

Department of Economic and Social Affairs
Population Division

Living Arrangements of Older Persons: A Report on an Expanded International Dataset



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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. To complement its ongoing work in the area of population ageing, the Population Division has produced an expanded international dataset on the household composition, or living arrangements, of persons aged 60 years or over, estimated using both tabulated data and micro-data from censuses and household surveys. This *United Nations Database on the Living Arrangements of Older Persons 2017*, builds on work previously carried out by the Population Division more than a decade ago, published in: United Nations (2005) *Living Arrangements of Older Persons Around the World*. It was developed by Sara Hertog, Yumiko Kamiya, Mun Sim Lai and Ivan Prlincevic of the Population Division, in collaboration with a team of researchers at the Center for Demographic Studies of the Universitat Autònoma de Barcelona led by Professor Albert Esteve and including: Marc Ajenjo, Joan Garcia, Pinar Koxsel, Antonio López-Gay, Antonio José Medina, Rocío Treviño and Anna Turu.

The present report documents the procedures used in compiling the *United Nations Database on the Living Arrangements of Older Persons 2017*, summarizes some of the key findings from the data and identifies priorities for future research. This report was prepared by Sara Hertog, drawing heavily on the materials prepared for the 2005 report and benefited from comments received from Victor Gaigbe-Togbe, Yumiko Kamiya, Mun Sim Lai and Frank Swiaczny, as well as editorial support from Donna Culpepper.

This report, as well as the associated *United Nations Database on the Living Arrangements of Older Persons 2017*, can be accessed on the Population Division's website at www.unpopulation.org. For further information concerning this publication, please contact the office of the Director, Population Division, Department of Economic and Social Affairs, United Nations, New York, 10017, USA, telephone +1 (212) 963-3209, fax +1 (212) 963- 2147, email: population@un.org.

The present report has been issued without formal editing.

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LIVING ARRANGEMENTS OF OLDER PERSONS: A REPORT ON AN EXPANDED INTERNATIONAL DATASET

I. INTRODUCTION

Population ageing is occurring everywhere: nearly every country in the world is expected to experience a substantial increase in the proportion of the population aged 60 years or over between 2017 and 2050. Globally, older persons comprised close to 13 per cent of the population in 2017 and their share of the world's population is projected to rise to 21 per cent in 2050 and to 28 per cent by the end of the twenty-first century.

Population ageing is occurring along with broader social and economic changes that are taking place around the world: increasing incomes and levels of education, progress towards gender equality and the empowerment of women, improvements in public health, including access to sexual and reproductive health care, and medical technologies, as well as globalization, urbanization and migration.

Each of these transformations is reshaping the contexts in which older persons live, including the composition of their households. A 2005 report from the United Nations Population Division, entitled "*Living Arrangements of Older Persons Around the World*", was the most comprehensive global study ever conducted on the patterns and trends in older persons' households. It concluded that there was a widespread trend towards independent forms of living arrangements among older persons. In the more developed regions, the increasing prevalence of living alone or with a spouse only was in accordance with the general preferences expressed by older persons. While there was some evidence of increasing prevalence of independent living in parts of the less developed regions as well, the dearth of data for many countries necessitated caution in interpreting those trends.

Just over a decade since the publication of the 2005 report, the United Nations has expanded the dataset describing older persons' living arrangements around the world. With an increased number of countries and time periods represented, the new dataset provides broader evidence on the global patterns in older persons' households and facilitates a renewed investigation of trends over time, with more power than before to describe those trends in the less developed regions in particular.

The present report documents the procedures used in compiling the *United Nations Database on the Living Arrangements of Older Persons 2017*, and summarizes some of the key findings from the data. Section II describes the major sources of empirical data and methods used to estimate four categories of older persons' household living arrangements: alone, with a spouse only, with their children, or other household arrangements. Section III describes some of the general patterns revealed by the estimates across countries and regions, including those related to sex- and age-differences in older persons' living arrangements, as well as observed trends in older persons' households between the period circa 1990 and that circa 2010. Section IV offers some remarks on priorities for data and research over the near term to advance the work of the United Nations on older persons' living arrangements. Annexes I and II address measurement concerns encountered in developing the dataset, including the potential role of trends in co-residence with minor children in influencing the trends described in section III, as well as the potential underestimation of co-residence with children from certain household surveys. Annex III lists estimates of institutional living arrangements among older persons for a subset of countries.

II. DATA AND METHODS

The *United Nations Database on the Living Arrangements of Older Persons 2017* (hereafter referred to as “the database”) presents a compilation of indicators on the household composition, or living arrangements, of persons aged 60 or over, estimated using both tabulated data and micro-data from censuses and household surveys. It was developed by staff members of the United Nations Population Division, in collaboration with a team of researchers at the Center for Demographic Studies of the Universitat Autònoma de Barcelona. The estimates are based on 664 data sources from 143 countries or areas representing approximately 97 per cent of persons aged 60 or over globally, over a period ranging from 1960 to 2015. A standard estimation procedure was used across all data sources so that estimates may be compared both across countries and over time. Where possible, given the available data, estimates were disaggregated by sex, age group (60 years or over, 60-79 years and 80 years or over) and urban/rural residence. The database is available on the website of the Population Division from <https://population.un.org/LivingArrangements/index.html>.

The database was created for global comparative purposes, to describe the similarities and differences across regions and countries in the contexts in which older persons live. By necessity, those living arrangements are summarized using the simplest of descriptions, through four mutually exclusive categories:

Alone: the percentage of older persons residing alone in a one-person household.

With spouse only: the percentage of older persons residing with a spouse or partner in a two-person household.

With children: the percentage of older persons residing with any of their children, including sons, daughters, children-in-law, step-children, adopted children and foster children.

Other: the percentage of older persons whose household living arrangement is not among the three categories defined above.

Consistent with the approach taken in previous analyses, a “living independently” category is defined as the sum of the “alone” and “with spouse only” categories. This definition does not imply an absence of intergenerational transfers between older persons and their children. Similarly, the definition of living “with children” does not distinguish the extent or direction of support between older persons and their children.

Because most of the data sources accessed relied on information about households, older persons residing in institutions such as nursing facilities or dormitories are not represented in the data. The estimates should thus be interpreted as referring to the household population only. In most countries, only a small fraction of older persons resides in institutions, although the proportion is larger in several high-income countries with relatively aged populations. Annex III of this report lists estimates of the proportion of older persons residing in non-household arrangements for selected countries based on data availability.

Most of the estimates presented in the database are based on micro-level data obtained from three main primary sources:

DHS: Demographic and Health Surveys (<https://dhsprogram.com/>).

Estimates were derived from microdata from the household roster portion of the survey, which lists all household members, their sex, age and relationship to head of household. Only “usual residents” were considered and survey weights were applied. The living arrangements of older persons were determined according to household size and relationships between household members.

An older person residing in a one-person household was classified as living “alone”. An older person residing in a two-person household was classified as living “with spouse only” if either of two conditions were satisfied: 1) the older person was indicated as the “wife or husband” of the household head; or 2) the older person was the head of household and the other household member’s relationship to the head was “wife or husband”.

An older person was classified as living “with children” if either of two conditions were satisfied: 1) the older person was the head of household or “wife or husband” of the head of household and any other household member was listed as “son/daughter”, “son/daughter-in-law” or “adopted/foster child” of the head of household; 2) the older person was listed as the “parent” or “parent-in-law” of the head of household. This approach may have underestimated the percentage of older persons residing with children because co-residence with children could not be determined definitively in cases where the older person was neither the head/spouse of the head nor the parent/parent-in-law of the head. An analysis of the potential underestimation of older persons residing with children indicated that the potential degree of underestimation was small: for two thirds of the 260 DHS surveys assessed, the percentage of persons aged 60 or over for whom co-residence with children was indeterminate was less than 2 per cent; it exceeded 5 per cent for surveys in countries that tended to have larger, more complex household living arrangements, such as Cameroon, Côte d’Ivoire and Senegal. A full description of the potential underestimation of older persons’ co-residence with children from DHS household rosters can be found in annex II of this report.

IPUMS: Integrated Public Use Microdata Series, International: Version 6.4 [dataset]. Minnesota Population Center (2015). Minneapolis, MN: University of Minnesota. Available from <http://doi.org/10.18128>.

LFS: Labour Force Surveys of the European Union, Eurostat. (<http://ec.europa.eu/eurostat/web/microdata/european-union-labour-force-survey>).

For both IPUMS and LFS, estimates were derived from microdata from the household roster portion of the census sample or household survey. The living arrangements of older persons were determined according to household size and the pointers that identify when individuals reside in the same household as a spouse or parent. An older person residing in a one-person household was classified as living “alone”. An older person residing in a two-person household with a spouse or partner present was classified as living “with spouse only”. An older person residing in a household where he/she was identified as the parent, step-parent or parent-in-law of another household member was classified as living “with children”. For ease of processing, IPUMS samples were restricted to a maximum of 400,000 households. Sensitivity analyses indicated that the effects of this restriction were negligible.

Estimates obtained from primary sources were supplemented with information reported by some countries to the *Demographic Yearbook of the United Nations*:

DYB: Demographic Yearbook of the United Nations.

(https://unstats.un.org/unsd/demographic/products/dyb/dyb_Household/dyb_household.htm).

The *Demographic Yearbook* compiles data on households reported to the United Nations by national statistical offices. The living arrangements of older persons were estimated based on data contained in table 7: Population in households by type of household, age and sex, 1995-2013. The percentage of older persons living “alone” was calculated as the number of older persons residing in “one-person” households as a percentage of the total number of older persons in households of any size. The percentage of older persons living “with spouse only” was calculated as the number of older persons residing in “couple without children” households as a percentage of the total number of older persons in households of any size. The tabulations compiled in the DYB did not permit estimation of the percentage of older persons co-residing with their children.

To analyze changes in older persons’ living arrangements over time for each country, estimates were selected corresponding to a year between 1980 and 1995 and closest to 1990, as well as for a year between 2000 and 2015 and closest to 2010. When more than one data source was available for a country and time period, efforts were made to select the same category of data source for the two periods (i.e., both DHS or both IPUMS), recognizing that the potential biases associated with each data source category could differ.

To describe broad patterns and trends in older persons’ living arrangements around the world, 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. These aggregate estimates are averages across countries or areas with data that permitted estimation of all four categories of living arrangement described above, weighted according to the sex-specific population aged 60 years or over in 2010 as estimated in the 2017 revision of *World Population Prospects*. Aggregate estimates are presented in the text and table of this report 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. For the analysis of time trends, aggregates were estimated using the subset of countries for which estimates were available for both the period circa 1990 and the period circa 2010.

III. KEY FINDINGS

Table 1 lists the estimates of older persons’ living arrangements (both sexes combined) for each of the 143 countries or areas derived from the most recent data source available in the database. Of the 143 countries or areas contained in the database, 41 are in Africa, 35 in Asia, 35 in Europe, 26 in Latin America and the Caribbean, 3 in Northern America and 3 in Oceania.

The countries or areas represented in the database were home to approximately 97 per cent of the global number of persons aged 60 years or over in 2010 (table 2). Coverage was highest in Northern America and in Latin America and the Caribbean, where the countries or areas included were home to more than 99 per cent of the population aged 60 years or over in each region in 2010. Africa was the region least well covered by the database: the countries represented were home to 88 per cent of the region’s population aged 60 years or over in 2010.

TABLE 1. ESTIMATES OF THE HOUSEHOLD LIVING ARRANGEMENTS OF PERSONS AGED 60 YEARS OR OVER DERIVED FROM MOST RECENT DATA SOURCE FOR EACH COUNTRY

Country or area	Data source	Household living arrangements of persons aged 60 or over (percentage)				Number of persons aged 60 or over in 2010 (thousands)	Percentage of global population aged 60 or over	Percentage of regional population aged 60 or over
		Alone	With spouse only	Independent (alone or with spouse only)	With children			
Africa								
Benin	2011 DHS	11.6	7.8	19.5	62.6	452.5	0.1	0.8
Botswana	2011 IPUMS	12.2	5.6	17.8	54.1	107.8	0.0	0.2
Burkina Faso	2010 DHS	3.1	7.1	10.2	73.7	608.8	0.1	1.1
Burundi	2010 DHS	11.0	9.9	20.9	56.3	351.4	0.0	0.6
Cameroon	2011 DHS	10.5	5.6	16.2	58.7	971.2	0.1	1.8
Central African Republic	1994-1995 DHS	12.5	13.3	25.8	48.8	243.1	0.0	0.4
Chad	2014 DHS	7.8	7.1	14.9	65.1	471.3	0.1	0.9
Comoros	2012 DHS	2.8	6.7	9.5	67.9	31.0	0.0	0.1
Congo	2011 DHS	12.7	12.5	25.2	52.1	220.1	0.0	0.4
Côte d'Ivoire	2011-2012 DHS	6.6	5.5	12.1	61.8	951.0	0.1	1.7
Dem. Republic of the Congo	2013-2014 DHS	10.8	10.3	21.1	55.0	3 045.3	0.4	5.5
Egypt	2014 DHS	13.5	24.4	37.9	59.0	6 337.5	0.8	11.5
Ethiopia	2010-2011 DHS	6.7	6.4	13.1	66.8	4 484.1	0.6	8.1
Gabon	2012 DHS	13.8	12.3	26.1	46.7	114.7	0.0	0.2
Gambia	2013 DHS	2.0	1.2	3.2	80.4	62.9	0.0	0.1
Ghana	2014 DHS	18.2	10.8	29.1	47.1	1 322.0	0.2	2.4
Guinea	2012 DHS	2.0	2.9	5.0	77.2	529.6	0.1	1.0
Kenya	2014 DHS	13.4	10.1	23.4	50.2	1 573.6	0.2	2.9
Lesotho	2014 DHS	13.2	7.3	20.5	43.2	135.6	0.0	0.2
Liberia	2013 DHS	5.3	5.7	11.0	61.6	188.0	0.0	0.3
Madagascar	2008-2009 DHS	10.4	9.5	19.9	55.7	918.2	0.1	1.7
Malawi	2015-2016 DHS	8.8	8.8	17.6	44.1	678.2	0.1	1.2
Mali	2012 DHS	2.0	8.0	9.9	74.7	631.2	0.1	1.1
Morocco	2004 IPUMS	4.4	5.3	9.7	78.2	2 795.9	0.4	5.1
Mozambique	2011 DHS	13.2	13.6	26.8	44.0	1 163.3	0.2	2.1

Country or area	Data source	Household living arrangements of persons aged 60 or over (percentage)				Number of persons aged 60 or over in 2010 (thousands)	Percentage of global population aged 60 or over	Percentage of regional population aged 60 or over
		Alone	With spouse only	Independent (alone or with spouse only)	With children			
Namibia	2013 DHS	6.5	8.8	15.3	52.7	112.5	0.0	0.2
Niger	2012 DHS	3.2	6.2	9.5	70.5	671.9	0.1	1.2
Nigeria	2013 DHS	12.0	8.9	20.9	60.6	7 202.4	0.9	13.1
Rwanda	2014-2015 DHS	8.3	7.0	15.3	56.0	425.0	0.1	0.8
Sao Tome and Principe	2008-2009 DHS	31.5	10.8	42.3	32.7	8.2	0.0	0.0
Senegal	2015 DHS	1.7	1.2	2.9	80.4	604.8	0.1	1.1
Sierra Leone	2013 DHS	2.0	2.1	4.1	72.1	267.8	0.0	0.5
South Africa	2011 IPUMS	11.2	15.3	26.5	47.0	3 701.5	0.5	6.7
South Sudan	2008 IPUMS	3.7	2.2	5.9	58.9	528.9	0.1	1.0
Sudan	2008 IPUMS	5.1	4.5	9.6	69.6	1 755.0	0.2	3.2
Swaziland	2006-2007 DHS	7.3	4.9	12.2	59.6	56.2	0.0	0.1
Togo	2013-2014 DHS	9.7	5.0	14.6	64.0	286.9	0.0	0.5
Uganda	2011 DHS	9.9	5.6	15.6	49.6	1 163.2	0.2	2.1
United Republic of Tanzania	2015-2016 DHS	7.5	9.1	16.6	56.1	2 168.5	0.3	3.9
Zambia	2013-2014 DHS	8.9	11.6	20.5	47.7	530.0	0.1	1.0
Zimbabwe	2015 DHS	9.0	8.3	17.3	47.7	599.0	0.1	1.1
Asia								
Afghanistan	2015 DHS	0.2	2.1	2.3	94.8	1 113.1	0.1	0.3
Armenia	2011 IPUMS	11.1	14.1	25.2	66.8	425.5	0.1	0.1
Azerbaijan	2006 DHS	7.4	14.0	21.4	74.5	733.0	0.1	0.2
Bangladesh	2014 DHS	1.7	10.7	12.4	81.8	10 492.1	1.4	2.5
Cambodia	2014 DHS	4.5	8.9	13.4	70.7	841.3	0.1	0.2
China	2000 IPUMS	8.2	25.0	33.2	57.4	171 120.4	22.2	40.3
China, Hong Kong SAR	2011 DYB	12.1	23.0	35.1	..	1 295.2	0.2	0.3
China, Macao SAR	2011 DYB	10.5	22.6	33.1	..	58.9	0.0	0.0
Cyprus	2011 LFS	15.8	51.7	67.5	20.9	179.0	0.0	0.0
Georgia	2002 DYB	13.8	..	..	..	793.8	0.1	0.2
India	2009 IPUMS	4.9	15.5	20.4	71.0	96 137.1	12.5	22.7

Country or area	Data source	Household living arrangements of persons aged 60 or over (percentage)				Number of persons aged 60 or over in 2010 (thousands)	Percentage of global population aged 60 or over	Percentage of regional population aged 60 or over
		Alone	With spouse only	Independent (alone or with spouse only)	With children			
Indonesia	2012 DHS	8.5	15.8	24.3	64.0	17 834.6	2.3	4.2
Iran (Islamic Republic of)	2011 IPUMS	14.6	25.5	40.1	56.8	5 316.2	0.7	1.3
Iraq	1997 IPUMS	1.7	3.3	5.0	84.5	1 461.8	0.2	0.3
Israel	2008 DYB	20.6	46.7	67.3	..	1 104.9	0.1	0.3
Japan	2010 DYB	15.5	35.8	51.3	..	38 941.2	5.1	9.2
Jordan	2012 DHS	7.4	15.7	23.2	70.7	389.7	0.1	0.1
Kazakhstan	1999 DHS	15.9	32.3	48.3	45.1	1 616.9	0.2	0.4
Kyrgyzstan	2012 DHS	9.9	13.3	23.2	65.4	349.4	0.0	0.1
Malaysia	2000 IPUMS	6.9	13.9	20.8	68.7	2 214.8	0.3	0.5
Maldives	2009 DHS	3.5	6.7	10.2	79.5	21.9	0.0	0.0
Mongolia	2000 IPUMS	9.2	9.8	19.0	65.2	153.6	0.0	0.0
Myanmar	2015-16 MDHS	5.0	8.8	13.9	71.4	3 778.3	0.5	0.9
Nepal	2011 DHS	3.9	12.4	16.3	75.4	2 005.4	0.3	0.5
Pakistan	2012-2013 DHS	0.6	3.7	4.3	90.2	11 184.2	1.5	2.6
Philippines	2013 DHS	5.4	10.9	16.3	65.2	6 115.1	0.8	1.4
Republic of Korea	2005 DYB	15.3	33.7	49.0	..	7 599.6	1.0	1.8
State of Palestine	2007 IPUMS	9.6	16.0	25.7	67.2	175.9	0.0	0.0
Tajikistan	2011 DHS	2.9	3.5	6.4	90.3	376.6	0.0	0.1
Thailand	2000 IPUMS	6.0	12.8	18.8	68.4	8 703.5	1.1	2.1
Timor-Leste	2009-2010 DHS	3.2	7.3	10.6	73.9	56.6	0.0	0.0
Turkey	2003 DHS	10.2	31.3	41.5	53.3	7 491.5	1.0	1.8
Uzbekistan	1996 DHS	7.6	12.2	19.8	75.2	1 769.7	0.2	0.4
Viet Nam	2009 IPUMS	9.4	18.8	28.2	64.2	7 853.1	1.0	1.9
Yemen	2013 DHS	2.9	8.1	11.0	83.8	1 034.4	0.1	0.2
Europe								
Albania	2008-2009 DHS	6.9	29.0	36.0	61.4	441.2	0.1	0.3
Austria	2011 LFS	30.0	45.9	75.8	20.5	1 956.8	0.3	1.2
Belarus	2009 IPUMS	30.6	31.9	62.5	31.7	1 807.0	0.2	1.1

Country or area	Data source	Household living arrangements of persons aged 60 or over (percentage)				Number of persons aged 60 or over in 2010 (thousands)	Percentage of global population aged 60 or over	Percentage of regional population aged 60 or over
		Alone	With spouse only	Independent (alone or with spouse only)	With children			
Belgium	2011 LFS	25.1	52.5	77.6	15.8	2 539.5	0.3	1.6
Bulgaria	2011 LFS	28.7	42.5	71.3	23.7	1 875.0	0.2	1.2
Croatia	2011 DYB	21.0	32.8	53.7	..	1 029.8	0.1	0.6
Estonia	2011 LFS	22.9	39.1	62.0	33.0	309.7	0.0	0.2
Finland	2010 DYB	32.9	54.0	86.9	..	1 328.8	0.2	0.8
France	2011 LFS	31.2	56.0	87.2	10.2	14 552.0	1.9	9.0
Germany	2011 LFS	31.1	59.0	90.1	6.9	21 082.4	2.7	13.0
Greece	2011 LFS	22.4	47.2	69.6	26.6	2 741.5	0.4	1.7
Hungary	2011 LFS	24.7	40.2	64.9	29.2	2 194.2	0.3	1.4
Ireland	2011 LFS	25.5	44.3	69.8	25.7	743.8	0.1	0.5
Italy	2011 LFS	28.5	41.0	69.5	27.4	16 042.9	2.1	9.9
Latvia	2011 LFS	27.1	29.2	56.3	36.3	499.6	0.1	0.3
Liechtenstein	2010 DYB	25.2	49.5	74.8	..	7.2	0.0	0.0
Lithuania	2011 LFS	34.1	35.2	69.3	26.0	699.3	0.1	0.4
Luxembourg	2011 LFS	26.7	52.2	78.9	18.2	96.3	0.0	0.1
Malta	2011 LFS	15.3	41.3	56.6	33.0	95.3	0.0	0.1
Montenegro	2011 DYB	16.5	25.9	42.5	..	111.6	0.0	0.1
Netherlands	2011 LFS	31.1	62.3	93.4	5.5	3 664.9	0.5	2.3
Norway	2011 DYB	30.8	54.8	85.6	..	1 026.1	0.1	0.6
Poland	2011 LFS	22.1	38.9	61.1	33.8	7 416.6	1.0	4.6
Portugal	2011 LFS	17.8	43.8	61.6	32.1	2 628.2	0.3	1.6
Republic of Moldova	2005 DHS	26.5	35.8	62.3	30.6	575.5	0.1	0.4
Romania	2011 LFS	23.1	34.8	57.9	35.7	4 367.9	0.6	2.7
Russian Federation	2010 DYB	24.7	34.8	59.6	..	25 727.2	3.3	15.9
Serbia	2011 DYB	18.2	30.4	48.5	..	1 892.8	0.2	1.2
Slovakia	2011 LFS	24.0	41.4	65.4	30.8	963.1	0.1	0.6
Slovenia	2011 LFS	29.2	41.4	70.6	25.7	453.1	0.1	0.3
Spain	2011 LFS	17.3	41.1	58.4	33.5	10 502.7	1.4	6.5

Country or area	Data source	Household living arrangements of persons aged 60 or over (percentage)				Number of persons aged 60 or over in 2010 (thousands)	Percentage of global population aged 60 or over	Percentage of regional population aged 60 or over
		Alone	With spouse only	Independent (alone or with spouse only)	With children			
Sweden	2011 DYB	27.9	..	..	..	2 334.9	0.3	1.4
Switzerland	2011 DYB	29.2	56.2	85.4	..	1 787.8	0.2	1.1
Ukraine	2007 DHS	28.8	33.0	61.8	31.9	9 599.2	1.2	5.9
United Kingdom	2011 LFS	32.4	53.6	86.0	10.9	14 344.5	1.9	8.8
Latin America and the Caribbean								
Argentina	2010 IPUMS	18.6	37.9	56.6	..	5 931.4	0.8	10.1
Bahamas	2010 DYB	13.9	..	..	..	37.9	0.0	0.1
Bolivia (Plurinational State of)	2012 DYB	18.0	12.6	30.7	..	827.9	0.1	1.4
Brazil	2010 IPUMS	13.3	21.8	35.1	50.7	19 743.7	2.6	33.7
Chile	2002 IPUMS	11.6	17.6	29.1	50.4	2 235.5	0.3	3.8
Colombia	2015 DHS	10.8	17.0	27.8	55.1	4 119.8	0.5	7.0
Costa Rica	2011 IPUMS	12.4	19.7	32.0	53.6	502.3	0.1	0.9
Cuba	2002 IPUMS	9.7	15.9	25.6	53.5	1 928.9	0.3	3.3
Dominican Republic	2013 DHS	12.9	15.0	27.9	42.7	858.7	0.1	1.5
Ecuador	2010 IPUMS	13.1	15.9	29.1	52.5	1 297.6	0.2	2.2
El Salvador	2007 IPUMS	10.2	11.2	21.4	58.2	618.2	0.1	1.1
Guatemala	2014-2015 DHS	5.9	13.4	19.3	66.0	888.4	0.1	1.5
Guyana	2009 DHS	16.3	17.4	33.8	48.1	53.9	0.0	0.1
Haiti	2012 DHS	8.2	7.9	16.1	54.3	649.8	0.1	1.1
Honduras	2011 DHS	6.7	8.8	15.5	65.5	479.3	0.1	0.8
Jamaica	2011 DYB	21.4	14.5	35.9	..	327.1	0.0	0.6
Mexico	2015 IPUMS	11.3	20.6	31.9	55.4	9 853.1	1.3	16.8
Nicaragua	2005 IPUMS	5.9	6.7	12.5	65.8	374.8	0.0	0.6
Panama	2010 IPUMS	13.0	15.3	28.3	53.8	353.1	0.0	0.6
Paraguay	2002 IPUMS	7.9	10.6	18.5	61.5	490.1	0.1	0.8
Peru	2012 DHS	13.1	18.9	32.0	55.1	2 627.9	0.3	4.5
Puerto Rico	2010 IPUMS	21.2	33.9	55.0	31.3	674.0	0.1	1.2
Saint Lucia	1991 IPUMS	16.9	14.2	31.1	45.3	20.8	0.0	0.0

Country or area	Data source	Household living arrangements of persons aged 60 or over (percentage)				Number of persons aged 60 or over in 2010 (thousands)	Percentage of global population aged 60 or over	Percentage of regional population aged 60 or over
		Alone	With spouse only	Independent (alone or with spouse only)	With children			
Trinidad and Tobago	2011 IPUMS	15.2	15.0	30.2	52.9	165.1	0.0	0.3
Uruguay	2011 IPUMS	24.3	30.7	55.0	32.5	622.4	0.1	1.1
Venezuela (Bolivarian Republic of)	2001 IPUMS	7.7	8.5	16.2	64.8	2 399.1	0.3	4.1
Northern America								
Bermuda	2010 DYB	22.6	37.5	60.2	..	13.8	0.0	0.0
Canada	2011 IPUMS	24.1	50.1	74.3	18.0	6819.4	0.9	10.7
United States of America	2010 IPUMS	25.1	46.3	71.5	19.4	56 707.2	7.4	89.2
Oceania								
Australia	2011 DYB	23.2	51.1	74.3	..	4 190.2	0.5	74.7
Fiji	2007 IPUMS	4.1	7.9	12.0	58.6	68.0	0.0	1.2
New Zealand	2006 DYB	24.4	53.9	78.3	..	802.5	0.1	14.3

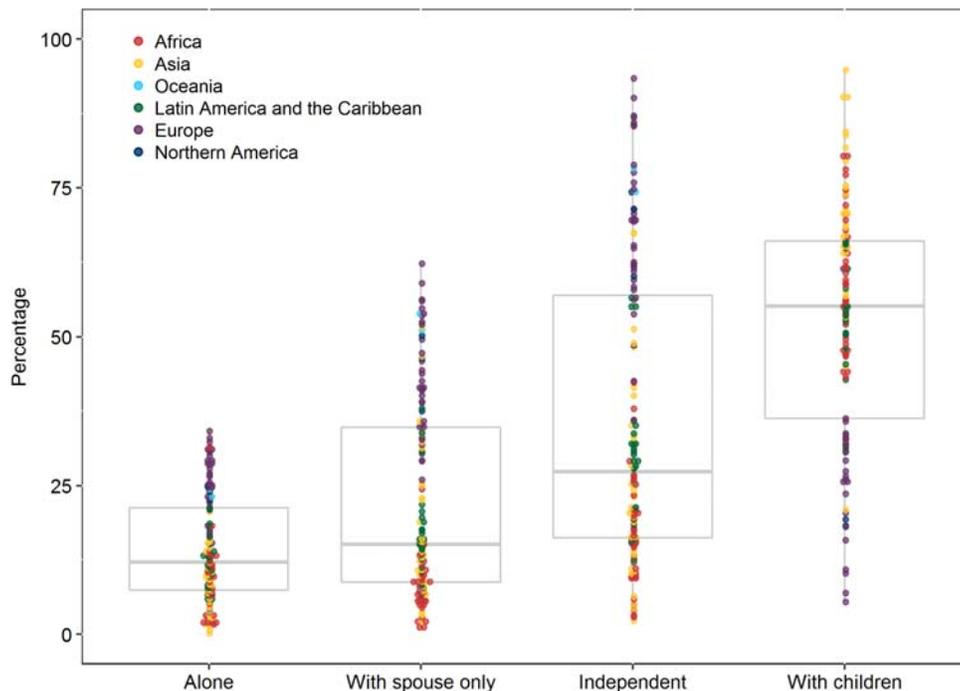
Data sources: Estimates of living arrangements are from the United Nations, Department of Economic and Social Affairs, Population Division (2017). *Database on the Living Arrangements of Older Persons 2017*. Estimates of the number and proportions of older persons in 2010 are from United Nations, Department of Economic and Social Affairs, Population Division (2017). *World Population Prospects: The 2017 Revision*.

TABLE 2. NUMBER OF PERSONS AGED 60 OR OVER IN 2010 AND THE PERCENTAGE LIVING IN COUNTRIES OR AREAS REPRESENTED IN THE LIVING ARRANGEMENTS DATABASE, FOR THE WORLD AND REGIONS

<i>Region</i>	<i>Number of persons aged 60 or over in 2010 (thousands)</i>	<i>Percentage of older population living in countries or areas represented in the living arrangements database</i>
World	769 413.3	96.6
Africa	55 025.5	88.1
Asia	424 413.2	96.8
Europe	162 309.7	97.0
Latin America and the Caribbean	58 506.3	99.3
Northern America	63 547.1	100.0
Oceania	5 611.5	90.2

The estimates reveal great diversity across countries and regions in the household living arrangements of older persons. Figure 1 plots the range and quartiles of the distribution of countries and areas according to the proportion of persons aged 60 years or over in each of four categories of living arrangement—alone, with a spouse only, independent (which includes both alone and with a spouse only) or with their children—according to the most recent data source available for each country.

Figure 1.
Distribution of countries or areas according to the household living arrangements of persons aged 60 years or over, most recent data available



Across the 143 countries or areas, the median proportion of persons aged 60 years or over living alone was 12 per cent, with estimates ranging from a low of less than 1 per cent in both Afghanistan and Pakistan to 34 per cent in Lithuania. For half of countries the proportion living alone was between 7 and 21 per cent. Most countries in Europe were above the 75th percentile, however, in 23 of the 35 European countries with available data, more than one in four older persons lived alone. Countries below the 25th percentile were mostly in Asia and Africa.

An even broader range of estimates was observed across countries for the proportion of older persons living with a spouse only. With a median of 15 per cent, the estimates ranged from just 1 per cent in both the Gambia and Senegal to 62 per cent in the Netherlands. As with the percentage living alone, the countries or areas with the highest proportions of older persons living with a spouse only tended to be in Europe and Northern America, while those with the lowest proportions tended to be in Asia and Africa. When the percentage living with a spouse only is added to the percentage living alone to give the proportion of older persons living independently, the median across countries and areas is 27 per cent, with estimates ranging from a low of 2.3 per cent in Afghanistan to a high of 93.4 per cent in the Netherlands.

Estimates in the database confirm that the dominant living arrangement for older persons in most countries or areas continues to be co-residence with children. Across the 121 countries with available data for this category, the median proportion of persons aged 60 years or over co-residing with their children was 55 per cent. Estimates ranged from a low of 5.5 per cent in the Netherlands to a high of 94.8 per cent in Afghanistan. More than half of older persons co-resided with their children in 93 per cent of countries or areas in Asia, 77 per cent in Latin America and the Caribbean and 73 per cent in Africa. By contrast, just one country in Europe (Albania) had a majority of older persons co-residing with their children.

In most countries, older women and older men were about equally likely to live independently, but older women were much more likely than their male peers to live alone (figure 2). Gender differences in solitary living were especially wide among older persons in Europe and Northern America, where there are large gender gaps in the life expectancy at age 60 (United Nations, 2017a), as well as among older persons in some countries or areas in Asia such as Cyprus, Iran and Israel and several countries in Africa such as Burundi, Egypt, Mozambique and Nigeria.

In general, the propensity for co-residence with children tend to be similar for both older men and women. Notable exceptions include many countries in Africa where older men were substantially more likely than older women to co-reside with their children. In Ethiopia, for example, 77 per cent of men aged 60 years or over co-resided with their children, compared to 54 per cent of women in that age group. Similarly, in Rwanda, 66 per cent of older men co-resided with their children, compared to 49 per cent of older women. It is possible that the gender differences in co-residence with children in many parts of Africa is reflective of the higher fertility rates in those populations, which, combined with age differences between spouses wherein men tend to be several years older than their wives, mean that a substantial fraction of older men are continuing to reside with their minor children. The discussion in annex I of this report considers the potential role of co-residence with minor children on the estimated trends in older persons' living arrangements.

Figure 2.
Living arrangements of women and men aged 60 years or over, latest data available

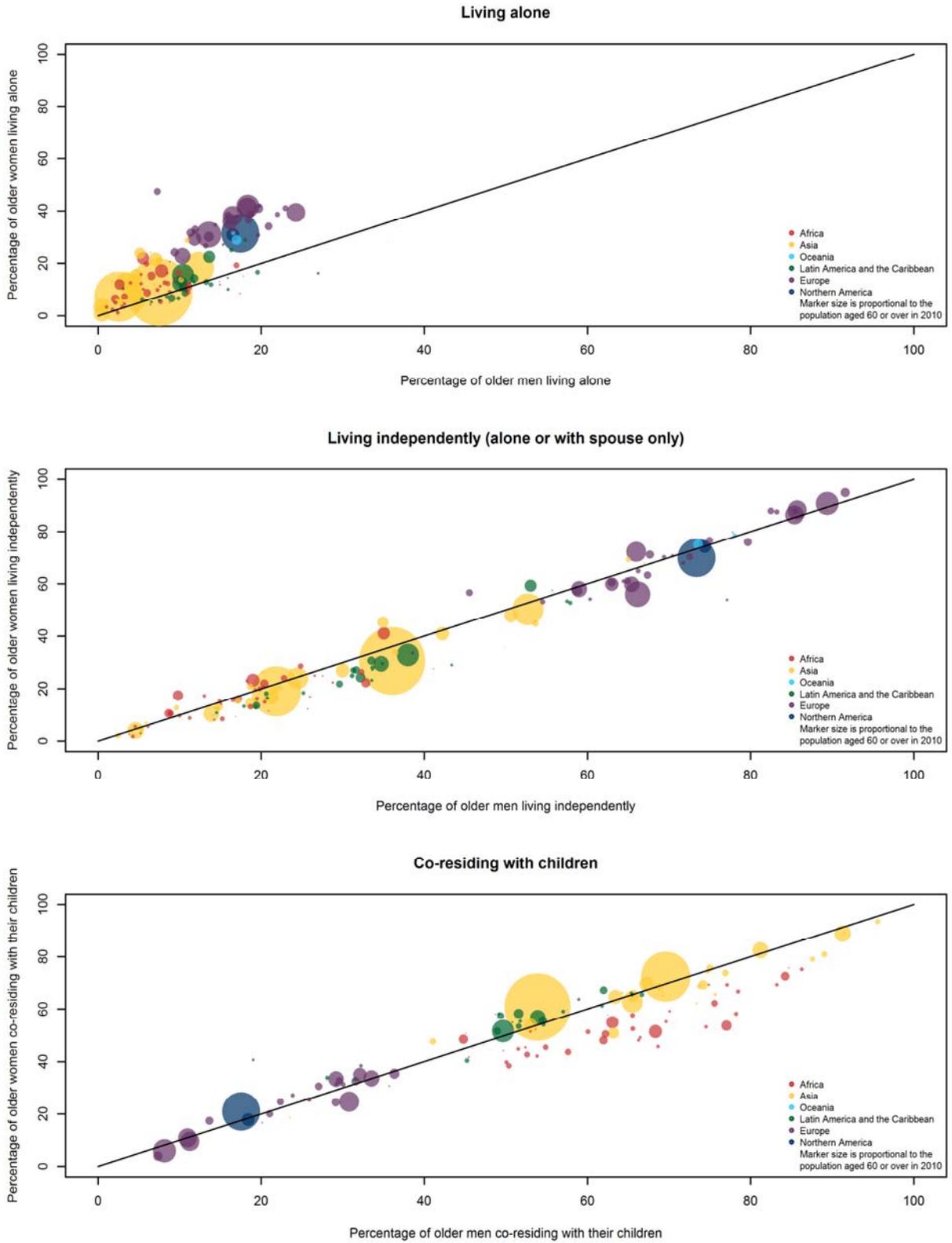


Figure 3 considers the living arrangements of older persons at different ages, comparing the household characteristics of women and men aged 60-79 years to those aged 80 years or over. While these data can provide some insight into how households change as people age, they should be interpreted with caution since many household surveys have captured only a relatively small number of people at very advanced ages. The estimates indicate that, in general, persons aged 80 years or over were more likely than those aged 60-79 years to live alone. The age differences in solitary living were especially wide for women in Europe, Northern America, Australia and New Zealand, where longer life expectancies mean that women at advanced ages are likely to be widows.

For women, age differences in the percentage living independently were small in most of Africa, Latin America and the Caribbean and Northern America. However, in several countries of Asia and Europe, women aged 80 or over were much less likely than those aged 60-79 years to live independently and more likely to live with their children. In China, for example, just 17 per cent of women aged 80 years or over lived independently, compared to 32 per cent of those aged 60-79 years. Similarly, approximately 20 per cent of women aged 80 years or over in the Republic of Korea lived independently compared to 49 per cent of women aged 60-79 years. In Europe, age differences in independent living were particularly wide in the Russian Federation, where 40 per cent of women aged 80 years or over lived independently, compared to 57 per cent of those aged 60-79 years, and in Albania, where 19 per cent of women aged 80 years or over lived independently, compared to 36 per cent of those aged 60-79 years.

Age patterns in independent living were different for men, with men aged 80 years or over more likely than their younger counterparts to live independently in most of Africa and Europe and in some Caribbean countries such as Cuba and Jamaica. In high fertility settings, or where there are large average age differences between spouses, this pattern could reflect the greater likelihood of men aged 60-79 years to still have minor children in the home.

Where possible, given the type of information available in each primary data source, estimates of older persons' living arrangements were disaggregated according to urban and rural residence. The definitions of urban and rural are specific to each country and data source and are not necessarily comparable across countries or even across time for a given country. The estimates of living arrangements of women and men aged 60 years or over in rural and urban areas are plotted in figure 4. No obvious global or regional pattern in urban versus rural living arrangements emerge from these data. In some countries such as Austria, Canada and Uzbekistan, older persons residing in urban areas were more likely to live alone, whereas in others such as Gabon, Malaysia and Peru, those residing in rural areas were more likely to live alone. Similarly, the urban-rural patterns of independent living and co-residence with children are observed to vary across countries and regions, with no clear pattern emerging.

Figure 3.
Living arrangements of women and men aged 60-79 years and 80 years or over, latest data available

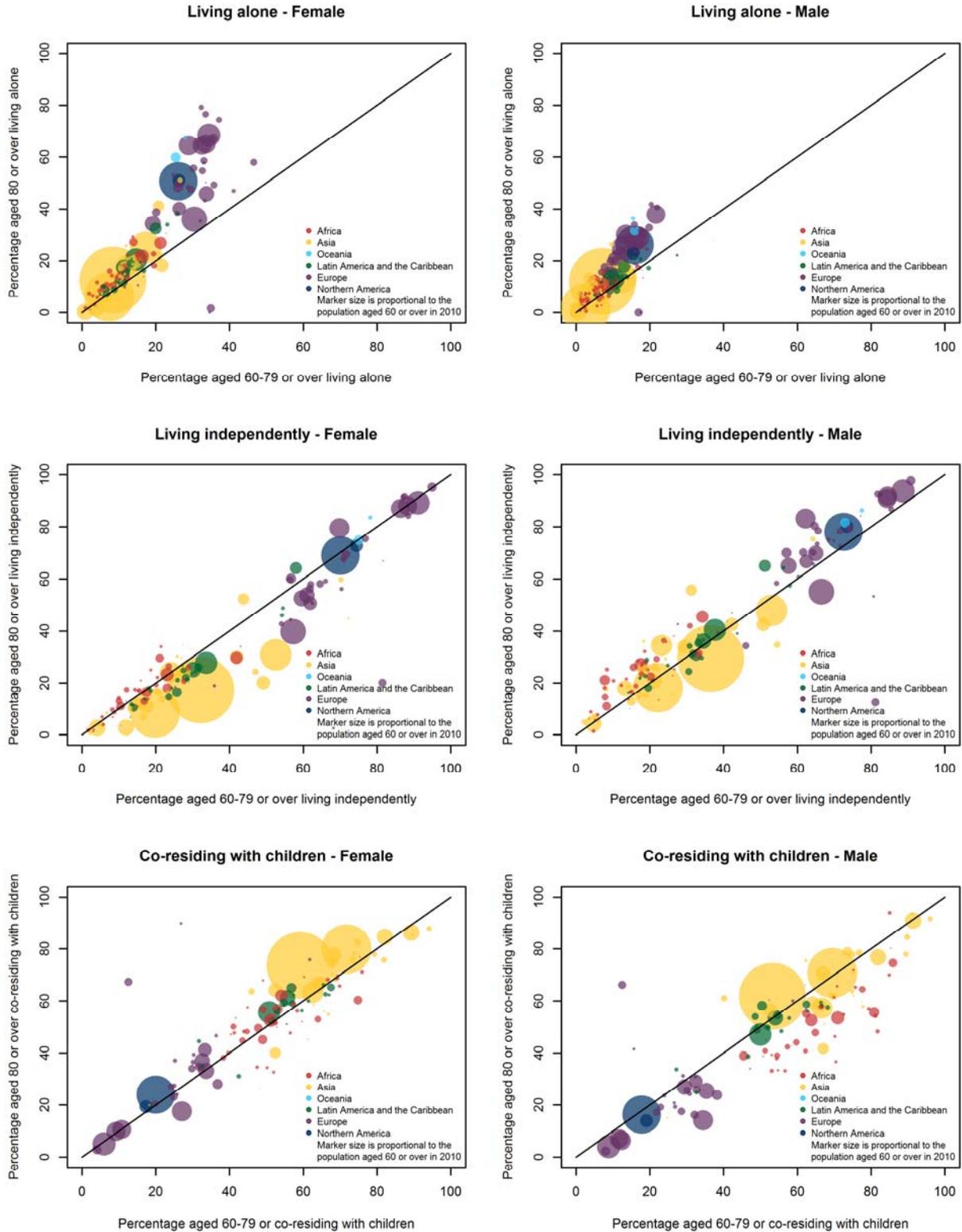
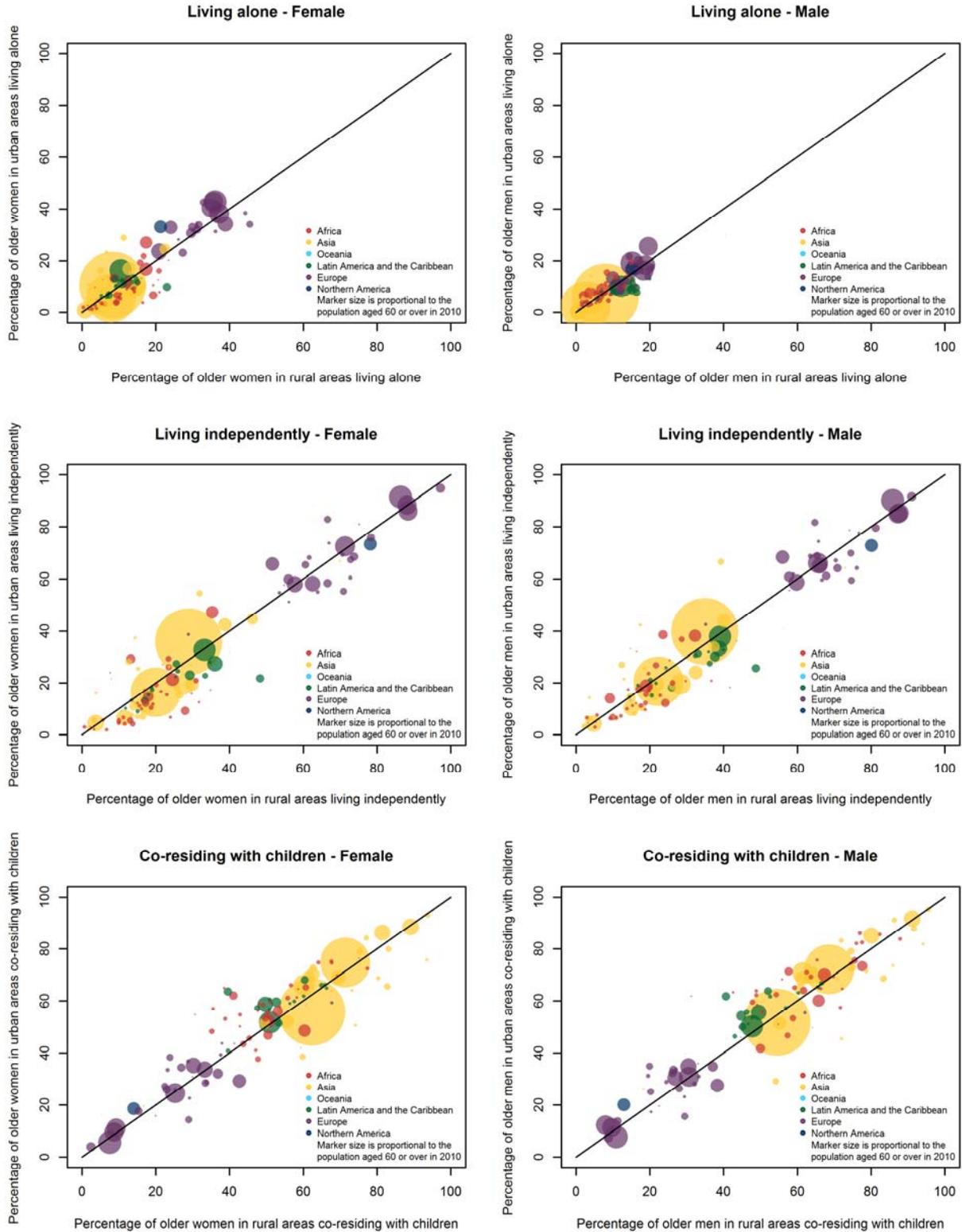


Figure 4.
Living arrangements of women and men aged 60 years or over in rural and urban areas, latest data available



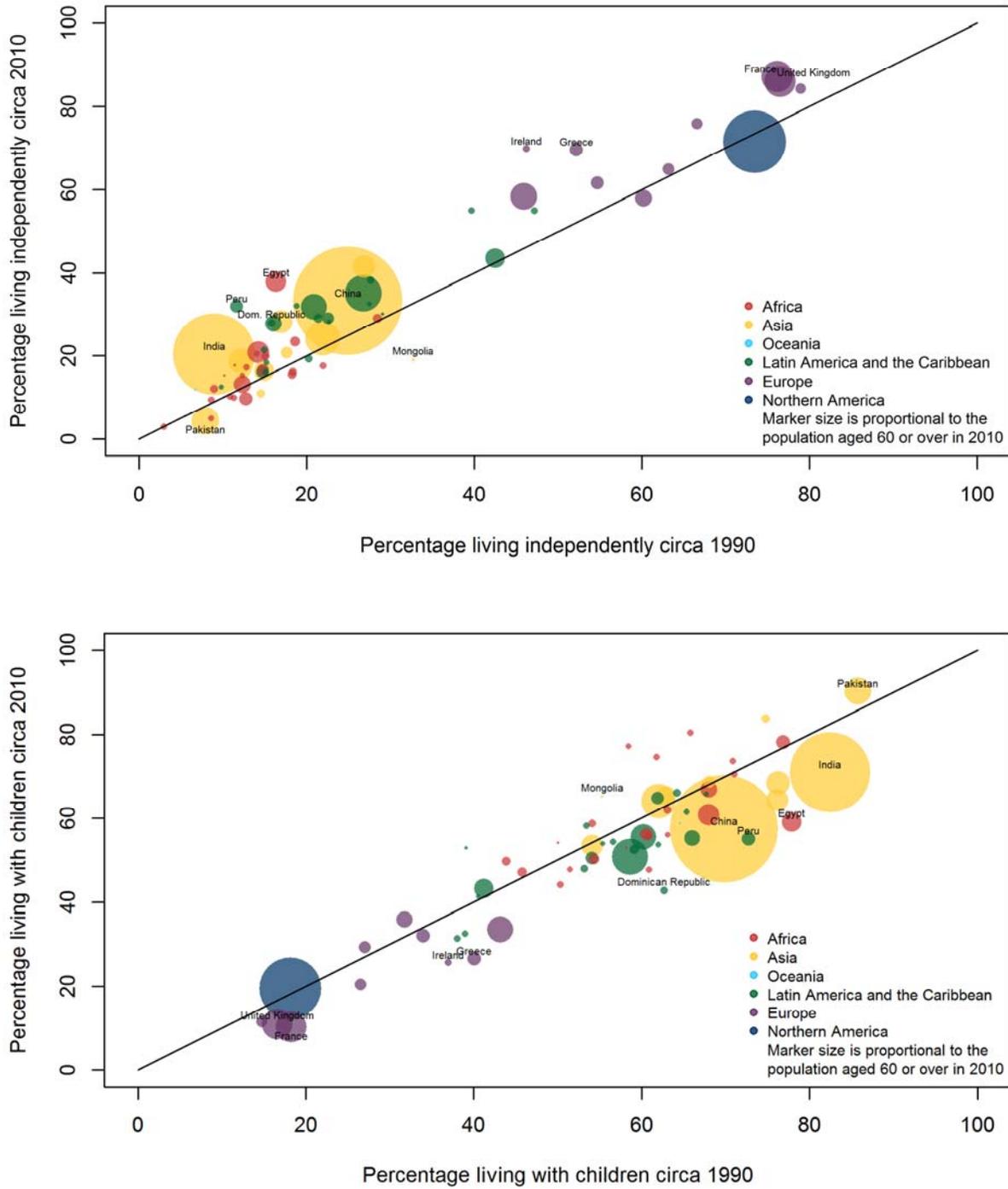
A dearth of globally representative historical data on the living arrangements of older persons challenges efforts to evaluate trends over time. However, for 67 countries or areas representing 71 per cent of the global population aged 60 years or over in 2010, the available data allowed for comparisons of the period circa 1990 to the period circa 2010.¹ 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 5). Across the 67 countries, the median change in the proportion of persons aged 60 or over living independently was an increase of 5 percentage points, while the median change in the proportion living with their children was a decrease of 3 percentage points.

Particularly substantial changes in older persons' living arrangements were observed in Ireland, where the proportion of those aged 60 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 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, 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 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 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 1990 and 2010. That increase amounted to more than 10 percentage points in Guinea, Mali, Senegal and Trinidad and Tobago.

¹ The 67 countries include 22 in Africa (Botswana, Burkina Faso, Cameroon, Côte d'Ivoire, Egypt, Ethiopia, Ghana, Guinea, 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 5.
Living arrangements of women and men aged 60 years or over circa 1990 and circa 2010



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 (table 3).² 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 20 per cent in Africa.

Across the five major regions for which estimates are available, 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.

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, reflecting the household composition of 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 or over was evident in some regions as well. 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). In the other subregions, the proportion of persons aged 60 or over that lived in “other” household arrangements was relatively high: more than a quarter of older persons in Eastern and Southern Africa circa 2010 were living in situations that could be described as neither independent nor with their children.

Across the three subregions of Asia where data permitted 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).

The proportion of older persons living independently was similar in the Caribbean and Central American 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.

² 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.

TABLE 3. PERCENTAGE OF PERSONS AGED 60 YEARS OR OVER, AGED 60-79 YEARS AND AGED 80 YEARS OR OVER, BY HOUSEHOLD LIVING ARRANGEMENT AND SEX, FOR THE WORLD, DEVELOPMENT GROUPS, INCOME GROUPS, REGIONS AND SUB-REGIONS, CIRCA 2010

Group of countries	Sex	Aged 60 years or over			Aged 60-79 years			Aged 80 years or over		
		Alone	With spouse only	With children	Alone	With spouse only	With children	Alone	With spouse only	With children
World	Both sexes	13.3	27.0	50.1	11.6	28.0	50.9	25.2	19.4	46.1
	Female	17.3	22.6	50.0	14.8	24.4	50.6	31.8	10.8	47.3
	Male	8.9	32.0	50.1	8.2	31.8	51.0	15.4	32.3	44.0
More developed regions	Both sexes	26.8	47.2	20.1	22.9	50.7	20.5	44.0	31.0	19.3
	Female	34.5	39.0	20.5	29.1	44.5	20.4	54.1	18.0	21.4
	Male	17.0	57.7	19.6	15.4	58.2	20.6	26.1	54.0	15.3
Less developed regions	Both sexes	7.9	18.8	62.2	7.5	19.7	61.9	11.1	10.7	66.1
	Female	9.8	15.4	62.9	9.3	16.7	62.2	13.1	4.7	69.1
	Male	5.9	22.5	61.3	5.7	22.7	61.5	8.7	18.8	61.8
Least developed countries	Both sexes	5.3	8.5	69.3	5.1	8.6	69.9	6.9	8.2	66.4
	Female	7.6	6.2	64.5	7.3	6.9	64.1	9.4	1.9	67.0
	Male	3.3	10.8	73.7	3.1	10.2	75.0	4.4	14.8	65.6
Other less developed countries	Both sexes	8.1	19.9	61.5	7.7	20.8	61.1	11.5	10.9	66.1
	Female	10.0	16.3	62.7	9.5	17.7	62.0	13.3	5.0	69.2
	Male	6.2	23.7	60.1	5.9	24.0	60.2	9.1	19.2	61.5
High-income countries	Both sexes	26.5	48.0	19.3	22.5	51.7	19.6	43.8	31.7	18.6
	Female	34.1	40.2	19.5	28.5	45.9	19.4	54.2	18.7	20.6
	Male	17.1	57.9	19.0	15.4	58.4	19.9	26.0	54.1	15.0
Upper-middle-income countries	Both sexes	9.8	23.9	55.8	9.2	25.3	55.1	14.7	11.8	62.6
	Female	11.3	20.2	57.9	10.6	22.2	56.9	16.4	5.8	66.0
	Male	8.1	28.0	53.4	7.7	28.6	53.2	12.4	20.9	57.0
Lower-middle-income countries	Both sexes	7.1	14.8	68.2	6.8	15.2	68.4	9.9	10.5	68.1
	Female	10.3	11.3	67.3	9.9	12.1	67.1	13.7	3.9	69.5
	Male	3.7	18.6	69.1	3.6	18.4	69.6	4.9	18.7	66.4
Low-income countries	Both sexes	7.1	7.8	63.0	6.7	7.7	64.0	10.3	8.2	56.0
	Female	9.6	5.9	56.1	9.0	6.5	55.9	13.9	2.1	56.5
	Male	4.8	9.7	69.2	4.5	9.0	71.2	6.7	14.8	55.1
Sub-Saharan Africa	Both sexes	9.7	8.8	57.8	9.2	8.8	58.9	12.8	8.8	50.3
	Female	12.4	6.4	50.9	11.8	7.0	50.8	16.3	2.5	50.8
	Male	7.1	11.4	64.2	6.8	10.7	66.3	8.8	16.4	49.6
Africa	Both sexes	9.7	10.5	59.6	9.2	10.5	60.6	13.3	9.7	53.2
	Female	13.2	7.8	53.1	12.5	8.5	53.0	17.4	2.5	53.6
	Male	6.5	13.2	65.6	6.2	12.6	67.5	8.6	18.0	52.5
Eastern Africa	Both sexes	8.9	8.2	56.2	8.3	8.0	57.5	12.2	9.4	48.4
	Female	12.0	6.3	48.0	11.3	6.9	47.7	16.0	2.7	49.2
	Male	5.9	10.3	64.1	5.5	9.2	66.9	8.1	17.0	47.0

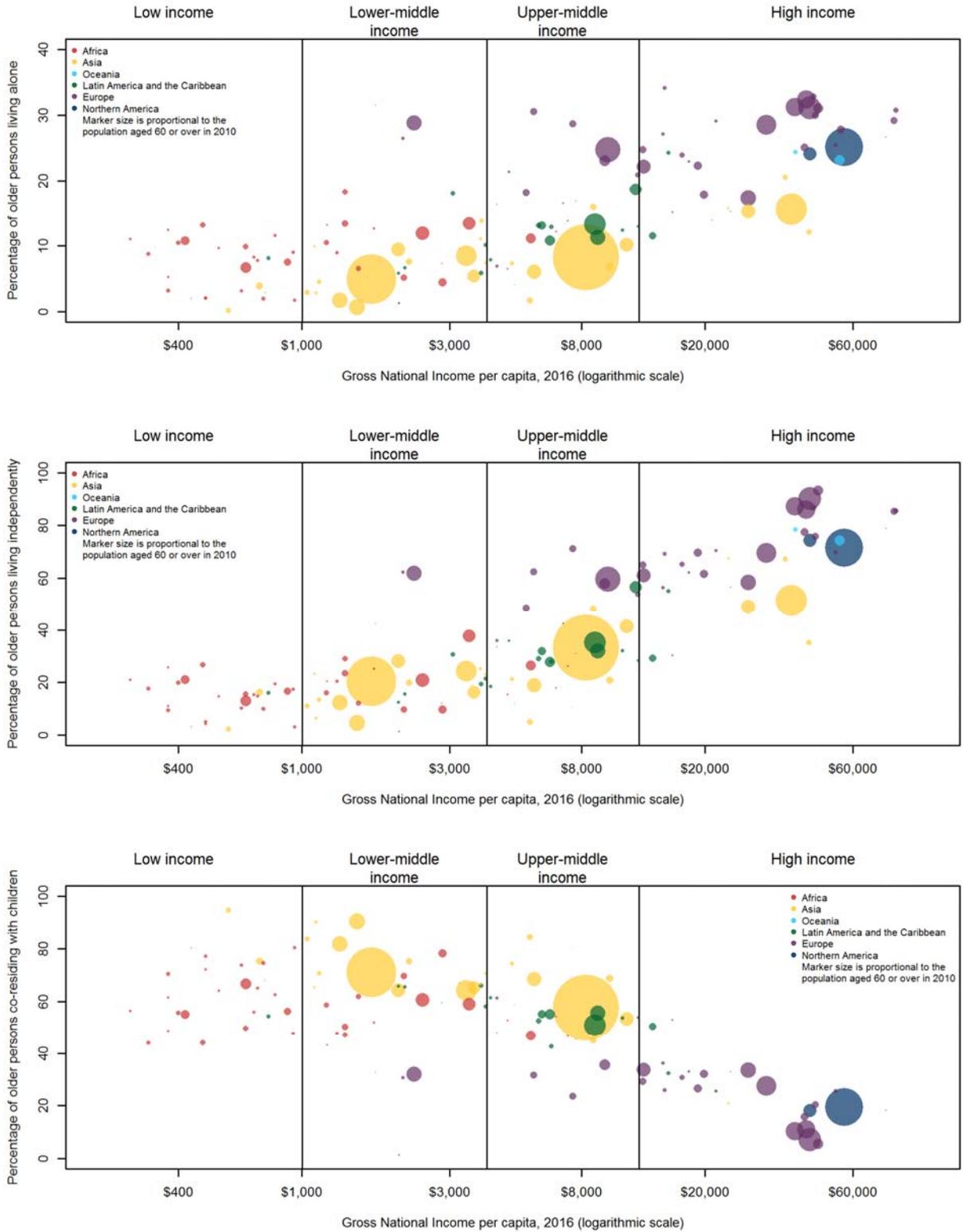
Group of countries	Sex	Aged 60 years or over			Aged 60-79 years			Aged 80 years or over		
		Alone	With spouse only	With children	Alone	With spouse only	With children	Alone	With spouse only	With children
Middle Africa	Both sexes	10.7	9.2	56.4	10.2	9.3	56.7	15.2	8.0	53.4
	Female	14.4	6.0	49.4	13.6	6.4	49.1	21.9	2.1	51.6
	Male	7.1	12.4	63.2	7.1	12.1	64.0	7.1	16.0	54.7
Northern Africa	Both sexes	9.8	16.3	65.6	9.3	16.6	66.5	14.6	11.8	60.5
	Female	15.7	12.8	60.4	15.2	13.8	60.9	20.0	2.4	60.4
	Male	4.3	19.5	70.7	3.9	19.2	71.9			
Southern Africa	Both sexes	11.1	14.5	47.3	10.7	15.5	47.9	13.5	8.1	43.8
	Female	11.0	10.4	48.6	10.4	11.7	49.2	14.1	3.5	45.5
	Male	11.2	20.6	45.4	11.2	20.9	46.0	12.1	18.4	40.0
Western Africa	Both sexes	9.7	7.7	63.1	9.3	7.6	64.2	12.3	8.6	55.7
	Female	12.6	5.4	55.5	12.1	6.0	55.3	15.4	1.8	56.5
	Male	7.3	9.8	69.4	6.9	9.0	71.5	9.6	14.8	55.3
Asia	Both sexes	6.9	19.8	64.2	6.5	20.7	63.7	9.7	10.1	70.5
	Female	8.5	16.3	66.0	8.2	17.7	65.1	11.2	4.4	74.1
	Male	5.1	23.5	62.4	4.9	23.8	62.2	7.9	17.9	65.3
Eastern Asia	Both sexes	8.2	25.0	57.4	7.8	26.5	56.2			
	Female	8.9	21.7	60.7	8.4	23.8	59.2			
	Male	7.5	28.5	53.9	7.2	29.3	53.3	11.9	17.5	61.7
South-Central Asia	Both sexes	4.6	14.3	73.3	4.6	14.7	73.2	4.6	9.5	75.5
	Female	7.0	10.9	74.0	7.0	11.6	73.6	6.9	2.7	78.9
	Male	2.3	17.6	72.7	2.3	17.6	72.8	2.1	16.7	71.9
South-Eastern Asia	Both sexes	7.4	14.3	65.9	6.7	14.7	66.0	11.4	11.3	66.1
	Female	10.0	10.8	65.4	9.3	11.6	65.0	13.7	5.4	68.4
	Male	4.2	18.7	66.6	3.7	18.4	67.2	7.8	20.5	62.5
Southern Asia	Both sexes	4.6	14.3	73.3	4.6	14.7	73.2	4.5	9.5	75.5
	Female	7.0	10.9	73.9	7.0	11.7	73.5	6.8	2.7	78.9
	Male	2.3	17.6	72.7	2.3	17.6	72.8	2.1	16.7	71.8
Europe	Both sexes	27.8	47.4	20.6	23.6	51.0	21.3	45.4	30.8	18.6
	Female	36.1	38.9	20.5	30.6	44.5	20.8	55.7	17.7	20.5
	Male	16.9	58.5	20.7	15.1	58.9	21.9	26.3	54.7	15.0
Eastern Europe	Both sexes	25.3	35.6		23.7	37.8		36.6	15.0	
	Female	32.0	26.3		30.4	29.1		40.8	6.9	
	Male	13.9	51.2		13.1	51.8		24.0	40.0	
Northern Europe	Both sexes	31.8	51.4	13.4	27.3	55.6	13.5	51.6	32.9	12.7
	Female	38.6	44.4	13.9	32.7	50.6	13.5	61.0	20.9	15.1
	Male	23.6	59.9	12.7	21.2	61.3	13.5	36.4	52.5	8.7
Southern Europe	Both sexes	23.2	41.6	30.1	18.5	44.8	32.1	40.7	29.9	22.8
	Female	31.1	35.0	28.6	24.7	40.9	29.9	51.0	16.6	24.8
	Male	13.3	49.9	32.0	11.3	49.4	34.7	22.9	52.5	19.4

Group of countries	Sex	Aged 60 years or over			Aged 60-79 years			Aged 80 years or over		
		Alone	With spouse only	With children	Alone	With spouse only	With children	Alone	With spouse only	With children
Western Europe	Both sexes	30.8	57.1	9.1	26.1	61.8	9.4	49.8	35.7	10.3
	Female	40.8	47.8	8.3	34.3	54.9	8.1	62.8	21.6	10.9
	Male	18.4	68.6	10.2	16.8	69.5	10.8	26.5	60.9	9.2
Latin America and the Caribbean	Both sexes	12.6	19.9	52.0	11.9	20.9	51.9	16.6	14.1	52.6
	Female	14.1	16.2	53.0	13.2	17.9	52.5	18.9	7.3	55.3
	Male	10.8	24.4	50.8	10.5	24.4	51.2	13.0	24.2	48.5
Caribbean	Both sexes	12.6	17.1	47.5	12.1	18.1	47.5	14.6	11.8	47.9
	Female	12.2	14.3	49.2	11.5	15.9	49.1	15.6	6.6	49.7
	Male	12.9	20.2	45.6	12.9	20.5	45.8	13.2	18.6	45.5
Central America	Both sexes	10.6	18.7	56.8	9.9	19.6	56.6	14.7	13.3	58.0
	Female	11.3	15.5	57.9	10.4	17.0	57.4	15.9	7.4	61.2
	Male	9.8	22.3	55.5	9.3	22.5	55.7	13.0	21.2	53.8
South America	Both sexes	13.3	20.7	51.0	12.6	21.7	50.9	17.5	14.7	51.3
	Female	15.2	16.7	51.8	14.2	18.4	51.4	20.3	7.4	54.0
	Male	10.9	25.6	49.9	10.6	25.5	50.3	13.1	26.4	46.8
Northern America	Both sexes	25.0	46.7	19.2	21.4	50.2	18.9	41.3	31.4	20.6
	Female	31.2	39.1	20.5	26.2	44.4	19.8	50.6	18.7	23.4
	Male	17.4	56.1	17.7	15.9	56.8	18.0	25.6	52.6	15.9
Australia/New Zealand	Both sexes	23.4	51.6		21.0	53.6		50.1	28.4	
	Female	29.2	46.4		25.9	49.7		61.0	15.1	
	Male	16.9	57.3		15.9	57.8		32.3	50.0	

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 that 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.

Figure 6.
Living arrangements of persons aged 60 years or over (most recent data available) and GNI per capita in 2016



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 (table 3). 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.

A strong income gradient in the living arrangements of older persons is observed. Figure 6 plots the percentage of persons aged 60 years or over living alone, living independently and co-residing with their children, respectively, against each country’s level of gross national income (GNI) per capita in 2016. Especially across middle-income and high-income countries, a strong positive association between independent living and per capita GNI is observed, as is a strong negative association between co-residence with children and per capita GNI.

Aggregates for the countries grouped by level of income (table 3) indicate that 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.

The weighted averages across all 67 countries or areas with living arrangements data available circa both 1990 and 2010 indicated that the proportion of older persons that lived independently rose by about 13 percentage points over that period, from 24 to 37 per cent (figure 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. It is worthwhile to note that over the time period considered for this analysis, a shift has taken place in the geographic distribution of the world’s older persons, with an increasing concentration in the less developed regions. In 1990, the less developed regions were home to 58 per cent of persons aged 60 years or over globally and by 2010 that proportion had risen to 65 per cent (United Nations, 2017a). This shifting composition complicates the interpretation of trends at the global level. Regional trends are more instructive.

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 (figure 7). 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, reflecting a sizable increase in the proportion residing with a spouse only from 42 to 49 per cent.

Estimates disaggregated by sex for the 67 countries with available data both circa 1990 and circa 2010 indicated that trends in the living arrangements of older persons have been similar for women and men (figure 8). Globally, the proportion of women aged 60 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, 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 sex 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 7.
Distribution (percentage) of both sexes aged 60 years or over by type of household living arrangement, for the world and regions, circa 1990 and circa 2010

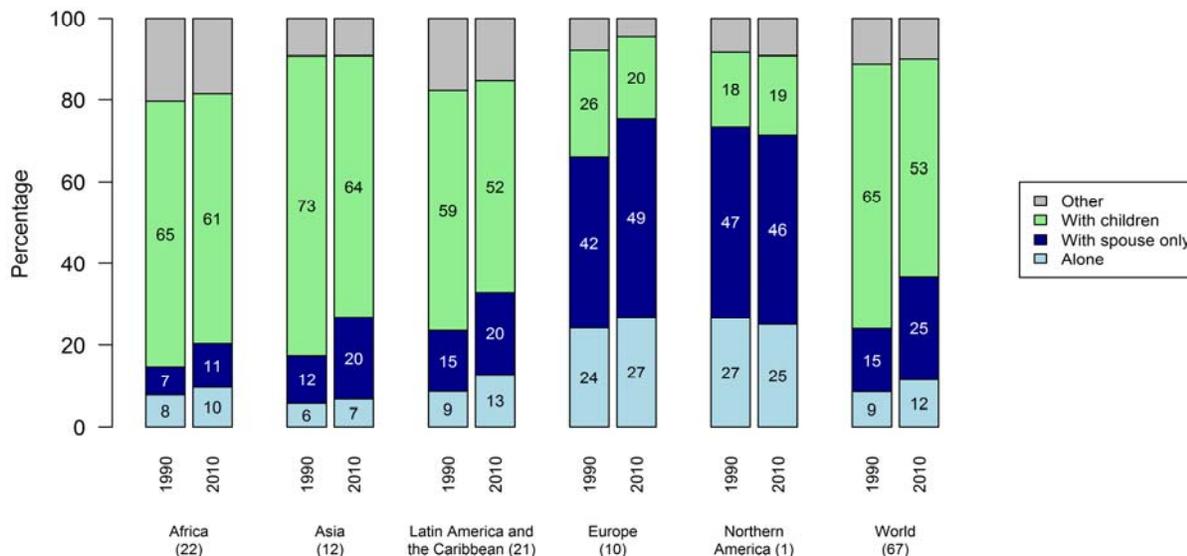
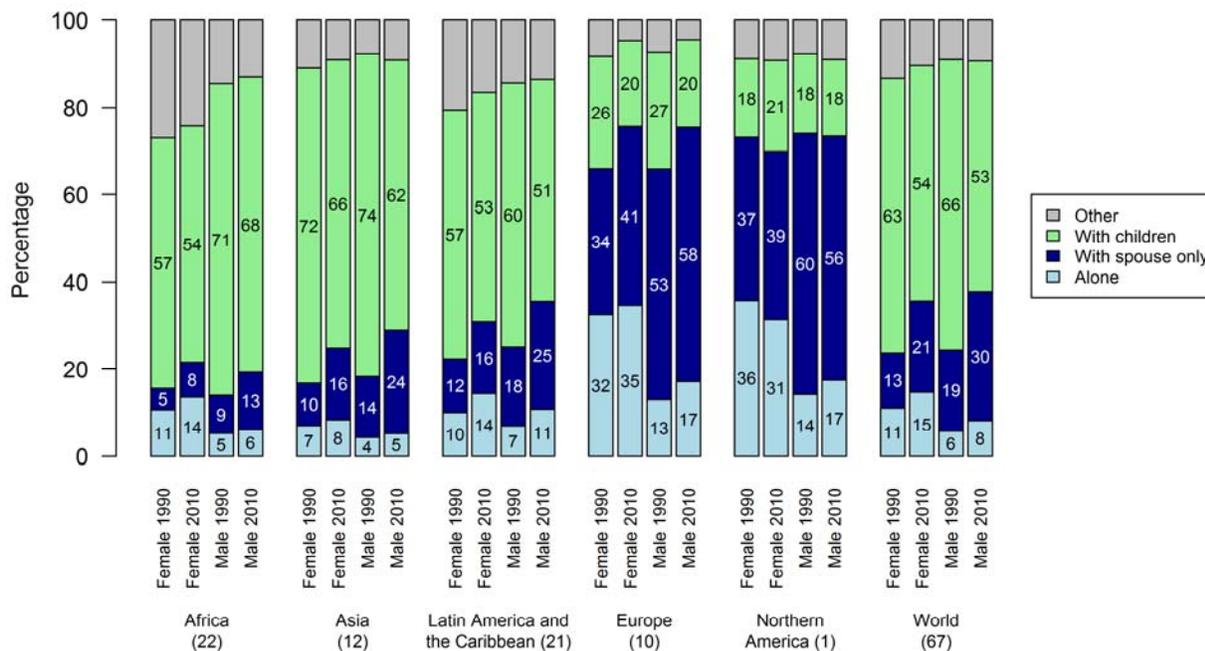


Figure 8.

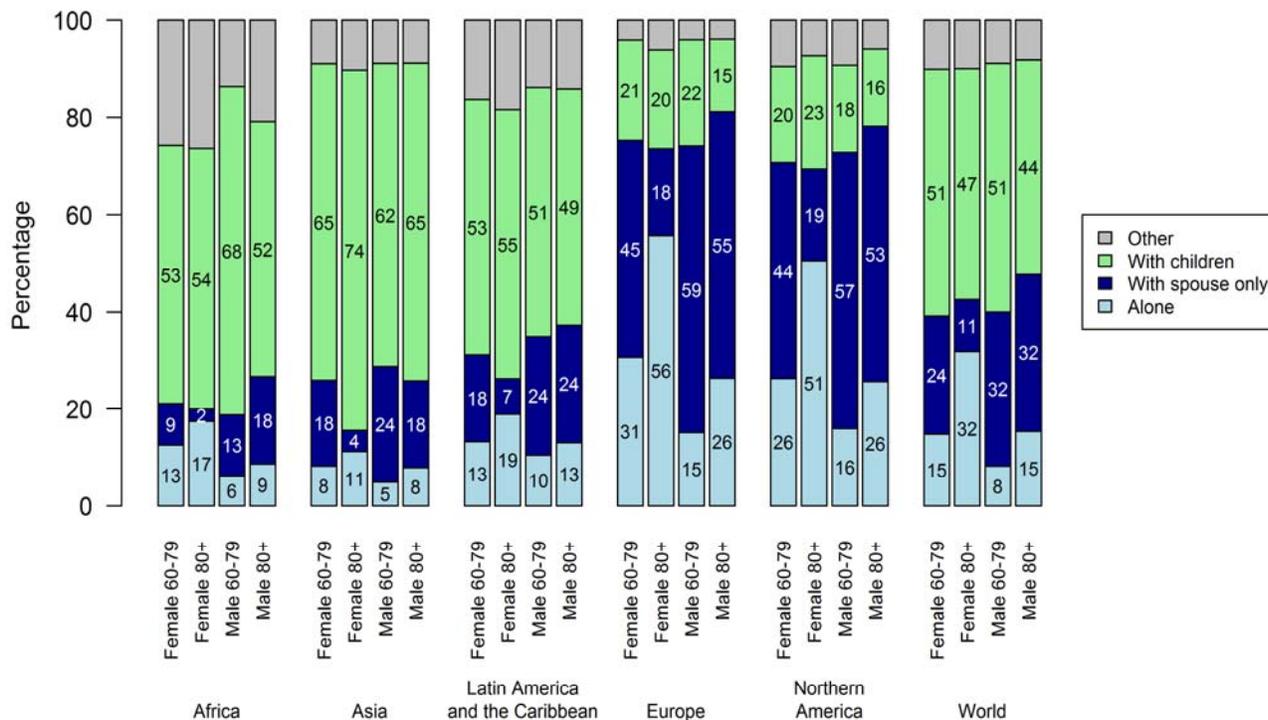
Distribution (percentage) of men and women aged 60 years or over by type of household living arrangement for the world and regions, circa 1990 and circa 2010



In some regions, the living arrangements of older persons differed substantially by age (figure 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. 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.

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 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 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 or over living alone.

Figure 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, 2010 or later



IV. FINAL REMARKS

The 2002 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. The newly expanded *United Nations Database on the Living Arrangements of Older Persons 2017*³ provides further evidence that the trend towards independent living and away from intergenerational co-residence is occurring in all regions. At the same time, compelling evidence of persistent differences in the patterns of older persons' living arrangements across regions underscore the resilience of traditional family structures in the wake of the broader demographic, social and economic changes taking place around the world.

³ <https://population.un.org/LivingArrangements/index.html>.

The 2005 United Nations study was intended to serve as a baseline or foundation upon which continued work on older persons' living arrangements could build. This expanded dataset contributes to that base, but remains an incomplete accounting of the patterns and trends in older persons' households. In addition to continuing to add to the empirical evidence base as new data become available, priorities for investigation and data analysis over the near term should include:

1. **Decomposing older persons' co-residence with children according to the ages of those children.** The 2005 report distinguished between co-residence with children under 25 years of age from those aged 25 years and over for a selected subset of countries, determined by availability of data. Most of the estimates compiled in the extended database could similarly distinguish the age of the co-resident child, but such analysis was outside the scope of the present update. Continued work to distinguish co-residence according to children's ages is important to separate the influence of co-residence with minor children and assess the potential impact of fertility decline on estimated trends (see annex I). Moreover, such decomposition could be useful to analyze the impact of the global financial crises on intergenerational co-residence.
2. **Closer examination of the residual ("other") category of older persons household living arrangements.** This category comprises a substantial share of older persons' households, particularly in sub-Saharan Africa and parts of Latin America and the Caribbean. In some cases, country-level trends seem to be shaped more by changes in the prevalence of "other" household arrangements than by trends away from co-residence with children and towards independent living. This "other" category could potentially include so-called "skipped generation" households, wherein a grandparent and grandchild are co-resident, without the grandchild's parent. Extended-family households, such as co-resident siblings or cousins would also be included in this category and deserve further investigation.
3. **Linking the estimates of older persons' living arrangements to theoretical and analytical frameworks that describe the sources of material and social support available to older persons.** The simplistic descriptions of living arrangements described in the database cannot adequately portray the networks, pathways and direction of support between older persons and their kin. In many cases, older persons residing alone or with a spouse only live very near to their children, albeit in separate households (Knodel and others, 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. Often, older persons are continuing to provide support to their adult children, rather than the other way around. Additional work is needed to assess the relevance of older persons household living arrangements for trends in their well-being and needs and those of their families.
4. **Expanding the global evidence base on institutional living arrangements and accounting for the influence of such arrangements on the observed trends in older persons households.** While in most countries only a small fraction of older persons resided in institutional arrangements, the evidence presented in annex III indicates that this fraction has been growing in some countries and in several populations, institutional arrangements are common for persons aged 80 years or over. Future investigations of older persons living arrangements globally should attempt to incorporate information about the prevalence and trends in institutional arrangements.

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Annex I

The potential influence of co-residence with minor children on estimated trends in older persons' living arrangements

Investigations of the living arrangements of older persons are predicated on the notion that patterns and trends in co-residence with children speak to the potential sources of material and social support available to persons as they advance in age. However, in some cases the classification of co-residence with children is also capturing older persons who are continuing to raise their own minor children, who may or may not continue to reside with their parents once they reach majority. Older women's co-residence with minor children is likely rare: women's fecundity declines rapidly with age after the mid-30s, thus by the time women reach their 60's, most of their children would have reached majority. For older men, particularly those in their 60's, co-residence with minor children is likely more common. This is because sizable age differences between spouses are prevalent in many settings such that men tend to be several years older than their wives, on average.

Ruggles and Heggeness (2008) noted that in contexts of rapid fertility decline, a reduction in the proportion of older men co-residing with children could reflect a declining number of minor children in the households of older men, rather than a change in the likelihood of older persons co-residence with their adult children. The data compiled in the *United Nations Database on the Living Arrangements of Older Persons 2017* do not distinguish co-residence with children according to the children's ages, thus it is not possible to use these estimates to directly determine the influence of co-residence with minor children on the estimated trends in older persons' living arrangements.⁴ Ruggles and Heggeness recommended shifting upwards to 65 years the lower bound of the age range used to identify older persons in order to reduce the role of declining fertility and associated decrease in the proportion of men co-residing with minor children in influencing those trends.

Figure A.I.1 compares the country-level estimates of the percentages of men and women aged 65 years or over co-residing with children to those of men and women aged 60 years or over. For most countries or areas, the estimates of co-residence with children are higher for ages 60 years or over than for ages 65 years or over and the gaps between the estimates for the two different age ranges tend to be wider for men than for women. This finding tends to support the notion that substantial numbers of men aged 60-64 years may be living with their minor children.

To assess the potential implications for the conclusions surrounding the trends in older persons' living arrangements, table A.I.1 compares the regional estimates of the proportions of women and men living independently (includes alone or with spouse only) and co-residing with children for the two age ranges—60 years or over and 65 years or over—and corresponding to the periods circa 1990 and circa 2010.

Notably, for most regions, the impact of shifting the lower bound of the age range to 65 years or over had an equally or even more powerful influence on the estimated trend for women's living arrangements as for men's, suggesting that something other than co-residence with minor children is driving the difference. Moreover, whereas in Asia and Latin America and the Caribbean—two regions for which the onset of fertility decline began in the 1970s and continued through the 1990-2010 period—the estimated trends in co-residence with children are more muted for the 65 years or over age

⁴ The 2005 United Nations report on the living arrangements of older persons estimated co-residence with children aged 25 years or over and those below age 25 for selected countries and data sources. Estimates disaggregated by children's ages were outside the scope of the present report, but may be considered for future analysis.

range relative to the 60 years or over age range, the same was not true for Africa—a region that also experienced fertility decline over recent decades but from a much higher level. In Africa, trends away from co-residence with children are more pronounced with the age range is restricted to those aged 65 years or over.

Figure A.I.1. Percentage co-residing with their children for women and men aged 60 years or over and aged 65 years or over, latest data available

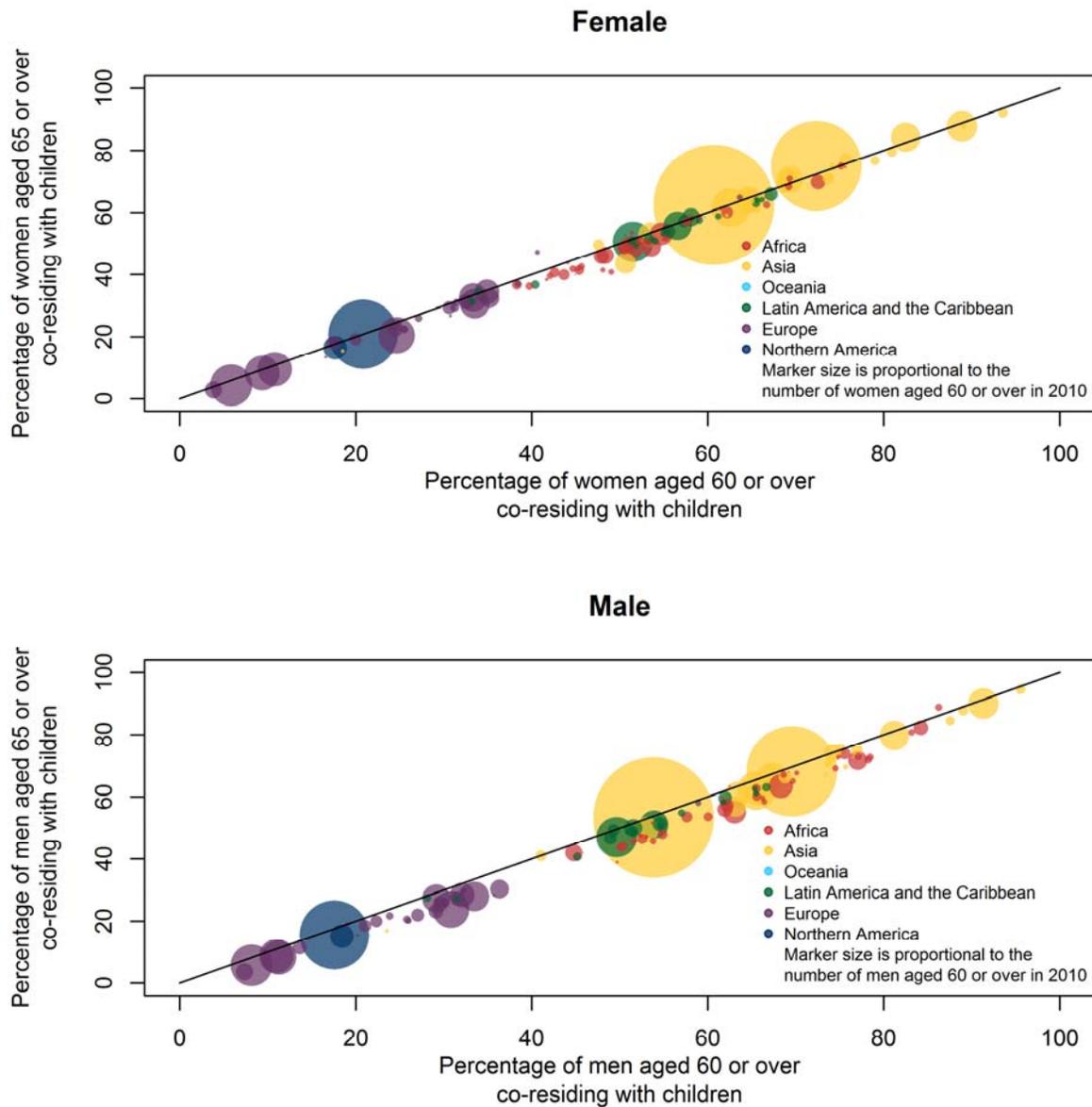


TABLE A.I.1 LIVING ARRANGEMENTS OF WOMEN AND MEN AGED 60 YEARS OR OVER AND AGED 65 YEARS OR OVER FOR REGIONS,
CIRCA 1990 AND CIRCA 2010

Region	Sex	Living arrangement	Persons aged 60 years or over (percentage)		Persons aged 65 years or over (percentage)		Change between 1990 and 2010 (percentage points)	
			1990	2010	1990	2010	Ages 60 or over	Ages 65 or over
Africa	Female	Independent	15.6	21.6	17.0	22.8	6.0	5.8
		With children	57.4	54.1	56.6	51.6	-3.3	-5.1
	Male	Independent	14.0	19.2	15.9	22.5	5.3	6.5
		With children	71.4	67.7	68.2	62.5	-3.7	-5.8
Asia	Female	Independent	16.8	24.8	18.7	23.7	8.1	5.0
		With children	72.2	66.0	70.7	67.4	-6.2	-3.4
	Male	Independent	18.2	28.9	21.8	30.2	10.6	8.4
		With children	74.1	62.0	70.2	60.7	-12.1	-9.5
Europe	Female	Independent	66.0	75.6	68.4	77.2	9.6	8.8
		With children	25.7	19.8	23.4	18.2	-5.9	-5.3
	Male	Independent	65.9	75.4	70.8	79.5	9.5	8.7
		With children	26.8	20.2	22.3	16.5	-6.6	-5.8
Latin America and the Caribbean	Female	Independent	22.3	30.8	25.4	31.8	8.4	6.4
		With children	57.1	52.7	52.5	51.3	-4.3	-1.2
	Male	Independent	25.1	35.6	29.9	38.4	10.5	8.5
		With children	60.4	50.8	54.3	47.8	-9.7	-6.5
Northern America	Female	Independent	73.1	69.9	75.1	71.0	-3.2	-4.0
		With children	18.1	20.9	16.1	20.8	2.8	4.7
	Male	Independent	74.0	73.4	77.5	76.5	-0.6	-1.1
		With children	18.3	17.6	15.1	15.5	-0.8	0.3

Annex II

Methodological note on the possible underestimation of older persons co-residing with their children

The household composition of older persons in the present publication is classified into four mutually exclusive categories: alone; with a spouse only; with children; and other household arrangements. From the Demographic and Health Surveys (DHS) and associated household surveys (e.g., AIDS Indicator Surveys (AIS)), the living arrangement is inferred from the information regarding the relationship of each household member to the head of the household, thus the classification is straightforward whenever the older person is either the head of the household, the spouse of the head, or the parent or parent-in-law of the head. In the cases where the older person has another relationship to the household head, it is often unclear whether the household also contains a child of that person. These ambiguous cases were classified in this publication as “other”, that is, living in a household arrangement that cannot be described as alone, with a spouse only or with children. The present annex discusses the number of cases that may have been misclassified by this approach.

Uncertainties in classification derive from the way in which relationship to the head of household was coded (see box 1). For example, if an older person is the brother of the household head and the household also contains someone listed as “other relative”, the latter person could be the child of the brother of the head. If two “other relatives” are present, one might be the parent of the other.

In order to assess the extent of this problem, as was done in the 2005 report, a special tabulation was conducted for the set of DHS available for this 2017 update to the database, to examine the proportion of older persons who could have been living with children but might have been misclassified as living in “other” household arrangements instead. More specifically, older persons were classified into three categories:

1. Those for whom the determination of whether at least one of an individual’s children or children-in-law is in the household is straightforward. This includes cases where the older person is the household head, the spouse of the head or the parent or parent-in-law of the head.
2. Those for whom the determination of the classification of “living with children” is not straightforward, in that they do not belong to the groups in category (1), but for whom there are no other persons in the household who might be the individual’s child.
3. Those for whom the determination of the classification of “living with children” is not straightforward and who might have a child in the household.

The second category includes: (a) those whose relationship to the head is sibling, grandchild or “other relative”, whenever there is no “other relative” in the household who is at least 15 years younger than the reference person; (b) those who are children of the head, whenever the household contains no grandchild of the head at least 15 years younger than the reference person; and (c) non-relatives and those with an unknown relationship to the head, whenever there is no other “non-relative” at least 15 years younger than themselves.

The third category comprises: (a) those whose relationship to the head is sibling, grandchild or “other relative”, if the household contains an “other relative” at least 15 years younger than themselves;

(b) those who are children of the head, if there is a grandchild of the head at least 15 years younger than themselves; and (c) non-relatives and those with an unknown relationship to the head if there is another “nonrelative” at least 15 years younger than themselves. It should be noted that some of these combinations are very infrequent for the 60 years or over age group: for instance, older persons are rarely listed as the child of the household head. The size of group (3) provides an upper-bound estimate of the proportion who may have been living with children but were classified as living in “other” household arrangements.

A summary of the results is displayed in table A.II.1. The classification is based on the usual residents of the household, as reported by the survey respondents. For older persons under the Group 1 and Group 2 headings of the table, there was enough information to determine whether the person was living with a child. Group 3 covers the ambiguous cases, persons who may have been living with a child. The results indicate that the potential underestimation of the number of older persons living with children usually amounts to only a few percentage points. The main reason is that across the 239 surveys examined, on average, 95 per cent of older persons (93 per cent of older women and 97 per cent of older men) are the spouse of the head, a parent or parent-in-law of the head, or the head of the household themselves and in these cases, the determination from the “relationship to head” variable of whether the person has a child in the household is straightforward. The proportion of older persons for whom classification is straightforward ranges from about 80 per cent in the 1996 Comoros DHS to more than 99 per cent in the 2011 Tajikistan DHS and the 2007-2008 Rwanda Interim DHS. The proportion is lower than 90 per cent for 25 of the 240 surveys and these 25 surveys represent 10 countries: Bolivia (Plurinational State of), Cameroon, Comoros, Côte d’Ivoire, the Dominican Republic, Gabon, Gambia, Lesotho and Senegal. In all but 12 surveys, the proportion is higher for older men than for older women and the sex differences were small in those 12, amounting to less than one percentage point, on average.

Even when co-residence with children cannot be inferred directly from information on the relationship to the head of the household, in many cases the absence of potential matches in the household means that it is possible to exclude the possibility that an individual’s child is present. The proportion of older persons in this situation (under the Group 2 heading in table A.II.1) ranges from 0.6 per cent in the 2007-2008 Rwanda Interim DHS to 10 per cent in the 2005 Senegal DHS. In all but 16 surveys, this situation is more common among older women than older men and as with Group 1, the sex difference in the proportion of Group 2 amounted to less than one percentage point, on average, across these 16 surveys.

For the third group, where persons actually living with a child might have been misclassified as not residing with children when they actually were (under Group 3 heading in table A.II.1), the proportion ranges from less than 0.1 per cent in three surveys (the 2005 Republic of Moldova DHS, the 2012 Kyrgyzstan DHS and the 2012 Jordan DHS) to more than 10 per cent in four surveys (the 2012-2013 Senegal DHS, the 1996 Comoros DHS and the 1994 and 1998-1999 Côte d’Ivoire DHS), with a mean of 2.0 per cent across the 239 surveys. Because it is likely that many persons in this category were not actually living with a child, the magnitude of the underestimation of older persons living with children is, in fact, lower than that suggested by the proportions of older persons in this situation. Averaging the proportions for countries in each region, the percentage of older persons for whom co-residence is indeterminate is slightly higher for surveys in Africa (2.6 per cent) compared to those in Latin America and the Caribbean (1.9 per cent) or Asia (0.9 per cent). Underestimation of co-residence with children appears to be more likely for women than men in all but 33 surveys and across those 33, the sex differences amounted to less than half a percentage point, on average. The proportion of older persons for whom co-residence with children is indeterminate exceeds 5 per cent in just 20 of

the 239 surveys, representing 10 countries: Cameroon, Comoros, Cote d'Ivoire, Gabon, Gambia, Haiti, Liberia, Namibia, Senegal and Sierra Leone. The high proportion of indeterminate co-residence with children is of particular concern for the estimates of older persons' living arrangements in Cote d'Ivoire in the mid- to late-1990s, when co-residence with children was indeterminate for up to 20 per cent of older women, and in Senegal, where it was indeterminate for as much as 14 per cent of older women.

Box 1.

RELATIONSHIP TO HEAD OF HOUSEHOLD AS CODED IN DHS SURVEYS

1. Head
2. Wife or husband
3. Son or daughter
4. Son- or daughter-in-law
5. Grandchild
6. Parent
7. Parent-in-law
8. Brother or sister
9. Co-spouse^a
10. Other relative
11. Adopted or foster child
12. Not related

In addition, for a small number of persons the relationship was unknown or the information was missing. In South Africa, an additional category, "niece or nephew", was added.

^aThis category appears infrequently in the coding, and only in some countries.

TABLE A.II.1 PERCENTAGE DISTRIBUTION OF PERSONS AGED 60 YEARS OR OVER ACCORDING TO WHETHER DETERMINATION OF CO-RESIDENCE WITH CHILDREN IS STRAIGHTFORWARD, IS NOT STRAIGHTFORWARD BUT CAN BE INFERRED, OR IS INDETERMINATE, BY SEX, DEMOGRAPHIC AND HEALTH SURVEYS

Country	Data source	Group 1			Group 2			Group 3		
		Determination of co-residence with child is straightforward			No one in household who could be the older person's child			Indeterminate		
		Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
Africa										
Benin	1996 DHS	93.2	89.6	96.6	2.8	4.9	0.8	3.9	5.4	2.6
	2001 DHS	95.1	92.7	97.5	2.7	4.1	1.3	2.0	2.9	1.2
	2006 DHS	96.8	95.1	98.4	2.0	3.1	0.9	1.2	1.7	0.7
	2011 DHS	97.0	95.5	98.3	1.8	2.5	1.1	1.2	2.0	0.5
Burkina Faso	1992-1993 DHS	93.7	88.3	98.1	2.3	4.5	0.5	3.7	6.6	1.4
	1998-1999 DHS	94.3	89.4	97.9	2.7	4.9	1.0	3.0	5.7	1.1
	2003 DHS	94.4	89.0	98.8	3.3	6.5	0.6	2.3	4.5	0.6
	2010 DHS	96.8	93.3	99.3	2.1	4.4	0.5	1.1	2.3	0.2
Burundi	2010 DHS	98.2	98.0	98.3	1.3	1.3	1.3	0.6	0.7	0.4
Cameroon	1991 DHS	88.0	82.9	94.0	6.2	9.5	2.3	5.8	7.6	3.6
	1998 DHS	87.9	83.2	93.5	4.6	6.3	2.7	6.6	8.9	3.8
	2004 DHS	92.0	87.2	97.5	4.4	7.0	1.5	2.9	4.5	1.0
	2011 DHS	91.7	88.1	95.6	5.2	7.6	2.6	3.0	4.1	1.7
Central African Republic	1994-1995 DHS	92.6	90.5	94.8	4.2	5.1	3.3	3.2	4.4	1.9
Chad	1996-1997 DHS	91.5	86.0	96.6	4.9	8.3	1.8	3.5	5.6	1.5
	2004 DHS	93.2	89.5	96.5	5.2	8.2	2.6	1.6	2.3	0.9
	2014 DHS	95.8	93.3	97.7	3.0	5.2	1.3	1.1	1.3	0.9
Comoros	1996 DHS	80.3	77.3	83.5	7.7	9.5	5.9	11.9	13.2	10.6
	2012 DHS	89.5	87.7	91.1	6.0	6.8	5.3	4.5	5.5	3.6
Congo	2005 DHS	94.1	90.6	97.8	3.0	5.2	0.6	2.9	4.1	1.6
	2009 DHS	96.4	94.1	98.9	2.3	3.9	0.5	1.0	1.5	0.5
	2011 DHS	95.3	93.3	97.8	3.8	5.4	1.7	0.7	0.8	0.4
Côte d'Ivoire	1994 DHS	84.4	76.2	91.2	3.8	6.0	1.9	11.9	17.8	6.9
	1998-1999 DHS	84.0	75.8	92.0	2.2	3.8	0.7	13.8	20.4	7.3
	2005 AIS	89.3	83.8	94.0	5.4	9.5	1.9	5.1	6.5	3.9
Dem. Republic of the Congo	2011-2012 DHS	90.7	84.8	95.7	4.4	6.5	2.6	5.0	8.7	1.8
	2007 DHS	94.0	91.2	96.6	4.6	7.2	2.3	1.2	1.3	1.1
	2013-2014 DHS	95.5	93.6	97.4	3.6	5.1	2.1	0.9	1.3	0.4
Egypt	1992 DHS	96.5	94.8	98.0	2.7	4.2	1.2	0.9	1.0	0.7
	1995 DHS	96.7	94.7	98.8	2.9	4.9	0.8	0.4	0.4	0.5
	2000 DHS	96.7	94.6	98.7	2.7	4.5	1.0	0.6	0.9	0.4
	2003 EIDHS	97.7	96.1	99.2	1.7	3.1	0.4	0.5	0.7	0.4
	2005 DHS	97.7	96.0	99.2	1.8	3.2	0.4	0.5	0.7	0.4
	2008 DHS	98.1	97.0	99.2	1.5	2.6	0.5	0.3	0.3	0.3
	2014 DHS	98.6	97.8	99.4	1.2	2.0	0.4	0.2	0.2	0.1

Country	Data source	Group 1			Group 2			Group 3		
		Determination of co-residence with child is straightforward			No one in household who could be the older person's child			Indeterminate		
		Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
Ethiopia	2000 DHS	95.1	92.6	97.5	3.5	5.3	2.0	1.3	2.1	0.6
	2005 DHS	96.7	94.8	98.3	2.5	4.2	1.2	0.8	1.0	0.5
	2010-2011 DHS	97.0	96.7	97.3	2.4	2.5	2.3	0.5	0.7	0.4
Gabon	2000 DHS	85.3	80.5	90.8	9.6	12.9	5.8	5.1	6.5	3.4
	2012 DHS	89.0	85.9	92.5	7.5	9.2	5.6	3.5	4.9	1.9
Gambia	2013 DHS	87.6	82.5	92.2	4.7	7.2	2.4	7.6	10.2	5.2
Ghana	1993 DHS	96.3	94.6	98.0	2.1	3.0	1.3	1.6	2.4	0.8
	1998 DHS	96.8	95.9	97.9	2.2	2.9	1.4	1.0	1.2	0.7
	2003 DHS	95.6	93.3	98.3	2.7	3.9	1.2	1.7	2.7	0.4
	2008 DHS	95.7	94.3	97.4	3.3	4.3	2.1	0.9	1.3	0.4
	2014 DHS	96.8	95.2	98.9	2.2	3.3	0.9	1.0	1.6	0.2
Guinea	1999 DHS	93.4	88.5	97.2	2.6	4.3	1.2	3.6	6.1	1.6
	2005 DHS	95.0	92.5	96.9	2.4	3.0	1.9	2.1	3.3	1.2
	2012 DHS	93.2	88.4	96.9	2.4	4.6	0.7	3.7	5.3	2.5
Kenya	1993 DHS	97.2	97.5	96.9	1.9	1.9	1.9	0.9	0.6	1.3
	1998 DHS	98.1	97.9	98.4	0.9	1.3	0.4	1.0	0.8	1.2
	2003 DHS	97.4	97.3	97.6	1.9	2.0	1.8	0.6	0.6	0.6
	2008-2009 DHS	98.2	98.1	98.3	1.5	1.6	1.4	0.2	0.2	0.2
	2014 DHS	97.4	97.3	97.5	1.4	1.8	1.1	1.2	0.9	1.5
Lesotho	2004 DHS	86.7	83.4	91.8	9.6	12.6	5.1	3.6	4.0	3.0
	2009-2010 DHS	94.1	93.9	94.5	3.7	3.9	3.3	1.5	1.8	1.1
	2014 DHS	95.8	95.9	95.6	2.4	2.5	2.2	1.3	1.4	1.1
Liberia	2007 DHS	92.5	88.6	96.2	4.5	6.2	2.8	2.7	4.8	0.8
	2013 DHS	90.0	87.6	92.8	4.8	6.6	2.9	5.0	5.6	4.3
Madagascar	1992 DHS	94.4	92.8	96.0	3.0	3.8	2.1	2.7	3.4	1.9
	1997 DHS	96.7	95.0	98.6	2.1	3.6	0.5	1.2	1.5	0.9
	2003-2004 DHS	96.4	94.9	98.1	2.1	3.4	0.7	1.5	1.7	1.2
	2008-2009 DHS	96.6	95.7	97.5	2.2	3.0	1.5	1.1	1.3	1.0
Malawi	1992 DHS	96.1	95.6	96.6	2.7	3.3	2.1	1.2	1.1	1.2
	2000 DHS	97.1	96.7	97.6	1.7	1.9	1.6	1.1	1.4	0.8
	2004 DHS	96.8	95.8	98.0	2.3	3.2	1.4	0.8	1.0	0.6
	2010 DHS	96.2	95.7	96.7	3.0	3.3	2.6	0.7	0.9	0.5
	2015-2016 DHS	96.1	95.2	97.3	2.9	3.5	2.0	1.0	1.3	0.7
Mali	1995-1996 DHS	96.2	91.5	99.3	2.2	4.9	0.4	1.4	3.1	0.2
	2001 DHS	97.3	93.8	99.4	1.2	3.0	0.2	1.3	2.8	0.5
	2006 DHS	96.8	93.1	99.2	1.8	4.1	0.4	1.1	2.1	0.4
	2010 Special DHS	97.2	93.9	99.3	1.4	2.9	0.5	1.4	3.2	0.2
	2012 DHS	97.9	95.4	99.1	1.5	3.0	0.7	0.7	1.7	0.2
Morocco	1992 DHS	94.5	91.8	97.0	3.6	5.4	1.8	2.0	2.8	1.2
	2003-2004 DHS	95.3	93.0	97.7	2.9	4.5	1.3	1.8	2.6	1.1
Mozambique	1997 DHS	95.9	95.6	96.1	2.2	2.3	2.2	1.9	2.1	1.7
	2003 DHS	95.7	93.7	97.8	2.7	3.8	1.6	1.5	2.4	0.6

Country	Data source	Group 1			Group 2			Group 3		
		Determination of co-residence with child is straightforward			No one in household who could be the older person's child			Indeterminate		
		Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
	2009 AIS	97.6	96.8	98.7	2.1	2.9	1.2	0.2	0.3	0.1
	2011 DHS	96.0	94.3	97.9	2.7	3.8	1.4	1.3	1.9	0.7
Namibia	1992 DHS	90.2	89.7	90.7	3.1	3.3	3.0	6.7	7.0	6.3
	2000 DHS	92.3	92.3	92.4	2.3	3.1	1.4	5.3	4.7	6.2
	2006-2007 DHS	93.2	93.9	92.1	3.4	3.1	3.9	2.7	2.8	2.6
	2013 DHS	92.9	93.0	92.7	2.9	2.4	3.6	4.2	4.6	3.7
Niger	1992 DHS	93.5	88.5	97.8	2.2	4.2	0.5	4.3	7.2	1.7
	1998 DHS	95.0	91.3	98.0	2.1	3.6	0.9	2.7	4.7	1.1
	2006 DHS	96.4	92.6	98.8	1.8	3.7	0.6	1.5	2.8	0.6
	2012 DHS	97.3	94.0	99.4	1.9	4.4	0.4	0.6	1.2	0.3
Nigeria	1990 DHS	96.0	92.9	98.0	2.0	4.0	0.7	2.1	3.2	1.3
	1999 DHS	96.2	92.6	98.8	2.4	4.4	0.9	1.4	3.0	0.3
	2003 DHS	94.5	88.8	99.0	3.8	7.8	0.6	1.5	2.9	0.4
	2008 DHS	97.2	95.3	98.8	2.0	3.3	0.8	0.7	1.2	0.3
	2013 DHS	97.6	95.5	99.3	1.7	3.3	0.5	0.5	0.8	0.2
Rwanda	1992 DHS	98.9	98.5	99.4	0.8	1.0	0.4	0.4	0.5	0.3
	2000 DHS	98.7	98.8	98.7	0.6	0.5	0.8	0.6	0.8	0.4
	2005 DHS	98.7	98.3	99.4	0.8	1.2	0.3	0.4	0.6	0.2
	2007-2008 Interim DHS	99.1	99.0	99.4	0.6	0.7	0.4	0.3	0.3	0.2
	2010 DHS	98.8	98.8	98.9	0.8	0.9	0.7	0.3	0.4	0.3
	2014-2015 DHS	98.6	98.2	99.2	0.7	1.0	0.2	0.7	0.8	0.6
Sao Tome and Principe	2008-2009 DHS	97.5	96.3	98.8	2.4	3.4	1.2	0.1	0.3	0.0
Senegal	1992-1993 DHS	85.5	77.1	93.8	3.4	5.9	1.0	9.8	14.4	5.3
	1997 DHS	88.1	82.0	94.2	3.0	4.6	1.4	8.7	12.9	4.4
	2005 DHS	87.3	82.6	92.4	10.1	13.9	6.0	2.6	3.5	1.7
	2010 DHS	88.1	84.8	91.5	3.6	4.2	3.0	8.0	10.4	5.5
	2012-2013 DHS	85.4	79.9	92.0	3.8	5.3	2.1	10.4	14.2	5.9
	2012-2014 DHS	86.6	81.9	92.0	3.2	4.4	1.8	9.9	13.1	6.3
	2014 DHS	88.0	84.3	91.9	2.5	3.5	1.4	9.3	11.9	6.6
	2015 DHS	88.3	82.5	94.6	2.6	4.0	1.0	8.4	12.1	4.4
Sierra Leone	2008 DHS	89.2	86.4	91.6	6.7	8.5	5.2	3.4	4.4	2.5
	2013 DHS	89.8	87.3	92.3	4.1	5.1	3.2	6.1	7.6	4.5
South Africa	1998 DHS	94.3	94.2	94.4	3.5	3.7	3.3	2.0	2.0	2.1
Swaziland	2006-2007 DHS	95.0	94.5	95.7	3.1	3.7	2.2	1.6	1.3	2.1
Togo	1998 DHS	92.8	89.7	96.1	3.3	4.3	2.3	3.7	5.7	1.6
	2013-2014 DHS	95.7	94.8	96.9	2.5	2.8	2.1	1.8	2.4	1.1
Uganda	1995 DHS	94.2	92.0	96.4	3.2	4.5	2.0	2.4	3.1	1.7
	2000-2001 DHS	94.7	93.5	95.9	2.9	4.0	1.8	2.2	2.2	2.2
	2006 DHS	94.4	92.4	96.7	4.0	5.2	2.6	1.4	2.0	0.7
	2011 AIS	95.5	94.2	97.1	3.7	5.0	2.1	0.7	0.8	0.6
	2011 DHS	94.3	93.7	95.0	3.6	4.0	3.1	1.8	2.1	1.3
United Republic of Tanzania	1992 DHS	91.9	88.3	94.8	4.5	6.2	3.1	3.6	5.5	2.1
	1996 DHS	94.8	91.3	97.8	2.7	5.0	0.9	2.4	3.6	1.4

Country	Data source	Group 1			Group 2			Group 3		
		Determination of co-residence with child is straightforward			No one in household who could be the older person's child			Indeterminate		
		Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
	2003-2004 AIS	93.6	91.5	95.8	2.8	4.2	1.4	3.5	4.3	2.8
	2004-2005 DHS	94.8	92.6	97.1	3.1	4.4	1.8	2.1	3.0	1.2
	2007-2008 AIS	94.1	91.7	96.7	3.5	4.9	2.0	2.3	3.2	1.3
	2010 DHS	95.3	93.7	97.0	3.2	4.1	2.2	1.5	2.0	0.8
	2011-2012 AIS	94.3	93.3	95.4	3.2	3.8	2.5	2.5	2.8	2.1
	2015-2016 DHS	95.0	93.2	96.9	2.1	2.5	1.7	2.8	4.1	1.4
Zambia	1992 DHS	93.6	89.9	96.6	3.6	6.5	1.4	2.7	3.6	2.0
	1996 DHS	95.8	93.8	97.4	2.1	2.7	1.5	2.1	3.5	1.1
	2001-2002 DHS	95.9	94.5	97.1	2.8	4.2	1.6	1.3	1.3	1.3
	2007 DHS	97.1	96.6	97.7	2.5	3.2	1.9	0.3	0.2	0.4
	2013-2014 DHS	95.9	95.7	96.2	3.0	3.2	2.7	0.9	1.1	0.8
Zimbabwe	1994 DHS	94.2	92.9	95.5	3.1	3.7	2.5	2.7	3.4	2.1
	1999 DHS	95.8	95.0	96.5	3.3	3.9	2.7	0.9	1.0	0.8
	2005-2006 DHS	96.6	96.1	97.3	2.4	2.7	2.1	0.8	1.1	0.4
	2010-2011 DHS	95.0	93.6	96.6	3.2	3.8	2.6	1.8	2.6	0.9
	2015 DHS	97.0	96.1	98.1	2.1	2.5	1.5	0.9	1.3	0.3
Asia										
Afghanistan	2015 DHS	97.9	96.4	98.8	1.3	2.8	0.5	0.8	0.8	0.8
Armenia	2000 DHS	97.9	97.5	98.5	1.5	2.2	0.6	0.6	0.3	0.9
	2005 DHS	98.5	98.1	99.2	1.2	1.8	0.4	0.3	0.2	0.4
	2010 DHS	98.1	97.8	98.5	1.4	1.8	0.8	0.5	0.3	0.6
Azerbaijan	2006 DHS	98.5	97.8	99.3	1.0	1.6	0.2	0.4	0.2	0.6
Bangladesh	1993-1994 DHS	95.7	94.0	97.1	2.9	4.3	1.8	1.4	1.8	1.1
	1996-1997 DHS	96.3	93.4	98.5	2.4	4.8	0.7	1.2	1.8	0.8
	1999-2000 DHS	96.6	93.8	98.7	2.1	4.2	0.5	1.3	2.0	0.8
	2004 DHS	97.1	94.8	98.8	1.8	3.5	0.5	1.1	1.7	0.7
	2007 DHS	96.7	95.1	97.9	2.4	3.8	1.3	0.9	1.1	0.8
	2011 DHS	97.2	95.0	98.9	2.2	4.0	0.8	0.6	0.9	0.3
	2014 DHS	97.1	95.0	98.7	2.0	3.9	0.5	0.9	1.1	0.7
Cambodia	2000 DHS	96.8	95.4	98.7	2.3	3.3	0.9	0.9	1.3	0.4
	2005 DHS	96.1	94.5	98.3	3.2	4.5	1.4	0.7	1.0	0.3
	2010 DHS	95.0	92.9	98.3	4.0	5.8	1.3	1.0	1.3	0.4
	2014 DHS	95.2	92.9	98.5	4.1	6.1	1.3	0.7	1.0	0.2
India	1992-1993 DHS	94.4	93.2	95.5	3.9	5.1	2.8	1.7	1.8	1.7
	1998-1999 DHS	95.7	94.6	96.8	2.9	4.1	1.9	1.3	1.4	1.3
	2005 DHS	97.0	96.3	97.6	2.1	2.7	1.6	0.4	0.3	0.5
Indonesia	1991 DHS	94.4	91.7	97.2	4.6	7.0	2.0	1.0	1.3	0.7
	1994 DHS	94.7	91.9	97.7	4.6	7.1	1.8	0.8	1.0	0.5
	1997 DHS	95.2	93.0	97.7	3.9	5.7	1.9	0.9	1.2	0.4
	2002-2003 DHS	96.4	95.0	98.0	3.0	4.4	1.6	0.5	0.7	0.4
	2007 DHS	96.3	94.7	98.2	2.9	4.2	1.4	0.8	1.1	0.4
	2012 DHS	96.4	95.1	97.9	2.8	3.8	1.6	0.9	1.2	0.5
Jordan	1997 DHS	97.8	95.9	99.5	1.8	3.3	0.4	0.3	0.6	0.1
	2002 DHS	98.0	96.6	99.4	1.8	3.0	0.6	0.2	0.4	0.1

Country	Data source	Group 1			Group 2			Group 3		
		Determination of co-residence with child is straightforward			No one in household who could be the older person's child			Indeterminate		
		Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
	2007 DHS	98.6	97.4	99.8	1.2	2.2	0.1	0.1	0.3	0.0
	2009 IDHS	98.8	97.9	99.6	1.0	1.7	0.3	0.2	0.3	0.0
	2012 DHS	98.9	97.9	99.8	1.0	1.8	0.2	0.1	0.1	0.1
Kazakhstan	1995 DHS	96.7	96.2	97.6	2.8	3.0	2.4	0.5	0.8	0.0
	1999 DHS	97.9	97.6	98.4	2.0	2.3	1.4	0.2	0.1	0.2
Kyrgyzstan	1997 DHS	98.4	97.5	99.8	1.3	2.1	0.2	0.3	0.5	0.0
	2012 DHS	99.0	99.2	98.6	1.0	0.7	1.3	0.1	0.1	0.1
Maldives	2009 DHS	94.1	94.4	93.9	3.9	3.3	4.5	1.7	2.0	1.4
Myanmar	2015-16 MDHS	93.7	91.7	96.4	4.5	5.9	2.6	1.8	2.4	1.0
Nepal	1996 DHS	95.6	94.6	96.6	3.5	4.4	2.6	0.9	0.9	0.8
	2001 DHS	96.5	95.3	97.6	2.7	3.8	1.6	0.8	0.9	0.8
	2006 DHS	96.9	96.1	97.5	2.5	3.1	2.0	0.6	0.7	0.5
	2011 DHS	96.9	96.3	97.5	2.5	2.8	2.1	0.5	0.6	0.4
Pakistan	1990-1991 DHS	95.6	94.7	96.1	2.5	3.3	2.0	1.9	2.0	1.9
	2012-2013 DHS	95.9	94.1	97.3	1.7	2.7	1.0	0.6	0.6	0.6
Philippines	1993 DHS	93.9	91.7	96.3	4.0	5.4	2.4	2.2	2.9	1.3
	1998 DHS	94.2	92.3	96.6	3.7	4.7	2.4	2.1	3.0	1.0
	2003 DHS	94.6	93.1	96.3	4.0	5.2	2.5	1.5	1.7	1.2
	2008 DHS	94.5	93.3	96.1	3.9	4.9	2.6	1.6	1.8	1.3
	2013 DHS	94.1	93.0	95.4	3.2	3.8	2.4	2.7	3.2	2.2
Tajikistan	2011 DHS	99.0	98.9	99.1	0.6	1.0	0.3	0.4	0.1	0.6
Timor-Leste	2009-2010 DHS	93.5	91.8	95.3	4.9	6.4	3.4	1.5	1.8	1.2
Turkey	1993 DHS	97.7	96.9	98.4	1.7	2.4	1.1	0.6	0.7	0.5
	1998 DHS	98.3	97.5	99.2	1.3	2.0	0.7	0.3	0.6	0.1
	2003 DHS	98.2	97.6	98.9	1.5	2.0	0.9	0.2	0.3	0.2
Uzbekistan	1996 DHS	98.1	98.0	98.3	1.4	1.7	1.1	0.5	0.3	0.7
Viet Nam	1997 DHS	98.2	97.8	98.7	1.4	1.9	0.8	0.4	0.3	0.4
	2002 DHS	98.2	97.8	98.7	1.4	1.9	0.8	0.4	0.3	0.4
	2005 AIS	97.6	96.9	98.6	2.3	3.0	1.3	0.1	0.2	0.1
Yemen	1991-1992 DHS	91.8	85.4	97.2	6.1	11.2	1.8	2.1	3.4	1.0
	2013 DHS	96.8	94.2	98.8	2.4	4.4	0.9	0.8	1.4	0.4
Europe										
Albania	2008-2009 DHS	98.6	98.3	98.9	1.1	1.4	0.7	0.3	0.2	0.3
Republic of Moldova	2005 DHS	98.4	97.9	99.1	1.6	2.0	0.8	0.1	0.1	0.1
Ukraine	2007 DHS	98.2	98.0	98.6	1.6	1.8	1.2	0.2	0.2	0.3
Latin America and the Caribbean										
Bolivia (Plurinational State of)	1994 DHS	96.9	96.0	98.0	1.9	2.5	1.2	1.2	1.5	0.9
	1998 DHS	96.4	95.6	97.4	2.3	2.9	1.6	1.3	1.5	1.0
	2003 DHS	84.5	79.3	90.5	2.2	2.9	1.4	1.0	1.4	0.7
	2008 DHS	97.5	97.0	98.2	2.0	2.6	1.4	0.4	0.4	0.4
Brazil	1991 DHS	94.9	93.5	96.5	2.9	3.7	2.1	2.2	2.9	1.4
	1996 DHS	95.1	93.6	96.8	4.1	5.5	2.6	0.8	0.9	0.6
Colombia	1990 DHS	92.1	92.0	92.3	4.8	4.6	5.0	3.1	3.4	2.7

Country	Data source	Group 1			Group 2			Group 3		
		Determination of co-residence with child is straightforward			No one in household who could be the older person's child			Indeterminate		
		Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
	1995 DHS	93.0	92.5	93.6	3.4	3.8	2.9	3.6	3.7	3.6
	2000 DHS	92.2	91.8	92.7	6.1	6.4	5.8	1.7	1.8	1.6
	2005 DHS	92.3	91.5	93.3	5.6	6.0	5.1	1.2	1.5	0.9
	2010 DHS	92.7	92.9	92.5	5.2	4.9	5.6	1.5	1.6	1.3
	2015 DHS	92.6	93.0	92.2	5.2	5.0	5.6	1.6	1.6	1.6
Dominican Republic	1991 DHS	93.9	93.6	94.2	3.8	4.3	3.3	2.3	2.1	2.5
	1996 DHS	92.9	91.7	94.0	4.2	4.9	3.4	2.9	3.3	2.5
	1999 DHS	93.8	94.6	92.9	3.5	2.5	4.7	2.6	2.9	2.3
	2002 DHS	85.1	80.5	89.7	4.2	4.9	3.6	2.5	2.4	2.5
	2007 DHS 2007 Special DHS	87.0	83.8	90.1	5.0	5.1	5.0	1.0	1.0	1.0
	2013 DHS	86.6	83.4	90.0	3.9	4.8	3.0	2.1	1.6	2.6
Guatemala	1995 DHS	94.3	92.2	96.6	2.7	3.3	2.0	2.9	4.4	1.3
	1998-1999 IDHS	93.7	91.6	96.1	3.1	3.8	2.3	3.2	4.5	1.6
	2014-2015 DHS	95.1	94.3	96.0	3.4	4.0	2.9	0.7	0.8	0.7
Guyana	2005 AIS	92.6	90.8	94.8	6.1	7.7	4.2	1.2	1.3	1.0
	2009 DHS	95.0	94.6	95.4	3.9	4.1	3.6	1.0	1.1	1.0
Haiti	1994-1995 DHS	91.6	91.2	92.2	3.3	3.2	3.4	5.0	5.6	4.4
	2000 DHS	92.3	91.4	93.4	2.9	3.0	2.7	4.9	5.7	3.8
	2005-2006 DHS	93.1	92.7	93.6	4.7	4.5	5.0	2.1	2.7	1.4
	2012 DHS	90.9	90.7	91.2	5.9	5.7	6.1	3.1	3.5	2.6
Honduras	2005-2006 DHS	94.3	94.1	94.5	4.4	4.7	4.2	1.3	1.2	1.3
	2011 DHS	94.5	94.8	94.3	4.3	3.8	4.8	1.2	1.4	0.9
Nicaragua	1997-1998 DHS	91.7	91.0	92.5	4.5	5.0	4.0	3.8	4.0	3.5
	2001 DHS	92.7	92.8	92.6	4.1	4.4	3.8	3.2	2.9	3.5
Paraguay	1990 DHS	92.8	91.6	94.2	4.4	5.0	3.8	2.8	3.4	2.0
Peru	1991-1992 DHS	93.6	91.4	95.8	3.9	5.0	2.8	2.5	3.7	1.4
	1996 DHS	94.6	93.3	95.9	3.7	4.3	3.1	1.7	2.4	1.0
	2000 DHS	95.6	94.6	96.6	2.9	3.8	1.9	1.6	1.6	1.5
	2004-2006 DHS	95.4	94.7	96.1	3.5	3.8	3.2	1.1	1.4	0.7
	2007-2008 DHS	95.4	94.7	96.1	3.5	3.8	3.2	1.1	1.4	0.7
	2009 DHS	95.7	94.9	96.6	3.2	3.8	2.5	0.9	0.9	0.9
	2010 DHS	96.2	96.1	96.4	3.0	2.8	3.1	0.7	0.9	0.5
	2011 DHS	96.0	95.4	96.7	3.1	3.5	2.6	0.8	0.9	0.6
	2012 DHS	95.3	94.8	95.8	3.7	3.8	3.5	0.9	1.1	0.7

Annex III

Prevalence of institutional living arrangements

Most people live in private households their whole lives, but in many high-income economies with relatively aged populations, living in an institution has become an option for older persons who have difficulty managing on their own or who need specialized medical services. Data on institutional living are still limited and lack detail about the specific arrangements, but information from censuses can provide some indication of the prevalence of non-household living arrangements among older persons. Table A.III.1 lists estimates of the proportion of older persons residing in such arrangements, disaggregated by age and sex where possible, for 108 countries or areas spanning all six major regions. The data are drawn from estimates compiled for the 2005 United Nations report, *Living Arrangements of Older Persons Around the Worlds* (“2005 report”), tabulations provided by countries to the Demographic Yearbook (DYB) of the United Nations, as well as information processed from the census microdata samples from the Integrated Use Public Microdata Samples-International (IPUMS-I) at the University of Minnesota. “Institutional” living arrangements (also called “collective” arrangements or “group quarters”) can include persons living in arrangements other than old-age homes or health care facilities. The category generally also includes religious institutions, prisons, military barracks and dormitories of schools and universities. In some countries, boarding homes or hostels may be included.

In general, the estimates indicate that in most countries or areas, only a minority—less than 5 per cent—of persons aged 60 years or over were living in institutional settings. Notable exceptions include Japan and Qatar, where more than 10 per cent of persons aged 60 years or over resided in institutional settings, as well as Australia, Canada, Hong Kong Special Administrative Region of China, Israel, Iceland, 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 persons aged 60 years or over resided in institutional settings.

TABLE A.III.1. PERCENTAGE OF PERSONS RESIDING IN INSTITUTIONS, AGED 60 YEARS OR OVER, AGED 60-79 YEARS AND AGED 80 YEARS OR OVER, BY SEX

Country or area	Year	Data source	Aged 60 years or over			Aged 60-79 years			Aged 80 years or over		
			Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
Africa											
Botswana	1981	2005 report	0.8	0.3	1.3						
	2011	IPUMS	0.7	0.4	1.1	0.7	0.4	1.2	0.5	0.5	0.5
Cameroon	2005	IPUMS	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Cape Verde	1990	2005 report	0.2	0.1	0.2						
Egypt	2006	IPUMS	0.4	0.4	0.5	0.4	0.3	0.5	0.7	0.9	0.5
	2007	DYB	0.4	0.3	0.4						
Ethiopia	2007	IPUMS	1.8	1.0	2.5	2.0	1.1	2.7	0.9	0.6	1.2
	2010	DYB	1.7	1.7	1.8	1.8	1.7	1.9	1.6	1.5	1.7
Ghana	2010	IPUMS	1.5	1.5	1.6	1.6	1.6	1.6	1.5	1.4	1.6
	1996	IPUMS	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Lesotho	1995	2005 report	0.4								
	2006	DYB	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.5
Liberia	2008	IPUMS	1.0	0.8	1.2	0.9	0.7	1.0	1.4	1.1	1.7
Malawi	2008	IPUMS	1.0	1.1	0.9	1.0	1.1	0.9	1.0	1.0	1.1
Mozambique	2007	IPUMS	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Namibia	2001	DYB	1.5	1.6	1.5	1.4	1.4	1.4	2.1	2.1	2.0
Nigeria	1991	2005 report	0.4	0.3	0.4						
	1982	2005 report	2.4	2.8	1.8						
Reunion	1999	DYB	1.9	2.4	1.4	1.3	1.4	1.1	6.2	7.4	3.6
	2002	DYB	2.3	0.4	4.8	2.4	0.4	5.3	1.0	0.4	1.7
Rwanda	2002	IPUMS	2.1	0.4	4.4	2.3	0.5	4.8	0.9	0.3	1.8
	1977	2005 report	0.6	0.6	0.6						
Seychelles	2002	DYB	2.8	2.4	3.3	2.1	1.3	3.0	6.4	7.0	4.8
	2004	IPUMS	0.4	0.3	0.5	0.4	0.3	0.5	0.4	0.3	0.5
Sierra Leone	2011	DYB	3.5	3.5	3.4	2.9	2.8	3.0	7.0	7.3	6.4
	2011	IPUMS	5.1	5.2	4.9	4.4	4.3	4.5	9.5	9.9	8.6
State of Palestine	1997	DYB	0.3	0.4	0.3	0.3	0.3	0.3	0.6	0.9	0.3
	1997	2005 report	0.2	0.3	0.2						
	2007	DYB	0.1	0.2	0.1	0.1	0.1	0.1	0.4	0.5	0.1
Swaziland	2007	DYB	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2
Uganda	2002	IPUMS	0.6	0.6	0.6	0.5	0.5	0.5	0.8	0.7	0.9
Zimbabwe	1992	2005 report	1.5	1.3	1.5						
Asia											
Armenia	2001	DYB	0.1	0.1	0.1						
	2011	DYB	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	2011	IPUMS	0.4	0.5	0.4	0.4	0.5	0.4	0.4	0.5	0.2
Bangladesh	1981	2005 report	1.8	1.1	2.4						
	2011	IPUMS	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Cambodia	2008	IPUMS	1.2	0.9	1.5	1.1	0.9	1.4	1.9	1.2	3.0
China	1990	2005 report	0.8	0.3	1.4						
	2000	IPUMS	0.3	0.2	0.5	0.3	0.1	0.5	0.6	0.5	0.7
China, Hong Kong SAR	1996	DYB	4.1	5.3	2.9						

Country or area	Year	Data source	Aged 60 years or over			Aged 60-79 years			Aged 80 years or over		
			Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
	1996	2005 report	4.1	5.3	2.9						
	2001	DYB	6.3	7.6	4.9						
China, Macao SAR	1991	2005 report	3.6	3.8	3.3						
	2011	DYB	2.5	2.8	2.0	1.4	1.1	1.6	8.3	9.6	5.7
Cyprus	1992	2005 report	2.4	3.0	1.7						
	2001	DYB	2.8	3.5	1.9	1.1	1.4	0.7	11.4	13.7	8.3
	2011	DYB	1.7	2.2	1.1	0.7	0.8	0.5	6.9	8.7	4.4
Indonesia	2010	IPUMS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2011	IPUMS	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1
Iran (Islamic Republic of)	1996	DYB	0.2	0.1	0.2						
	1996	2005 report	0.2	0.1	0.2						
	2011	DYB	0.2	0.2	0.1						
Iraq	1997	IPUMS	0.4	0.3	0.6	0.4	0.3	0.6	0.2	0.2	0.3
	1995	DYB	5.0	6.2	3.5	2.6	3.0	2.0	16.7	20.6	11.2
Israel	1995	IPUMS	5.8	6.5	4.9	3.7	3.7	3.6	16.0	19.3	11.3
	1995	2005 report	3.6	4.4	2.6						
	2008	DYB	6.3	7.7	4.5	3.5	4.2	2.7	18.4	21.4	13.6
Japan	2000	DYB	16.3	16.5	16.2	17.3	17.7	16.9	11.2	11.4	10.8
	2000	2005 report	3.8	4.6	2.7						
	2005	DYB	18.4	18.2	18.6	19.8	19.9	19.6	12.1	12.1	12.3
Jordan	2004	IPUMS	0.9	0.8	1.1	0.9	0.8	1.1	1.0	0.9	1.1
Kyrgyzstan	1999	DYB	0.3	0.3	0.3						
	2009	IPUMS	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3
Lao People's Democratic Republic	1995	DYB	1.4	0.2	2.7						
Malaysia	1991	2005 report	1.1	0.8	1.5						
	2010	DYB	0.8	0.8	0.7	0.6	0.6	0.6	1.9	1.9	1.8
Mongolia	2000	IPUMS	0.5	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.5
	2000	2005 report	0.2	0.1	0.4						
Myanmar	1983	2005 report	2.0	0.7	3.4						
Oman	2003	DYB	1.7	0.6	2.7						
Philippines	1995	2005 report	0.2	0.2	0.1						
	2000	IPUMS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Qatar	2010	DYB	20.5	0.5	30.9						
Republic of Korea	1986	2005 report	3.5	3.7	3.3						
Singapore	1980	2005 report	2.0	2.0	2.0						
Tajikistan	1989	2005 report	1.5								
Thailand	2000	IPUMS	1.4	0.2	2.7	1.3	0.2	2.5	1.9	0.3	4.3
Timor-Leste	2004	DYB	0.2	0.2	0.3						
Turkey	2000	IPUMS	1.7	1.3	2.1	1.6	1.3	2.1	1.8	1.6	2.3
	2011	DYB	0.3	0.3	0.4	0.2	0.1	0.3	0.9	0.9	0.8
Viet Nam	1989	2005 report	0.3	0.2	0.4						
Europe											
Albania	2011	DYB	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2
Austria	1986	2005 report	3.4	4.2	2.1						

Country or area	Year	Data source	Aged 60 years or over			Aged 60-79 years			Aged 80 years or over		
			Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
	2001	DYB	3.3	4.4	1.7	1.5	1.8	1.1	12.0	14.1	6.6
	2011	DYB	3.4	4.6	1.9	1.4	1.5	1.2	11.1	13.7	5.7
Belarus	1999	2005 report	0.5	0.4	0.6						
	2009	IPUMS	0.3	0.3	0.4	0.3	0.3	0.4	0.2	0.3	0.1
Belgium	1981	2005 report	4.3	5.5	2.5						
	2001	DYB	5.0	6.8	2.6						
	2011	DYB	4.1	5.6	2.2	1.5	1.8	1.2	13.5	16.8	7.2
Bulgaria	1992	2005 report	0.4	0.4	0.3						
	2001	DYB	0.4	0.4	0.3	0.3	0.3	0.3	1.0	1.1	0.8
Channel Islands	1996	2005 report	7.9	9.9	5.2						
Croatia	2001	DYB	1.6	2.0	1.1						
	2011	DYB	2.3	2.8	1.6	1.4	1.5	1.1	7.0	8.1	4.6
Czechia	1991	2005 report	2.0	2.4	1.3						
	2001	DYB	1.9	2.3	1.3						
	2011	DYB	2.4	2.8	1.8	1.3	1.3	1.4	8.0	9.5	4.7
Denmark	1991	2005 report	4.2	5.2	2.9						
	1989	2005 report	1.4	1.5	1.2						
Estonia	2000	DYB	1.4	1.5	1.4	1.1	0.9	1.3	4.2	4.7	2.5
	2011	DYB	2.5	2.5	2.6	1.8	1.5	2.4	5.7	6.2	4.0
Faeroe Islands	1977	2005 report	1.5	1.9	1.1						
Finland	2000	2005 report	3.7	4.7	2.3						
France	1999	2005 report	4.5	5.7	3.2						
Germany											
(Democratic Republic)	1981	2005 report	3.4	4.0	2.2						
	1987	2005 report	3.0	3.9	1.4						
(Federal Republic of)	2001	DYB	2.8	3.9	1.4	1.2	1.3	1.0	12.1	14.5	5.7
	2011	DYB	3.6	4.7	2.1	1.4	1.5	1.4	12.1	14.8	6.4
Greece	1991	2005 report	1.6	1.7	1.5						
	2001	DYB	2.3	2.5	2.1	2.0	2.1	2.0	3.9	4.7	2.9
	2011	DYB	0.8	1.0	0.6	0.5	0.6	0.5	1.8	2.3	1.0
Guernsey	1996	DYB	7.9	9.9	5.2						
	1996	DYB	1.7	2.0	1.3	1.1	1.2	1.0	5.2	5.8	3.8
	1996	2005 report	1.7	2.0	1.3						
Hungary	2001	DYB	2.1	2.4	1.7	1.5	1.5	1.5	6.1	7.1	3.7
	2011	DYB	2.7	3.1	2.1	1.7	1.7	1.7	7.7	8.9	4.7
	2011	IPUMS	2.8	3.1	2.2	1.7	1.7	1.8	7.7	8.9	4.9
Ireland	1981	2005 report	7.2	8.3	5.9						
	1996	DYB	7.4	8.5	6.0						
	2002	DYB	7.8	9.0	6.5	5.6	6.1	5.1	18.9	20.7	15.5
	2006	DYB	7.5	8.5	6.3	5.2	5.5	4.8	18.6	20.1	15.8
	2011	DYB	6.6	7.6	5.4	4.1	4.2	4.0	18.5	20.9	14.4
Isle of Man	1996	DYB	6.7	8.6	4.2						
	1996	2005 report	6.7	8.6	4.2						
	1981	2005 report	2.4	3.0	1.5						
	2001	DYB	1.8	2.4	0.9						

Country or area	Year	Data source	Aged 60 years or over			Aged 60-79 years			Aged 80 years or over		
			Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
Italy	2001	IPUMS	1.8	2.4	0.9	1.0	1.3	0.7	5.2	6.5	2.5
	2011	DYB	1.4	1.9	0.8	0.7	0.9	0.6	3.6	4.6	1.7
Latvia	1989	2005 report	1.5	1.6	1.4						
	2000	DYB	1.1	1.1	1.2						
Liechtenstein	2011	DYB	1.5	1.5	1.7	1.2	1.0	1.7	2.9	3.2	2.0
	2010	DYB	2.9	4.1	1.6	1.2	1.6	0.8	12.0	14.5	7.2
Lithuania	1989	2005 report	0.2	0.3	0.2						
	2001	DYB	1.0	1.0	1.0	0.8	0.7	0.9	2.4	2.7	1.5
Luxembourg	2011	DYB	1.1	1.1	1.2	0.9	0.7	1.2	2.2	2.5	1.5
	1981	2005 report	5.4	7.0	3.1						
Malta	2001	DYB	4.9	7.0	2.2	2.0			20.5		
	2011	DYB	5.8	8.0	3.0	2.0	2.5	1.5	20.6	25.2	11.6
Montenegro	1995	DYB	5.8	7.4	3.6	3.7	4.6	2.6	18.5	22.6	11.3
	2005	DYB	5.8	7.6	3.4	3.1	4.0	2.0	20.2	24.4	13.2
Netherlands	2011	DYB	5.1	6.9	2.9	2.3	3.0	1.6	20.5	24.8	12.7
	2011	DYB	0.5	0.6	0.3	0.4	0.5	0.3	0.8	1.1	0.2
Norway	2001	DYB	5.0	6.7	2.8						
	1980	2005 report	4.0	4.9	2.9						
Poland	2001	DYB	3.3	4.3	1.9	0.9	1.0	0.8	11.0	13.3	6.6
	2011	DYB	2.4	3.3	1.4	0.6	0.7	0.6	9.1	11.0	5.7
Portugal	1988	2005 report	1.0	1.1	0.7						
	2002	DYB	1.0	1.2	0.8	0.8	0.9	0.7	2.7	3.1	1.6
Romania	2011	DYB	0.9	0.9	0.8	0.7	0.6	0.7	1.9	2.2	1.1
	1991	2005 report	1.9	2.2	1.5						
Russian Federation	2001	DYB	2.9	3.5	2.1	1.6	1.8	1.3	10.2	11.6	7.6
	2011	DYB	3.4	4.2	2.3	1.4	1.6	1.2	11.2	13.1	7.8
Serbia	2011	IPUMS	3.4	4.2	2.2	1.4	1.7	1.1	11.0	12.8	7.7
	1992	2005 report	0.3	0.3	0.3						
Serbia and Montenegro	2002	DYB	0.4	0.3	0.4						
	2011	DYB	0.5	0.5	0.4	0.4	0.3	0.4	1.0	1.1	0.7
Slovakia	1989	2005 report	0.5	0.7	0.7						
	2002	DYB	0.6	0.5	0.7	0.5	0.4	0.7	1.2	1.3	0.8
Slovenia	2010	DYB	0.5	0.4	0.7	0.5	0.4	0.7	0.8	0.8	0.6
	2002	DYB	0.7	0.8	0.6	0.6	0.7	0.6	1.6	1.8	1.1
Spain	2011	DYB	0.7	0.8	0.5	0.5	0.6	0.4	1.8	2.1	1.2
	1991	2005 report	0.4	0.5	0.3						
Sweden	2001	DYB	2.2	2.4	1.9	1.7	1.8	1.6	5.7	6.3	4.4
	2011	DYB	2.2	2.4	1.8	1.5	1.5	1.5	5.9	6.7	4.1
Slovakia	1991	2005 report	0.4	0.5	0.3						
	2002	DYB	2.7	3.3	1.7						
Slovenia	1981	2005 report	2.0	2.3	1.4						
	2001	DYB	2.0	2.5	1.3	1.2	1.4	0.9	5.6	6.5	3.8
Spain	2011	DYB	1.8	2.2	1.3	0.8	0.8	0.7	5.4	6.3	3.7
	1990	2005 report	1.7	2.1	1.2						
Sweden	2011	DYB	2.7	3.5	1.8	0.9	0.9	0.9	9.7	11.7	6.3

Country or area	Year	Data source	Aged 60 years or over			Aged 60-79 years			Aged 80 years or over		
			Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
Switzerland	1990	2005 report	6.7	8.4	4.3						
	2000	DYB	7.0	8.8	4.5	3.0	3.3	2.7	22.3	26.3	14.2
	2000	IPUMS	5.7	7.5	3.3	2.1	2.5	1.6	19.8	23.4	12.5
Ukraine	2001	DYB	0.3	0.3	0.3						
United Kingdom of Great Britain and Northern Ireland											
(Great Britain only)	1981	2005 report	3.2	3.9	2.2						
(Northern Ireland only)	1981	2005 report	3.9	4.5	2.9						
	2011	DYB	2.9	3.7	1.8	1.0	1.0	1.0	10.2	12.5	6.1
Latin America and the Caribbean											
Argentina	2010	DYB	2.4	2.6	2.0	1.6	1.5	1.7	6.2	7.2	4.3
Aruba	1981	2005 report	2.6	3.1	1.9						
	2010	DYB	2.2	2.4	2.0	1.3	1.1	1.5	9.0	10.2	6.6
Bahamas	1990	2005 report	1.1	1.1	1.2						
	2010	DYB	0.8	0.7	1.0	0.7	0.5	0.8	1.9	1.8	2.2
Barbados	1980	2005 report	2.8	2.9	2.5						
	1992	2005 report	1.1	0.9	1.3						
Bolivia (Plurinational State of)	2001	IPUMS	1.4	1.2	1.7	1.3	1.1	1.6	2.2	2.1	2.3
	2001	DYB	1.1	1.0	1.3	1.1	0.9	1.3	1.5	1.5	1.5
	2012	DYB	1.3	1.0	1.6	1.2	0.9	1.6	1.5	1.4	1.6
Brazil	1980	2005 report	1.3	1.4	0.3						
	2000	DYB	0.9	0.9	0.8	0.7	0.7	0.7	2.2	2.5	1.6
	2010	DYB	0.6	0.6	0.6	0.5	0.4	0.5	1.7	2.0	1.3
	2010	IPUMS	0.6	0.6	0.6	0.5	0.4	0.5	1.7	2.0	1.2
Chile	2002	DYB	1.9								
	2002	IPUMS	2.0	1.9	2.1	1.5	1.2	1.9	4.5	5.0	3.6
Colombia	2005	DYB	1.0	1.1	0.9	0.7	0.7	0.7	3.0	3.2	2.7
Costa Rica	2011	DYB	0.8	0.7	1.0	0.5	0.4	0.7	2.3	2.3	2.4
	2011	IPUMS	0.3	0.4	0.2	0.2	0.3	0.2	0.9	1.2	0.6
Cuba	1981	2005 report	0.9	0.6	1.2						
	2002	DYB	0.8	0.6	1.0	0.5	0.4	0.7	1.9	1.4	2.5
	2002	IPUMS	0.8	0.6	1.0	0.6	0.4	0.8	1.9	1.4	2.5
Dominican Republic	2002	DYB	0.2	0.2	0.2	0.2	0.1	0.2	0.4	0.4	0.4
	2010	DYB	0.2	0.1	0.2	0.1	0.1	0.2	0.3	0.3	0.3
	2010	IPUMS	3.2	2.6	3.8	3.2	2.7	3.8	3.0	2.5	3.5
Ecuador	2001	DYB	0.8	0.8	0.7	0.6	0.6	0.7	1.2	1.3	1.1
	2010	DYB	0.5	0.5	0.6	0.4	0.4	0.5	1.2	1.3	1.1
	2010	IPUMS	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3
El Salvador	2007	IPUMS	0.3	0.3	0.3	0.2	0.2	0.3	0.7	0.8	0.6
French Guiana	1982	2005 report	4.2	4.4	4.1						
Guadeloupe	1990	2005 report	1.5	1.5	1.4						
Haiti	2003	IPUMS	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Jamaica	2001	IPUMS	0.2	0.3	0.2	0.1	0.2	0.1	0.6	0.7	0.4
	2011	DYB	1.0	1.0	1.0	0.7	0.5	0.8	2.3	2.5	2.1
Martinique	1990	2005 report	2.4	2.7	2.1						
Mexico	2000	DYB	0.4	0.5	0.3						
	2000	2005 report	0.4	0.5	0.3						
	2010	DYB	0.3	0.4	0.3	0.2	0.2	0.3	0.9	1.1	0.6

Country or area	Year	Data source	Aged 60 years or over			Aged 60-79 years			Aged 80 years or over		
			Both sexes	Female	Male	Both sexes	Female	Male	Both sexes	Female	Male
Netherlands Antilles	1992	2005 report	3.8	4.0	3.7						
Nicaragua	2005	IPUMS	0.4	0.3	0.5	0.3	0.2	0.4	0.7	0.7	0.7
Panama	2010	IPUMS	0.2	0.2	0.3	0.2	0.1	0.3	0.3	0.4	0.2
Paraguay	2002	IPUMS	0.4	0.4	0.4	0.3	0.4	0.3	0.7	0.8	0.6
Peru	2007	DYB	1.0	0.8	1.1	0.9	0.7	1.1	1.3	1.3	1.3
	2007	IPUMS	0.9	0.7	1.1	0.8	0.6	1.1	1.3	1.4	1.2
Puerto Rico	1990	2005 report	1.3	1.4	1.2						
	2010	IPUMS	1.4	1.6	1.1	0.6	0.6	0.7	5.1	6.2	3.5
Sint Maarten (Dutch part)	2011	DYB	3.1			1.8	1.6	2.0	19.3		
Trinidad and Tobago	1990	2005 report	1.4	1.8	1.0						
	2011	IPUMS	2.3	2.4	2.2	1.8	1.7	1.9	5.8	6.5	4.7
United States Virgin Islands	1990	2005 report	2.2	2.2	2.2						
	1985	2005 report	3.3	2.9	3.9						
Uruguay	2011	DYB	2.3	2.7	1.8	1.2	1.1	1.3	6.6	7.7	4.2
	2011	IPUMS	1.6	1.9	1.2	0.8	0.8	0.8	4.8	5.6	3.1
Venezuela (Bolivarian Republic of)	2001	IPUMS	1.0	0.8	1.2	0.8	0.6	1.1	2.0	1.9	2.1
	2001	DYB	0.9	0.8	1.0						
Northern America											
Bermuda	1991	2005 report	4.0	4.3	3.6						
	2000	DYB	0.3	0.1	0.5	0.3	0.1	0.6	0.0	0.0	0.0
	2010	DYB	0.6	0.3	1.0	0.7	0.4	1.0	0.4	0.2	0.6
Canada	1991	2005 report	6.4	7.8	4.5						
	1996	DYB	6.0	7.4	4.1						
	2001	DYB	5.9	7.4	4.0	2.6	2.8	2.3	20.9	24.3	14.3
	2006	DYB	5.8	7.3	4.0	2.4	2.6	2.3	19.6	22.9	13.7
Greenland	1976	2005 report	10.0	12.0	7.4						
St. Pierre and Miquelon	1982	2005 report	7.0	9.0	3.6						
United States of America	1990	2005 report	4.1	5.1	2.7						
	2010	IPUMS	3.1	3.6	2.4	1.6	1.5	1.7	9.2	10.8	6.3
	2010	DYB	2.9	3.4	2.2	1.4	1.3	1.6	8.7	10.4	5.8
Oceania											
Australia	1986	2005 report	8.2	9.5	6.5						
	2006	DYB	6.7	7.9	5.2	3.4	3.2	3.6	19.6	23.1	13.8
	2011	DYB	6.6	7.6	5.5	3.5	3.2	3.9	18.9	22.3	13.6
Fiji	2007	IPUMS	0.7	0.8	0.6	0.7	0.8	0.6	0.9	0.9	0.9
New Zealand	1991	2005 report	7.5	8.6	6.1						
	2001	DYB	5.3	6.7	3.7	2.3	2.3	2.2	19.1	22.3	12.8
	2006	DYB	5.0	6.3	3.5	2.1	2.0	2.1	17.5	21.0	11.3
Tokelau	2011	DYB				5.6	5.0	6.5			
Tonga	1984	2005 report	0.5	0.7	0.4						

Source: Demographic Yearbook of the United Nations; IPUMS: Integrated Public Use Microdata Samples 2005 report: United Nations, Department of Economic and Social Affairs, Population Division (2005). *Living Arrangements of Older Persons Around the World*.