

# **World Population Prospects 2022**

**Data Sources** 



#### United Nations Department of Economic and Social Affairs, Population Division

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#### Suggested citation

United Nations, Department of Economic and Social Affairs, Population Division (2022). *World Population Prospects 2022, Data Sources*. UN DESA/POP/2022/DC/NO. 9.

This publication is available in electronic format on the Division's website at: www.un.org/development/ desa/pd/. For further information about this report, please contact the Population Division, Department of Economic and Social Affairs, United Nations, New York, 10017, USA, by Fax: 1 212 963 2147 or by e-mail at population@un.org.

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#### Notes on regions, development groups, countries or areas

The designations employed in this publication and the material presented in it do not imply the expression of any opinions whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The term "country" as used in this publication also refers, as appropriate, to territories or areas.

In this publication, data for countries and areas are often aggregated in six continental regions: Africa, Asia, Europe, Latin America and the Caribbean, Northern America, and Oceania. These regions are further divided into 21 geographic subregions. Further information on continental regions is available from https://unstats.un.org/unsd/methodology/m49/. Countries and areas are also grouped into eight Sustainable Development Goal (SDG) regions as defined by the United Nations Statistics Division and used for The Sustainable Development Goals Report (https://unstats.un.org/sdgs/indicators/regional-groups/). The seven SDG regions are: Sub-Saharan Africa, Northern Africa and Western Asia, Central and Southern Asia, Eastern and South-Eastern Asia, Latin America and the Caribbean, Oceania, and Europe and Northern America. Because of the magnitude of migrant stock in the SDG region Europe and Northern America and to maintain continuity with previous revisions of the international migrant stock produced by the Population Division, Europe and the subregion Northern America are also presented separately. The names and composition of geographical areas follow those of "Standard country or area codes for statistical use" available at https://unstats.un.org/unsd/methodology/m49/ as of 2 December 2020.

The designation of "more developed" and "less developed", or "developed" and "developing", is intended for statistical purposes and does not express a judgment about the stage in the development process reached by a particular country or area. More developed regions comprise all countries and areas of Europe and Northern America, plus Australia, New Zealand and Japan. Less developed regions comprise all countries and areas of Africa, Asia (excluding Japan), Latin America and the Caribbean, and Oceania (excluding Australia and New Zealand).

The group of least developed countries (LDCs) includes 46 countries, located in sub-Saharan Africa (32), Northern Africa and Western Asia (2), Central and Southern Asia (4), Eastern and South-Eastern Asia (4), Latin America and the Caribbean (1), and Oceania (3). Further information is available at http://unohrlls.org/about-ldcs/.

The group of Landlocked Developing Countries (LLDCs) includes 32 countries or territories, located in sub-Saharan Africa (16), Northern Africa and Western Asia (2), Central and Southern Asia (8), Eastern and South-Eastern Asia (2), Latin America and the Caribbean (2), and Europe and Northern America (2). Further information is available at http://unohrlls.org/about-lldcs/.

The group of Small Island Developing States (SIDS) includes 58 countries or territories, located in the Caribbean (29), the Pacific (20), and the Atlantic, Indian Ocean, Mediterranean and South China Sea (AIMS) (9). Further information is available at http://unohrlls.org/about-sids/.

The classification of countries and areas by income level is based on gross national income (GNI) per capita as reported by the World Bank (June 2020). These income groups are not available for all countries and areas. Further information is available at

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

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#### **AFGHANISTAN**

Population: Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1979 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2003-2005 HH Listing survey estimates; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1972-1974 NDFGS and 2010 DHS Special and 2015 DHS survey estimates; (b) official estimates through 2020 have been considered. *Note:* The 1979 census enumerated the settled population only; an attempt was made to adjusted for the number of Kuchi (nomads), reported to be about 800,000 at the times.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 2010 DHS Special and 2015 DHS and 2018 AHS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1972-1974 NDFGS and 1979 Census and 2007-2008, 2011-2012 NRVA and 2010-2011 MICS; (c) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2003 MICS and 2006 HS; (d) adjusted fertility using synthetic relational Gompertz model with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1972-1974 NDFGS and 1979 Census and 2007-2008, 2011-2012 NRVA and 2010-2011 MICS; (e) indirect estimates obtained using Mortara's method with data on children ever born by age of mother from the 2003 MICS and 2006 HS; (f) indirect estimates obtained from the application of the reverse survival method to the 1979 Census and 2003-2005 HH Listing and 2006 HS and 2010-2011 MICS; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2007-2008 NRVA; (h) cohort-completed fertility backdated by the mean age of childbearing from the 2003 MICS and 2007-2008 NRVA and 2010 DHS Special and 2015 DHS. In addition, the (a) birth-histories data from the 2011-2012 NRVA; (b) indirect estimates obtained from the application of the reverse survival method to the 1955-2010 Education Stats and 1972-1974 NDFGS and 2005 NRVA; (c) indirect estimates obtained from the application of the ownchildren method of fertility estimation to the 2010-2011 MICS have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2010 DHS Special and 2015 DHS and 2018 AHS; (b) indirect estimates from data on children ever born and surviving from the 1972-1974 NDFGS and 1997, 2010-2011 MICS and 2006 HS and 2007-2008 NRVA; (c) recent household deaths from the 1979 Census and 2010 DHS Special; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2003 MICS and 2015 AHS; (b) indirect estimates from data on children ever born and surviving from the 2011-2012 NRVA; (c) recent household deaths from the 1972-1974 NDFGS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) estimates of under-five mortality; (b) estimates of under-five mortality (5q0) by assuming that the age pattern of mortality conforms to the CD West model life tables.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **ALBANIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1955, 1989, 2001, 2011 censuses; (b) adjusted for under/over count; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1960 Census; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2020; (e) only total population for 1945, 1950, 1955, 1960, 1969, 1979, 1989, 2001, 2011 censuses have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2019; (b) birth-histories data from the 2017-2018 DHS; (c) cohort-completed fertility backdated by the mean age of childbearing from the 2017-2018 DHS; (d) International estimates used up to 2019. In addition, the (a) official estimates of age-specific fertility rates through 2009; (b) birth-histories data from the 2002 RHS and 2008-2009 DHS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011 Census; (d) indirect estimates obtained from the application of the reverse survival method to the 1950, 1955, 1989, 2001, 2011 censuses and 1961-2011 Education Stats and 2000, 2005 MICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 2011 censuses and 2000, 2005 MICS and 2008-2009 DHS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 2002 RHS and 2008-2009 DHS; (d) indirect estimates from data on children ever born and surviving from the 2000, 2005 MICS; (e) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2017-2018 DHS; (b) indirect estimates from data on children ever born and surviving from the 2011 Census have been considered.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2011; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) International estimates used up to 2021; (g) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2011 Census; (d) estimates of under-five, adult and old age mortality.

## **ALGERIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1948, 1954, 1966, 1977, 1987, 1998, 2008 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1960 PES and 2018-2019 MICS survey estimates; (f) official estimates through 2020; (g) only total population for 1960 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2017; (c) birth-histories data from the 1986-1987 ENF and 1992, 2002 MCH and 2012-2013, 2018-2019 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1948, 1987, 1998, 2008 censuses and 1970-1971 EF and 2006 MICS; (e) indirect estimates obtained from the application of the reverse survival method to the 1954, 1966, 1977, 1987, 1998, 2008 censuses and 1956-2011 Education Stats; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1992, 2002 MCH and 2012-2013, 2018-2019 MICS. In addition, the births in the household in the preceding 12 (or 24) months classified by age of mother from the 1954, 1966 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2020; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1969-1971 ED and 1986-1987 ENF and 1992, 2002 MCH and 1995 MICS; (d) indirect estimates from data on children ever born and surviving from the 1970-1971 EF and 2000, 2006 MICS; (e) International estimates used up to 2021. In addition, the direct estimates from births and deaths under-five calculated from full birth histories data from the 2012-2013, 2018-2019 MICS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2019; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2019; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 1992 MCH; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) estimates of under-five, adult and old age mortality.

## **AMERICAN SAMOA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1956, 1960, 1970, 1974, 1980, 1990, 2000, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1995 Survey survey estimates; (f) official estimates through 2020; (g) only total population for 2020 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2000; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) indirect estimates obtained from the application of the reverse survival method to the 1950, 1956, 1960, 1970, 1974, 1980, 1990, 2000, 2010 censuses; (d) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1974, 1980, 1990, 2000 censuses and 1985, 1995 Survey; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1956, 1960, 1974, 1980 censuses; (f) International estimates considered up to 2019.

Child Mortality: Under-five mortality based on: registered infant and child deaths through 2020.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) mortality rates for older ages were adjusted.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase.

## **ANDORRA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1966, 1981, 1985, 1990, 1995, 2000, 2005, 2010, 2015, 2021 censuses; (b) adjusted for under/over count; (c) official estimates through 2021; (d) only total population for 1954, 1989, 2011 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1948-2021 Estimates; (d) indirect estimates obtained from the application of the reverse survival method to the 2000 Census.

Child Mortality: Under-five mortality based on: registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adult deaths adjusted for underregistration using death distribution methods; (c) International estimates used up to 2021; (d) estimates of life expectancy at birth by assuming that the age pattern of mortality conforms to the CD West model life tables.

## **ANGOLA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1983-1985, 2014 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; (f) only total population for 1983-1985 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 2006-2007, 2011 MIS and 2015-2016 DHS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1996, 2001 MICS and 2014 Census; (c) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 2014 censuses and 1958-2004 Education Stats and 2001 MICS and 2006-2007 MIS; (d) indirect estimates obtained from stable population assumption; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1950 Census and 2001 MICS and 2006-2007, 2011 MIS and 2015-2016 DHS.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2015-2016 DHS; (b) indirect estimates from data on children ever born and surviving from the 1996, 2001 MICS and 2006-2007 MIS and 2008-2009 IBEP-MICS; (c) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2011 MIS; (b) indirect estimates from data on children ever born and surviving from the 2014 Census; (c) recent household deaths from the 2014 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) siblings deaths from the 2015-2016 DHS; (b) maternal orphanhood from the 1996, 2001 MICS; (c) paternal orphanhood from the 1996, 2001 MICS; (d) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2014 Census have been considered.

## **ANGUILLA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1974, 1984, 1992, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1984, 1992, 2001 censuses; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1945-2021 Estimates; (e) indirect estimates obtained from the application of the reverse survival method to the 1960, 1974, 1984, 1992, 2001, 2011 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2016; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2016; (b) adjusted for underreporting of infant and child deaths; (c) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2016; (b) estimates of under-five, adult and old age mortality.

## **ANTIGUA AND BARBUDA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1970, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2021; (e) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011 Census; (c) indirect estimates obtained from the application of the reverse survival method to the 1958-2012 Education Stats and 1960, 1970, 1991, 2001, 2011 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2018; (b) International estimates used up to 2021.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2017; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2017; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

#### **ARGENTINA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1947, 1960, 1970, 1980, 1991, 2001, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 2011-2012, 2019-2020 MICS survey estimates have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011-2012 MICS; (c) indirect estimates obtained from the application of the reverse survival method to the 1960, 1970, 1980, 1991, 2001, 2010 censuses and 2011-2012 MICS. In addition, the (a) official estimates of age-specific fertility rates through 2017; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2001, 2010 censuses; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2001, 2010 censuses; (d) indirect estimates obtained from the application of the reverse survival method to the 1955-2010 Education Stats; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1970, 1980, 1991, 2001 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2020; (b) International estimates used up to 2021. In addition, the (a) official estimates of infant and child mortality through 2017; (b) indirect estimates from data on children ever born and surviving from the 1970, 1980, 1991, 2001, 2010 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) mortality rates for older ages were adjusted. In addition, the official estimates through 2010 have been considered.

## **ARMENIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2005 DHS survey estimates; (f) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

Note: Population de-jure for the 2001 census adjusted to de-facto statistical concept.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2015; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) birth-histories data from the 2000, 2005, 2010, 2015 DHS; (e) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1979, 1989, 2001 censuses and 1979-2011 Education Stats; (f) cohort-completed fertility backdated by the mean age of childbearing from the 2000, 2005, 2010, 2015 DHS and 2001, 2011 censuses; (g) International estimates used up to 2019. In addition, the indirect estimates obtained from the application of the reverse survival method to the 2011 Census have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2000, 2005, 2010 DHS; (c) indirect estimates from data on children ever born and surviving from the 2001 Census; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2015 DHS; (b) indirect estimates from data on children ever born and surviving from the 1989, 2011 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2021; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) International estimates used up to 2021; (f) estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

## **ARUBA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1972, 1981, 1991, 2000, 2010, 2020 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under/over count have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) adjusted for underregistration; (c) indirect estimates obtained from the application of the reverse survival method to the 1960, 1972, 1981, 1991, 2000, 2010 censuses; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1981, 1991, 2000 censuses. In addition, the (a) official estimates of age-specific fertility rates through 2017; (b) indirect estimates obtained from the application of the reverse survival method to the 1984-2007 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2010; (b) registered infant and child deaths through 2020; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

## **AUSTRALIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1954, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011, 2016 censuses; (b) adjusted for under/over count; (c) official estimates through 2019; (d) International estimates used up to 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15; (c) only total population for 1947 Census have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1954, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011, 2016 censuses and 1957-2011 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1976, 1981, 1986, 2006, 2011 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

## **AUSTRIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1961, 1971, 1981, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) official estimates through 2020; (d) International estimates used up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2019; (b) adjusted for underregistration; (c) International estimates used up to 2020. In addition, the (a) official estimates of age-specific fertility rates through 2021; (b) indirect estimates obtained from the application of the reverse survival method to the 1951, 1961, 1971, 1981, 1991, 2001, 2011 censuses and 1956-2010 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1981, 1991, 2001 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

## **AZERBAIJAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 1999, 2009 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) birth-histories data from the 2001 RHS and 2006 DHS and 2011 DHS-NS; (e) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1979, 1989, 1999, 2009 censuses and 1978-2011 Education Stats and 2000 MICS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1999, 2009 censuses and 2000 MICS and 2006 DHS; (g) International estimates used up to 2019.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2001 RHS and 2006 DHS and 2011 DHS-NS; (c) indirect estimates from data on children ever born and surviving from the 2000 MICS; (d) International estimates used up to 2021. In addition, the indirect estimates from data on children ever born and surviving from the 1989, 1999, 2009 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) International estimates used up to 2021; (f) estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

## **BAHAMAS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1953, 1963, 1970, 1980, 1990, 2000, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2017; (c) adjusted for underregistration; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2010 Census; (e) indirect estimates obtained from the application of the reverse survival method to the 1963, 1970, 1990, 2000, 2010 censuses and 1968-2012 Education Stats; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1963, 1980, 1990, 2010 censuses. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1953, 1980 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2019; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2011; (b) registered deaths by age and sex available through 2019; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

## **BAHRAIN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1965, 1971, 1981, 1991, 2010, 2020 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1959, 2001 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under 1950 population only total for Census have been Note: Used official population estimates by sex and single year of age as reported to the UN Demographic Yearbook for 2003, 2011, 2013, 2014, 2018, and 2019.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) birth-histories data from the 1989 CHS and 1995 FHS; (e) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1971 Census; (f) indirect estimates obtained from the application of the reverse survival method to the 1959, 1965, 1971, 1981, 1991, 2001, 2010 censuses; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1989 CHS and 1991, 2001 censuses and 1995 FHS. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 2020 Census; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1971 Census have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2020; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1989 CHS and 1995 FHS; (d) indirect estimates from data on children ever born and surviving from the 1971, 1981, 1991, 2001 censuses; (e) International estimates used up to 2021. In addition, the indirect estimates from data on children ever born and surviving from the 1965 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

## BANGLADESH

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1961, 1974, 1981, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1999-2000 DHS survey estimates; (f) only total population for 1960 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1962-1965 PGEE and 2017-2018 DHS survey estimates; (b) official estimates through 2020 have been considered.

Fertility: Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 1975-1976 WFS and 1988-1989 FS and 1989, 1991 CPS and 1993-1994, 1996-1997, 1999-2000, 2004, 2007, 2011, 2014, 2017-2018 DHS and 2001, 2010 DHS Special and 2012-2013, 2019 MICS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1961-1962 DSEP and 1962-1965 PGEE and 1974 RSFM and 1975-1976 WFS and 1980-2020 SVRS and 1983-1984, 1985-1986 CPS and 2006, 2012-2013 MICS; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1961-1962 DSEP and 1974 RSFM and 1980 BLDS; (d) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1975-1976 WFS and 1980 BLDS and 1983-1984, 1985-1986, 1989, 1991 CPS and 1988-1989 FS; (e) indirect estimates obtained from the application of the reverse survival method to the 1974, 1981, 1991, 2001, 2011 censuses and 2006, 2012-2013 MICS and 2016 BMMS; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1974 RSFM; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1974 Census and 1974 RSFM and 1975-1976 WFS and 1979-1980, 1981, 1983-1984 CPS and 1993-1994, 1996-1997, 1999-2000, 2004, 2007, 2011, 2014, 2017-2018 DHS and 2012-2013, 2019 MICS. In addition, the (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) indirect estimates obtained from the application of the reverse survival method to the 1951, 1961 censuses and 1959-2011 Education Stats and 2010 DHS Special have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2020; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1962-1965 PGEE and 1975-1976 WFS and 1988-1989 FS and 1993-1994, 1996-1997, 1999-2000, 2004, 2007, 2011, 2014, 2017-2018 DHS and 2001, 2010 DHS Special and 2016 BMMS and 2019 MICS; (d) indirect estimates from data on children ever born and surviving from the 1974 RSFM and 1981, 1983-1984, 1985-1986 CPS and 1994 HDS and 2009, 2012-2013 MICS; (e) recent household deaths from the 1973-2020 SVRS and 2011 Census; (f) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1989, 1991 CPS; (b) recent household deaths from the 1962-1965 PGEE and 1974 RSFM and 1999-2000 DHS and 2001, 2010 DHS Special and 2016 BMMS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2020 (SVRS); (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

**Migration:** International migration based on: (a) information on the number of workers receiving clearances to work abroad; (b) estimates derived as the differences between overall population growth and natural increase; (c) UNHCR statistics on the number of refugees in the main countries of asylum. In addition, the information on foreign-born populations from censuses and registers from major countries of destination have been considered.

## **BARBADOS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1946, 1960, 1970, 1980, 1990, 2000, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2012 MICS survey estimates; (f) official estimates through 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under/over count have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1988; (b) registered births classified by age of mother and the underlying female population by age through 2014; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1980-1981 CPS and 2012 MICS; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1945-1988 Estimates; (e) indirect estimates obtained from the application of the reverse survival method to the 1956-2012 Education Stats and 1960, 1970, 1980, 1990, 2000, 2010 censuses and 2012 MICS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1980 Census.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2014; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2014; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

**Migration:** International migration based on: (a) estimates derived as the differences between overall population growth and natural increase; (b) UNHCR statistics on the number of refugees in the main countries of asylum.

## **BELARUS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 1999, 2009, 2019 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) International estimates used up to 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under enumeration of children under age 15; (b) 2019 MICS survey estimates; (c) official estimates through 2020 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2014; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1945-2014 Estimates; (e) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 1959, 1970, 1979, 1989, 2009, 2019 censuses and 2005, 2012, 2019 MICS; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1989, 1999, 2009 censuses and 2005 MICS have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2020; (c) International estimates used up to 2021. In addition, the indirect estimates from data on children ever born and surviving from the 1989, 1999 censuses have been considered.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2019; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) International estimates used up to 2021; (g) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2019; (b) adjusted for underregistration; (c) International estimates used up to 2021; (d) estimates of under-five, adult and old age mortality.

## **BELGIUM**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1947, 1961, 1970, 1981, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) International estimates used up to 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15; (c) official estimates through 2020 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1958-2010 Education Stats and 1961, 1970, 1981, 1991, 2001, 2011 censuses; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1961, 1970 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

## **BELIZE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1970, 1980, 1991, 2000, 2010 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2021; (e) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1946 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) birth-histories data from the 1999 FHS and 2011, 2015-2016 MICS; (d) indirect estimates obtained from the application of the reverse survival method to the 1970, 1991, 2000, 2010 censuses and 2006, 2011 MICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1980, 1991, 2000 censuses and 2006, 2011, 2015-2016 MICS. In addition, the (a) birth-histories data from the 1991 FHS; (b) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1991 FHS; (c) indirect estimates obtained from the application of the reverse survival method to the 1958-2012 Education Stats and 1960, 1980 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2020; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1991 FHS and 1996 MCMS; (d) indirect estimates from data on children ever born and surviving from the 1999 FHS and 2000 Census and 2006, 2011 MICS; (e) International estimates used up to 2021. In addition, the direct estimates from births and deaths under-five calculated from full birth histories data from the 2015-2016 MICS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

## **BENIN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1979, 1992, 2002, 2013 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1961 ED and 1996, 2001, 2006 DHS survey estimates; (f) official estimates through 2019; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2006; (b) birth-histories data from the 1981-1982 WFS and 1996, 2001, 2006, 2011-2012, 2017-2018 DHS and 2014 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1992, 2002, 2013 censuses; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1961 ED and 1981-1982 WFS and 2002 Census; (e) indirect estimates obtained from the application of the reverse survival method to the 1979, 1992, 2002, 2013 censuses; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1950, 1992, 2002, 2013 censuses and 1961 ED and 1981-1982 WFS and 1996, 2001, 2006, 2011-2012, 2017-2018 DHS and 2014 MICS. In addition, the (a) registered births classified by age of mother and the underlying female population by age through 2012; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1961 ED; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1992 Census; (d) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 1961 ED have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2002; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1981-1982 WFS and 1996, 2001, 2006, 2017-2018 DHS and 2014 MICS; (c) indirect estimates from data on children ever born and surviving from the 1961 ED and 1992, 2002, 2013 censuses; (d) recent household deaths from the 1981-1983 EPR; (e) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2011-2012 DHS; (b) recent household deaths from the 1992, 2002 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1992, 2002 censuses; (b) siblings deaths from the 1996, 2006, 2017-2018 DHS and 2014 MICS; (c) maternal orphanhood from the 2001, 2006 DHS and 2002 Census; (d) paternal orphanhood from the 2002 Census and 2006 DHS; (e) estimates of under-five, adult and old age mortality. In addition, the (a) maternal orphanhood from the 1981-1983 EPR and 1996 DHS; (b) paternal orphanhood from the 1981-1983 EPR and 1996, 2001 DHS have been considered.

## **BERMUDA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1980, 1991, 2000, 2010, 2016 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2010, 2016 censuses; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1946-2021 Estimates; (e) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1980, 1991, 2000, 2010, 2016 censuses; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1950, 1960, 1980, 1991, 2000 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2020; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) International estimates used up to 2021; (d) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) estimates derived as the differences between overall population growth and natural increase; (b) UNHCR statistics on the number of refugees in the main countries of asylum.

## **BHUTAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 2005, 2017 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; (f) only total population for 1969 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2005; (b) birth-histories data from the 2012 NHS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2007, 2012 LSS and 2010 MICS and 2017 Census; (d) adjusted fertility using synthetic relational Gompertz model with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2005 Census; (e) indirect estimates obtained from the application of the reverse survival method to the 2005, 2017 censuses; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2010 MICS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2000 NHS and 2005 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1958-2011 Education Stats and 1994 NHS and 2010 MICS; (c) cohort-completed fertility backdated by the mean age of childbearing from the 2005 Census and 2010 MICS have been considered.

**Child Mortality:** Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1984 DSS and 2000, 2012 NHS; (b) indirect estimates from data on children ever born and surviving from the 1984 DSS and 2005 Census and 2010 MICS; (c) recent household deaths from the 1994 NHS and 2005 Census; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2019; (b) recent household deaths from the 2017 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates of underfive mortality (5q0) by assuming that the age pattern of mortality conforms to the CD West model life tables. In addition, the registered deaths by age and sex available through 2019 have been considered.

# **BOLIVIA (PLURINATIONAL STATE OF)**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1976, 1992, 2001, 2012 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1994 DHS survey estimates; (f) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for under enumeration of children under age 15 have been considered.

Fertility: Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 1980 EDN and 1989, 1994, 1998, 2003, 2016 DHS; (b) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1976, 1992, 2001, 2012 censuses and 1980 EDN; (c) indirect estimates obtained from the application of the reverse survival method to the 1950, 1992, 2001 censuses and 1980 EDN; (d) cohortcompleted fertility backdated by the mean age of childbearing from the 1976, 2001 censuses and 1988 ENPV and 1994, 1998, 2003 DHS; (e) International estimates considered up to 2019. In addition, the (a) official estimates of age-specific fertility rates through 2019; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) birth-histories data from the 1975 EDN and 2008 DHS; (e) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1976, 1992, 2001, 2012 censuses; (f) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1975 EDN; (g) indirect estimates obtained using Mortara's method with data on children ever born by age of mother from the 2002 PESMM; (h) indirect estimates obtained from the application of the reverse survival method to the 1955-2011 Education Stats and 1976, 2012 censuses and 2000 MICS; (i) cohort-completed fertility backdated by the mean age of childbearing from the 1992, 2012 censuses and 2000 MICS and 2008 DHS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1989, 1994, 1998, 2003, 2008, 2016 DHS; (d) indirect estimates from data on children ever born and surviving from the 1975, 1980 EDN and 1976, 2001, 2012 censuses and 1988 ENPV and 2000 MICS; (e) recent household deaths from the 1980 EDN and 2012 Census; (f) International estimates used up to 2021. In addition, the (a) indirect estimates from data on children ever born and surviving from the 1992 Census; (b) recent household deaths from the 1992, 2001 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 1980 EDN; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) siblings deaths from the 1994, 2003, 2008 DHS; (f) intercensal survivorship from successive census age distributions; (g) International estimates used up to 2021; (h) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 1992, 2001, 2012 censuses; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods have been considered.

## **BONAIRE, SINT EUSTATIUS AND SABA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1972, 1981, 1992, 2001, 2011, 2021 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2021; (b) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1954-2021 Estimates; (c) indirect estimates obtained from the application of the reverse survival method to the 1960, 1972, 1981, 1992, 2001 censuses.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2020; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socioeconomic conditions.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2020; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socioeconomic conditions; (c) estimates of life expectancy at birth by assuming that the age pattern of mortality conforms to the CD West model life tables. *Note:* Information from former Netherlands Antilles, including Aruba and Curaçao also taken into account.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) estimates derived as the differences between overall population growth and natural increase.

### **BOSNIA AND HERZEGOVINA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1971, 1981, 1991, 2013 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) official estimates through 2019; (b) only total population for 1948, 1953, 1961 censuses have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2010; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1971, 1981, 1991, 2013 censuses and 1992-2011 Education Stats and 2000, 2006, 2011-2012 MICS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2017; (c) International estimates used up to 2021.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2016; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) International estimates used up to 2021; (g) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2016; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

### **BOTSWANA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1964, 1971, 1981, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2006 BDS survey estimates; (f) official estimates through 2021; (g) only total population for 1946, 1956 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) birth-histories data from the 1987 BDS and 1988 DHS and 2007 FHS-MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1971, 1981, 1991, 2001, 2011 censuses and 1984 FHS (CPS) and 2006, 2017 BDS; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1971, 1981, 1991 censuses; (f) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2011 Census; (g) indirect estimates obtained from the application of the reverse survival method to the 1964, 1971, 1981, 1991, 2001, 2011 censuses and 1998, 2006 BDS; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1971, 1981, 1991, 2001, 2011 censuses. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1955-2007 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1988 DHS and 2007 FHS-MICS; (c) indirect estimates from data on children ever born and surviving from the 1971, 1981, 1991, 2001, 2011 censuses and 1984 FHS (CPS) and 2000 MICS and 2006, 2017 BDS; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2019; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1996 FHS; (c) recent household deaths from the 1981, 1991, 2001, 2011 censuses and 1998, 2006, 2017 BDS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2019; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) The demographic impact of AIDS has been factored into the mortality estimates; (g) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults. In addition, the registered deaths by age and sex available through 2019 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2019; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2017 BDS; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) maternal orphanhood from the 1971, 2001 censuses; (f) paternal orphanhood from the 1971 Census; (g) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1981, 1991, 2001, 2011 censuses and 1998, 2006 BDS have been considered.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) information on the number of migrant workers or about labor migration (in South Africa); (d) UNHCR statistics on the number of refugees in the main countries of asylum.

### **BRAZIL**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1980, 1991, 2000, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1996, 2007 Count; (b) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2021; (b) adjusted for underregistration; (c) birth-histories data from the 1986 FP-MCH DHS and 1996 DHS; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1980, 1991, 2000 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1970, 1980, 1991, 2000, 2010 censuses and 1996 Count. In addition, the (a) official estimates of age-specific fertility rates through 2016; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1980, 1991, 2000, 2010 censuses; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1950-2016 Estimates and 2010 Census; (d) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1950-2016 Estimates; (e) indirect estimates based on the increment of cohort parities between successive censuses or surveys such as the 1950-2016 Estimates; (f) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960 censuses and 1955-2010 Education Stats and 2007 Count; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1950, 1960, 1970, 1980, 1991, 2000, 2010 censuses and 1950-2016 Estimates and 1996 DHS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1986 FP-MCH DHS and 1986 Annual PNAD and 1996 DHS; (d) indirect estimates from data on children ever born and surviving from the 1970, 1980, 1991, 2000 censuses and 1972, 1973, 1976, 1977, 1978, 1984, 1986, 2002, 2003, 2004, 2005, 2007, 2008, 2009, 2011, 2012, 2013, 2014, 2015 Annual PNAD; (e) International estimates used up to 2021. In addition, the (a) indirect estimates from data on children ever born and surviving from the 2010 Census; (b) recent household deaths from the 2010 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

### **BRITISH VIRGIN ISLANDS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1970, 1980, 1991, 2001, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2015; (e) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2017; (c) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1946-2017 Estimates; (d) indirect estimates obtained from the application of the reverse survival method to the 1980, 1991, 2001, 2010 censuses; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1970, 1991 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2008; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2015; (b) adjusted for underreporting of infant and child deaths; (c) mortality rates for older ages were adjusted; (d) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2015; (b) estimates of under-five, adult and old age mortality.

### **BRUNEI DARUSSALAM**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1947, 1960, 1971, 1981, 1991, 2011 censuses and 2016 Census Update; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1986 Survey survey estimates; (f) official estimates through 2020; (g) only total population for 2021 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) indirect estimates obtained from the application of the reverse survival method to the 1955-2011 Education Stats; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1960 Census. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1986 Survey have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2020; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2019; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2019; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

### **BULGARIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1956, 1965, 1975, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) International estimates used up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) official estimates through 2020; (c) only total population for 1946, 1985, 1992 censuses have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1956, 1965, 1975, 2001, 2011 censuses and 1956-2009 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1965, 1975 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2021; (c) adult deaths adjusted for underregistration using death distribution methods; (d) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

### **BURKINA FASO**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1975, 1985, 1996, 2006, 2019 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1960-1961 ED and 1998-1999, 2003, 2010 DHS and 2006 MICS survey estimates; (f) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2006; (b) registered births classified by age of mother and the underlying female population by age through 2008; (c) birth-histories data from the 1993, 1998-1999, 2003, 2010 DHS and 2014, 2017-2018 MIS and 2014 PMA-R1 and 2015 PMA-R2 and 2016 PMA-R3 and 2017-2018 PMA-R5 and 2018-2019 PMA-R6; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1976 PES and 1985, 2006 censuses and 2006 MICS; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1976 PES and 1991 ED and 1996, 2006 censuses and 2006 MICS; (f) indirect estimates obtained from the application of the reverse survival method to the 1960-1961 ED and 1975, 1985, 1996, 2006, 2019 censuses and 2006 MICS and 2008 GFFS and 2014, 2017-2018 MIS; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1960-1961 ED and 1993, 1998-1999, 2003, 2010 DHS and 2006 MICS and 2014, 2017-2018 MIS. In addition, the (a) birth-histories data from the 2020 PMA-Phase 1; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1960-1961, 1991 ED and 1996 Census; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1960-1961 ED and 1985 Census; (d) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats; (e) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2003 WHS and 2006 MICS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1985, 1996, 2006 censuses and 1991 ED have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2006; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1993, 1998-1999, 2003, 2010 DHS; (c) indirect estimates from data on children ever born and surviving from the 1960-1961, 1991 ED and 1976 PES and 1985 Census and 2006 MICS and 2014, 2017-2018 MIS; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2015 EMC-MDS; (b) indirect estimates from data on children ever born and surviving from the 2006 Census; (c) recent household deaths from the 1985, 1996, 2006 censuses and 2008 GFFS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD South model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1960-1961 ED; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 2003, 2010 DHS; (d) maternal orphanhood from the 1993, 2003 DHS; (e) paternal orphanhood from the 1993 DHS; (f) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 1985, 1996, 2006 censuses and 2008 GFFS; (b) siblings deaths from the 1998-1999 DHS; (c) maternal orphanhood from the 2006 Census and 2006 MICS and 2010 DHS; (d) paternal orphanhood from the 2003, 2010 DHS and 2006 Census and 2006 MICS have been considered.

Migration: International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) estimates derived as the differences

between overall population growth and natural increase; (c) UNHCR statistics on the number of refugees in the main countries of asylum.

### **BURUNDI**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1979, 1990, 2008 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1965 PS survey estimates; (f) official estimates through 2021; (g) only total population for 1952 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2019; (b) birth-histories data from the 1987, 2010, 2016 DHS and 2002 Survey and 2012 MIS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1965 PS and 1980-1981 PES and 1983 EDCEA and 1990, 2008 censuses; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1970-1971 DS; (e) indirect estimates obtained from the application of the reverse survival method to the 1979, 1990, 2008 censuses and 2000, 2005 MICS and 2012 MIS; (f) indirect estimates obtained from stable population assumption; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1987, 2010, 2016 DHS and 1990 Census and 2000, 2005 MICS and 2012 MIS. In addition, the (a) official estimates of age-specific fertility rates through 2017; (b) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2008 Census; (c) indirect estimates obtained using Mortara's method with data on children ever born by age of mother from the 2000, 2005 MICS; (d) indirect estimates obtained from the application of the reverse survival method to the 1956-2010 Education Stats and 1965 PS; (e) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2005 MICS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2008; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1970-1971 DS and 1987, 2010, 2016 DHS; (d) indirect estimates from data on children ever born and surviving from the 1980-1981 PES and 1990, 2008 censuses and 2000, 2005 MICS and 2012 PMS and 2012 MIS; (e) International estimates used up to 2021. In addition, the recent household deaths from the 1965 PS and 2008 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15). In addition, the official estimates through 2008 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) siblings deaths from the 2010, 2016 DHS; (b) maternal orphanhood from the 1987 DHS and 1990 Census; (c) paternal orphanhood from the 1987 DHS and 1990 Census; (d) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 1965 PS and 1970-1971 DS and 2008 Census; (b) maternal orphanhood from the 2000, 2005 MICS and 2010 DHS; (c) paternal orphanhood from the 2000, 2005 MICS and 2010 DHS have been considered.

### **CABO VERDE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1980, 1990, 2000, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1990; (b) registered births classified by age of mother and the underlying female population by age through 2018; (c) birth-histories data from the 1998, 2005 DHS-RHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1980, 1990, 2000, 2010 censuses; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1980, 1990, 2000, 2010 censuses and 1998 DHS-RHS; (f) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1980, 1990, 2000, 2010 censuses; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 2000, 2010 censuses. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1960-2011 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2018; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1970, 1980, 2000 censuses and 1998, 2005 DHS-RHS; (c) indirect estimates from data on children ever born and surviving from the 1960, 2010 censuses; (d) recent household deaths from the 2010 Census; (e) International estimates used up to 2021. In addition, the recent household deaths from the 2000 Census have been considered.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2010 Census; (d) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2000 Census have been considered.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

### **CAMBODIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1962, 1998, 2008, 2019 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1958, 1959 Survey and 2000, 2010 DHS and 2004, 2013 ICPS survey estimates; (f) official estimates through 2015; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2008; (b) birth-histories data from the 1995 KAP and 1998 DHS-NS and 2000. 2005, 2010, 2014 DHS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1959, 1996 Survey and 1962, 1998, 2008 censuses and 2004 ICPS; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1962 Census; (e) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1996 Survey and 1998, 2008 censuses; (f) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1998, 2008 censuses; (g) indirect estimates obtained from the application of the reverse survival method to the 1958, 1959 Survey and 1962, 1998, 2008, 2019 censuses and 2004, 2013 ICPS; (h) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1998, 2008 censuses and 2003-2004 SES and 2004 ICPS; (i) cohort-completed fertility backdated by the mean age of childbearing from the 1962, 1998, 2008 censuses and 1996 Survey and 1998 DHS-NS and 2000, 2005, 2010, 2014 DHS and 2004, 2013 ICPS. In addition, the registered births classified by age of mother and the underlying female population by age through 2003 have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 1959; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2000, 2005, 2010, 2014 DHS; (c) indirect estimates from data on children ever born and surviving from the 1998 Census and 1998 DHS-NS and 2004 ICPS; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1998 DHS-NS; (b) indirect estimates from data on children ever born and surviving from the 1962, 2008 censuses; (c) recent household deaths from the 1959 Survey and 2008 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) recent household deaths data by age and sex from the 1997 SES; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 2000, 2005, 2010, 2014 DHS; (d) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1959 Survey and 2008 Census have been considered.

### **CAMEROON**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1976, 1987, 2005 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1991, 1998, 2004 DHS survey estimates; (f) official estimates through 2019; (g) only total population for 1946, 1949, 1951 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) birth-histories data from the 1978 WFS and 1991, 1998, 2004, 2011, 2018 DHS and 2014 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1987 Census; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1976, 2005 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1976, 1987, 2005 censuses and 2000, 2006 MICS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1978 WFS and 1991, 1998, 2004, 2011, 2018 DHS and 2000, 2014 MICS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1960-1965 ED and 1976, 2005 censuses; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats; (c) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2006 MICS; (d) cohort-completed fertility backdated by the mean age of childbearing from the 2005 Census have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 1965; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1978 WFS and 1991, 1998, 2004, 2011 DHS and 2014 MICS; (d) indirect estimates from data on children ever born and surviving from the 2000 MICS; (e) International estimates used up to 2021. In addition, the (a) indirect estimates from data on children ever born and surviving from the 2005 Census; (b) recent household deaths from the 1976, 1987, 2005 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults. In addition, the official estimates through 2007 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) siblings deaths from the 1998, 2004, 2011, 2018 DHS; (c) maternal orphanhood from the 1998, 2004 DHS and 2000, 2006 MICS and 2005 Census; (d) paternal orphanhood from the 1998, 2004 DHS and 2000, 2006 MICS and 2005 Census; (e) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 1976, 1987, 2005 censuses; (b) maternal orphanhood from the 1987 Census and 1991 DHS; (c) paternal orphanhood from the 1987 Census and 1991 DHS have been considered.

### **CANADA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1956, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011, 2016 censuses; (b) adjusted for under/over count; (c) International estimates used up to 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15; (c) 1992 Survey survey estimates; (d) official estimates through 2020 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1951, 1956, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011, 2016 censuses and 1956-2004 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1961, 1971, 1981, 1991 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

### **CAYMAN ISLANDS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1970, 1979, 1989, 1999, 2010, 2021 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) 1954 Survey survey estimates; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1950-2020 Estimates; (d) indirect estimates obtained from the application of the reverse survival method to the 1954 Survey; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1989 censuses; (f) International estimates considered up to (missing).

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2010; (b) registered infant and child deaths through 2010; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2010; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15). In addition, the official estimates through 2010 have been considered.

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2010; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

### **CENTRAL AFRICAN REPUBLIC**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1975, 1988, 2003 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1994-1995 DHS and 2000, 2019 MICS survey estimates; (f) official estimates through 2006; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) only total population for 1965 Census have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 1994-1995 DHS and 2019 MICS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1959-1960 Survey and 2000, 2010 MICS; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1975, 1988 censuses; (d) indirect estimates obtained from the application of the reverse survival method to the 1975, 1988, 2003 censuses and 2006, 2010 MICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1959-1960 Survey and 1975 Census and 1994-1995 DHS and 2006, 2010, 2019 MICS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2003 Census and 2006 MICS; (b) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2003 Census; (c) indirect estimates obtained from the application of the reverse survival method to the 1956-2009 Education Stats and 2000 MICS; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1988 Census and 2000 MICS have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 1960; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1994-1995 DHS; (c) indirect estimates from data on children ever born and surviving from the 1975, 1988 censuses and 2000, 2006, 2010 MICS; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2019 MICS; (b) recent household deaths from the 1959-1960 Survey and 1988, 2003 censuses and 2012 ENSNM have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) maternal orphanhood from the 1988 Census and 1994-1995 DHS and 2000, 2006 MICS; (c) paternal orphanhood from the 1988 Census and 1994-1995 DHS and 2000, 2006 MICS; (d) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 1959-1960 Survey and 1988, 2003 censuses; (b) siblings deaths from the 1994-1995 DHS have been considered.

### **CHAD**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1993, 2009 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2019 MICS survey estimates; (f) official estimates through 2019; (g) only total population for 1968 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 1963-1964 PS and 1996-1997 DHS survey estimates have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2001; (b) birth-histories data from the 1996-1997, 2004, 2014-2015 DHS and 2010, 2019 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1963-1964 PS and 2009 Census; (d) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1993 Census; (e) indirect estimates obtained from the application of the reverse survival method to the 1963-1964 PS and 1993, 2009 censuses and 2000, 2010 MICS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1963-1964 PS and 1993 Census and 1996-1997, 2004, 2014-2015 DHS and 2000, 2010, 2019 MICS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1993 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2009 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 1964; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1996-1997, 2004, 2014-2015 DHS; (c) indirect estimates from data on children ever born and surviving from the 2000, 2010 MICS; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2019 MICS; (b) indirect estimates from data on children ever born and surviving from the 1993, 2009 censuses; (c) recent household deaths from the 2009 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) siblings deaths from the 1996-1997, 2004, 2014-2015 DHS; (b) maternal orphanhood from the 1996-1997 DHS; (c) paternal orphanhood from the 1996-1997 DHS; (d) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 2009 Census; (b) maternal orphanhood from the 1963-1964 PS and 2000 MICS and 2004 DHS; (c) paternal orphanhood from the 1963-1964 PS and 2000 MICS and 2004 DHS have been considered.

### **CHILE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1952, 1960, 1970, 1982, 1992, 2002, 2017 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; (f) International estimates considered up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 2012 Census have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2019; (b) adjusted for underregistration; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1982, 1992, 2002 censuses; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1982, 1992, 2002 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1960, 1970, 1982, 1992, 2002, 2017 censuses; (f) International estimates used up to 2019. In addition, the (a) official estimates of age-specific fertility rates through 2016; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2017 Census; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2017 Census; (d) indirect estimates obtained from the application of the reverse survival method to the 1952, 2012 censuses and 1955-2010 Education Stats; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1970, 1982, 1992, 2002 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) International estimates used up to 2021. In addition, the (a) official estimates of infant and child mortality through 2017; (b) indirect estimates from data on children ever born and surviving from the 1970, 1982, 1992, 2002, 2017 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2021; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) International estimates used up to 2021. In addition, the official estimates through 2010 have been considered.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination (Latin American countries, Spain and United States of America); (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum. In addition, the official figures of net international migration flows, and assumed subsequent trends in international migration have been considered.

#### **CHINA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1953, 1964, 1982, 1990, 2000, 2010, 2020 censuses; (b) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

Fertility: Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) adjusted for underregistration; (c) birth-histories data from the 1982 One-per-Thousand FS and 1988 Two-per-Thousand FS and 1992 Fertility Survey and 1997, 2001 FPRHS and 2017 NFS; (d) period parity progression ratios based on data on women and births in the preceding 12 months, both classified by age of mother and parity, from the 1982, 1990, 2000 censuses and 1987 One-percent Survey and 1988 Two-per-Thousand FS and 1992 Fertility Survey and 1997, 2006 FPRHS; (e) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1950-2020 Estimates and 1987, 1995, 2005, 2015 One-percent Survey and 1989, 1990, 1991, 1992, 1993, 1994, 1996, 1997, 1998, 1999, 2001, 2002, 2003, 2004, 2006, 2007, 2008, 2009, 2011, 2012, 2013, 2014, 2016, 2017, 2018, 2019 Annual APC and 1990, 2000, 2010, 2020 censuses and 2018 NHSS; (f) adjusted fertility using synthetic relational Gompertz model with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1990, 2000, 2010 censuses; (g) indirect estimates obtained from the application of the reverse survival method to the 1950-2020 Estimates and 1950-2020 Immunizations and 1953, 1982, 1990, 2000, 2010, 2020 censuses and 1965-2015 Education Stats and 1987 Annual APC; (h) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1987 One-percent Survey; (i) indirect estimates obtained from reconstructed birth histories data from the 1987 One-percent Survey and 1988 Two-per-Thousand FS and 1990, 2000 censuses. In addition, the (a) official estimates of age-specific fertility rates through 2020; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1982, 1990, 2000 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2019; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1988 Two-per-Thousand FS and 1992 Fertility Survey; (c) indirect estimates from data on children ever born and surviving from the 1982 Census and 1982 One-per-Thousand FS and 1987 IDFS; (d) recent household deaths from the 1955-1990 RRMCM and 1973-1975 Cancer Survey and 1982 Census and 1987 IDFS and 1990-2019 Annual CDC and 2005 One-percent Survey; (e) International estimates used up to 2021. In addition, the (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2005 One-percent Survey; (c) indirect estimates from data on children ever born and surviving from the 1990, 2000, 2010 censuses; (d) recent household deaths from the 1987 One-percent Survey and 2004-2005 NRSCD and 2010 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2010; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted. In addition, the (a) official estimates through 2007; (b) registered deaths by age and sex available through 2020 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1982, 1990 censuses and 1990-2019 Annual CDC and 2005 One-percent Survey; (b) recent household deaths adjusted at adult ages for underregistration using the growth balance method; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) intercensal survivorship from successive census age distributions; (e) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1987 One-percent Survey and 2000, 2010, 2020 censuses have been considered.

# CHINA, HONG KONG SAR

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1961, 1971, 1981, 2001, 2011 censuses and 1986, 1996, 2006, 2016 By-Census; (b) adjusted for under/over count; (c) adjusted for under enumeration of children under age 15; (d) 1976 Census survey estimates; (e) official estimates through 2020; (f) International estimates considered up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1966 By-Census and 1991 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) Immunizations survey estimates have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 1961, 1971, 1976, 1981, 1991, 2001, 2011 censuses and 1966, 1986, 1996, 2006, 2016 By-Census; (e) indirect estimates obtained from stable population assumption; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1966 By-Census and 1971 Census.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2020; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) International estimates used up to 2021.

## CHINA, MACAO SAR

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1981, 1991, 2001, 2011, 2021 censuses; (b) adjusted for under/over count; (c) adjusted for under enumeration of children under age 15; (d) 2006, 2016 ICS (by-census) survey estimates; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for age heaping have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the Pop. Register and 1991, 2011 censuses and 2016 ICS (by-census); (d) indirect estimates obtained from the application of the reverse survival method to the 1975-2011 Education Stats and 1991, 2001, 2011 censuses and 2016 ICS (by-census); (e) International estimates considered up to (missing). In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1981 censuses and 2006 ICS (by-census); (b) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1991 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2020; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2020; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) estimates of under-five, adult and old age mortality.

# CHINA, TAIWAN PROVINCE OF CHINA

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1956, 1990, 2000, 2010 censuses; (b) adjusted for under/over count; (c) official estimates through 2019; (d) only total population for 1966, 1980 censuses; (e) International estimates considered up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2008; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) indirect estimates obtained from the application of the reverse survival method to the 1956, 1990, 2000, 2010 censuses; (e) International estimates used up to 2020.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2015; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2015; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) International estimates used up to 2021.

**Migration:** International migration based on: estimates derived as the differences between overall population growth and natural increase.

### **COLOMBIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1964, 1973, 1985, 1993, 2005, 2018 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2021; (e) only total population for 1951, 1964, 1973 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under enumeration of children under age 15; (b) 1995, 2015 DHS survey estimates have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2021; (b) birth-histories data from the 1986, 1990, 1995, 2000, 2005, 2010, 2015 DHS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2005, 2018 censuses; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1973, 1985, 1993, 2005, 2018 censuses and 1976 WFS; (e) indirect estimates obtained from the application of the reverse survival method to the 1964, 1973, 2005, 2018 censuses. In addition, the (a) official estimates of age-specific fertility rates through 2017; (b) birth-histories data from the 1976 WFS; (c) indirect estimates obtained from the application of the reverse survival method to the 1951, 1985, 1993 censuses and 1955-2011 Education Stats and 1978 ENH; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1973, 1985, 1993, 2005, 2018 censuses and 1976 WFS and 1986, 1990, 1995, 2000, 2005, 2010, 2015 DHS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1976 WFS and 1986, 1990, 1995, 2000, 2005, 2010, 2015 DHS; (c) indirect estimates from data on children ever born and surviving from the 1973, 1985 censuses and 1978, 1980 ENH; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2021; (b) indirect estimates from data on children ever born and surviving from the 2005 Census; (c) recent household deaths from the 2005, 2018 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted. In addition, the registered deaths by age and sex available through 2021 have been considered.

### **COMOROS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1958, 1966, 1980, 1991, 2003, 2017 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1996 DHS survey estimates; (f) official estimates through 2004; and with estimates of the subsequent trends in fertility, mortality and international migration. *Note:* For statistical purposes, the data for Comoros do not include Mayotte, including for 1958 and 1966 censuses.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 1986; (b) birth-histories data from the 1996, 2012 DHS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1966, 1980, 1991, 2003, 2017 censuses; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1966, 2017 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1958, 1966, 1980, 1991, 2003, 2017 censuses and 2000 MICS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1996, 2012 DHS and 2000 MICS and 2017 Census. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1996 DHS; (b) recent household deaths from the 1980, 1991, 2003 censuses; (c) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2012 DHS; (b) indirect estimates from data on children ever born and surviving from the 1980 Census; (c) recent household deaths from the 1958 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) siblings deaths from the 2012 DHS; (c) maternal orphanhood from the 1980 Census and 1996 DHS and 2000 MICS; (d) paternal orphanhood from the 1980 Census and 1996 DHS and 2000 MICS; (e) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1958 Census have been considered.

### CONGO

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1974, 1984, 2007 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1960-1961 DS survey estimates; (f) official estimates through 2021; (g) only total population for 1996 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 1952 Census have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2014; (b) birth-histories data from the 2005, 2011-2012 DHS and 2014-2015 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1960-1961 DS and 2007 Census; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1974, 1984 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1952, 1974, 1984, 2007 censuses and 1960-1961 DS and 2009 AIS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1960-1961 DS and 2005 DHS and 2009 AIS and 2014-2015 MICS. In addition, the (a) registered births classified by age of mother and the underlying female population by age through 2014; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1974, 1984 censuses; (c) indirect estimates obtained from the application of the reverse survival method to the 1956-2005 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2014; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2005, 2011-2012 DHS and 2014-2015 MICS; (c) indirect estimates from data on children ever born and surviving from the 1960-1961 DS and 1974 Census and 2009 AIS; (d) International estimates used up to 2021. In addition, the recent household deaths from the 1974, 1984 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) siblings deaths from the 2005, 2011-2012 DHS and 2014-2015 MICS; (c) maternal orphanhood from the 2005 DHS; (d) paternal orphanhood from the 2005 DHS; (e) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 1974, 1984 censuses; (b) maternal orphanhood from the 1974 Census; (c) paternal orphanhood from the 1974 Census have been considered.

### **COOK ISLANDS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1956, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011, 2016 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1996 KAP survey estimates; (f) official estimates through 2019; (g) only total population for 1945 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2019; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1996, 2001, 2006 censuses; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1996 Census; (e) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1950-2019 Estimates; (f) indirect estimates obtained from the application of the reverse survival method to the 1951, 1956, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011, 2016 censuses; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1996, 2001 censuses; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1956, 1966, 1976, 1981, 1996, 2001, 2006 censuses and 1996 KAP.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2014; (b) indirect estimates from data on children ever born and surviving from the 1966, 1981, 1996, 2001, 2006, 2011 censuses; (c) International estimates used up to 2021. In addition, the indirect estimates from data on children ever born and surviving from the 1976 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2007; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2007; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) estimates derived as the differences between overall population growth and natural increase.

### **COSTA RICA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1963, 1973, 1984, 2000, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2018 MICS survey estimates; (f) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) adjusted for underregistration; (c) birth-histories data from the 1993 RHS; (d) indirect estimates obtained from the application of the reverse survival method to the 1950, 1963, 2000, 2011 censuses and 2018 MICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1973, 1984, 2000, 2011 censuses and 2018 MICS; (f) International estimates considered up to 2019. In addition, the (a) official estimates of age-specific fertility rates through 2018; (b) birth-histories data from the 1976 WFS; (c) indirect estimates obtained from the application of the reverse survival method to the 1955-2011 Education Stats and 1973, 1984 censuses and 2011 MICS; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1976 WFS have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1976 WFS; (c) indirect estimates from data on children ever born and surviving from the 1973, 1984 censuses; (d) International estimates used up to 2021. In addition, the (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1981 CPS and 1986 EFS; (c) indirect estimates from data on children ever born and surviving from the 2000, 2011 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2021; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted. In addition, the official estimates through 2015 have been considered.

# **CÔTE D'IVOIRE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1975, 1988, 1998, 2014 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1978-1979 EDPR and 1998-1999 DHS survey estimates; (f) official estimates through 2021; (g) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2014; (b) registered births classified by age of mother and the underlying female population by age through 2018; (c) birth-histories data from the 1980-1981 WFS and 1994, 1998-1999, 2011-2012 DHS and 2005 EIS and 2016 MICS and 2017 PMA-R1 and 2018 PMA-R2; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1962-1964 Survey and 2006 MICS and 2014 Census; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1978-1979 EDPR and 1980-1981 WFS and 1988 Census; (f) indirect estimates obtained from the application of the reverse survival method to the 1975, 1988, 1998, 2014 censuses and 1978-1979 EDPR and 2000, 2006 MICS; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2005 EIS; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1962-1964 Survey and 1980-1981 WFS and 1988 Census and 1994, 1998-1999, 2011-2012 DHS and 2005 EIS and 2006, 2016 MICS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1978-1979 EDPR and 1988 Census; (b) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2005 EIS; (c) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 1962-1964 Survey; (d) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2003 WHS and 2006 MICS have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 1958; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1978-1979 EDPR and 1980-1981 WFS and 1994, 1998-1999, 2011-2012 DHS and 2005 EIS and 2016 MICS; (c) International estimates used up to 2021. In addition, the (a) indirect estimates from data on children ever born and surviving from the 1988 Census; (b) recent household deaths from the 1978-1979 EDPR and 1998 Census and 2005 EIS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) siblings deaths from the 1994, 2011-2012 DHS and 2005 EIS; (c) maternal orphanhood from the 1978-1979 EDPR and 1988, 1998 censuses and 1994 DHS and 2000, 2006 MICS; (d) paternal orphanhood from the 1988, 1998 censuses and 1994 DHS and 2000, 2006 MICS; (e) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1978-1979 EDPR and 1998 Census and 2005 EIS have been considered.

### **CROATIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1953, 1961, 1971, 1981, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) International estimates used up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) official estimates through 2020; (b) only total population for 1948 Census have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2012; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2020. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1953, 1961, 1971, 1981, 1991, 2001, 2011 censuses and 1978-2009 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1991, 2001, 2011 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) International estimates used up to 2021. In addition, the recent household deaths from the 2011 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2012; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) International estimates used up to 2021; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) International estimates used up to 2021; (d) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2011 Census have been considered.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

### **CUBA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1953, 1970, 1981, 2002, 2012 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; (f) only total population for 1953, 1970 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2021; (b) indirect estimates obtained from the application of the reverse survival method to the 1953, 1970, 1981, 2002, 2012 censuses and 1956-2011 Education Stats and 2006 MICS; (c) cohort-completed fertility backdated by the mean age of childbearing from the 2010-2011, 2014, 2019 MICS; (d) International estimates used up to 2019. In addition, the (a) official estimates of age-specific fertility rates through 2017; (b) adjusted for underregistration; (c) indirect estimates obtained from the application of the reverse survival method to the 2010-2011, 2014, 2019 MICS; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1953, 1981 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) International estimates used up to 2021. In addition, the (a) official estimates of infant and child mortality through 2017; (b) indirect estimates from data on children ever born and surviving from the 1981 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2021; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15). In addition, the official estimates through 2010 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) intercensal survivorship from successive census age distributions; (c) estimates of under-five, adult and old age mortality.

## **CURAÇÃO**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1972, 1981, 1992, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1960, 1972, 1981, 1992, 2001, 2011 censuses; (d) indirect estimates obtained from the application of the reverse survival method to the 1960, 1972, 1981, 1992, 2001, 2011 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2019; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2019; (b) adjusted for underreporting of infant and child deaths; (c) estimates using CD West model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2019; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

### **CYPRUS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1946, 1960, 1973, 1982, 1992, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1976 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

*Note:* Results from the 1976, 1982, 1992, 2001, and 2011 censuses in the Government Controlled Area and estimates that include Turkish Cypriots were also considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2019; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) indirect estimates obtained from the application of the reverse survival method to the 1960, 1973, 1976, 1982, 1992, 2001, 2011 censuses; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1973, 1992 censuses.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) International estimates used up to 2021.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) International estimates used up to 2021; (g) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

### **CZECHIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1961, 1970, 1980, 1991, 2001, 2011, 2021 censuses; (b) official estimates through 2021; (c) only total population for 1947 Census; (d) International estimates used up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2020. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1950, 1961, 1970, 1980, 1991, 2001, 2011 censuses and 1979-2010 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1991, 2001, 2011 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

### DEM. PEOPLE'S REPUBLIC OF KOREA

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1993, 2008 censuses; (b) adjusted for under/over count; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2008; (b) registered births classified by age of mother and the underlying female population by age through 2009; (c) birth-histories data from the 2014 SDHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1993, 2008 censuses and 2004, 2006 RHS; (e) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1945-2008 Estimates; (f) indirect estimates based on the increment of cohort parities between successive censuses or surveys such as the 1945-2008 Estimates; (g) indirect estimates obtained from the application of the reverse survival method to the 1993, 2008 censuses and 1997-2010 Education Stats and 2009 MICS; (h) indirect estimates obtained from stable population assumption; (i) cohort-completed fertility backdated by the mean age of childbearing from the 1993, 2008 censuses and 2002, 2006, 2010 RHS and 2014 SDHS and 2017 MICS.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2000; (c) recent household deaths from the 1993, 2008 censuses; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2017 MICS; (b) recent household deaths from the 2014 SDHS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2008; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD North model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) recent household deaths data by age and sex from the 1993, 2008 censuses; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) estimates of under-five, adult and old age mortality.

### DEMOCRATIC REPUBLIC OF THE CONGO

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1955, 1984 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2017-2018 MICS survey estimates; (f) official estimates through 2021; (g) only total population for 1970 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 2007 DHS survey estimates have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 1958; (b) birth-histories data from the 2007, 2013-2014 DHS and 2017-2018 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1955-1957 SPS and 1984 Census and 2001 MICS; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1955-1957 SPS; (e) indirect estimates obtained from the application of the reverse survival method to the 1984 Census and 2001, 2010 MICS; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1995 MICS; (g) cohort-completed fertility backdated by the mean age of childbearing from the 2001, 2010, 2017-2018 MICS and 2007, 2013-2014 DHS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1956-2008 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 1952; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2007, 2013-2014 DHS; (c) indirect estimates from data on children ever born and surviving from the 1984 Census and 1995, 2001, 2010 MICS; (d) International estimates used up to 2021. In addition, the direct estimates from births and deaths under-five calculated from full birth histories data from the 2017-2018 MICS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) siblings deaths from the 2007, 2013-2014 DHS; (b) maternal orphanhood from the 2001 MICS and 2007 DHS; (c) paternal orphanhood from the 2007 DHS; (d) estimates of under-five, adult and old age mortality. In addition, the paternal orphanhood from the 2001 MICS have been considered.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **DENMARK**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1965, 1970, 1991 censuses; (b) adjusted for under/over count; (c) official estimates through 2021; (d) only total population for 1955, 1981, 2001, 2011 censuses; (e) International estimates used up to 2022; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2021. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1965, 1970, 1981, 1991, 2001 censuses and 1956-2010 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **DJIBOUTI**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1983, 2009 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1991 ICS and 2012 FHS survey estimates; (f) official estimates through 2011; (g) only total population for 1946, 1951, 1956, 1960 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2011; (b) birth-histories data from the 2002, 2012 EDAM-IS and 2002, 2012 FHS; (c) indirect estimates obtained from the application of the reverse survival method to the 1958-2012 Education Stats and 1983, 2009 censuses and 1991 ICS and 2006 MICS; (d) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1991 ICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 2002 FHS and 2006 MICS.

**Child Mortality:** Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2002, 2012 FHS; (b) indirect estimates from data on children ever born and surviving from the 1991 ICS and 2006 MICS; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1991 ICS; (b) maternal orphanhood from the 2006 MICS; (c) paternal orphanhood from the 2006 MICS; (d) estimates of under-five, adult and old age mortality.

## **DOMINICA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1970, 1981, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2017; (e) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2017; (c) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1950-2017 Estimates; (d) indirect estimates obtained from the application of the reverse survival method to the 1960, 1970, 1981, 1991, 2001, 2011 censuses; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1981 Census.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2016; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2015; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2015; (b) adjusted for underregistration; (c) International estimates used up to 2021; (d) estimates of under-five, adult and old age mortality.

## **DOMINICAN REPUBLIC**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1981, 1993, 2002, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1991, 1996, 2002 DHS survey estimates; (f) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 2014, 2019 MICS survey estimates have been considered.

Fertility: Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2021; (b) adjusted for underregistration; (c) birth-histories data from the 1980 WFS and 1996, 1999, 2002, 2007, 2013 DHS and 2006 ENHOGAR-MICS and 2019 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1983 CPS and 2010 Census; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1981, 2002 censuses; (f) indirect estimates obtained from the application of the reverse survival method to the 1970, 1981, 2002 censuses; (g) cohortcompleted fertility backdated by the mean age of childbearing from the 1999 DHS. In addition, the (a) official estimates of age-specific fertility rates through 2018; (b) birth-histories data from the 1975 WFS and 1986, 1991 DHS and 2013 DHS Special and 2014 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1981, 2002 censuses; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2010 Census; (e) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1993, 2010 censuses and 1957-2011 Education Stats and 2000 MICS and 2007 DHS Special; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1970, 1981, 2002, 2010 censuses and 1975, 1980 WFS and 1991, 1996, 2002, 2007, 2013 DHS and 2000, 2014, 2019 MICS and 2007 DHS Special have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1975, 1980 WFS and 1986, 1991, 1996, 2002, 2007, 2013 DHS and 2006 ENHOGAR-MICS and 2014, 2019 MICS; (c) indirect estimates from data on children ever born and surviving from the 1970, 1981 censuses and 1983 CPS and 2000 MICS; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2021; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1999 DHS and 2009-2010 ENHOGAR-MICS; (c) indirect estimates from data on children ever born and surviving from the 2002, 2010 censuses; (d) recent household deaths from the 2010 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15). In addition, the registered deaths by age and sex available through 2021 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 2006 ENHOGAR-MICS and 2013 DHS; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 2002, 2007 DHS; (d) intercensal survivorship from successive census age distributions; (e) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2010 Census have been considered.

Migration: International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration (administrative registers from the Dirección Nacional de Migración); (c) information on foreign-born populations from censuses and registers from major countries of destination (Latin American countries, Spain and United States of America); (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

## **ECUADOR**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1962, 1974, 1982, 1990, 2001, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) birth-histories data from the 1979 WFS and 1987 DHS and 1989, 1994, 1999, 2004 ENDEMAIN-RHS and 2012, 2018 ENSANUT; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1982, 1990, 2001, 2010 censuses; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1982, 1990, 2001, 2010 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1962, 1974, 1982, 1990, 2001, 2010 censuses. In addition, the (a) official estimates of age-specific fertility rates through 2018; (b) indirect estimates obtained from the application of the reverse survival method to the 1950 Census and 1956-2011 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1974, 1982, 1990, 2001, 2010 censuses and 1979 WFS and 1987 DHS have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1979 WFS and 1987 DHS and 1989, 1999, 2004 ENDEMAIN-RHS and 2012 ENSANUT; (c) indirect estimates from data on children ever born and surviving from the 1974, 1982, 1990, 2001, 2010 censuses and 1982 ESMIVD; (d) International estimates used up to 2021. In addition, the (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1994 ENDEMAIN-RHS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates of under-five mortality; (f) estimates using CD West model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15). In addition, the official estimates through 2010 have been considered.

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) siblings deaths from the 1994, 2004 ENDEMAIN-RHS; (e) estimates of under-five, adult and old age mortality.

## **EGYPT**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1947, 1960, 1976, 1986, 1996, 2006, 2017 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; (f) only total population for 1966 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) birth-histories data from the 1980 WFS and 1988, 1992, 1995, 1997, 2000, 2005, 2008, 2014 DHS and 1991 PAPCHILD and 1998, 2003 DHS Interim; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1947 Census; (e) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 1960, 1976, 1986, 1996, 2006, 2017 censuses; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1976, 1986 censuses and 1980 WFS and 1988, 1992, 1995, 2000, 2005, 2008, 2014 DHS and 1991 PAPCHILD and 2003 DHS Interim. In addition, the births in the household in the preceding 12 (or 24) months classified by age of mother from the 1960, 1976 censuses and 1984 CPS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1980 WFS and 1988, 1992, 1995, 1997, 2000, 2005, 2008, 2014 DHS and 1991 PAPCHILD and 1998, 2003 DHS Interim; (c) indirect estimates from data on children ever born and surviving from the 1984 CPS and 2015 DHS-NS; (d) recent household deaths from the 1947 Census; (e) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2020; (b) indirect estimates from data on children ever born and surviving from the 1976, 1986 censuses; (c) recent household deaths from the 1960 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2019; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted. In addition, the registered deaths by age and sex available through 2019 have been considered.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

# **EL SALVADOR**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1961, 1971, 1992, 2007 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2018; (b) adjusted for underregistration; (c) birth-histories data from the 1985 DHS and 1988, 1993, 1998, 2002-2003, 2008 FESAL and 2014 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1992, 2007 censuses; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1992 Census; (f) indirect estimates obtained from the application of the reverse survival method to the 1961, 1971 censuses; (g) cohort-completed fertility backdated by the mean age of childbearing from the 2014 MICS. In addition, the (a) official estimates of age-specific fertility rates through 2013; (b) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2007 Census; (c) indirect estimates obtained from the application of the reverse survival method to the 1950, 1992, 2007 censuses and 1955-2010 Education Stats; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1971, 1992, 2007 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1988, 1993, 1998, 2002-2003, 2008 FESAL and 2014 MICS; (c) indirect estimates from data on children ever born and surviving from the 1971, 1992, 2007 censuses and 1973 FESAL and 1985 DHS and 1992, 1993 EHPM; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2019; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1985 DHS; (c) recent household deaths from the 1992, 2007 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15). In addition, the registered deaths by age and sex available through 2020 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) siblings deaths from the 1993, 1998, 2002-2003 FESAL; (e) intercensal survivorship from successive census age distributions; (f) International estimates used up to 2021; (g) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1992, 2007 censuses have been considered.

# **EQUATORIAL GUINEA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1983, 1994, 2015 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; (f) only total population for 1950, 1960 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 2001 Census have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2011; (b) registered births classified by age of mother and the underlying female population by age through 1966; (c) birth-histories data from the 2011 DHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1983, 1994, 2001 censuses and 2000 MICS; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1983 Census; (f) indirect estimates obtained from the application of the reverse survival method to the 1979-2007 Education Stats and 1983, 1994, 2001, 2015 censuses and 2000 MICS; (g) cohort-completed fertility backdated by the mean age of childbearing from the 2000 MICS.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 1981; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2011 DHS; (c) indirect estimates from data on children ever born and surviving from the 2000 MICS; (d) recent household deaths from the 1983, 1994, 2001 censuses; (e) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2001; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) The demographic impact of AIDS has been factored into the mortality estimates; (f) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2001; (b) adjusted for underregistration; (c) maternal orphanhood from the 2000 MICS; (d) paternal orphanhood from the 2000 MICS; (e) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) estimates derived as the differences between overall population growth and natural increase; (b) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **ERITREA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 2000 Quick Population Count; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2002 DHS survey estimates; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1984 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 1995, 2002 DHS and 2010 PHS; (b) indirect estimates obtained from the application of the reverse survival method to the 1984 Census; (c) cohort-completed fertility backdated by the mean age of childbearing from the 2002 DHS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1974-2011 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2010; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1995, 2002 DHS and 2010 PHS; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) estimates of under-five mortality; (b) estimates using CD North model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15). In addition, the registered deaths by age and sex available through 2019 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2019; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 1995 DHS; (d) siblings deaths from the 1995 DHS and 2010 PHS; (e) estimates of underfive, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2002 DHS have been considered.

## **ESTONIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 2000, 2011-2012 censuses; (b) adjusted for under/over count; (c) official estimates through 2021; (d) International estimates used up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2020. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011-2012 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1979, 1989, 2000, 2011-2012 censuses and 1980-2009 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1989, 2000 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021; (c) International estimates used up to 2021. In addition, the recent household deaths from the 2011-2012 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) International estimates used up to 2021; (e) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) International estimates used up to 2021; (d) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2011-2012 Census have been considered.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **ESWATINI**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1956, 1966, 1976, 1986, 1997, 2007, 2017 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2000, 2014 MICS survey estimates; (f) official estimates through 2020; (g) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2015; (b) registered births classified by age of mother and the underlying female population by age through 2018; (c) birth-histories data from the 1988 FHS and 2006-2007 DHS and 2010, 2014 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1966, 1986, 1997, 2007 censuses and 2012 IS; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1966, 1976 censuses; (f) indirect estimates obtained from the application of the reverse survival method to the 1966, 1976, 1986, 1997, 2007, 2017 censuses and 2000 MICS; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1986 Census and 1991 DHS; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1966, 1976, 1986, 1997, 2007 censuses and 2000, 2010, 2014 MICS and 2006-2007 DHS. In addition, the (a) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1988 FHS; (b) indirect estimates obtained from the application of the reverse survival method to the 1955-2010 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2018; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2006-2007 DHS and 2010, 2014 MICS; (c) indirect estimates from data on children ever born and surviving from the 1966, 1976, 1986, 1997, 2007 censuses and 2000 MICS; (d) International estimates used up to 2021. In addition, the recent household deaths from the 1997, 2007 censuses and 2006-2007 DHS have been considered.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2018; (b) registered deaths by age and sex available through 2018; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) The demographic impact of AIDS has been factored into the mortality estimates; (g) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) siblings deaths from the 2006-2007 DHS; (c) maternal orphanhood from the 1976, 1986, 1997, 2007 censuses and 2000 MICS and 2006-2007 DHS; (d) paternal orphanhood from the 1976, 1986, 1997, 2007 censuses and 2000 MICS and 2006-2007 DHS; (e) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1997, 2007 censuses and 2006-2007 DHS have been considered.

## **ETHIOPIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1984, 1994, 2007 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1994; (b) registered births classified by age of mother and the underlying female population by age through 1999; (c) birth-histories data from the 1990 FFS and 2000, 2005, 2011, 2016, 2019 DHS and 2014 MDHS and 2014 PMA-R1 and 2014 PMA-R2 and 2015 PMA-R3 and 2016 PMA-R4 and 2017 PMA-R5 and 2018 PMA-R6 and 2019 PMA; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1964-1967 NSS Rural and 1981 DS; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1968-1971 NSS Rural and 1984, 1994, 2007 censuses and 1990 FFS and 1998 MGHS and 1998 NHS; (f) indirect estimates obtained from the application of the reverse survival method to the 1984, 1994, 2007 censuses; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1994 Census and 2000, 2005, 2011, 2016 DHS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1984, 1994, 2007 censuses and 1990 FFS and 1998 NHS; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2007 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1984, 2007 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 1994; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1990 FFS and 2000, 2005, 2011, 2016, 2019 DHS; (c) indirect estimates from data on children ever born and surviving from the 1981 DS; (d) International estimates used up to 2021. In addition, the (a) indirect estimates from data on children ever born and surviving from the 1984, 1994, 2007 censuses; (b) recent household deaths from the 1981 DS and 1984, 2007 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) siblings deaths from the 2000, 2005, 2011, 2016 DHS; (c) maternal orphanhood from the 2000, 2005, 2011 DHS and 2007 Census; (d) paternal orphanhood from the 2000, 2005, 2011 DHS and 2007 Census; (e) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1981 DS and 1984, 2007 censuses have been considered.

# FALKLAND ISLANDS (MALVINAS)

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1953, 1962, 1972, 1980, 1986, 1991, 1996, 2001, 2006, 2012, 2016 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2013; (c) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1945-2016 Estimates; (d) indirect estimates obtained from the application of the reverse survival method to the 1953, 1962, 1972, 1986, 1991, 1996, 2001, 2006, 2012, 2016 censuses.

Child Mortality: Under-five mortality based on: registered infant and child deaths through 2012.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2012; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions; (c) estimates of life expectancy at birth by assuming that the age pattern of mortality conforms to the CD West model life tables. *Note:* Information from England and Wales also taken into account.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates derived as the differences between overall population growth and natural increase.

## **FAROE ISLANDS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1955, 1960, 1966, 1970, 1977, 1985, 1990, 1995, 2000, 2005, 2010, 2015, 2021 censuses; (b) adjusted for under/over count; (c) official estimates through 2020; (d) only total population for 2002, 2008, 2011 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) indirect estimates obtained from the application of the reverse survival method to the 1950, 1955, 1960, 1966, 1970, 1977, 1990, 2000, 2011 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2020; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase.

# FIJI

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1956, 1966, 1976, 1986, 1996, 2007, 2017 censuses and 2013-2014 HH Listing; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; (f) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2008; (b) registered births classified by age of mother and the underlying female population by age through 2017; (c) adjusted for underregistration; (d) birth-histories data from the 1974 WFS; (e) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1986, 1996 censuses; (f) indirect estimates obtained from the application of the reverse survival method to the 1956, 1966, 1976, 1986, 1996, 2007, 2017 censuses; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1966, 1976, 1986, 1996, 2007 censuses and 2013-2014 HH Listing; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1956, 1966, 1976, 1986, 1996, 2007 censuses and 1974 WFS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1955-2009 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2020; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1974 WFS; (d) indirect estimates from data on children ever born and surviving from the 1956, 1966, 1976, 1986, 1996, 2007 censuses; (e) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2017; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

## **FINLAND**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1975, 1985, 1990, 2000, 2010 censuses; (b) International estimates used up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2020; (e) only total population for 1980 Census have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2021. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1975, 1985, 1990, 2010 censuses and 1956-2009 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1990, 2000, 2010 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

## **FRANCE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1954, 1962, 1968, 1975, 1982, 1990, 1999, 2006, 2010, 2011, 2013, 2014 censuses; (b) adjusted for under/over count; (c) official estimates through 2021; (d) only total population for 2008 Census; (e) International estimates used up to 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1954, 1962, 1968, 1975, 1982, 1990, 1999, 2006, 2010, 2011, 2013, 2014 censuses and 1958-2005 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1954 Census have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

## **FRENCH GUIANA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1954, 1961, 1967, 1974, 1982, 1990, 1999, 2006, 2008, 2010, 2012, 2014, 2017 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2020; (e) only total population for 1946, 2007, 2009, 2011, 2013, 2015, 2016 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 2007, 2009, 2011, 2013, 2015, 2016 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2006; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) indirect estimates obtained from the application of the reverse survival method to the 1954, 1961, 1967, 1974, 1982, 1990, 1999, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 censuses and 1957-1989 Education Stats; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1954, 1967 censuses.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 1961; (b) registered infant and child deaths through 2019; (c) International estimates used up to 2021.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 1961; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

## **FRENCH POLYNESIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1956, 1962, 1971, 1977, 1983, 1988, 1996, 2002, 2007, 2012, 2017 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; (f) only total population for 1946, 1967 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 1951 Census have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2014; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) indirect estimates obtained from the application of the reverse survival method to the 1956, 1962, 1971, 1977, 1983, 1988, 1996, 2002, 2007, 2012, 2017 censuses; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1951 Census. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1959-1989 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2020; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates of under-five mortality (5q0) by assuming that the age pattern of mortality conforms to the CD West model life tables.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) estimates derived as the differences between overall population growth and natural increase.

## **GABON**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1969-1970, 1993 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1960-1961 DS survey estimates; (f) official estimates through 2005; (g) only total population for 2003, 2013 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2000; (b) birth-histories data from the 2000, 2012 DHS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1993 Census; (d) indirect estimates obtained from the application of the reverse survival method to the 1969-1970, 1993 censuses; (e) indirect estimates obtained from stable population assumption; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1993 Census and 2000, 2012 DHS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1956-1995 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 1961; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2000, 2012 DHS; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

**Adult and Old Age Mortality:** Estimates derived from: (a) siblings deaths from the 2000, 2012 DHS; (b) maternal orphanhood from the 2000 DHS; (c) paternal orphanhood from the 2000 DHS; (d) estimates of under-five, adult and old age mortality.

## **GAMBIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1963, 1973, 1983, 1993, 2003, 2013 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2000, 2010 MICS and 2015-2016 HIS and 2019-2020 DHS survey estimates; (f) official estimates through 2019; (g) only total population for 1951 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1993; (b) birth-histories data from the 1990 GCPFDS and 2013, 2019-2020 DHS and 2018 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1963, 1983 censuses and 2000, 2005-2006, 2010 MICS and 2001 NSMCP; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1973 PES and 1983, 1993, 2003 censuses and 1993-1994 HEHS and 2000, 2005-2006 MICS and 2001 NSMCP; (e) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1973, 1983, 1993 censuses and 1993-1994 HEHS; (f) indirect estimates based on the increment of cohort parities between successive censuses or surveys such as the 1993 Census; (g) indirect estimates obtained from the application of the reverse survival method to the 1973, 1983, 1993, 2003, 2013 censuses and 2000, 2005-2006, 2010 MICS; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1973, 1983, 1993, 2003, 2013 censuses and 1993-1994 HEHS and 2000, 2005-2006, 2010, 2018 MICS and 2001 NSMCP and 2013, 2019-2020 DHS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1993, 2003, 2013 censuses and 1993-1994 HEHS; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2010 Education Stats and 2015-2016 HIS; (c) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2005-2006 MICS have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2018 MICS and 2019-2020 DHS; (b) indirect estimates from data on children ever born and surviving from the 1973, 1983, 1993, 2003 censuses and 2000, 2005-2006, 2010 MICS; (c) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2013 DHS; (b) indirect estimates from data on children ever born and surviving from the 2013 Census; (c) recent household deaths from the 2003, 2013 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 2003, 2013 censuses; (b) siblings deaths from the 2013, 2019-2020 DHS; (c) maternal orphanhood from the 2003 Census and 2005-2006 MICS; (d) paternal orphanhood from the 2003 Census and 2005-2006 MICS; (e) estimates of under-five, adult and old age mortality. In addition, the (a) maternal orphanhood from the 1973, 1983 censuses and 2000 MICS; (b) paternal orphanhood from the 1973, 1983 censuses and 2000 MICS have been considered.

## **GEORGIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 2002, 2014 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) birth-histories data from the 1999, 2005, 2010 RHS; (d) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1979, 1989, 2002, 2014 censuses and 1980-2011 Education Stats and 2005, 2018 MICS; (e) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2010 RHS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 2002 Census and 2005, 2018 MICS; (g) International estimates used up to 2019.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1999, 2005, 2010 RHS; (d) indirect estimates from data on children ever born and surviving from the 2002 Census and 2005 MICS; (e) International estimates used up to 2021. In addition, the indirect estimates from data on children ever born and surviving from the 1989, 2014 censuses and 2018 MICS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) International estimates used up to 2021.

#### **GERMANY**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 2011 Census; (b) official estimates through 2021; (c) International estimates used up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1978-2010 Education Stats and 2011 Census have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) mortality rates for older ages were adjusted; (d) International estimates used up to 2021.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

## **GHANA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1948, 1960, 1970, 1984, 2000, 2010, 2021 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; (f) only total population for 1948, 2021 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2008; (b) registered births classified by age of mother and the underlying female population by age through 2013; (c) birth-histories data from the 1979-1980 WFS and 1988, 1993, 1998, 2003, 2008, 2014 DHS and 2007 DHS Special and 2011 MICS and 2013 PMA-R1 and 2014 PMA-R2 and 2014 PMA-R3 and 2015 PMA-R4 and 2016, 2019 MIS and 2016 PMA-R5 and 2017 MHS and 2017-2018 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1960 PES and 1968-1969 DSS and 1971 Survey and 2000, 2010 censuses and 2006 MICS; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1960 PES and 1968-1969 DSS; (f) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1960 PES; (g) adjusted fertility using synthetic relational Gompertz model with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1960 PES and 1968-1969 DSS and 1971 Survey; (h) indirect estimates obtained from the application of the reverse survival method to the 1960, 1970, 1984, 2000, 2010 censuses and 2006 MICS and 2016, 2019 MIS; (i) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2007 DHS Special; (j) cohort-completed fertility backdated by the mean age of childbearing from the 1979-1980 WFS and 1988, 1993, 1998, 2003, 2008, 2014 DHS and 2000, 2010 censuses and 2006 MICS and 2016, 2019 MIS and 2017-2018 MICS. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1956-2012 Education Stats; (b) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2003 WHS and 2006 MICS; (c) cohort-completed fertility backdated by the mean age of childbearing from the 2011 MICS have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2010; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1988, 1993, 1998, 2003, 2008, 2014 DHS and 2007 DHS Special and 2011 MICS and 2017 MHS and 2017-2018 MICS; (c) indirect estimates from data on children ever born and surviving from the 1948, 1960, 2010 censuses and 1971 Survey and 2006 MICS and 2016 MIS; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1979-1980 WFS; (b) indirect estimates from data on children ever born and surviving from the 2000 Census; (c) recent household deaths from the 2007 DHS Special and 2010 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) siblings deaths from the 2007 DHS Special and 2008 DHS and 2017 MHS; (c) maternal orphanhood from the 2003, 2008 DHS and 2006 MICS; (d) paternal orphanhood from the 2003, 2008 DHS and 2006 MICS; (e) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 2007 DHS Special and 2010 Census; (b) maternal orphanhood from the 1988, 1993, 1998 DHS; (c) paternal orphanhood from the 1988, 1993, 1998 DHS have been considered.

## **GIBRALTAR**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the 1951, 1961, 1970, 1981, 1991, 2001, 2012 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2016; (b) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1948-2016 Estimates; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1970 Census.

Child Mortality: Under-five mortality based on: registered infant and child deaths through 2001.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2021; (b) registered deaths by age and sex available through 2021; (c) estimates of life expectancy at birth by assuming that the age pattern of mortality conforms to the CD North model life tables.

*Note:* Information from England and Wales also taken into account.

## **GREECE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1961, 1971, 1981, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; (f) International estimates used up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2019; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1945-2019 Estimates; (e) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1951, 1961, 1971, 1981, 1991, 2001, 2011 censuses and 1956-2010 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1991, 2001, 2011 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

## **GREENLAND**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1955, 1960, 1965, 1970, 1977, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015, 2020 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2021; (e) only total population for 1945 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 1976, 2008, 2022 censuses have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) indirect estimates obtained from the application of the reverse survival method to the 1951, 1955, 1960, 1965, 1970, 1976, 2000, 2008, 2010 censuses.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2015; (b) registered infant and child deaths through 2019; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2015; (b) registered deaths by age and sex available through 2019; (c) adjusted for underreporting of infant and child deaths; (d) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2019; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) estimates derived as the differences between overall population growth and natural increase.

## **GRENADA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1970, 1981, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2017; (f) only total population for 1946, 2022 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1991 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1964; (b) registered births classified by age of mother and the underlying female population by age through 2017; (c) indirect estimates obtained from the application of the reverse survival method to the 1956-2012 Education Stats and 1960, 1970, 1981, 1991, 2001 censuses; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1981 Census. In addition, the indirect estimates obtained from the application of the reverse survival method to the 2011 Census have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2019; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2018; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

## **GUADELOUPE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1954, 1961, 1967, 1974, 1982, 1990, 1999, 2006, 2008, 2010, 2012, 2014, 2016, 2017 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2020; (e) only total population for 2007, 2009, 2011, 2013, 2015 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1946, 2007, 2009, 2011, 2013, 2015 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) indirect estimates obtained from the application of the reverse survival method to the 1954, 1961, 1967, 1974, 1982, 1990, 1999, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 censuses; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1954, 1967 censuses. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1957-1987 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2019; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

## **GUAM**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1970, 1980, 1990, 2000, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; (f) only total population for 1960, 2020 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1994 Survey; (d) indirect estimates obtained from the application of the reverse survival method to the 1950, 1970, 1980, 1990, 2000, 2010 censuses and 1958-1970 Education Stats; (e) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1980, 1990, 2000, 2010 censuses; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1980, 1990 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2018; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2019; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates derived as the differences between overall population growth and natural increase.

#### **GUATEMALA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1964, 1973, 1981, 1994, 2002, 2018 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1995 DHS survey estimates; (f) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2021; (b) adjusted for underregistration; (c) birth-histories data from the 1987, 1995 DHS and 1998-1999 DHS Interim and 2002, 2008-2009, 2014-2015 ENSMI; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1994, 2002, 2018 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1950, 1964, 1973, 1981, 1994, 2018 censuses. In addition, the (a) official estimates of age-specific fertility rates through 2006; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1994, 2002, 2018 censuses; (c) indirect estimates obtained from the application of the reverse survival method to the 1956-2010 Education Stats and 2002 Census; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1964, 1973, 1981, 1994, 2002 censuses and 1995 DHS and 1998-1999 DHS Interim and 2014-2015 ENSMI have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1987, 1995 DHS and 1998-1999 DHS Interim and 2002, 2008-2009, 2014-2015 ENSMI; (c) indirect estimates from data on children ever born and surviving from the 1973, 1981, 1994, 2002, 2018 censuses and 1977-1978 ENF and 1986-1987, 1989 ENSD; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2021; (b) indirect estimates from data on children ever born and surviving from the 2002 ENSMI have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted. In addition, the registered deaths by age and sex available through 2021 have been considered.

## **GUERNSEY**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1961, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2015 censuses; (b) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1948-2020 Estimates.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2019; (b) estimates of life expectancy at birth by assuming that the age pattern of mortality conforms to the CD West model life tables. *Note:* Information from England and Wales also taken into account.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates derived as the differences between overall population growth and natural increase.

#### **GUINEA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1983, 1996, 2014 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1999, 2005, 2012, 2018 DHS and 2016 MICS survey estimates; (f) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2013; (c) birth-histories data from the 1999, 2005, 2012, 2018 DHS and 2016 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2014 Census; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1983, 1996 censuses; (f) indirect estimates obtained from the application of the reverse survival method to the 1983, 1996, 2014 censuses; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1992, 1999, 2005, 2012, 2018 DHS and 1996, 2014 censuses and 2003, 2016 MICS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1983, 1996 censuses; (b) indirect estimates obtained from the application of the reverse survival method to the 1957-2008 Education Stats; (c) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1983, 1996 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2014; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1992, 1999, 2005, 2012, 2018 DHS; (c) indirect estimates from data on children ever born and surviving from the 1996, 2014 censuses and 2003 MICS; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2016 MICS and 2016 MIS; (b) recent household deaths from the 1983, 1996, 2014 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) siblings' deaths from the 1999, 2005, 2012 DHS and 2016 MICS; (c) maternal orphanhood from the 1999, 2005 DHS; (d) paternal orphanhood from the 1999, 2005 DHS; (e) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 1983, 1996, 2014 censuses; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods have been considered.

## **GUINEA-BISSAU**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1979, 1991, 2009 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; (f) only total population for 1970 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2006; (b) registered births classified by age of mother and the underlying female population by age through 1981; (c) birth-histories data from the 2014, 2018-2019 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1979, 1991 censuses and 2000, 2006 MICS; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1950 Census and 2000, 2006 MICS; (f) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1979, 1991, 2009 censuses and 1958-2002 Education Stats and 2000, 2006, 2010, 2018-2019 MICS; (g) indirect estimates obtained from stable population assumption; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1950 Census and 2000, 2006, 2010, 2014, 2018-2019 MICS.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2009; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2010, 2014 MICS; (c) indirect estimates from data on children ever born and surviving from the 2000, 2006 MICS; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2018-2019 MICS; (b) indirect estimates from data on children ever born and surviving from the 1950 Census; (c) recent household deaths from the 2009 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

**Adult and Old Age Mortality:** Estimates derived from: (a) recent household deaths data by age and sex from the 2009 Census; (b) siblings deaths from the 2014 MICS; (c) maternal orphanhood from the 2000, 2006 MICS; (d) paternal orphanhood from the 2000, 2006 MICS; (e) estimates of under-five, adult and old age mortality.

## **GUYANA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1946, 1960, 1970, 1980, 1991, 2002, 2012 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) 2019-2020 MICS survey estimates; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 2006-2007 MICS survey estimates have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1970; (b) registered births classified by age of mother and the underlying female population by age through 2018; (c) birth-histories data from the 1975 WFS and 2005 AIS and 2009 DHS and 2014, 2019-2020 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1980, 1991, 2002, 2012 censuses and 1986 Survey; (e) indirect estimates obtained from the application of the reverse survival method to the 1956-2005 Education Stats and 1960, 1970, 1980, 1991, 2002, 2012 censuses and 2000, 2006-2007 MICS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1970, 1980, 2002 censuses and 1975 WFS and 2000, 2006-2007, 2014, 2019-2020 MICS and 2005 AIS and 2009 DHS.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1975 WFS and 2005 AIS and 2009 DHS and 2014 MICS; (c) indirect estimates from data on children ever born and surviving from the 2000, 2006-2007 MICS and 2002 Census; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2015; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2019-2020 MICS; (c) recent household deaths from the 2012 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2014; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted. In addition, the registered deaths by age and sex available through 2014 have been considered.

## **HAITI**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1971, 1982, 2003 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1970 SES survey estimates; (f) official estimates through 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under/over count have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 1977 WFS and 2000, 2005-2006, 2012, 2016-2017 DHS and 2013 DHS-NS; (b) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2003 Census; (c) indirect estimates obtained from the application of the reverse survival method to the 1971, 1982 censuses; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1977 WFS and 1994-1995, 2000, 2005-2006, 2012, 2016-2017 DHS. In addition, the (a) birth-histories data from the 1994-1995 DHS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2003 Census; (c) indirect estimates obtained from the application of the reverse survival method to the 1950, 2003 censuses and 1962-1990 Education Stats and 1970 SES; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1982, 2003 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1977 WFS and 1987 Survey and 1994-1995, 2000, 2005-2006, 2012, 2016-2017 DHS; (c) indirect estimates from data on children ever born and surviving from the 1982 Census and 1983 CPS; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2005; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1971 Census and 1971-1975 EDPR; (c) indirect estimates from data on children ever born and surviving from the 2003 Census; (d) recent household deaths from the 1971, 2003 censuses have been considered.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2004; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15). In addition, the registered deaths by age and sex available through 2004 have been considered.

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2004; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2005-2006 DHS; (d) siblings deaths from the 2000, 2005-2006, 2016-2017 DHS; (e) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1971, 2003 censuses have been considered.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination (Data from the Programme on International Migration in Latin America - IMILA); (b) estimates derived as the differences between overall population growth and natural increase; (c) UNHCR statistics on the number of refugees in the main countries of asylum.

# **HOLY SEE**

**Population:** Total population estimated to be consistent with the population of the only total population for 1948, 2000, 2009 censuses; and the assumed subsequent trend in the growth rate of the population.

## **HONDURAS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1945, 1950, 1961, 1974, 1988, 2001, 2013 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2019 MICS survey estimates; (f) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) adjusted for underregistration; (b) birth-histories data from the 1996, 2001 ENESF and 2005-2006, 2011-2012 DHS; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1988, 2001, 2013 censuses; (d) indirect estimates obtained from the application of the reverse survival method to the 1961, 1974, 1988, 2001, 2013 censuses and 1970-1972, 1983 EDEN and 2019 MICS. In addition, the (a) official estimates of age-specific fertility rates through 1981; (b) registered births classified by age of mother and the underlying female population by age through 2016; (c) birth-histories data from the 2019 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1988, 2001, 2013 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1950 Census and 1956-2010 Education Stats; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1974, 1988, 2001, 2013 censuses and 2005-2006, 2011-2012 DHS and 2019 MICS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1970-1972 EDEN and 1987 EFHS and 1991-1992 ENESF-RHS and 1996 ENESF and 2005-2006, 2011-2012 DHS; (c) indirect estimates from data on children ever born and surviving from the 1970-1972, 1983 EDEN and 1974, 1988, 2001, 2013 censuses and 1984 ENSMI; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2020; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2001 ENESF; (c) recent household deaths from the 1970-1972, 1983 EDEN and 2001, 2013 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15). In addition, the registered deaths by age and sex available through 2021 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 1983 EDEN and 2001 ENESF; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) siblings deaths from the 1996 ENESF; (f) intercensal survivorship from successive census age distributions; (g) International estimates used up to 2021; (h) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1970-1972 EDEN and 2001, 2013 censuses have been considered.

### HUNGARY

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1949, 1960, 1970, 1980, 1990, 2001, 2011 censuses; (b) official estimates through 2020; (c) International estimates used up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2009 Education Stats and 1960, 1970, 1980, 1990, 2001, 2011 censuses; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1970, 1980, 1990, 2001, 2011 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

### **ICELAND**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 2000, 2011 censuses; (b) official estimates through 2021; (c) International estimates used up to 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1991, 2000, 2011 censuses and 1957-2010 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1950, 1960 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) adult deaths adjusted for underregistration using death distribution methods; (d) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

### **INDIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1961, 1971, 1981, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1992-1993 NFHS survey estimates; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the official estimates through 2021 have been considered.

Note: 1981 census adjusted to include Assam, and 1991 census adjusted to include Jammu and Kashmir.

Fertility: Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2019; (b) birth-histories data from the 1992-1993, 1998-1999, 2005-2006, 2015-2016 NFHS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1969-2019 SRS and 2007-2008 DLHS and 2019-2021 NFHS-5; (d) adjusted fertility using synthetic relational Gompertz model with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1979 SICM and 1981, 1991, 2001 censuses; (e) indirect estimates based on the increment of cohort parities between successive censuses or surveys such as the 1951, 1961, 1971, 1981, 1991 censuses; (f) indirect estimates obtained from the application of the reverse survival method to the 1961, 1971, 1981, 1991, 2001, 2011 censuses; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1970-1971 NFPS and 1979 SICM and 1981 Census and 1992-1993, 1998-1999, 2005-2006, 2015-2016 NFHS. In addition, the (a) official estimates of age-specific fertility rates through 2017; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1979 SICM and 1981, 1991, 2001, 2011 censuses; (c) indirect estimates obtained from the application of the reverse survival method to the 1951 Census and 1957-2011 Education Stats; (d) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2002-2004, 2007-2008 DLHS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1991, 2001, 2011 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2018; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1992-1993, 1998-1999, 2005-2006 NFHS; (d) indirect estimates from data on children ever born and surviving from the 1965-1966 NSS and 1970-1971 NFPS and 1972 FS and 1980-1981 FPS and 1998-1999, 2002-2004, 2007-2008 DLHS and 2011 Census; (e) recent household deaths from the 1945-2020 SRS; (f) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2015-2016 NFHS and 2019-2020 DHS; (b) indirect estimates from data on children ever born and surviving from the 1981, 1991, 2001 censuses; (c) recent household deaths from the 1971 Census and 1992-1993, 1998-1999 NFHS have been considered.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2018; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15). In addition, the (a) registered deaths by age and sex available through 2018; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1970-2018 SRS and 1971 Census and 1992-1993, 1998-1999, 2015-2016 NFHS and 2012-2014 DLHS; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) intercensal survivorship from successive census age distributions; (d) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data

by age and sex from the 1950-2018 Register; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) intercensal survivorship from successive census age distributions have been considered.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) information on the number of migrant workers or about labor migration; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

### **INDONESIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1961, 1971, 1980, 1990, 2000, 2010, 2020 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1964-1965, 1995, 2005 Annual SUSENAS and 1976, 1995, 2005 SUPAS and 1985 IPS and 1991 DHS and 2000 MICS and 2012 DHS Special survey estimates; (f) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under/over count have been considered.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 1987; (c) birth-histories data from the 1976 WFS and 1987 CPS and 1991, 1994, 1997, 2002-2003, 2007, 2017 DHS and 2012 DHS Special and 2012 SDKI and 2015 PMA-R1 and 2017 YARHS DHS Special; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2010 Census; (e) indirect estimates obtained from the application of the reverse survival method to the 1971, 1980, 1990, 2000, 2010, 2020 censuses and 1976, 1995, 2005 SUPAS and 1985 IPS and 1995, 2005 Annual SUSENAS and 2000 MICS; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1971, 1980, 1990, 2000, 2010 censuses and 1976, 2015 SUPAS and 1985 IPS and 2000 Annual SUSENAS; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1964-1965 Annual SUSENAS and 1971, 1980 censuses and 1976 SUPAS and 1976 WFS and 1987 CPS and 1991, 1994, 1997, 2002-2003, 2007, 2017 DHS and 2012 DHS Special. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1955-2010 Education Stats and 1961 Census and 1964-1965 Annual SUSENAS; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1990, 2000, 2010 censuses and 1995 SUPAS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1976 WFS and 1987 CPS and 1991, 1994, 1997, 2002-2003, 2007, 2017 DHS and 2012 DHS Special; (c) indirect estimates from data on children ever born and surviving from the 1971, 1980, 1990, 2000, 2010 censuses and 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010 Annual SUSENAS; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2015; (b) recent household deaths from the 1964-1965 Annual SUSENAS and 2010 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15). In addition, the registered deaths by age and sex available through 2020 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1985 IPS and 1993-1994 IFLS1 and 1996, 1998, 1999 Annual SUSENAS and 1997 IFLS2 and 2007 DHS; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 1994, 1997, 2002-2003, 2007 DHS and 2012 DHS Special; (d) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1964-1965 Annual SUSENAS and 2010 Census have been considered.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) information on the number of migrant workers or about labor migration; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

## **IRAN (ISLAMIC REPUBLIC OF)**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1956, 1966, 1976, 1986, 1991, 1996, 2006, 2011, 2016 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1959 Survey and 1973-1976 PGS and 1994 MFS survey estimates; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the official estimates through 2021 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1966, 1976, 1991, 1996, 2006, 2011, 2016 censuses and 1973-1976 PGS and 1988, 1993 PS and 1996 PES and 2002 SCIH; (c) indirect estimates obtained from the application of the reverse survival method to the 1956, 1966, 1976, 1991 censuses and 1973-1976 PGS; (d) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1986, 1996, 2006, 2011, 2016 censuses and 2010 MIDHS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1986, 2006, 2011 censuses and 2002 SCIH. In addition, the (a) official estimates of age-specific fertility rates through 2016; (b) birth-histories data from the 1996 MFS; (c) indirect estimates obtained from the application of the reverse survival method to the 1956-2010 Education Stats and 1986, 1996, 2006, 2011, 2016 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2020; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1973-1976 PGS and 1989 KAP and 2000 IDHS and 2010 MIDHS; (d) indirect estimates from data on children ever born and surviving from the 1986, 1996, 2006, 2011 censuses and 1991 BS and 1996 PES and 1998 PGS; (e) recent household deaths from the 1984, 1994 MFS and 1997-1999 GHS; (f) International estimates used up to 2021. In addition, the (a) indirect estimates from data on children ever born and surviving from the 1977 FS and 1987, 1992-1995, 2002 SCIH and 1990 MPC and 1994 MFS and 2016 Census; (b) recent household deaths from the 1998 PGS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 1973 VIS and 1973-1976, 1998 PGS and 1977 FS and 1984, 1994, 1996 MFS and 1986, 1991, 1996 censuses and 1987, 1992-1995 SCIH and 1990 MPC and 1991-1994 IPS and 2000 IDHS; (d) intercensal survivorship from successive census age distributions; (e) estimates of under-five, adult and old age mortality.

### **IRAQ**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1957, 1965, 1977, 1987, 1997 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 2000 MICS survey estimates; (b) only total population for 1947 Census have been considered.

*Note:* 1997 census adjusted to account for northern Kurdish region. The population estimates refer to the whole of Iraq, including the three northern governorates.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2000; (b) birth-histories data from the 1989 CHS and 2006, 2011, 2018 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1997 Census and 1999 CMMS and 2000 MICS; (d) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1974 FS and 1989 CHS and 1997 Census and 1999 CMMS and 2006 MICS; (e) indirect estimates obtained using Mortara's method with data on children ever born by age of mother from the 1987 Census and 2006-2007 FHS; (f) indirect estimates obtained from the application of the reverse survival method to the 1957, 1965, 1977, 1987, 1997 censuses and 2000, 2011 MICS; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1997 Census and 2006 MICS; (h) indirect estimates obtained from stable population assumption; (i) cohort-completed fertility backdated by the mean age of childbearing from the 1987, 1997 censuses and 1989 CHS and 1990 IDDMCMS and 1999 CMMS and 2006, 2011, 2018 MICS and 2006-2007 FHS. In addition, the (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2000 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1973-1975 DSS and 2004 LCS and 2006, 2011, 2018 MICS; (c) indirect estimates from data on children ever born and surviving from the 1957, 1987 censuses and 1974 FS and 1989 CHS and 1990 IDDMCMS and 2006-2007 FHS; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2020; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1989 CHS and 1991 ICMNS and 1999 CMMS; (c) indirect estimates from data on children ever born and surviving from the 1997 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2004 LCS; (d) siblings deaths from the 2006-2007 FHS and 2011 Mortality Survey and 2018 MICS; (e) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) estimates derived as the differences between overall population growth and natural increase; (b) UNHCR statistics on the number of refugees in the main countries of asylum. In addition, the information on foreign-born populations from censuses and registers from major countries of destination have been considered.

### **IRELAND**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1946, 1951, 1956, 1961, 1966, 1971, 1979, 1981, 1986, 1991, 1996, 2002, 2006, 2011, 2016 censuses; (b) official estimates through 2020; (c) International estimates used up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2019; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1945-2019 Estimates; (e) International estimates used up to 2019. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1951, 1956, 1961, 1966, 1971, 1979, 1981, 1986, 1991, 1996, 2002, 2006, 2011, 2016 censuses and 1961-2011 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1961, 1971, 2006, 2011, 2016 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2020.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2012; (b) registered deaths by age and sex available through 2020; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

## **ISLE OF MAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011, 2016, 2021 censuses; (b) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2016 Census; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1948-2020 Estimates.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2021; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions; (c) estimates of life expectancy at birth by assuming that the age pattern of mortality conforms to the CD North model life tables.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) estimates derived as the differences between overall population growth and natural increase.

### **ISRAEL**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1948, 1961, 1972, 1983, 1995, 2008 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) International estimates considered up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15; (c) official estimates through 2020 have been considered.

*Note*: Population figures exclude the Arab population residing in East Jerusalem and include the Israeli citizens residing in the State of Palestine.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) adjusted for underregistration; (c) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1946-2021 Estimates; (d) International estimates used up to 2019. In addition, the (a) official estimates of age-specific fertility rates through 2021; (b) indirect estimates obtained from the application of the reverse survival method to the 1958-2010 Education Stats and 1961, 1972, 1983, 1995, 2008 censuses; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1961, 1972, 1983, 1995, 2008 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) International estimates used up to 2021. In addition, the official estimates of infant and child mortality through 2017 have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2021; (b) adjusted for underreporting of infant and child deaths; (c) International estimates used up to 2021; (d) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15). In addition, the official estimates through 2017 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) International estimates used up to 2021; (d) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum. In addition, the official figures of net international migration flows, and assumed subsequent trends in international migration have been considered.

## **ITALY**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1961, 1971, 1981, 1991, 2001, 2011 censuses; (b) official estimates through 2021; (c) International estimates used up to 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1951, 1971, 1981, 1991, 2001, 2011 censuses and 1956-2010 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

### **JAMAICA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1970, 1982, 1991, 2001, 2011 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) 1953 Survey survey estimates; (e) official estimates through 2019; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2007; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) birth-histories data from the 1975-1976 WFS and 1997, 2002-2003, 2008 RHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1983, 1989, 1993 CPS and 2011 Census and 2011 MICS; (e) indirect estimates obtained from the application of the reverse survival method to the 1953 Survey and 1958-2011 Education Stats and 1960, 1970, 1982, 1991, 2001, 2011 censuses and 2005 MICS and 2011 MICS; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1970 Census; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1982, 1991, 2001, 2011 censuses and 1975-1976 WFS and 2005 MICS.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1975-1976 WFS and 2008 RHS; (c) indirect estimates from data on children ever born and surviving from the 1982, 2011 censuses and 2005 MICS; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2019; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1989 CPS; (c) indirect estimates from data on children ever born and surviving from the 2001 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2011; (b) registered deaths by age and sex available through 2017; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults. In addition, the registered deaths by age and sex available through 2017 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) adjusted for underregistration; (b) recent household deaths data by age and sex from the 2011 Census; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) estimates of under-five, adult and old age mortality. In addition, the deaths by age and sex available from Register through 2017 have been considered.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

### **JAPAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1955, 1960, 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015 censuses; (b) adjusted for under/over count; (c) official estimates through 2020; (d) International estimates used up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1947, 1948 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) International estimates used up to 2020. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1950, 1955, 1960, 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015 censuses and 1998-2010 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1950, 1960, 1970 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2020.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2020; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

## **JERSEY**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1961, 1971, 1976, 1981, 1986, 1989, 1991, 1996, 2001, 2011 censuses; (b) adjusted for under/over count; (c) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for age heaping have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2018; (c) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1948-2020 Estimates.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2021; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions; (c) estimates of life expectancy at birth by assuming that the age of mortality conforms the West model life tables. pattern to CD Note: Information from England and Wales also taken into account.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates derived as the differences between overall population growth and natural increase.

### **JORDAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1979, 1994, 2004, 2015 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1961 Census; (b) official estimates through 2020; (c) only total population for 1952 Census have been considered.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) birth-histories data from the 1990, 1997, 2002, 2007, 2012, 2017-2018 DHS and 2009 DHS Interim; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1961 Census and 1976 WFS and 1981 DS and 1982 MS; (e) indirect estimates obtained from the application of the reverse survival method to the 1961, 1979, 1994, 2004, 2015 censuses; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1981 DS; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1961, 1979 censuses and 1976 WFS and 1981 DS and 1983 FFHS and 1988, 1990 EPI-CDDCM and 1990, 1997, 2002, 2007, 2012, 2017-2018 DHS and 2009 DHS Interim. In addition, the (a) birth-histories data from the 1983 FFHS; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1976 WFS and 1990, 1997, 2002, 2007, 2012, 2017-2018 DHS and 1996 LCS and 2009 DHS Interim; (c) indirect estimates from data on children ever born and surviving from the 1961, 1979 censuses and 1972 NFS and 1981 DS and 1988, 1990 EPI-CDDCM and 1999 Annual JAFS; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2018; (b) recent household deaths from the 2015 Census have been considered.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2019; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates of under-five mortality (5q0) by assuming that the age pattern of mortality conforms to the CD West model life tables. In addition, the registered deaths by age and sex available through 2019 have been considered.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

## **KAZAKHSTAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 1999, 2009 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; (f) only total population for 2021 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) birth-histories data from the 1995, 1999 DHS and 2015 MICS; (e) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1989 Census and 2010-2011 MICS; (f) indirect estimates obtained from the application of the reverse survival method to the 1970, 1979, 1989, 1999, 2009 censuses and 1979-2011 Education Stats and 2006, 2010-2011, 2015 MICS; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1989, 1999 censuses and 1995, 1999 DHS and 2006, 2010-2011, 2015 MICS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1959 Census have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1995, 1999 DHS; (d) indirect estimates from data on children ever born and surviving from the 1989, 2009 censuses and 1996 LSMS and 2006, 2010-2011, 2015 MICS; (e) International estimates used up to 2021. In addition, the indirect estimates from data on children ever born and surviving from the 1999 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2012; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

### **KENYA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1948, 1962, 1969, 1979, 1989, 1999, 2009, 2019 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2018; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 1998, 2003, 2008-2009, 2014 DHS and 2020 MIS survey estimates have been considered.

Fertility: Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) birth-histories data from the 1977-1978 WFS and 1989, 1993, 1998, 2003, 2008-2009, 2014 DHS and 2015, 2020 MIS and 2015 PMA-R3 and 2016 PMA-R5 and 2017 PMA-R6 and 2018 PMA-R7; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1962, 1969, 2009, 2019 censuses and 1984 CPS; (d) adjusted fertility using synthetic relational Gompertz model with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1989, 1999 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1962, 1969, 1979, 1989, 1999, 2009, 2019 censuses and 2000 MICS and 2015, 2020 MIS; (f) indirect estimates obtained from stable population assumption; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1969, 1989, 1999, 2009 censuses and 1989, 1993, 1998, 2003, 2008-2009, 2014 DHS and 2000 MICS and 2015, 2020 MIS. In addition, the (a) official estimates of age-specific fertility rates through 2018; (b) birth-histories data from the 2014 PMA-R1 and 2019 PMA-Phase 1; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1989, 1999 censuses; (d) indirect estimates obtained from the application of the reverse survival method to the 1955-2009 Education Stats; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1979 Census have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1977-1978 WFS and 1989, 1993, 1998, 2003, 2008-2009, 2014 DHS; (c) indirect estimates from data on children ever born and surviving from the 1969, 1979, 1989, 1999 censuses and 1977, 1983 NDS and 2000 MICS and 2015 MIS; (d) International estimates used up to 2021. In addition, the recent household deaths from the 2009, 2019 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 2007 AIS and 2019 Census; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 2003, 2008-2009, 2014 DHS; (d) maternal orphanhood from the 1977, 1983 NDS and 1979, 1989, 1999 censuses and 1993, 1998 DHS and 2000 MICS; (e) paternal orphanhood from the 1977, 1983 NDS and 1979, 1989, 1999 censuses and 1993, 1998 DHS and 2000 MICS; (f) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 2009 Census; (b) siblings deaths from the 1998 DHS; (c) maternal orphanhood from the 1969 Census and 1973 DBS and 2003 DHS; (d) paternal orphanhood from the 1969 Census and 1973 DBS and 2003 DHS have been considered.

## **KIRIBATI**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1963, 1968, 1973, 1978, 1985, 1990, 1995, 2000, 2005, 2010, 2015 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2000 RHKS survey estimates; (f) official estimates through 2016; (g) only total population for 1947 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1995; (b) registered births classified by age of mother and the underlying female population by age through 2015; (c) birth-histories data from the 2018-2019 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1973, 1978, 1985, 1990, 2010 censuses; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1978, 2010 censuses; (f) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2000, 2005 censuses; (g) indirect estimates obtained from the application of the reverse survival method to the 1963, 1968, 1973, 1978, 1985, 1990, 1995, 2000, 2005, 2010, 2015, 2020 censuses; (h) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1968, 1973, 1978, 1985, 1990, 1995, 2000, 2005, 2010, 2015 censuses; (i) cohortcompleted fertility backdated by the mean age of childbearing from the 1963, 1973, 1978, 1990, 1995, 2000, 2010 censuses and 2000 RHKS and 2018-2019 MICS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1957-2010 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2009 DHS; (c) indirect estimates from data on children ever born and surviving from the 1963, 1968, 1973, 1978, 1985, 1990, 1995, 2000, 2005, 2010 censuses; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2018-2019 MICS; (c) recent household deaths from the 2010 Census have been considered.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2016; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates of under-five mortality (5q0) by assuming that the age pattern of mortality conforms to the CD West model life tables. In addition, the registered deaths by age and sex available through 2016 have been considered.

**Migration:** International migration based on: (a) estimates derived as the differences between overall population growth and natural increase; (b) UNHCR statistics on the number of refugees in the main countries of asylum.

## **KOSOVO (UNDER UNSC RES. 1244)**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1953, 1961, 1971, 1981, 1991, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2013-2014, 2019-2020 MICS survey estimates; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2007; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) birth-histories data from the 2003, 2009 KDHS; (e) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2009 KDHS.

Child Mortality: Under-five mortality based on: registered infant and child deaths through 2019.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: registered deaths by age and sex available through 2019.

**Migration:** International migration based on: estimates derived as the differences between overall population growth and natural increase.

### **KUWAIT**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1957, 1961, 1965, 1970, 1975, 1980, 1985, 1995, 2005, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1988 Labor Survey survey estimates; (f) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

*Note:* Used official estimates of population by sex and single year of age as reported to the Demographic Yearbook for 2014. Used official estimates of population by sex and abridged age groups as reported to the Demographic Yearbook for 2015, 2016, 2017, 2018, 2019, and 2020.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2019; (b) birth-histories data from the 1996 FHS; (c) indirect estimates obtained from the application of the reverse survival method to the 1957, 1965, 1970, 1975, 1980, 1985, 1995, 2005, 2011 censuses and 1988 Labor Survey; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1975, 1980 censuses and 1987 CHS. In addition, the (a) official estimates of age-specific fertility rates through 2014; (b) birth-histories data from the 1987 CHS; (c) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2020; (c) indirect estimates from data on children ever born and surviving from the 1975, 1980 censuses and 1987 CHS; (d) International estimates used up to 2021. In addition, the direct estimates from births and deaths under-five calculated from full birth histories data from the 1996 FHS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2019; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2019; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

## **KYRGYZSTAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 1999, 2009 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) birth-histories data from the 1997, 2012 DHS and 2014, 2018 MICS; (d) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1979, 1989, 1999, 2009 censuses and 1980-2010 Education Stats and 2005-2006 MICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1997, 2012 DHS and 1999, 2009 censuses and 2005-2006, 2014, 2018 MICS.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2020; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1997, 2012 DHS and 2014, 2018 MICS; (c) indirect estimates from data on children ever born and surviving from the 2005-2006 MICS; (d) International estimates used up to 2021. In addition, the indirect estimates from data on children ever born and surviving from the 1989, 1999, 2009 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

## LAO PEOPLE'S DEMOCRATIC REPUBLIC

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1995, 2005, 2015 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1997 RHS survey estimates; (f) official estimates through 2021; (g) only total population for 1985 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2015; (b) birth-histories data from the 2011-2012 DHS-MICS Special and 2017 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1993 SIS and 2005, 2015 censuses and 2006 MICS; (d) adjusted fertility using synthetic relational Gompertz model with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1993 SIS and 2000, 2005 RHS and 2005 Census; (e) indirect estimates obtained using Mortara's method with data on children ever born by age of mother from the 1995 Census; (f) indirect estimates obtained from the application of the reverse survival method to the 1995, 2005, 2015 censuses and 1997 RHS and 2000, 2006, 2017 MICS; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2000, 2006 MICS and 2003 WHS; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1992-1993 ECS and 2011-2012 DHS-MICS Special and 2015 Census and 2017 MICS. In addition, the birth-histories data from the 2000, 2005 RHS have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1994-1995 FBSS and 2000 ARHS and 2005 RHS and 2011-2012 DHS-MICS Special and 2017 MICS; (b) indirect estimates from data on children ever born and surviving from the 1993 RHS and 1995, 2005 censuses; (c) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2015 Census; (b) recent household deaths from the 1995, 2005, 2015 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) recent household deaths data by age and sex from the 1995, 2005, 2015 censuses; (b) siblings deaths from the 2000 MICS and 2011-2012 DHS-MICS Special; (c) estimates of under-five, adult and old age mortality.

### **LATVIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 2000, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) International estimates used up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under enumeration of children under age 15; (b) official estimates through 2021 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2020. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1979, 1989, 2000, 2011 censuses and 1978-2009 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1989, 2000 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) International estimates used up to 2021; (e) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) International estimates used up to 2021; (d) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

### **LEBANON**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1970 Survey and 2004 HLCS and 2007 LCS and 2018 –2019 LFHLCS survey estimates; (b) official estimates through 2020; (c) only total population for 2004 CBDE; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2014; (b) birth-histories data from the 1996 MCHS and 2004 FHS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1995-1996 PHS; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1995-1996 PHS; (e) indirect estimates obtained from the application of the reverse survival method to the 1970 Survey and 2004 HLCS and 2007 LCS and 2009 MICS and 2018 –2019 LFHLCS; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1995-1996 PHS; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1971 NFFPS and 1996 MCHS and 2004 FHS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1958-2011 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1996 MCHS and 2004 FHS; (c) indirect estimates from data on children ever born and surviving from the 1971 Migration Survey and 1990 EPI-CDD-IMR Survey and 1995-1996 PHS and 1996 MCHS and 2000, 2009 MICS; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2021; (b) recent household deaths from the 1995-1996 PHS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15). In addition, the registered deaths by age and sex available through 2021 have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) siblings deaths from the 2004 FHS; (d) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1995-1996 PHS have been considered.

### **LESOTHO**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1956, 1966, 1976, 1986, 1996, 2006, 2016 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2000 MICS and 2001 DS survey estimates; (f) official estimates through 2015; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2011; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) birth-histories data from the 1977 WFS and 2004, 2009, 2014 DHS and 2018 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1971-1973, 2001, 2011 DS and 1976, 1986, 1996, 2006 censuses and 2002 RHS; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1996, 2016 censuses and 2002 RHS; (f) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2002 RHS; (g) adjusted fertility using synthetic relational Gompertz model with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2002 RHS and 2011 DS; (h) indirect estimates obtained from the application of the reverse survival method to the 1956, 1966, 1976, 1986, 1996, 2006, 2016 censuses and 1971-1973, 2001 DS and 2000 MICS; (i) cohort-completed fertility backdated by the mean age of childbearing from the 1996, 2006, 2016 censuses and 2000, 2018 MICS and 2001 DS and 2004, 2014 DHS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2016 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1955-2010 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2009; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1977 WFS and 2004, 2009, 2014 DHS and 2018 MICS; (c) indirect estimates from data on children ever born and surviving from the 1968-1969 CES and 1971-1973, 2001 DS and 1976, 1986, 1996, 2006 censuses and 2000 MICS; (d) International estimates used up to 2021. In addition, the recent household deaths from the 1971-1973, 2001 DS and 1977 WFS and 1986, 1996, 2006, 2016 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1980 Survey and 2016 Census; (b) siblings deaths from the 2004, 2009, 2014 DHS; (c) maternal orphanhood from the 1971-1973, 2001 DS and 1976, 1986, 2006 censuses and 1977 WFS and 2000 MICS and 2004, 2009 DHS; (d) paternal orphanhood from the 1971-1973, 2001 DS and 1976, 1986, 2006 censuses and 1977 WFS and 2000 MICS and 2004, 2009 DHS; (e) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1971-1973, 2001 DS and 1977 WFS and 1986, 1996, 2006 censuses have been considered.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) information on the number of migrant workers or about labor migration (in South Africa); (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

### **LIBERIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1962, 1974, 1984, 2008 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1970, 1971 PGS and 1999-2000 DHS survey estimates; (f) official estimates through 2014; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 1986, 2007, 2013, 2019-2020 DHS survey estimates have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 1986, 2007, 2013, 2019-2020 DHS and 2009, 2011, 2016 MIS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1970, 1971 PGS; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1970 PGS and 1974, 1984, 2008 censuses; (d) indirect estimates obtained from the application of the reverse survival method to the 1962, 1974, 1984, 2008 censuses and 1970, 1971 PGS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1970, 1971 PGS and 1974, 1984 censuses and 1986, 2013, 2019-2020 DHS and 2009, 2011, 2016 MIS. In addition, the (a) official estimates of age-specific fertility rates through 2014; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1984, 2008 censuses; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1971 PGS; (d) indirect estimates obtained from the application of the reverse survival method to the 1955-2010 Education Stats and 2011, 2016 MIS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 2007 DHS and 2008 Census have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2008; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1971 PGS and 1986, 2007, 2013, 2019-2020 DHS and 2009 MIS; (c) indirect estimates from data on children ever born and surviving from the 1971 PGS and 2011, 2016 MIS; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1970 PGS and 1999-2000 DHS; (b) indirect estimates from data on children ever born and surviving from the 1974, 2008 censuses; (c) recent household deaths from the 1978 NDS and 2008 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

**Adult and Old Age Mortality:** Estimates derived from: (a) recent household deaths data by age and sex from the 1970 PGS; (b) siblings deaths from the 2007, 2013, 2019-2020 DHS; (c) maternal orphanhood from the 2007 DHS; (d) paternal orphanhood from the 2007 DHS; (e) estimates of underfive, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2008 Census have been considered.

### LIBYA

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1954, 1964, 1973, 1984, 2006 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; (f) only total population for 1995 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

*Note*: 2006 census adjusted for de-facto population statistical concept, including estimates of foreignborn population.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2015; (b) birth-histories data from the 1995 MCH and 2007 FHS and 2014 NFHS; (c) indirect estimates obtained from the application of the reverse survival method to the 1954, 1964, 1973, 1984, 2006 censuses and 1956-1999 Education Stats; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1973 Census and 1995 MCH.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2009; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1995 MCH and 2007 FHS; (c) indirect estimates from data on children ever born and surviving from the 1973 Census and 2003 MICS; (d) International estimates used up to 2021. In addition, the direct estimates from births and deaths under-five calculated from full birth histories data from the 2014 NFHS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2002; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2011; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 1995 MCH; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) estimates of under-five, adult and old age mortality.

### LIECHTENSTEIN

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1980, 1990, 2000, 2010, 2015, 2020 censuses; (b) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2015 Census; (e) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1946-2016 Estimates; (f) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1990, 2000, 2010, 2015 censuses; (g) cohort-completed fertility backdated by the mean age of childbearing from the 2010 Census.

Child Mortality: Under-five mortality based on: registered infant and child deaths through 2018.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2019; (b) International estimates used up to 2021; (c) estimates of life expectancy at birth by assuming that the age pattern of mortality conforms to the CD West model life tables.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

### LITHUANIA

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) International estimates used up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15; (c) official estimates through 2021 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2012; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1945-2012 Estimates; (e) International estimates used up to 2020. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1979, 1989, 2001, 2011 censuses and 1980-2009 Education Stats and 2018 Survey; (c) cohort-completed fertility backdated by the mean age of childbearing from the 2011 Census have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) International estimates used up to 2021; (e) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2018 Survey; (d) International estimates used up to 2021; (e) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2011 Census have been considered.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

## **LUXEMBOURG**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1966, 1970, 1981, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) official estimates through 2021; (d) only total population for 1947 Census; (e) International estimates used up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2020. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1956-2010 Education Stats and 1960, 1966, 1970, 1981, 1991, 2001, 2011 censuses; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1970, 1981, 1991 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

### **MADAGASCAR**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1975, 1993, 2018 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1966 ED and 1992, 1997, 2003-2004 DHS survey estimates; (f) official estimates through 2020; (g) only total population for 1951 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2013; (b) registered births classified by age of mother and the underlying female population by age through 1981; (c) birth-histories data from the 1992, 1997, 2003-2004, 2008-2009 DHS and 2011, 2013, 2016 MIS and 2018 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1966 ED and 1975, 1993 censuses and 1980 Survey; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1993 Census; (f) indirect estimates obtained from the application of the reverse survival method to the 1966 ED and 1993, 2018 censuses and 2000 MICS and 2011, 2013, 2016 MIS; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2011 MIS; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1975 Census and 1992, 1997, 2003-2004, 2008-2009 DHS and 2000, 2018 MICS and 2011, 2013, 2016 MIS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2003; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1992, 1997, 2003-2004, 2008-2009 DHS and 2018 MICS; (c) indirect estimates from data on children ever born and surviving from the 1995, 2000 MICS and 2011, 2013, 2016 MIS; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2012-2013 ENSOMD; (b) recent household deaths from the 1966 ED and 1993 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2018; (b) adjusted for underregistration; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) siblings deaths from the 1992, 1997, 2003-2004, 2008-2009 DHS and 2018 MICS; (e) maternal orphanhood from the 1992, 1997, 2003-2004, 2008-2009 DHS and 1993 Census and 2000 MICS; (f) paternal orphanhood from the 1992, 1997, 2003-2004, 2008-2009 DHS and 1993 Census and 2000 MICS; (g) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1966 ED and 1993 Census have been considered.

### **MALAWI**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1966, 1977, 1987, 1998, 2008, 2018 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1982 MDS and 2006 MICS survey estimates; (f) official estimates through 2021; (g) only total population for 1945 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2007; (b) birth-histories data from the 1984 FFS and 1992, 2000, 2004, 2010, 2015-2016 DHS and 2006, 2013-2014 MICS and 2012, 2014, 2017 MIS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1970-1972 PCS and 1977, 1987, 1998, 2008 censuses and 1982 MDS; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1987 Census; (e) indirect estimates obtained from the application of the reverse survival method to the 1966, 1977, 1987, 1998, 2008, 2018 censuses and 2004-2005, 2010-2011 IHS and 2012, 2014, 2017 MIS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1977, 1987, 1998, 2008, 2018 censuses and 1982 MDS and 1992, 2000, 2004, 2010, 2015-2016 DHS and 2006, 2013-2014 MICS and 2012, 2014, 2017 MIS. In addition, the (a) official estimates of age-specific fertility rates through 2008; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2018 Census; (c) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1970-1972 PCS and 1984 FFS and 1992, 2000, 2004, 2010, 2015-2016 DHS and 2006, 2013-2014 MICS; (b) indirect estimates from data on children ever born and surviving from the 1977, 1987, 1998, 2008, 2018 censuses and 1982 MDS and 2014, 2017 MIS; (c) International estimates used up to 2021. In addition, the recent household deaths from the 1970-1972 PCS and 1977, 1987, 1998, 2008, 2018 censuses and 1984 FFS and 2004-2005, 2010-2011 IHS and 2010 DHS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1970 PCS Baseline and 2018 Census; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 1992, 2000, 2004, 2010, 2015-2016 DHS and 2013-2014 MICS; (d) maternal orphanhood from the 1966, 1977, 1998, 2008 censuses and 1970-1972 PCS and 1982 MDS and 1992, 2000, 2004, 2010 DHS and 2006 MICS; (e) paternal orphanhood from the 1966, 1977, 1998, 2008 censuses and 1970-1972 PCS and 1982 MDS and 1992, 2000, 2004, 2010 DHS and 2006 MICS; (f) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1970-1972 PCS and 1977, 1987, 1998, 2008 censuses and 1984 FFS and 2004-2005, 2010-2011 IHS and 2010 DHS have been considered.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) information on the number of migrant workers or about labor migration; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

## **MALAYSIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1970, 1991, 2000, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; (f) only total population for 1980, 2020 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) adjusted for underregistration; (c) birth-histories data from the 1974 WFS; (d) indirect estimates obtained from the application of the reverse survival method to the 1970, 1991, 2000, 2010 censuses. In addition, the (a) official estimates of age-specific fertility rates through 2017; (b) indirect estimates obtained from the application of the reverse survival method to the 1961-2010 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1970, 1980 censuses and 1974 WFS have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2019; (b) registered infant and child deaths through 2020; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1974 WFS; (d) indirect estimates from data on children ever born and surviving from the 1970 Census; (e) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2019; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

## **MALDIVES**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1965, 1967, 1974, 1977, 1985, 1990, 1995, 2000, 2006, 2014 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2009 DHS survey estimates; (f) official estimates through 2021; (g) only total population for 1946, 1953, 1956, 1957, 1958, 1959, 1962, 1972 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2014; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) birth-histories data from the 2009, 2016-2017 DHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1990, 2000, 2006, 2014 censuses; (e) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2006 Census; (f) indirect estimates obtained using Mortara's method with data on children ever born by age of mother from the 1977, 1985 censuses; (g) indirect estimates obtained from the application of the reverse survival method to the 1967, 1974, 1977, 1985, 1990, 1995, 2000, 2006, 2014 censuses; (h) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1995, 2000 censuses; (i) indirect estimates obtained from stable population assumption; (j) cohort-completed fertility backdated by the mean age of childbearing from the 1977, 1985, 1990, 1995, 2000, 2006 censuses and 2009, 2016-2017 DHS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1977-2010 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 2009, 2016-2017 DHS; (d) indirect estimates from data on children ever born and surviving from the 1977, 1985, 1990, 1995, 2000, 2006 censuses and 1997-1998 VPA and 2004 RHBS; (e) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

# **MALI**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1976, 1987, 1998, 2009 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2001 DHS survey estimates; (f) official estimates through 2018; (g) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1987; (b) registered births classified by age of mother and the underlying female population by age through 2001; (c) birth-histories data from the 1987, 1995-1996, 2001, 2006, 2018 DHS and 2012-2013 DHS and 2015 MICS and 2015 MIS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1998, 2009 censuses; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1956-1958, 1960-1961 ED and 1987 Census; (f) indirect estimates obtained from the application of the reverse survival method to the 1956-2010 Education Stats and 1960-1961 ED and 1976, 1987, 1998, 2009 censuses and 2009-2010 MICS and 2015 MIS; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1960-1961 ED and 1987, 2009 censuses and 1987, 1995-1996, 2001, 2006, 2018 DHS and 2012-2013 DHS and 2015 MICS and 2015 MIS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1956-1958 ED and 1987 Census; (b) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1987, 1998 censuses and 2003 WHS; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1998 Census have been considered.

**Child Mortality:** Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1987, 1995-1996, 2001, 2006, 2018 DHS and 2012-2013 DHS and 2015 MICS; (b) indirect estimates from data on children ever born and surviving from the 2009 Census and 2015 MIS; (c) International estimates used up to 2021. In addition, the (a) indirect estimates from data on children ever born and surviving from the 1976, 1987, 1998 censuses; (b) recent household deaths from the 1976, 1987, 1998, 2009 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD South model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) siblings deaths from the 1995-1996, 2001, 2006, 2018 DHS and 2012-2013 DHS; (c) maternal orphanhood from the 1987, 1998 censuses and 1995-1996, 2001 DHS; (d) paternal orphanhood from the 1987, 1998 censuses and 1995-1996, 2001 DHS; (e) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 1976, 1987, 1998, 2009 censuses; (b) maternal orphanhood from the 2006 DHS and 2009 Census; (c) paternal orphanhood from the 2006 DHS and 2009 Census have been considered.

#### **MALTA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1948, 1957, 1967, 1985, 1995, 2005, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15; (c) official estimates through 2020 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2019; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1946-2019 Estimates. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 1957, 1967, 1985, 1995, 2005, 2011 censuses; (c) cohort-completed fertility backdated by the mean age of childbearing from the 2005 Census have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2016; (b) registered deaths by age and sex available through 2021; (c) mortality rates for older ages were adjusted; (d) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

# MARSHALL ISLANDS

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1958, 1967, 1970, 1973, 1980, 1988, 1999, 2011 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2020; (e) only total population for 2021 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2016; (c) birth-histories data from the 2007 DHS; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2011 Census; (e) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1973-2016 Estimates; (f) indirect estimates obtained from the application of the reverse survival method to the 1958, 1967, 1973, 1980, 1988, 1999, 2011 censuses; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1967, 1973, 1980, 1988, 1999, 2011 censuses; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1988, 1999 censuses.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2007 DHS; (b) indirect estimates from data on children ever born and surviving from the 1973, 1980, 1988, 1999 censuses and 1985 WHS; (c) recent household deaths from the 2011 Census; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2018; (b) indirect estimates from data on children ever born and surviving from the 2011 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2011; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15). In addition, the registered deaths by age and sex available through 2011 have been considered.

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2011; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

# **MARTINIQUE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1954, 1961, 1967, 1974, 1982, 1990, 1999, 2006, 2008, 2010, 2012, 2014, 2016 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2020; (e) only total population for 1946, 2007, 2009, 2011, 2013, 2015, 2017 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 2007, 2009, 2011, 2013, 2015 censuses; (b) adjusted for under/over count; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2013; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) indirect estimates obtained from the application of the reverse survival method to the 1954, 1961, 1967, 1974, 1982, 1990, 1999, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 censuses; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1954, 1967 censuses. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1957-1989 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 1963; (b) registered infant and child deaths through 2019.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 1963; (b) registered deaths by age and sex available through 2020; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted.

# **MAURITANIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1976-1977, 1988, 2000, 2013 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2007 MICS survey estimates; (f) official estimates through 2019; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 1996; (b) birth-histories data from the 1981 WFS and 1990-1991 MCHS and 2000-2001 DHS and 2003-2004 DHS-NS and 2011, 2015 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1964-1965 PS and 1976-1977, 1988, 2000, 2013 censuses and 1981 WFS; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1964-1965 PS and 1976-1977, 1988 censuses and 1981 WFS; (e) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1988 Census; (f) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 1976-1977, 1988, 2000, 2013 censuses and 2007 MICS; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2003 WHS; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1964-1965 PS and 1981 WFS and 1988 Census and 1990-1991 MCHS and 2000-2001 DHS and 2003-2004 DHS-NS and 2007, 2011, 2015 MICS.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2013; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1981 WFS and 1990-1991 MCHS and 2000-2001 DHS and 2003-2004 DHS-NS; (c) indirect estimates from data on children ever born and surviving from the 1976-1977, 1988 censuses and 2007 MICS; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2011, 2015 MICS; (b) indirect estimates from data on children ever born and surviving from the 2013 Census; (c) recent household deaths from the 1988, 2013 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1990-1991 MCHS; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 2000-2001 DHS and 2011 MICS; (d) maternal orphanhood from the 1964-1965 PS and 1981 WFS and 2000-2001 DHS and 2007 MICS; (e) paternal orphanhood from the 1964-1965 PS and 1981 WFS and 2007 MICS; (f) estimates of underfive, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1988 Census have been considered.

# **MAURITIUS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1952, 1962, 1972, 1983, 1990, 2000, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) birth-histories data from the 2002 CPS; (e) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1985, 1991 CPS; (f) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1948-2018 Estimates; (g) indirect estimates obtained from the application of the reverse survival method to the 1952, 1962, 1972, 1983, 1990, 2000, 2011 censuses; (h) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1990, 2000 censuses; (i) cohort-completed fertility backdated by the mean age of childbearing from the 1990, 2000, 2011 censuses. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1955-2012 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2020; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) mortality rates for older ages were adjusted.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

# **MAYOTTE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1958, 1968, 1978, 1985, 1991, 1997, 2002, 2007, 2012, 2017 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; (f) only total population for 1966 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2012 Census; (d) indirect estimates obtained from the application of the reverse survival method to the 1958, 1968, 1978, 1985, 1991, 1997, 2002, 2007, 2012, 2017 censuses; (e) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1978 Census.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2019; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) estimates derived as the differences between overall population growth and natural increase.

# **MEXICO**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1980, 1990, 2000, 2010, 2020 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1995 ENPF and 2015 Intercensal Survey survey estimates; (f) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1995, 2005 Sample Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2019; (b) birth-histories data from the 1976-1977 WFS and 1978, 1979 ENPUMA and 1987 DHS and 2009, 2014, 2018 ENADID; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2000, 2010 censuses and 2015 Intercensal Survey; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1979 ENPUMA and 2000, 2010 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1990, 2000, 2010, 2020 censuses and 1995 ENPF and 1995, 2005 Sample Census and 2015 Intercensal Survey; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1976-1977 WFS. In addition, the (a) official estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1980 censuses and 1958-2010 Education Stats and 2015 MICS; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1950, 1960, 1970, 1980, 1990, 2000, 2010 censuses and 1987 DHS and 2005 Sample Census and 2015 Intercensal Survey and 2015 MICS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1976-1977 WFS and 1987 DHS and 1992, 1997, 2014, 2018 ENADID; (d) indirect estimates from data on children ever born and surviving from the 1979 ENPUMA and 1980, 1990, 2000, 2010 censuses and 2005 Sample Census and 2006 ENADID and 2015 Intercensal Survey; (e) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2006, 2009 ENADID; (b) recent household deaths from the 2015 Intercensal Survey have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

Migration: International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination (Latin American countries, Spain and United States of America); (d) information on the number of migrant workers or about labor migration (statistics compiled by the Immigration and Naturalization Service of the USA on the number of Mexicans admitted legally to that country and adjusted for undocumented migration); (e) estimates derived as the differences between overall population growth and natural increase; (f) UNHCR statistics on the number of refugees in the main countries of asylum.

# **MICRONESIA (FED. STATES OF)**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1967, 1973, 1994, 2000, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; (f) only total population for 1958, 1970, 1980 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2007; (b) adjusted for underregistration; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1973, 1980, 1994, 2000, 2010 censuses; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1994, 2000 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1956-2008 Education Stats and 1973, 1980, 1994, 2000, 2010 censuses; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1967, 1973, 1980, 1994, 2000, 2010 censuses; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1994, 2000 censuses.

**Child Mortality:** Under-five mortality based on: (a) indirect estimates from data on children ever born and surviving from the 1973, 1994, 2000, 2010 censuses; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2000; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2003; (b) adjusted for underregistration; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) estimates of under-five, adult and old age mortality.

# **MONACO**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1956, 1962, 1968, 1975, 1982, 1990, 2000, 2008, 2016 censuses; (b) adjusted for age heaping; (c) only total population for 1961 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) indirect estimates obtained from the application of the reverse survival method to the 1951, 1956, 1961, 1962, 1968, 1975, 1982, 1990, 2000, 2008, 2016 censuses; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1961 Census.

Child Mortality: Under-five mortality based on: registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2019; (b) registered deaths by age and sex available through 1986; (c) estimates of life expectancy at birth by assuming that the age pattern of mortality conforms to the CD West model life tables.

#### **MONGOLIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1956, 1963, 1969, 1979, 1989, 2000, 2010, 2020 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 2015 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) birth-histories data from the 1994, 1996 DS and 1998, 2003, 2008 RHS and 2010-2011, 2013, 2018 MICS; (e) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2000, 2010 censuses; (f) indirect estimates obtained from the application of the reverse survival method to the 1956, 1963, 1989, 2000, 2010, 2015, 2020 censuses and 1958-2011 Education Stats and 2010-2011 MICS; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1989 Census and 2010-2011, 2013, 2018 MICS. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 2000, 2005 MICS; (b) cohort-completed fertility backdated by the mean age of childbearing from the 2000, 2005 MICS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2020; (b) registered infant and child deaths through 2020; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1996 DS and 1998 RHS and 2013 MICS; (d) indirect estimates from data on children ever born and surviving from the 1994 DS and 2000, 2005, 2010-2011 MICS and 2003, 2008 RHS; (e) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1989 Census and 1994 DS and 2003, 2008 RHS and 2018 MICS; (b) indirect estimates from data on children ever born and surviving from the 1989 Census; (c) recent household deaths from the 1989, 2000, 2010 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2020; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

# **MONTENEGRO**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1953, 1961, 1971, 1981, 1991, 2003, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1948 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2012; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1953, 1961, 1971, 1981, 1991, 2003, 2011 censuses and 1992-2011 Education Stats and 2005-2006, 2013, 2018 MICS; (b) cohort-completed fertility backdated by the mean age of childbearing from the 2013, 2018 MICS have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) International estimates used up to 2021.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) International estimates used up to 2021; (g) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 1961, 1971, 1981, 1991 censuses; (d) estimates of under-five, adult and old age mortality. In addition, the recent household deaths adjusted at adult ages for underregistration using death distribution methods have been considered.

# **MONTSERRAT**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1970, 1980, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2020; (e) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1948-2020 Estimates; (d) indirect estimates obtained from the application of the reverse survival method to the 1970, 1980, 1991, 2001, 2011 censuses; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1980 Census.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2008; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2008; (b) adjusted for underreporting of infant and child deaths; (c) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2008; (b) estimates of under-five, adult and old age mortality.

# **MOROCCO**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1971, 1982, 1994, 2004, 2014 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; (f) only total population for 1952 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. *Note:* Population figures exclude Western Sahara.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) birth-histories data from the 1980 WFS and 1986-1988, 1996-1998 ENDPR and 1987, 1992, 2003-2004 DHS and 1995 DHS Special and 1997 ENSME and 1998-1999 ENNV and 2009-2010 END and 2011 ENPSF; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1961-1963 MPS and 1972-1973 VR and 1982, 1994, 2004, 2014 censuses and 1983-1984 CPS; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1972-1973 VR and 1980 WFS; (e) indirect estimates obtained from the application of the reverse survival method to the 1957-2011 Education Stats and 1960, 1971, 1982, 1994, 2004, 2014 censuses; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1980 WFS and 1982, 1994, 2004, 2014 censuses and 1987, 1992, 2003-2004 DHS and 1997 ENSME. In addition, the registered births classified by age of mother and the underlying female population by age through 2018 have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1980 WFS and 1987, 1992, 2003-2004 DHS and 1995 DHS Special and 1997 ENSME and 2011, 2018 ENPSF; (b) indirect estimates from data on children ever born and surviving from the 1982, 1994, 2004, 2014 censuses and 1983-1984 CPS; (c) recent household deaths from the 2009-2010 END; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2018; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1996-1998 ENDPR have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates of underfive mortality (5q0) by assuming that the age pattern of mortality conforms to the CD West model life tables. In addition, the registered deaths by age and sex available through 2020 have been considered.

# **MOZAMBIQUE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1980, 1997, 2007, 2017 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2008 MICS survey estimates; (f) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2013; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) birth-histories data from the 1997, 2003, 2011 DHS and 2008 MICS and 2015 AIS and 2018 MIS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1970, 1980, 1997, 2007 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1980, 1997, 2007, 2017 censuses; (f) indirect estimates obtained from stable population assumption; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1950, 1980, 1997, 2007, 2017 censuses and 1997, 2003, 2011 DHS and 2009 AIS and 2018 MIS. In addition, the births in the household in the preceding 12 (or 24) months classified by age of mother from the 2017 Census have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2019; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2003, 2011 DHS and 2008 MICS; (c) indirect estimates from data on children ever born and surviving from the 1980, 1997, 2007 censuses and 1991 NDS and 1995 MICS and 2009, 2015 AIS and 2018 MIS; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1997 DHS; (b) indirect estimates from data on children ever born and surviving from the 1950, 1970 censuses; (c) recent household deaths from the 1997, 2007, 2017 censuses and 2019-2021 MZ-SRS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 2019-2020 MZ-SRS; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 1997, 2003, 2011 DHS; (d) maternal orphanhood from the 1997, 2007 censuses and 1997, 2003 DHS and 2008 MICS; (e) paternal orphanhood from the 1997, 2003 DHS and 2007 Census and 2008 MICS; (f) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1997, 2007, 2017 censuses have been considered.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) information on the number of migrant workers or about labor migration (in South Africa); (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

# **MYANMAR**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1973, 1983, 2014 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) birth-histories data from the 1991 PCFS and 1997, 2001 FRHS and 2015-2016 DHS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1983, 2014 censuses and 2001, 2007 FRHS; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2014 Census; (e) indirect estimates obtained from the application of the reverse survival method to the 1973, 1983, 2014 censuses and 1991 PCFS and 2000 MICS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1991 PCFS and 2015-2016 DHS. In addition, the (a) registered births classified by age of mother and the underlying female population by age through 2018; (b) birth-histories data from the 2007 FRHS; (c) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1991 PCFS; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1983, 2014 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1991 PCFS and 1997, 2001, 2007 FRHS and 2002-2003 U5MS and 2009-2010 MICS and 2015-2016 DHS; (b) indirect estimates from data on children ever born and surviving from the 1983, 2014 censuses; (c) recent household deaths from the 1999 NMS; (d) International estimates used up to 2021. In addition, the registered infant and child deaths through 2018 have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD West model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) siblings deaths from the 2015-2016 DHS; (b) estimates of under-five, adult and old age mortality. In addition, the (a) deaths by age and sex available from Register through 2018; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 1991 PCFS and 2014 Census have been considered.

# **NAMIBIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1960, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1992, 2000, 2006-2007, 2013 DHS survey estimates; (f) official estimates through 2020; (g) only total population for 1946, 1970, 1981 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2011; (b) registered births classified by age of mother and the underlying female population by age through 2017; (c) birth-histories data from the 1992, 2000, 2006-2007, 2013 DHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1989 Demographic and Health Survey and 1991, 2001, 2011 censuses and 2016 NIDS; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1989 Demographic and Health Survey and 1991, 2001, 2011 censuses; (f) indirect estimates obtained from the application of the reverse survival method to the 1951, 1960, 1991, 2001, 2011 censuses and 2016 NIDS; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1989 Demographic and Health Survey; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1991, 2001 censuses and 1992, 2000, 2006-2007, 2013 DHS and 2016 NIDS. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1971-2010 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 2011 Census have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1992, 2000, 2006-2007, 2013 DHS; (b) indirect estimates from data on children ever born and surviving from the 1991, 2011 censuses; (c) recent household deaths from the 2001 Census; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2017; (b) indirect estimates from data on children ever born and surviving from the 2016 NIDS; (c) recent household deaths from the 2006-2007 DHS and 2011 Census and 2016 NIDS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2017; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) The demographic impact of AIDS has been factored into the mortality estimates; (f) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2017; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2001 Census; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) siblings deaths from the 1992, 2000, 2006-2007, 2013 DHS; (f) maternal orphanhood from the 1992, 2000, 2006-2007 DHS and 2001 Census; (g) paternal orphanhood from the 1992, 2000, 2006-2007 DHS and 2001 Census; (h) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2006-2007 DHS and 2011 Census and 2016 NIDS have been considered.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) information on the number of migrant workers or about labor migration (in South Africa); (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

# **NAURU**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1954, 1961, 1966, 1992, 2002, 2011 censuses and 2019 Mini Census; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2020; (e) only total population for 1947, 1977, 1983 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2017; (c) birth-histories data from the 2007 DHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2002 Census; (e) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1949-2017 Estimates; (f) indirect estimates obtained from the application of the reverse survival method to the 1961, 1966, 1992, 2002, 2011 censuses and 2019 Mini Census; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2002, 2011 censuses; (h) cohort-completed fertility backdated by the mean age of childbearing from the 2002 Census.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2017; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 2007 DHS; (d) indirect estimates from data on children ever born and surviving from the 2002, 2011 censuses; (e) International estimates used up to 2021. In addition, the recent household deaths from the 2011 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2011; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2011; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2011 Census; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) estimates of under-five, adult and old age mortality.

#### **NEPAL**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1952-1954, 1961, 1971, 1981, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1985-1986 FFPS survey estimates; (f) official estimates through 2021; (g) only total population for 2021 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2011; (b) birth-histories data from the 1985-1986 FFPS and 1996, 2001, 2006, 2011, 2016 DHS and 2014, 2019 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1961, 1971, 1981, 2001, 2011 censuses and 1974-1978, 1986-1987 DSS and 1976 WFS and 1981 CPS and 1991-1992 FFPHS; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1986-1987 DSS and 1995-1996, 2003-2004 LSMS; (e) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1995-1996 LSMS and 2011 Census; (f) adjusted fertility using synthetic relational Gompertz model with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1961, 1971, 1981 censuses and 1976 WFS and 1986-1987 DSS and 1991-1992 FFPHS; (g) indirect estimates obtained from the application of the reverse survival method to the 1952-1954, 1961, 1971, 1981, 1991 censuses and 1985-1986 FFPS; (h) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1976 WFS and 1991-1992 FFPHS and 1995-1996 LSMS; (i) cohort-completed fertility backdated by the mean age of childbearing from the 1961, 1971, 2001, 2011 censuses and 1995-1996, 2003-2004, 2010-2011 LSMS and 1996, 2001, 2006, 2011, 2016 DHS and 2014, 2019 MICS. In addition, the (a) birth-histories data from the 1976 WFS; (b) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2010-2011 LSMS; (c) indirect estimates obtained from the application of the reverse survival method to the 1956-2013 Education Stats and 2001, 2011 censuses; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1976 WFS and 1981, 1991 censuses and 1991-1992 FFPHS have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 1981; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1976 WFS and 1991-1992 FFPHS and 1996, 2001, 2006, 2011, 2016 DHS and 2014, 2019 MICS; (c) recent household deaths from the 2011 Census; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1974-1978 DSS and 1981 CPS and 1985-1986 FFPS; (b) indirect estimates from data on children ever born and surviving from the 1971, 1981, 1991, 2001 censuses; (c) recent household deaths from the 1981, 1991, 2001 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1981, 1991, 2011 censuses; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 1996, 2006, 2016 DHS; (d) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2001 Census have been considered.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) information on the number of workers receiving clearances to work abroad; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **NETHERLANDS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1971, 2001, 2002, 2011 censuses; (b) official estimates through 2021; (c) only total population for 1991 Census; (d) International estimates used up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2020. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1956-2005 Education Stats and 1960, 1971, 1981, 1991, 2001, 2002, 2011 censuses; (b) indirect estimates obtained from stable population assumption; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1960 Census have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **NEW CALEDONIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1956, 1963, 1969, 1976, 1983, 1989, 1996, 2004, 2009, 2014, 2019 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2017; (f) only total population for 1946, 1951 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2010; (b) registered births classified by age of mother and the underlying female population by age through 2017; (c) indirect estimates obtained from the application of the reverse survival method to the 1956, 1963, 1969, 1976, 1983, 1989, 1996, 2004, 2009, 2014, 2019 censuses and 1957-1984 Education Stats; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1951 Census.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2017; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2017; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted.

# **NEW ZEALAND**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1956, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2013, 2018 censuses; (b) adjusted for under/over count; (c) official estimates through 2020; (d) only total population for 1945 Census; (e) International estimates used up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2006 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1951, 1956, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2013, 2018 censuses and 1958-2011 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1976, 1981, 1996 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

# **NICARAGUA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1963, 1971, 1995, 2005 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1998 DHS survey estimates; (f) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 1998, 2001 DHS and 1998-1999 LSMS and 2006-2007 RHS-NDHS and 2011-2012 NDHS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1978 RETRO-EDENIC and 1995, 2005 censuses; (c) indirect estimates obtained from the application of the reverse survival method to the 1950, 1963, 1971 censuses; (d) cohort-completed fertility backdated by the mean age of childbearing from the 2005 Census. In addition, the (a) official estimates of age-specific fertility rates through 2006; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) birth-histories data from the 1992-1993 ESF-RHS; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1978 RETRO-EDENIC and 1995, 2005 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1955-2003 Education Stats and 1995, 2005 censuses and 2001 LSMS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1971, 1995 censuses and 1998, 2001 DHS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2019; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1992-1993 ESF-RHS and 1998, 2001 DHS and 2006-2007 RHS-NDHS and 2011-2012 NDHS; (d) indirect estimates from data on children ever born and surviving from the 1971, 1995, 2005 censuses and 1978 RETRO-EDENIC and 1985-1986 ESD; (e) International estimates used up to 2021. In addition, the recent household deaths from the 1995, 2005 censuses and 2001 DHS and 2001 LSMS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2017; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2017; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2001 DHS; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) siblings deaths from the 1992-1993 ESF-RHS; (f) intercensal survivorship from successive census age distributions; (g) International estimates used up to 2021; (h) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1995, 2005 censuses and 2001 LSMS have been considered.

# **NIGER**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1977, 1988, 2001, 2012 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1959-1960 ED and 2000 MICS survey estimates; (f) official estimates through 2019; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2006; (b) registered births classified by age of mother and the underlying female population by age through 2016; (c) birth-histories data from the 1992, 1998, 2006, 2012 DHS and 2015 ENISED and 2016 PMA-R2 and 2017 PMA-R4 and 2021 ENAFEME; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1959-1960 ED and 1988, 2001, 2012 censuses and 2000 MICS; (e) indirect estimates obtained from the application of the reverse survival method to the 1977, 1988, 2001, 2012 censuses and 2000 MICS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1959-1960 ED and 1992, 1998, 2006, 2012 DHS and 2000 MICS. In addition, the (a) birth-histories data from the 2015 PMA-R1 and 2018 PMA-R5; (b) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1959-1960 ED and 1988, 2001, 2012 censuses and 2000 MICS; (c) adjusted fertility using synthetic relational Gompertz model with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2012 Census; (d) indirect estimates obtained from the application of the reverse survival method to the 1956-2009 Education Stats and 2010 EMS; (e) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2001 Census; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1988, 2001 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1992, 1998, 2006, 2012 DHS and 1996 MICS and 2010 EMS; (b) indirect estimates from data on children ever born and surviving from the 2000 MICS; (c) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2015 ENISED and 2017 DHS-NS and 2021 ENAFEME; (b) indirect estimates from data on children ever born and surviving from the 1988, 2001 censuses; (c) recent household deaths from the 2001 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD South model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) siblings deaths from the 1992, 2006, 2012 DHS; (b) maternal orphanhood from the 1988 Census and 1992, 1998, 2006 DHS and 2000 MICS; (c) paternal orphanhood from the 1988 Census and 1992, 1998, 2006 DHS and 2000 MICS; (d) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 2001 Census; (b) maternal orphanhood from the 2001 Census; (c) paternal orphanhood from the 2001 Census have been considered.

# **NIGERIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1963, 1991, 2006 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1999, 2008, 2013 DHS and 2007, 2011 MICS and 2010 MIS survey estimates; (f) official estimates through 2016; (g) only total population for 1952-1953, 1973 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 1981-1982 WFS and 1990, 1999, 2003, 2008, 2013, 2018 DHS and 2010, 2015 MIS and 2016 PMA-R3 and 2017 PMA-R4; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2000 SSNPP and 2011 MICS; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1952-1953, 1991 censuses and 1971-1975 FFFP and 2000 SSNPP and 2007 MICS; (d) indirect estimates obtained from the application of the reverse survival method to the 1963, 1991, 2006 censuses and 2007, 2011, 2016-2017 MICS and 2010-2011 GHS and 2015 MIS; (e) indirect estimates obtained from stable population assumption; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1971-1975 FFFP and 1981-1982 WFS and 1990, 1999, 2003, 2008, 2013, 2018 DHS and 2007, 2011, 2016-2017 MICS and 2010, 2015 MIS. In addition, the (a) official estimates of age-specific fertility rates through 1991; (b) registered births classified by age of mother and the underlying female population by age through 2007; (c) adjusted for underregistration; (d) birth-histories data from the 2007 MICS; (e) indirect estimates obtained from the application of the reverse survival method to the 1955-2003 Education Stats and 2012-2013 GHS; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2007, 2011 MICS and 2010-2011 GHS have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 1989; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1990, 2003, 2008, 2013, 2018 DHS and 2010 MIS; (c) indirect estimates from data on children ever born and surviving from the 2011 MICS; (d) recent household deaths from the 1965-1966 DSS; (e) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1981-1982 WFS and 1999 DHS and 2016-2017 MICS; (b) recent household deaths from the 2008, 2013 DHS and 2010-2011, 2012-2013 GHS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1965-1966 DSS and 2007 GHS; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 1999, 2008, 2013, 2018 DHS; (d) maternal orphanhood from the 1999, 2003, 2008 DHS and 2007 MICS; (e) paternal orphanhood from the 1999, 2003, 2008 DHS and 2007 MICS; (f) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2008, 2013 DHS and 2012-2013 GHS have been considered.

# NIUE

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1956, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1997, 2001, 2006, 2011, 2017 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2020; (e) only total population for 1945 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2001 Census; (c) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1948-2020 Estimates; (d) indirect estimates obtained from the application of the reverse survival method to the 1951, 1956, 1961, 1966, 1971, 1976, 1981, 1986, 1997, 2001, 2011, 2017 censuses; (e) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1976, 1994, 1997 censuses; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1956, 1961, 1976, 1986, 1991, 1997 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2017; (b) indirect estimates from data on children ever born and surviving from the 1961, 1986, 1991, 1997, 2001 censuses; (c) International estimates used up to 2021. In addition, the recent household deaths from the 2011 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2011; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2011; (b) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) estimates derived as the differences between overall population growth and natural increase; (b) UNHCR statistics on the number of refugees in the main countries of asylum.

# **NORTH MACEDONIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1953, 1961, 1971, 1981, 1991, 1994, 2002 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) official estimates through 2020; (b) only total population for 1948 Census have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) birth-histories data from the 2018-2019 MICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 2018-2019 MICS; (f) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1953, 1961, 1971, 1981, 1991, 1994, 2002 censuses and 1978-2010 Education Stats and 2005, 2011 MICS; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1994, 2002 censuses and 2005 MICS have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021; (c) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2018-2019 MICS; (b) indirect estimates from data on children ever born and surviving from the 2005 MICS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2019; (c) adjusted for underreporting of infant and child deaths; (d) mortality rates for older ages were adjusted; (e) International estimates used up to 2021; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15). In addition, the adult deaths adjusted for underregistration using death distribution methods have been considered.

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2019; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

# **NORTHERN MARIANA ISLANDS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1958, 1967, 1970, 1973, 1980, 1990, 1995, 2000, 2010 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2019; (e) only total population for 1950, 2020 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2019; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1970 KAP Survey; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1979-2019 Estimates; (e) indirect estimates obtained from the application of the reverse survival method to the 1980, 1990, 1995, 2010 censuses and 2003 Census of Micronesians; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1967, 1973, 1980, 1990, 1995, 2000 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2006; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2009; (b) adjusted for underreporting of infant and child deaths; (c) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2009; (b) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) estimates derived as the differences between overall population growth and natural increase.

# **NORWAY**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1980, 1990, 2001, 2011 censuses; (b) official estimates through 2021; (c) only total population for 1946 Census; (d) International estimates used up to 2022; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2021. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1980, 1990, 2001, 2011 censuses and 1956-2010 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1950, 1960 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

# **OMAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1993, 2003, 2010, 2020 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) population register through 2021; (f) official estimates through 2019; and with estimates of the subsequent trends in fertility, mortality and international migration.

*Note*: Used official estimates of population by sex and single year of age as reported to the Demographic Yearbook for 2013, 2014, 2015, 2016, 2017, and 2019.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) birth-histories data from the 1995 FHS and 2014 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1984-1989 DSS and 2000 NHS and 2003 Census; (d) indirect estimates obtained using Mortara's method with data on children ever born by age of mother from the 1975, 1979 SDS; (e) indirect estimates obtained from the application of the reverse survival method to the 1993, 2003, 2010, 2020 censuses; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1984-1989 DSS and 1993 Census and 1995 FHS and 2000 NHS. In addition, the (a) official estimates of age-specific fertility rates through 2018; (b) birth-histories data from the 1988-1989 CHS; (c) indirect estimates obtained from the application of the reverse survival method to the 1958-2011 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1988-1989 CHS and 1995 FHS; (d) indirect estimates from data on children ever born and surviving from the 1979 SDS and 1993, 2003 censuses and 2000 NHS; (e) recent household deaths from the 2003 Census; (f) International estimates used up to 2021. In addition, the direct estimates from births and deaths under-five calculated from full birth histories data from the 2014 MICS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2021; (c) adjusted for underregistration; (d) adjusted for underreporting of infant and child deaths; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) estimates of under-five, adult and old age mortality.

# **PAKISTAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1972, 1981, 1998, 2017 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1962-1965 PGE and 1968-1971 PGS and 1973 HED Survey and 1990-1991, 2006-2007 DHS survey estimates; (f) official estimates through 2015; (g) only total population for 1951 Census and 1960 Housing Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the population register through 2019 have been considered. *Note:* 1972, 1998 and 2017 censuses adjusted to include Azad Kashmir and Gilgit-Baltistan.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2006; (b) birth-histories data from the 1968-1969 NIS and 1975 WFS and 1976-1979 PGS and 1979-1980 LFMS and 1993, 1994-1995 CPS and 1995-1996, 1998-1999, 2001-2002 IHS and 1996-1997 FFPS and 2000-2001 RHFPS and 2003 SWRHFPS and 2005-2006 LSMS and 2006-2007, 2012-2013, 2017-2018 DHS and 2018-2019 PMMS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1962-1965 PGE and 1962-1984, 1991-1992, 1992-1993, 1994, 1995-1996, 1996-1997, 2000, 2001, 2005, 2006, 2007 Annual PDS and 1968-1971 PGS and 1984-1985 CPS and 1998 Census; (d) adjusted fertility using synthetic relational Gompertz model with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1962-1984, 1966-1988 Annual PDS and 1968-1971 PGS and 1975 WFS and 1984-1985, 1994-1995 CPS and 1995-1996, 1996-1997, 1998-1999, 2001-2002 IHS and 1996-1997 FFPS and 1998 Census and 2000-2001 RHFPS and 2005-2006 LSMS; (e) indirect estimates obtained from the application of the reverse survival method to the 1981 Census and 2001, 2006, 2007 Annual PDS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1962-1984, 1966-1988 Annual PDS and 1975 WFS and 1981 Population Census and 1990-1991, 2006-2007, 2012-2013, 2017-2018 DHS and 1995-1996, 1998-1999, 2001-2002 IHS and 1996-1997 FFPS and 1998 Census and 2000-2001 RHFPS and 2005-2006 LSMS. In addition, the (a) official estimates of age-specific fertility rates through 2018; (b) birthhistories data from the 1990-1991 DHS and 2007-2008, 2011-2012 LSMS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1999, 2003 Annual PDS; (d) indirect estimates obtained from the application of the reverse survival method to the 1957-2012 Education Stats and 1972, 1998, 2017 censuses and 1973 HED Survey and 2003 Annual PDS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1973 HED Survey have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1968-1971, 1976-1979 PGS and 1975 WFS and 1979-1980 LFMS and 1990-1991, 2006-2007, 2012-2013, 2017-2018 DHS and 1991, 1998-1999, 2001-2002 IHS and 1996-1997 FFPS and 2000-2001 RHFPS and 2018-2019 PMMS; (c) indirect estimates from data on children ever born and surviving from the 1981, 1998 censuses and 1984-1985, 1994-1995 CPS and 1995-1996 IHS; (d) recent household deaths from the 1962-1965 PGE and 1963-1991, 1969-1985, 1984-1986, 1985-1987, 1988-1990, 1989-1991, 1990-1992, 1991-1993, 1992-1994, 1993-1995, 1994-1996, 1995-1997, 1996-1998, 1999, 2000, 2001, 2003, 2005, 2006, 2007 Annual PDS; (e) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1968-1969 NIS and 1995-1996, 2005-2006, 2007-2008 IHS and 2003 SWRHFPS and 2013-2014 LSMS; (b) recent household deaths from the 1968-1971, 1976-1979 PGS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) adult deaths adjusted for underregistration using death distribution methods; (c) estimates using CD West model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1962-1965 PGE and 1968-1971, 1976-1979 PGS and 1983-1984, 1984-1985, 1985-1986, 1986-1987, 1987-1988, 1988-1989, 1989-1990, 1990-1991, 1991-1992, 1992-1993, 1993-1994, 1994-1995, 1995-1996, 1996-1997, 1999, 2000, 2001, 2003, 2005, 2006, 2007 Annual PDS; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) estimates of under-five, adult and old age mortality. In addition, the recent household deaths adjusted at adult ages for underregistration using death distribution methods have been considered.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

# **PALAU**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1958, 1967, 1970, 1973, 1980, 1986, 1990, 1995, 2000, 2005, 2012, 2015 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2018; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2018; (c) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1967-2018 Estimates; (d) indirect estimates obtained from the application of the reverse survival method to the 1958, 1967, 1970, 1973, 1980, 1986, 1990, 1995, 2000, 2005, 2012, 2015 censuses; (e) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1967, 1973, 1980, 1990, 1995, 2000, 2005, 2012 censuses; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1995, 2000, 2005 censuses. In addition, the births in the household in the preceding 12 (or 24) months classified by age of mother from the 1980 Census have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2018; (c) indirect estimates from data on children ever born and surviving from the 1980 Census; (d) International estimates used up to 2021. In addition, the indirect estimates from data on children ever born and surviving from the 1973, 1995, 2000, 2005, 2015 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2018; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2018; (b) estimates of under-five, adult and old age mortality.

#### **PANAMA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1980, 1990, 2000, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1990, 2000, 2010 censuses and 2013 MICS; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1990, 2000, 2010 censuses; (d) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1980, 1990, 2000, 2010 censuses and 2013 MICS. In addition, the (a) official estimates of age-specific fertility rates through 2017; (b) adjusted for underregistration; (c) birth-histories data from the 1975-1976 WFS; (d) indirect estimates obtained from the application of the reverse survival method to the 1955-2010 Education Stats; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1950, 1980, 1990, 2000, 2010 censuses and 1975-1976 WFS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1975-1976 WFS; (c) indirect estimates from data on children ever born and surviving from the 1980, 1990, 2000, 2010 censuses; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2021; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1975-1977 EDN; (c) recent household deaths from the 2000 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2019; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

# **PAPUA NEW GUINEA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1966, 1971, 1980, 1990, 2000, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; (f) only total population for 1954 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1960 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2000; (b) registered births classified by age of mother and the underlying female population by age through 2003; (c) birth-histories data from the 1996, 2006, 2016-2018 DHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1971, 1980 censuses and 1979-1980 DS; (e) indirect estimates obtained from the application of the reverse survival method to the 1960, 1966, 1971, 1980, 1990, 2000, 2011 censuses; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1980, 1990, 2000, 2011 censuses; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1980, 2000 censuses and 1996 LSMS and 2016-2018 DHS. In addition, the (a) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1971 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2008 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1996, 2006, 2016-2018 DHS; (b) indirect estimates from data on children ever born and surviving from the 1966, 1971, 2000 censuses and 1991 DHS; (c) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2000; (b) indirect estimates from data on children ever born and surviving from the 1980, 2011 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2000; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2000; (b) adjusted for underregistration; (c) siblings deaths from the 2016-2018 DHS; (d) estimates of under-five, adult and old age mortality.

#### **PARAGUAY**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1962, 1972, 1982, 1992, 2002, 2012 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1990 DHS survey estimates; (f) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 1979 WFS and 1990 DHS and 1995-1996 ENDSR-RHS and 1998 ENSMI-RHS and 2004, 2008 ENDSSR-RHS and 2016 MICS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1982, 1992, 2002 censuses; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1982, 1992, 2002 censuses; (d) indirect estimates obtained from the application of the reverse survival method to the 1972, 1982, 1992, 2002, 2012 censuses; (e) cohort-completed fertility backdated by the mean age of childbearing from the 2016 MICS. In addition, the (a) official estimates of age-specific fertility rates through 2005; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) indirect estimates obtained from the application of the reverse survival method to the 1950, 1962 censuses and 1955-2009 Education Stats; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1962, 1972, 1982, 1992, 2002 censuses and 1979 WFS and 1990 DHS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1979 WFS and 1990 DHS and 1995-1996 ENDSR-RHS and 2004, 2008 ENDSSR-RHS; (c) indirect estimates from data on children ever born and surviving from the 1972, 1982, 1992, 2002 censuses and 1977 EDN; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2021; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2016 MICS; (c) recent household deaths from the 2002 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) siblings deaths from the 1995-1996 ENDSR-RHS; (e) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2002 Census have been considered.

#### **PERU**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1961, 1972, 1981, 1993, 2007, 2017 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 2005 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 1986, 1991-1992, 1996, 2000, 2004, 2004-2006, 2007-2008, 2009, 2010, 2011, 2012, 2013 DHS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1993, 2007, 2017 censuses; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1993, 2007 censuses; (d) indirect estimates obtained from the application of the reverse survival method to the 1972, 1981, 1993, 2005, 2007, 2017 censuses. In addition, the (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2017 Census; (d) indirect estimates obtained from the application of the reverse survival method to the 1955-2011 Education Stats and 1961 Census and 1977-1978 WFS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1961, 1972, 1981, 1993, 2007, 2017 censuses and 1977-1978 WFS and 1991-1992, 1996, 2000, 2009, 2010, 2011, 2012 DHS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1974-1976 EDN and 1977-1978 WFS and 1986, 1991-1992, 1996, 2000, 2007-2008, 2009, 2010, 2011, 2012, 2013, 2014, 2017, 2018, 2019, 2020 DHS; (c) indirect estimates from data on children ever born and surviving from the 1972, 1981, 1993, 2007, 2017 censuses and 1981 ENPA; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2021; (b) recent household deaths from the 2018, 2019, 2020 DHS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) siblings deaths from the 1991-1992, 1996, 2000, 2004-2006, 2009, 2010, 2011, 2012, 2013, 2014 DHS; (e) intercensal survivorship from successive census age distributions; (f) International estimates used up to 2021; (g) estimates of underfive, adult and old age mortality.

#### **PHILIPPINES**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1948, 1960, 1970, 1975, 1980, 1990, 1995, 2000, 2007, 2010, 2015 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) 1956, 1958 SSH and 1993, 1998 DHS and 1999 MICS survey estimates; (e) official estimates through 2021; (f) only total population for 2020 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under/over count have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 1978 WFS and 1983 DS and 1986 CPS and 1993, 1998, 2003, 2008, 2013, 2017 DHS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2000 Census and 2006 Annual FPS and 2011 FHS; (c) indirect estimates obtained from the application of the reverse survival method to the 1960, 1970, 1975, 1980, 1990, 1995, 2000, 2007, 2010, 2015 censuses and 1999 MICS; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1978 WFS and 2003, 2008, 2013, 2017 DHS. In addition, the (a) official estimates of age-specific fertility rates through 2005; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2010 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1993, 1998 DHS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1978 WFS and 1993, 1998, 2003, 2008, 2013, 2017 DHS and 2011 FHS; (c) indirect estimates from data on children ever born and surviving from the 1988 DS and 2006 Annual FPS; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2019; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2006 Annual FPS; (c) indirect estimates from data on children ever born and surviving from the 1970, 1980 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates of under-five mortality (5q0) by assuming that the age pattern of mortality conforms to the CD West model life tables.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) information on the number of migrant workers or about labor migration; (c) information on the number of workers receiving clearances to work abroad; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **POLAND**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1978, 1988, 2002, 2011 censuses; (b) adjusted for under/over count; (c) official estimates through 2020; (d) only total population for 1946 Census and 1974, 1984, 1995 Microcensus; (e) International estimates used up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2019; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) International estimates used up to 2020. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1978, 1988, 2002, 2011 censuses and 1956-2009 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1970 Census have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **PORTUGAL**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1981, 1991, 2001, 2011 censuses; (b) official estimates through 2020; (c) International estimates used up to 2022; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) birth-histories data from the 1979-1980 WFS; (e) International estimates used up to 2021. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1981, 1991, 2001, 2011 censuses and 1956-2005 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1970, 1981, 1991 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021. In addition, the direct estimates from births and deaths under-five calculated from full birth histories data from the 1979-1980 WFS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

## **PUERTO RICO**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1980, 1990, 2000, 2010 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) 2005 PRCS survey estimates; (e) official estimates through 2019; (f) only total population for 2020 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under/over count have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2010 Census; (d) indirect estimates obtained from the application of the reverse survival method to the 1958-2009 Education Stats and 1960, 1970, 1980, 1990, 2000, 2010 censuses and 2005 PRCS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1970, 1980, 1990 censuses.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2010; (b) registered infant and child deaths through 2020.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2020.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates derived as the differences between overall population growth and natural increase; (c) UNHCR statistics on the number of refugees in the main countries of asylum.

# **QATAR**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1986, 1997, 2004, 2010, 2015, 2020 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2020; (e) only total population for 1970 Census; and with estimates of the subsequent trends in fertility, mortality and international

*Note:* Used official estimates of population by sex and single year of age as reported to the Demographic Yearbook for 2005, 2007, 2008, 2009, 2013, 2014, 2016, 2017, 2018, and 2019.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) birth-histories data from the 1987 CHS and 1998 FHS; (e) indirect estimates obtained from the application of the reverse survival method to the 2004, 2010, 2015, 2020 censuses and 2012 MICS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1986 Census and 1987 CHS and 1998 FHS; (g) International estimates used up to 2019. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 1986, 1997 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1987 CHS; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1998 FHS; (b) indirect estimates from data on children ever born and surviving from the 2004 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2019; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15). In addition, the official estimates through 2007 have been considered.

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2019; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

# REPUBLIC OF KOREA

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1949, 1955, 1960, 1966, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015, 2020 censuses; (b) adjusted for under/over count; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2021; (e) International estimates considered up to 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) birth-histories data from the 1974 WFS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1971 FAS; (e) indirect estimates based on the increment of cohort parities between successive censuses or surveys such as the 1945-2021 Estimates; (f) indirect estimates obtained from the application of the reverse survival method to the 1955, 1960, 1966, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015, 2020 censuses and 1956-2010 Education Stats; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1966, 1970 censuses; (h) International estimates used up to 2019. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1966 SDS and 1968, 1973 FFPS; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1966, 1970, 1975, 1980, 1985, 1990, 2000 censuses and 1974 WFS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1974 WFS; (d) indirect estimates from data on children ever born and surviving from the 1970, 1975, 1980, 1985, 1990 censuses; (e) International estimates used up to 2021. In addition, the direct estimates from births and deaths under-five calculated from full birth histories data from the 1971 FAS and 1988 NFFHS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) International estimates used up to 2021.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

# REPUBLIC OF MOLDOVA

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 2004, 2014 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 2005 DHS survey estimates; (b) official estimates through 2021; (c) adjusted to reflect de-facto population have been considered.

*Note:* Estimates based on the statistical concept of usual resident population. Population for 2004 and 2014 censuses adjusted to include Transnistria.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) birth-histories data from the 1997 RHS and 2005 DHS and 2012 MICS; (e) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1945-2020 Estimates; (f) indirect estimates obtained from the application of the reverse survival method to the 2000 MICS and 2004, 2014 censuses. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1979, 1989 censuses and 1977-2010 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1989, 2004, 2014 censuses and 2005 DHS and 2012 MICS have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2020; (b) registered infant and child deaths through 2021; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 2005 DHS and 2012 MICS; (d) indirect estimates from data on children ever born and surviving from the 1989 Census; (e) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2020; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) mortality rates for older ages were adjusted; (e) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

# **RÉUNION**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1954, 1961, 1967, 1974, 1982, 1990, 1999, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; (f) only total population for 1946, 1993, 2017 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) indirect estimates obtained from the application of the reverse survival method to the 1954, 1961, 1967, 1974, 1982, 1990, 1999, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 censuses and 1956-1989 Education Stats and 2004-2016 Rolling-Census; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1954 Census. In addition, the cohort-completed fertility backdated by the mean age of childbearing from the 1967 Census have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 1961; (b) registered infant and child deaths through 2019.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 1961; (b) registered deaths by age and sex available through 2020; (c) mortality rates for older ages were adjusted.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) estimates derived as the differences between overall population growth and natural increase.

#### **ROMANIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1948, 1956, 1966, 1977, 1992, 2002, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2019; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) birth-histories data from the 1999 RHS; (e) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1945-2019 Estimates; (f) International estimates used up to 2019. In addition, the (a) birth-histories data from the 1993, 2004 RHS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011 Census; (c) indirect estimates obtained from the application of the reverse survival method to the 1956, 1966, 1977, 1992, 2002, 2011 censuses and 1956-2010 Education Stats; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1966, 1977, 1992, 2002, 2011 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021. In addition, the direct estimates from births and deaths under-five calculated from full birth histories data from the 1999 RHS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2021; (c) mortality rates for older ages were adjusted; (d) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

## **RUSSIAN FEDERATION**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 2002, 2010 censuses; (b) adjusted for under/over count; (c) official estimates through 2020; (d) International estimates used up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the (a) birth-histories data from the 2011 RHS; (b) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1979, 1989, 2002, 2010 censuses and 1979-2008 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1989, 2002, 2010 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) indirect estimates from data on children ever born and surviving from the 1989 Census.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2020; (c) mortality rates for older ages were adjusted; (d) International estimates used up to 2021.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **RWANDA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1978, 1991, 2002, 2012 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1952 ED and 1992, 2000, 2005, 2014-2015, 2019-2020 DHS and 2000 MICS and 2007-2008 DHS Interim survey estimates; (f) official estimates through 2019; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2012; (b) registered births classified by age of mother and the underlying female population by age through 2012; (c) birth-histories data from the 1983 WFS and 1992, 2000, 2005, 2010, 2014-2015, 2019-2020 DHS and 2007-2008 DHS Interim and 2013, 2017 MIS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1970, 1981 ED and 1978, 1991, 2002 censuses; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1981 ED and 1991 Census and 1996 SDS; (f) indirect estimates obtained from the application of the reverse survival method to the 1978, 1991, 2012 censuses and 2019-2020 DHS; (g) indirect estimates obtained from stable population assumption; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1970 ED and 1978, 1991, 2002, 2012 censuses and 1983 WFS and 1992, 2000, 2005, 2010, 2014-2015, 2019-2020 DHS and 2007-2008 DHS Interim and 2013, 2017 MIS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2012 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2010 Education Stats and 2000 MICS and 2002 Census and 2013, 2017 MIS have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1983 WFS and 1992, 2000, 2005, 2010, 2014-2015, 2019-2020 DHS and 2007-2008 DHS Interim; (b) indirect estimates from data on children ever born and surviving from the 1970 ED and 1978, 1991, 2002, 2012 censuses and 1996 SDS and 2013, 2017 MIS; (c) International estimates used up to 2021. In addition, the recent household deaths from the 2002, 2012 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 2005 DHS; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 2000, 2005, 2010, 2014-2015 DHS; (d) maternal orphanhood from the 1991, 2002 censuses and 1992, 2000, 2005, 2010 DHS and 1996 SDS and 2000 MICS; (e) paternal orphanhood from the 1991, 2002 censuses and 1992, 2000, 2005, 2010 DHS and 1996 SDS and 2000 MICS; (f) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2002, 2012 censuses have been considered.

# SAINT BARTHÉLEMY

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1966, 1999, 2010, 2014, 2018 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) only total population for 1954, 1974, 1982, 1990, 2006, 2007, 2008, 2009, 2011, 2012, 2013, 2017 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 2015, 2016 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2017; (b) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1950-2017 Estimates; (c) indirect estimates obtained from the application of the reverse survival method to the 1999, 2010, 2015, 2016 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2012; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2012; (b) estimates of life expectancy at birth by assuming that the age pattern of mortality conforms to the CD West model life tables.

**Migration:** International migration based on: estimates derived as the differences between overall population growth and natural increase.

# SAINT HELENA

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the 1946, 1956, 1966, 1976, 1987, 1998, 2008, 2016, 2021 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1970-2020 Estimates; (c) indirect estimates obtained from the application of the reverse survival method to the 1956, 1966, 1976, 1987, 1998, 2008, 2016 censuses.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2020; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socioeconomic conditions.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2020; (b) estimates of life expectancy at birth by assuming that the age pattern of mortality conforms to the CD West model life tables.

**Migration:** International migration based on: estimates derived as the differences between overall population growth and natural increase.

#### SAINT KITTS AND NEVIS

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1970, 1980, 1991, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2010; (f) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2019; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1950-2019 Estimates; (d) indirect estimates obtained from the application of the reverse survival method to the 1960, 1970, 1980, 1991, 2001, 2011 censuses; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1980 Census.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2017; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2015; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2016; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) estimates derived as the differences between overall population growth and natural increase; (b) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **SAINT LUCIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1970, 1980, 1991, 2001, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; (f) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2012; (b) registered births classified by age of mother and the underlying female population by age through 2015; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2001 Census; (d) indirect estimates obtained from the application of the reverse survival method to the 1960, 1970, 1980, 1991, 2001, 2010 censuses and 1960-2012 Education Stats and 2012 MICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1980, 1991 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2019; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2018; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2018; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

# **SAINT MARTIN (FRENCH PART)**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1982, 1990, 1999, 2010, 2014, 2018 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2021; (e) only total population for 1954, 1974, 2006, 2007, 2008, 2009, 2011, 2012, 2013, 2015, 2016, 2017 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 2015, 2016 censuses have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2019; (b) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1968-2019 Estimates; (c) indirect estimates obtained from the application of the reverse survival method to the 1999, 2010, 2015, 2016 censuses.

Child Mortality: Under-five mortality based on: registered infant and child deaths through 2018.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2018; (b) estimates of life expectancy at birth by assuming that the age pattern of mortality conforms to the CD West model life tables.

**Migration:** International migration based on: estimates derived as the differences between overall population growth and natural increase.

# SAINT PIERRE AND MIQUELON

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1957, 1962, 1974, 1982, 1990, 1999, 2006, 2012, 2014, 2016, 2018 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2018; (e) only total population for 1945, 1967, 2007, 2008, 2009, 2010, 2011, 2013, 2017 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2019; (b) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1948-2019 Estimates; (c) indirect estimates obtained from the application of the reverse survival method to the 1951, 1957, 1962, 1967, 1974, 1982, 1990, 1999, 2006, 2016 censuses and 2004-2016 Rolling Census; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1951 Census.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2008; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2008; (b) adjusted for underreporting of infant and child deaths; (c) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2008; (b) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) estimates derived as the differences between overall population growth and natural increase.

#### SAINT VINCENT AND THE GRENADINES

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1980, 1991, 2001, 2012 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; (f) only total population for 1946, 1970 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) indirect estimates obtained from the application of the reverse survival method to the 1960, 1980, 1991, 2001, 2012 censuses; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1980, 1991 censuses. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1958-2012 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2019; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2019; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted.

# SAMOA

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1956, 1961, 1966, 1976, 1981, 1986, 1991, 2001, 2006, 2011, 2016 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; (f) only total population for 1945, 1971 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the 2019-2020 MICS survey estimates have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2014; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) birth-histories data from the 2009, 2014 DHS and 2019-2020 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1981, 1991, 2001, 2006, 2011, 2016 censuses and 1999 DHS; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1966, 1971, 1976, 1986, 1991, 2001, 2006, 2011 censuses; (f) indirect estimates obtained from the application of the reverse survival method to the 1951, 1956, 1961, 1966, 1976, 1986, 1991, 2001, 2006, 2011, 2016 censuses and 1957-2012 Education Stats and 2000 DVSS; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1961, 1966, 1971, 1986, 1991 censuses; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1956, 1961, 1966, 1971, 1976, 1981, 2001 censuses. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 2019-2020 MICS; (b) cohort-completed fertility backdated by the mean age of childbearing from the 2019-2020 MICS; have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2019-2020 MICS; (b) indirect estimates from data on children ever born and surviving from the 1956, 1961, 1966, 1976, 1981, 2001, 2006, 2016 censuses and 1999 DHS and 2000 DVSS; (c) recent household deaths from the 1999 DHS and 2011 Census; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2016; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2009, 2014 DHS; (c) indirect estimates from data on children ever born and surviving from the 1971 Census; (d) recent household deaths from the 2000 DVSS and 2001, 2006, 2016 censuses have been considered.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15). In addition, the (a) registered deaths by age and sex available through 2016; (b) registered deaths by age and sex available through 2016; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 2011 Census; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) estimates of under-five, adult and old age mortality. In addition, the (a) deaths by age and sex available from Register through 2016; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2000 DVSS and 2006, 2016 censuses have been considered.

#### **SAN MARINO**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1976, 2010 censuses; (b) official estimates through 2021; (c) only total population for 2000 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1948-2020 Estimates; (e) indirect estimates obtained from the application of the reverse survival method to the 1976, 2010 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) International estimates used up to 2021; (d) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

#### SAO TOME AND PRINCIPE

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1970, 1981, 1991, 2001, 2012 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15; (c) 2019 MICS survey estimates have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2017; (b) birth-histories data from the 2008-2009 DHS and 2014, 2019 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1991, 2001 censuses and 2014 MICS; (d) indirect estimates obtained from the application of the reverse survival method to the 1960, 1970, 1981, 1991, 2001, 2012 censuses and 2000 MICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1981, 1991 censuses and 2000, 2014, 2019 MICS and 2008-2009 DHS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1962-2010 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2008-2009 DHS and 2014, 2019 MICS; (b) indirect estimates from data on children ever born and surviving from the 1981, 1991 censuses and 2000 MICS; (c) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2012; (b) recent household deaths from the 2012 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2017; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2017; (b) adjusted for underregistration; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) siblings deaths from the 2008-2009 DHS and 2014 MICS; (e) maternal orphanhood from the 2000, 2006 MICS and 2008-2009 DHS; (f) paternal orphanhood from the 2000, 2006 MICS and 2008-2009 DHS; (g) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2012 Census have been considered.

# **SAUDI ARABIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1974, 1992, 2004, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2009; (c) birth-histories data from the 1987 CHS and 1996-1997 FHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1999, 2000, 2007 DS and 2004, 2010 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1974, 1992, 2004, 2010 censuses and 2016 DS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1996-1997 FHS and 1999, 2007 DS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1964-2011 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2018 HHS; (c) indirect estimates from data on children ever born and surviving from the 1987 CHS and 1996-1997 FHS; (d) recent household deaths from the 1999, 2000, 2007, 2016, 2017 DS and 2004 Census; (e) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2013; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1996-1997 FHS and 2004 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2018; (c) adjusted for underregistration; (d) adjusted for underreporting of infant and child deaths; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) recent household deaths data by age and sex from the 2004, 2010 censuses and 2007, 2016 DS; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) estimates of under-five, adult and old age mortality.

#### **SENEGAL**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1976, 1988, 2002, 2013 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1960-1961 ED and 1991 Survey and 1992-1993, 1997, 2005 DHS and 2000 MICS survey estimates; (f) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 1970; (c) birth-histories data from the 1978 WFS and 1986, 1992-1993, 1997, 2005, 2010-2011, 2012-2013, 2014, 2015, 2016, 2017, 2018, 2019 DHS and 2006, 2008-2009 MIS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1970-1971 ED and 2000 MICS and 2002, 2013 censuses; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1960-1961 ED and 1978 WFS; (f) indirect estimates obtained from the application of the reverse survival method to the 1960-1961 ED and 1976, 1988, 2002, 2013 censuses and 1991 Survey and 2000 MICS and 2012-2014 DHS; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1988, 2002 censuses; (h) cohortcompleted fertility backdated by the mean age of childbearing from the 1960-1961 ED and 1978 WFS and 1986, 1992-1993, 1997, 2005, 2010-2011, 2012-2013, 2012-2014, 2014, 2015, 2016, 2017, 2018, 2019 DHS and 2006, 2008-2009 MIS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1988 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 2006, 2008-2009 MIS; (c) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2003 WHS; (d) cohort-completed fertility backdated by the mean age of childbearing from the 2002, 2013 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1978 WFS and 1986, 1992-1993, 1997, 1999, 2005, 2010-2011, 2012-2013, 2014, 2015, 2016, 2017, 2018, 2019 DHS and 2000 MICS and 2008-2009 MIS; (c) indirect estimates from data on children ever born and surviving from the 1960-1961 ED and 2006 MIS; (d) recent household deaths from the 1970-1971, 1978-1979 ED; (e) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1960-1961 ED; (b) indirect estimates from data on children ever born and surviving from the 2002, 2013 censuses; (c) recent household deaths from the 2002, 2013 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) estimates using CD South model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) maternal orphanhood from the 1992-1993, 2005, 2010-2011 DHS and 2000 MICS; (c) paternal orphanhood from the 1992-1993, 2005 DHS and 2000 MICS; (d) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 2002, 2013 censuses; (b) siblings deaths from the 1992-1993, 2005, 2010-2011 DHS; (c) maternal orphanhood from the 1986 DHS and 1988 Census; (d) paternal orphanhood from the 1986, 2010-2011 DHS and 1988 Census have been considered.

# **SERBIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1953, 1961, 1971, 1981, 1991, 2002, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under enumeration of children under age 15; (b) official estimates through 2020 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2019; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2010, 2014 MICS; (b) indirect estimates obtained from the application of the reverse survival method to the 1953, 1961, 1971, 1981, 1991, 2011 censuses and 1984-2010 Education Stats and 2005-2006, 2010, 2014, 2019 MICS; (c) cohort-completed fertility backdated by the mean age of childbearing from the 2002 Census and 2005-2006, 2010, 2014, 2019 MICS have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) mortality rates for older ages were adjusted; (e) International estimates used up to 2021; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2021; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 1953, 1961, 1971, 1991 censuses; (d) estimates of under-five, adult and old age mortality. In addition, the recent household deaths adjusted at adult ages for underregistration using death distribution methods have been considered.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

## **SEYCHELLES**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1971, 1977, 1987, 1994, 1997, 2002, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; (f) only total population for 1951 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2014; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2010 Census; (e) indirect estimates obtained from the application of the reverse survival method to the 1955-2011 Education Stats and 1960, 1971, 1977, 1987, 1994, 1997, 2002, 2010 censuses; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1971, 1977, 1987 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2020; (b) indirect estimates from data on children ever born and surviving from the 1960, 1971 censuses; (c) International estimates used up to 2021. In addition, the recent household deaths from the 1960 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) mortality rates for older ages were adjusted.

**Migration:** International migration based on: (a) estimates derived as the differences between overall population growth and natural increase; (b) UNHCR statistics on the number of refugees in the main countries of asylum.

#### SIERRA LEONE

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1963, 1974, 1985, 2004, 2015 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2000, 2010 MICS survey estimates; (f) official estimates through 2020; (g) only total population for 1947 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2013, 2019 DHS; (b) indirect estimates from data on children ever born and surviving from the 1973 Pilot Census and 1974, 1985, 2004, 2015 censuses and 1992 DSMS and 2000, 2005-2006, 2010 MICS and 2016 MIS; (c) recent household deaths from the 1977 Survey and 1992 DSMS and 2004 Census; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2015; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2008 DHS and 2017 MICS; (c) recent household deaths from the 2015 Census and 2016-2020 SRS have been considered.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15). In addition, the (a) registered deaths by age and sex available through 2015; (b) registered deaths by age and sex available through 2015; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 2004 Census and 2016-2020 SRS; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 2008 DHS; (d) maternal orphanhood from the 1973 Pilot Census and 1974, 1985, 2004 censuses and 2000, 2005-2006 MICS and 2008 DHS; (e) paternal orphanhood from the 1974, 2004 censuses and 2000, 2005-2006 MICS and 2008 DHS; (f) estimates of under-five, adult and old age mortality. In addition, the (a) deaths by age and sex available from VR through 2015; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2015 Census; (d) siblings deaths from the 2013 DHS; (e) paternal orphanhood from the 1973 Pilot Census have been considered.

#### **SINGAPORE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1947, 1957, 1970, 1980, 1990, 2000, 2010 censuses; (b) adjusted for under/over count; (c) 1966 SHS survey estimates; (d) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15 have been considered.

*Note:* Since 1990 population figures are de-jure adjusted to the de-facto statistical concept to include Singapore residents (i.e. Singapore citizens and permanent residents) and non-residents.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) indirect estimates obtained from the application of the reverse survival method to the 1957, 1970, 1980, 1990, 2000, 2010, 2020 censuses. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1955-2010 Education Stats and 1966 SHS have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

# SINT MAARTEN (DUTCH PART)

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1972, 1981, 1992, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2018; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2017; (b) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1980-2017 Estimates; (c) indirect estimates obtained from the application of the reverse survival method to the 1992, 2001, 2011 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2017; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2017; (b) estimates of life expectancy at birth by assuming that the pattern of mortality conforms to the CD West model life tables. age Note: Information from former Netherlands Antilles, including Aruba and Curação also taken into account.

**Migration:** International migration based on: (a) estimates derived as the differences between overall population growth and natural increase; (b) UNHCR statistics on the number of refugees in the main countries of asylum.

# **SLOVAKIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1970, 1980, 1991, 2001, 2011 censuses; (b) official estimates through 2020; (c) only total population for 1947 Census; (d) International estimates used up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2019; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1970, 1980, 1991, 2001, 2011 censuses and 1976-2010 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 2001, 2011 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **SLOVENIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1953, 1961, 1971, 1981, 1991, 2002, 2011, 2015, 2018, 2021 censuses; (b) adjusted for under/over count; (c) adjusted for under enumeration of children under age 15; (d) International estimates used up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1948 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) official estimates through 2020 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1953, 1961, 1971, 1981, 1991, 2002, 2011, 2015 censuses and 1978-2010 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1991, 2002, 2015 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021; (c) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) International estimates used up to 2021; (e) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Estimates through 2018 and Register through 2021; (b) International estimates used up to 2021; (c) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

## **SOLOMON ISLANDS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1976, 1986, 1999, 2009 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1980; (b) registered births classified by age of mother and the underlying female population by age through 1969; (c) birth-histories data from the 2006-2007, 2015 DHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1986, 1999, 2009 censuses; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2009 Census; (f) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1986, 1999, 2009 censuses; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1970, 1976, 1986, 1999, 2009 censuses; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1959, 1970, 1976, 1986, 1999, 2009 censuses. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2006-2007, 2015 DHS; (b) indirect estimates from data on children ever born and surviving from the 1970, 1976, 1986, 1999, 2009 censuses; (c) International estimates used up to 2021. In addition, the recent household deaths from the 2009 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2009; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using CD West model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2009; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2009 Census; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) estimates of under-five, adult and old age mortality.

#### **SOMALIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1975 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2002-2003 Survey and 2006 MICS and 2013-2014 PESS and 2018-2019 SHDS survey estimates; (f) only total population for 1987 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 2006 MICS and 2018-2019 SHDS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1975 Census and 2018-2019 SHDS; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1982 LFS and 2002-2003 Survey; (d) indirect estimates obtained using Mortara's method with data on children ever born by age of mother from the 1999-2000 MICS; (e) indirect estimates obtained from the application of the reverse survival method to the 1975 Census and 2002-2003 Survey and 2018-2019 SHDS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 2006 MICS and 2018-2019 SHDS. In addition, the (a) birth-histories data from the 2002-2003 Survey; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1982 LFS; (c) indirect estimates obtained from the application of the reverse survival method to the 1956-2000 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2006 MICS; (b) indirect estimates from data on children ever born and surviving from the 1999-2000 MICS; (c) International estimates used up to 2021. In addition, the indirect estimates from data on children ever born and surviving from the 2018-2019 SHDS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates of underfive mortality (5q0) by assuming that the age pattern of mortality conforms to the CD North model life tables.

## **SOUTH AFRICA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1960, 1970, 1980, 1985, 1991, 1996, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1998 DHS and 2007, 2016 CS survey estimates; (f) official estimates through 2020; (g) only total population for 1946 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. *Note:* 1980, 1985 and 1991 censuses adjusted to include Homelands (Transkei, Bophuthatswana, Venda, Ciskei).

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) birth-histories data from the 1987-1989, 1998, 2003, 2016 DHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1996 Census; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1996, 2011 censuses; (f) indirect estimates obtained from the application of the reverse survival method to the 1951, 1960, 1970, 1980, 1985, 1991, 1996, 2001, 2011 censuses and 1974-2009 Education Stats and 1993, 1995, 1996, 1997, 1998 Annual OHS and 2007, 2016 CS; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1996, 2001 censuses and 2007 CS; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1996, 2001, 2011 censuses and 1998, 2016 DHS and 2007, 2016 CS.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021 (annual RMS); (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1990 HSRC Survey and 1998, 2016 DHS; (d) recent household deaths from the 2001 Census and 2007 CS; (e) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2020; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1987-1989, 2003 DHS; (c) indirect estimates from data on children ever born and surviving from the 2001 Census; (d) recent household deaths from the 1993, 1995, 1996, 1997, 1998 Annual OHS and 2011 Census have been considered.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2011; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) The demographic impact of AIDS has been factored into the mortality estimates; (g) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2001 Census and 2007 CS and 2010-2011 NIDS; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) siblings deaths from the 1998, 2003, 2016 DHS; (f) maternal orphanhood from the 1996, 2001 censuses and 1998 DHS and 2007 CS; (g) paternal orphanhood from the 1996, 2001 censuses and 1998 DHS and 2007 CS; (h) intercensal survivorship from successive census age distributions; (i) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 1993, 1995, 1996, 1997, 1998 Annual OHS and 2011 Census; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods have been considered.

Migration: International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) information on the number of migrant workers or about labor migration (compiled by the Chamber of Mines); (e) estimates of illegal migration by national authorities; (f) estimates derived as the differences between overall population growth and natural increase; (g) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **SOUTH SUDAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1993, 2008 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2018; (f) only total population for 1956, 1973, 1983 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2010; (b) birth-histories data from the 2010 MICS-HHS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1993, 2008 censuses; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2008 Census; (e) indirect estimates obtained from the application of the reverse survival method to the 1990-2008 Education Stats and 1993, 2008 censuses and 1999 MICS; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2008 Census; (g) indirect estimates obtained from stable population assumption; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1993, 2008 censuses and 2010 MICS-HHS.

Child Mortality: Under-five mortality based on: (a) indirect estimates from data on children ever born and surviving from the 1993, 2008 censuses; (b) recent household deaths from the 1956, 1993 censuses and 2006 HHS; (c) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2010 MICS-HHS; (b) indirect estimates from data on children ever born and surviving from the 1973, 1983 censuses; (c) recent household deaths from the 2008 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) maternal orphanhood from the 1973, 1993, 2008 censuses and 1999 MICS; (b) paternal orphanhood from the 1973, 2008 censuses and 1999 MICS; (c) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2008 Census have been considered.

#### **SPAIN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1981, 1991, 2001, 2011 censuses; (b) official estimates through 2020; (c) International estimates used up to 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1981, 1991, 2001, 2011 censuses and 1959-2010 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1970, 1981, 1991, 2011 censuses have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) mortality rates for older ages were adjusted; (d) International estimates used up to 2021.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **SRI LANKA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1946, 1953, 1963, 1971, 1981, 2001, 2012 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

*Note*: 2001 census adjusted to include Northern and Eastern provinces based on intercensal estimates from the 1981 census and 2007 Special enumeration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2013; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) birth-histories data from the 1975 WFS and 1987, 1993, 2000, 2006-2007 DHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1982 CPS; (e) adjusted fertility using synthetic relational Gompertz model with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1975 WFS; (f) indirect estimates obtained from the application of the reverse survival method to the 1953, 1963, 1971, 1981, 2001, 2012 censuses and 1955-2012 Education Stats; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1971, 2001, 2012 censuses and 1975 WFS and 1987, 1993, 2000 DHS.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2015; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1975 WFS and 1987, 1993, 2000, 2006-2007, 2016 DHS and 2006 Aging Survey; (d) indirect estimates from data on children ever born and surviving from the 1971, 2001, 2012 censuses; (e) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2013; (b) registered deaths by age and sex available through 2014; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Estimates through 2013 and Register through 2014; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

#### STATE OF PALESTINE

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1997, 2007, 2017 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 2019-2020 MICS survey estimates; (b) official estimates through 2018; (c) only total population for 1967 Census have been considered. *Note:* Population figures include the Arab population residing in East Jerusalem and exclude Israeli citizens residing in the Occupied Palestinian Territory.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2013; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) birth-histories data from the 1992 UNICEF-JFPPA Survey and 1996, 2000 HS and 2006, 2010 FHS-MICS and 2014, 2019-2020 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1992 LCS and 1997 Census and 2000 HS and 2004 DHS and 2014 MICS; (e) indirect estimates obtained from the application of the reverse survival method to the 1997, 2007, 2017 censuses; (f) indirect estimates obtained from reconstructed birth histories data from the 2006, 2010 FHS-MICS; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1995 DS and 2000 HS and 2004 DHS and 2006, 2010 FHS-MICS and 2014, 2019-2020 MICS. In addition, the (a) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1992 LCS; (b) indirect estimates obtained from the application of the reverse survival method to the 1980-2011 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1992 LCS and 1997, 2007, 2017 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1995 DS and 2000 HS and 2004 DHS and 2006, 2010 FHS-MICS and 2014, 2019-2020 MICS; (b) indirect estimates from data on children ever born and surviving from the 1992 LCS and 1997, 2007, 2017 censuses; (c) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2019; (b) recent household deaths from the 2017 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates of under-five mortality (5q0) by assuming that the age pattern of mortality conforms to the CD West model life tables.

#### SUDAN

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1973, 1983, 1993, 2008 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2014 MICS survey estimates; (f) official estimates through 2020; (g) only total population for 1956 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. *Note:* Population figures cover only Northern States for 1956, 1973, 1983, 1993 and 2008 censuses.

Fertility: Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2015; (b) birth-histories data from the 1978-1979 WFS and 1989-1990 DHS and 1992-1993 MCH and 1999 SMS and 2006 HHS and 2010 MICS-HHS and 2014 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1973, 1993, 2008 censuses; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1973, 1993, 2008 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1973, 1983, 1993, 2008 censuses and 1986-2010 Education Stats and 1992-1993 MCH and 2000 MICS; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1993, 2008 censuses; (g) indirect estimates obtained from stable population assumption; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1978-1979 WFS and 1992-1993 MCH and 1993, 2008 censuses and 2010 MICS-HHS and 2014 MICS.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1978-1979 WFS and 1989-1990 DHS and 1992-1993 MCH and 1999 SMS and 2010 MICS-HHS and 2014 MICS; (b) indirect estimates from data on children ever born and surviving from the 1973, 1983, 1993, 2008 censuses and 1992-1993 MCH and 2006 HHS; (c) recent household deaths from the 1956 Survey and 1993 Census and 2006 HHS; (d) International estimates used up to 2021. In addition, the recent household deaths from the 2008 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1992-1993 MCH and 1993 Census; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 1989-1990 DHS; (d) maternal orphanhood from the 1973, 1983, 1993, 2008 censuses and 2000 MICS; (e) paternal orphanhood from the 1973, 1983, 2008 censuses and 2000 MICS; (f) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 2008 Census; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods have been considered.

#### **SURINAME**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1964, 1972, 1980, 2004, 2012 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2010 MICS survey estimates; (f) official estimates through 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) birth-histories data from the 2018 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2004, 2012 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1950, 1964, 1972, 1980, 2003, 2004, 2012 censuses and 1999-2000, 2006, 2010 MICS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1964, 2004, 2012 censuses and 1999-2000, 2006, 2018 MICS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1961-2011 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2018 MICS; (b) indirect estimates from data on children ever born and surviving from the 1999-2000, 2006 MICS; (c) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2021; (b) indirect estimates from data on children ever born and surviving from the 2004, 2012 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2021; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

#### **SWEDEN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1965, 1970, 1975, 1980, 1985, 1990, 2000, 2003, 2011 censuses; (b) adjusted for under/over count; (c) International estimates used up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1945 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) International estimates used up to 2020. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1965, 1970, 1975, 1980, 1985, 1990, 2000, 2003, 2011 censuses and 1957-2009 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **SWITZERLAND**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1980, 1990, 2000, 2010 censuses; (b) official estimates through 2019; (c) International estimates used up to 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) International estimates used up to 2019. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1980, 1990, 2000, 2010 censuses and 1959-2009 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1950, 1960, 1980, 2000 censuses have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

#### SYRIAN ARAB REPUBLIC

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1960, 1970, 1981, 1994, 2004 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2022; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2004; (b) birth-histories data from the 1978 WFS and 1993 MCHS and 2001, 2009 FHS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1970, 1981, 2004 censuses and 1976-1979 PFS and 2000 MICS; (d) indirect estimates obtained from the application of the reverse survival method to the 1970, 1981, 1994, 2004 censuses; (e) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2006 MICS; (f) indirect estimates obtained from stable population assumption; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1970 Census and 1978 WFS and 1993 MCHS and 2001 FHS. In addition, the (a) registered births classified by age of mother and the underlying female population by age through 2010; (b) birth-histories data from the 2006 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1993 IDS; (d) indirect estimates obtained from the application of the reverse survival method to the 1956-2006 Education Stats and 1960 Census; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1994 Census have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1978 WFS and 1993 MCHS and 2001, 2009 FHS; (c) indirect estimates from data on children ever born and surviving from the 1970, 1976, 1981, 1994 censuses and 1990 EPI-CDD and 2006 MICS; (d) recent household deaths from the 2004 Census and 2007-2008 HS; (e) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2011; (b) recent household deaths from the 2017-2018 HS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2010; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2010; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 1993 MCHS; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) estimates of under-five, adult and old age mortality.

#### **TAJIKISTAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 2000, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) birth-histories data from the 2003 LSMS and 2012, 2017 DHS; (d) indirect estimates obtained using Mortara's method with data on children ever born by age of mother from the 2000, 2005 MICS; (e) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1979, 1989, 2000, 2010 censuses and 1980-2009 Education Stats and 2000, 2005 MICS and 2007 LSMS; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2005 MICS and 2007 LSMS; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1989, 2000, 2010 censuses and 2000, 2005 MICS and 2012, 2017 DHS.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2019; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1999 LSMS and 2002 DS and 2012, 2017 DHS; (d) indirect estimates from data on children ever born and surviving from the 1989 Census and 2000, 2005 MICS; (e) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2003, 2007 LSMS and 2010 SICMM; (b) indirect estimates from data on children ever born and surviving from the 2010 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2019; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using CD West model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15). In addition, the official estimates through 2017 have been considered.

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2019; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **THAILAND**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1947, 1960, 1970, 1980, 1990, 2000, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1955-1956 DES and 2005-2006 MICS survey estimates; (f) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) birth-histories data from the 1975 WFS and 1975-1976 SPC and 1987 DHS and 2006 RHS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1960, 1970 censuses and 1978, 1981, 1984, 1996-1997 CPS and 1985-1986, 1989, 1991, 1995-1996 SPC and 2005-2006, 2012-2013, 2015-2016 MICS; (d) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1960, 1970 censuses and 1975 WFS; (e) indirect estimates based on the increment of cohort parities between successive censuses or surveys such as the 1970 Census and 1974-1975 SPC; (f) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 1960, 1970, 1980, 1990, 2000 censuses and 2005-2006 SPC; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1970 Census; (h) cohort-completed fertility backdated by the mean age of childbearing from the 2005-2006 SPC and 2006, 2009 RHS. In addition, the (a) official estimates of age-specific fertility rates through 2007; (b) indirect estimates obtained from the application of the reverse survival method to the 2010 Census and 2012-2013, 2015-2016, 2019 MICS; (c) cohort-completed fertility backdated by the mean age of childbearing from the 2005-2006, 2012-2013, 2015-2016, 2019 MICS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2020; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1974-1975, 1985-1986, 1989, 1995-1996, 2005-2006 SPC and 1975 WFS and 1987 DHS; (d) indirect estimates from data on children ever born and surviving from the 1970, 1980, 2000 censuses and 1979 NSFMFP and 1981, 1984 CPS and 1996 FS and 2005-2006, 2012-2013 MICS; (e) International estimates used up to 2021. In addition, the (a) indirect estimates from data on children ever born and surviving from the 1990, 2010 censuses and 2015-2016, 2019 MICS and 2015-2016 SPC; (b) recent household deaths from the 1989, 2005-2006 SPC have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2019; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2019; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 1989, 2005-2006 SPC; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) information on the number of migrant workers or about labor migration; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

### **TIMOR-LESTE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1980, 1990, 2004, 2010, 2015 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2019; (f) only total population for 1950, 1960, 1970 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 1972; (c) birth-histories data from the 2003, 2009-2010, 2016 DHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2004 Census; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2010 Census; (f) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2004, 2010 censuses; (g) indirect estimates obtained from the application of the reverse survival method to the 1980, 1990, 2004, 2010, 2015 censuses; (h) cohort-completed fertility backdated by the mean age of childbearing from the 2004 Census and 2009-2010, 2016 DHS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1986-2011 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2003, 2009-2010 DHS; (c) indirect estimates from data on children ever born and surviving from the 2001 LSMS and 2002 MICS and 2004, 2010 censuses; (d) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2016 DHS; (b) indirect estimates from data on children ever born and surviving from the 1990 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2015; (b) estimates of under-five mortality (5q0) by assuming that the age pattern of mortality conforms to the CD West model life tables.

#### **TOGO**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1958-1960, 1970, 1981, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1961 ED and 1998 DHS survey estimates; (f) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1961; (b) registered births classified by age of mother and the underlying female population by age through 1979; (c) birth-histories data from the 1988, 1998, 2013-2014 DHS and 2017 MICS and 2017 MIS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1961 ED and 1970 Census and 2006, 2010 MICS; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1961 ED and 1970 Census and 2006 MICS; (f) indirect estimates obtained from the application of the reverse survival method to the 1958-1960, 1970, 1981, 2010 censuses and 1961 ED and 2006, 2010 MICS; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1958-1960, 1970, 2010 censuses and 1961, 1971 ED and 1988, 1998, 2013-2014 DHS and 2006, 2010 MICS and 2017 MIS. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 2000 MICS and 2017 MIS; (b) cohort-completed fertility backdated by the mean age of childbearing from the 2017 MICS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1988, 1998, 2013-2014 DHS and 1996, 2017 MICS; (c) indirect estimates from data on children ever born and surviving from the 1958-1960, 2010 censuses and 1961, 1971 ED and 2006, 2010 MICS and 2017 MIS; (d) International estimates used up to 2021. In addition, the recent household deaths from the 1961 ED and 1981, 2010 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) estimates using CD South model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) siblings deaths from the 1998, 2013-2014 DHS; (c) maternal orphanhood from the 1998 DHS and 2000, 2006 MICS; (d) paternal orphanhood from the 1998 DHS and 2000, 2006 MICS; (e) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1961 ED and 1981, 2010 censuses have been considered.

#### **TOKELAU**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1951, 1956, 1961, 1966, 1972, 1976, 1991, 1996, 2001, 2006, 2011, 2016 censuses and 2013, 2019 Population Count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2021; (e) only total population for 1945, 1971, 1982, 1986 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2002; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 2011 Census; (c) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1986 Census; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1949-2002 Estimates; (e) indirect estimates obtained from the application of the reverse survival method to the 1951, 1956, 1961, 1972, 1976, 1991, 1996, 2001, 2006, 2011, 2016 censuses; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1961 Census.

**Child Mortality:** Under-five mortality based on: (a) International estimates used up to 2021; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions.

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 1982; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) estimates derived as the differences between overall population growth and natural increase.

#### **TONGA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1956, 1966, 1976, 1986, 1996, 2006, 2011, 2016 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2019; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2007; (b) registered births classified by age of mother and the underlying female population by age through 2004; (c) birth-histories data from the 2012 DHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1986, 1996, 2006, 2011 censuses; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2011 Census; (f) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2006 Census; (g) indirect estimates obtained from the application of the reverse survival method to the 1956, 1966, 1976, 1986, 1996, 2006, 2011, 2016 censuses and 2019 MICS; (h) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1966, 1976, 1986, 1996, 2006 censuses; (i) cohort-completed fertility backdated by the mean age of childbearing from the 1966, 1976, 1986, 1996 censuses and 2019 MICS. In addition, the (a) birth-histories data from the 2019 MICS; (b) indirect estimates obtained from the application of the reverse survival method to the 1959-2008 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2012 DHS and 2019 MICS; (c) indirect estimates from data on children ever born and surviving from the 1976, 1986, 1996, 2006, 2016 censuses; (d) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2019; (b) recent household deaths from the 2006 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2018; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2018; (b) adjusted for underregistration; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2006 Census have been considered.

#### TRINIDAD AND TOBAGO

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1946, 1960, 1970, 1980, 1990, 2000, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1977 WFS and 2011 MICS survey estimates; (f) official estimates through 2019; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2019; (b) birth-histories data from the 1977 WFS and 1987 DHS; (c) indirect estimates obtained from the application of the reverse survival method to the 1960, 1970, 1980, 1990, 2000, 2011 censuses and 2011 MICS; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1970, 1990, 2000, 2011 censuses and 1977 WFS and 1987 DHS and 2011 MICS. In addition, the official estimates of age-specific fertility rates through 2012 have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1977 WFS and 1987 DHS; (b) indirect estimates from data on children ever born and surviving from the 2000, 2006 MICS; (c) International estimates used up to 2021. In addition, the (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2019; (c) indirect estimates from data on children ever born and surviving from the 2011 Census and 2011 MICS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2018; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted. In addition, the official estimates through 2011 have been considered.

#### **TUNISIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1946, 1956, 1966, 1975, 1984, 1994, 2004, 2014 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under/over count have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) birth-histories data from the 1978 WFS and 1988 DHS and 1994-1995 MCHS and 2001 FHS and 2011-2012, 2018 MICS; (e) indirect estimates obtained from the application of the reverse survival method to the 1956, 1966, 1975, 1984, 1994, 2004, 2014 censuses; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1978 WFS and 1984 Census and 1988 DHS and 1994-1995 MCHS and 2001 FHS and 2011-2012, 2018 MICS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1958-2011 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2020; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1988 DHS and 1994-1995 MCHS and 2001 FHS and 2011-2012 MICS; (d) indirect estimates from data on children ever born and surviving from the 1975, 1984, 2004 censuses and 1983 CPS; (e) recent household deaths from the 1968-1969 END; (f) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1978 WFS and 2018 MICS; (b) indirect estimates from data on children ever born and surviving from the 2014 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted.

# **TÜRKIYE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1955, 1960, 1965, 1970, 1975, 1980, 2007, 2011, 2021 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) 1998 DHS survey estimates; (e) official estimates through 2020; (f) only total population for 1945 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1985, 1990, 2000 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2016; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) adjusted for underregistration; (d) birth-histories data from the 1978 WFS and 1983, 1988 PHS and 1993, 1998, 2003, 2008 DHS and 2013, 2018 NDHS; (e) indirect estimates obtained from the application of the reverse survival method to the 1950, 1955, 1960, 1965, 1970, 1975, 1980, 1985, 1990, 2000, 2007, 2011 censuses and 1956-2010 Education Stats and 2003 NBD-CE; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1970, 1975, 1980, 1985, 1990, 2000 censuses and 1978 WFS and 1993, 1998, 2003, 2008 DHS and 2013 NDHS.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2019; (b) registered infant and child deaths through 2020; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1965-1968 DS and 1978 WFS and 1988 PHS and 1993, 1998, 2003, 2008 DHS and 2013 NDHS; (d) indirect estimates from data on children ever born and surviving from the 1970, 1975, 1980, 1985, 1990 censuses and 1983 PHS and 1989 DS; (e) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2010, 2012 CMS; (b) indirect estimates from data on children ever born and surviving from the 2018 NDHS; (c) recent household deaths from the 1983 PHS and 2003 NBD-CE have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2019; (b) registered deaths by age and sex available through 2019; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) International estimates used up to 2021.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **TURKMENISTAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 1995 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2004; (f) only total population for 2012 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1989; (b) registered births classified by age of mother and the underlying female population by age through 2006; (c) birth-histories data from the 2000 DHS and 2015-2016, 2019 MICS; (d) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1979, 1989, 1995 censuses and 2004-2006 Education Stats and 2006, 2015-2016 MICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 2006, 2015-2016, 2019 MICS.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2020; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2000 DHS and 2019 MICS; (c) indirect estimates from data on children ever born and surviving from the 2006 MICS; (d) International estimates used up to 2021. In addition, the direct estimates from births and deaths under-five calculated from full birth histories data from the 2015-2016 MICS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2019; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **TURKS AND CAICOS ISLANDS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1954, 1960, 1970, 1980, 1990, 2001, 2012 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) 2019-2020 MICS survey estimates; (e) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2020; (b) birth-histories data from the 2019-2020 MICS; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1980 Census; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1948-2020 Estimates; (e) indirect estimates obtained from the application of the reverse survival method to the 1954, 1960, 1970, 1980, 1990, 2001, 2012 censuses and 2019-2020 MICS; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1980 censuses and 2019-2020 MICS.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2018; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2018; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2018; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

#### **TUVALU**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1968, 1973, 1979, 1991, 2002, 2012 censuses and 2017 Mini-Census; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) 2019-2020 MICS survey estimates; (e) official estimates through 2021; (f) only total population for 1947, 1963, 1985 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) birth-histories data from the 2007 DHS and 2019-2020 MICS; (d) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1979-2020 Estimates; (e) indirect estimates obtained from the application of the reverse survival method to the 1991, 2002, 2012 censuses and 2017 Mini-Census and 2019-2020 MICS; (f) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1968, 1973, 1979, 1991, 2002, 2012 censuses; (g) cohort-completed fertility backdated by the mean age of childbearing from the 1991 Census and 2019-2020 MICS.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2018; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2002 Census and 2007 DHS and 2019-2020 MICS; (c) indirect estimates from data on children ever born and surviving from the 1968, 1979, 1991, 2012 censuses; (d) International estimates used up to 2021.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2018; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using LogQuad model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2018; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

#### **UGANDA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1969, 1991, 2002, 2014 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1995 DHS survey estimates; (f) official estimates through 2020; (g) only total population for 1948, 1980 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2011; (b) registered births classified by age of mother and the underlying female population by age through 1950; (c) birth-histories data from the 1988-1989, 1995, 2000-2001, 2006, 2011, 2016 DHS and 2009, 2014-2015, 2018-2019 MIS and 2014 PMA-R1 and 2015 PMA-R3 and 2016 PMA-R4 and 2017 PMA-R5 and 2018 PMA-R6 and 2019 PMA-R6-2; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1969, 1991, 2002 censuses; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1959 Census; (f) indirect estimates obtained from the application of the reverse survival method to the 1991, 2002, 2014 censuses; (g) indirect estimates obtained from stable population assumption; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1988-1989, 1995, 2000-2001, 2006, 2011 DHS and 1991, 2002, 2014 censuses and 2011 AIS and 2014-2015, 2018-2019 MIS. In addition, the (a) registered births classified by age of mother and the underlying female population by age through 2018; (b) indirect estimates obtained from the application of the reverse survival method to the 1955-2010 Education Stats and 1959, 1969 censuses and 2011 AIS and 2014-2015, 2018-2019 MIS have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1988-1989, 1995, 2000-2001, 2006, 2011, 2016 DHS and 1991, 2002 censuses and 2009 MIS; (b) indirect estimates from data on children ever born and surviving from the 1969, 2014 censuses and 2014-2015, 2018-2019 MIS; (c) recent household deaths from the 2014 Census; (d) International estimates used up to 2021. In addition, the recent household deaths from the 2002 Census and 2006 DHS and 2011 AIS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 2014 Census; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 1995, 2000-2001, 2006, 2011, 2016 DHS; (d) maternal orphanhood from the 1969, 1991, 2002 censuses and 1988-1989, 1995, 2000-2001, 2006, 2011 DHS and 2004-2005 AIS; (e) paternal orphanhood from the 1969, 1991, 2002 censuses and 1988-1989, 1995, 2000-2001, 2006, 2011 DHS and 2004-2005 AIS; (f) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2002 Census and 2006 DHS and 2011 AIS have been considered.

#### **UKRAINE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989, 2001 censuses; (b) adjusted for under/over count; (c) 2007 DHS survey estimates; (d) official estimates through 2020; (e) International estimates used up to 2019; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for age heaping; (b) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2020; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) birth-histories data from the 2012 MICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 2012 MICS; (f) International estimates used up to 2019. In addition, the (a) birth-histories data from the 1999 RHS and 2007 DHS; (b) indirect estimates obtained from the application of the reverse survival method to the 1956-2011 Education Stats and 1959, 1970, 1979, 1989, 2001 censuses and 2005 MICS; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1989, 2001 censuses and 2005 MICS and 2007 DHS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1999 RHS and 2007 DHS; (d) indirect estimates from data on children ever born and surviving from the 1989, 2001 censuses; (e) International estimates used up to 2021. In addition, the (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 2012 MICS; (b) indirect estimates from data on children ever born and surviving from the 2005 MICS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2020; (c) adjusted for underreporting of infant and child deaths; (d) mortality rates for older ages were adjusted; (e) International estimates used up to 2021; (f) estimates using LogQuad model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Estimates through 2007 and Register through 2020; (b) International estimates used up to 2021; (c) estimates of under-five, adult and old age mortality.

## **UNITED ARAB EMIRATES**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1968, 1975, 1980, 1985, 1995, 2005 censuses; (b) adjusted for under/over count; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2006; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1975 Census; (d) indirect estimates obtained from the application of the reverse survival method to the 1968, 1975, 1980, 1985, 1995, 2005 censuses; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1987-1988 CHS. In addition, the (a) birth-histories data from the 1987-1988 CHS and 1995 FHS; (b) indirect estimates obtained from the application of the reverse survival method to the 1959-2010 Education Stats; (c) cohort-completed fertility backdated by the mean age of childbearing from the 1975 Census and 1995 FHS have been considered.

Child Mortality: Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2020; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1995 FHS; (d) indirect estimates from data on children ever born and surviving from the 1975, 1980 censuses and 1987-1988 CHS; (e) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) registered deaths by age and sex available through 2020; (c) adjusted for underregistration; (d) adjusted for underreporting of infant and child deaths; (e) mortality rates for older ages were adjusted; (f) estimates using LogQuad model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) estimates of under-five, adult and old age mortality. In addition, the (a) deaths by age and sex available from Estimates through 2007; (b) adjusted for underregistration have been considered.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

#### UNITED KINGDOM

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1991, 2001, 2011 censuses; (b) official estimates through 2020; (c) only total population for 1951, 1961, 1971, 1981 censuses; (d) International estimates used up to 2020; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) International estimates used up to 2019. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1981, 1991, 2001, 2011 censuses and 2000-2011 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2018; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2018; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

## UNITED REPUBLIC OF TANZANIA

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1967, 1978, 1988, 2002, 2012 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1991-1992, 1996, 2010 DHS survey estimates; (f) official estimates through 2020; (g) only total population for 1948 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

Fertility: Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2012; (c) birth-histories data from the 1991-1992, 1996, 2004-2005, 2010, 2015-2016 DHS and 1994 KAP Survey and 1995 SUMVE In Depth Study and 1999 RCHS and 2007-2008, 2011-2012 AIS and 2017 MIS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1967, 1978, 1988, 2012 censuses and 1973 NDS; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1967, 2012 censuses; (f) adjusted fertility using Arriaga modified P/F ratio method with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2002, 2012 censuses; (g) indirect estimates obtained from the application of the reverse survival method to the 1967, 1978, 1988, 2002, 2012 censuses and 1973 NDS and 2003-2004, 2011-2012 AIS and 2008-2009, 2012-2013 NPS and 2017 MIS; (h) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2012 Census; (i) indirect estimates obtained from stable population assumption; (i) cohort-completed fertility backdated by the mean age of childbearing from the 1988, 2002, 2012 censuses and 1991-1992, 1996, 2004-2005, 2010, 2015-2016 DHS and 1999 RCHS and 2003-2004, 2007-2008, 2011-2012 AIS and 2017 MIS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1955-2010 Education Stats have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1991-1992, 1996, 2004-2005, 2010, 2015-2016 DHS and 1999 RCHS and 2007-2008 AIS; (b) indirect estimates from data on children ever born and surviving from the 1967, 1978, 1988, 2002, 2012 censuses and 2017 MIS; (c) International estimates used up to 2021. In addition, the recent household deaths from the 1967, 1988, 2002 censuses and 1973 NDS and 2007-2008 AIS and 2008-2009, 2010-2011, 2012-2013 NPS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (b) siblings deaths from the 1996, 2004-2005, 2010, 2015-2016 DHS; (c) maternal orphanhood from the 1973 NDS and 1978, 1988, 2002 censuses and 1991-1992, 1996, 2010 DHS and 1999 RCHS and 2003-2004 AIS; (d) paternal orphanhood from the 1973 NDS and 1978, 2002 censuses and 1991-1992, 1996, 2010 DHS and 1999 RCHS and 2003-2004 AIS; (e) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1967, 1988, 2002 censuses and 1973 NDS and 2007-2008 AIS and 2008-2009, 2010-2011, 2012-2013 NPS have been considered.

# **UNITED STATES OF AMERICA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1980, 1990, 2000, 2010, 2020 censuses; (b) adjusted for under/over count; (c) International estimates used up to 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) 2005, 2015 ACS survey estimates; (e) official estimates through 2021 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2021; (b) registered births classified by age of mother and the underlying female population by age through 2019; (c) adjusted for underregistration; (d) International estimates used up to 2020. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1960, 1970, 1980, 1990, 2000, 2010 censuses and 1990-2010 Education Stats and 2005, 2015 ACS; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1950, 1960, 1970, 1980, 1990 censuses and 1952, 1954, 1957, 1959 Survey and 1994 CPS have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2017; (b) registered deaths by age and sex available through 2021; (c) International estimates used up to 2021.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates of migrant flows, and assumed subsequent trends in international migration; (c) information on foreign-born populations from censuses and registers from major countries of destination; (d) estimates derived as the differences between overall population growth and natural increase; (e) UNHCR statistics on the number of refugees in the main countries of asylum.

# **UNITED STATES VIRGIN ISLANDS**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1960, 1970, 1980, 1990, 2000, 2010 censuses; (b) official estimates through 2019; (c) only total population for 2020 Census; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) adjusted for under/over count; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1990; (b) registered births classified by age of mother and the underlying female population by age through 2018; (c) indirect estimates obtained from the application of the reverse survival method to the 1950, 1960, 1970, 1980, 1990, 2000, 2010 censuses and 1963-1986 Education Stats; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1960, 1980 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2017; (b) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2017; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2017; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) estimates derived as the differences between overall population growth and natural increase.

#### **URUGUAY**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1963, 1975, 1985, 1996, 2004, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 2006 ENHA and 2013 MICS survey estimates; (f) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the adjusted for under enumeration of children under age 15 have been considered.

Fertility: Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2019; (b) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2011 Census; (c) indirect estimates obtained from the application of the reverse survival method to the 1963, 1975, 1985, 1996 censuses. In addition, the (a) official estimates of age-specific fertility rates through 2017; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1985, 1996, 2011 censuses; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1985, 1996 censuses; (d) indirect estimates obtained from the application of the reverse survival method to the 1955-2010 Education Stats and 2004, 2011 censuses and 2006 ENHA and 2013 MICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1975, 1985, 1996, 2011 censuses and 2006 ENHA have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) indirect estimates from data on children ever born and surviving from the 2011 Census. In addition, the (a) official estimates of infant and child mortality through 2017; (b) indirect estimates from data on children ever born and surviving from the 1975, 1985, 1996 censuses have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2021; (b) adjusted for underreporting of infant and child deaths; (c) mortality rates for older ages were adjusted. In addition, the official estimates through 2010 have been considered.

#### **UZBEKISTAN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1959, 1970, 1979, 1989 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2017; (b) registered births classified by age of mother and the underlying female population by age through 2020; (c) birth-histories data from the 1996 DHS and 2002 DHS Special; (d) indirect estimates obtained from the application of the reverse survival method to the 1959, 1970, 1979, 1989 censuses and 1983-2010 Education Stats and 2000, 2006 MICS; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1996 DHS and 2000, 2006 MICS.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2021; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2002 DHS Special; (c) indirect estimates from data on children ever born and surviving from the 2000, 2006 MICS; (d) International estimates used up to 2021. In addition, the direct estimates from births and deaths under-five calculated from full birth histories data from the 1996 DHS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2020; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) estimates using CD West model life tables and estimates of infant and underfive mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) deaths by age and sex available from Register through 2020; (b) adjusted for underregistration; (c) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **VANUATU**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1967, 1979, 1989, 1999, 2009 censuses and 2016 Mini-Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2021; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1957 Census; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 1999; (b) registered births classified by age of mother and the underlying female population by age through 2014; (c) birth-histories data from the 2013 DHS-NS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1967, 1979, 1989, 1999, 2009 censuses; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2009 Census; (f) indirect estimates obtained from the application of the reverse survival method to the 1957, 1967, 1979, 1989, 1999, 2009 censuses and 2007-2008 MICS and 2016 Mini-Census; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1989, 1999, 2009 censuses; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1967, 1989, 1999, 2009 censuses and 2007-2008 MICS. In addition, the indirect estimates obtained from the application of the reverse survival method to the 1956-2006 Education Stats have been considered.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2009; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2013 DHS-NS; (c) indirect estimates from data on children ever born and surviving from the 1967, 1989, 1999, 2009 censuses; (d) International estimates used up to 2021. In addition, the recent household deaths from the 2009 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using LogQuad model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

**Adult and Old Age Mortality:** Estimates derived from: (a) recent household deaths data by age and sex from the 2009 Census; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) estimates of under-five, adult and old age mortality.

# **VENEZUELA (BOLIVARIAN REPUBLIC OF)**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1950, 1961, 1971, 1981, 1990, 2001, 2011 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1974 NSSH and 2014, 2015, 2016, 2017, 2018 ENCOVI survey estimates; (f) official estimates through 2019; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2017; (b) adjusted for underregistration; (c) birth-histories data from the 1977 WFS and 1998 ENPOFAM and 2010 ENDEVE; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 2001, 2011 censuses; (e) indirect estimates obtained from the application of the reverse survival method to the 1950, 1961, 1971, 1981, 1990, 2001, 2011 censuses and 2000 MICS. In addition, the (a) official estimates of age-specific fertility rates through 2014; (b) birth-histories data from the 1993 ENSO; (c) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1990, 2001, 2011 censuses; (d) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1990 Census; (e) indirect estimates obtained from the application of the reverse survival method to the 1956-2010 Education Stats and 1974 NSSH; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1950, 1961, 1971, 1981, 1990, 2001, 2011 censuses and 1977 WFS have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) registered infant and child deaths through 2019; (c) direct estimates from births and deaths under-five calculated from full birth histories data from the 1977 WFS and 1998 ENPOFAM; (d) indirect estimates from data on children ever born and surviving from the 1981, 1990, 2001, 2011 censuses; (e) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2010; (b) registered deaths by age and sex available through 2018; (c) adjusted for underreporting of infant and child deaths; (d) adult deaths adjusted for underregistration using death distribution methods; (e) mortality rates for older ages were adjusted; (f) estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2018; (b) adjusted for underregistration; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) intercensal survivorship from successive census age distributions; (e) International estimates used up to 2021; (f) estimates of underfive, adult and old age mortality.

#### **VIET NAM**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1979, 1989, 1999, 2009, 2019 censuses; (b) adjusted for under/over count; (c) adjusted for under enumeration of children under age 15; (d) official estimates through 2020; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2018; (b) registered births classified by age of mother and the underlying female population by age through 2007; (c) birth-histories data from the 1988, 1997, 2002 DHS and 1994 IDS and 2013-2014, 2020-2021 MICS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1989, 1999, 2009, 2019 censuses and 1994 IDS and 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2015, 2016, 2017-2018, 2018-2019, 2019, 2020 Annual APC and 2006, 2010-2011 MICS and 2014 IPHS; (e) indirect estimates based on the increment of cohort parities between successive censuses or surveys such as the 1945-2018 Estimates; (f) indirect estimates obtained from the application of the reverse survival method to the 1979, 1989, 2009, 2019 censuses and 2000, 2006, 2010-2011 MICS; (g) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1989, 1999 censuses and 2003 WHS; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1988, 1997, 2002 DHS and 1989, 1999, 2009, 2019 censuses and 1994 IDS and 2000, 2006, 2010-2011, 2013-2014 MICS and 2005 AIS and 2005, 2007, 2008, 2009, 2011 Annual APC. In addition, the indirect estimates obtained from the application of the reverse survival method to the 2007 Annual APC have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1988, 1997, 2002 DHS and 1994 IDS and 1995-1998 VLS and 2013-2014 MICS; (b) indirect estimates from data on children ever born and surviving from the 1989 Census and 2000 MICS; (c) recent household deaths from the 2011, 2012, 2013, 2015, 2016, 2017-2018, 2018-2019, 2020 Annual APC and 2014 IPHS and 2015 Migration Survey and 2019 Census; (d) International estimates used up to 2021. In addition, the (a) indirect estimates from data on children ever born and surviving from the 1999, 2009, 2019 censuses; (b) recent household deaths from the 1999, 2009 censuses and 2003 SAVY and 2004 Migration Survey and 2005, 2007, 2008 Annual APC and 2006 Family Survey have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: estimates using CD North model life tables and estimates of infant and under-five mortality (5q0), and adult mortality (45q15). In addition, the (a) registered deaths by age and sex available through 2020; (b) adjusted for underregistration; (c) adjusted for underreporting of infant and child deaths; (d) mortality rates for older ages were adjusted have been considered.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1989 Census and 2001-2002 NHS and 2009 NSMSP and 2011, 2012, 2013, 2015, 2016, 2017-2018, 2018-2019 Annual APC and 2014 IPHS; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 1991 VLHS and 1995-1998 VLS and 2009 NSMSP; (d) maternal orphanhood from the 1995-1998 VLS and 2009 NSMSP; (e) paternal orphanhood from the 1995-1998 VLS and 2009 NSMSP; (f) intercensal survivorship from successive census age distributions; (g) estimates of under-five, adult and old age mortality. In addition, the (a) recent household deaths data by age and sex from the 1999 Census and 2007, 2008 Annual APC; (b) recent household deaths adjusted at adult ages for underregistration using the growth balance method; (c) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (d) maternal orphanhood from the 1991 VLHS; (e) paternal orphanhood from the 1991 VLHS have been considered.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

## WALLIS AND FUTUNA ISLANDS

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1969, 1976, 1983, 1996, 2003, 2008, 2013, 2018 censuses; (b) adjusted for age heaping; (c) adjusted for under enumeration of children under age 15; (d) only total population for 1951, 1953, 1961, 1990 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 2013; (b) indirect estimates obtained using regression method with data on children ever born by age of mother from the 1969-2011 Estimates; (c) indirect estimates obtained from the application of the reverse survival method to the 1969, 1976, 1983, 1996, 2003, 2008, 2013, 2018 censuses; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1969, 1996, 2003, 2013, 2018 censuses.

**Child Mortality:** Under-five mortality based on: (a) registered infant and child deaths through 2010; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions.

Overall Mortality: Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2010; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions; (c) estimates of life expectancy at birth by assuming that the age conforms FarEastern pattern of mortality to the UN model life tables. *Note:* Information from French polynesia also taken into account.

**Migration:** International migration based on: (a) official figures of net international migration flows, and assumed subsequent trends in international migration; (b) estimates derived as the differences between overall population growth and natural increase.

#### **WESTERN SAHARA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1967, 1970, 1974, 2014 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 1980; and with estimates of the subsequent trends in fertility, mortality and international migration. In addition, the (a) 1982, 1994, 2004 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15 have been considered.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) registered births classified by age of mother and the underlying female population by age through 1972; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1982, 1994, 2004 censuses and 2009-2010 END; (c) indirect estimates obtained from the application of the reverse survival method to the 1967, 1970, 1974, 1982, 1994, 2004, 2014 censuses; (d) indirect estimates obtained from the application of the own-children method of fertility estimation to the 1982, 1994, 2004 censuses; (e) cohort-completed fertility backdated by the mean age of childbearing from the 1982, 1994, 2004, 2014 censuses.

**Child Mortality:** Under-five mortality based on: (a) International estimates used up to 2021; (b) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) In the absence of statistics indicative of mortality levels and trends, mortality was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions; (b) estimates of under-five mortality (5q0) by assuming that the age pattern of mortality conforms to the CD West model life tables.

# **YEMEN**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1975, 1994, 2004 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) official estimates through 2017; and with estimates of the subsequent trends in fertility, mortality and international migration.

*Note*: 1975 census for Yemen Arab Republic adjusted to include estimates from the 1973 Democratic Yemen census.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2004; (b) registered births classified by age of mother and the underlying female population by age through 2017; (c) birth-histories data from the 1979 WFS and 1991-1992, 1997, 2013 DHS and 2003 FHS and 2006 MICS; (d) indirect estimates obtained from the application of the reverse survival method to the 1975, 1994, 2004 censuses; (e) cohort-completed fertility backdated by the mean age of childbearing from the 2013 DHS. In addition, the (a) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1979 WFS and 1988 Census; (b) indirect estimates obtained from the application of the reverse survival method to the 1984-2009 Education Stats; (c) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2006 MICS; (d) cohort-completed fertility backdated by the mean age of childbearing from the 1979 WFS and 1986, 1988, 1994 censuses and 2003 FHS and 2006 MICS have been considered.

**Child Mortality:** Under-five mortality based on: (a) official estimates of infant and child mortality through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1979 WFS and 1991-1992, 1997, 2013 DHS and 2003 FHS and 2006 MICS; (c) indirect estimates from data on children ever born and surviving from the 1994, 2004 censuses; (d) recent household deaths from the 2004 Census; (e) International estimates used up to 2021.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) official estimates through 2007; (b) estimates using CD West model life tables and estimates of under-five mortality (5q0), and adult mortality (45q15).

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1979 WFS and 1991-1992 DHS; (b) siblings deaths from the 2013 DHS; (c) maternal orphanhood from the 1979 WFS and 2004 Census; (d) paternal orphanhood from the 1979 WFS and 2004 Census; (e) indirect estimates of adult mortality based on widowhood data from the 1979 WFS; (f) estimates of under-five, adult and old age mortality.

**Migration:** International migration based on: (a) estimates of migrant flows, and assumed subsequent trends in international migration (Yemeni migrants who returned to Yemen during the aftermath of the Gulf War); (b) information on foreign-born populations from censuses and registers from major countries of destination; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.

#### **ZAMBIA**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1969, 1980, 1990, 2000, 2010 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1974 Sample Census and 1992, 1996 DHS and 1999 MICS survey estimates; (f) official estimates through 2020; (g) only total population for 1963 Census; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) official estimates of age-specific fertility rates through 2000; (b) registered births classified by age of mother and the underlying female population by age through 2017; (c) birth-histories data from the 1992, 1996, 2001-2002, 2007, 2013-2014, 2018 DHS; (d) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1974 Sample Census and 1980, 1990, 2000, 2010 censuses; (e) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1969, 1980, 1990, 2000, 2010 censuses; (f) indirect estimates obtained from the application of the reverse survival method to the 1969, 1980, 1990, 2000, 2010 censuses and 1974 Sample Census and 1999 MICS and 2008 GFFS; (g) indirect estimates obtained from stable population assumption; (h) cohort-completed fertility backdated by the mean age of childbearing from the 1980, 1990, 2000, 2010 censuses and 1992, 1996, 2001-2002, 2007, 2013-2014, 2018 DHS. In addition, the (a) indirect estimates obtained from the application of the reverse survival method to the 1955-2009 Education Stats; (b) cohort-completed fertility backdated by the mean age of childbearing from the 1969 Census have been considered.

Child Mortality: Under-five mortality based on: (a) registered infant and child deaths through 2017; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 1992, 1996, 2001-2002, 2007, 2013-2014, 2018 DHS; (c) indirect estimates from data on children ever born and surviving from the 1969, 1980, 1990, 2000, 2010 censuses and 1974 Sample Census and 2007 DHS; (d) recent household deaths from the 2008 GFFS and 2015-2016 SAVVY; (e) International estimates used up to 2021. In addition, the recent household deaths from the 2007 DHS and 2008 HHCS and 2010 Census have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) The demographic impact of AIDS has been factored into the mortality estimates; (b) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) recent household deaths data by age and sex from the 1998 LCMS2 and 2003, 2005, 2009 SBS and 2006 LCMS5 and 2008 GFFS and 2010 LCMS6 and 2015-2016 SAVVY; (b) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (c) siblings deaths from the 1996, 2001-2002, 2007, 2013-2014, 2018 DHS and 2000 SBS; (d) maternal orphanhood from the 1992, 1996, 2001-2002, 2007 DHS and 1999 MICS; (e) paternal orphanhood from the 1996, 2001-2002, 2007 DHS and 1999 MICS; (f) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 2007 DHS and 2008 HHCS and 2010 Census have been considered.

#### **ZIMBABWE**

**Population:** Total population and distribution by age and sex estimated to be consistent with the population by age and sex of the (a) 1969, 1982, 1992, 2002, 2012 censuses; (b) adjusted for under/over count; (c) adjusted for age heaping; (d) adjusted for under enumeration of children under age 15; (e) 1987, 1997 ICDS and 1994, 2005-2006 DHS survey estimates; (f) official estimates through 2021; (g) only total population for 1956, 1961 censuses; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Fertility:** Total fertility rate and age pattern of fertility based on: (a) birth-histories data from the 1984 RHS and 1988, 1994, 1999, 2005-2006, 2010-2011, 2015 DHS and 2009, 2014, 2019 MICS; (b) births in the household in the preceding 12 (or 24) months classified by age of mother from the 1969, 1982, 1992, 2002, 2012 censuses and 1984 RHS and 2017 ICDS; (c) adjusted fertility using Brass P/F ratio method (or variants) with data on children ever born and births in the preceding 12 (or 24/36) months, both classified by age of mother, from the 1969, 1982 censuses; (d) indirect estimates obtained from the application of the reverse survival method to the 1982, 1992, 2002, 2012 censuses and 1997 ICDS; (e) indirect estimates obtained from stable population assumption; (f) cohort-completed fertility backdated by the mean age of childbearing from the 1969, 1982, 1992, 2002 censuses and 1984 RHS and 1987, 1997, 2017 ICDS and 1988, 1994, 1999, 2005-2006, 2010-2011 DHS and 2009, 2014, 2019 MICS. In addition, the (a) official estimates of age-specific fertility rates through 2005; (b) registered births classified by age of mother and the underlying female population by age through 1979; (c) indirect estimates obtained from the application of the reverse survival method to the 1969 Census; (d) cohort-completed fertility backdated by the mean age of childbearing from the 2012 Census have been considered.

Child Mortality: Under-five mortality based on: (a) direct estimates from births and deaths under-five calculated from full birth histories data from the 1988, 1994, 1999, 2010-2011, 2015 DHS and 2009, 2014, 2019 MICS; (b) indirect estimates from data on children ever born and surviving from the 1969, 1982, 1992, 2002 censuses and 1984 RHS and 1987, 1997 ICDS; (c) International estimates used up to 2021. In addition, the (a) registered infant and child deaths through 2002; (b) direct estimates from births and deaths under-five calculated from full birth histories data from the 2005-2006 DHS and 2008 ICDS; (c) recent household deaths from the 1992, 2002, 2012 censuses and 1997, 2017 ICDS and 2005-2006 DHS have been considered.

**Overall Mortality:** Life expectancy at birth and age pattern of mortality based on: (a) registered deaths by age and sex available through 2012; (b) adjusted for underreporting of infant and child deaths; (c) adult deaths adjusted for underregistration using death distribution methods; (d) mortality rates for older ages were adjusted; (e) The demographic impact of AIDS has been factored into the mortality estimates; (f) estimates using HIV/AIDS model life tables and estimates of under-five mortality (5q0) and adult mortality (45q15) with UNAIDS estimates of adult HIV prevalence, and ART coverage for children and adults.

Adult and Old Age Mortality: Estimates derived from: (a) deaths by age and sex available from Register through 2012; (b) adjusted for underregistration; (c) recent household deaths data by age and sex from the 2017 ICDS; (d) recent household deaths adjusted at adult ages for underregistration using death distribution methods; (e) siblings deaths from the 1994, 1999, 2005-2006, 2010-2011, 2015 DHS and 2014, 2019 MICS; (f) maternal orphanhood from the 1982, 1992, 2002 censuses and 1994, 1999, 2005-2006, 2010-2011 DHS and 1997 ICDS; (g) paternal orphanhood from the 1982, 1992, 2002 censuses and 1997 ICDS and 1999, 2005-2006, 2010-2011 DHS; (h) estimates of under-five, adult and old age mortality. In addition, the recent household deaths data by age and sex from the 1992, 2002, 2012 censuses and 1997 ICDS and 2005-2006 DHS have been considered.

**Migration:** International migration based on: (a) information on foreign-born populations from censuses and registers from major countries of destination; (b) information on the number of migrant workers or about labor migration; (c) estimates derived as the differences between overall population growth and natural increase; (d) UNHCR statistics on the number of refugees in the main countries of asylum.