050, the share of population aged 60 years or over is projected to increase from 16 to 35 per cent in China, from 9 to 32 per cent in Iran, and from 13 to 30 per cent in Brazil (figure II.16). Some lower-middle-income countries are projected to age rapidly as well. For example, the proportion aged 60 years or over is projected to increase from 8 per cent in 2017 to 23 per cent in 2050 in Nicaragua; from 7 to 22 per cent in Bangladesh; and from 11 to 24 per cent in Morocco.

The population ageing process is much slower in low-income countries: in 87 per cent of low-income countries and 27 per cent of lower-middle-income countries, the share of older persons is projected to remain below 10 per cent through 2050.

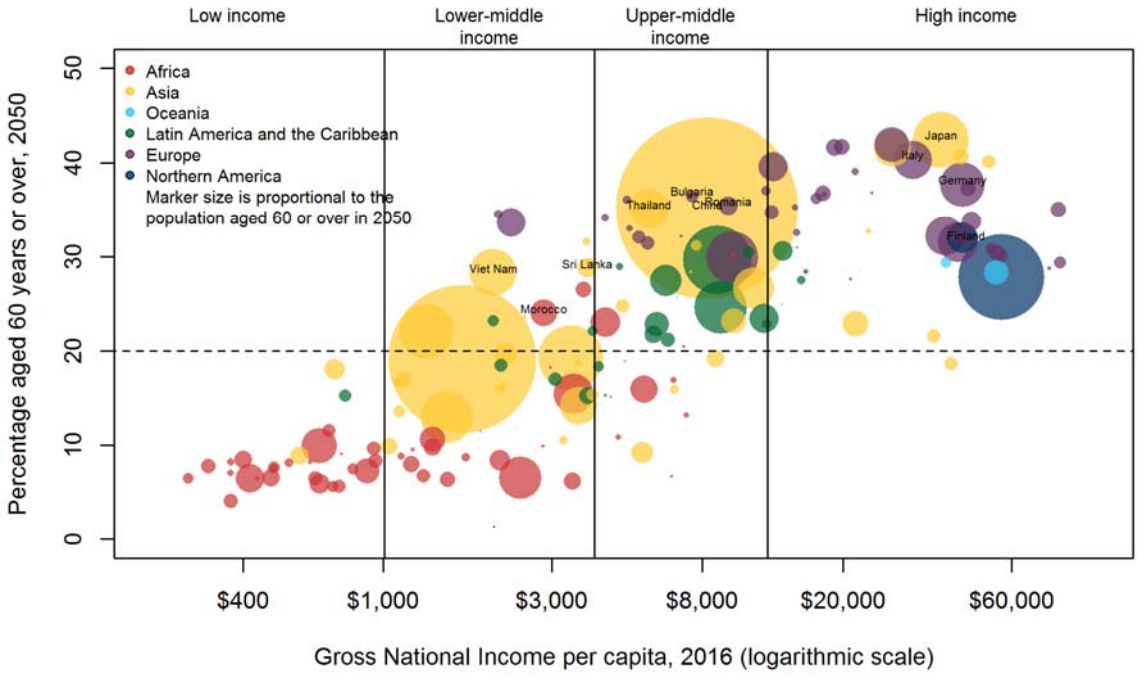
[8] Of the 201 countries or areas with at least 90,000 inhabitants in 2017.

Figure II.15.
Percentage aged 60 years or over in 2017 versus gross national income per capita in 2016



Data sources: United Nations (2017). *World Population Prospects: The 2017 Revision* and World Bank (2017). World Development Indicators (http://data.worldbank.org/indicator/NY.GNP.PCAP.CD), accessed 24 July 2017.

Figure II.16.
Percentage aged 60 years or over projected in 2050 versus gross national income per capita in 2016



Data sources: United Nations (2017). *World Population Prospects: The 2017 Revision* and World Bank (2017). World Development Indicators (http://data.worldbank.org/indicator/NY.GNP.PCAP.CD), accessed 24 July 2017.

In 1980, each of the world's ten most aged populations was located in Europe and the share of the population aged 60 years or over had not yet reached 25 per cent in any country. In 2017, the share of older persons exceeded 25 per cent in all ten of the most aged countries and by 2050, the proportion of older persons will comprise more than 40 per cent of the population in each of the ten most aged countries or areas (table II.3). Japan is projected to remain the world's most aged populations through 2050 (42 per cent aged 60 or over). Europe is expected to account for 5 of the 10 most aged countries or areas in 2050.

TABLE II.3. TEN COUNTRIES OR AREAS WITH THE MOST AGED POPULATIONS, 1980, 2017 AND 2050*[9]

	1980		2017		2050	
Rank	Country or area	Percentage aged 60 years or over	Country or area	Percentage aged 60 years or over	Country or area	Percentage aged 60 years or over
1	Sweden	22.0	Japan	33.4	Japan	42.4
2	Norway	20.2	Italy	29.4	Spain	41.9
3	Channel Islands	20.1	Germany	28.0	Portugal	41.7
4	United Kingdom	20.0	Portugal	27.9	Greece	41.6
5	Denmark	19.5	Finland	27.8	Republic of Korea	41.6
6	Germany	19.3	Bulgaria	27.7	China, Taiwan Province of China	41.3
7	Austria	19.0	Croatia	26.8	China, Hong Kong SAR	40.6
8	Belgium	18.4	Greece	26.5	Italy	40.3
9	Switzerland	18.2	Slovenia	26.3	Singapore	40.1
10	Luxembourg	17.8	Latvia	26.2	Poland	39.5

Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*
* Of 201 countries or areas with at least 90,000 inhabitants in 2017.

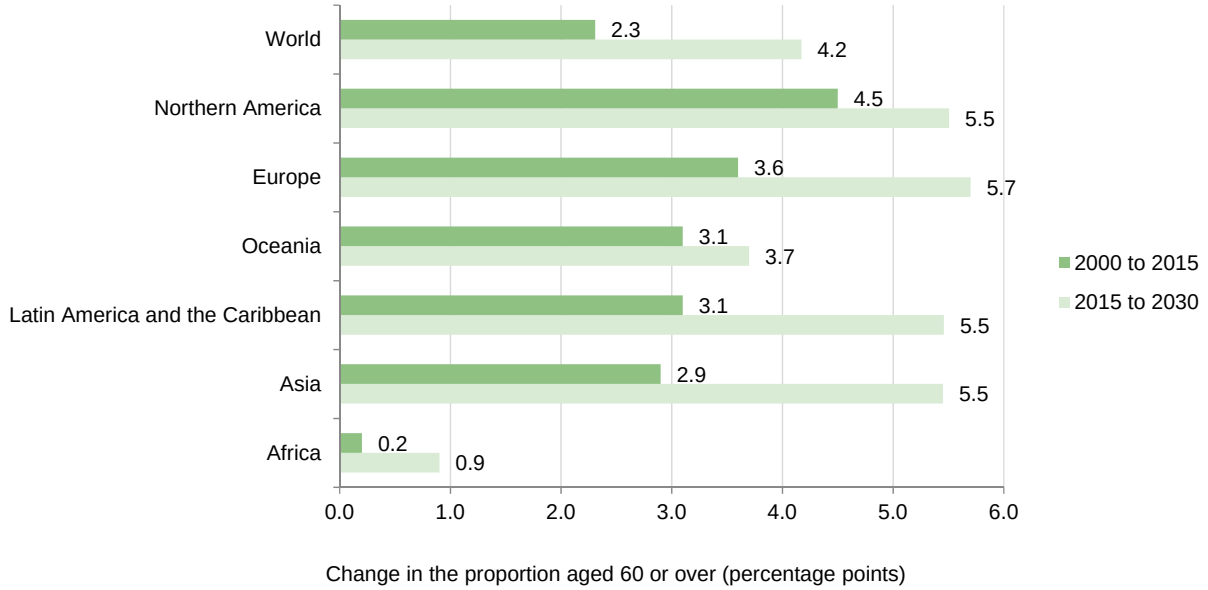
The pace of world population ageing is accelerating.

Over the 15 years between 2000 and 2015, the proportion of the global population that was aged 60 years or over increased by 2.3 percentage points, from 9.9 per cent to 12.3 per cent (figure II.17). Projections indicate that over the 15 years from 2015 to 2030 the proportion of people aged 60 years or over will increase globally by 4.2 percentage points reaching 16.4 per cent in 2030. Between 2000 and 2015, the pace of population ageing was fastest in Northern America (4.5 percentage point increase) and Europe (3.6 percentage points). The pace of population ageing is projected to accelerate in all six regions. Between 2015 and 2030 projected increases in the proportion aged 60 years or over are nearly identical for Asia (5.5 percentage point increase), Europe (5.7), Latin America and the Caribbean (5.5) and Northern America (5.5).

By 2050, older persons are projected to account for 35 per cent of the population of Europe, 28 per cent of Northern America, 25 per cent of Latin America and the Caribbean, 24 per cent of Asia, 23 per cent of Oceania and 9 per cent of Africa (figure II.18).

[9] See annex table a.iii.2 for full list of countries or areas ranked according to the percentage aged 60 or over.

Figure II.17.
Percentage point change in the proportion aged 60 years or over for the world and regions, 2000-2015 and 2015-2030



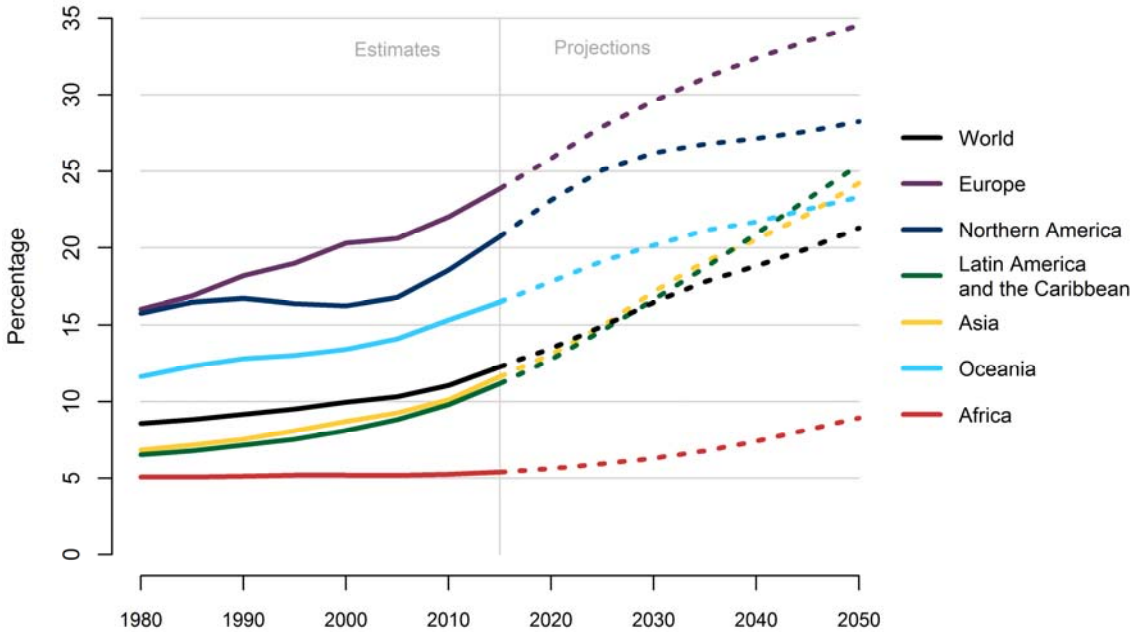
Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

In many developing countries, population ageing is taking place much more rapidly than it did in the countries that developed earlier. For example, it took France 115 years, Sweden 85 years, Australia 73 years, the United States of America 69 years and the United Kingdom of Great Britain and Northern Ireland, and Spain 45 years each for the proportion of the population aged 60 years or over to increase from 7 to 14 per cent (Kinsella and Gist, 1995). By contrast, it has taken China only 34 years and Thailand only 23 years to experience the same change in the share of older persons. Projections indicate that for Brazil, it will take just 25 years for the percentage of older persons to rise from 7 to 14 per cent and just 22 years for Colombia. Thus, today's developing countries have to adapt much more quickly to population ageing and often at much lower levels of national income compared to the past experience of many of the countries that developed earlier.

The pace of population ageing observed at the country level illustrates just how fast the age structures are shifting in many parts of the world. Table II.4 lists the ten countries with the largest percentage point changes in the share of older persons in 2000-2015 and projected for 2015-2030. Of countries or areas with 90,000 inhabitants or more in 2017, the United States Virgin Islands experienced the fastest rise in the proportion of the population aged 60 years or over, with an increase of nearly 11 percentage points between 2000 and 2015. Japan was the next fastest with a 9.8 percentage point increase, followed by Guadeloupe (8.5), Malta (8.3), and Martinique (8.0). Over the period 2015-2030, the most rapidly ageing countries are projected to experience increases in the proportion of older persons that are considerably faster than those observed over the previous 15-year period. The Republic of Korea and Singapore, two countries that have experienced both sharp declines in fertility and substantial gains in longevity since the mid-twentieth century, are projected to see the largest change in the proportion of persons aged 60 years or over between 2015 and 2030, with increases of about 13 percentage points. Another seven countries or areas are

also projected to experience increases in the proportion of older persons of more than 10 percentage points over the next 15 years.

Figure II.18.
Percentage of the population aged 60 years or over for the world and regions, 1980-2050



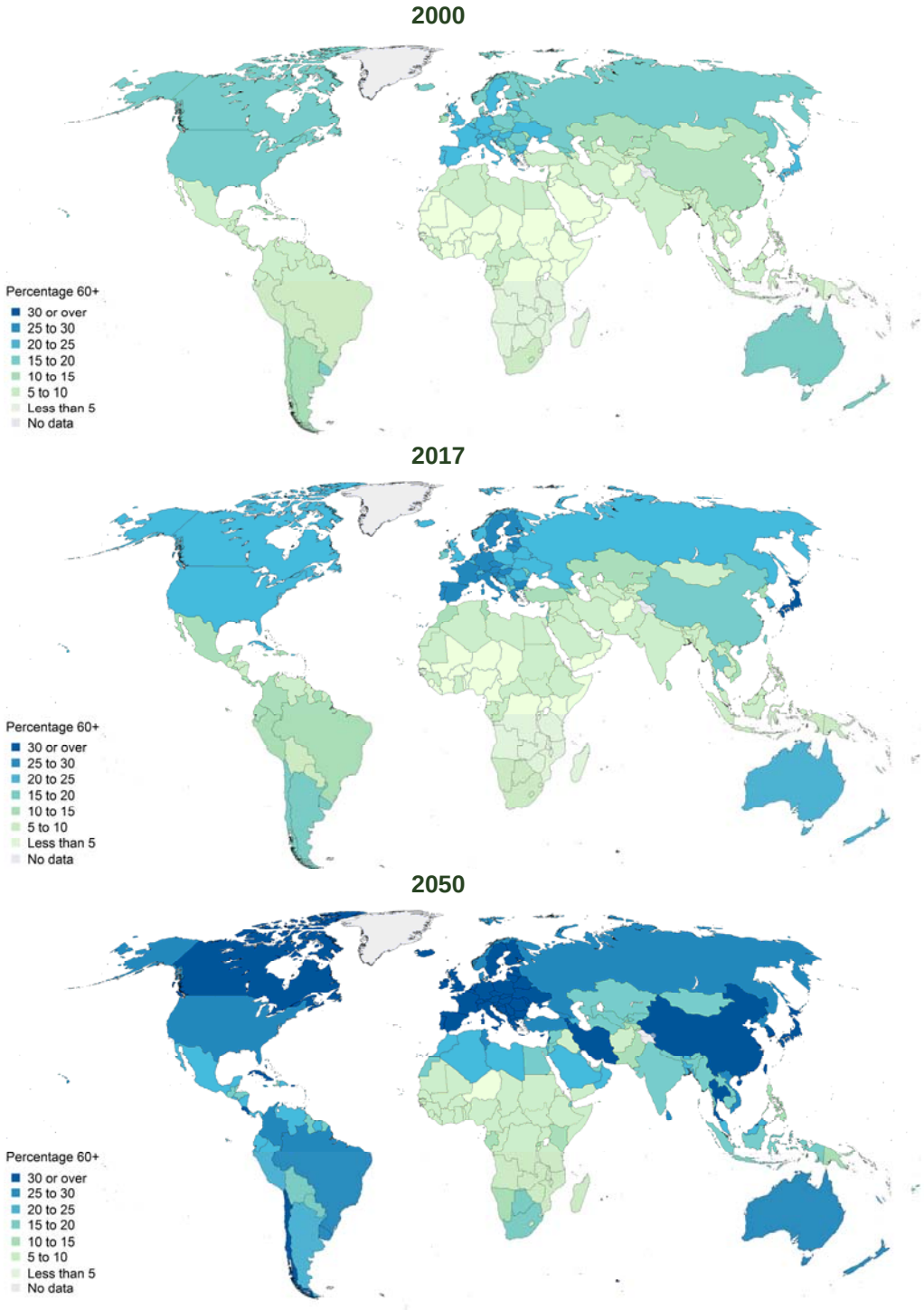
Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

TABLE II.4. TEN COUNTRIES OR AREAS WITH THE LARGEST PERCENTAGE POINT CHANGE IN THE PROPORTION OF THE POPULATION AGED 60 YEARS OR OVER, 2000-2015 AND 2015-2030*

Rank	Country or area	Percentage point change between 2000 and 2015	Country or area	Percentage point change between 2015 and 2030
1	United States Virgin Islands	10.8	Republic of Korea	13.3
2	Japan	9.8	Singapore	12.7
3	Guadeloupe	8.5	China, Macao SAR	11.7
4	Malta	8.3	China, Taiwan Province of China	11.6
5	Martinique	8.0	Cuba	11.5
6	Republic of Korea	7.4	Thailand	11.2
7	Curaçao	7.4	China, Hong Kong SAR	11.1
8	Albania	7.3	Martinique	11.1
9	Singapore	7.1	Guadeloupe	10.3
10	Finland	7.1	China	9.7

Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*
* Of 201 countries or areas with at least 90,000 inhabitants in 2017.

Figure II.19.
Maps of percentage of population aged 60 years or over in 2000, 2017 and 2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

Note: The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Final status of the Abyei area is not yet determined. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

In 2050, nearly half of the world's population will live in countries or areas where at least 20 per cent of the population is aged 60 years or over and one in four people will live in countries or areas where older persons account for more than 30 per cent of the population.

In 2000, the share of the population aged 60 years or over exceeded 20 per cent in only 18 countries or areas[10] and these contained just 9 per cent of the global population. Projections indicate that the number of countries or areas where at least 20 per cent of the population is aged 60 years or over is projected to more than double from 51 in 2017 to 111 in 2050 and the share of the world's people living in such countries or areas is projected to increase from 18 to 44 per cent. In 59 countries or areas, older persons are projected to make up at least 30 per cent of the population in 2050, up from just 1 country (Japan) in 2017. Conversely, the number of countries with very young population age structures is shrinking over time. While in 2017 there were 39 countries or areas where less than 5 per cent of the population was aged 60 years or over, by 2050 the share of older persons is projected to be below 5 per cent in only one country (Niger).

D. DEPENDENCY AND SUPPORT RATIOS

Population ageing, which is driven by both declining fertility and increasing longevity, implies that successive cohorts can expect to live longer and have fewer adult children as potential sources of support in their old age. This section discusses trends in various descriptive measures of population ageing that are used to examine the implications of shifting population age structures for intergenerational support systems.

The total dependency ratio is a measure of potential support needs. It is based on the notion of childhood and old age as periods of dependency, during which persons tend to rely upon the working-age population for financial support, which may be provided directly through family transfers, or indirectly through public transfer programmes. The total dependency ratio is defined here as the ratio of the number of children and young people under age 20 plus the number of persons aged 65 years or over, to the number of persons aged 20 to 64 years, which is the age range commonly identified as the traditional working ages. The ratio provides an indication of how many dependents need to be supported by each person of working age, on average.

The global total dependency ratio has fallen to an historical minimum and is set to rise in the coming decades.

From a peak of approximately 112 dependents per 100 working-age persons in the early-1970s, the total dependency ratio declined steadily in response to sustained reductions in global fertility, to reach 74 dependents per 100 working-age persons in 2017. The total dependency ratio is projected to increase gradually over the coming decades together with the growing proportion of older persons. In 2030, projections indicate that there will be 76 people in the dependent age group per 100 working-age people, and in 2050, the global total dependency ratio is projected to rise to 79 dependents per 100 working-age persons. A rising ratio indicates that there will be slightly more dependents to be supported by each person of working ages.

[10] Of the 201 countries or areas with at least 90,000 inhabitants in 2017.

Chronological age alone is often a poor proxy for the level of dependency experienced in a population.

Whereas the total dependency ratio describes the trends in population age structure according to the ratio of persons at all of the dependent ages to those in the working ages, the old-age dependency ratio (OADR) focuses exclusively on the adult ages, describing the ratio of persons aged 65 or over to those in the traditional working ages, 20 to 64 years. This metric thus describes trends in the implied dependency associated with a growing proportion of the population at older ages. It is commonly cited in discussions of old-age pension programmes. The old-age dependency ratio is useful as a simple metric to describe changes in population age structure, but it is flawed in that chronological age alone is often a poor proxy for the level of dependency experienced in a population since: 1) older persons are quite diverse with respect to both economic activity, including labour force participation, and functional capacity, two factors that determine dependency; and 2) not all persons in the traditional working ages are active in the labour force and some are economically dependent. Recognizing those limitations, several alternative measures have been developed in an effort to account for the diversity of capacities and dependencies across ages and to provide a more nuanced understanding of the implications of population ageing. One such approach, called the prospective old-age dependency ratio (POADR), considers years of life remaining as a proxy for dependency rather than years of life already lived (chronological age), consistent with the notion that the onset of dependency may be delayed as life expectancy increases. The POADR is calculated as the number of persons above the age closest to a remaining life expectancy of 15 years relative to the number of persons between age 20 and that age. Figure II.20 contrasts the estimated and projected regional trends in the traditional OADR to those in the POADR over the period from 1980 to 2050.

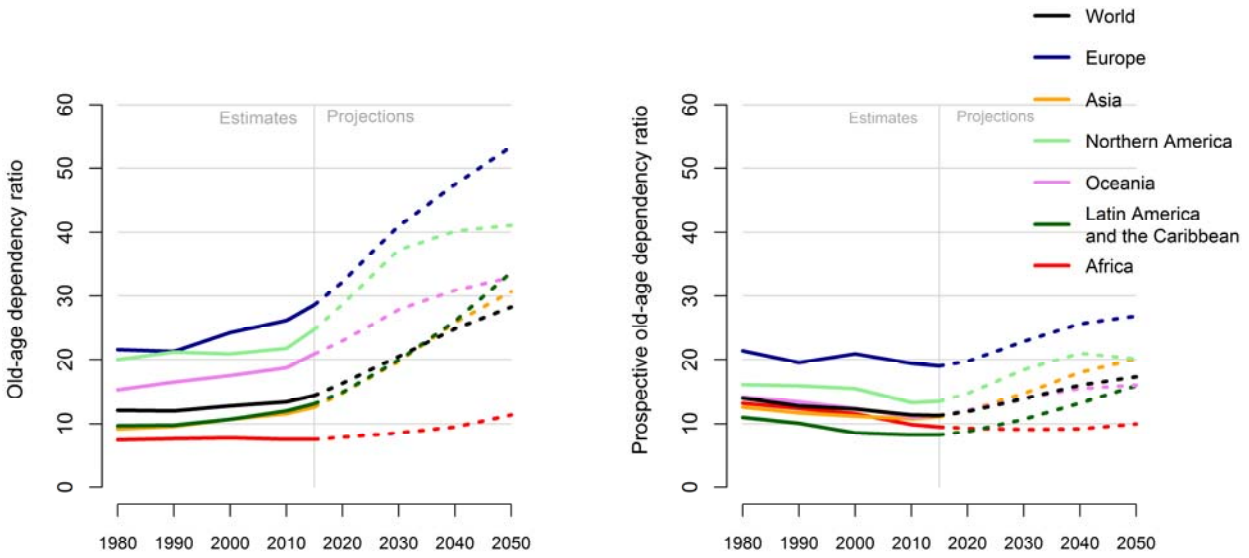
Trends in the prospective old-age dependency ratio suggest slower increases or even declines in dependency in many countries with ageing populations compared to the projections of the traditional old-age dependency ratio.

At the global level, the old-age dependency ratio has increased slowly since the mid-1980s, when there were around 12 persons aged 65 years or over per 100 persons aged 20-64 years. In 2017, there were 15 persons aged 65 years or over per 100 persons aged 20-64 years globally, and the world's old-age dependency ratio was projected to continue to rise through 2050, when it is expected that there will be 28 persons aged 65 years or over per 100 persons aged 20-64 years. Old-age dependency ratios were highest in the regions with the largest shares of older persons in their populations. In Europe in 2017, there were 30 persons aged 65 years or over per 100 persons aged 20-64 and the old-age dependency ratio was projected to rise sharply in the region, reaching 53 in 2050. Northern America is also expected to see a sharp rise in the old-age dependency ratio, but it is expected to level off after 2035 at around 40 persons aged 65 years or over per 100 persons aged 20-64 years.

The old-age dependency ratio was expected to rise at an accelerated pace in Asia and Latin America and the Caribbean, more than doubling from around 14 in 2017 to reach 34 in Latin America and the Caribbean and 31 in Asia in 2050. The share of older persons is projected to grow slower in Africa and thus the old-age dependency ratio is expected to rise gradually in the region, from just under 8 in 2017 to 11 in 2050.

Trends in the POADR, suggest slower increases or even declines in dependency in many countries with ageing populations compared to the projections of the traditional old-age dependency ratio. In Europe, for example, the old-age dependency ratio increased sharply between 1990 and 2015, whereas the POADR declined over that period, reflecting increases in the life expectancy at older ages. The projected POADRs point to coming increases in ageing related dependency in all regions except Africa, but at a much slower pace than is implied by the traditional OADR.

Figure II.20.
Old-age dependency ratio and prospective old-age dependency ratio for the world and regions, from 1980 to 2050



Data sources: The OADRs are from United Nations (2017). *World Population Prospects: The 2017 Revision*. The POADRs are special tabulations provided to the United Nations by Warren Sanderson and Sergei Scherbov based on the methods outlined in Sanderson and Scherbov (2005,2010,2015) and consistent with the population estimates and projections published in the *2017 Revision* of *World Population Prospects*.

III. Demographic drivers of population ageing

The size and age composition of a population are determined jointly by three demographic processes: fertility, mortality and migration. Fertility levels and trends determine the size of each birth cohort; while mortality levels and trends determine what proportion of those cohorts eventually survive to old age. Age patterns of immigration and emigration also influence the age distribution of the population, although to a lesser extent than fertility and mortality in most countries. This chapter describes the relationships between the three main demographic processes and population ageing, drawing primarily upon the United Nations population estimates and projections from *World Population Prospects: The 2017 Revision*.

A. Fertility and mortality as determinants of trends in the number of older persons

The present growth rate of the number of older persons is related to the levels of fertility that prevailed some 60 years ago when today's cohorts of older persons were born, together with the likelihood that members of those birth cohorts survived to older ages. Figure III.1 shows the growth rate of the population aged 60 or over in 2010-2015 versus the total fertility rate (expressed as the average number of live births per woman) of 60 years ago, in 1950-1955, for countries or areas with at least 500,000 residents aged 60 years or over in 2017.[12]

In general, countries that had high fertility 60 years ago, saw faster growth in the number of older persons during 2010-2015.

In Thailand, for example, the total fertility rate was 6.1 live births per woman in 1950-1955. Today, the number of older persons (aged 60 years or over) is growing rapidly, at an average 4.2 per cent per year in 2010-2015. By contrast, in Sweden, total fertility was only 2.2 births per woman in 1950-1955, and today's older population is growing much slower than in Thailand, at an average annual rate of 1.1 per cent during 2010-2015. Because fertility rates in the mid-century were high—above five births per woman—in many parts of Africa, Asia and Latin America and the Caribbean, the growth rates of the older populations in those regions are significantly higher than in Europe, where fertility in 1950-1955 had already fallen below three births per woman in many countries.

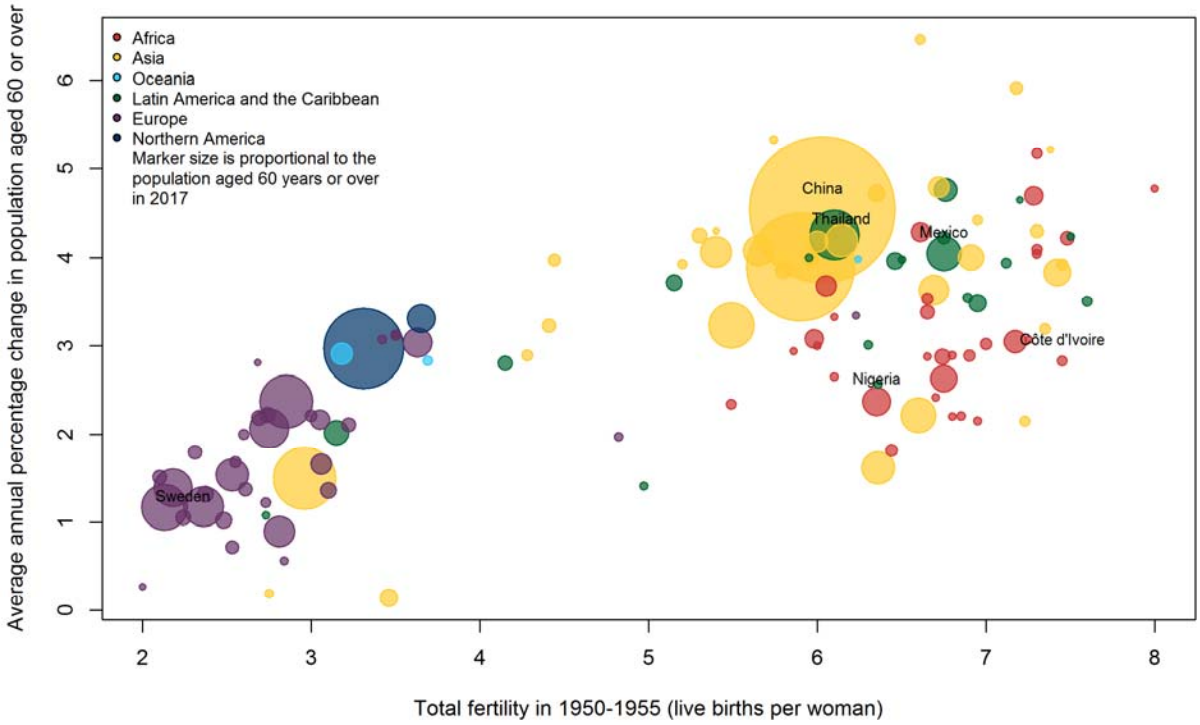
The association between past fertility rates and the present rates of growth of the numbers of older persons across countries shown in Figure III.1 is moderated by variation in mortality risks across countries with similar levels of fertility. For example, in Mexico, where total fertility was 6.8 births per woman in 1950-1955, the average annual growth rate of the number of older persons in 2010-2015 was 4.0 per cent, but in Côte d'Ivoire, where total fertility at 7.5 births per woman in 1950-1955 was similar to that in Mexico, the growth rate of the older population in 2010-2015 was much slower than in Mexico, at 2.8 per cent. The difference can be explained largely by the disparate mortality risks between the two countries: people born in Mexico during the mid-

[12] Looking at fertility levels some 60 to 80 or even 90 years ago, would offer a more complete illustration of how past fertility drives the pace of growth of the older population. However, given that there are no internationally comparable time series of fertility estimates before 1950, a 60-year period in the past is used as a first approximation for this analysis.

twentieth century were twice as likely to survive to old age as those born in Côte d'Ivoire. More specifically, an estimated 66 per cent of babies born in Mexico in 1950-1955, survived to celebrate their sixtieth birthdays in 2010-2015, compared to just 33 per cent of their peers born in Côte d'Ivoire (figure III.2).[13] Persons born in Côte d'Ivoire in mid-century, were twice as likely as their counterparts in Mexico to die before age five, and excess mortality associated with armed conflict and the HIV/AIDS epidemic contributed to the lower probabilities of survival to older ages there as well.

A similar comparison can be made for China and Nigeria. While total fertility rates in the two countries were similar at the mid-century at 6.0 and 6.4 live births per woman, respectively, the older population in China in 2010-2015 was growing nearly twice as fast as in Nigeria (4.5 per cent versus 2.4 per cent per year) owing in part to the greater survival to old age of people in China. An estimated 66 per cent of the people born in China in 1950-1955 survived to their sixtieth birthdays, compared to 36 per cent of those born in Nigeria.

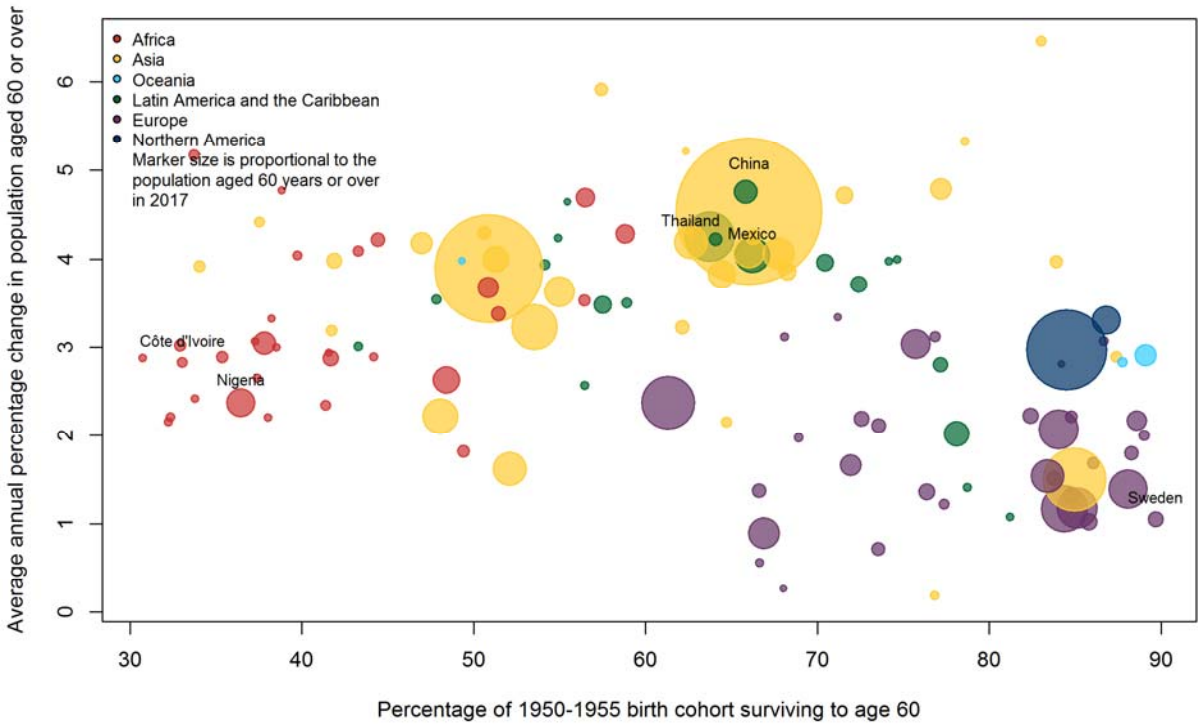
Figure III.1.
Average annual percentage change in the population aged 60 years or over in 2010-2015 and total fertility in 1950-1955*



Data source: United Nations (2017). World Population Prospects: The 2017 Revision.
* Countries or areas with at least 500,000 residents aged 60 years or over in 2017.

[13] The probability that members of the 1950-1955 birth cohort survive to age 60 is estimated using cohort life tables constructed of the quinquennial estimates of age-specific mortality from the *2017 Revision* of *World Population Prospects*.

Figure III.2.
Average annual percentage change in the population aged 60 years or over in 2010-2015 and probability of survival to age 60 among the 1950-1955 birth cohort*[13]



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*
* Countries or areas with at least 500,000 residents aged 60 years or over in 2017.

Table III.1 lists the current size and growth rate of the population of older persons for the world as a whole and the six regions, as well as the fertility rates around the time that today's 60-year-olds were born and their survival probabilities to age 60.[13] In 2010-2015, the number of older persons was growing most rapidly in Asia and Latin America and the Caribbean, at an average 3.8 per cent per year. Both of these regions were characterized by high fertility in 1950-1955, with 5.8 and 5.9 live births per woman, respectively. Moreover, a majority of the 1950-1955 birth cohorts survived to old age: 60 per cent of those born in Asia during 1950-1955 were still alive at age 60, as were 65 per cent of those born in Latin America and the Caribbean.

The older populations of Northern America and Oceania were also growing rapidly during 2010-2015, by 3.0 per cent annually, despite having had much lower fertility compared to Latin America and the Caribbean and Asia at mid-century (3.3 and 3.8 live births per woman, respectively). In both Northern America and Oceania, growth of the older population has been bolstered by high probabilities of survival to older ages: close to 85 per cent of the 1950-1955 birth cohort in Northern America lived to at least age 60, as did 79 per cent of their peers in Oceania.

The pace of growth of the older population in Africa, at 3.1 per cent per year during 2010-2015, was similar to that in Northern America and Oceania, although the probability of survival to age 60 years in Africa was much lower, with just 42 per cent of those born in 1950-1955 surviving to their sixtieth birthdays. In this instance, very high fertility in Africa, at 6.6 live births per woman in 1950-1955, has compensated for lower survival to old age to promote similar growth of the number of older persons.

While Europe was home to the world's most aged population in 2017, the pace of growth of the older population in Europe was the slowest of the six regions during 2010-2015, at 1.7 per cent per year on average. This was due to the already low fertility in Europe in 1950-1955 at 2.7 live births per woman, and a slightly lower probability of survival to older ages relative to Northern America, with 76 per cent of Europe's 1950-1955 birth cohort alive at age 60 years.

TABLE III.1. OLDER POPULATION SIZE AND GROWTH RATE AND PAST FERTILITY AND MORTALITY LEVELS FOR THE WORLD AND REGIONS

	Population aged 60 years or over in 2017 (thousands)	Average annual rate of change of the population aged 60 years or over in 2010-2015 (percentage)	Total fertility in 1950-1955 (children per woman)	Percentage of 1950-1955 birth cohort surviving to age 60[2]
World	962 263	3.3	5.0	61.3
Africa	68 721	3.1	6.6	41.9
Asia	549 246	3.8	5.8	59.7
Europe	182 982	1.7	2.7	75.7
Latin America and the Caribbean	76 010	3.8	5.9	65.1
Northern America	78 389	3.0	3.3	84.8
Oceania	6 915	3.0	3.8	79.3

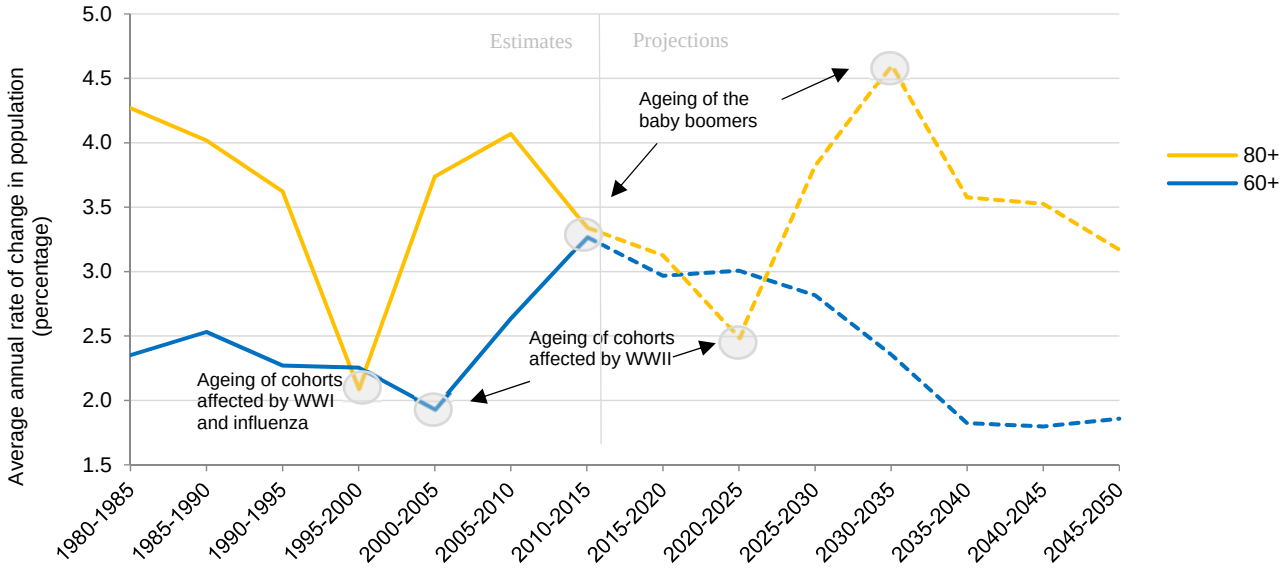
Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

Global trends in the growth rate of the number of older persons reveal the powerful influence of major historical events that helped to shape the age composition of the world's population.

Figure III.3 plots the average annual rates of change of the global population aged 60 years or over and aged 80 years or over, by five-year periods estimated from 1980 and projected until 2050. The sharp fluctuations observed in the growth rate of the number of older persons point to the historical events that produced significant demographic shocks during the early- to mid-twentieth century. The sharp decline, for example, in the growth rate of the global population aged 80 years or over in the late 1990s, marks the period during which the smaller cohorts born around World War I and affected by the 1918 influenza pandemic reached their 80s. Similarly, the decline in the growth rate of the global population aged 60 years or over in 2000-2005 marks the period during which the cohorts born during lower fertility levels around World War II turned 60 years old; the projected decline in the growth rate of the population aged 80 years or over in 2020-2025 marks when they will turn 80 years old.

Conversely, the peaks in the growth rate shown for the populations aged 60 years or over in 2010-2015 and aged 80 years or over in 2030-2035 mark the periods during which those born during the post-World War II baby boom reach older ages. The growth rate of the global population aged 60 years or over climbed from a low of 2.0 per cent per year during 2000-2005, when the smaller cohorts born during World War II were reaching age 60 years, to a peak of close to 3.3 per cent per year in 2010-2015, when the baby boomers were reaching age 60. For the global population aged 80 years or over, the growth rate is projected to rise from just over 2.5 per cent per year in 2020-2025, when the World War II cohorts turn 80 years old, to 4.6 per cent per year in 2030-2035 when the baby boomers reach age 80 years.

Figure III.3.
Average annual rate of change of the global population aged 60 years or over and aged 80 years or over, from 1980 to 2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

Just as current population ageing has been determined by historical levels and changes in fertility and mortality, the coming trends with respect to population ageing can be understood as growing out of the history of fertility and mortality shifts that have taken place over the last century. While the fluctuations evident in figure III.3 point to extreme examples of the historical influences of demographic shocks at the global level, shifts in fertility and mortality have played out differently across the world's regions. Consequently, the global trends in the number of older persons can also be understood as an aggregation of heterogeneous regional demographic trends over time. The following two sections of this chapter describe the recent and projected future trends in fertility and mortality, respectively, by region, and discuss their implications for the coming trends in population ageing.

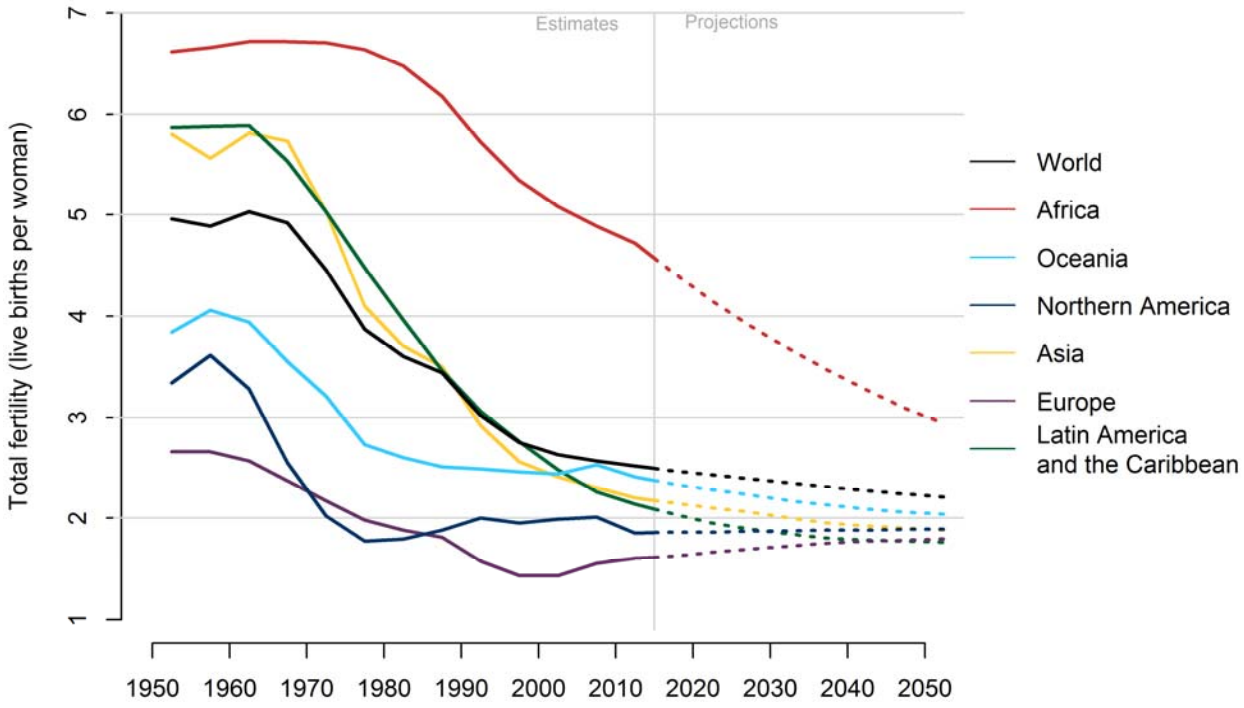
B. Fertility Trends

Of the three demographic processes, historically fertility has been the most influential in shaping trends in the numbers and proportion of older persons in the population over the long term. Total fertility rates have fallen in each of the world's regions. That decline, which is described in the demographic transition theory, began first in Europe, Northern America and the developed countries of Oceania in the late nineteenth century or even earlier in some countries. Since the mid-twentieth century, fertility decline has followed in Asia, Latin America and the Caribbean, and Africa.

Figure III.4 illustrates trends in total fertility for the world and the six regions, estimated from 1950 and projected to 2050 from the *2017 Revision* of *World Population Prospects*. At the global level, total fertility in 1950-1955 was 5 live births per woman and it fell to around 2.5 births per woman in 2010-2015. That global decline reflects reductions in fertility in all the six regions. The

steepest declines since 1950-1955 occurred in Asia and Latin America and the Caribbean, where it decreased from around 6 births per woman in the mid-twentieth century to around 2.1 births per woman in 2010-2015, which is the level of fertility required to sustain population size over the long term and is referred to as the replacement rate.

Figure III.4.
Total fertility rate for the world and regions from 1950 to 2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

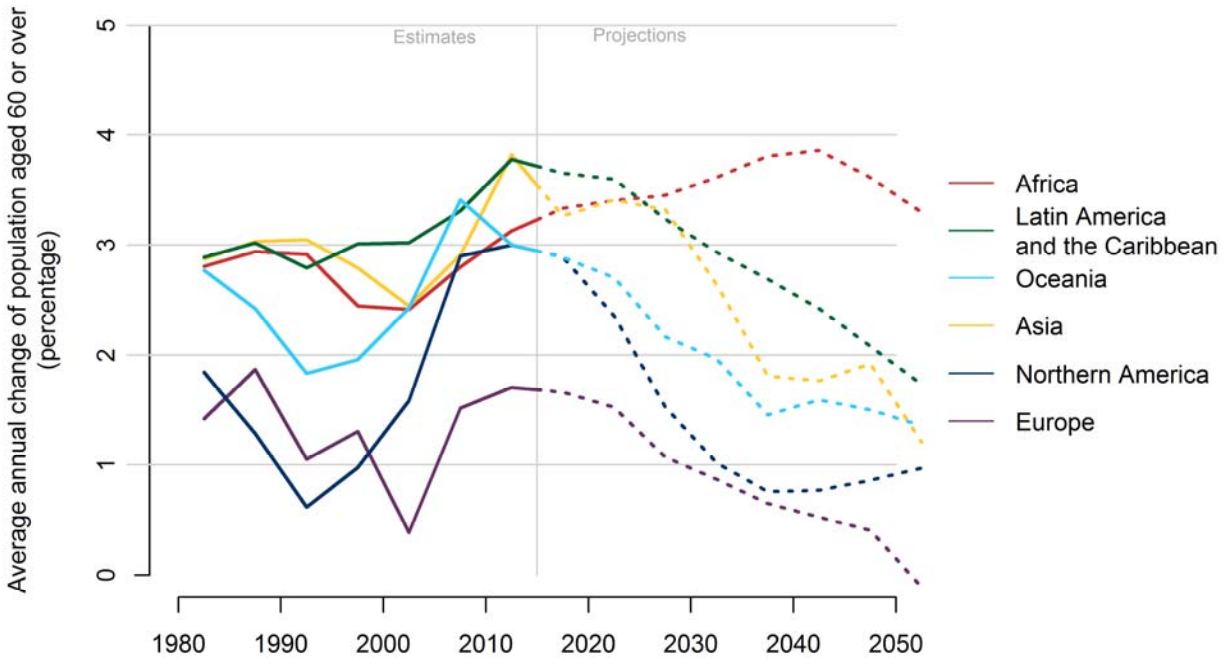
Total fertility rates in Oceania, Northern America and Europe were comparatively lower in 1950-1955, at around 3.8, 3.3, and 2.7 live births per woman, respectively. Following a brief increase in fertility in the 1950s and early 1960s, fertility decline resumed in these regions. In 2010-2015, total fertility rates fell to close to 2.4 births per woman in Oceania, 1.9 births per woman in Northern America, and 1.6 births per woman in Europe. Total fertility was highest in Africa in 1950-1955, at 6.6 births per woman on average, and while women in Africa had two fewer births on average in 2010-2015, the region's total fertility rate of 4.7 births per woman remained the highest in the world.

Projections of future fertility indicate that rates in Africa will continue to fall towards 3.1 births per woman in 2045-2050. Fertility rates in Oceania, Asia and Latin America are also projected to decline, although only slightly, from their 2010-2015 levels, while those in Northern America and Europe are projected to increase, again only slightly from their 2010-2015 levels.

The regional trends in total fertility illustrated in figure III.4 are closely linked to the observed and projected regional trends in the growth of the number of older persons. Figure III.5 charts the

estimated and projected regional trends in the average annual rate of change of the population aged 60 years or over from 1980 to 2050 for each of the six regions.

Figure III.5.
Average annual rate of change of the population aged 60 years or over for regions from 1980 to 2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

The influence of the post-World War II baby boom is evident in the spike in the growth rates of the number of older persons in the early twenty-first century in Europe, Northern America and Oceania. From 2015, the growth of the population aged 60 years or over is projected to slow in Europe, Latin America and the Caribbean, Northern America and Oceania, reflecting the reductions in fertility that led to slowing in the growth of birth cohorts through the latter half of the twentieth century. In Asia, the growth rate of the number of older persons is projected to decline precipitously after 2025, reflecting the rapid decline in fertility that began in the mid-1960s in that region. In Africa, in contrast, the pace of growth of the population aged 60 years or over is projected to increase from just over 3 per cent per year in 2010-2015 reaching nearly 3.9 per cent per year in 2040-2045, reflecting the still higher fertility rates in the region. The pace of growth of the older population of Africa projected for the 2040s is faster than any region has experienced since 1950, when the data series begins.

C. TRENDS IN LIFE EXPECTANCY AND PROBABILITY OF SURVIVAL TO OLD AGE

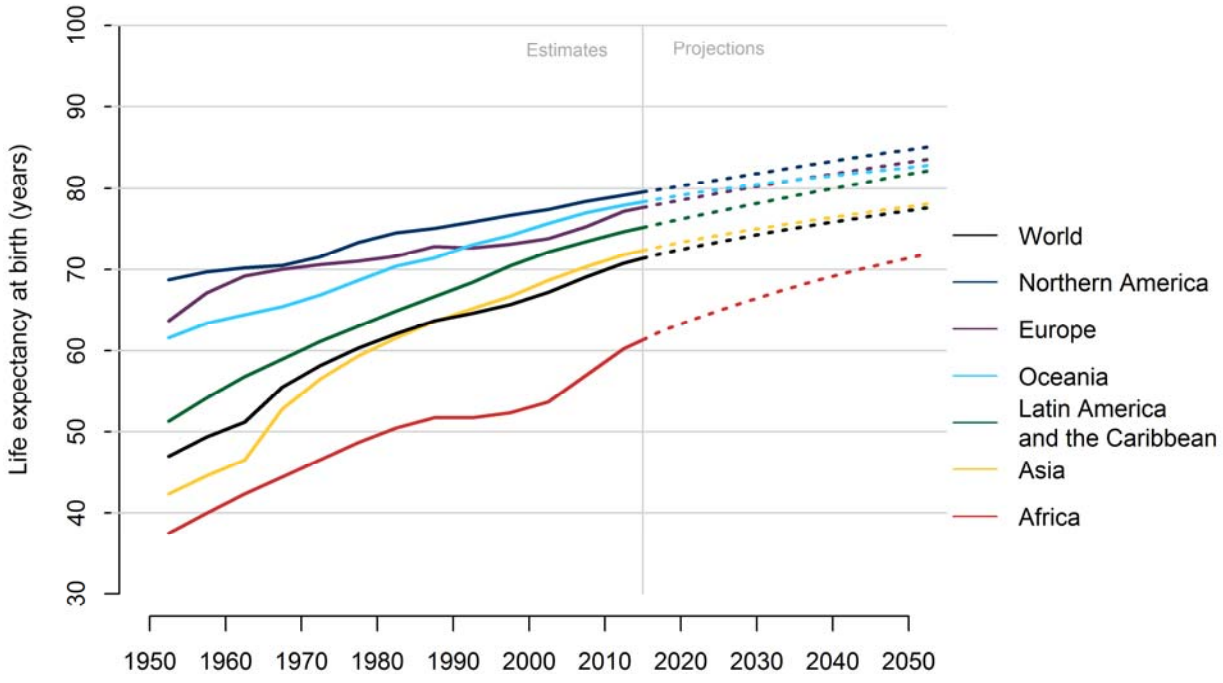
As fertility rates reach low levels, the size of birth cohorts stabilizes and improvements in longevity become increasingly important drivers of population ageing (Lee and Zhou, 2017; Murphy, 2017; Preston and Stokes, 2012). Average fertility in Europe has been well below the replacement level for more than three decades, thus variations across countries in the rate of growth of the older population are increasingly influenced by disparities in the likelihood of survival to old age. A similar situation is emerging in Northern America and is anticipated to occur in Asia

and Latin America and the Caribbean, where fertility decline began more recently. This section examines past, present and future mortality risks as summarized in terms of the life expectancies at birth and at age 60, as well as the cohort probabilities of survival to older ages.

All regions have experienced substantial increases in life expectancy since 1950.

The life expectancy at birth describes the years of life expected by a hypothetical cohort of individuals who would be subject throughout their lives to the age-specific mortality rates of a given period. Figure III.6 shows the life expectancy at birth for the world and six regions, estimated from 1950 and projected to 2050 from the *2017 Revision* of *World Population Prospects*. In 2010-2015, life expectancy at birth, globally, was 70.8 years, having risen from 47 years in 1950-1955. Across the six regions in 2010-2015, the expectation of life at birth was longest in Northern America, at 79.2 years and shortest in Africa, at 60.2 years. All regions have experienced an increase in life expectancy since 1950, with the fastest increases occurring in Asia, where life expectancy at birth increased from 42.3 years in 1950-1955 to 71.8 years in 2010-2015, and in Latin America and the Caribbean, where it rose from 51.3 to 74.6 years over the same period.

Figure III.6.
Life expectancy at birth for the world and regions from 1950 to 2050

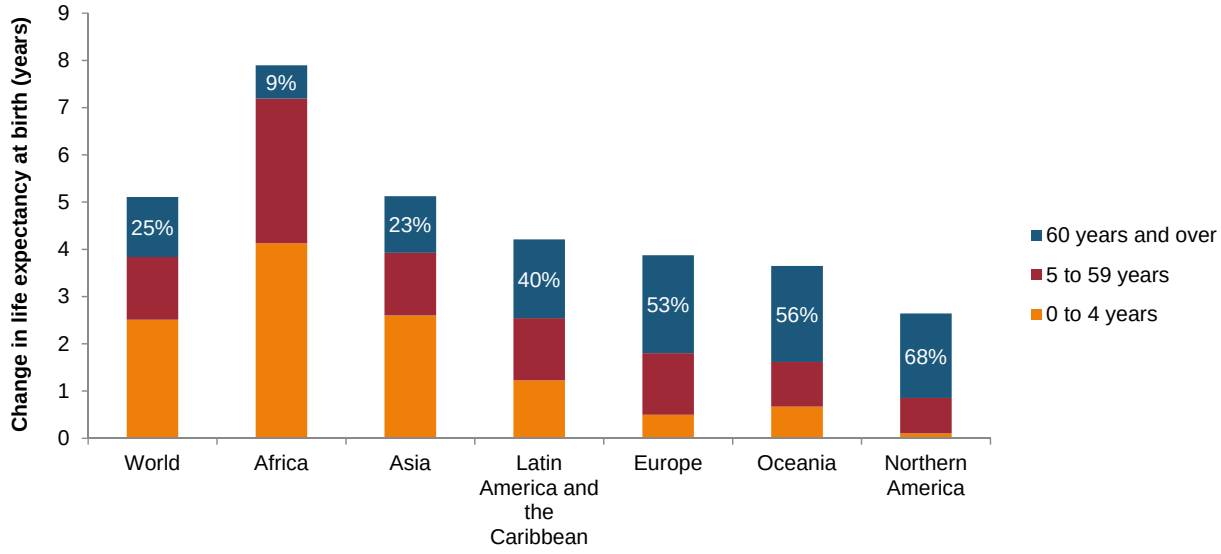


Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

Improvements in the life expectancy at birth can be driven by mortality decline at various ages. Decomposing the change in life expectancy at birth according to the contribution of mortality reductions among different age groups offers insight into how the drivers of improvements in life expectancy vary across populations at different levels of mortality. The results of this decomposition are shown in figure III.7, which illustrates the contribution of mortality decline below age 5 years, between ages 5 and 59 years, and at ages 60 years and over, to the overall increases in life expectancy at birth between 1995-2000 and 2010-2015 for the world and six

regions. At the global level, improved survival between birth and age 5 accounted for close to half of the 5.1-year increase in the life expectancy at birth between 1995-2000 and 2010-2015. Mortality reductions between ages 5 and 59 years and at age 60 years or over each accounted for around one quarter of the global gain in the life expectancy at birth over that period.

Figure III.7.
Contribution of mortality decline at different ages to improvements in the life expectancy at birth between 1995-2000 and 2010-2015, for the world and regions*



* Calculated using life tables from United Nations (2017). *World Population Prospects: The 2017 Revision*. The method applied to decompose the change in life expectancy at birth according to the contribution of improvements in survival at different age groups is that developed by Arriaga (1984) and described in Preston, Heuveline and Guillot (2001), p. 65.

Improvements in survival at age 60 or over accounted for more than half of the total improvement in longevity in Oceania, Europe and Northern America, while reduced mortality at younger ages was more important in Africa, Asia and Latin America and the Caribbean.

Africa, the region with the largest gain in life expectancy at birth since 1995-2000 (7.9 years), attributed a majority of that increase (52 per cent) to improved survival among children under five years. Reductions in mortality at ages 60 years and over contributed 0.7 years (9 per cent) to the overall increase in life expectancy at birth in Africa. Across the six regions, the largest fraction of the total increase in life expectancy at birth due to reduced mortality at older ages, occurred in Northern America, where 68 per cent of the 2.6-year improvement in longevity was due to reduced mortality above age 60. Mortality reductions at older ages accounted for more than half of the total increase in the life expectancy at birth in Europe and Oceania as well. In Latin America and the Caribbean, life expectancy increased by just over 4 years between 1995-2000 and 2010-2015 and 40 per cent of that gain was due to reductions in mortality risks at ages 60 years and over. Asia added 5.1 years to the life expectancy at birth between 1995-2000 and 2010-2015 and while most of that gain was due to mortality reductions among children under five years, 23 per cent was attributable to reduced mortality above age 60.

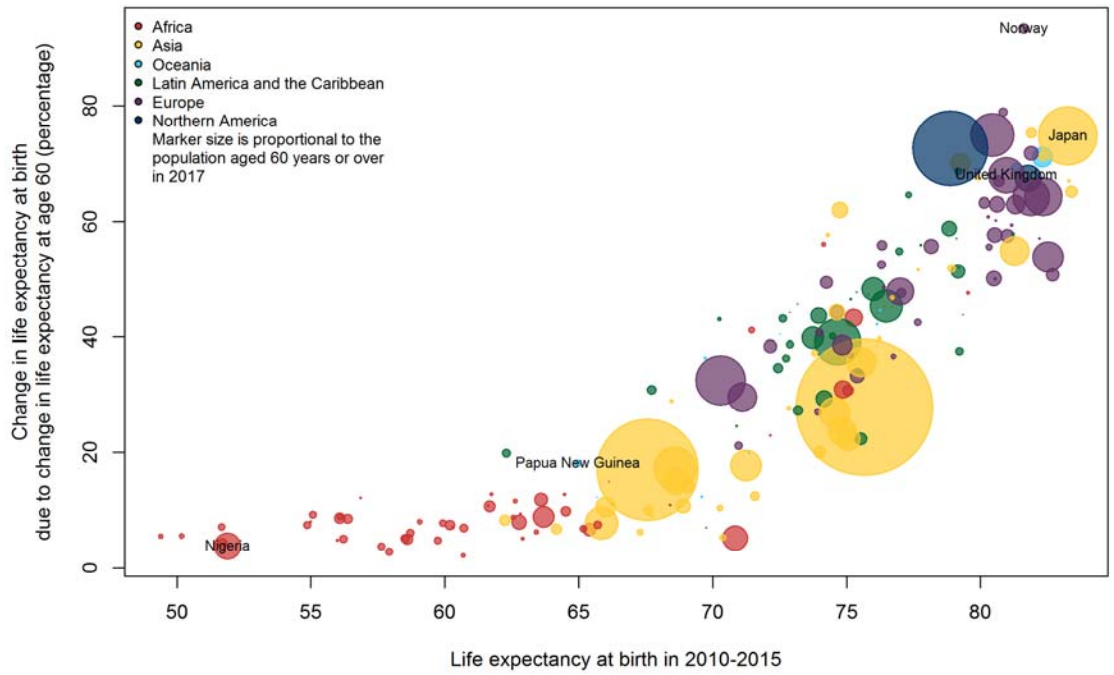
As the life expectancy at birth increases, improvements in survival at older ages account for a growing proportion of the overall improvement in longevity.

Figure III.8 shows the percentage contribution of increases in the life expectancy at age 60 (both sexes combined) to overall improvements in longevity between 1995-2000 and 2010-2015 versus the life expectancy at birth in 2010-2015 among the 191 countries or areas with at least 90,000 inhabitants in 2017 and for which life expectancy at birth increased over the period. Among those countries with low life expectancy at birth—below 65 years—most of which are located in sub-Saharan Africa, changes in survival probabilities above age 60 accounted for only a small fraction of the change in life expectancy since 1995, at well under 20 per cent in most cases. Examples include Nigeria, where 3.8 per cent of the total 5.9-year increase in life expectancy at birth between 1995-2000 and 2010-2015 was attributable to improved survival at age 60 or over, and Papua New Guinea, where improved survival at older ages accounted for 18 per cent of the overall 3.4-year increase in the life expectancy at birth. At the other end of the spectrum, in countries with life expectancy at birth above 75 years, a majority of the improvement in overall longevity was due to improvements in survival above age 60. Reduced mortality at older ages accounted for more than 70 per cent of the improvement in several countries, including Australia, Germany, Ireland, Israel, Japan, Norway, Singapore, Sweden and the United States of America.

Defined similarly to the life expectancy at birth, the life expectancy at age 60 reflects the number of additional years a 60-year-old person can be expected to live if exposed throughout the remainder of life to the age-specific mortality rates of a given period. In 2010-2015, 60-year-old persons globally could expect to live an additional 20.7 years on average. Across the six regions, the life expectancy at age 60 was longest in Northern America and Oceania, at 24.3 years and 24.0 years, respectively, and shortest in Africa, at 17.2 years.

Table III.2 lists the life expectancy at birth and at age 60, for both sexes combined and for each sex separately, for the world and six regions. Women tend to live longer than men on average, a phenomenon linked to both biological and behavioural health advantages of women. At the global level in 2010-2015, women's life expectancy at birth exceeded that of men by 4.6 years. The female advantage in life expectancy at birth was largest in Europe (7.0 years) and Latin America and the Caribbean (6.6 years), and lowest in Africa (3.3 years) and Asia (3.9 years). The female survival advantage persists at older ages as well. Globally, in 2010-2015, 60-year-old women could expect to outlive 60-year-old men by an average of 2.9 years and, as with life expectancy at birth, the female survival advantage at age 60 was greatest in Europe (4.0 years) and smallest in Africa (1.6 years).

Figure III.8.
Contribution of increased longevity after age 60 to total improvement in the life expectancy at birth, 1995-2000 to 2010-2015*



NOTE: 191 countries or areas with at least 90,000 inhabitants in 2017 and an improvement in the life expectancy at birth between 1995-2000 and 2010-2015.

*Calculated using life tables from United Nations (2017). *World Population Prospects: The 2017 Revision*. The method applied to decompose the change in life expectancy at birth according to the contribution of improvements in survival at different age groups is that developed by Arriaga (1984) and described in Preston, Heuveline and Guillot (2001), p. 65.

TABLE III.2. LIFE EXPECTANCY AT BIRTH AND AT AGE 60, BY SEX, FOR THE WORLD AND REGIONS, 2010-2015

	Life expectancy at birth (years)				Life expectancy at age 60 (years)			
	Both	Female	Male	Sex difference (female-male)	Both	Female	Male	Sex difference (female-male)
World	70.8	73.1	68.6	4.6	20.3	21.6	18.8	2.9
Africa	60.2	61.9	58.6	3.3	16.8	17.5	16.0	1.6
Asia	71.8	73.8	69.9	3.9	19.5	20.7	18.2	2.5
Latin America and the Caribbean	74.6	78.0	71.4	6.6	21.8	23.4	20.1	3.3
Europe	77.2	80.7	73.7	7.0	22.1	23.9	19.9	4.0
Oceania	77.9	80.2	75.7	4.5	23.9	25.4	22.3	3.1
Northern America	79.2	81.5	76.8	4.7	23.5	24.9	21.9	3.0

Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

As with life expectancy at birth, all regions have experienced improvements in the life expectancy at age 60 and are projected to continue to see improvements in survival at older ages over the coming decades.

Figure III.9 plots the life expectancy at age 60 by sex and for both sexes combined, for each of the six regions, estimated for the period 1950 to 2015 and projected to 2050. In Africa, the life expectancy at age 60 for both sexes combined rose from 12.7 years in 1950-1955 to 16.8 years in

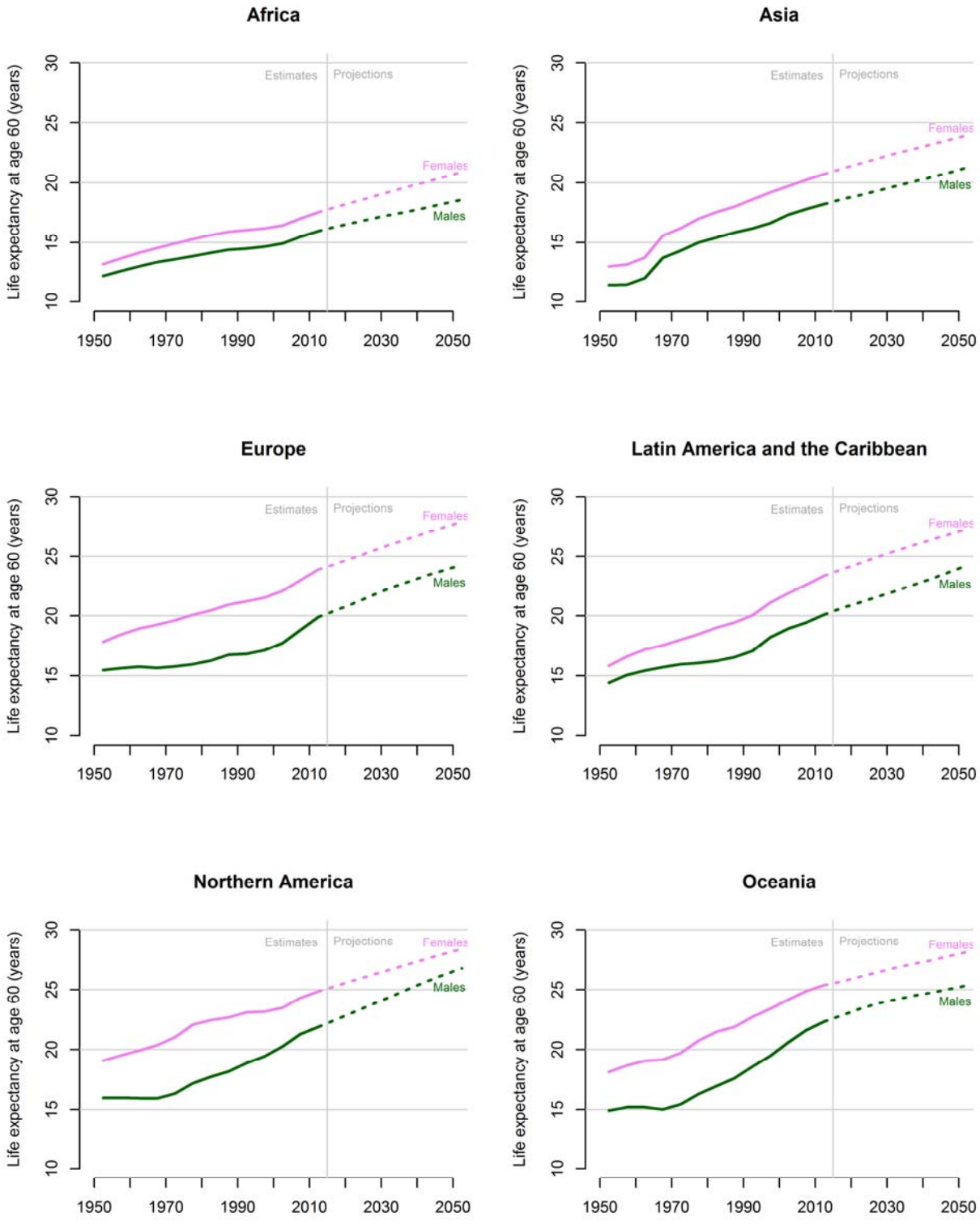
2010-2015, and is projected to rise further to 19.4 years in 2045-2050. Women in Africa have seen greater advances in survival at older ages on average than men: the female advantage in life expectancy at age 60 widened from 1.0 years in 1950-1955 to 1.6 years in 2010-2015 and is anticipated to widen further to 2.2 years in 2045-2050.

In mid-twentieth century, life expectancy at age 60 in Asia was similar to that in Africa, at 12.2 years for both sexes combined. Yet advances in survival at older ages in Asia have outpaced those in Africa such that by 2010-2015, the expectation of life at age 60 in Asia had grown to 19.5 years. Improvements in survival at older ages have progressed at a similar pace in Latin America and the Caribbean, where the life expectancy at age 60 for both sexes combined increased from 15.1 years in 1950-1955 to 21.8 years in 2010-2015. In both Asia and Latin America and the Caribbean, the sex difference in the life expectancy at age 60 widened over time. From a gender gap of less than two years in the 1970s, the female advantage in life expectancy at age 60 in 2010-2015 grew to 2.5 years in Asia and to 3.3 years in Latin America and the Caribbean.

In Europe, Northern America and Oceania, life expectancy at age 60 ranged from 16 to 17 years in 1950-1955. By 2010-2015, Europe had added 5.3 years to the life expectancy at age 60; Northern America added 6.0 years and Oceania added 7.4 years. After widening between 1950 and 1980, the sex differences in life expectancy at older ages in both Northern America and Oceania began to narrow, as tobacco use, which increased later among women than among men, began to influence similarly their mortality risks (Preston, Glei and Wilmoth, 2010). In Northern America, in particular, the female advantage in survival after age 60 narrowed from close to five years in 1975-1980 to three years in 2010-2015. In Europe, the female advantage in survival after age 60 has remained above four years since 1975-1980, due largely to persistent excess mortality risks associated with non-communicable diseases (NCDs) such as cardiovascular diseases, cancers, diabetes and respiratory diseases, as well as injuries among males in Eastern Europe (Leon, 2011). A recent study from the World Health Organization attributed the increases in life expectancies at older ages in high-income countries to reductions in tobacco-related mortality among men and reductions in cardiovascular disease mortality among both men and women (Mathers and others, 2015).

Projections indicate that the life expectancy at age 60 will continue to increase in all regions (figure III.9; table III.3). By 2045-2050 the number of additional years a 60-year-old person can expect to live, on average, is expected to increase by 2.6 years at the global level for women and by 2.7 years for men. Men in Northern America are projected to experience the largest increase in life expectancy at age 60 by 2045-2050, with an additional 4.4 years, while women in Europe are projected to add 3.6 years. While improvements in survival at older ages are projected to be slower in Africa than in the other regions, still the life expectancy at age 60 is projected to increase by 3.0 years among women and 2.3 years among men between 2010-2015 and 2045-2050.

Figure III.9.
Life expectancy at age 60, by sex, for regions from 1950 to 2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

TABLE III.3. LIFE EXPECTANCY AT AGE 60, BY SEX, FOR THE WORLD AND REGIONS, 1950-1955, 2010-2015 AND 2045-2050

	Females					Males				
	Life expectancy at age 60 years (years)					Life expectancy at age 60 years (years)				
	1950-1955	2010-2015	2045-2050	Change between 1950-1955 and 2010-2015 (years)	Change between 2010-2015 and 2045-2050 (years)	1950-1955	2010-2015	2045-2050	Change between 1950-1955 and 2010-2015 (years)	Change between 2010-2015 and 2045-2050 (years)
World	15.1	21.6	24.3	6.5	2.6	13.1	18.8	21.5	5.7	2.7
Africa	13.2	17.5	20.5	4.4	3.0	12.2	16.0	18.3	4.0	2.3
Asia	13.0	20.7	23.6	7.7	2.9	11.4	18.2	20.9	6.8	2.7
Europe	17.8	23.9	27.5	6.1	3.6	15.5	19.9	23.8	5.7	3.9
Latin America and the Caribbean	15.8	23.4	26.9	7.5	3.5	14.4	20.1	23.7	7.3	3.6
Northern America	19.1	24.9	28.0	5.8	3.1	16.0	21.9	26.3	4.3	4.4
Oceania	18.1	25.4	27.8	7.3	2.4	14.9	22.3	25.1	6.0	2.7

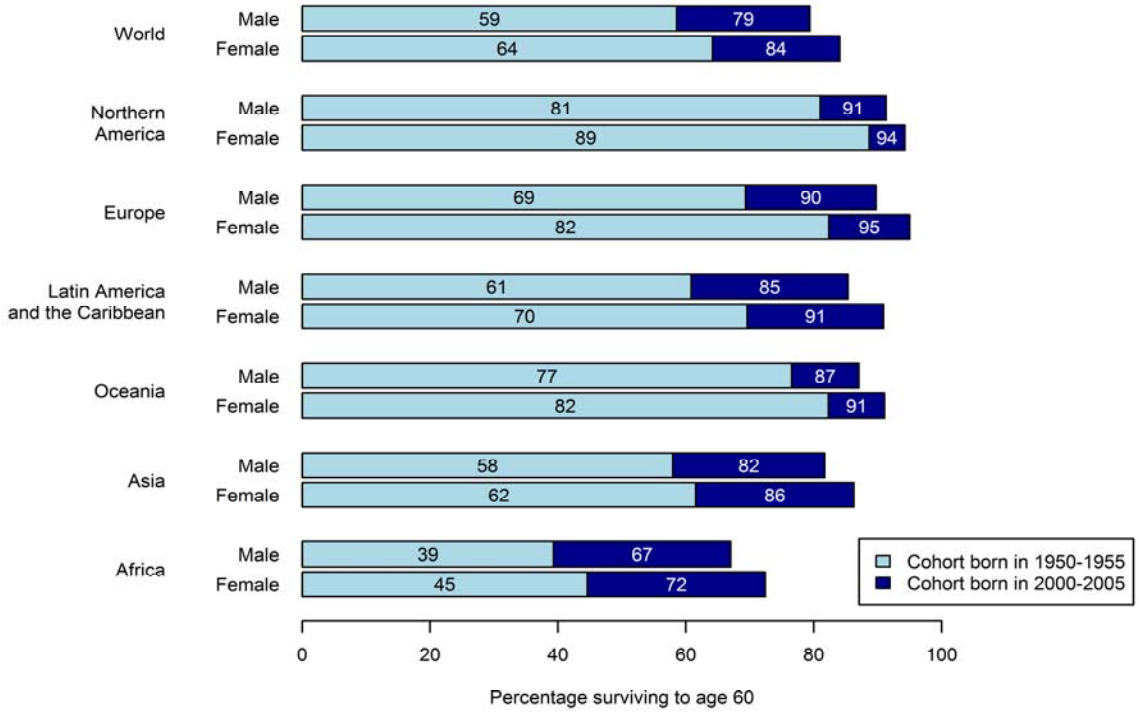
Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

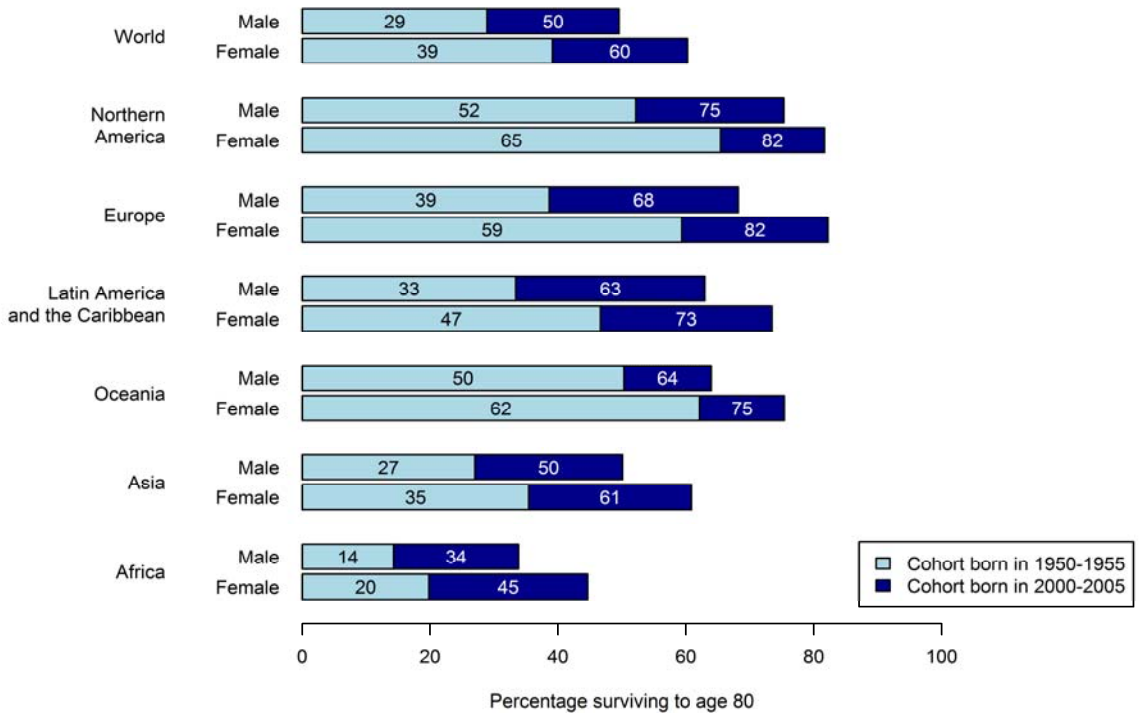
While the life expectancies at birth and at older ages give a useful summary of the mortality risks experienced in a population at a single point in time, the probabilities of survival experienced by different birth cohorts are also instructive on how the mortality risks that people experience over their lifetime differ according to the year and location of birth. Figure III.10 shows the probabilities of survival to ages 60 and 80, estimated for the 1950-1955 birth cohort, whose survivors were between 60 and 65 years old in 2015, as well as those projected for the 2000-2005 birth cohort, whose survivors were just 10 to 15 years old in 2015 and will celebrate their sixtieth birthdays in 2060-2065, if they survive to this age.

A majority of the 1950-1955 birth cohort survived to age 60 in all regions except Africa, where just 45 per cent of women and 39 per cent of men lived to reach 60 years of age. Of those born in 1950-1955, women born in Northern America were the most likely to survive to age 60 (89 per cent), followed by women in Europe and Oceania (82 per cent), men in Northern America (81 per cent), men in Oceania (77 per cent), and women in Latin America and the Caribbean (70 per cent).

Among the 2000-2005 birth cohort, however, projections indicate that more than 8 in 10 men and women will survive to age 60 in every region but Africa, and the probability of survival to age 60 will exceed 90 per cent among women in Latin America and the Caribbean and Oceania, as well as among both women and men in Europe and Northern America. Substantial increases in survival to age 60 are projected for Africa: of those born in the region in 2000-2005, 72 per cent of women and 67 per cent of men are projected to survive to age 60.

Figure III.10.
Probability of survival to ages 60 and 80 years among the 1950-1955 and 2000-2005 birth cohorts, by sex, for the world and regions





Data source: Calculated using cohort life tables constructed from United Nations (2017). *World Population Prospects: The 2017 Revision.*

Not only are substantially more people projected to reach old age in the future, but more older people than ever before are projected to survive to age 80 or over. Among those born in 1950-1955, the majority of women in Europe, Northern America and Oceania are projected to survive to age 80, as are slight majorities of men in Northern America and Oceania. In most of the world, however, survival to age 80 is expected to be comparatively rare among those born around the mid-twentieth century. In Latin America and the Caribbean, 47 per cent of women and 33 per cent of men born in 1950-1955 are projected to survive to age 80; in Asia, it's 35 per cent of women and 27 per cent of men; and in Africa, 20 per cent of women and 14 per cent of men.

Projected survival to age 80 among the 2000-2005 birth cohort shows marked improvements in all regions compared to the cohorts born 50 years earlier. Among the 2000-2005 birth cohort, survival to age 80 is expected to be the norm everywhere but in Africa. Around 8 in 10 women born in Europe and Northern America in 2000-2005, are projected to survive to age 80. The probability of survival to age 80 among the 2000-2005 birth cohort also exceeded 70 per cent among women in Latin America and the Caribbean and Oceania and among men in Northern America. While those born in Africa are least likely to survive to advanced older ages, still 45 per cent of women and 34 per cent of men born in Africa during 2000-2005, are projected to live to their eightieth birthday.

The accuracy of projections of life expectancy at older ages will depend on the degree of progress achieved in preventing or postponing mortality caused by many of the diseases associated with old age, in particular, non-communicable diseases (NCDs) such as cardiovascular diseases, cancers, diabetes and respiratory diseases. Table III.4 lists the ten leading causes of death to those aged 60 years or over globally, by sex, for the year 2015.

TABLE III.4. TEN LEADING CAUSES OF DEATH OF THOSE AGED 60 YEARS OR OVER GLOBALLY, BY SEX, 2015

	Males			Females		
	Cause of death	Deaths (thousands)	%	Cause of death	Deaths (thousands)	%
1	Ischaemic heart disease	3 545 283	20.1	Ischaemic heart disease	3 708 354	21.1
2	Stroke	2 440 336	13.9	Stroke	2 828 193	16.2
3	COPD[i]	1 575 380	9.0	COPD[i]	1 311 550	7.5
4	Lung cancer[ii]	919 887	5.2	Alzheimer disease[iii]	972 608	5.6
5	Lower respiratory infections	823 234	4.7	Lower respiratory infections	911 094	5.2
6	Diabetes mellitus	558 075	3.2	Diabetes mellitus	700 998	4.0
7	Alzheimer disease[iii]	547 096	3.1	Hypertensive heart disease	453 076	2.6
8	Tuberculosis	431 954	2.5	Lung cancer[ii]	412 480	2.4
9	Kidney diseases	402 816	2.3	Kidney diseases	412 463	2.4
10	Stomach cancer	370 263	2.1	Breast cancer	304 989	1.7

Data source: World Health Organization (2016). *Global Health Estimates 2015: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2015*. Geneva.

[i] Chronic Obstructive Pulmonary Disease

[ii] includes trachea and bronchus cancers

[iii] and other dementias

Cardiovascular diseases, which include heart diseases and stroke, accounted for the largest proportion of deaths among older persons worldwide in 2015. Ischaemic heart disease was the

leading cause of death among older persons, responsible for one in every five deaths of men and women above age 60. Stroke was the second leading cause of death among older persons, causing 14 per cent of deaths of older men and 16 per cent of deaths of older women. Hypertensive heart disease also ranked among the top 10 causes of death among older women, accounting for 2.6 per cent of deaths of those aged 60 or over.

In addition to cardiovascular diseases, the following conditions also ranked among the nine leading causes of death to both men and women aged 60 years or over globally: chronic obstructive pulmonary disease (COPD), lower respiratory infections, Alzheimer disease (including other dementias), diabetes mellitus, kidney diseases and lung cancer (including trachea and bronchus cancers). The tenth leading cause of death among older men was stomach cancer, while, for older women it was breast cancer.

D. FERTILITY AND MORTALITY AS DETERMINANTS OF TRENDS IN THE PERCENTAGE OF OLDER PERSONS

The contribution of the demographic transition to the increasing share of older persons in a population can be depicted by "population pyramids" that illustrate changes in the size and age structure of a population over time. Figure III.11 contains the population pyramids for three countries—Germany, Mexico and Uganda—corresponding to three points in time in order to illustrate the implications of the fertility and mortality shifts that characterize the demographic transition for changes in the age distribution of the population.

Population ageing is an inevitable consequence of the demographic transition.

The demographic transition began first in Europe and Northern America, where fertility and mortality reductions took place over the past two centuries, contributing to their older population age structures today. In Germany, for example, which ranked third with respect to the percentage of the population aged 60 years or over in 2017 (table II.3), the total fertility rate had already fallen to the replacement level of 2.1 live births per woman in 1950 and continued to decline to 1.5 live births per woman in 2017. The share of older persons nearly doubled over that period, from just under 15 per cent in 1950 to 28 per cent in 2017. Fertility rates in Germany are expected to remain below the replacement level of 2.1 live births per woman over the coming decades, and, by 2050, the percentage aged 60 years or over is projected to climb to 38 per cent.

The demographic transition began later in most of Asia and Latin America and the Caribbean and thus their populations are youthful compared to Europe and Northern America. In 1950, fertility in Mexico stood at 6.7 live births per woman on average and 5 per cent of the population was aged 60 years or over. But starting around 1970, Mexico's level of fertility declined rapidly and by 2017 it was 2.2 live births per woman, and it is projected to fall below replacement and remain below at least through 2050. Fertility decline occurred much faster in Asia and Latin America and the Caribbean than in the more developed regions, thus, the populations of these two regions are ageing more rapidly. The share of Mexico's population aged 60 years or over is projected to more than double from 10 per cent in 2017 to 25 per cent in 2050.

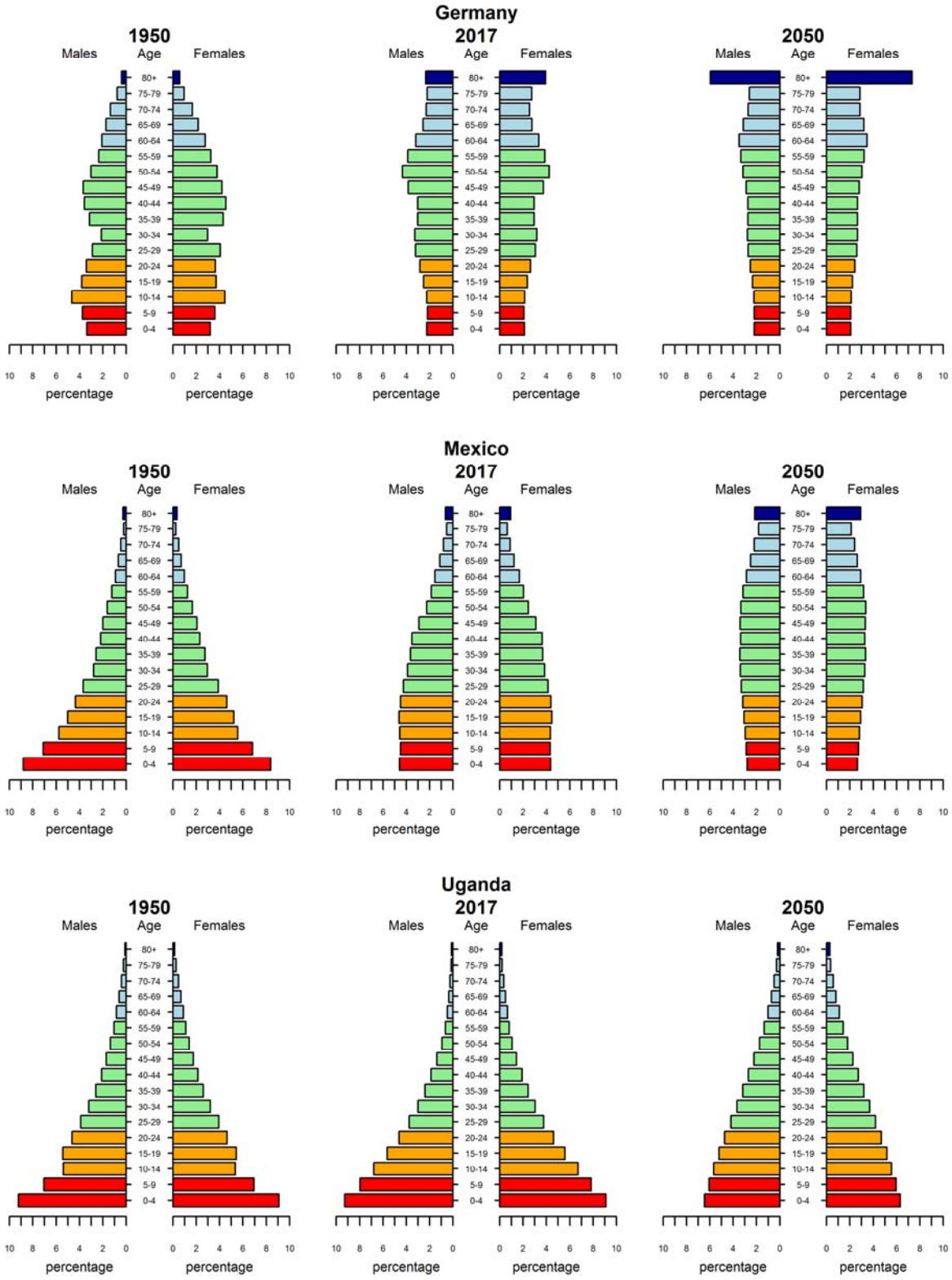
Many countries in Africa remain in the early stages of the demographic transition: some have begun to see reductions in fertility only recently, while others have yet to see a significant decline in fertility. Thus, while the numbers of older persons have grown substantially, their share of the overall population has remained small. Total fertility in Uganda in 2017, for example, was 5.5 live births per woman, still comparatively high although it had fallen from 6.9 live births per woman in 1950. Consequently, there has been little change in the proportion of older persons in Uganda: it decreased slightly, from 4.7 per cent in 1950 to 3.3 per cent in 2017 due in part to the excess mortality caused by HIV/AIDS that emerged during the 1990s. Fertility in Uganda is projected to continue to decline slowly towards 3.2 live births per woman in 2050 and the percentage of the population aged 60 or over is projected to rise gradually, reaching 6 per cent by the mid-century.

The size of the population of older persons over the near term is fairly certain, since: 1) the people who will be aged 60 years or over in 2050 are among today's population aged 25 years or over; and 2) adult mortality risks tend to change slowly over time. The future number of children, however, is less certain, since total fertility rates can shift relatively quickly. Thus, the uncertainty in projecting the future numbers of children also shapes the uncertainty of projecting the proportion of older persons over the medium to long term.

Figure III.12 displays the proportion of the population aged 60 years or over projected in the medium variant, as well as two alternative hypothetical fertility scenarios for three countries with disparate levels of fertility in 2015. The high-fertility scenario illustrates what the proportion of older persons would be if the total fertility rate was 0.5 births per woman higher than in the medium variant projection, while the low-fertility scenario shows that proportion if the fertility rate was 0.5 births per woman lower than in the medium variant projection.

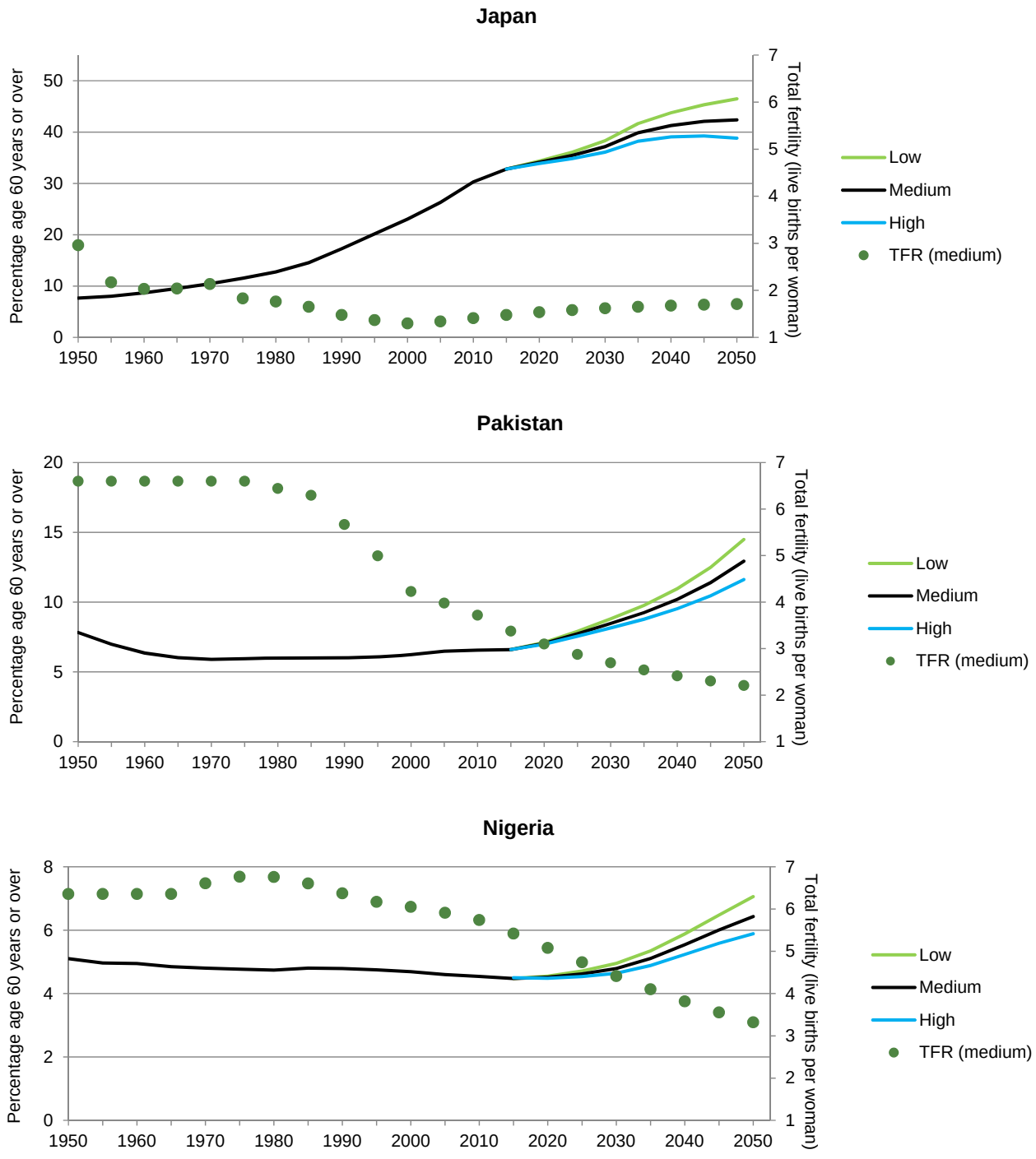
In Japan, where total fertility averaged 1.5 live births per woman in 2015, the population has aged rapidly over the past 65 years, from 8 per cent aged 60 years or over in 1950 to 33 per cent in 2015. According to the medium variant projection, fertility in Japan will remain well below the replacement level of 2.1 children per woman and Japan's population will continue to age, reaching 37 per cent aged 60 years or over in 2030 and 42 per cent in 2050. However, if future fertility differs from the medium variant, the population ageing process in Japan could be accelerated or slowed. If future total fertility is 0.5 births per woman lower than the medium variant projection, the proportion aged 60 years or over in 2050 will be 4 percentage points higher, at close to 47 per cent, while if it is 0.5 births per woman higher than the medium variant projection, the proportion of older persons in 2050 will be more than 3 percentage points lower, at 39 per cent. However, since both the high- and low-fertility scenarios fall well outside the 95 per cent prediction interval associated with probabilistic projections of total fertility in Japan (data not shown), deviation of this magnitude from the medium variant projection of the proportion of older persons is highly unlikely.

Figure III.11.
Population age structure in Germany, Mexico and Uganda, 1950, 2017 and 2050



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

Figure III.12.
Percentage aged 60 years or over under three fertility projection scenarios, and medium variant total fertility rate (TFR), Japan, Pakistan and Nigeria from 1950 to 2050*



Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

* "Medium" refers to the medium variant projection. "Low" refers to a projected fertility scenario in which total fertility is 0.5 children per woman lower than the medium variant projection, while "High" refers to a projected fertility scenario in which total fertility is 0.5 children per woman higher than the medium variant projection.

In countries where the total fertility has been higher than that of Japan and the pace of population ageing slower, variations in projected fertility of 0.5 births per woman in either direction will yield smaller changes to the projected proportion of older persons in 2050. In Pakistan, for example, total fertility remained above six live births per woman until 1990 when birth rates began to fall precipitously, reaching 3.4 births per woman in 2015. Reflecting historically high fertility levels, the proportion aged 60 years or over in Pakistan declined somewhat between 1950 and 1970, from close to 8 per cent to just under 6 per cent, and has risen only slightly since then to 6.6 per cent in 2015. Recent fertility declines are projected to yield accelerated population ageing in Pakistan in the coming decades, however, with the proportion of older persons expected to increase to 8.5 per cent in 2030 and to close to 13 per cent in 2050. Projection scenarios with a trajectory of the total fertility rate of 0.5 births per woman lower or higher than the medium variant result in projected proportions aged 60 years or over in 2050 for Pakistan that range from 11.6 per cent in the high-fertility scenario to 14.5 per cent in the low fertility scenario. Unlike for Japan, the high- and low-fertility scenarios for Pakistan fall within the 95 per cent prediction interval of the probabilistic projections of total fertility, but at the margins of the 80 per cent prediction interval.

Fertility decline in Nigeria began relatively recently and, thus, the country has not yet experienced an increase in the proportion of older persons. In 2015, 4.5 per cent of Nigeria's population was aged 60 years or over and that proportion is projected to change only slightly (to 4.8 per cent) through 2030. By 2050, however, the proportion of older persons in Nigeria is expected to commence significant growth reaching 6.4 per cent in the medium variant projection, 7.1 per cent if total fertility falls to 0.5 births per woman lower than the medium variant, or 5.9 per cent if total fertility declines less rapidly, to a level that is 0.5 births per woman higher than in the medium variant. Higher fertility in Nigeria is also associated with greater uncertainty in projected future fertility. Both the high- and low-fertility scenarios fall well within the 80 per cent prediction interval associated with the probabilistic projections of total fertility for Nigeria.

E. INTERNATIONAL MIGRATION AND POPULATION AGEING

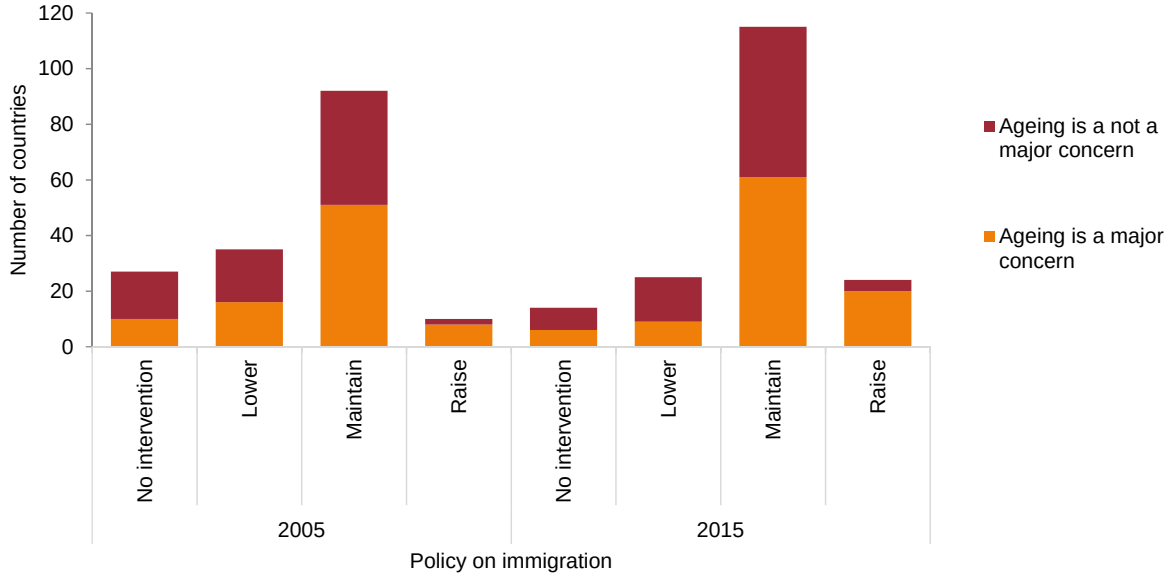
While declining fertility and increasing longevity are the key drivers of population ageing globally, international migration has also contributed to changing population age structures in some countries and regions. International migration can slow the ageing process in countries that are experiencing large immigration flows, at least temporarily, since migrants tend to be in the young working ages. However, migrants who remain in the country, will age eventually into the older population. Thus, over the long term, only sustained large flows of young immigrants could slow or reverse population ageing. A United Nations study (2001), concluded that in several European countries, as well as Japan, the Republic of Korea and the United States of America, levels of immigration would need to be much higher than had been observed in the past in order for international migration to offset population ageing, and thus replacement migration alone was unlikely to be an effective policy response to population ageing. Other studies also have concluded that the levels of international migration required to offset population ageing are implausible (see, for example, Bijak and others, 2007).[14]

[14]This conclusion may soon be challenged by recent experience in Europe, where current evidence suggests that flows of migrants, refugees and asylum seekers from the Middle East and Africa are reaching historically unprecedented magnitudes (OECD, 2015a, http://www.oecd.org/migration/Is-this-refugee-crisis-different.pdf).

Despite these conclusions, there is some evidence that countries are increasingly turning to international migration as a means of expanding the size of their labour force in the context of an ageing population. The number of countries with policies to increase rates of immigration has been rising steadily over time from 8 in 1996 to 11 in 2005 and to 24 in 2015. Among those countries enacting policies to raise their level of immigration, most have identified population ageing as a "major concern" (figure III.13). In 2015, population ageing was cited as a major concern by 20 of the 24 countries (83 per cent) with policies to raise immigration levels (United Nations, 2016).

Over time, the number of countries seeking to maintain their levels of immigration also has increased (from 104 in 2005 to 120 in 2015), while the number seeking to lower levels of immigration has declined (from 43 in 2005 to 25 in 2015). Half of the countries with policies to maintain levels of immigration in 2015 had identified population ageing as a major concern.

Figure III.13.
Distribution of countries according to the policy on immigration and level of concern about population ageing, in 2005 and 2015



Data source: United Nations (2016). *World Population Policies* Database 2015.
*In 2005, 30 out of 194 countries have no data available on concerns about population ageing. In 2015, 12 countries out of 196 countries have no data available on concerns about populations ageing and 6 countries have no official policy on immigration.

Meanwhile, countries that experience high emigration of young workers have seen an acceleration in the population ageing process; particularly in Eastern Europe, where increasing access to European Union labour markets as well as the economic crisis that began in 2008 have contributed to large emigration flows. In Lithuania, for example, net emigration over the 2000s was equivalent to 13 per cent of the population, while in Latvia and Estonia it was 9 and 6 per cent, respectively (OECD, 2013). Young people aged 20 to 35 years, accounted for a disproportionate share of emigrants from these countries (OECD, 2013), thereby contributing to intensified population ageing there. Between 2000 and 2017, the share of older persons in Lithuania grew from 19 to 25 per cent and in both Latvia and Estonia from 21 to 26 per cent.

Looking to the near future, international migration is projected to have only small effects on the pace of population ageing in most countries. The magnitude of the impact of international migration on projected trends in population ageing can be understood through a comparison of the projected proportion of the population aged 60 years or over in 2030 according to the "medium variant" to the projected proportion aged 60 years or over according to a "zero-migration" scenario. The medium variant reflects median projected future levels of fertility and mortality rates, as well as future migration levels that take into account levels and trends in migration observed in each country during the recent past. The zero-migration scenario considers what the future population would be under the medium-variant fertility and mortality levels, but in the absence of any international migration. In 187 out of 201 countries or areas with at least 90,000 inhabitants in 2015, the difference in the percentage aged 60 years or over in 2030 between the medium-variant and zero-migration scenarios amounts to less than 1 percentage point.

TABLE III.5. COUNTRIES OR AREAS WHERE INTERNATIONAL MIGRATION IS PROJECTED TO SLOW POPULATION AGEING BY AT LEAST 1 PERCENTAGE POINT BY 2030

	Percentage of population aged 60 years or over			
		Medium variant projection	Zero migration scenario	Difference between medium variant and zero migration
County	2017	2030	2030	
United Arab Emirates	2.4	8.1	13.6	-5.5
Bahrain	4.6	9.2	13.8	-4.6
Luxembourg	19.6	24.6	28.8	-4.1
Qatar	2.8	8.6	12.2	-3.6
Kuwait	4.9	12.1	15.1	-3.0
China, Macao SAR	16.1	26.2	29.0	-2.9
Australia	21.0	24.6	27.2	-2.6
Switzerland	24.1	30.6	33.1	-2.4
Canada	23.5	29.2	31.6	-2.4
Oman	4.0	7.1	9.4	-2.3
China, Hong Kong SAR	23.5	32.9	35.0	-2.1
Channel Islands	24.5	31.1	33.2	-2.1
Norway	22.3	26.3	28.4	-2.1
Germany	28.0	34.7	36.4	-1.7
Equatorial Guinea	4.4	4.2	5.7	-1.5
Sweden	25.5	28.3	29.8	-1.5
Singapore	19.5	30.6	31.9	-1.3
Saudi Arabia	5.6	11.0	12.3	-1.2
Finland	27.8	31.0	32.2	-1.2
Western Sahara	5.4	9.4	10.6	-1.2
Belgium	24.6	29.2	30.4	-1.2
United States of America	21.5	25.9	27.0	-1.1
Denmark	25.3	29.4	30.6	-1.1
Austria	25.1	32.4	33.5	-1.1
United Kingdom	23.9	28.3	29.4	-1.1
Curaçao	22.9	29.1	30.2	-1.1
New Caledonia	14.2	19.1	20.2	-1.0

Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

Net migration is projected to slow population ageing in 27 of the countries or areas where projected net migration implies a greater than one point difference in the percentage of the population aged 60 years or over in 2030 (table III.5). In the remaining 14 countries, net migration is expected to actually accelerate population ageing between 2017 and 2030 (table III.6). Labour migration to the Gulf States of Bahrain, Kuwait, Qatar and the United Arab Emirates is projected to counter population ageing trends so that the projected percentage of the population aged 60 years or over in 2030 is substantially lower than it would be if no migration were to take place. In Qatar, for example, the medium variant projection indicates that 8.6 per cent of the population will be aged 60 years or over in 2030, but 12.2 per cent if no migration were to take place between 2017 and 2030. In the United Arab Emirates, older persons are projected to account for 8.1 per cent of the population in 2030 according to the medium variant projection, but 13.6 per cent in the absence of migration.

Other populations that receive a large number of migrants in the working ages are also projected to see slower population ageing as a result, these include Luxembourg, Macao, Australia, Switzerland, Canada, the Channel Islands, Hong Kong, special administrative region of China, and Norway, where the percentage aged 60 years or over is projected to be more than 2 percentage points lower in 2030 than it would be in the absence of migration. Migration has the largest impact on the pace of population ageing in Luxembourg: if there was no net migration to Luxembourg, the projected percentage of persons aged 60 years or over in 2030 would be 28.8 per cent instead of the 24.6 per cent projected in the medium variant.

TABLE III.6. COUNTRIES OR AREAS WHERE INTERNATIONAL MIGRATION IS PROJECTED TO ACCELERATE POPULATION AGEING BY AT LEAST 1 PERCENTAGE POINT BY 2030

Country	Percentage of population aged 60 years or over			Difference between medium variant and zero migration
	2017	Medium variant projection 2030	Zero migration scenario 2030	
Martinique	25.7	35.4	34.4	1.0
Albania	19.0	26.6	25.6	1.0
Réunion	16.4	24.9	23.9	1.0
Saint Vincent and the Grenadines	11.7	18.3	17.2	1.1
Tonga	8.5	10.4	9.3	1.2
Sri Lanka	14.9	21.2	19.9	1.3
Guadeloupe	23.6	32.7	31.4	1.3
Latvia	26.2	30.3	28.9	1.4
Jamaica	13.6	19.0	17.5	1.5
Grenada	10.5	14.3	12.7	1.5
Samoa	8.5	12.3	10.5	1.8
United States Virgin Islands	25.3	32.2	30.0	2.1
Barbados	21.0	27.7	25.4	2.3
Lebanon	12.0	19.0	16.7	2.3

Data source: United Nations (2017). *World Population Prospects: The 2017 Revision.*

International migration is anticipated to accelerate population ageing in some countries, due to projected net emigration of working aged people, net immigration of older people, or both. Many of the populations that are projected to see ageing accelerated by migration between 2017 and

2030 are located in the Caribbean. In Barbados, for example, the proportion aged 60 years or over in 2030 is projected to reach 27.7 per cent in the medium variant, compared to 25.4 per cent with no migration. Guadeloupe is projected to see a 32.7 per cent in the proportion aged 60 years or over in 2030, compared to 31.4 per cent with no migration. Other countries outside of the Caribbean region such as, Lebanon, Samoa, Albania, Latvia, Tonga, Sri Lanka and Réunion, are also projected to see population ageing accelerated as a result of net emigration.

IV. Patterns and trends in the living arrangements of older persons

The reductions in fertility and mortality that drive population ageing do not occur in isolation. These shifts, which characterize the demographic transition, are embedded in the broader context of human development, including increasing incomes, urbanization and migration, as well as changing patterns of cohabitation, marriage and divorce. Each of these trends has been associated with a shift in the composition of families and households, particularly in the more developed regions, whereby nuclear-family households consisting of only a couple and their unmarried children, or very small households with only one or two members, have become more common, and traditional extended-family households have become comparatively rare (Ruggles, 2001). Recent evidence indicates that many countries of the less developed regions are also experiencing a shift in family and household composition, if not to the same degree as has been observed in the more developed regions (United Nations, 2017b).

Trends in household composition and intergenerational households hold important implications for the living arrangements of older persons, which are influenced by demographic and social conditions, as well as cultural norms and preferences. In 2002, the Madrid International Plan of Action on Ageing (MIPAA) identified older persons' living arrangements as one of the topics requiring greater research attention. Heeding that call, in 2005, the United Nations Population Division published the most comprehensive study to date on older persons' households. It documented the high prevalence of solitary or couple-only households in Europe and Northern America and the predominance of intergenerational co-residential households in Africa, Asia and Latin America and the Caribbean (United Nations, 2005). That study also offered cautious evidence of a global trend towards independent living among older persons—living alone or with a spouse only—at the expense of co-residence with children or other relatives, but the analysis of trends was constrained by the limited data available for many countries.

Since the publication of that study just over a decade ago, the Population Division has expanded the global evidence base on the living arrangements of older persons, adding estimates for more countries and time periods than were available before (United Nations, 2017d), and has assembled those estimates into an online interactive database, the *United Nations Database on the Living Arrangements of Older Persons 2017*. [1]

Drawing on the information in that database, this chapter summarizes the latest evidence on the global and regional patterns of older persons' household living arrangements—whether living alone, with a spouse only, with children, or in another household arrangement—and describes how those patterns have changed over time. In addition, this chapter summarizes the differences in patterns of older persons' living arrangements by sex and age. The chapter concludes with a brief discussion on what the recent trends in the living arrangements of older persons imply for intergenerational ties and individuals' well-being, as well as the importance of considering household contexts in the design of policies and systems to ensure that older persons and their families are adequately supported in ageing societies. Results provide further evidence that the

[1] https://population.un.org/LivingArrangements/index.html

trend towards independent living and away from intergenerational co-residence is occurring in all regions.[2] At the same time, the persistent differences in the patterns of older persons' living arrrangements across regions underscore the resilience of traditional family structures in some regions in the wake of the broader demographic, social and economic changes taking place around the world.

A. THE UNITED NATIONS DATABASE ON THE LIVING ARRANGEMENTS OF OLDER PERSONS 2017

Since the 2005 United Nations report, *Living Arrangements of Older Persons Around the World*, a wealth of additional data has been collected that can shed new light on the patterns of older persons' households and the changes that have occurred over time. Key data sources that have become available since 2005 include population censuses—many associated with the 2010 round of decennial censuses—as well as nationally-representative household surveys, whose proliferation in many countries of the less developed regions provides the evidence base for an improved understanding of older persons' living arrangements globally and on the regional and country levels.

Most of the estimates presented in the *United Nations Database on the Living Arrangements of Older Persons 2017* are based on "micro-level" data, obtained at the individual level from primary sources, including microdata samples from the Integrated Public Use Microdata Samples—International (IPUMS-I) project at the University of Minnesota, the Demographic and Health Surveys (DHS) and the Labour Force Surveys (LFS) of the European Union.[3] Additional supplemental data for some countries were obtained from household population tabulations provided by countries to the Demographic Yearbook (DYB) of the United Nations. The database includes estimates of the living arrangements of persons aged 60 years or over—alone, with a spouse only, with their children, or in other household arrangements[4] for 143 countries or areas based on 664 data sources and representing approximately 97 per cent of persons aged 60 years or over globally, with dates ranging from 1960 to 2015. Estimates of living arrangements are disaggregated by sex and age, comparing the household living arrangements of women and men aged 60-79 years to those aged 80 years or over.

[2] The definition of independent living used in this report – living alone or with a spouse only – does not imply an absence of intergenerational transfers between older persons and their children. Similarly, the definition of intergenerational co-residence does not distinguish the direction of support between older persons and their children.

[3] The list of data sources accessed to estimate the living arrangements of older persons for the 2017 database is by no means exhaustive and omits the many censuses for which microdata are not archived with IPUMS-I as well as the many household surveys outside of the DHS and LFS programmes. Future planned updates to the database will add additional data sources as microdata availability and resources permit.

[4] Estimates included in the database are drawn from the household membership reported on the household roster of each data source and thus do not represent older persons residing in non-household or "collective" arrangements, such as health care facilities, prisons or other group quarters. In general, census data indicate that in most countries or areas only a minority of older persons – less than 5 per cent – are not among the household population. Exceptions include Japan and Qatar, where more than 10 per cent of persons aged 60 or over resided in collective living arrangements, as well as Australia, Canada, Hong Kong, Israel, Ireland, the Isle of Man, Luxembourg, Malta, the Netherlands, New Zealand and Switzerland, where more than 5 per cent but less than 10 per cent of older persons resided in collective arrangements. For more detailed information, see United Nations (2017d). *Living arrangements of older persons: report on an expanded international dataset.*

B. PATTERNS OF LIVING ARRANGEMENTS OF OLDER PERSONS CIRCA 2010

The proportion of older persons living independently ranges from a low of 2.3 per cent in Afghanistan to a high of 93.4 per cent in the Netherlands.

The database contains estimates of the proportion of the population aged 60 years or over living independently—either alone or with a spouse only—with a reference year of 2000 or later for 138 countries.[5] Among these, the proportion of persons aged 60 years or over living independently varied widely, ranging from a low of 2.3 per cent in Afghanistan to a high of 93.4 per cent in the Netherlands (figure IV.1, top). Older persons were most likely to be living alone in Lithuania (34 per cent), Finland (33 per cent), the United Kingdom (32 per cent) and Sao Tome and Principe (32 per cent).

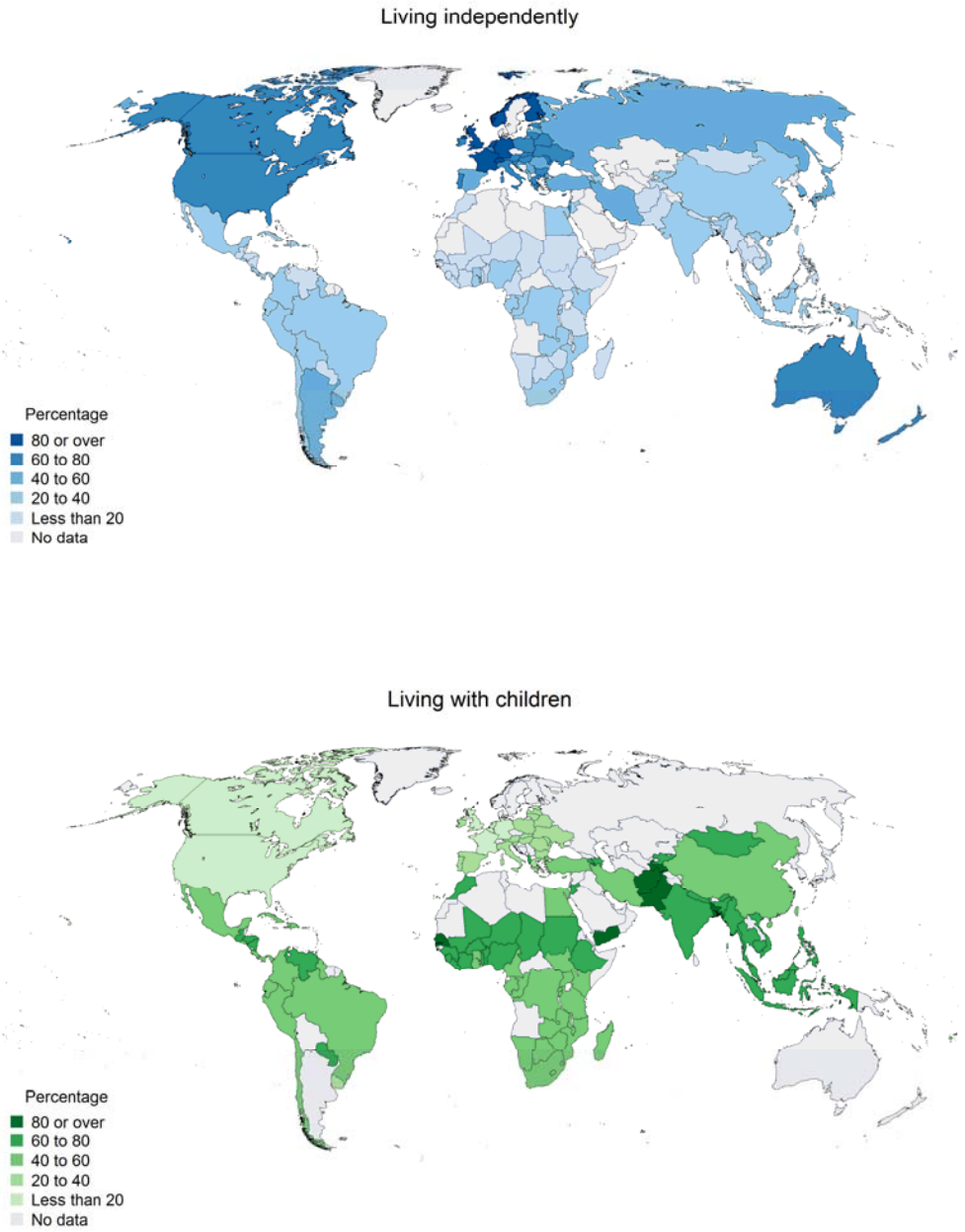
For 116 countries, the data available through IPUMS-I, DHS and LFS permitted estimation of the proportion of older persons co-residing with their children with a reference year of 2000 or later. The estimates revealed great diversity across countries: for instance, in Afghanistan, Tajikistan and Pakistan, more than 90 per cent of persons aged 60 or over co-resided with their children (figure IV.1, bottom), but such arrangements were comparatively rare in both Germany and the Netherlands, where less than 10 per cent of persons aged 60 or over co-resided with their children.

Country-level estimates were aggregated to give approximations of the prevalence of different household living arrangements for older persons globally and across regions and subregions, as well as across groups of countries classified by development group or national income.[6] The results indicated that globally, in the period circa 2010, approximately 40 per cent of persons aged 60 years or over lived independently and stark differences in the prevalence of independent living were observed across regions. More than 70 per cent of older persons in Europe and Northern America lived independently, compared to 33 per cent in Latin America and the Caribbean, 27 per cent in Asia and just 21 per cent in Africa (figure IV.2).[7]

Across the five regions shown in figure IV.2, the proportion of older persons that lived alone circa 2010 was highest in Europe (28 per cent) followed by Northern America (25 per cent), Latin America and the Caribbean (13 per cent), Africa (10 per cent) and Asia (7 per cent). Nearly half the older persons in Europe and Northern America resided in two-person households with only their spouse or partner. Globally, 13 per cent of older persons lived alone circa 2010 and 27 per cent co-resided with a spouse only.

[5] For five countries, the most recent available data on the living arrangements of older persons referenced a year prior to 2000. For comparative purposes, this discussion is restricted to those countries with data referencing the year 2000 or later.
[6] Estimates of the living arrangements of persons aged 60 years or over for groups of countries, aggregated according to region, subregion, income, and development groups are averages across countries or areas with data, weighted according to the sex-specific population aged 60 years or over in 2010 as estimated in the *2017 Revision* of *World Population Prospects*. Estimates are presented in the text and annex table only when the available living arrangements data for a group represent at least two thirds of the population aged 60 years or over in 2010.
[7] Estimates for Oceania are not shown because the available country-level data represent less than two-thirds of the population aged 60 years or over in the region.

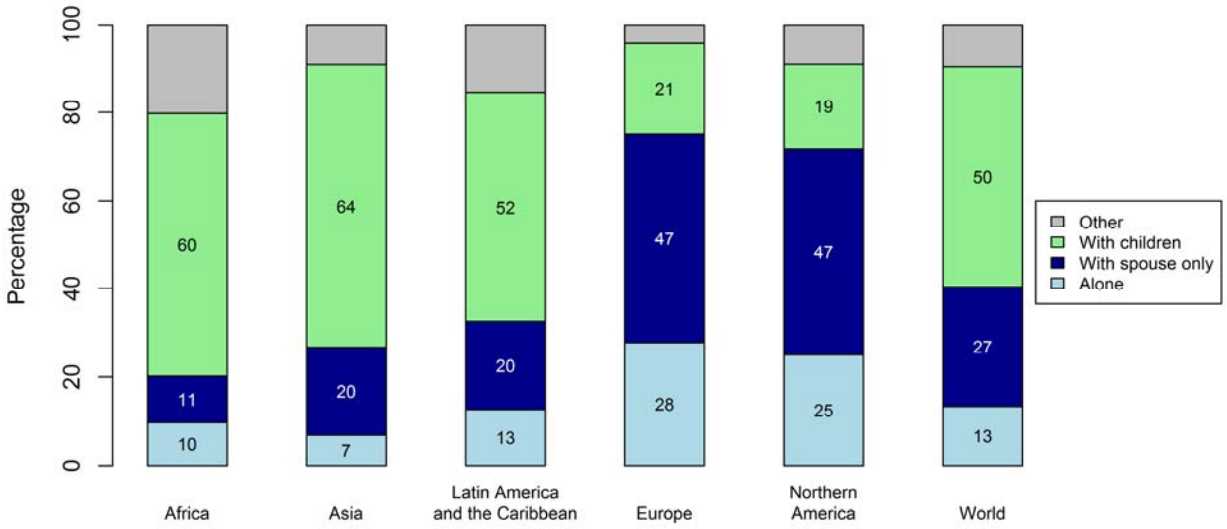
Figure IV.1
Percentage of persons aged 60 or over residing independently (top) or with children (bottom), most recent data available since 2000



Data source: United Nations Database on the Living Arrangements of Older Persons 2017.
The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. The final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

Figure IV.2

Distribution (percentage) of persons aged 60 years or over by type of household living arrangement for the world and regions, circa 2010



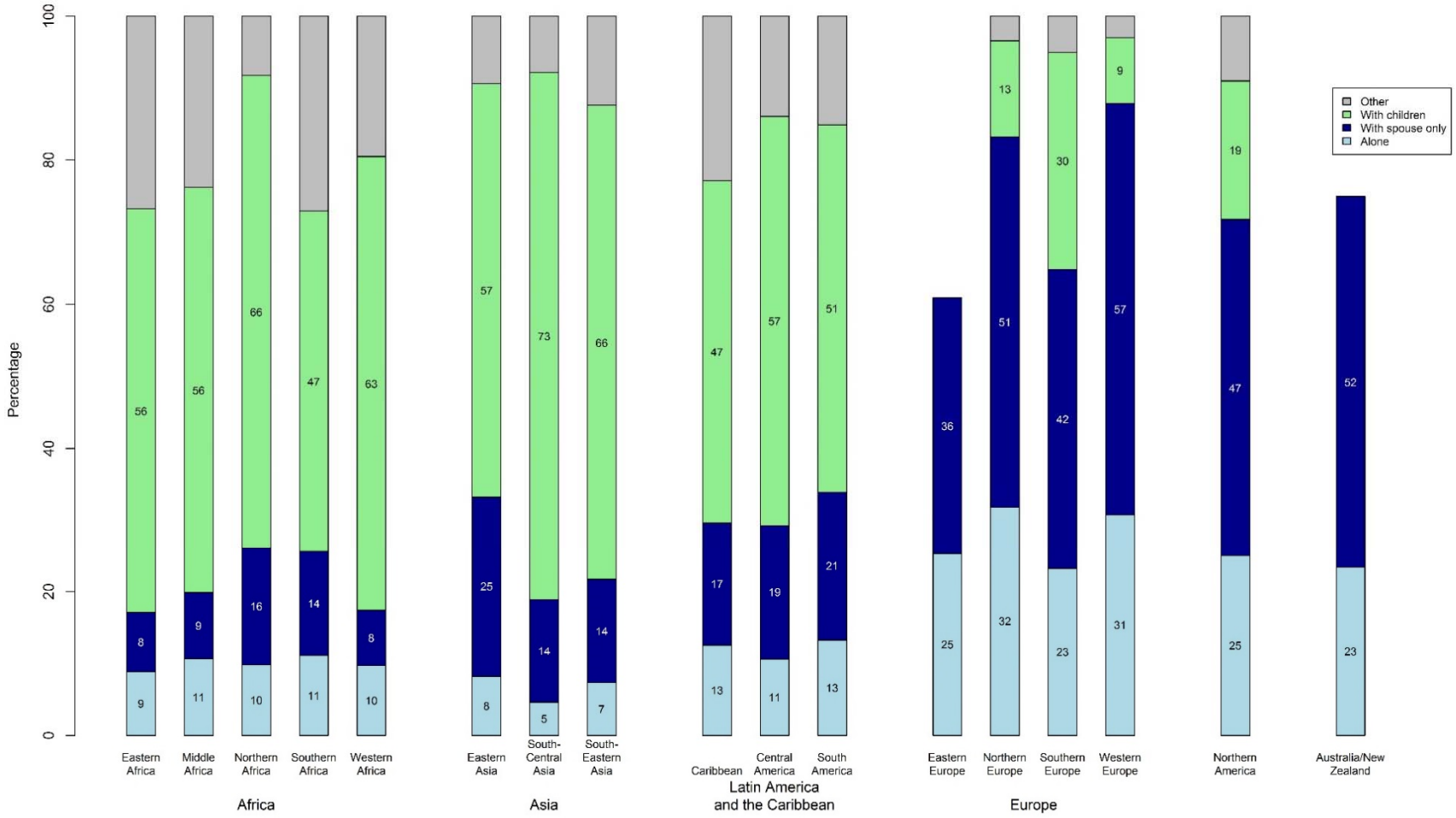
Data source: United Nations Database on the Living Arrangements of Older Persons 2017.

At the world level, half the persons aged 60 years or over co-resided with at least one of their children circa 2010. Co-residence with children was the most common living arrangement among older persons in Asia, with 64 per cent of persons aged 60 or over in the region. The majority of older persons co-resided with their children in Africa and Latin America and the Caribbean as well (60 and 52 per cent, respectively). By contrast, in Europe and Northern America, fewer than one in four older persons co-resided with a child.

Substantial variation in the living arrangements of persons aged 60 years or over was evident in some regions as well. Figure IV.3 displays the distribution of older persons' living arrangements across the world's subregions, organized by major region. Across the five subregions of Africa, the proportion of older persons living independently was highest in Northern Africa, at 26 per cent, and lowest in Eastern Africa, at 17 per cent. Northern Africa also had the highest proportion of older persons co-residing with children (66 per cent) of the five African subregions. In the other subregions, the proportion of persons aged 60 years or over that lived in "other" household arrangements was relatively high: more than a quarter of older persons in both Eastern and Southern Africa circa 2010 were living in households that could be described as neither independent nor with their children.

Across the three subregions of Asia where data permited the estimation of the distribution of older persons according to type of household living arrangement, independent living was most common in Eastern Asia (33 per cent) and least common in South-Central Asia (19 per cent). Of all the world's subregions, co-residence with children was most common in South-Central Asia (73 per cent), followed by South-Eastern Asia (66 per cent).

Figure IV.3
Distribution (percentage) of persons aged 60 years or over by type of household living arrangement for subregions,* circa 2010



Data source: United Nations Database on the Living Arrangements of Older Persons 2017.

* Estimates of older persons' living arrangements for Western Asia, Melanesia, Micronesia and Polynesia and of the share of older persons co-residing with children in Eastern Europe are not shown because the available country-level data represented less than two thirds of the population aged 60 years or over in those subregions. Data sources accessed for the database do not permit estimation of the proportion of older persons co-residing with children in Australia/New Zealand.

The proportion of older persons living independently was similar in the Caribbean and Central America subregions, at approximately 30 per cent, and somewhat higher in South America, at 34 per cent. Of the three subregions of Latin America and the Caribbean, the proportion of older persons residing with their children was highest in Central America (57 per cent), followed by South America (51 per cent). Less than half of older persons in the Caribbean were co-residing with their children circa 2010 and nearly 23 per cent had a household arrangement that was neither independent nor with children.

Within Europe, older persons' living arrangements in the Northern and Western subregions diverged markedly from those in the Eastern and Southern subregions. In Northern Europe, 83 per cent of persons aged 60 years or over lived independently circa 2010 and that proportion was even higher in Western Europe, at 88 per cent. In both Northern and Western Europe, nearly one in three older persons lived alone circa 2010. Independent living was comparatively less common for older persons in Eastern and Southern Europe, at 61 and 65 per cent, respectively. The share living alone was still high in these two subregions compared to many other regions outside of Europe, at around one in four older persons, but the proportion living with a spouse only in Eastern and Southern Europe was notably lower than in Northern and Western Europe.

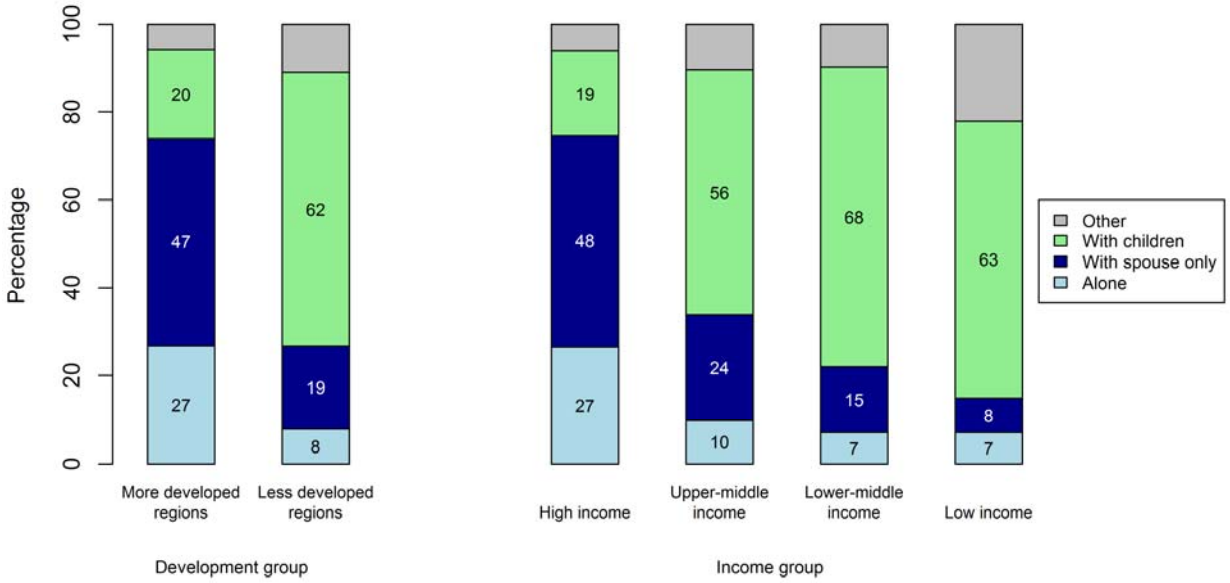
Within Europe, co-residence with children was unusual in the Western and Northern subregions, at 9 and 13 per cent respectively, and relatively common in the Southern subregion, at 30 per cent. Available data did not permit estimation of older persons' co-residence with children in Eastern Europe because the country-level data represented less than two thirds of older persons in the subregion. The data sources accessed for this analysis did not permit estimation of co-residence with children in Australia/New Zealand, where the available data indicated that most persons aged 60 or over lived independently circa 2010: 23 per cent lived alone and 52 per cent with a spouse only.

Older persons' living arrangements are strongly associated with countries' income levels.

Estimates of older persons' living arrangements aggregated according to development group and income group of countries or areas are presented in figure IV.4. In the more developed regions, more than 70 per cent of older persons lived independently circa 2010, whereas only 20 per cent co-resided with their children. By contrast, in the less developed regions just 27 per cent of older persons lived independently, whereas 62 per cent co-resided with their children.

A strong income gradient in the living arrangements of older persons is observed. The proportion living independently was highest in high-income countries, at 75 per cent, and declined to 34 per cent in upper-middle-income countries, 22 per cent in lower-middle-income countries, and 15 per cent in low-income countries. Across the four income groups, the proportion of older persons co-residing with their children was highest in lower-middle-income countries, at 68 per cent, and lowest in high-income countries, at 19 per cent. In low-income countries, most of which are in sub-Saharan Africa, 63 per cent of older persons co-resided with their children circa 2010 and the proportion residing in "other" household arrangements was relatively high, at 22 per cent.

Figure IV.4
Distribution (percentage) of persons aged 60 years or over by type of household living arrangement for development groups and income groups, circa 2010



Data source: United Nations Database on the Living Arrangements of Older Persons 2017.

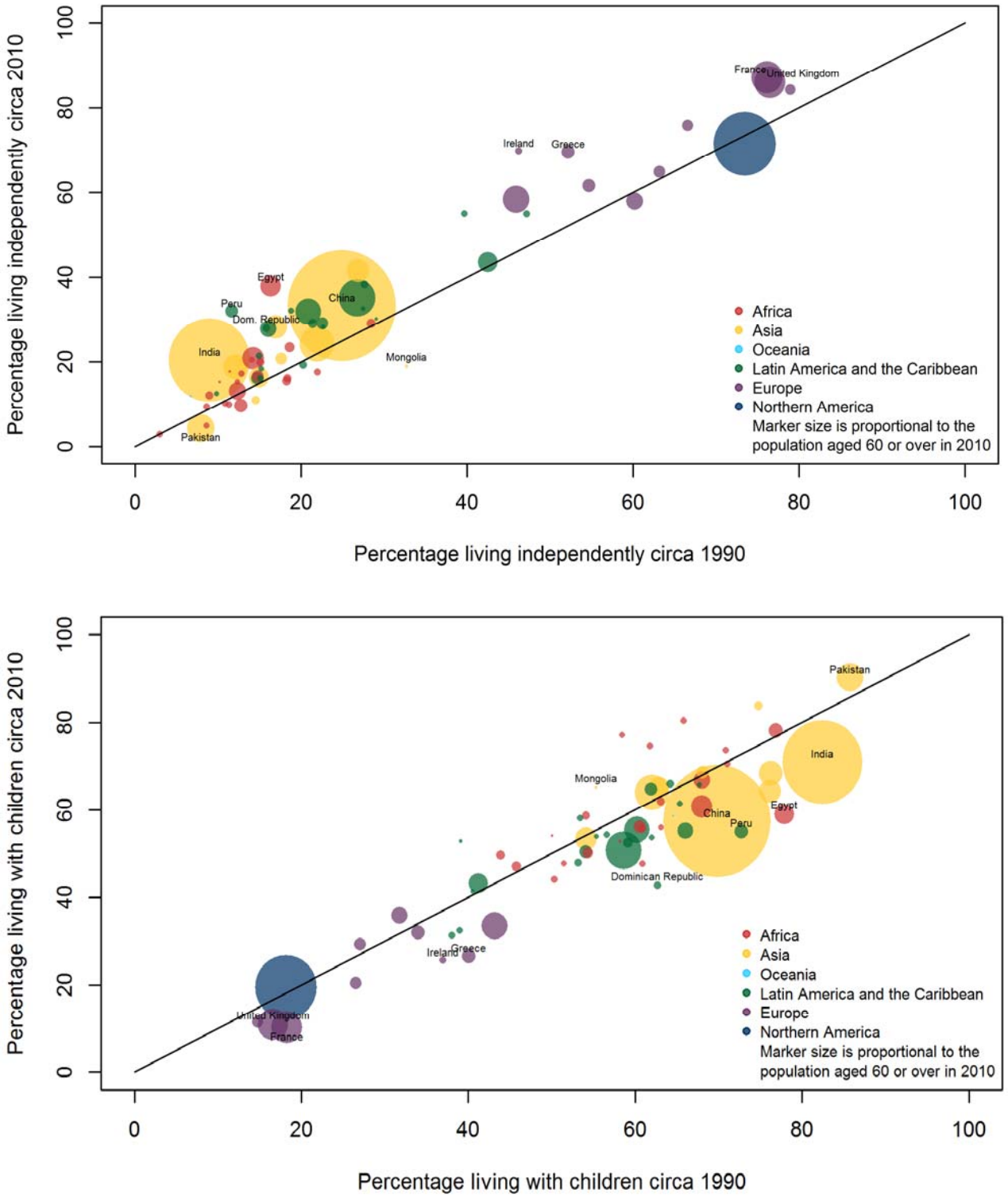
C. TRENDS IN THE LIVING ARRANGEMENTS OF OLDER PERSONS

Over time, older persons have become more likely to live independently, as co-residence with children has become less common.

A dearth of globally representative historical data on the living arrangements of older persons challenges efforts to evaluate trends over time. However, for 67 countries or areas, representing 71 per cent of the global population aged 60 years or over in 2010, the available data allowed for comparisons of the period circa 1990 to the period circa 2010. Those estimates indicate that in an overwhelming majority of countries, older persons have become more likely to live independently and less likely to co-reside with their children (figure IV.5). Across the 67 countries, the proportion of persons aged 60 years or over living independently increased by an median of 5 percentage points, while the proportion living with their children decreased by a median of 3 percentage points.

Particularly substantial changes in older persons' living arrangements were observed in Ireland, where the proportion of those aged 60 years or over living independently increased from 46 per cent in 1991 to more than 60 per cent in 2011. Egypt also saw a major shift in older persons' living arrangements: the proportion of those aged 60 years or over living independently more than doubled, from 16 per cent in 1992 to 38 per cent in 2014. Numerous other countries experienced more than a 10-percentage point increase in the proportion of older persons living independently, including: Bolivia, Colombia, Costa Rica, the Dominican Republic, France, Greece, Mexico, Peru,

Figure IV.5
Percentage of persons aged 60 years or over living independently (top chart) or with their children (bottom chart), circa 1990and circa 2010



Data source: United Nations Database on the Living Arrangements of Older Persons 2017

Spain, Uruguay and Viet Nam. For 14 countries, estimates indicated that older persons became less likely to live independently between the period circa 1990 and that circa 2010. Of these, the largest changes were observed in Mongolia, where the proportion of older persons living independently decreased from 33 per cent in 1989 to 19 per cent in 2000, and in Pakistan, where the share living independently fell from 8 per cent in 1990-91 to 4 per cent in 2012-13.

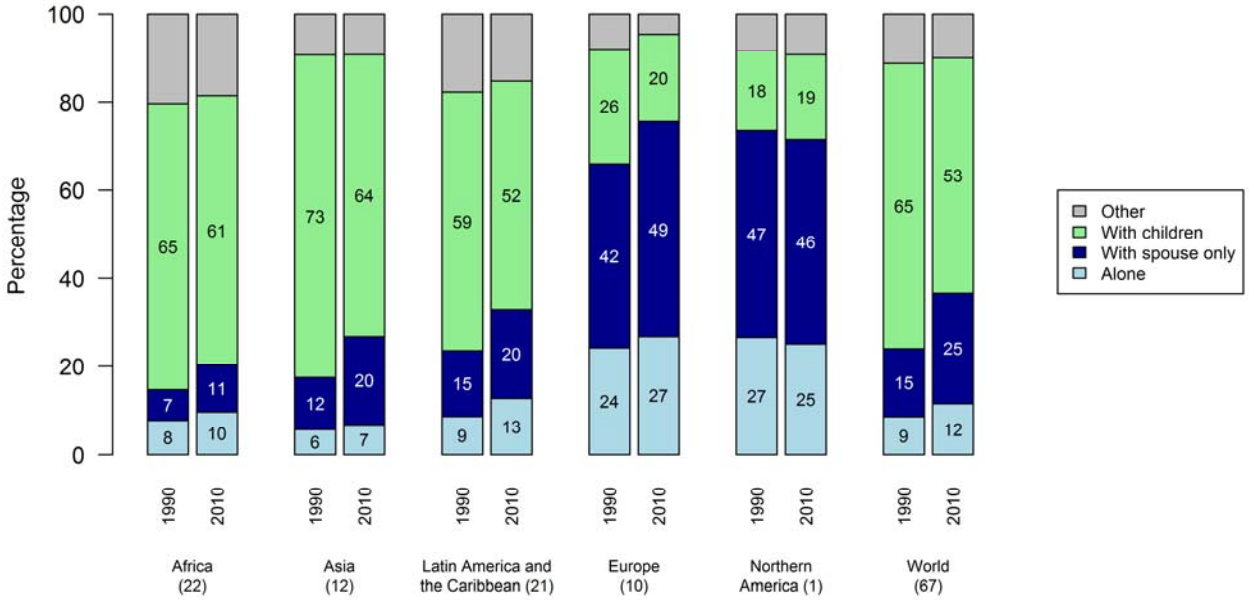
Almost two thirds of the 67 countries experienced a decline in the share of older persons that co-resided with their children from the period circa 1990 to that circa 2010. The Dominican Republic experienced the steepest decline, from 63 per cent in 1991 to 43 per cent in 2013, followed by Egypt, from 78 per cent in 1992 to 59 per cent in 2014, and Peru, where the proportion of those aged 60 years or over co-residing with children fell from 73 per cent in 1991-92 to 55 per cent in 2012. China and India together were home to over one third of the world's persons aged 60 years or over in 2017 and thus are highly influential to trends estimated for the world and the Asia region. Both countries experienced substantial declines in the proportion of older persons that co-resided with children. In China, the share of older persons co-residing with their children fell from 70 per cent in 1990 to 57 per cent in 2000. In India, that share declined from 75 per cent in 1987 to 71 per cent in 2009. In some countries, the proportion of older persons that co-resided with their children increased substantially between the period circa 1990 and the period circa 2010. That increase amounted to more than 10 percentage points in Guinea, Mali, Senegal and Trinidad and Tobago.

The weighted averages across all 67 countries or areas[8] with living arrangements data available circa both 1990 and 2010 indicated that the proportion of older persons that lived independently globally rose by about 13 percentage points over that period, from 24 to 37 per cent (figure IV.6). The increase in independent living was concurrent with a decline in the proportion of the world's older persons who co-resided with their children from 65 per cent circa 1990 to 53 per cent circa 2010.

Substantial changes in the living arrangements of older persons took place in several regions. In Asia, the proportion that lived independently increased by 9 percentage points, from 18 per cent circa 1990 to 27 per cent circa 2010, while the proportion that co-resided with their children decreased by the same amount, from 73 per cent to 64 per cent. Latin America and the Caribbean saw the largest increase in the proportion of older persons who lived alone, from 9 per cent circa 1990 to 13 per cent circa 2010, while the proportion who lived with a spouse only also increased from 15 to 20 per cent and the proportion that co-resided with their children declined from 59 to 52 per cent. The prevalence of independent living also increased markedly among older persons in Europe, from 66 per cent circa 1990 to 76 per cent circa 2010, largely reflecting a sizable increase in the proportion residing with a spouse only from 42 to 49 per cent.

[8] The 67 countries include 22 in Africa (Botswana, Burkina Faso, Cameroon, Egypt, Ethiopia, Ghana, Guinea, Cote d'Ivoire, Kenya, Madagascar, Malawi, Mali, Morocco, Namibia, Niger, Nigeria, Rwanda, Senegal, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe); 12 in Asia (Bangladesh, China, India, Indonesia, Malaysia, Mongolia, Pakistan, the Philippines, Thailand, Turkey, Viet Nam and Yemen); 10 in Europe (Austria, France, Greece, Hungary, Ireland, Portugal, Romania, Spain, Switzerland and the United Kingdom); 21 in Latin America and the Caribbean (Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Trinidad and Tobago, Uruguay and Venezuela (Bolivarian Republic of)); 1 in Northern America (United States of America); and 1 in Oceania (Fiji).

Figure IV.6
Percentage of persons aged 60 years or over by type of household living arrangement for the world and and regions, circa 1990 and circa 2010



Data source: United Nations Database on the Living Arrangements of Older Persons 2017.
Numbers in ( ) indicate the number of countries or areas represented.

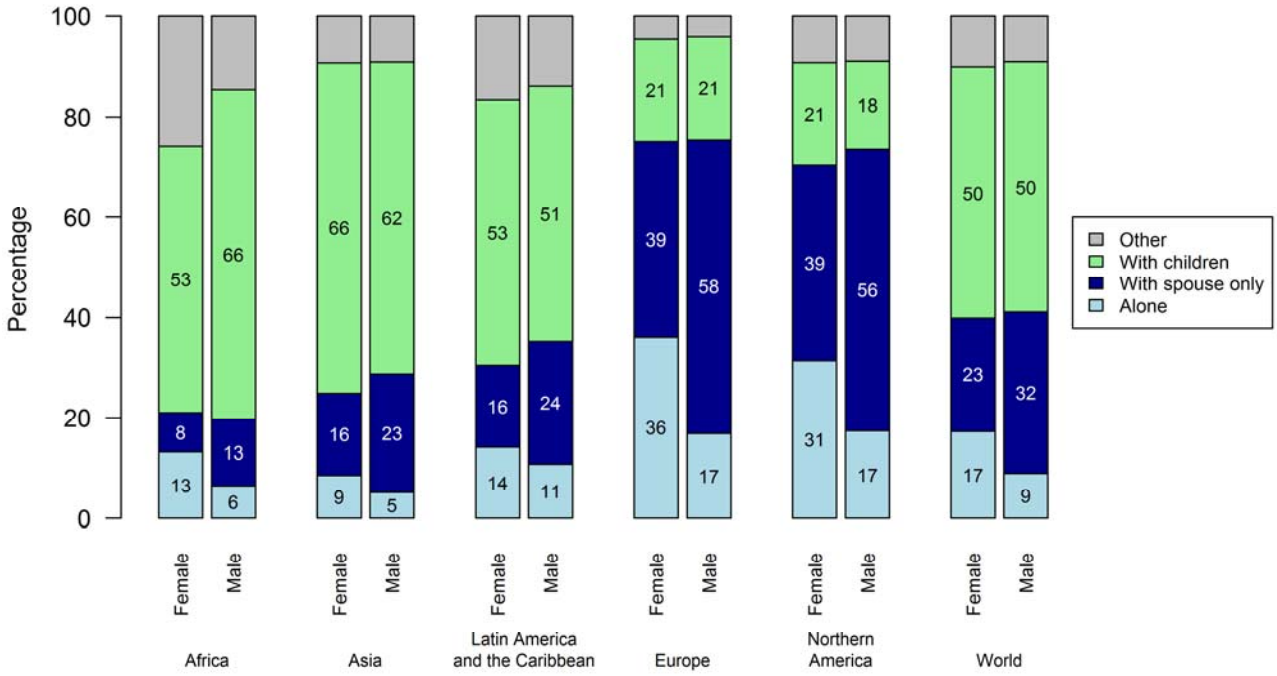
D. GENDER DIFFERENCES IN THE LIVING ARRANGEMENTS OF OLDER PERSONS

Older women are more likely than older men to live alone.

The 2005 UN study identified important differences in older persons' living arrangements by gender, driven in part by women's longer life expectancies in most parts of the world. The newly expanded set of estimates shed additional light on those gender differences and how they have changed over time. At the global level circa 2010, women and men aged 60 years or over were about equally likely to live independently: 40 per cent of older women and 41 per cent of older men (figure IV.7). However, there was a large gender gap in the proportion residing alone: 17 per cent of women aged 60 or over lived alone compared to 9 per cent of men. Older women were more likely than older men to live alone in all regions and the gender gap was especially wide in Africa and Europe, where older women were more than twice as likely as their male counterparts to live alone.

In Africa, circa 2010, co-residence with children was more common for older men than for older women (66 compared to 53 per cent), whereas in the other regions, co-residence with children was as common or slightly more common for older women compared to older men. The gender gap in co-residence with children in Africa reflects the larger proportion of women whose living arrangements could be described as neither independent nor with children: 26 per cent of women aged 60 or over in Africa resided in "other" household arrangements circa 2010, compared to 15 per cent of men in that age group.

Figure IV.7
Distribution (percentage) of men and women aged 60 years or over by type of household living arrangement, for the world and regions, circa 2010



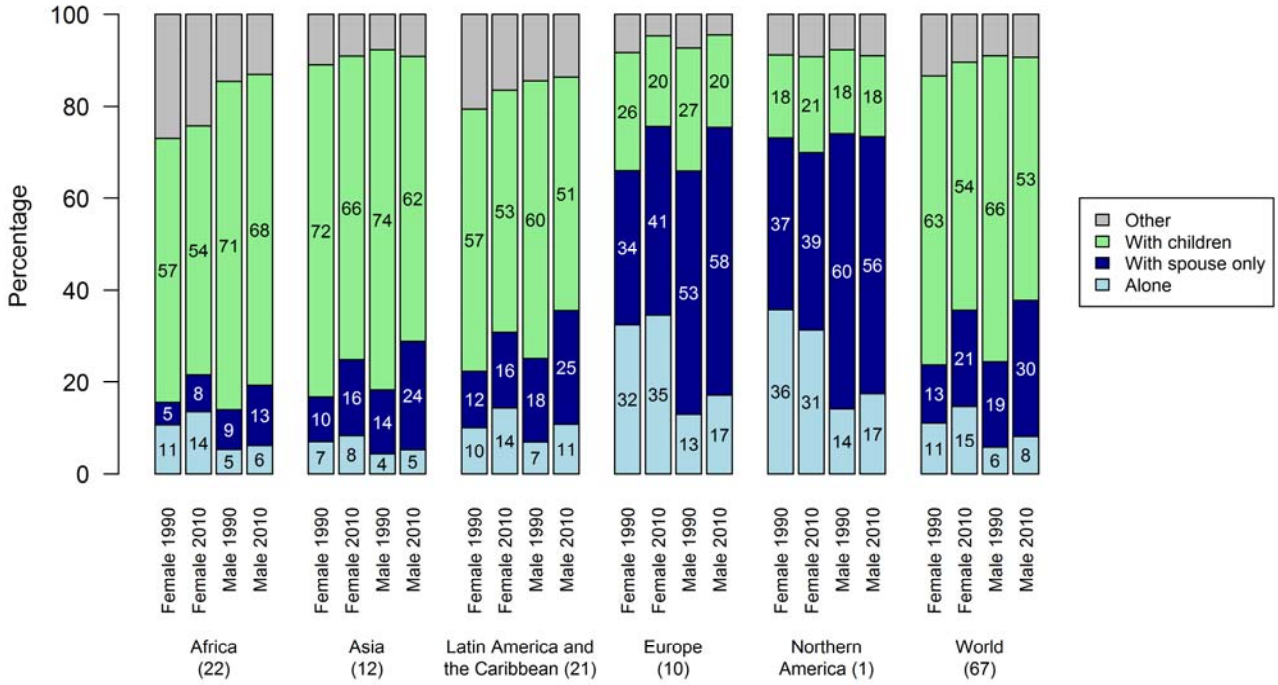
Data source: United Nations Database on the Living Arrangements of Older Persons 2017.

The shift towards independent living and away from co-residence with children has occurred for both women and men.

Estimates disaggregated by sex for the 67 countries with available data both circa 1990 and circa 2010 indicate that trends in the living arrangements of older persons have been similar for women and men (figure IV.8). Globally, the proportion of women aged 60 or over living independently increased by 12 percentage points between the period circa 1990 and that circa 2010, from 24 to 36 per cent, while that for older men increased by 13 percentage points, from 25 to 38 per cent. Men aged 60 or over in Asia experienced the largest shift in living arrangements over recent decades: the proportion living independently increased from 18 per cent circa 1990 to 29 per cent circa 2010, while the proportion co-residing with their children decreased from 74 to 62 per cent.

The trends in older persons' living arrangements differed by gender only in Northern America, which in the data is represented by only one country—the United States of America. Between 1990 and 2010, women aged 60 years or over in the United States of America became slightly less likely to live alone (from 36 per cent in 1990 to 31 per cent in 2010), more likely to live with a spouse only (37 to 39 per cent) and more likely to co-reside with their children (18 to 21 per cent). For older men in the United States of America, the proportion co-residing with their children was unchanged, at 18 per cent, but they became more likely to live alone (14 per cent in 1990 to 17 per cent in 2010) and less likely to live with a spouse only (60 to 56 per cent).

Figure IV.8
Distribution (percentage) of men and women aged 60 years or over by type of household living arrangement for the world and regions, circa 1990 and circa 2010



Data source: United Nations Database on the Living Arrangements of Older Persons 2017.
Numbers in ( ) indicate the number of countries or areas represented.

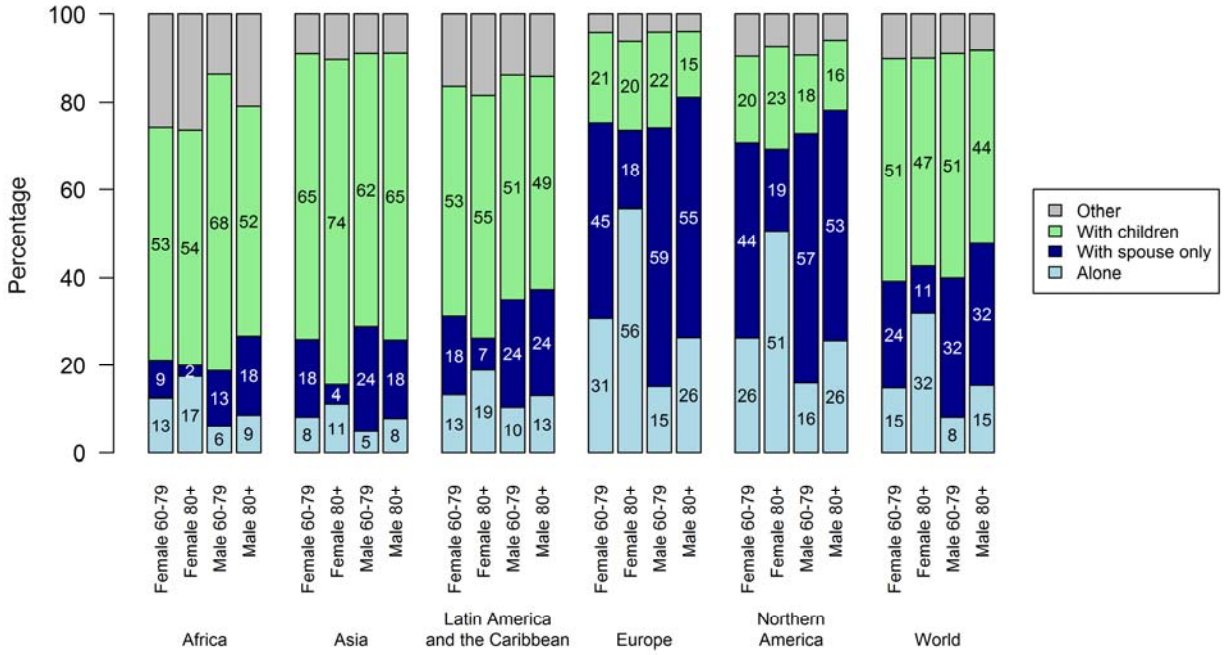
E. AGE PATTERNS IN THE LIVING ARRANGEMENTS OF OLDER PERSONS

In some regions, the living arrangements of older persons differed substantially by age (figure IV.9). Globally, circa 2010, persons aged 80 years or over were slightly more likely to live independently relative to persons aged 60-79 years and they were slightly less likely to co-reside with their children. Approximately 43 per cent of women aged 80 or over lived independently circa 2010 compared to 39 per cent of women aged 60-79 years. For men, the percentages living independently were 47 per cent for those aged 80 years or over compared to 40 per cent for those aged 60-79 years.

Globally, nearly one in three women aged 80 years or over lives alone.

The likelihood of living alone increased with age, especially for women. Thirty-two per cent of women aged 80 years or over lived alone circa 2010, compared to 15 per cent of women aged 60-79 years. For men, 15 per cent of those aged 80 years or over worldwide lived alone circa 2010, compared to 8 per cent of those aged 60-79 years. The high proportion of women aged 80 years or over living alone globally reflects the high likelihood of solitary living among women at advanced ages in both Europe and Northern America. More than half of women aged 80 years or over in these two regions lived alone circa 2010. Solitary living was also common among men at very advanced ages in Europe and Northern America, with one in four men aged 80 years or over living alone.

Figure IV.9
Distribution (percentage) of men and women aged 60-79 years and aged 80 years or over by type of household living arrangement for the world and regions, circa 2010



Data source: United Nations Database on the Living Arrangements of Older Persons 2017.

F. Discussion and conclusions

A main conclusion of the 2005 United Nations study on older persons' households was that there was a widespread trend towards independent forms of living arrangements among older persons. It noted that the increasing prevalence of living alone or with a spouse only was in accordance with the general preferences expressed by older persons in the more developed regions, and that there was some evidence of increasing prevalence of independent living in parts of the less developed regions as well.

The data presented in this chapter provide additional evidence of a widespread shift in older persons' living arrangements over recent decades, wherein the proportion living "independently" —alone or with a spouse only—has increased, while the proportion co-residing with their children has declined. This trend began much earlier in many of the countries of the more developed regions, where today most older persons live independently and only around one in five persons aged 60 years or over lives with their children. The estimates compiled in the *United Nations Database of the Living Arrangements of Older Persons 2017* indicate that a shift away from co-residence with children and towards independent living has occurred in many countries of the developing regions as well, but co-residence with children continues to be the dominant living arrangement for older persons in these regions and it remains far from certain that they will see further shifts of the same magnitude as occurred in Europe and Northern America (Ruggles and Heggeness, 2008). Moreover, the persistent differences in the living arrangements of older persons

across regions speak to the resilience of traditional family structures and cultural norms in some regions in the context of demographic, economic and social change (Knodel and others, 2000; Ruggles, 1994).

Differences across countries and regions in the living arrangements of older persons reflect differences in demographic and economic conditions, as well as social norms and preferences.

Trends in older persons' living arrangements have tracked the declines in fertility and mortality that characterize the demographic transition and shape changes in family size and the presence of kin (Ruggles, 1994; Schoeni, 1998). Declining mortality has meant that more children survive to adult ages, but declining fertility has meant smaller family sizes overall and, consequently, declining average numbers of children among older persons (United Nations, 2005). At the same time, increasing life expectancies at older ages mean that the average duration of life spent at older ages is lengthening and adults are increasingly likely to have one or more surviving parent or grandparent. In parts of sub-Saharan Africa most affected by the epidemic of HIV and AIDS, excess mortality of middle-aged adults has resulted in an increase in the proportion of older persons living alone or in households without an adult in the traditional working ages (Tautz and others, 2010).

Changes in older persons' living arrangements also reflect some of the societal shifts that have accompanied broader demographic, economic and social changes, such as human development, increasing incomes and levels of education, urbanization, migration, and trends in cohabitation, marriage and divorce, to name several (Ruggles, 2001; Gierveld and others, 2001; Bongaarts and Zimmer, 2002; Mba and others, 2002). Various empirical analyses have identified marital status and income as powerful predictors of older persons' living arrangements (Chaudhuri and Roy, 2007; Gaymu and others, 2006; Mehio-Sibai and others, 2009; Panigrahi, 2009; Shideed and others, 2013). The costs of housing and the health status of older persons also factor in to decisions about intergenerational co-residence in some contexts (da Vanzo and Chan, 1994; Selzer and Friedman, 2013; Takagi and Silverstein, 2011; Zimmer and Korinek, 2010). Furthermore, older persons' living arrangements are affected by sex differences in mortality at older ages, with a high propensity for living alone observed among widows (Gierveld and others, 2001).

Trends in older persons' household living arrangements shed light on how household structures are changing along with important global socio-economic trends, but are insufficient to understand the sources of support available to older persons or their welfare.

The *United Nations Database on the Living Arrangements of Older Persons 2017* was created for global comparative purposes, to describe the similarities and differences in the living arrangements of older persons across regions and countries. By necessity, those living arrangements are summarized using the simplest of descriptions—alone, with spouse only, with children or other—and thus, fail to adequately portray the networks, pathways and direction of support between older persons and their kin. Much of the research into older persons' living arrangements is driven by a concern that those who live alone may face disadvantages related to poverty, loneliness, depression, poor health and even mortality. However, the evidence of such

disadvantages associated with living arrangements is mixed, with some adverse outcomes associated with living alone for certain segments of the population (Ng and others, 2017; Henning-Smith, 2016; Herm and others, 2015; McKinnon and others, 2013; Kooshiar and others, 2012; Russell and Taylor 2009; Raymo and others, 2008; Kandler and others, 2007; Ramos and Wilmoth, 2003), but growing support for the notion that a mismatch between older persons' preferred and actual living arrangements poses a greater risk to older persons' well-being than does the specific living arrangement itself (for example, Guan and others, 2015; Russell and Taylor, 2009).

The inconsistency of the links between living arrangements and older persons' well-being highlights the importance of other sources of social or material support that are exchanged between kin and across generations. In many cases, older persons residing alone or with a spouse only live very near to their children, albeit in separate households (Knodel, 2000; Kimuna, 2013). Improvements in transportation infrastructure and communications technology (i.e., internet and cell phones) also can facilitate the maintenance of social ties with kin across greater distances, making living arrangements less relevant as an indicator of social isolation or support.

It is important to note that older persons' co-residence with children may encompass a host of different family dependency and support scenarios and be driven by various emotional or financial concerns (Murray, 1971). Some of the older persons considered in this analysis, which identifies persons as young as 60 years of age as "older", are still raising their minor children. These situations are included among those classified as "co-residing with children" and may be especially prevalent in populations where women continue childbearing well into their 40s or where the average age difference between men and their wives is large.[9] With respect to co-residence of an older parent with an adult child, the older person may provide all or most of the financial support for the child, such as when a child remains in or returns to the parental home during periods of unemployment or underemployment. In other situations, older persons may be dependent on their co-resident children for support, such as when failing health or financial distress motivates a parent to move into an adult child's home. In other instances, still, the provision of support may go both from parent to child and from child to parent, such as when an older parent and adult child share in the household finances or responsibilities for household chores and child care. Moreover, living arrangements are dynamic and many older persons can expect to experience spells of more than one type of living arrangement over the course of their advanced ages, transitioning from living with a spouse only to living alone, and then to co-residing with children, for example, as circumstances, resources, needs and preferences change (Gu and others, 2008).

The estimates of older persons' household living arrangements presented in the *United Nations Database on the Living Arrangements of Older Persons 2017*, offer insight into the similarities and differences across countries and regions in older persons' household characteristics, as well as changes that are observed over time, despite the limitations posed by availability of differentiated data. These changes are important for the contexts in which older persons live their day-to-day

[9] Ruggles and Heggeness (2008) noted that where women continue to bear children into their 40s or where men tend to be several years older than their wives, observed trends away from older persons living with children could reflect declining fertility rather than a weakening of intergenerational co-residential support systems for older persons. They suggested instead using age 65 years as the lower bound for the age range of older persons to minimize the influence of changes in the prevalence of older persons co-residing with minor children on the estimates of living arrangements. Analyses that restricted the age range to 65 years or over yielded similar results, both in regional patterns and trends, to those presented for age 60 years or over, thus, changes in the prevalence of co-residence with minor children, such as would occur with fertility decline, are not thought to play a significant role in the trends described in this report. See United Nations (2017d). *Living arrangements of older persons: a report on an expanded international dataset*.

lives, and speak to both the positive social changes taking place—for example, higher incomes, better health and longer lives—and the challenges facing families and societies as their populations age—for example, fewer kin and potential vulnerability to social isolation. Governments and policy makers should consider older persons' household composition and how it is changing over time as part of efforts to design and reform social support systems to meet the needs of an ageing population.

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Annexes

Annex I

Glossary of terms

DEPENDENCY RATIO

The **total dependency ratio** is the number of persons under age 20 years plus persons aged 65 years or over per one hundred persons aged 20 to 64 years. It is the sum of the child dependency ratio and the old-age dependency ratio.

The **child dependency ratio** is the number of persons 0 to 19 years per one hundred persons aged 20 to 64 years.

The **old-age dependency ratio** is the number of persons aged 65 years or over per one hundred persons aged 20 to 64 years.

The **prospective old age dependency ratio** is the number of persons above the age at which the remaining life expectancy is 15 years per one hundred persons between age 20 and that age.

GROWTH RATE

A population's **growth rate** is the increase (or decrease) in the number of persons in the population during a certain period of time, expressed as a percentage of the population at the beginning of the time period. The **average annual growth rates** for all ages as well as for particular age groups are calculated on the assumption that growth is continuous.

LIFE EXPECTANCY

Life expectancy at a specific age is the average number of additional years a person of that age could expect to live if current mortality levels observed for ages above that age were to continue for the rest of that person's life. In particular, **life expectancy at birth** is the average number of years a new-born would live if current age-specific mortality rates were to continue. The **life expectancy at age 60** is the average number of years a 60-year-old person would life if current age-specific mortality rates observed for ages above 60 years were to continue.

MEDIAN AGE

The **median age** of a population is the age that divides a population into two groups of the same size, such that half the total population is younger than this age, and the other half older.

SEX RATIO

The **sex ratio** is calculated as the number of males per one hundred females in a population. The sex ratio may be calculated for a total population or for a specific age group.

TOTAL FERTILITY RATE

The **total fertility rate** is the average number of live births a woman would have over the course of her lifetime if current age-specific fertility rates remained constant throughout her childbearing years (normally between the ages of 15 and 49 years). The current total fertility rate is an indicator of the level of fertility at a given time.

Annex II

Classification of regions, least developed countries and income groups

Africa

Eastern Africa

Burundi
Comoros
Djibouti
Eritrea
Ethiopia
Kenya
Madagascar
Malawi
Mauritius
Mayotte
Mozambique
Réunion
Rwanda
Seychelles
Somalia
South Sudan
Uganda
United Republic of Tanzania
Zambia
Zimbabwe

Middle Africa

Angola
Cameroon
Central African Republic
Chad
Congo
Democratic Republic of the Congo
Equatorial Guinea
Gabon
Sao Tome and Principe

Northern Africa

Algeria
Egypt
Libya
Morocco
Sudan
Tunisia
Western Sahara

Southern Africa

Botswana
Lesotho
Namibia
South Africa
Swaziland

Western Africa

Benin
Burkina Faso
Cabo Verde
Côte d'Ivoire
Gambia
Ghana
Guinea
Guinea-Bissau
Liberia
Mali
Mauritania
Niger
Nigeria
Saint Helena
Senegal
Sierra Leone
Togo

Asia

Eastern Asia

China
China, Hong Kong SAR
China, Macao SAR
China, Taiwan Provence of China
Democratic People's Republic of Korea
Japan
Mongolia
Republic of Korea

Central Asia

Kazakhstan
Kyrgyzstan
Tajikistan
Turkmenistan
Uzbekistan

Southern Asia

Afghanistan
Bangladesh
Bhutan
India
Iran (Islamic Republic of)
Maldives
Nepal
Pakistan
Sri Lanka

South-Eastern Asia

Brunei Darussalam
Cambodia
Indonesia
Lao People's Democratic Republic
Malaysia
Myanmar
Philippines
Singapore
Thailand
Timor-Leste
Viet Nam

Western Asia

Armenia
Azerbaijan
Bahrain
Cyprus
Georgia
Iraq
Israel
Jordan
Kuwait
Lebanon
Oman
Qatar
Saudi Arabia
State of Palestine
Syrian Arab Republic
Turkey
United Arab Emirates
Yemen

Europe

Eastern Europe

- Belarus
- Bulgaria
- Czechia
- Hungary
- Poland
- Republic of Moldova
- Romania
- Russian Federation
- Slovakia
- Ukraine

Northern Europe

- Channel Islands
- Denmark
- Estonia
- Faeroe Islands
- Finland
- Iceland
- Ireland
- Isle of Man
- Latvia
- Lithuania
- Norway
- Sweden
- United Kingdom of Great Britain and Northern Ireland

Southern Europe

- Albania
- Andorra
- Bosnia and Herzegovina
- Croatia
- Gibraltar
- Greece
- Holy See
- Italy
- Malta
- Montenegro
- Portugal
- San Marino
- Serbia
- Slovenia
- Spain
- The former Yugoslav Republic of Macedonia

Western Europe

- Austria
- Belgium
- France
- Germany
- Liechtenstein
- Luxembourg
- Monaco
- Netherlands
- Switzerland

Latin America and the Caribbean

Caribbean

- Anguilla
- Antigua and Barbuda
- Aruba
- Bahamas
- Barbados
- British Virgin Islands
- Caribbean Netherlands
- Cayman Islands
- Cuba
- Curaçao
- Dominica
- Dominican Republic
- Grenada
- Guadeloupe
- Haiti
- Jamaica
- Martinique
- Montserrat
- Puerto Rico
- Saint Kitts and Nevis
- Saint Lucia
- Saint Vincent and the Grenadines
- Sint Maarten (Dutch part)
- Trinidad and Tobago
- Turks and Caicos Islands
- United States Virgin Islands

Central America

- Belize
- Costa Rica
- El Salvador
- Guatemala
- Honduras
- Mexico
- Nicaragua
- Panama

South America

- Argentina
- Bolivia (Plurinational State of)
- Brazil
- Chile
- Colombia
- Ecuador
- Falkland Islands (Malvinas)
- French Guiana
- Guyana
- Paraguay
- Peru
- Suriname
- Uruguay
- Venezuela (Bolivarian Republic of)

Northern America

Bermuda
Canada
Greenland
St. Pierre and Miquelon
United States of America

Oceania

Australia/New Zealand

Australia
New Zealand

Melanesia

Fiji
New Caledonia
Papua New Guinea
Solomon Islands
Vanuatu

Micronesia

Guam
Kiribati
Marshall Islands
Micronesia (Federated States of)
Nauru
Northern Mariana Islands
Palau

Polynesia

American Samoa
Cook Islands
French Polynesia
Niue
Samoa
Tokelau
Tonga
Tuvalu
Wallis and Futuna Islands

Least developed countries

Afghanistan
Angola
Bangladesh
Benin
Bhutan
Burkina Faso
Burundi
Cambodia
Central African Republic
Chad
Comoros
Democratic Republic of the Congo
Djibouti
Eritrea
Ethiopia
Gambia
Guinea
Guinea-Bissau
Haiti
Kiribati
Lao People's Democratic Republic
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mozambique
Myanmar
Nepal
Niger
Rwanda
Sao Tome and Principe
Senegal
Sierra Leone
Solomon Islands
Somalia
South Sudan
Sudan
Timor-Leste
Togo
Tuvalu
Uganda
United Republic of Tanzania
Vanuatu
Yemen
Zambia

Low-income economies (GNI per capita $1,005 or less)

Afghanistan
Benin
Burkina Faso
Burundi
Central African Republic
Chad
Comoros
Dem. Republic of the Congo
Eritrea
Ethiopia
Gambia
Guinea
Guinea-Bissau
Haiti
Dem. Peoples Republic of Korea
Liberia
Madagascar
Malawi
Mali
Mozambique
Nepal
Niger
Rwanda
Senegal
Sierra Leone
Somalia
South Sudan
Togo
Uganda
United Republic of Tanzania
Zimbabwe

Lower-middle-income economies (GNI per capita $1,006 to $3,955)

Angola
Armenia
Bangladesh
Bhutan
Bolivia (Plurinational State of)
Cabo Verde
Cambodia
Cameroon
Congo
Cote d'Ivoire
Djibouti
Egypt
El Salvador
Georgia
Ghana
Guatemala
Honduras
India
Indonesia
Jordan
Kenya
Kiribati
Kyrgyzstan
Lao People's Dem. Republic
Lesotho
Mauritania
Micronesia (Fed. States of)
Mongolia
Morocco
Myanmar
Nicaragua
Nigeria
Pakistan
Papua New Guinea
Philippines
Republic of Moldova
Sao Tome and Principe
Solomon Islands
Sri Lanka
State of Palestine
Sudan
Swaziland
Syrian Arab Republic
Tajikistan
Timor-Leste
Tunisia
Ukraine
Uzbekistan
Vanuatu
Viet Nam
Yemen
Zambia

Upper-middle-income economies (GNI per capita $3,956 - $12,235)

Albania
Algeria
American Samoa
Argentina
Azerbaijan
Belarus
Belize
Bosnia and Herzegovina
Botswana
Brazil
Bulgaria
China
Colombia
Costa Rica
Croatia
Cuba
Dominica
Dominican Republic
Ecuador
Equatorial Guinea
Fiji
Gabon
Grenada
Guyana
Iran (Islamic Rep. of)
Iraq
Jamaica
Kazakhstan
Lebanon
Libya
Malaysia
Maldives
Marshall Islands
Mauritius
Mexico
Mongolia
Montenegro
Namibia
Nauru
Panama
Paraguay
Peru
Romania
Russian Federation
Saint Lucia
St. Vincent and the Grenadines
Samoa
Serbia
South Africa
Suriname
TFYR Macedonia
Tonga
Turkey
Turkmenistan
Tuvalu
Venezuela (Bolivarian Rep. of)

High-income economies (GNI per capita $12,236 or more)

Andorra
Antigua and Barbuda
Aruba
Australia
Austria
Bahamas
Bahrain
Barbados
Belgium
Bermuda
British Virgin Islands
Brunei Darussalam
Canada
Cayman Islands
Channel Islands
Chile
China, Hong Kong SAR
China, Macao SAR
China, Taiwan Provence of China
Curacao
Cyprus
Czechia
Denmark
Estonia
Faeroe Islands
Finland
France
French Polynesia
Germany
Gibraltar
Greece
Greenland
Guam
Hungary
Iceland
Ireland
Isle of Man
Israel
Italy
Japan
Kuwait
Latvia
Liechtenstein
Lithuania
Luxembourg
Malta
Monaco
Netherlands
New Caledonia
New Zealand
Northern Mariana Islands
Norway
Oman
Palau
Poland
Portugal
Puerto Rico
Qatar
Republic of Korea
Saint Kitts and Nevis
San Marino
Saudi Arabia
Seychelles
Singapore
Sint Maarten (Dutch part)
Slovakia
Slovenia
Spain
Sweden
Switzerland
Trinidad and Tobago
Turks and Caicos Islands
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United States of America
United States Virgin Islands
Uruguay

Annex III

Summary tables

Table A.III.1. Demographic indicators of population ageing from *World Population Prospects: The 2017 Revision* and estimates of the household living arrangements of older persons from *United Nations Database on the Living Arrangements of Older Persons 2017*

	Demographic indicators related to population ageing from World Population Prospects: The 2017 Revision									
							Life expectancy at birth (years)		Life expectancy at age 60 (years)	
	Population aged 60 years or over (thousands)		Percentage aged 60 years or over		Median age of the population (years)		Females	Males	Females	Males
Country or area	2017	2050	2017	2050	2015	2050	2010-2015		2010-2015	
World	962 263	2 080 459	12.7	21.3	29.6	36.1	73.1	68.6	21.6	18.8
More developed regions	310 024	427 238	24.6	32.9	41.1	45.4	81.6	75.2	24.7	20.9
Less developed regions	652 240	1 653 221	10.4	19.5	27.8	34.8	71.1	67.2	20.1	17.9
Least developed countries	55 244	185 868	5.5	9.7	19.6	26.0	64.3	61.1	18.0	16.7
Other less developed countries	596 996	1 467 352	11.3	22.4	29.3	37.7	72.5	68.6	20.3	18.0
High-income countries	281 711	423 139	23.6	32.9	40.4	45.7	83.1	77.7	25.8	21.9
Upper-middle-income countries	386 950	844 062	14.7	30.2	33.9	43.8	76.8	72.0	21.3	18.5
Lower-middle-income countries	258 407	698 667	8.5	16.3	25.2	33.3	68.5	64.7	18.7	16.7
Low-income countries	34 763	113 668	5.1	8.0	18.3	24.4	62.3	58.9	17.7	16.0
Sub-Saharan Africa	49 271	165 473	4.8	7.6	18.3	23.8	59.5	56.2	16.8	15.4
Africa	68 721	225 754	5.5	8.9	19.4	24.8	61.9	58.6	17.5	16.0
Eastern Africa	19 651	72 979	4.7	8.2	18.0	24.8	63.4	59.5	18.3	16.8
Burundi	475	1 671	4.4	6.5	17.6	22.0	58.0	54.2	17.1	15.8
Comoros	40	133	4.9	9.1	19.7	26.3	64.5	61.2	17.0	15.3
Djibouti	61	203	6.4	15.6	23.7	34.6	63.2	60.0	18.1	16.9
Eritrea	268	916	5.3	9.5	18.9	26.6	65.6	61.4	16.9	15.2
Ethiopia	5 553	18 893	5.3	9.9	18.6	28.8	65.5	61.9	18.5	17.2
Kenya	2 117	10 134	4.3	10.6	19.0	27.4	67.8	63.0	19.0	17.6
Madagascar	1 225	4 552	4.8	8.5	18.7	24.9	66.0	63.0	17.5	16.2
Malawi	793	3 221	4.3	7.7	17.4	24.5	63.1	58.2	18.9	16.7
Mauritius	210	369	16.6	30.2	35.6	46.8	77.7	70.7	22.1	18.0
Mayotte	15	65	5.8	13.2	19.0	29.2	82.9	76.0	25.4	21.4
Mozambique	1 436	4 437	4.8	6.5	17.2	22.6	58.1	54.0	17.4	16.0
Réunion	144	298	16.4	29.4	34.5	42.8	82.9	76.0	25.4	21.4
Rwanda	593	2 535	4.9	11.6	19.4	28.7	67.1	63.1	18.8	17.4
Seychelles	13	28	13.3	28.8	34.6	40.1	77.9	68.7	21.9	16.9
Somalia	642	1 883	4.4	5.3	16.5	20.7	56.5	53.3	16.6	15.5
South Sudan	646	1 916	5.1	7.6	18.6	24.5	56.0	54.1	16.9	15.9
Uganda	1 425	6 172	3.3	5.8	15.8	21.9	60.7	56.5	17.8	16.4
United Republic of Tanzania	2 666	9 933	4.7	7.2	17.3	22.3	64.8	60.8	18.6	17.3
Zambia	630	2 753	3.7	6.7	17.1	22.1	61.9	57.5	18.2	16.7
Zimbabwe	701	2 868	4.2	9.7	19.0	27.7	59.0	56.1	18.2	16.8
Middle Africa	7 440	25 461	4.6	6.6	17.1	22.4	59.1	55.8	17.2	16.0
Angola	1 195	4 638	4.0	6.1	16.4	21.1	63.0	57.4	17.8	16.2
Cameroon	1 146	3 974	4.8	8.0	18.3	24.4	57.7	55.1	17.2	16.1
Central African Republic	255	620	5.5	7.0	17.8	24.5	51.0	47.8	16.2	14.8
Chad	592	1 873	4.0	5.6	16.1	22.2	52.8	50.5	16.2	15.2
Congo	271	999	5.2	8.7	18.9	23.6	64.1	61.0	18.5	17.2
Dem. Republic of the Congo	3 785	12 669	4.7	6.4	16.8	22.1	59.5	56.7	17.1	16.0
Equatorial Guinea	56	189	4.4	6.6	22.2	26.6	58.4	55.5	17.3	16.1
Gabon	129	464	6.4	13.2	22.6	29.3	65.8	63.1	18.9	17.6
Sao Tome and Principe	9	34	4.3	9.0	18.1	24.7	68.2	64.1	18.8	17.5
Northern Africa	19 450	60 281	8.3	16.7	25.0	32.1	72.8	69.4	19.7	17.8
Algeria	3 869	13 222	9.4	23.0	27.5	37.0	76.5	74.1	22.1	21.0

Household arrangements of older persons (percentage) from the UN Database of the Living Arrangements of Older Persons, 2017									
	Alone		With spouse only		Independently (alone or with spouse only)		With children		
	Females	Males	Females	Males	Females	Males	Females	Males	
Data source for living arrangements	Most recent estimates available								Country or area
Aggregate	17.3	8.9	22.6	32.0	39.8	41.0	50.0	50.1	World
Aggregate	34.5	17.0	39.0	57.7	73.5	74.7	20.5	19.6	More developed regions
Aggregate	9.8	5.9	15.4	22.5	25.1	28.5	62.9	61.3	Less developed regions
Aggregate	7.6	3.3	6.2	10.8	13.8	14.0	64.5	73.7	Least developed countries
Aggregate	10.0	6.2	16.3	23.7	26.3	29.9	62.7	60.1	Other less developed countries
Aggregate	34.1	17.1	40.2	57.9	74.3	75.0	19.5	19.0	High-income countries
Aggregate	11.3	8.1	20.2	28.0	31.5	36.1	57.9	53.4	Upper-middle-income countries
Aggregate	10.3	3.7	11.3	18.6	21.6	22.3	67.3	69.1	Lower-middle-income countries
Aggregate	9.6	4.8	5.9	9.7	15.5	14.5	56.1	69.2	Low-income countries
Aggregate	12.4	7.1	6.4	11.4	18.8	18.5	50.9	64.2	Sub-Saharan Africa
Aggregate	13.2	6.5	7.8	13.2	21.0	19.7	53.1	65.6	Africa
Aggregate	12.0	5.9	6.3	10.3	18.3	16.2	48.0	64.1	Eastern Africa
2010 DHS	15.8	5.3	7.3	13.0	23.1	18.3	48.1	66.3	Burundi
2012 DHS	3.6	2.1	5.0	8.2	8.6	10.3	66.5	69.2	Comoros
	..	..	..	..	..	..	..	..	Djibouti
	..	..	..	..	..	..	..	..	Eritrea
2010-2011 DHS	12.0	2.6	5.4	7.2	17.4	9.8	53.6	77.1	Ethiopia
2014 DHS	16.5	9.9	7.5	12.9	24.0	22.8	43.7	57.6	Kenya
2008-2009 DHS	12.7	8.2	7.3	11.6	20.0	19.8	51.2	60.1	Madagascar
2015-2016 DHS	10.0	7.3	6.2	12.2	16.2	19.5	39.7	50.1	Malawi
	..	..	..	..	..	..	..	..	Mauritius
	..	..	..	..	..	..	..	..	Mayotte
2011 DHS	19.8	6.0	8.8	18.9	28.5	24.9	38.3	50.4	Mozambique
	..	..	..	..	..	..	..	..	Réunion
2014-2015 DHS	10.1	5.6	5.4	9.3	15.6	14.9	49.1	66.5	Rwanda
	..	..	..	..	..	..	..	..	Seychelles
	..	..	..	..	..	..	..	..	Somalia
2008 IPUMS	4.4	3.2	1.3	2.9	5.6	6.1	45.7	68.7	South Sudan
2011 DHS	9.1	11.0	4.0	7.7	13.0	18.7	45.4	54.9	Uganda
2015-2016 DHS	8.9	6.0	7.2	11.2	16.1	17.2	50.5	62.2	United Republic of Tanzania
2013-2014 DHS	12.3	5.3	8.4	15.0	20.7	20.3	42.1	53.8	Zambia
2015 DHS	9.2	8.8	5.7	11.6	14.9	20.4	44.7	51.5	Zimbabwe
Aggregate	14.4	7.1	6.0	12.4	20.3	19.5	49.4	63.2	Middle Africa
	..	..	..	..	..	..	..	..	Angola
2011 DHS	12.4	8.6	3.5	8.0	15.8	16.5	52.4	65.6	Cameroon
1994-1995 DHS	16.3	8.5	8.7	18.1	25.0	26.6	45.3	52.4	Central African Republic
2014 DHS	12.6	4.0	4.7	9.0	17.3	13.0	53.2	74.5	Chad
2011 DHS	14.6	10.3	7.8	18.4	22.4	28.8	51.4	53.0	Congo
2013-2014 DHS	15.1	6.6	6.7	13.8	21.8	20.4	47.9	62.0	Dem. Republic of the Congo
	..	..	..	..	..	..	..	..	Equatorial Guinea
2012 DHS	16.1	11.2	8.8	16.4	24.9	27.5	44.1	49.7	Gabon
2008-2009 DHS	27.6	36.1	8.2	13.8	35.8	49.9	31.9	33.7	Sao Tome and Principe
Aggregate	15.7	4.3	12.8	19.5	28.5	23.8	60.4	70.7	Northern Africa
	..	..	..	..	..	..	..	..	Algeria

Demographic indicators related to population ageing from World Population Prospects: The 2017 Revision										
							Life expectancy at birth (years)		Life expectancy at age 60 (years)	
	Population aged 60 years or over (thousands)		Percentage aged 60 years or over		Median age of the population (years)		Females	Males	Females	Males
Country or area	2017	2050	2017	2050	2015	2050	2010-2015		2010-2015	
Egypt	7 676	23 689	7.9	15.4	24.7	31.2	73.1	68.7	18.4	16.0
Libya	423	1 848	6.6	22.8	27.2	38.9	74.4	68.8	19.6	16.8
Morocco	3 807	10 977	10.7	24.0	27.9	38.9	76.0	73.7	21.0	19.2
Sudan	2 226	6 700	5.5	8.3	18.9	25.1	65.1	62.1	18.3	17.2
Tunisia	1 419	3 675	12.3	26.5	31.1	39.9	77.1	73.0	21.3	18.1
Western Sahara	30	170	5.4	17.3	26.8	36.0	70.3	66.9	18.1	16.3
Southern Africa	5 254	13 143	8.1	15.3	25.5	33.5	62.7	56.0	18.4	13.8
Botswana	146	579	6.4	16.9	24.4	34.6	66.1	59.8	18.3	15.9
Lesotho	150	302	6.7	9.4	21.3	28.7	54.7	50.1	16.4	14.3
Namibia	139	472	5.5	10.9	21.0	28.9	64.3	59.1	18.1	15.6
South Africa	4 753	11 584	8.4	15.9	26.1	34.1	63.0	56.1	18.6	13.6
Swaziland	66	205	4.8	9.9	20.4	29.2	58.2	51.6	17.0	14.5
Western Africa	16 926	53 890	4.6	6.7	17.9	22.6	55.6	53.9	14.8	14.1
Benin	558	1 779	5.0	7.4	18.2	23.5	61.4	58.5	17.6	16.5
Burkina Faso	741	2 802	3.9	6.5	17.0	22.8	59.3	58.0	15.6	14.8
Cabo Verde	38	134	6.9	18.2	23.8	37.1	74.0	70.1	19.4	17.0
Côte d'Ivoire	1 163	3 245	4.8	6.3	18.3	22.5	53.2	50.4	14.4	13.8
Gambia	80	292	3.8	6.4	17.0	23.6	61.6	59.1	15.9	14.7
Ghana	1 533	5 013	5.3	9.8	20.4	26.9	62.6	60.7	16.1	15.1
Guinea	657	2 047	5.2	7.6	18.4	24.3	58.4	57.5	15.3	14.7
Guinea-Bissau	92	293	4.9	8.1	18.9	25.1	57.7	54.3	15.5	14.5
Liberia	232	806	4.9	8.2	18.6	24.5	61.6	59.8	15.9	15.0
Mali	735	2 468	4.0	5.6	16.0	21.6	56.9	55.6	15.3	15.1
Mauritania	222	789	5.0	8.8	19.7	25.2	64.1	61.2	17.0	15.8
Niger	894	2 773	4.2	4.1	14.9	18.1	59.5	57.6	16.5	15.4
Nigeria	8 568	26 407	4.5	6.4	17.9	22.4	52.6	51.2	13.9	13.4
Senegal	741	2 823	4.7	8.3	18.3	24.2	67.5	63.8	17.4	15.7
Sierra Leone	314	980	4.2	7.6	18.3	26.3	50.7	49.7	13.1	13.0
Togo	357	1 237	4.6	8.1	18.9	24.7	59.8	58.3	15.4	14.7
Asia	549 246	1 273 175	12.2	24.2	30.3	39.7	73.8	69.9	20.7	18.2
Eastern Asia	291 938	566 748	17.7	35.7	37.9	48.5	78.7	74.9	22.2	19.2
China	228 897	478 861	16.2	35.1	37.0	48.0	77.2	74.2	20.7	18.5
China, Hong Kong SAR	1 727	3 353	23.5	40.6	43.2	52.4	86.4	80.5	28.1	23.2
China, Macao SAR	100	317	16.1	36.2	37.6	48.6	86.2	80.3	27.5	23.0
China, Taiwan Province of China	4 763	9 410	20.2	41.3	39.6	53.7	82.3	76.4	24.9	21.7
Dem. People's Rep. of Korea	3 436	6 963	13.5	26.0	34.0	42.1	74.1	67.2	19.9	14.3
Japan	42 548	46 109	33.4	42.4	46.3	53.2	86.4	80.0	28.4	23.0
Mongolia	203	764	6.6	18.8	27.1	34.2	72.7	64.5	18.8	15.1
Republic of Korea	10 264	20 971	20.1	41.6	40.8	53.9	84.4	77.9	26.4	21.5
South-Central Asia	171 213	466 403	8.8	18.8	26.1	36.8	69.5	66.5	18.7	17.2
Central Asia	5 850	17 039	8.3	18.0	26.4	34.7	73.3	66.3	19.4	15.6
Kazakhstan	2 022	4 418	11.1	19.2	29.3	34.6	73.9	64.3	19.2	14.4
Kyrgyzstan	459	1 355	7.6	16.7	25.3	32.5	74.3	66.4	19.6	15.4
Tajikistan	520	1 977	5.8	13.6	22.4	29.9	73.5	67.7	20.5	16.6
Turkmenistan	419	1 253	7.3	15.9	25.6	33.1	70.8	63.9	18.8	15.6
Uzbekistan	2 431	8 035	7.6	19.6	26.3	37.2	73.5	68.1	19.4	16.4
Southern Asia	165 363	449 363	8.8	18.9	26.1	36.9	69.4	66.5	18.6	17.2
Afghanistan	1 462	5 466	4.1	8.8	17.3	28.9	63.5	61.1	16.9	15.3
Bangladesh	12 036	44 501	7.3	22.0	25.6	40.0	72.9	69.8	20.3	18.2
Bhutan	59	235	7.3	23.7	26.3	40.9	68.9	68.6	20.1	20.2

Household arrangements of older persons (percentage) from the UN Database of the Living Arrangements of Older Persons, 2017									
	Alone		With spouse only		Independently (alone or with spouse only)		With children		
	Females	Males	Females	Males	Females	Males	Females	Males	
Data source for living arrangements	Most recent estimates available								Country or area
2014 DHS	21.8	5.5	19.1	29.5	40.9	35.1	54.8	63.1	Egypt
	..	..	..	..	..	..	..	..	Libya
2004 IPUMS	6.5	2.1	4.1	6.6	10.6	8.7	72.6	84.2	Morocco
2008 IPUMS	7.4	3.3	3.1	5.6	10.5	8.9	62.2	75.6	Sudan
	..	..	..	..	..	..	..	..	Tunisia
	..	..	..	..	..	..	..	..	Western Sahara
Aggregate	11.0	11.2	10.4	20.6	21.4	31.9	48.6	45.4	Southern Africa
2011 IPUMS	8.5	17.4	3.7	8.3	12.2	25.7	57.9	48.8	Botswana
2014 DHS	12.0	15.0	4.9	11.0	17.0	26.0	41.7	45.5	Lesotho
2013 DHS	5.0	8.8	6.5	12.1	11.5	20.9	52.1	53.7	Namibia
2011 IPUMS	11.3	11.0	11.0	21.8	22.3	32.9	48.4	44.8	South Africa
2006-2007 DHS	6.4	8.9	2.9	8.0	9.3	16.8	57.7	62.5	Swaziland
Aggregate	12.6	7.3	5.4	9.8	18.0	17.1	55.5	69.4	Western Africa
2011 DHS	13.9	9.6	5.8	9.7	19.6	19.3	55.1	69.6	Benin
2010 DHS	3.3	3.0	5.5	8.3	8.8	11.2	69.2	77.1	Burkina Faso
	..	..	..	..	..	..	..	..	Cabo Verde
2011-2012 DHS	5.3	7.7	3.1	7.6	8.4	15.3	57.5	65.5	Côte d'Ivoire
2013 DHS	2.0	2.0	0.6	1.8	2.6	3.8	75.7	84.7	Gambia
2014 DHS	19.3	16.9	7.1	15.3	26.4	32.3	42.6	52.6	Ghana
2012 DHS	3.3	1.0	2.2	3.5	5.5	4.5	69.3	83.2	Guinea
	..	..	..	..	..	..	..	..	Guinea-Bissau
2013 DHS	4.2	6.4	3.9	7.8	8.1	14.3	61.5	61.7	Liberia
2012 DHS	2.4	1.8	7.4	8.3	9.8	10.0	66.7	78.5	Mali
	..	..	..	..	..	..	..	..	Mauritania
2012 DHS	5.0	2.1	5.5	6.7	10.4	8.9	58.1	78.2	Niger
2013 DHS	17.1	7.8	6.0	11.2	23.2	19.0	51.3	68.3	Nigeria
2015 DHS	1.0	2.4	0.7	1.9	1.7	4.3	75.1	86.3	Senegal
2013 DHS	1.6	2.4	1.3	2.8	3.0	5.2	69.3	74.9	Sierra Leone
2013-2014 DHS	11.3	7.6	3.0	7.4	14.3	15.1	59.1	70.1	Togo
Aggregate	8.5	5.1	16.3	23.5	24.8	28.6	66.0	62.4	Asia
Aggregate	8.9	7.5	21.7	28.5	30.6	36.0	60.7	53.9	Eastern Asia
2000 IPUMS	8.9	7.5	21.7	28.5	30.6	36.0	60.7	53.9	China
2011 DYB	13.8	10.2	19.9	26.3	33.8	36.5	..	..	China, Hong Kong SAR
2011 DYB	12.3	8.6	19.1	26.2	31.4	34.8	..	..	China, Macao SAR
	..	..	..	..	..	..	..	..	China, Taiwan Province of China
	..	..	..	..	..	..	..	..	Dem. People's Rep. of Korea
2010 DYB	18.2	12.3	31.9	40.4	50.1	52.7	..	..	Japan
2000 IPUMS	10.9	7.0	7.6	12.8	18.4	19.7	64.5	66.1	Mongolia
2005 DYB	21.5	7.1	26.3	43.6	47.7	50.7	..	..	Republic of Korea
Aggregate	7.0	2.3	10.9	17.6	17.8	19.9	74.0	72.7	South-Central Asia
Aggregate	..	..	..	..	..	..	..	..	Central Asia
1999 DHS	21.3	7.5	23.6	46.1	44.8	53.6	47.6	41.1	Kazakhstan
2012 DHS	12.2	6.9	10.0	17.7	22.1	24.6	66.2	64.3	Kyrgyzstan
2011 DHS	4.0	1.7	2.9	4.2	6.9	5.9	89.1	91.5	Tajikistan
	..	..	..	..	..	..	..	..	Turkmenistan
1996 DHS	10.9	3.6	9.9	15.1	20.8	18.7	73.7	76.9	Uzbekistan
Aggregate	7.0	2.3	10.9	17.6	17.8	19.9	73.9	72.7	Southern Asia
2015 DHS	0.1	0.2	2.0	2.2	2.1	2.4	93.5	95.6	Afghanistan
2014 DHS	3.4	0.4	7.0	13.5	10.4	13.9	82.5	81.2	Bangladesh
	..	..	..	..	..	..	..	..	Bhutan

Demographic indicators related to population ageing from World Population Prospects: The 2017 Revision										
							Life expectancy at birth (years)		Life expectancy at age 60 (years)	
	Population aged 60 years or over (thousands)		Percentage aged 60 years or over		Median age of the population (years)		Females	Males	Females	Males
Country or area	2017	2050	2017	2050	2015	2050	2010-2015		2010-2015	
India	125 693	316 759	9.4	19.1	26.7	37.5	69.1	66.2	18.5	17.0
Iran (Islamic Republic of)	7 148	30 053	8.8	32.1	29.5	45.2	76.2	74.0	19.7	19.1
Maldives	28	164	6.3	28.4	27.9	44.4	77.4	75.4	20.1	18.9
Nepal	2 569	6 510	8.8	18.0	23.2	39.0	70.5	67.4	18.1	16.4
Pakistan	13 259	39 692	6.7	12.9	22.5	30.9	66.8	65.0	18.0	17.5
Sri Lanka	3 109	5 984	14.9	28.8	32.3	42.6	78.0	71.2	21.6	19.1
South-Eastern Asia	63 973	167 877	9.9	21.0	28.5	37.5	73.4	67.7	20.0	16.9
Brunei Darussalam	34	154	8.0	28.7	30.0	43.6	78.4	75.1	21.7	19.3
Cambodia	1 129	3 730	7.1	16.9	24.0	34.3	69.6	65.5	17.7	16.3
Indonesia	22 743	61 729	8.6	19.2	28.0	36.6	70.7	66.6	17.8	15.2
Lao People's Dem. Republic	434	1 472	6.3	16.1	22.7	35.4	66.8	63.9	17.4	15.7
Malaysia	3 074	9 647	9.7	23.1	27.7	40.2	77.1	72.6	20.6	18.5
Myanmar	5 043	11 544	9.4	18.5	27.7	37.5	68.3	63.7	17.7	15.7
Philippines	8 023	21 417	7.6	14.2	24.1	31.8	72.1	65.4	18.7	15.5
Singapore	1 115	2 638	19.5	40.1	40.0	52.8	84.5	80.1	26.3	22.7
Thailand	11 691	22 954	16.9	35.1	37.8	49.2	78.4	70.8	23.1	20.0
Timor-Leste	71	162	5.4	6.7	17.4	23.4	69.5	66.1	17.7	16.1
Viet Nam	10 616	32 429	11.1	28.3	30.4	42.0	80.3	70.7	24.8	19.3
Western Asia	22 121	72 147	8.3	18.2	26.5	34.6	75.7	70.1	21.4	18.1
Armenia	496	854	16.9	31.6	33.9	45.5	77.0	70.6	20.7	17.2
Azerbaijan	992	2 731	10.1	24.7	30.3	40.0	74.6	68.6	19.9	16.6
Bahrain	69	405	4.6	17.4	31.2	39.8	77.5	75.6	20.0	18.9
Cyprus	218	452	18.5	32.7	34.9	47.4	82.2	77.7	23.8	20.4
Georgia	815	998	20.8	29.4	38.0	42.0	77.0	68.5	20.6	16.3
Iraq	1 920	7 454	5.0	9.1	19.4	24.7	71.4	67.0	18.6	16.2
Israel	1 342	2 715	16.1	21.6	30.2	35.1	83.7	80.0	25.6	23.1
Jordan	549	2 178	5.7	15.4	22.1	32.1	75.5	72.2	20.2	17.8
Kuwait	201	1 158	4.9	20.5	33.4	38.1	75.5	73.5	18.0	17.4
Lebanon	730	1 688	12.0	31.2	28.5	47.6	80.9	77.3	23.8	20.5
Oman	185	1 373	4.0	20.3	29.0	39.9	78.7	74.5	22.0	19.3
Qatar	74	689	2.8	18.2	31.3	40.5	79.4	76.9	21.6	20.1
Saudi Arabia	1 855	10 323	5.6	22.9	29.8	39.6	75.6	72.7	19.7	17.4
State of Palestine	227	1 022	4.6	10.5	19.3	27.6	74.8	71.1	19.8	17.3
Syrian Arab Republic	1 246	5 461	6.8	16.1	20.2	34.1	76.3	64.4	20.9	17.3
Turkey	9 686	25 428	12.0	26.6	29.9	41.8	78.1	71.5	22.7	18.6
United Arab Emirates	224	2 461	2.4	18.7	33.4	40.4	78.2	76.0	20.6	19.5
Yemen	1 292	4 758	4.6	9.8	19.2	29.3	65.6	62.8	17.1	15.4
Europe	182 982	247 227	24.7	34.5	41.6	46.6	80.7	73.7	23.9	19.9
Eastern Europe	65 746	84 745	22.5	32.8	39.6	44.6	77.1	67.3	21.4	16.4
Belarus	2 019	2 694	21.3	31.4	39.6	43.2	77.7	66.5	21.4	15.0
Bulgaria	1 961	1 976	27.7	36.4	43.5	48.1	77.8	70.8	21.4	17.1
Czechia	2 714	3 691	25.6	36.7	41.4	47.9	81.2	75.1	23.3	19.2
Hungary	2 524	2 876	26.0	34.7	41.7	48.5	78.9	71.7	22.1	17.3
Poland	9 152	12 809	24.0	39.5	39.7	52.2	81.0	72.9	23.7	18.7
Republic of Moldova	712	1 136	17.6	34.5	35.6	50.0	75.2	66.7	19.5	14.6
Romania	4 892	5 810	24.9	35.4	41.3	48.0	78.4	71.4	21.8	17.8
Russian Federation	30 328	39 712	21.1	29.9	38.7	41.4	75.9	64.7	21.0	15.5
Slovakia	1 189	1 797	21.8	36.2	39.2	49.0	79.8	72.7	22.6	17.9
Ukraine	10 254	12 245	23.2	33.6	40.3	45.4	76.0	66.1	20.5	15.4
Northern Europe	25 176	36 783	24.2	31.3	40.4	43.9	82.7	78.3	25.0	22.0

Household arrangements of older persons (percentage) from the UN Database of the Living Arrangements of Older Persons, 2017									
	Alone		With spouse only		Independently (alone or with spouse only)		With children		
	Females	Males	Females	Males	Females	Males	Females	Males	
Data source for living arrangements	Most recent estimates available								Country or area
2009 IPUMS	7.3	2.6	11.7	19.3	18.9	21.9	72.4	69.6	India
2011 IPUMS	23.7	5.2	21.4	29.8	45.1	34.9	50.7	63.2	Iran (Islamic Republic of)
2009 DHS	4.5	2.7	5.9	7.4	10.4	10.1	79.7	79.4	Maldives
2011 DHS	5.1	2.7	10.3	14.4	15.5	17.1	75.7	75.0	Nepal
2012-2013 DHS	0.8	0.5	3.2	4.1	4.0	4.6	88.9	91.3	Pakistan
	..	..	..	..	..	..	..	..	Sri Lanka
Aggregate	10.0	4.2	10.8	18.7	20.8	22.9	65.4	66.6	South-Eastern Asia
	..	..	..	..	..	..	..	..	Brunei Darussalam
2014 DHS	5.9	2.3	6.6	12.3	12.6	14.6	68.6	73.7	Cambodia
2012 DHS	12.7	3.6	11.3	20.9	24.1	24.5	62.6	65.5	Indonesia
	..	..	..	..	..	..	..	..	Lao People's Dem. Republic
2000 IPUMS	9.2	4.4	10.8	17.3	20.0	21.7	68.6	68.8	Malaysia
2015-16 MDHS	6.4	3.2	6.8	11.5	13.2	14.8	69.2	74.2	Myanmar
2013 DHS	5.6	5.1	8.8	13.7	14.4	18.8	65.0	65.6	Philippines
	..	..	..	..	..	..	..	..	Singapore
2000 IPUMS	7.0	4.8	9.9	16.4	16.8	21.3	69.4	67.3	Thailand
2009-2010 DHS	3.9	2.5	6.3	8.5	10.2	11.0	71.4	76.5	Timor-Leste
2009 IPUMS	12.8	4.6	14.1	25.4	27.0	30.0	64.7	63.4	Viet Nam
Aggregate	..	..	..	..	..	..	..	..	Western Asia
2011 IPUMS	14.7	6.0	10.7	18.9	25.4	24.9	65.0	69.2	Armenia
2006 DHS	10.4	3.7	10.2	18.7	20.6	22.4	74.2	74.8	Azerbaijan
	..	..	..	..	..	..	..	..	Bahrain
2011 LFS	24.1	6.4	43.7	60.6	67.8	67.1	18.5	23.6	Cyprus
2002 DYB	..	..	..	..	..	..	..	..	Georgia
1997 IPUMS	2.3	0.9	2.5	4.4	4.8	5.3	80.9	89.0	Iraq
2008 DYB	28.7	10.9	40.6	54.1	69.3	65.0	..	..	Israel
2012 DHS	13.3	1.7	13.0	18.4	26.3	20.2	65.7	75.7	Jordan
	..	..	..	..	..	..	..	..	Kuwait
	..	..	..	..	..	..	..	..	Lebanon
	..	..	..	..	..	..	..	..	Oman
	..	..	..	..	..	..	..	..	Qatar
	..	..	..	..	..	..	..	..	Saudi Arabia
2007 IPUMS	15.0	2.8	12.3	20.8	27.3	23.6	62.2	73.4	State of Palestine
	..	..	..	..	..	..	..	..	Syrian Arab Republic
2003 DHS	15.1	4.7	25.7	37.6	40.8	42.3	53.5	53.1	Turkey
	..	..	..	..	..	..	..	..	United Arab Emirates
2013 DHS	5.4	1.0	7.3	8.6	12.8	9.6	79.0	87.6	Yemen
Aggregate	36.1	16.9	38.9	58.5	75.0	75.3	20.5	20.7	Europe
Aggregate	32.0	13.9	26.3	51.2	58.4	65.1	..	..	Eastern Europe
2009 IPUMS	38.4	15.9	22.8	49.0	61.2	64.9	32.8	29.6	Belarus
2011 LFS	36.4	18.5	34.0	54.0	70.4	72.5	24.6	22.4	Bulgaria
	..	..	..	..	..	..	..	..	Czechia
2011 LFS	32.9	11.9	30.4	55.5	63.3	67.4	30.6	27.0	Hungary
2011 LFS	29.1	11.9	30.6	51.1	59.7	63.0	34.9	32.1	Poland
2005 DHS	34.5	14.4	26.5	50.0	61.0	64.4	31.4	29.2	Republic of Moldova
2011 LFS	29.9	13.6	27.3	45.1	57.3	58.8	35.3	36.4	Romania
2010 DYB	30.9	13.6	25.1	52.6	56.0	66.1	..	..	Russian Federation
2011 LFS	32.1	11.8	32.8	54.4	64.9	66.2	31.2	30.1	Slovakia
2007 DHS	35.8	16.2	23.9	49.2	59.8	65.4	33.4	29.2	Ukraine
Aggregate	38.6	23.6	44.4	59.9	83.0	83.5	13.9	12.7	Northern Europe

Demographic indicators related to population ageing from World Population Prospects: The 2017 Revision										
							Life expectancy at birth (years)		Life expectancy at age 60 (years)	
	Population aged 60 years or over (thousands)		Percentage aged 60 years or over		Median age of the population (years)		Females	Males	Females	Males
Country or area	2017	2050	2017	2050	2015	2050	2010-2015		2010-2015	
Channel Islands	41	63	24.5	35.1	42.7	48.2	82.4	78.7	24.9	21.5
Denmark	1 451	1 894	25.3	30.0	41.6	44.2	82.2	78.1	24.4	21.4
Estonia	339	419	25.9	36.6	41.6	47.2	81.2	71.9	24.0	18.0
Finland	1 535	1 862	27.8	31.7	42.5	44.7	83.7	77.7	25.8	21.6
Iceland	67	119	20.1	30.6	36.0	44.1	83.8	80.6	25.4	23.2
Ireland	909	1 789	19.1	30.8	36.9	42.6	83.0	78.7	25.1	22.1
Latvia	512	536	26.2	35.3	42.5	46.4	78.7	68.8	22.2	16.4
Lithuania	730	784	25.3	32.6	42.7	46.2	79.3	68.5	23.0	16.9
Norway	1 186	1 998	22.3	29.4	39.2	43.2	83.6	79.5	25.6	22.4
Sweden	2 525	3 535	25.5	30.4	40.9	43.2	83.7	80.0	25.6	22.7
United Kingdom	15 849	23 738	23.9	31.5	40.2	43.9	82.8	79.0	25.2	22.4
Southern Europe	40 899	56 186	26.9	40.1	43.9	51.3	83.7	78.4	25.8	21.8
Albania	558	909	19.0	34.1	36.2	49.5	79.9	75.6	23.1	19.9
Bosnia and Herzegovina	821	1 104	23.4	36.1	41.0	50.5	78.8	73.7	21.8	18.5
Croatia	1 122	1 282	26.8	37.1	42.6	49.8	80.4	73.6	22.7	18.2
Greece	2 957	4 153	26.5	41.6	43.3	52.8	83.3	78.0	25.3	21.9
Italy	17 427	22 197	29.4	40.3	45.9	51.4	84.7	79.9	26.5	22.6
Malta	112	154	26.1	36.8	40.9	50.2	82.0	78.6	23.9	21.5
Montenegro	134	189	21.3	32.1	37.7	46.4	78.8	74.0	21.6	18.5
Portugal	2 880	3 748	27.9	41.7	43.9	53.1	83.5	77.3	25.7	21.5
Serbia	2 153	2 390	24.5	32.1	40.0	46.4	77.5	71.8	20.8	17.3
Slovenia	546	759	26.3	39.1	43.0	49.6	83.3	77.3	25.2	20.9
Spain	11 750	18 603	25.3	41.9	43.2	52.3	85.3	79.6	27.1	22.7
TFYR Macedonia	405	638	19.5	33.0	37.4	47.3	77.2	73.2	20.1	17.6
Western Europe	51 161	69 513	26.4	34.8	43.5	47.3	83.7	78.4	25.9	22.0
Austria	2 189	3 307	25.1	37.3	43.2	49.9	83.5	78.4	25.5	21.8
Belgium	2 813	4 051	24.6	32.4	41.3	44.7	83.0	78.0	25.4	21.6
France	16 719	22 706	25.7	32.2	41.2	44.3	85.0	78.8	27.3	22.9
Germany	22 996	29 822	28.0	37.6	45.9	50.3	82.9	77.9	25.1	21.4
Luxembourg	115	229	19.6	28.8	39.3	42.8	83.5	78.8	25.6	21.9
Netherlands	4 264	5 908	25.0	33.7	42.1	46.8	83.1	79.4	25.4	22.0
Switzerland	2 044	3 460	24.1	35.0	42.2	47.5	84.8	80.5	26.6	23.3
Latin America and the Caribbean	76 010	198 159	11.8	25.4	29.2	41.1	78.0	71.4	23.4	20.1
Caribbean	6 066	12 240	13.8	25.4	30.3	40.1	75.2	69.8	23.3	20.3
Antigua and Barbuda	11	31	10.9	24.9	30.7	40.5	78.2	73.3	22.8	20.0
Aruba	21	30	19.7	27.7	40.1	44.0	77.8	72.9	21.6	18.0
Bahamas	54	131	13.5	27.7	32.5	42.7	78.1	72.0	23.8	20.4
Barbados	60	87	21.0	31.0	38.5	43.4	77.7	72.9	21.1	17.8
Cuba	2 310	4 138	20.1	38.2	41.1	50.4	81.3	77.1	24.5	21.7
Curaçao	37	53	22.9	29.5	41.3	43.9	80.7	74.5	24.0	20.9
Dominican Republic	1 101	2 813	10.2	21.2	26.1	37.2	76.5	70.2	23.1	20.4
Grenada	11	27	10.5	25.1	27.2	40.0	75.6	70.8	19.9	17.5
Guadeloupe	106	139	23.6	32.8	41.5	46.6	84.0	76.8	26.6	22.2
Haiti	800	2 137	7.3	15.2	23.0	33.1	64.4	60.2	18.7	16.9
Jamaica	393	783	13.6	29.0	29.4	44.7	77.9	73.1	23.4	21.0
Martinique	99	131	25.7	36.9	43.7	47.4	84.4	77.8	26.8	22.4
Puerto Rico	747	1 142	20.4	34.8	36.4	49.4	83.2	75.2	25.9	21.1
Saint Lucia	25	58	13.7	32.0	32.6	48.9	77.6	72.2	22.9	19.2
St. Vincent and the Grenadines	13	28	11.7	25.7	29.8	42.2	74.9	70.7	20.8	18.9
Trinidad and Tobago	206	368	15.0	28.4	33.9	42.8	73.8	66.9	20.2	16.1

Household arrangements of older persons (percentage) from the UN Database of the Living Arrangements of Older Persons, 2017									
	Alone		With spouse only		Independently (alone or with spouse only)		With children		
	Females	Males	Females	Males	Females	Males	Females	Males	
Data source for living arrangements	Most recent estimates available								Country or area
	..	..	..	..	..	..	..	..	Channel Islands
	..	..	..	..	..	..	..	..	Denmark
2011 LFS	27.1	15.3	26.8	61.8	53.8	77.1	40.6	19.0	Estonia
2010 DYB	41.1	23.0	46.9	62.5	88.0	85.5	..	..	Finland
	..	..	..	..	..	..	..	..	Iceland
2011 LFS	30.6	19.6	39.5	49.8	70.1	69.4	25.5	25.8	Ireland
2011 LFS	32.7	16.6	21.4	43.7	54.1	60.3	38.4	32.2	Latvia
2011 LFS	42.1	19.8	26.0	51.9	68.0	71.7	27.1	23.9	Lithuania
2011 DYB	38.6	22.0	49.1	61.2	87.6	83.2	..	..	Norway
2011 DYB	34.0	20.9	..	..	..	..	..	..	Sweden
2011 LFS	39.3	24.3	47.1	61.1	86.5	85.4	10.8	11.0	United Kingdom
Aggregate	31.1	13.3	35.0	49.9	66.1	63.3	28.6	32.0	Southern Europe
2008-2009 DHS	10.5	3.1	23.1	35.5	33.6	38.6	63.7	58.9	Albania
	..	..	..	..	..	..	..	..	Bosnia and Herzegovina
2011 DYB	26.7	13.2	26.5	41.3	53.2	54.5	..	..	Croatia
2011 LFS	31.5	11.4	39.7	56.3	71.1	67.6	24.5	29.1	Greece
2011 LFS	37.9	16.5	34.3	49.5	72.3	66.0	24.7	30.8	Italy
2011 LFS	20.6	8.8	36.8	46.9	57.4	55.7	30.7	35.7	Malta
2011 DYB	21.3	10.4	21.2	32.0	42.5	42.4	..	..	Montenegro
2011 LFS	24.1	9.4	36.5	53.6	60.6	63.0	32.4	31.6	Portugal
2011 DYB	47.4	7.3	9.2	38.3	56.6	45.5	..	..	Serbia
2011 LFS	38.0	17.0	32.7	53.4	70.7	70.4	25.5	26.0	Slovenia
2011 LFS	22.8	10.4	35.1	48.6	57.9	59.0	33.6	33.5	Spain
	..	..	..	..	..	..	..	..	TFYR Macedonia
Aggregate	40.8	18.4	47.8	68.6	88.6	87.0	8.3	10.2	Western Europe
2011 LFS	38.8	18.8	37.7	56.2	76.5	75.0	20.0	21.1	Austria
2011 LFS	31.9	16.5	44.1	63.1	76.0	79.6	17.5	13.7	Belgium
2011 LFS	41.3	18.3	47.0	67.4	88.3	85.7	9.4	11.3	France
2011 LFS	41.7	18.4	49.0	71.0	90.7	89.4	5.8	8.2	Germany
2011 LFS	35.7	16.0	44.1	61.8	79.8	77.8	16.6	20.1	Luxembourg
2011 LFS	41.0	19.7	54.0	71.9	94.9	91.6	3.8	7.4	Netherlands
2011 DYB	38.3	18.7	49.7	63.8	88.0	82.5	..	..	Switzerland
Aggregate	14.1	10.8	16.2	24.4	30.3	35.2	53.0	50.8	Latin America and the Caribbean
Aggregate	12.2	12.9	14.3	20.2	26.5	33.2	49.2	45.6	Caribbean
	..	..	..	..	..	..	..	..	Antigua and Barbuda
	..	..	..	..	..	..	..	..	Aruba
2010 DYB	13.1	14.9	..	..	..	..	..	..	Bahamas
	..	..	..	..	..	..	..	..	Barbados
2002 IPUMS	8.7	10.7	13.1	19.0	21.9	29.6	57.3	49.4	Cuba
	..	..	..	..	..	..	..	..	Curaçao
2013 DHS	12.0	13.8	13.0	17.3	25.0	31.1	40.4	45.2	Dominican Republic
	..	..	..	..	..	..	..	..	Grenada
	..	..	..	..	..	..	..	..	Guadeloupe
2012 DHS	6.7	9.9	6.5	9.5	13.1	19.3	54.0	54.6	Haiti
2011 DYB	16.3	27.0	12.8	16.3	29.0	43.4	..	..	Jamaica
	..	..	..	..	..	..	..	..	Martinique
2010 IPUMS	25.0	16.3	27.8	41.5	52.8	57.9	33.9	28.1	Puerto Rico
1991 IPUMS	16.5	17.4	12.0	17.0	28.4	34.3	44.9	45.8	Saint Lucia
	..	..	..	..	..	..	..	..	St. Vincent and the Grenadines
2011 IPUMS	14.5	15.9	12.6	17.7	27.1	33.6	54.8	50.8	Trinidad and Tobago

Demographic indicators related to population ageing from World Population Prospects: The 2017 Revision										
							Life expectancy at birth (years)		Life expectancy at age 60 (years)	
	Population aged 60 years or over (thousands)		Percentage aged 60 years or over		Median age of the population (years)		Females	Males	Females	Males
Country or area	2017	2050	2017	2050	2015	2050	2010-2015		2010-2015	
United States Virgin Islands	27	28	25.3	31.9	41.2	44.5	81.5	76.7	24.3	20.1
Central America	17 266	53 501	9.7	23.1	26.6	39.5	78.4	73.2	23.6	21.5
Belize	23	90	6.2	15.1	23.5	34.3	72.7	67.2	18.4	15.8
Costa Rica	669	1 759	13.6	30.5	31.4	45.4	81.7	76.7	25.0	22.2
El Salvador	738	1 548	11.6	22.1	25.8	39.6	77.1	67.9	22.6	20.1
Guatemala	1 163	4 109	6.9	15.2	21.3	33.1	75.6	69.2	22.6	20.5
Honduras	645	2 449	7.0	18.5	23.0	36.8	75.4	70.4	23.4	20.7
Mexico	13 042	40 384	10.1	24.6	27.5	40.8	78.9	74.0	23.7	21.6
Nicaragua	521	1 828	8.4	23.2	25.2	40.0	77.5	71.4	23.4	21.0
Panama	466	1 335	11.4	22.9	28.4	37.6	80.5	74.3	25.3	22.5
South America	52 678	132 418	12.4	26.5	30.1	42.0	78.1	71.0	23.3	19.6
Argentina	6 822	12 951	15.4	23.5	30.8	38.5	79.8	72.2	23.8	18.6
Bolivia (Plurinational State of)	1 049	2 703	9.5	17.0	24.1	33.7	70.2	65.3	22.2	20.0
Brazil	26 465	68 871	12.6	29.6	31.3	45.1	78.4	71.0	23.4	19.7
Chile	2 894	6 338	16.0	30.6	33.7	45.1	81.3	76.2	24.6	21.0
Colombia	5 716	15 025	11.6	27.5	30.1	43.3	77.4	70.2	22.5	20.1
Ecuador	1 739	4 997	10.5	21.8	26.6	37.3	78.4	72.8	23.9	21.7
French Guiana	24	92	8.4	16.9	24.5	32.0	82.6	76.1	25.0	19.7
Guyana	67	126	8.6	15.3	24.6	34.8	68.6	64.0	16.6	15.4
Paraguay	643	1 635	9.4	18.4	24.9	35.6	74.9	70.7	22.2	20.0
Peru	3 350	9 510	10.4	22.8	27.5	38.6	76.8	71.5	22.7	19.8
Suriname	58	133	10.4	20.5	28.4	37.4	74.2	67.8	20.1	16.7
Uruguay	675	1 009	19.5	27.5	34.9	42.5	80.4	73.3	24.5	19.0
Venezuela (Bolivarian Republic of)	3 175	9 029	9.9	21.7	27.4	37.9	78.2	69.9	22.6	18.6
Northern America	78 389	122 827	21.7	28.3	37.9	42.4	81.5	76.8	24.9	21.9
Canada	8 590	14 368	23.5	32.0	40.5	45.2	83.8	79.7	26.2	23.1
United States of America	69 774	108 425	21.5	27.8	37.6	42.0	81.3	76.5	24.7	21.7
Oceania	6 915	13 316	17.0	23.3	32.8	37.4	80.2	75.7	25.4	22.3
Australia/New Zealand	6 105	11 075	20.9	28.5	37.4	41.7	84.2	80.1	26.4	23.4
Australia	5 124	9 396	21.0	28.3	37.4	41.5	84.4	80.2	26.6	23.5
New Zealand	981	1 680	20.8	29.4	37.3	43.1	83.1	79.5	25.6	23.0
Melanesia	685	1 962	6.6	11.7	22.3	29.1	68.7	63.8	18.7	15.4
Fiji	90	189	9.9	18.9	27.6	35.2	72.9	66.9	18.8	15.3
New Caledonia	39	91	14.2	24.0	32.8	40.0	79.3	73.7	22.7	18.4
Papua New Guinea	505	1 497	6.1	10.8	21.7	28.5	67.5	62.6	18.4	15.1
Solomon Islands	33	119	5.4	11.5	19.9	28.1	71.1	68.3	18.3	16.6
Vanuatu	19	66	6.7	13.9	22.2	30.0	73.6	69.4	19.2	16.8
Micronesia	55	118	10.4	17.9	25.7	34.3	75.3	70.5	21.2	18.2
Guam	23	48	14.0	24.8	30.1	40.1	81.5	76.4	24.2	19.9
Kiribati	7	21	6.4	11.9	22.4	28.3	68.9	62.4	17.8	15.5
Micronesia (Fed. States of)	8	15	8.0	12.1	21.5	30.8	69.9	67.7	18.0	16.4
Polynesia	70	161	10.2	19.8	25.8	34.9	77.4	72.0	21.6	17.8
French Polynesia	34	88	11.9	27.0	30.9	42.2	78.6	74.0	21.7	18.9
Samoa	17	35	8.5	14.4	21.2	28.6	77.4	71.1	22.0	17.0
Tonga	9	18	8.5	12.7	21.3	28.3	75.6	69.6	21.0	16.2

Household arrangements of older persons (percentage) from the UN Database of the Living Arrangements of Older Persons, 2017									
	Alone		With spouse only		Independently (alone or with spouse only)		With children		
	Females	Males	Females	Males	Females	Males	Females	Males	
Data source for living arrangements	Most recent estimates available								Country or area
	..	..	..	..	..	..	..	..	United States Virgin Islands
Aggregate	11.3	9.8	15.5	22.3	26.8	32.1	57.9	55.5	Central America
	..	..	..	..	..	..	..	..	Belize
2011 IPUMS	13.0	11.7	16.6	23.1	29.6	34.8	55.3	51.7	Costa Rica
2007 IPUMS	9.7	10.8	8.7	14.4	18.4	25.2	59.0	57.0	El Salvador
2014-2015 DHS	6.3	5.4	11.8	15.2	18.1	20.6	65.5	66.7	Guatemala
2011 DHS	5.9	7.5	7.4	10.3	13.3	17.9	65.6	65.5	Honduras
2015 IPUMS	12.3	10.1	17.1	24.7	29.4	34.7	56.6	53.9	Mexico
2005 IPUMS	5.3	6.5	5.5	8.0	10.8	14.5	66.2	65.4	Nicaragua
2010 IPUMS	10.2	15.9	13.1	17.6	23.3	33.6	58.2	49.1	Panama
Aggregate	15.2	10.9	16.7	25.6	31.9	36.5	51.8	49.9	South America
2010 IPUMS	22.4	13.6	36.8	39.4	59.2	53.0	..	..	Argentina
2012 DYB	16.7	19.6	11.3	14.1	28.0	33.7	..	..	Bolivia (Plurinational State of)
2010 IPUMS	15.5	10.4	17.3	27.6	32.8	38.0	51.5	49.6	Brazil
2002 IPUMS	12.5	10.4	14.6	21.3	27.1	31.7	51.6	48.9	Chile
2015 DHS	11.1	10.5	13.1	21.7	24.2	32.2	58.1	51.6	Colombia
2010 IPUMS	13.0	13.3	14.0	18.0	27.0	31.3	53.3	51.6	Ecuador
	..	..	..	..	..	..	..	..	French Guiana
2009 DHS	15.1	17.8	12.5	23.3	27.6	41.2	50.6	45.1	Guyana
2002 IPUMS	7.4	8.4	9.0	12.3	16.4	20.8	61.2	61.8	Paraguay
2012 DHS	14.3	11.8	16.4	21.7	30.6	33.5	55.5	54.6	Peru
	..	..	..	..	..	..	..	..	Suriname
2011 IPUMS	28.8	18.0	24.5	39.5	53.2	57.5	33.3	31.5	Uruguay
2001 IPUMS	6.7	9.0	6.9	10.4	13.5	19.4	67.2	62.0	Venezuela (Bolivarian Republic of)
Aggregate	31.2	17.4	39.1	56.1	70.3	73.5	20.5	17.7	Northern America
2011 IPUMS	30.7	16.6	43.4	57.8	74.2	74.4	17.7	18.4	Canada
2010 IPUMS	31.3	17.5	38.6	55.9	69.9	73.4	20.9	17.6	United States of America
Aggregate	..	..	..	..	..	..	..	..	Oceania
Aggregate	29.2	16.9	46.4	57.3	75.6	74.3	..	..	Australia/New Zealand
2011 DYB	28.8	17.0	46.2	56.6	75.0	73.6	..	..	Australia
2006 DYB	31.4	16.6	47.2	61.5	78.6	78.0	..	..	New Zealand
Aggregate	..	..	..	..	..	..	..	..	Melanesia
2007 IPUMS	3.9	4.3	6.1	9.8	10.0	14.1	59.6	57.5	Fiji
	..	..	..	..	..	..	..	..	New Caledonia
	..	..	..	..	..	..	..	..	Papua New Guinea
	..	..	..	..	..	..	..	..	Solomon Islands
	..	..	..	..	..	..	..	..	Vanuatu
	..	..	..	..	..	..	..	..	Micronesia
	..	..	..	..	..	..	..	..	Guam
	..	..	..	..	..	..	..	..	Kiribati
	..	..	..	..	..	..	..	..	Micronesia (Fed. States of)
	..	..	..	..	..	..	..	..	Polynesia
	..	..	..	..	..	..	..	..	French Polynesia
	..	..	..	..	..	..	..	..	Samoa
	..	..	..	..	..	..	..	..	Tonga

Table A.III.2. Ranking of countries or areas* according to the percentage of population aged 60 or over, estimated for 2017 and projected for 2050

	2017			2050	
Rank	Country or area	Percentage aged 60 or over		Country or area	Percentage aged 60 or over
1	Japan	33.4		Japan	42.4
2	Italy	29.4		Spain	41.9
3	Germany	28.0		Portugal	41.7
4	Portugal	27.9		Greece	41.6
5	Finland	27.8		Republic of Korea	41.6
6	Bulgaria	27.7		China, Taiwan Province of China	41.3
7	Croatia	26.8		China, Hong Kong SAR	40.6
8	Greece	26.5		Italy	40.3
9	Slovenia	26.3		Singapore	40.1
10	Latvia	26.2		Poland	39.5
11	Malta	26.1		Slovenia	39.1
12	Hungary	26.0		Cuba	38.2
13	Estonia	25.9		Germany	37.6
14	France	25.7		Austria	37.3
15	Martinique	25.7		Croatia	37.1
16	Czechia	25.6		Martinique	36.9
17	Sweden	25.5		Malta	36.8
18	Spain	25.3		Czechia	36.7
19	United States Virgin Islands	25.3		Estonia	36.6
20	Denmark	25.3		Bulgaria	36.4
21	Lithuania	25.3		China, Macao SAR	36.2
22	Austria	25.1		Slovakia	36.2
23	Netherlands	25.0		Bosnia and Herzegovina	36.1
24	Romania	24.9		Romania	35.4
25	Belgium	24.6		Latvia	35.3
26	Channel Islands	24.5		Channel Islands	35.1
27	Serbia	24.5		Thailand	35.1
28	Switzerland	24.1		China	35.1
29	Poland	24.0		Switzerland	35.0
30	United Kingdom	23.9		Puerto Rico	34.8
31	Guadeloupe	23.6		Hungary	34.7
32	Canada	23.5		Republic of Moldova	34.5
33	China, Hong Kong SAR	23.5		Albania	34.1
34	Bosnia and Herzegovina	23.4		Netherlands	33.7
35	Ukraine	23.2		Ukraine	33.6
36	Curaçao	22.9		TFYR Macedonia	33.0
37	Norway	22.3		Guadeloupe	32.8
38	Slovakia	21.8		Cyprus	32.7
39	United States of America	21.5		Lithuania	32.6
40	Belarus	21.3		Belgium	32.4

Rank	2017			2050	
	Country or area	Percentage aged 60 or over		Country or area	Percentage aged 60 or over
41	Montenegro	21.3		France	32.2
42	Russian Federation	21.1		Montenegro	32.1
43	Barbados	21.0		Iran (Islamic Republic of)	32.1
44	Australia	21.0		Serbia	32.1
45	New Zealand	20.8		Saint Lucia	32.0
46	Georgia	20.8		Canada	32.0
47	Puerto Rico	20.4		United States Virgin Islands	31.9
48	China, Taiwan Province of China	20.2		Finland	31.7
49	Republic of Korea	20.1		Armenia	31.6
50	Cuba	20.1		United Kingdom	31.5
51	Iceland	20.1		Belarus	31.4
52	Aruba	19.7		Lebanon	31.2
53	Luxembourg	19.6		Barbados	31.0
54	Singapore	19.5		Ireland	30.8
55	Uruguay	19.5		Chile	30.6
56	TFYR Macedonia	19.5		Iceland	30.6
57	Ireland	19.1		Costa Rica	30.5
58	Albania	19.0		Sweden	30.4
59	Cyprus	18.5		Mauritius	30.2
60	Republic of Moldova	17.6		Denmark	30.0
61	Thailand	16.9		Russian Federation	29.9
62	Armenia	16.9		Brazil	29.6
63	Mauritius	16.6		Curaçao	29.5
64	Réunion	16.4		Georgia	29.4
65	China	16.2		New Zealand	29.4
66	Israel	16.1		Norway	29.4
67	China, Macao SAR	16.1		Réunion	29.4
68	Chile	16.0		Jamaica	29.0
69	Argentina	15.4		Luxembourg	28.8
70	Trinidad and Tobago	15.0		Seychelles	28.8
71	Sri Lanka	14.9		Sri Lanka	28.8
72	New Caledonia	14.2		Brunei Darussalam	28.7
73	Guam	14.0		Trinidad and Tobago	28.4
74	Saint Lucia	13.7		Maldives	28.4
75	Costa Rica	13.6		Australia	28.3
76	Jamaica	13.6		Viet Nam	28.3
77	Bahamas	13.5		United States of America	27.8
78	Dem. People's Republic of Korea	13.5		Aruba	27.7
79	Seychelles	13.3		Bahamas	27.7
80	Brazil	12.6		Uruguay	27.5
81	Tunisia	12.3		Colombia	27.5
82	Lebanon	12.0		French Polynesia	27.0

Rank	2017			2050	
	Country or area	Percentage aged 60 or over		Country or area	Percentage aged 60 or over
83	Turkey	12.0		Turkey	26.6
84	French Polynesia	11.9		Tunisia	26.5
85	Saint Vincent and the Grenadines	11.7		Dem. People's Republic of Korea	26.0
86	Colombia	11.6		Saint Vincent and the Grenadines	25.7
87	El Salvador	11.6		Grenada	25.1
88	Panama	11.4		Antigua and Barbuda	24.9
89	Viet Nam	11.1		Guam	24.8
90	Kazakhstan	11.1		Azerbaijan	24.7
91	Antigua and Barbuda	10.9		Mexico	24.6
92	Morocco	10.7		New Caledonia	24.0
93	Grenada	10.5		Morocco	24.0
94	Ecuador	10.5		Bhutan	23.7
95	Peru	10.4		Argentina	23.5
96	Suriname	10.4		Nicaragua	23.2
97	Dominican Republic	10.2		Malaysia	23.1
98	Mexico	10.1		Algeria	23.0
99	Azerbaijan	10.1		Saudi Arabia	22.9
100	Venezuela (Bolivarian Republic of)	9.9		Panama	22.9
101	Fiji	9.9		Peru	22.8
102	Malaysia	9.7		Libya	22.8
103	Bolivia (Plurinational State of)	9.5		El Salvador	22.1
104	Myanmar	9.4		Bangladesh	22.0
105	Paraguay	9.4		Ecuador	21.8
106	India	9.4		Venezuela (Bolivarian Republic of)	21.7
107	Algeria	9.4		Israel	21.6
108	Iran (Islamic Republic of)	8.8		Dominican Republic	21.2
109	Nepal	8.8		Kuwait	20.5
110	Guyana	8.6		Suriname	20.5
111	Indonesia	8.6		Oman	20.3
112	Samoa	8.5		Uzbekistan	19.6
113	Tonga	8.5		Kazakhstan	19.2
114	French Guiana	8.4		Indonesia	19.2
115	Nicaragua	8.4		India	19.1
116	South Africa	8.4		Fiji	18.9
117	Micronesia (Fed. States of)	8.0		Mongolia	18.8
118	Brunei Darussalam	8.0		United Arab Emirates	18.7
119	Egypt	7.9		Myanmar	18.5
120	Philippines	7.6		Honduras	18.5
121	Uzbekistan	7.6		Paraguay	18.4
122	Kyrgyzstan	7.6		Qatar	18.2
123	Bangladesh	7.3		Cabo Verde	18.2
124	Bhutan	7.3		Nepal	18.0

Rank	2017			2050	
	Country or area	Percentage aged 60 or over		Country or area	Percentage aged 60 or over
125	Haiti	7.3		Bahrain	17.4
126	Turkmenistan	7.3		Western Sahara	17.3
127	Cambodia	7.1		Bolivia (Plurinational State of)	17.0
128	Honduras	7.0		Cambodia	16.9
129	Cabo Verde	6.9		French Guiana	16.9
130	Guatemala	6.9		Botswana	16.9
131	Syrian Arab Republic	6.8		Kyrgyzstan	16.7
132	Pakistan	6.7		Lao People's Democratic Republic	16.1
133	Lesotho	6.7		Syrian Arab Republic	16.1
134	Vanuatu	6.7		South Africa	15.9
135	Libya	6.6		Turkmenistan	15.9
136	Mongolia	6.6		Djibouti	15.6
137	Djibouti	6.4		Egypt	15.4
138	Kiribati	6.4		Jordan	15.4
139	Botswana	6.4		Guyana	15.3
140	Gabon	6.4		Guatemala	15.2
141	Lao People's Democratic Republic	6.3		Haiti	15.2
142	Maldives	6.3		Belize	15.1
143	Belize	6.2		Samoa	14.4
144	Papua New Guinea	6.1		Philippines	14.2
145	Tajikistan	5.8		Vanuatu	13.9
146	Mayotte	5.8		Tajikistan	13.6
147	Jordan	5.7		Mayotte	13.2
148	Saudi Arabia	5.6		Gabon	13.2
149	Sudan	5.5		Pakistan	12.9
150	Namibia	5.5		Tonga	12.7
151	Central African Republic	5.5		Micronesia (Fed. States of)	12.1
152	Timor-Leste	5.4		Kiribati	11.9
153	Western Sahara	5.4		Rwanda	11.6
154	Solomon Islands	5.4		Solomon Islands	11.5
155	Ghana	5.3		Namibia	10.9
156	Ethiopia	5.3		Papua New Guinea	10.8
157	Eritrea	5.3		Kenya	10.6
158	Guinea	5.2		State of Palestine	10.5
159	Congo	5.2		Ethiopia	9.9
160	South Sudan	5.1		Swaziland	9.9
161	Mauritania	5.0		Yemen	9.9
162	Iraq	5.0		Ghana	9.8
163	Benin	5.0		Zimbabwe	9.7
164	Guinea-Bissau	4.9		Eritrea	9.5
165	Liberia	4.9		Lesotho	9.4
166	Comoros	4.9		Iraq	9.1

Rank	2017			2050	
	Country or area	Percentage aged 60 or over		Country or area	Percentage aged 60 or over
167	Rwanda	4.9		Comoros	9.1
168	Kuwait	4.9		Sao Tome and Principe	9.0
169	Swaziland	4.8		Afghanistan	8.8
170	Mozambique	4.8		Mauritania	8.8
171	Madagascar	4.8		Congo	8.7
172	Côte d'Ivoire	4.8		Madagascar	8.5
173	Cameroon	4.8		Sudan	8.3
174	Senegal	4.7		Senegal	8.3
175	Democratic Republic of the Congo	4.7		Liberia	8.2
176	United Republic of Tanzania	4.7		Guinea-Bissau	8.1
177	State of Palestine	4.6		Togo	8.1
178	Bahrain	4.6		Cameroon	8.0
179	Togo	4.6		Malawi	7.7
180	Yemen	4.6		Guinea	7.6
181	Nigeria	4.5		South Sudan	7.6
182	Equatorial Guinea	4.4		Sierra Leone	7.6
183	Burundi	4.4		Benin	7.4
184	Somalia	4.4		United Republic of Tanzania	7.2
185	Sao Tome and Principe	4.3		Central African Republic	7.0
186	Kenya	4.3		Zambia	6.7
187	Malawi	4.3		Timor-Leste	6.7
188	Zimbabwe	4.2		Equatorial Guinea	6.6
189	Niger	4.2		Mozambique	6.5
190	Sierra Leone	4.2		Burundi	6.5
191	Afghanistan	4.1		Burkina Faso	6.5
192	Angola	4.0		Nigeria	6.4
193	Oman	4.0		Democratic Republic of the Congo	6.4
194	Chad	4.0		Gambia	6.4
195	Mali	4.0		Côte d'Ivoire	6.3
196	Burkina Faso	3.9		Angola	6.1
197	Gambia	3.8		Uganda	5.8
198	Zambia	3.7		Mali	5.6
199	Uganda	3.3		Chad	5.6
200	Qatar	2.8		Somalia	5.3
201	United Arab Emirates	2.4		Niger	4.1

Data source: United Nations (2017). *World Population Prospects: The 2017 Revision*.
* 201 countries or areas with at least 90,000 inhabitants in 2017.

Accurate, consistent and timely data on global trends in population age structure are critical for assessing current and future needs with respect to population ageing and for setting policy priorities to promote the well-being of the growing number and share of older persons in the population. The *World Population Ageing 2017* report summarizes the trends in population ageing drawn from the latest United Nations estimates and projections of population by age and sex, as published in *World Population Prospects: the 2017 Revision*. The present *Report* includes a special focus on trends in the household living arrangements of older persons—whether alone, with a spouse or with own children— reflecting newly compiled estimates from the *United Nations Database on the Living Arrangements of Older Persons 2017*.