Afghanistan

**Total population:** Estimated to be consistent with the 1979 census and 2003-05 Household listing, with the associated population by age and sex based on a 1/200 household sample from the 2003-05 Household listing, the 2007/08 National Risk and Vulnerability Assessment Survey, the 2011 MICS4 survey, the 2014 ALCS estimate (including 1.5 million nomads), and with with estimates of the subsequent trends in fertility, mortality and international migration. The 2010 AMS sample was also considered. The 1979 census enumerated the settled population only; an attempt was made to adjust for the number of Kuchi (nomads), reported to be about 800,000 at the times.

**Total fertility:** Based on adjusted age-specific fertility rates from: (a) the own-children method applied to the 2007/08 NRVA survey, 2010 Afghanistan Mortality Survey (AMS) and 2011 MICS; (b) maternity-history data and period parity progression ratios from the 2010 AMS and maternity-history from the 2015 DHS; (c) data on children ever born by age of mother from the 2000 and 2003 MICS; (d) data on children ever born and births in the preceding 24 or 36 months, both classified by age of mother, from the 2006 MOH Health Survey, 2007/08 and 2011/12 NRVA survey, and 2011 MICS; (e) reverse survival from the 1972/73 Afghanistan Demographic Survey (ADS), 1979 census, 2003/05 household listing, 2005 National Risk and Vulnerability Assessment (NRVA) survey, 2006 MOH Health Survey; births in the preceding 12 months to the 1979 census classified by age of mother; data on children ever born and births in the preceding 12 months, both classified by age of mother, from the 1972/73 ADS; and (h) cohort-completed fertility from these surveys and censuses. Reproductive health studies conducted in Afghan refugee settlements in Pakistan were also considered.

**Infant and child mortality:** Based on: (a) data on births and infant deaths in the past 12 months adjusted for underreporting from the 1979 census and 2010 AMS; (b) data on births and deaths under-five calculated from maternity-history data from the 2010 AMS (excluding the Southern region) adjusted for underreporting of neonatal deaths and the 2015 DHS adjusted for underreporting of neonatal deaths; and (c) data on children ever born and surviving produced by the 1972/73 Afghanistan Demographic Survey, 1997 Afghanistan MICS, 2006 MOH Health survey, 2007/08 National Risk and Vulnerability Assessment Survey, and the 2011 MICS survey (excluding the Southern region). Indirect estimates from the 2000 and 2003 Afghanistan MICS, were also considered.

**Life expectancy at birth:** Estimated using the West model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15). Adjusted estimates of adult mortality were derived from: (a) recent household deaths data from the 1979 census; (b) implied relationship between child mortality and adult mortality based on the UN South Asian and West model of the Coale-Demeny Model Life Tables; and (c) levels of adult mortality based on sample registration data from neighbouring countries for recent years. Estimates of adult mortality derived from (i) recent household deaths data from the 2010 Afghanistan Mortality Survey (AMS), (ii) parental orphanhood from the 2010 AMS (excluding the Southern region), and (iii) siblings deaths from the 2010 AMS (excluding the Southern region) adjusted for age misreporting and recall biases were also considered.

**International migration:** Based on UNHCR statistics on the number of Afghan refugees in the main countries of asylum (Pakistan, Iran and India) and on assumptions about the subsequent return of refugees.
Albania

Total population: Estimated to be consistent with the 1950, 1955, 1989, 2001 and 2011 censuses, with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) official estimates of total fertility through 2015 and estimates from the 2002 Reproductive Health Survey and the 2008/09 Demographic and Health Survey, (b) indirect estimates obtained from the application of the own-children method of fertility estimation to the 2005 Multiple Indicator Cluster Survey (MICS), and (c) indirect estimates obtained from the application of the reverse survival method to the 1955, 1989, 2001 and 2011 censuses, and the 2000 MICS.

Infant and child mortality: Based on: (a) direct estimates from the 2002 Reproductive Health Survey (RHS) and the 2008/09 Demographic and Health Survey (DHS); (b) data on children ever born and surviving from the 2000 and 2005 Albania Multiple Indicator Cluster Survey (MICS), the 2008/09 DHS and the 2011 census.

Life expectancy at birth: Based on life tables for 1987-2015 derived from registered deaths by age and sex and observed trends in infant and child mortality.

International migration: Based on estimates of immigration of Albanians to Greece, Italy and the rest of Europe and estimates of net international migration derived as the difference between overall population growth and natural increase.

Algeria


Total fertility: Based on: (a) official estimates of total fertility derived from births registered from 1980 to 2015; (b) number of births in the household in the preceding 12 months from the 1987 census; (c) estimates from the 1992 PAPCHILD, 2002 Enquête Algérienne sur la Santé de la Famille (EASF) and 2006 and 2012-2013 Multiple Indicator Cluster Survey (MICS); and (d) indirect estimates obtained from the application of the reverse survival method to the 1966, 1977, 1987, 1998 and 2008 censuses, and the 2006 and 2012-2013 MICS.

Infant and child mortality: Based on: (a) births and infant deaths registered through 2015 (estimates from 1998 to 2001 were revised by the National Statistical Office of Algeria); (b) recent household deaths from the 1995 Enquête Nationale sur les objectifs de la mi-décennie "MDG en Algérie"; and (c) data on children ever born and surviving from the 2000, 2006 and 2012-2013 Algeria Multiple Indicator Cluster Survey (MICS).

Life expectancy at birth: Based on official estimates of life expectancy derived from the number of deaths registered through 2015. Estimates were adjusted for under-reporting of deaths and deaths of non-nationals. From 1950 to 2000, the age patterns of mortality are derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the mortality patterns resulting from the blending from the South model of the Coale-Demeny Model Life Tables to the West model of the Coale-Demeny Model Life Tables from 1950 to 2000.

International migration: Based on data on: (a) the number of Algerians admitted by France, (b) estimates of emigration of Algerians to other Arab countries, (c) UNHCR statistics on the number of refugees in Algeria, and (d) estimates of net international migration derived as the difference between overall population growth and natural increase.
American Samoa

**Total population:** Estimated to be consistent with the 1950, 1956, 1960, 1970, 1974, 1980, 1990, 2000 and 2010 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration. Estimates of the Secretariat of the Pacific Community were also taken into account.

Andorra

**Total population:** Estimated to be consistent with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

Angola

**Total population:** Estimated to be consistent with the 1970 and 2014 censuses, adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) data on children ever born from the 1996 and 2001 Angola Multiple Indicator Cluster Surveys (MICS), (b) maternity-history data from the 2006/07 and 2011 Angola Malaria Indicator Surveys, and (c) preliminary results from the 2015-16 DHS. Official estimates from the 2014 census were also considered.

**Infant and child mortality:** Based on: (a) data from the 1996 and 2001 Angola Multiple Indicator Cluster Surveys (MICS); and (b) 2008/09 Inquérito Integrado sobre o Bem-Estar da População (2008/09 IBEP). Estimates of child mortality from the 2006/07, 2011 Angola Malaria Indicator Survey, and preliminary results from the 2015-2016 Inquérito de indicadores múltiplos e de saúde (IIMS) were also considered. For the more recent years, estimates are derived from the official life expectancy at birth estimates by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables.

**Life expectancy at birth:** Based on official estimates of life expectancy at birth derived with data from the 2014 census. Prior estimates have been derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables.

**International migration:** Based on: (a) refugee statistics compiled by UNHCR, and (b) estimates derived as the differences between overall population growth and natural increase through 2014.

Anguilla

**Total population:** Estimated to be consistent with the 1960, 1974, 1984, 1992, 2001 and 2011 censuses, and the assumed subsequent trend in the growth rate of the population.

Antigua and Barbuda

**Total population:** Estimated to be consistent with the 1960, 1970, 1991, 2001 and 2011 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on registered birth from 1972 to 2001.

**Infant and child mortality:** Based on births and infant and child deaths registered from 1950 to 2010.

**Life expectancy at birth:** Based on official estimates of life expectancy from 2000 to 2010.
Antigua and Barbuda (cont.)

International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase.

Argentina


Total fertility: Based on: (a) registered births classified by age of mother from 1950 through 2014; (b) estimates from the 2011/12 MiCS; and (c) estimates from 1960, 1970, 1980, 1991, 2001 and 2010 censuses.

Infant and child mortality: Based on births and infant deaths registered from 1950 through 2013 and the underlying population in the 2001 and 2010 censuses and revised projections by the National Statistics Office (INDEC).

Life expectancy at birth: Based on registered deaths from 1950 through 2013, and the underlying population from censuses, and revised projections by the National Statistics Office (INDEC). The number of deaths was adjusted using the growth-balance method.

International migration: Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, (b) estimates derived as the differences between overall population growth and natural increase.

Armenia

Total population: Estimated to be consistent with the 2011 census, with official population estimates through 2015 adjusted to reflect de facto population, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) births registered through 2015 classified by age of mother, and (b) maternity-history data from the 2000, 2005, 2010 and 2015 Armenia Demographic Health Surveys (DHS).

Infant and child mortality: Based on maternity-history data from the 2000, 2005, and 2010 Armenia Demographic Health Surveys (DHS). Preliminary data from the 2015 DHS were also considered.

Life expectancy at birth: Based on: (a) a life table derived from reported deaths by age and sex in 2011 and the 2011 census population, adjusted for underreporting of infant and child deaths, and (b) official estimates of life expectancy available from 2006 through 2015.

International migration: Based on official estimates of international migration and estimates derived as the difference between overall population growth and natural increase through 2015.

Aruba


Total fertility: Based on official estimates of total fertility available from 2000 to 2015.

Infant and child mortality: Based on official estimates of infant and child mortality through 2013.


International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase.
Australia

**Total population:** Estimated to be consistent with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official registration data of births by age of mother through 2014.

**Infant and child mortality:** Based on births and infant deaths registered through 2014.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2012-2014 and reported deaths through 2015. The age pattern of mortality is based on life tables through 2011 from the Human Mortality Database.

**International migration:** Based on official estimates of international migration and estimates derived as the difference between overall population growth and natural increase through 2015.

Austria


**Total fertility:** Based on official estimates of total fertility through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2015.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2015. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database.

**International migration:** Based on: (a) official figures of net international migration flows from 1961 to 2015 and officially assumed subsequent trends in international migration, and (b) estimates of net international migration derived as the difference between overall population growth and natural increase.

Azerbaijan

**Total population:** Estimated to be consistent with the 1959, 1970, 1979, 1989, 1999 and 2009 censuses, with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) births registered through 2015 classified by age of mother adjusted for underregistration to achieve consistency with the 1999 and 2009 censuses; (b) maternity-history data from the 2001 Azerbaijan Reproductive Health Survey and the 2006 Azerbaijan Demographic Health Survey.

**Infant and child mortality:** Based on: (a) maternity-history data from the 2001 RHS and 2006 Azerbaijan DHS, and (b) data on children ever born and surviving from the 2000 Azerbaijan MICS and the 1989 census. Official estimates from vital registration were considered.

**Life expectancy at birth:** Based on deaths registered through 2015 classified by age and sex and the underlying population by age and sex. Death rates were adjusted for underregistration.

**International migration:** Based on official estimates of international migration and estimates derived as the difference between overall population growth and natural increase through 2013.

Bahamas

**Total population:** Estimated to be consistent with the 2010 census, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official registration data of births by age of mother through 2011.

**Infant and child mortality:** Based on births and infant deaths registered from 1965 to 2013.
Bahamas (cont.)

Life expectancy at birth: Derived from child and adult mortality estimates through 2013 by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables.

International migration: Based on estimates of net international migration derived as the difference between overall population change and natural increase during the 1950-2010 intercensal period.

Bahrain


Total fertility: Based on annual births registered from 1977 through 2014 classified by age of mother.

Infant and child mortality: Based on: (a) births and infant deaths registered from 1980 through 2014 adjusted for underregistration, (b) births and deaths under-five calculated from maternity-history data from the 1989 CHS and 1995 GFH surveys; and (c) data on children ever-born and surviving classified by age of mother (and using the West model of the Coale-Demeny Model Life Tables) from these surveys, as well as from the 1965, 1971, 1981 1991 and 2001 censuses.

Life expectancy at birth: Based on life tables derived from official estimates of registered deaths and enumerated census population by age and sex from 1980 to 2014, adjusted for infant and child mortality. Mortality rates for older ages were adjusted. For the period 1950-1980, life tables were derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the South model of the Coale-Demeny Model Life Tables in 1950-1955, and converges over time toward the estimated 1980-1985 life table.

International migration: Based on estimates of net international migration derived as the difference between overall population change and natural increase through 2015.

Bangladesh

Total population: Estimated to be consistent with the 1961, 1974, 1981, 1991, 2001 and 2011 censuses, adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration. Annual total population estimates from the Sample Vital Registration System through 2014 were also considered, as well as the 2008 voter registration for adults age 18 and over.

Total fertility: Based on: (a) adjusted data from the Sample Vital Registration System for age-specific fertility rates through 2015; (b) maternity-history data from the 1975 and 1989 Bangladesh Fertility Survey, the 1993/94, 1996/97, 1999/00, 2004, 2007, 2011 and 2014 DHS, 2001 Bangladesh Maternal Health Services and Maternal Mortality Survey and 2010 BMMS; (c) births in the preceding 12 (or 24) months classified by age of mother from the 1961/62 Demographic Survey of East Pakistan, the 1963/65 Population Growth Estimation (PGE) experiment, the 1985, 1989, 1991 CPS and the 2006 MICS3 and 2012/13 MICS; (d) data on children ever born and recent births, both classified by age of mother, from these surveys ; and (e) the own-children method applied to the 1974 Bangladesh Retrospective Survey of Fertility and Mortality.
Bangladesh (cont.)

**Infant and child mortality:** Infant mortality: Derived from the child mortality rates using the West model of the Coale-Demeny Model Life Tables, and are consistent with national estimates. Child mortality estimates are based on: (a) adjusted data from the Sample Vital Registration System from 1980 through 2015, (b) data on children ever-born and surviving classified by age of mother (and the West model of the Coale-Demeny Model Life Tables), and (c) data on births and deaths under-five calculated from maternity-history data from the 1993/94, 1996/97, 1999/00, 2004, 2007, 2011 and 2014 DHS, 2001 Bangladesh Maternal Health Services and Maternal Mortality Survey, 2009 MICS and 2012/13 MICS (preliminary) and earlier ones. Levels and trends since the mid-1980s are consistent with under-five mortality estimates based on the 2001 BMMS sibling history and data gathered from Matlab Health and Demographic Surveillance System up to 2005.

**Life expectancy at birth:** Based on life tables derived from age and sex-specific mortality rates from: (a) the Sample Vital Registration System from 1981 up to 2015 adjusted for infant and child mortality, (b) the 1974 Retrospective Survey of Fertility and Mortality, and (c) the 1962/65 Population Growth Estimation Experiment. Estimates are consistent with those from the 2001 and 2010 Bangladesh Maternal Mortality Surveys (based on sibling histories and household deaths in the preceding 36 months), and data gathered from Matlab Health and Demographic Surveillance System up to 2012. For the period 1970-1975, mortality was adjusted to take into account the excess mortality associated with the 1971 civil war and independence from Pakistan, and the 1974 flood and famine.

**International migration:** Based on: (a) data on persons originating in Bangladesh and migrating to selected developed countries, (b) the number of persons born in Bangladesh enumerated by the censuses of India, and (c) information on the number of workers receiving clearances to work abroad.

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**Barbados**

**Total population:** Estimated to be consistent with the 2010 census, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) births registered through 2007, (b) estimate from the 2010 census and (c) estimates from the 2012 Multiple Indicator Cluster Survey.

**Infant and child mortality:** Based on: data on vital registration from 1955 to 2011.

**Life expectancy at birth:** Derived from estimates of child mortality and adult mortality from vital registration data through 2007 by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables.

**International migration:** Based on estimates of net international migration derived as the difference between overall population change and natural increase during the 1950-2010 intercensal period.

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**Belarus**

**Total population:** Estimated to be consistent with the 1959, 1970, 1979, 1989, 1999 and 2009 censuses, with official population estimates through 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of total fertility available through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2014, adjusted by a factor of 1.25 to compensate for infant deaths omitted owing to the use of a definition of infant death that does not conform to international standards.

**Life expectancy at birth:** Based on official life tables available through 2015.

**International migration:** Based on official estimates of international migration and estimates derived as the difference between overall population growth and natural increase through 2015.
Belgium

Total population: Estimated to be consistent with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.
Total fertility: Based on official estimates of total fertility available through 2014.
Infant and child mortality: Based on births and infant deaths registered through 2015.
Life expectancy at birth: Based on official estimates of life expectancy available through 2015.
International migration: Based on official estimates of international migration by sex available through 2014 and estimates of net international migration derived as the difference between overall population growth and natural increase.

Belize

Total fertility: Based on: (a) estimate of total fertility from the 2011 and 2015 Multiple Indicator Cluster Survey (MICS), (b) official estimates from the National Statistics Office from 2005 through 2008, and (c) births registered through 2011 classified by age of mother.
Infant and child mortality: Based on: (a) adjusted births and infant deaths registered through 2014; (b) estimates from the 2006, 2011 and 2015 Multiple Indicator Cluster Survey (MICS); (c) estimates from 1991 and 1999 Family Health Surveys; and (d) results from the 2000 census.
Life expectancy at birth: Estimated using the West model of the Coale-Demeny Model Life Tables and two parameters: (a) estimates of child mortality; and (b) adjusted estimates of adult mortality from registered deaths and underlying population through 2009. From 1950 to 1995, estimated using adjusted registered deaths by age and sex and underlying population by age and sex.
International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1970-2010 intercensal periods. Data from CARICOM countries were considered.

Benin

Total population: Estimated to be consistent with the 1979, 1992 and 2002 censuses, with preliminary results of the 2013 census, and with estimates of the subsequent trends in fertility, mortality and international migration.
Total fertility: Based on: (a) maternity-history data from the 2011/12 DHS-MICS, adjusted for underreporting, the 2014 MICS, the 1996, 2001 and 2006 DHS, the 1982 WFS; (b) data on children ever born and births in the preceding 12 months, both classified by age of mother, and from the 1961 Demographic Survey and the 1992 and 2002 censuses; and (c) cohort-completed fertility from these surveys and censuses.
Infant and child mortality: Based on: (a) data on births and deaths under-five calculated from maternity-history data from the 1981/82 WFS, 1996, 2001 and 2006 DHS, and preliminary results of the 2014 MICS; (b) data on children ever-born and surviving classified by age of mother (and the North model of the Coale-Demeny Model Life Tables), from the 1961 Demographic Survey, 1981/83 multi-round survey (Enquête Nationale Démographique) and the 1992 and 2002 censuses. Results from the 2011/12 DHS were also considered.
Life expectancy at birth: Estimated using the North model of the Coale-Demeny Model Life Tables and implied relationships between life expectancy at birth and estimates of infant and child mortality, and between life expectancy at birth and estimates of adult mortality (45q15).
Benin (cont.)

**International migration**: Based on official statistics on the foreign-born or the foreign populations in all countries of the world, and estimates derived as the difference between overall population growth and natural increase during the intercensal periods.

**Bermuda**


**Bhutan**

**Total population**: Estimated to be consistent with the 2005 census, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility**: Based on: (a) adjusted births in the preceding 12 (or 24) months classified by age of mother from the 1980 and 1984 Demographic Sample Surveys, 1994 Health Sample Survey, 2000 and 2012 National Health Surveys, 2005 census, 2007 Bhutan Living Standard Survey, 2010 MICS4, and 2012 LSS; (b) reverse survival from the 2005 census; (c) the own-children method applied to the 2010 MICS4 survey; and (d) cohort-completed fertility from these surveys and census.

**Infant and child mortality**: Infant mortality: Derived from child mortality rates using the West model of the Coale-Demeny Model Life Tables. Child mortality: Based on: (a) data on births and infant deaths in the past 24 months from the 1994 Health Sample Survey, the past 12 months from the 2000 National Health Survey and the 2005 census (adjusted for underreporting); (b) data on children ever born and surviving classified by age of mother (and the West model of the Coale-Demeny Model Life Tables) from the 1984 Demographic Sample Survey, 2005 census, and 2010 MICS4; and (c) data on births and deaths under-five calculated from maternity-history data from the 2012 NHS.

**Life expectancy at birth**: Based on a life table derived from adjusted deaths in the past 12 months by age and sex, and the population by age and sex from the 2005 census, adjusted for infant and child mortality. For 1950-2000, life tables were derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables in 1950-1955 and converges over time toward the estimated 2000-2005 life table. Life tables based on adjusted annual deaths from the 1994 National Health Survey were also considered.

**International migration**: Based on refugee statistics compiled by UNHCR.

**Bolivia (Plurinational State of)**

**Total population**: Estimated to be consistent with the 1950, 1976, 1992, 2001 and 2012 censuses, adjusted for underenumeration, with official estimates through 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility**: Based on: (a) maternity-history data from the 1989, 1998, 2003 and 2008 Bolivia DHS, (b) estimates from the 2001 and the 2012 censuses, (c) official estimates of total fertility through 2011, and (d) estimate from the 1975 and 1980 National Demographic Survey (EDEN).
Bolivia (Plurinational State of) (cont.)

**Infant and child mortality:** Based on: (a) estimates from the 1989, 1993/04, 1998, 2003, and 2008 DHS; (b) estimates from the 1976, 1992, 2001 and 2012 censuses; and (c) estimates from the 2000 MICS, the 1988 National Population and Housing Survey (ENPV), and the 1975 and 1980 National Demographic Survey (EDEN).

**Life expectancy at birth:** Based on life tables derived from: (a) deaths by age and sex, adjusted using the growth-balance method, and underlying population from the 1992, 2001 and 2012 censuses; (b) data on maternal orphanhood from the 1988 National Population and Housing Survey (ENPV); (c) official estimates of life expectancy for 2010 and 2011; and (d) estimates of infant and child mortality from the 2000 MICS and the 1989, 1994, 1998, 2003 and 2008 DHS.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain (Padrón Municipal) and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase through 2012.

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**Bosnia and Herzegovina**

**Total population:** Estimated to be consistent with the 1971, 1981, 1991 and 2013 censuses, adjusted to show the de facto population, and with estimates of subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) official estimates of age specific fertility rates available through 2015; (b) births in the preceding 12 months classified by age of mother from the 2011/12 Multiple Indicator Cluster Survey (MICS); and (c) indirect estimates obtained from the application of the reverse survival method to the 2011/12 MICS.

**Infant and child mortality:** Based on registered births and infant deaths through 2012.

**Life expectancy at birth:** Based on official estimates of life expectancy for 1988/89 and WHO estimates for years 2000 to 2012. The estimates of war-related deaths in the period 1992-1995 were also considered.

**International migration:** Based on: (a) refugee statistics compiled by UNHCR, (b) data on migration flows to OECD countries, and (c) estimates of net international migration derived as the difference between overall population growth and natural increase during the intercensal period.

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**Botswana**

**Total population:** Estimated to be consistent with the 2011 census adjusted for underenumeration, with official population estimates for 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.


**Infant and child mortality:** Based on: (a) estimates from the 1971, 1981, 1991, 2001 and 2011 censuses; (b) direct estimates from the 2007 Family Health Survey IV; and (c) indirect estimates from the 1984 and 2006 Family Health Surveys. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables. The demographic impact of AIDS has been factored into the mortality estimates.
Botswana (cont.)

International migration: Based on: (a) refugee statistics compiled by UNHCR, (b) the number of migrant workers in South Africa, and (c) official estimates of net migration flows from the Central Statistics Office of Botswana.

Brazil


Total fertility: Based on: (a) births registered classified by age of mother from 1974 through 2015 and underlying female population by age; (b) estimates from the National Sample Survey of Households (PNAD) from 1972 to 2009; and (c) estimates from the 1960, 1970, 1980, 1991, 2000 and 2010 censuses.


Life expectancy at birth: Based on life tables derived from: (a) registered deaths by age and sex from 1979 through 2015, and the underlying census population by age and sex, and (b) estimates of infant and child mortality. The number of deaths was adjusted using the growth-balance method.

International migration: Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, (b) estimates derived as the differences between overall population growth and natural increase through 2010.

British Virgin Islands

Total population: Estimated to be consistent with the 2001 census, official estimates through 2013, and the assumed subsequent trend in the growth rate of the population.

Brunei Darussalam

Total population: Estimated to be consistent with the censuses from 1960 through 2011, with official population estimates for 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on official estimates of total fertility through 2014.

Infant and child mortality: Based on births and infant deaths registered through 2014.

Life expectancy at birth: Derived from child and adult mortality estimates through 2011, and from reported deaths by age and sex through 2014, by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables. Life tables are estimated using the Flexible two-dimensional model life table and Lee-Carter method.

International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.
Bulgaria

**Total population:** Estimated to be consistent with the 1947, 1956, 1965, 1975, 1985, 1992, 2001 and 2011 censuses, with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official registration data of births by age of mother through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2015.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2015. The age pattern of mortality is based on life tables through 2015 from the Human Mortality Database.

**International migration:** Based on estimates derived as the difference between overall population growth and natural increase through 2009 and official estimates of international migration from 2010 to 2015.

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Burkina Faso

**Total population:** Estimated to be consistent with the 1985, 1996 and 2006 censuses adjusted for underenumeration, with official estimates through 2010, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 1992/93, 1998/99, 2003 DHS and 2010/11 DHS-MICS, adjusted for underreporting; (b) data on children ever born and births in the preceding 12 months (or 36 months), both classified by age of mother, from these surveys and from the 1960 demographic survey, 1976 post-enumeration survey, 1985 census, 1991 Demographic Survey, 1996 and 2006 censuses, and 2006 MICS3 survey; (c) cohort-completed fertility from these surveys and censuses; and (d) the own-children method applied to the 2003 WHS and 2006 MICS3 surveys. Preliminary estimates from PMA2020 R1, R2 and R3 were considered.

**Infant and child mortality:** Based on: (a) data on births and deaths under-five from maternity-history data from the 1992/93, 1998/99, 2003 DHS and 2010/11 DHS-MICS; (b) data on recent household deaths from the 1960/61 survey, 1976, 1985, 1996 and 2006 censuses, and the 1991 National Demographic survey; (c) data on children ever-born and surviving classified by age of mother (and the North model of the Coale-Demeny Model Life Tables) from these data sources as well as from the 2006 MICS3 survey. Infant mortality estimates are cross-validated and adjusted for underreporting using relationships between infant and child mortality estimates (for both sexes, and by sex) using data from 15 demographic surveillance sites and cohort studies in the Sahel region for the period 1943-1999.

**Life expectancy at birth:** Estimated using the South model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15). Data from West African rural demographic surveillance sites and urban vital registration were also considered. Adjusted estimates of adult mortality were derived from: (a) recent household deaths data (unadjusted and adjusted for underregistration using the growth-balance and synthetic-extinct generation methods) from the 1960/61 survey, 1976, 1985, 1996 and 2006 censuses, the 1991 National Demographic Survey, and 2008 Global Fund survey; (b) parental orphanhood from the 1993, 2003 and 2010/11 DHS, 2006 MICS3 and 2006 census; (c) siblings deaths from the 1998/99, 2003 and 2010/11 DHS; (d) intercensal survivorship from successive census age distributions (smoothed and unsmoothed) for periods 1976-1985, 1985-1996 and 1996-2006; (e) implied relationship between child mortality and adult mortality based on the North model of the Coale-Demeny Model Life Tables in 1950-1955, and assumed to converge over time toward the South model of the Coale-Demeny Model Life Tables by the 1990s.

**International migration:** Based on estimates derived as the difference between overall population growth and natural increase; on refugee statistics compiled by UNHCR; and on official statistics on the foreign-born or the foreign population in other countries of the world.
Burundi

**Total population:** Estimated to be consistent with the 1979, 1990 and 2008 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) direct fertility estimates from the 2008 census and the 1965 Demographic Survey; (b) maternity histories from the 1987 and 2010 Burundi Demographic and Health Survey (DHS), the 2002 Enquête socio-démographique et de santé de la reproduction (ESDSR); (c) adjusted fertility estimate from the 1990 census; (d) indirect fertility estimates obtained from the application of the reverse survival method to the 1979, 1990 and 2008 censuses and the 2000 Multiple Indicator Cluster Survey (MICS); and (e) indirect fertility estimates obtained from the application of the own-children method to the 2005 MICS.

**Infant and child mortality:** Based on: (a) direct estimates from the 1970 Demographic Survey, the 1987 and 2010 Demographic and Health Survey (DHS) and the 2008 census; and (b) indirect estimates from CEB-CS data and the North model of the Coale-Demeny Model Life Tables, using the 1970 Demographic Survey, the 1979 Post-census Survey, the 1987 and 2010 DHS, the 1990 census, the 2000 and 2005 Enquête Nationale d'Évaluation des Conditions de vie de l'Enfant et de la Femme (MICS), and the 2012 PMS survey. A 1990-1995 life table accounting for the high number of deaths due to the 1993 civil war was also used.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny model life tables, and taking into account the number of deaths due to civil strife.

**International migration:** Based on refugee statistics compiled by UNHCR and estimates of net international migration derived as the difference between overall population growth and natural increase.

Cabo Verde

**Total population:** Estimated to be consistent with the 1950, 1960, 1970, 1980, 1990, 2000 and 2010 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration. Official estimates through 2011 were also considered.

**Total fertility:** Based on: (a) maternity-history data from the 1998 and 2005 Demographic and Reproductive Health Surveys, (b) data on children ever born and recent births, both classified by age of mother, from these surveys and from the 1980, 1990, 2000 and 2010 censuses (adjusted), (c) annual births registered from 1979 through 2010 classified by age of mother; and (d) official estimates of total fertility from registered births through 2013.

**Infant and child mortality:** Based on: (a) births and infant deaths registered from 1980 through 2013, (b) data on births and deaths under-five calculated from maternity-history data from the 2005 DHS and the 1998 DHS/RHS; and (c) data on children ever-born and surviving classified by age of mother (and the West model of the Coale-Demeny Model Life Tables) from surveys and the 1970, 1980, 2000 and 2010 censuses.

**Life expectancy at birth:** Derived from estimates of child mortality, by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables. Official estimates of life expectancy at birth by sex for 1990 and 2000 were also considered.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during intercensal periods.
Cambodia

**Total population:** Estimated to be consistent with the 1962, 1998 and 2008 censuses adjusted for underenumeration, the 1992 voter registration by the UN Transitional Authority, the 2004 population estimate based on Cambodia Inter-Censal Population Survey (CIPS), and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on adjusted age-specific fertility rates from (a) 1962-1998 population reconstructions; (b) the own-children method applied to the 1998 census, 2003/04 Socio-Economic Survey, 2004 Inter-Censal Population Survey, and 2008 census; (c) maternity-history data from the 1998 National Health Survey, 2000, 2005, 2010 and 2014 Demographic and Health Surveys; (d) births in the preceding 12 months classified by age of mother from the 1962 census, 1995 and 2000 KAP Survey on Fertility and Contraception, and 1998 census; (e) data on children ever born and recent births, both classified by age of mother, from these censuses and surveys, as well as from the 1996 Demographic Survey; and (f) cohort-completed fertility from these surveys and censuses.

**Infant and child mortality:** Based on: (a) data on births and deaths under-five calculated from maternity-history data from the 1998 National Health Survey, and 2000, 2005, 2010 and 2014 Demographic and Health Surveys; (b) data on household deaths in the past 12 months from the 1959 rural survey and 2009 census; and (c) data on children ever-born and surviving classified by age of mother (and the West model of the Coale-Demeny Model Life Tables) from these surveys, the 1998 census, and 2004 Inter-censal Population Survey. Infant mortality estimates prior to 1985 are derived from the child mortality rates using the West model of the Coale-Demeny Model Life Tables, and are based on the same data sources as for child mortality from 1985 onward. Data from the 1962 census were also considered. The demographic impact of the Khmer Rouges period is based on the 1962-1998 population reconstructions.

**Life expectancy at birth:** Based on life tables derived from age and sex-specific mortality rates from: (a) recent household deaths data from the 2004 Inter-Censal Population Survey and 2008 census; (b) siblings deaths from the 2000, 2005 and 2010 DHS. Also, 1950-1955 life tables derived from estimates of child mortality were used, by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables, as well as recent household deaths data from the 1959 rural survey, and the 1962-1998 population reconstructions.

**International migration:** Based on UNHCR data on movements of refugees between Cambodia and neighbouring countries; assumed emigration levels; and on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1998-2008 period.

Cameroon

**Total population:** Estimated to be consistent with the 1976, 1987, and 2005 censuses, adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 1978 Cameroon World Fertility Survey (WFS), the 1991, 1998, 2004 Cameroon Demographic Health Survey (DHS), the 2011 DHS-MICS and the 2014 Multiple Indicator Cluster Survey (MICS); (b) births in the preceding 12 months classified by age of mother from the 1960/65 Demographic Survey; (c) indirect fertility estimates obtained from the application of the reverse survival method to the 1976, 1987 and 2005 censuses, the 2000 and 2014 MICS, and the 2011 DHS-MICS; and (d) the indirect fertility estimates obtained from the application of the own-children method to the 2006 MICS.
Cameroon (cont.)

Infant and child mortality: Based on: (a) official estimates from the 1976, 1987 and 2005 censuses (RGPH), (b) maternity-history data from the 1978 Cameroon World Fertility Survey (WFS), the 1991, 1998, and 2004 Cameroon Demographic and Health Survey (DHS), the 2011 DHS-MICS, and the 2014 Multiple Indicator Cluster Survey (MICS); and (c) data on children ever born and surviving from the 1978 WFS, the 1991, 1998, and 2004 DHS, the 2000 Cameroon MICS, the 2005 RGPH, the 2011 DHS-MICS and the 2014 MICS. The demographic impact of AIDS has been factored into the mortality estimates.

Life expectancy at birth: Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables. The demographic impact of AIDS has been factored into the mortality estimates.

International migration: Based on refugee statistics compiled by UNHCR and estimates of net international migration derived as the difference between overall population growth and natural increase.

Canada

Total population: Estimated to be consistent with official population estimates through 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on official registration data of births by age of mother through 2011. Total numbers of reported births till 2014 were also considered.

Infant and child mortality: Based on births and infant deaths registered through 2011.

Life expectancy at birth: Based on official estimates of life expectancy available through 2012. Total numbers of reported deaths till 2014 were also considered. The age pattern of mortality is based on life tables through 2011 from the Human Mortality Database.

International migration: Based on official estimates of international migration and estimates derived as the difference between overall population growth and natural increase through 2016.

Caribbean Netherlands

Total population: Estimated to be consistent with the 1960, 1972, 1981, 1992 and 2001 censuses, with official estimates for 1 January 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

Cayman Islands

Total population: Estimated to be consistent with the 2010 census, and the assumed subsequent trend in the growth rate of the population.

Central African Republic

Total population: Estimated to be consistent with the 1975 census, with the 1988 and 2003 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) estimates from the 1975, 1988, and 2003 censuses, 1994/95 DHS and 2010 MICS survey, and (b) maternity-history data from the 1994/95 Central African Republic DHS.
Central African Republic (cont.)

**Infant and child mortality:** Based on: (1) maternity-history data from the 1994-1995 Central African Republic DHS, (b) estimates from the 1975 and 1988 censuses; and (c) estimates in the 2006 and 2010 Multiple Indicator Cluster Surveys were considered; and (e) demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Estimated using the North model of the Coale-Demeny Model Life Tables and implied relationships between life expectancy at birth and estimates of infant, child, and adult (45q15) mortality. The adjusted estimates of adult mortality were derived from (a) intercensal survivorship from successive census age distributions (smoothed and unsmoothed) for the period of 1988-2000; (b) household deaths data (unadjusted and adjusted for underregistration using the growth-balance and synthetic-extinct generation methods) from the 1988 census; (c) parental orphanhood data from the 1994/95 DHS and the 1988 census; and (d) siblings deaths from the 1994/95 DHS. The demographic impact of AIDS has been factored into the mortality estimates.

**International migration:** Based on refugee statistics compiled by UNHCR. The refugees in the Central African Republic in 2005 were assumed to leave the country by 2010-2015 and citizens of the Central African Republic recognized as refugees in countries of the region were assumed to return to their country by 2010-2015.

Chad

**Total population:** Estimated to be consistent with the 1993 and 2009 censuses, adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 1996-1997 and 2004 Chad Demographic and Health Survey (DHS), 2010 Multiple Indicator Cluster Survey (MICS) and 2014-2015 Chad DHS-MICS; (b) number of births in the preceding 12 months classified by age of mother from the 1964 Demographic Survey and 1993 census; (c) indirect estimates obtained from the application of the reverse survival method to the 1964 Demographic Survey, the 1993 and 2009 censuses, the 2000 and 2010 MICS, and the 2003 World Health Survey (WHS); and (d) cohort-completed fertility from these surveys and censuses.

**Infant and child mortality:** Based on: (a) maternity-history data from the 1996/97 and 2004 Chad Demographic and Health Survey (DHS), and the 2014-2015 DHS-MICS; and (b) data on children ever born and surviving from the 1993 census, the 1996/97 and 2004 Chad DHS, and the 2000 and 2010 Chad Multiple Indicator Cluster Survey (MICS).

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables.

**International migration:** Based on refugee statistics compiled by UNHCR and estimates of net international migration derived as the difference between overall population growth and natural increase.

Channel Islands

**Total population:** Estimated to be consistent with Jersey 2011 and Guernsey 2016 censuses; with official population estimates through 2015; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on registered births classified by age of mother through 2000 for Guernsey and through 1994 for Jersey. Official 2013 estimates and projections were also considered.
**Channel Islands (cont.)**

**Infant and child mortality:** Based on: (a) births and infant deaths registered through 2000 for Guernsey and through 1994 for Jersey, and (b) estimates of child mortality for the United Kingdom.

**Life expectancy at birth:** Based on: (a) a life table for 1989-1993 derived from registered deaths by age and sex and the underlying population, (b) registered deaths through 2000 for Guernsey and through 1994 for Jersey, and (c) the death rates of the United Kingdom.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase.

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**Chile**

**Total population:** Estimated to be consistent with the 1952, 1960, 1970, 1982, 1992 and 2002 censuses adjusted for underenumeration, with official estimates through 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) births registered through 2013 classified by age of mother; (b) estimates from the 1952, 1960, 1970, 1982, 1992 and 2002 censuses; and (c) official estimates through 2013.

**Infant and child mortality:** Based on: (a) registered births and infant and child deaths from 1950 through 2013, and (b) estimates from the 1952, 1960, 1970, 1982, 1992 and 2002 censuses.

**Life expectancy at birth:** Based on life tables derived from registered deaths, and population by age and sex from 1950 to 2013 adjusted for infant and child mortality. The number of deaths was adjusted using the growth-balance method.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase.

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**China**

**Total population:** Estimated to be consistent with the 1953, 1964, 1982, 1990, 2000 and 2010 censuses (adjusted for underenumeration based on post-enumeration surveys), and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) adjusted official estimates for 1991-2010 according to comparisons of the 2000 and 2010 censuses; (b) official estimates of total fertility through 1990; and (c) data on educational enrolments, immunization (DTP3), other nationwide surveys, and policy information were also considered.

**Infant and child mortality:** Based on life tables derived from: (a) the 1981, 1990, 2000 and 2010 censuses (adjusted for underestimation of child mortality and overestimation of old-age mortality); (b) surveys on causes of death in 1973/75 and 2004/05; (c) Disease Surveillance Points (DSP) system from 1991 to 2015; (d) Maternal and Child Mortality Surveillance System from 1991 through 2015.

**Life expectancy at birth:** Based on life tables from: (a) the 1981, 1990, 2000 and 2010 censuses (adjusted for underestimation of child mortality and overestimation of old-age mortality); (b) surveys on causes of death in 1973/75 and 2004/05; (c) Disease Surveillance Points (DSP) system from 1991 to 2015; and (d) 1987, 1995, 2005, and 2015 population survey (1 per cent), and the annual survey on population change (1 per thousand).

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015, and on the numbers of international migration admitted by the main receiving countries.
China, Hong Kong SAR

**Total population:** Estimated to be consistent with censuses from 1961 through 2011, with official estimates from 2012 to 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of age-specific fertility rates through 2015.

**Infant and child mortality:** Based on official estimates through 2015.

**Life expectancy at birth:** Based on official estimates through 2015.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.

China, Macao SAR

**Total population:** Estimated to be consistent with censuses from 1950 through 2011, and with estimates of the subsequent trends in fertility, mortality and international migration. The preliminary results of the 2016 by-census were also considered.

**Total fertility:** Based on official estimates of age-specific fertility rates through 2015.

**Infant and child mortality:** Based on official estimates through 2015.

**Life expectancy at birth:** Based on official estimates through 2015.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.

China, Taiwan Province of China

**Total population:** Estimated to be consistent with the 1956 census, with official population estimates from 1970 through 2010, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of total fertility through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2015.

**Life expectancy at birth:** Based on official estimates of life expectancy derived from registered deaths through 2015. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database.

**International migration:** Based on estimates of net international migration derived as the difference between overall population change and natural increase during the 1950-2010 intercensal period.

Colombia

**Total population:** Estimated to be consistent with the 1951, 1964, 1973, 1985, 1993 and 2005 censuses adjusted for underenumeration, with official estimates through 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) births registered from 1950 through 2014 classified by age of mother; (b) maternity-history data from the 1986, 1990, 1995, 2000, 2005 and 2010 DHS; and (c) data on births in the preceding 12 months classified by age of mother from the 2005 census.

**Infant and child mortality:** Based on: (a) maternity-history data from the 1986, 1995, 2000, 2005 and 2010 DHS; (b) births and infant deaths registered from 1950 through 2013; (c) estimates from the 1978 and 1980 Household Survey (HOG), and the 1976 WFS; and (d) indirect estimates from censuses.
Colombia (cont.)

**Life expectancy at birth:** Based on life tables derived from registered deaths, and population by age and sex from 1950 to 2013, adjusted for infant and child mortality. The number of deaths was adjusted using the growth-balance method.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase during each intercensal period.

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Comoros

**Total population:** Estimated to be consistent with the 2003 census, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on estimates of total fertility from the 1996 Comoros DHS and the 2012 DHS-MICS.

**Infant and child mortality:** Based on estimates from the 1980, 1991 and 2003 censuses and from the 1996 DHS. Estimates from the 2012 DHS-MICS were also considered.

**Life expectancy at birth:** Derived from estimates of infant and child mortality, and the West model of the Coale-Demeny Model Life Tables.

**International migration:** Based on information on migrants from the Comoros in Réunion.

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Congo

**Total population:** Estimated to be consistent with the 1974, 1984 and 2007 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration. The total population from the 1996 census was also taken into consideration.

**Total fertility:** Based on: (a) maternity-history data from the 2005 and 2011 Congo DHS; (b) data on children ever born and births in the preceding 12 months, both classified by age of mother, from the 1974 and 1984 censuses; and (c) preliminary estimates from the 2014-2015 Multiple Indicator Cluster Survey (MICS).

**Infant and child mortality:** Based on: (a) maternity-history data and data on children ever born and surviving classified by age of mother from the 2005 and 2011/12 Congo DHS, and (b) data on children ever born and surviving classified by age of mother from the 1974 census. Preliminary estimates of child mortality from the 2014/15 Multiple Indicator Cluster Survey were considered. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables. The demographic impact of AIDS has been factored into the mortality estimates.

**International migration:** Based on refugee statistics compiled by UNHCR.

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Cook Islands

Costa Rica

**Total population:** Estimated to be consistent with the 1950, 1963, 1973, 1984, 2000 and 2011 censuses adjusted for underenumeration, with official estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) registered births from 1950 through 2015 classified by age of mother; (b) estimates from the 2011 MICS, the 2010 National Survey on Sexual and Reproductive Health (ESSR), the 1993 National Survey on Reproductive Health, the 1986 Fertility and Health Survey, the 1978 and 1981 National Survey on Contraceptive Use, and the 1976 World Fertility Survey; and (c) estimates from the 1963, 1973, 1984, 2000 and 2011 censuses.

**Infant and child mortality:** Based on: (a) births and infant deaths registered from 1950 through 2013, and (b) estimates from the 1963, 1973, 1984, 2000 and 2011 censuses.

**Life expectancy at birth:** Based on life tables derived from registered deaths, adjusted using the growth-balance method, and population by age and sex from 1950 to 2013 adjusted for infant and child mortality.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase during each intercensal period.

Côte d’Ivoire

**Total population:** Estimated to be consistent with the 1975, 1988, 1998 and 2014 censuses, and with estimates of the subsequent trends in fertility, mortality, and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 1980/81 WFS, 1994 and 1998/1999 DHS, 2005 EIS, and 2011/12 DHS-MICS (adjusted for underreporting); (b) data on children ever born and births in the preceding 12 months (or 24-36 months), both classified by age of mother, from these surveys and from the 1957/58 and 1962/64 surveys, 1978/79 follow-up survey, 1988 census and 2006 MICS3 survey; (c) cohort-completed fertility from these surveys and censuses; and (d) the own-children method applied to the 2003 WHS, 2005 EIS and 2006 MICS3 surveys.

**Infant and child mortality:** Infant mortality: Derived from child mortality rates using the West model of the Coale-Demeny Model Life Tables. Child mortality: Based on: (a) data on births and deaths under-five calculated from maternity-history data from the 1978/79 Demographic Survey Repeated Passages, 1980/81 WFS, the 1994 and 1998/99 DHS (adjusted), the 2005 AIDS Indicator Survey (EIS), and 2010/11 DHS-MICS (adjusted); (b) data on children ever-born and surviving classified by age of mother (and the North model of the Coale-Demeny Model Life Tables) from these surveys as well as from the 1957/58 survey, and the 1988 census.

**Life expectancy at birth:** Estimated using the North model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15). Adult mortality estimates are derived from (a) recent household deaths data from the 1978/79 follow-up survey, the 1998 census and the 2005 AIDS Indicator Survey (EIS), (b) parental orphanhood from the 1978/79 follow-up survey, the 1988 and 1998 censuses, the 1994 DHS, the 2000 MICS2 and the 2006 MICS3 surveys, (c) siblings deaths from the 1994 DHS and the 2005 EIS; (d) implied relationship between child mortality and adult mortality based on the South model of the Coale-Demeny Model Life Tables in 1950-1955 and assumed to converge over time toward the North model of the Coale-Demeny Model Life Tables by the 1970s.

**International migration:** (a) information on foreign-born populations or foreign populations in all countries of the world, (b) estimates derived as the differences between overall population growth and natural increase during intercensal periods, (c) refugee statistics compiled by UNHCR, and (d) the results of the migration surveys conducted by CERPOD (Enquête REMUAO).
Croatia

**Total population:** Estimated to be consistent with the 1991, 2001 and 2011 censuses, with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on births registered through 2014 classified by age of mother.

**Infant and child mortality:** Based on deaths registered through 2010.

**Life expectancy at birth:** Based on deaths registered through 2013 by age and sex and the underlying population by age and sex.

**International migration:** Based on: (a) the estimated number of refugees entering Croatia from Bosnia-Herzegovina and Yugoslavia, and the number of persons leaving Croatia and entering other European countries and countries of immigration overseas, and (b) estimates of net international migration derived as the difference between overall population growth and natural increase.

Cuba

**Total population:** Estimated to be consistent with the 1953, 1970, 1981, 2002, and 2012 censuses, with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) registered births through 2014 classified by age of mother and underlying female population by age; and (b) official estimates from the 2009 and 1987 National Fertility Survey (ENF) and the 1979 DHS.

**Infant and child mortality:** Based on: (a) births and infant deaths registered through 2014; (b) estimates from the 1970, 1981, 2002 and 2012 censuses; and (c) estimates from the 2009 and 1987 National Fertility Survey (ENF), the 1979 DHS, and the 1974 national Population Survey on Income and Expenditure.

**Life expectancy at birth:** Based on: (a) deaths registered through 2014 classified by age and sex and the underlying population by age and sex, and (b) estimates of infant and child mortality. The number of deaths was adjusted using the growth-balance method.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase during each intercensal period.

Curaçao

**Total population:** Estimated to be consistent with the 1960, 1972, 1981, 1992, 2001 and 2011 censuses, with official estimates of population through 2016 and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) estimates from the 1960, 1972, 1981, 1992, 2001 and 2011 censuses, and (b) births by age of mother reported through 2015.

**Infant and child mortality:** Based on estimates from the former Netherlands Antilles and official estimates of infant mortality through 2015.

**Life expectancy at birth:** Based on: (a) estimates from the 1981, 1992, 2001 and 2011 censuses, (b) estimates from the former Netherlands Antilles, and (c) official estimates of life expectancy through 2011-2014.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during each intercensal period. Official estimates of net migration were also considered.
Cyprus

Total population: Estimated to be consistent with the 1960 and 1973 censuses for the whole country, and with estimates of the subsequent trends in fertility, mortality and international migration. Results from the 1976, 1982, 1992, 2001 and 2011 censuses in the Government controlled areas and estimates that include Turkish Cypriots were also considered.

Total fertility: Based on births registered through 2015 in Cyprus classified by age of mother, and estimates through 2015 for other areas.

Infant and child mortality: Based on births and infant deaths registered through 2015 in Cyprus.

Life expectancy at birth: Based on: (a) official life tables; (b) deaths registered through 2015 classified by age and sex and on the underlying population by age and sex; and (c) estimates from other areas were also considered.

International migration: Based on reported number of permanent arrivals and departures by age and sex through 2015 in Cyprus. Estimates in other areas were also considered.

Czechia

Total population: Estimated to be consistent with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on official estimates of age-specific fertility rates available through 2015.

Infant and child mortality: Based on births and infant deaths registered through 2015.

Life expectancy at birth: Based on official estimates of life expectancy available through 2015. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database.

International migration: Based on official estimates of net international migration derived and as the difference between overall population growth and natural increase through 2015.

Dem. People's Republic of Korea

Total population: Estimated to be consistent with the 1993 and 2008 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) data on births during the past 12 months, classified by age of mother, from the 1993 and 2008 censuses; (b) maternity-history data from the 2014 Socio-Economic, Demographic and Health Survey (SDHS); (c) indirect estimates obtained from the application of the reverse survival method to the 1993 and 2008 censuses; and (d) estimates from the 2002, 2004, and 2006 Reproductive Health Survey (RHS).

Infant and child mortality: Based on: estimates from the 1993 and 2008 censuses, and (b) registered deaths from 2001 to 2008, the 2000 Multiple Indicator Cluster Survey (MICS). Estimates from the 2014 Socio-Economic, Demographic and Health Survey (SDHS) were also considered.

Life expectancy at birth: Based on the number of deaths in household during the 12-month period preceding the 1993 and 2008 censuses classified by age and sex. Estimates based on the civil registration system and published in the 2014 Socio-Economic, Demographic and Health Survey (SDHS) were also considered.

International migration: Net international migration was estimated based on secondary sources, and set to zero for most periods.
Democratic Republic of the Congo

Total population: Estimated to be consistent with (a) the 1984 census adjusted for underenumeration, (b) the population structure by age and sex from the 2001 Multiple Indicator Cluster Survey (MICS-2), 2007 Demographic and Health Survey and 2013/14 Demographic and Health Survey; and (c) estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) maternity-history data from the 2007 and 2013/14 DHS, (b) births in the 12 months preceding the 2010 MICS classified by age of mother; (c) children ever born data and births during the year preceding the 1955/57 Demographic Inquiry (and the P/F ratio method), and (d) data on children ever born by age of mother from the 1974/77 Demographic Survey of Western Zaire (EDOZA), the 1984 census, the 1995 National Survey on the situation of children and women in Zaire (ENSEF), and the 2001 MICS.

Infant and child mortality: Based on data on children ever born and surviving from (a) the 1984 Census; (b) the 1995, 2001, and 2010 Multiple Indicator Cluster Surveys, and (c) the 2007 and 2013/14 Demographic Health Surveys.

Life expectancy at birth: Derived from (a) estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables, and (b) data on survival of siblings from the 2007 and 2013/14 DHS.

International migration: Based on refugee statistics compiled by UNHCR.

Denmark

Total population: Estimated to be consistent with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on official registration data of births by age of mother through 2014.

Infant and child mortality: Based on official life tables available through 2013.

Life expectancy at birth: Based on official life tables available through 2014. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database.

International migration: Based on official estimates of international migration, and estimates derived as the difference between overall population growth and natural increase through 2015.

Djibouti

Total population: Estimated to be consistent with the 1983 census, the 1991 Intercensal Demographic Survey, both adjusted for underenumeration, with the 2009 census, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) maternity-history data from the 2002 Djibouti EDSF/PAPFAM survey (retrospective estimates were taken into account while the more recent estimate was disregarded since it differed greatly from the official estimate) and the 2012 Djibouti EDSF/PAPFAM 2 survey; (b) indirect estimates obtained from the application of the own-child method to the 2006 Multiple Indicator Cluster Survey (MICS); (c) births in the preceding 12 months classified by age of mother from the 1991 Enquête Démographique Intercensitaire; (d) indirect estimates from the 1983 census (using preliminary results adjusted to match the official total population, and using the reverse survival method), 1991 Enquête Démographique Intercensitaire, 2002 Enquête Djiboutienne auprès des Ménages (EDAM-IS2), 2002 Djibouti EDSF/PAPFAM, 2012 Djibouti EDSF/PAPFAM-2; and (e) cohort-completed fertility from these surveys and censuses.
Djibouti (cont.)

**Infant and child mortality:** Based on: (a) maternity-history data from the 2002 Djibouti EDSF/PAPFAM survey and the 2012 Djibouti EDSF/PAPFAM 2 survey; and (b) data on children ever-born and surviving classified by age of mother from the 1991 Enquête Démographique Intercensitaire, 2002 Djibouti EDSF/PAPFAM survey, and 2006 Multiple Indicator Cluster Survey (MICS).

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables.

**International migration:** Based on refugee statistics compiled by UNHCR and on reports of additional migration flows of persons not qualifying as refugees, and estimates of net international migration derived as the difference between overall population growth and natural increase.

Dominica


Dominican Republic


**Infant and child mortality:** Based on: (a) estimates from 2000, 2006 and 2014 Multiple Indicator Cluster Survey (MICS); (b) estimates from the 1986, 1991, 1996, 2002, 2007 and 2013 DHS; (c) registered live births and infant and child deaths through 2011; and (d) estimates from the 1983 Contraceptive Prevalence Survey, the 1975 and 1980 World Fertility Survey.

**Life expectancy at birth:** Based on: (a) registered deaths by age and sex through 2011, and underlying mid-year population; (b) estimates of infant and child mortality from 2000, 2006, and 2014 (preliminary) Multiple Indicator Cluster Survey (MICS); (c) estimates of infant and child mortality from the 1986, 1991, 1996, 2002, 2007 and 2013 DHS. The number of deaths was adjusted using the growth-balance method.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, (b) estimates derived as the differences between overall population growth and natural increase through 2010, and (c) administrative registers from the Dirección Nacional de Migración.
Ecuador


**Total fertility:** Based on: (a) registered births from 1954 through 2015 by age of mother and underlying female population by age; (b) estimates from the 2012 ENSANUT, the 1989, 1994, 1999 and 2004 ENDEMAIN, from the 1987 ENDESA, and from the 1979/80 WFS; and (c) estimates from the 1950, 1962, 1974, 1982, 1990, 2001 and 2010 censuses.

**Infant and child mortality:** Based on: (a) births and infant deaths registered through 2012; (b) children ever born and surviving classified by age of mother from the 1990, 2001 and 2010 censuses; (c) and estimates from the 1989, 1994, 1999, and 2004 ENDEMAIN.

**Life expectancy at birth:** Based on: (a) registered deaths by age and sex from 1954 to 2011, with underlying mid-year population; (b) estimates from the 1989, 1994, 1999 and 2004 ENDEMAIN, and the 1987 ENDESA; and (c) estimates from the 1950, 1962, 1974, 1982, 1990, 2001 and 2010 censuses. The number of deaths was adjusted using the growth-balance method.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain (Padrón Municipal) and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase through 2010.

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Egypt

**Total population:** Estimated to be consistent with the 1960, 1976, 1986, 1996 and 2006 censuses, with 2014 official estimates, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 1980 Egypt Fertility Survey (EFS), 1991 PAPCHILD Survey, and 1988, 1992, 1995, 2000, 2005, 2008 and 2014 DHS; (b) number of births in the 12 months preceding the survey classified by the age of mother from the 1984 ECPS, the 1997, 1998 and 2003 Interim Demographic and Health Survey (IDHS), (c) indirect estimates obtained from the application of the reverse survival method to the 1960, 1976, 1986, 1996 and 2006 censuses; and (d) number of births from the vital registration system.


**Life expectancy at birth:** Based on official estimates of life expectancy available through 2013. The age pattern of mortality is based on official life tables for various years from 1960 to 2012 adjusted for infant and child mortality, and adult mortality.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1970-1976, 1976-1986, 1986-1996 and 1996-2006 intercensal periods, and official figures from IOM.
El Salvador

**Total population:** Estimated to be consistent with the 1950, 1961, 1971, 1992, and 2007 censuses, with official estimates through 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) registered births from 1955 through 2013 by age of mother and underlying female population by age of mother; (b) estimates from the 1971, 1992 and 2007 censuses; and (c) estimates from the 2014 MICS, 1985 DHS, and 1988, 1993, 1998, 2002/03 and 2008 Encuesta Nacional de Salud Familiar (FESAL).

**Infant and child mortality:** Based on: (a) data on children ever born and surviving from the 1992, 1993 and 2014 MICS; (b) registered births and infant and child deaths from 1975 through 2008; (c) estimates from the 1950, 1963, 1971, 1992 and 2007 censuses; and (d) the 1973 to 2008 Encuesta Nacional de Salud Familiar (FESAL), the 1992 EHS, and the 1985 DHS.

**Life expectancy at birth:** Based on: (a) registered deaths from 1975 through 2008, and underlying population by age and sex; (b) estimates from the 1950, 1963, 1971, 1992 and 2007 censuses; (c) estimates from the 1973 to 2008 Encuesta Nacional de Salud Familiar (FESAL), the 1992 EHS, and the 1985 DHS. The number of deaths was adjusted using the growth-balance method.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, (b) refugee data from UNHCR, and (c) estimates derived as the differences between overall population growth and natural increase.

Equatorial Guinea

**Total population:** Estimated to be consistent with the 1983, 1994, and 2002 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) estimates from the 2000 MICS and the 2011 DHS; (b) official estimates for 1975, 1983, 1988, 1994, 2001 and 2003; and (c) estimates from the 1983, 1994 and 2002 censuses.

**Infant and child mortality:** Based on: (a) children ever born and surviving classified by age of mother from the 1983, 1994 and 2002 censuses; and (b) estimates from the 2000 MICS and the 2011 DHS. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Estimated using the North model of the Coale-Demeny Model Life Tables and implied relationships between life expectancy at birth and estimates of infant and child mortality and between life expectancy at birth and estimates of adult mortality (45q15). The adjusted estimates of 45q15 were derived from (a) parental orphanhood data from the 2000 MICS; and (b) intercensal survivorship from successive census age distributions (smoothed and unsmoothed) for the period of 1983-1994. The demographic impact of AIDS has been factored into the mortality estimates.

**International migration:** Based on refugee statistics compiled by UNHCRI.
**Eritrea**

**Total population:** Estimated to be consistent with the results relative to Eritrea from the 1984 Population and Housing Census of Ethiopia, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 1995 and 2002 Eritrea Demographic and Health Survey (DHS) and the 2010 Population and Health Survey (PHS); and (b) indirect estimates obtained from the application of the reverse survival method to the 1984 census.

**Infant and child mortality:** Based on: (a) data on births and deaths under-five calculated from maternity-history data from the 1995 and 2002 Eritrea Demographic and Health Survey (DHS) and the 2010 Population and Health Survey (PHS); and (b) data on children ever born and surviving classified by age of mother from the 1995 and 2002 Eritrea DHS, and the 2010 PHS.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables.

**International migration:** Based on refugee statistics compiled by UNHCR and on assumed levels of emigration.

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**Estonia**

**Total population:** Estimated to be consistent with the 2011 census, with official population estimates for 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official registration data of births by age of mother through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2015, adjusted upward through 1994 by a factor of 1.25 to compensate for infant deaths omitted owing to the use of a definition of infant death that did not conform to international standards.

**Life expectancy at birth:** Based on official life tables available through 2015.

**International migration:** Based on official estimates of international migration, and estimates derived as the difference between overall population growth and natural increase through 2015.

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**Ethiopia**

**Total population:** Estimated to be consistent with the 1984, 1994 and 2007 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 2000, 2005, 2011 and preliminary results from the 2016 Ethiopia Demographic and Health Survey (DHS), and the 1990 National Family and Fertility Survey (NFFS); (b) data on births during the past 12 months, classified by age of mother, from the 1984, 1994 and 2007 censuses, the 1964 National Sample Survey (NSS), the 1st and 2nd rounds of the 1969/71 NSS, the 1981 Demographic Survey; (c) data on last births, classified by age of mother, from the round 1 and 2 of the 2014 Performance and Monitoring Accountability 2020 (PMA2020); and (d) indirect estimates obtained from the application of the reverse survival method to the 1981 Demographic Survey, the 2003 World Health Survey (WHS) and the 1994 and 2007 censuses.
Ethiopia (cont.)

**Infant and child mortality:** Based on: (a) maternity-history data from the 1990 National Family and Fertility Survey (NFFS), the 2000, 2005, 2011 and preliminary results of the 2016 DHS; and (b) data on children ever born and surviving, classified by age of mother, from the 1981 Demographic Survey, the 1984, 1994 and 2007 censuses, the 1990 NFFS, and the 2000, 2005 and 2011 DHS.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1984-1994 and 1994-2007 intercensal periods, refugee statistics compiled by UNHCR, and assumed levels of emigration.

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**Faeroe Islands**

**Total population:** Estimated to be consistent with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

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**Falkland Islands (Malvinas)**

**Total population:** Estimated to be consistent with the 2006 and 2012 censuses, and the assumed subsequent trend in the growth rate of the population.

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**Fiji**

**Total population:** Estimated to be consistent with the 2007 census with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) estimates from the 1986, 1996 and 2007 censuses; and (b) estimates from births by age of mother registered through 2008.

**Infant and child mortality:** Based on: (a) data on children ever born and children surviving by age of mother from the 1996 and 2006 censuses, (b) registered births by sex and infant deaths by age and sex from 1950 to 2008, and (c) estimates from WHO vital registration data through 2012 were also considered.

**Life expectancy at birth:** Based on: (a) official 1976, 1986, 1996, 2001 and 2007 estimates, and (b) deaths by age and sex registered from 1950 through 2007.

**International migration:** Based on estimates of net international migration derived as the difference between overall population change and natural increase during the 1950-2007 intercensal period. Migration for the 2010-2015 period was assumed to be same as for the 2005-2010 period.

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**Finland**

**Total population:** Estimated to be consistent with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official registration data of births by age of mother through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2014.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2014. The age pattern of mortality is based on life tables through 2012 from the Human Mortality Database.

**International migration:** Based on official estimates of international migration, and estimates derived as the difference between overall population growth and natural increase through 2015.
**France**

**Total population:** Estimated to be consistent with official estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration. Population estimates exclude the overseas departments, namely, French Guyana, Guadeloupe, Martinique and Réunion.

**Total fertility:** Based on official estimates of total fertility through 2013 and provisory estimates of total fertility through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2014.

**Life expectancy at birth:** Based on official life tables through 2015.

**International migration:** Based on official estimates of net international migration available through 2013, and estimates derived as the difference between overall population growth and natural increase through 2014.

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**French Guiana**

**Total population:** Estimated to be consistent with official estimates through 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of total fertility through 2015.

**Infant and child mortality:** Based on: the West model of the Coale-Demeny Model Life Tables with given e0. Births and infant deaths registered through 2013 were considered.

**Life expectancy at birth:** Based on official estimates of life expectancy from 2000 to 2015.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase. Official migration statistics for the period 1990-2006, the 2004 Greater Caribbean Survey, and the number of immigrants admitted to the United States were considered.

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**French Polynesia**


**Total fertility:** Based on: (a) maternity-history data from the 2000 and 2012 DHS; (b) indirect estimates obtained from the application of the reverse survival method to the 1960, 1969/70 and 1993 censuses and the 2005 Enquête Gabonaise pour l'Evaluation et le Suivi de la Pauvreté (EGEF); and (c) births in the preceding 12 months classified by age of mother from the 1960 census (African population only) and 1993 census.

**Infant and child mortality:** Based on births and infant deaths registered through 2015.

**Life expectancy at birth:** Based on official estimates of life expectancy derived from registered deaths through 2014.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.

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**Gabon**

**Total population:** Estimated to be consistent with the 1993, 2003 and 2013 censuses, both adjusted for underenumeration, with official estimates for 2005, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 2000 and 2012 DHS; (b) indirect estimates obtained from the application of the reverse survival method to the 1960, 1969/70 and 1993 censuses and the 2005 Enquête Gabonaise pour l'Evaluation et le Suivi de la Pauvreté (EGEF); and (c) births in the preceding 12 months classified by age of mother from the 1960 census (African population only) and 1993 census.
Gabon (cont.)

Infant and child mortality: Based on maternity-history data from the 2000 and 2012 Gabon Demographic and Health Surveys (DHS). The demographic impact of AIDS has been factored into the mortality estimates.

Life expectancy at birth: Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables. The demographic impact of AIDS has been factored into the mortality estimates.

International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase during intercensal periods, and on information on the stock of refugees derived from the historical database maintained by UNHCR.

Gambia

Total population: Estimated to be consistent with the 1973, 1983, 1993 and 2003 censuses adjusted for underenumeration; with the total population from the 2013 census; with the structure by age and sex from the 2005-2006 MICS3 and 2010 MICS4 surveys; and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) maternity-history data from the 1990 Gambia Contraceptive Prevalence and Fertility Determinants Survey, adjusted for underreporting; (b) data on children ever born and births in the preceding 12 months, both classified by age of mother, from this survey and from the 2000, 2005/06 and 2010 MICS surveys, the 1963, 1973, 1983 and 1993 censuses, 2001 National Survey on Mortality and Contraceptive Prevalence, 1993/94 Household Education and Health Survey of the Social Dimensions of Adjustment, and the 1973 post-enumeration survey; (c) total fertility from births in the preceding 12 months from the 2003 census; (d) cohort-completed fertility from these surveys and censuses; (e) the own-children method applied to the 2005/06 MICS3 survey, and (f) maternity-history data from the 2013 DHS.

Infant and child mortality: Based on: (a) recent household deaths from the 1973, 1983 and 1993 censuses, the 1990 Gambia Contraceptive Prevalence and Fertility Determinants Survey and the 1993/94 Household Education and Health Survey; (b) data on children ever-born and surviving classified by age of mother (and the North model of the Coale-Demeny Model Life Tables) from censuses and the 2001 National Survey on Mortality and Contraceptive Prevalence, and the 2000, 2005/06 and 2010 MICS surveys; and (c) birth history data from the 2013 Demographic and Health Survey. Infant mortality is estimated using relationships between infant and child mortality (for both sexes, and by sex) estimated based on WFS/DHS direct birth histories from the Sahelian region validated using 15 demographic surveillance sites and cohort studies from West Africa.

Life expectancy at birth: Estimated using the South model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15). Adult mortality was derived from the relationship to child mortality implied by the North model of the Coale-Demeny Model Life Tables. Adult mortality estimates derived from recent household deaths data from the 1973 census, and from parental orphanhood from the 1973, 1983 and 2003 censuses, 2001 Baseline Survey in Lower, Central and Upper River Divisions, 2000 and 2005/06 MICS surveys and rural demographic surveillance sites were also considered. The results of the 2013 DHS were considered.

International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase during intercensal periods.
Georgia

Total population: Estimated to be consistent with the 1959, 1970, 1979, 1989, 2002 and 2014 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration. Population of the 2014 census has been adjusted by including estimates for the areas excluded from the census enumeration.

Total fertility: Based on: (a) official estimates of total fertility available through 2015, adjusted for births to non-residents and (b) estimates from the 1999, 2005 and 2010 Georgia Reproductive Health Survey.

Infant and child mortality: Based on: (a) official estimates through 2015 adjusted for underregistration, (b) maternity-history data from the 1999 and 2005 RHS, and (c) data on children ever born and surviving classified by age of mother from the 2005 MICS. Estimates from 2010 RHS were also considered.

Life expectancy at birth: Based on official estimates of life expectancy available through 2015, adjusted for underregistration.

International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 2002-2014 intercensal period.

Germany

Total population: Estimated to be consistent with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on official estimates of total fertility through 2015.

Infant and child mortality: Based on births and infant deaths registered through 2015.

Life expectancy at birth: Based on official estimates of life expectancy available through 2015.

International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015 and flow statistics available through 2015.

Ghana

Total population: Estimated to be consistent with the 1960, 1970, 1984, 2000 and 2010 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) maternity-history data adjusted for underreporting from the 1979/80 Ghana WFS and the 1988, 1993, 1998/99, 2003, 2008 and 2014 Ghana DHS, and 2007 Ghana Maternal Health Survey; (b) data on children ever born and births in the preceding 12 months (or 24-36 months), both classified by age of mother, from these surveys and from the 1960 Post-Enumeration Survey, 1968/69 National Demographic Survey, 1971 Supplementary Enquiry, and the 2006 and 2011 MICS surveys; (c) data on children ever born classified by age of mother from the 1948 Gold Coast census, 1960 Census, and 1961 Family Survey; (d) cohort-completed fertility from these surveys and censuses; and (e) the own-children method applied to the 2000 census, 2003 WHS and 2006 MICS3 surveys. Estimates of total fertility from rounds 1, 2 and 3 (2013-2014) of the Performance Monitoring and Accountability Survey were also considered.
Ghana (cont.)


**Life expectancy at birth:** Estimated using the South model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15). Adult mortality estimates were derived from: (a) recent female household deaths data from the 2007 Ghana Maternal Health Survey; (b) parental orphanhood from the 1988, 1993, 1998, 2003 and 2008 DHS as well as 2006 MICS3 survey; (c) siblings deaths from the 2007 Ghana Maternal Health Survey; and (d) implied relationship between child mortality and adult mortality based on the North model of the Coale-Demeny Model Life Tables.

**International migration:** Based on refugee statistics compiled by UNHCR and on the number of Ghanaians migrating to selected developed countries.

**Gibraltar**


**Greece**

**Total population:** Estimated to be consistent with the 2011 census, resident population adjusted for underenumeration, official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official registration data of births by age of mother through 2014.

**Infant and child mortality:** Based on births and infant deaths registered through 2013.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2014. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database.

**International migration:** Based on official estimates of international migration through 2014, and estimates derived as the difference between overall population growth and natural increase.

**Greenland**

**Total population:** Estimated to be consistent with official population estimates for 2015, and with estimates of trends in fertility, mortality and international migration.
**Grenada**

**Total population:** Estimated to be consistent with the 1960, 1970, 1981, 2001 and 2011 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) registered births by age of mother through 2000 and underlying female population by age, and (b) official estimates in 1960, 1963 and 1964.

**Infant and child mortality:** Based on: (a) live births and infant deaths registered through 2000; and (b) WHO vital registration estimates from 1985 to 2010.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase.

**Guadeloupe**

**Total population:** Estimated to be consistent with the 1961, 1967, 1984, 1982, 1990, 1999, 2006 and 2013 censuses, with the 2016 official estimate, and with estimates of the subsequent trends in fertility, mortality and international migration. For the 2013 census, the Guadeloupe region and communes of Saint-Martin and Saint-Barthélemy are jointly considered.

**Total fertility:** Based on: (a) official estimates of total fertility available through 2013, and (b) official estimates of registered births by age of mother and underlying mid-year female population by age through 2013.

**Infant and child mortality:** Based on: (a) official estimates from INSEE through 2013 (2009-2013 estimates correspond to Guadeloupe region), and (b) births and infant deaths registered through 2003.

**Life expectancy at birth:** Based on: (a) official estimates from INSEE through 2013 (2009-2013 estimates correspond to Guadeloupe region), and (b) life tables derived from registered deaths and the population by age and sex through 2003.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase. Estimates from INSEE were also considered.

**Guam**

**Total population:** Estimated to be consistent with the 2010 census and official population estimates for 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on births registered through 2015 classified by age of mother, adjusted downward to account for births to non-resident women in Guam hospitals and to be consistent with children under age five enumerated in the 2010 census.

**Infant and child mortality:** Based on births and infant deaths registered through 2015.

**Life expectancy at birth:** Based on: (a) official estimates of infant mortality, (b) registered deaths by age through 2004, and (c) total registered deaths through 2014.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase until 2015. Data on the reduction in the number of military personnel and their dependants were also taken into account.
Guatemala


**Total fertility:** Based on: (a) official registration data of births by age of mother from 1955 through 2015; (b) estimates from the 1987, 1995, 1998/99, 2002 and 2008/09 Encuestas Nacionales de SaludMaterno Infantil (ENSMI), (c) estimates from the 1987 and 1989 Encuestas Nacionales Socio-demográficas (ENSD), and the 1978 Encuesta Nacional de Fecundidad; and (d) estimates from the 1973, 1981, 1994 and 2002 censuses.

**Infant and child mortality:** Based on: (a) registered births by age of mother and the underlying mid-year female population by age through 2013; (b) estimates from the 1995, 1998/99, 2002 and 2008/09 Encuestas Nacionales de Salud Materno Infantil (ENSMI); (c) estimates from the 1987 and 1989 Encuestas Nacionales Socio-demográficas (ENSD); and (d) the estimates from the 1950, 1964, 1973, 1981, 1994 and 2002 censuses. The number of deaths was adjusted using the growth-balance method.

**Life expectancy at birth:** Based on: (a) registered deaths by age and sex and the underlying mid-year population by age and sex through 2013; (b) age-sex-specific death rates from the 1995, 1998/99, 2002 and 2008/09 Encuestas Nacionales de Salud Materno Infantil (ENSMI); (c) age-sex-specific death rates from the 1987 and 1989 Encuestas Nacionales Socio-demográficas (ENSD); and (d) death rates by age and sex from the 1950, 1964, 1973, 1981, 1994 and 2002 censuses. The number of deaths was adjusted using the growth-balance method.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase.

Guinea

**Total population:** Estimated to be consistent with the 1983, 1996 and 2014 censuses, the official population estimates through 2011, the 1965 administrative enumeration, the 1954/55 Étude Démographique par Sondage en Guinée, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data adjusted for underreporting from the 1992, 1999 and 2005 DHS, and the 2012 DHS results; (b) data on children ever born and births in the preceding 12 months (or 36 months), both classified by age of mother, from these surveys and from the 1954/55 survey and 1994 EIBC survey; (c) data on births in the preceding 12 months classified by age of mother from the 1983 and 1996 censuses; (d) cohort-completed fertility from these surveys and censuses; and (e) the own-children method applied to the 1983 and 1996 censuses.

**Infant and child mortality:** Infant mortality: Derived from child mortality rates using the North model of the Coale-Demeny Model Life Tables. Child mortality: Based on: (a) data on births and deaths under-five calculated from maternity-history data from the 1992, 1999, 2005 and 2012 DHS; (b) data on children ever-born and surviving classified by age of mother (and the North model of the Coale-Demeny Model Life Tables) from these surveys as well as from the 1954/55 survey, 1996 census and 2003 MICS.
Guinea (cont.)

Life expectancy at birth: Estimated using the South model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15) derived from (a) recent household deaths data from the 1954-1955 Demographic Survey, and the 1983 and 1996 censuses; (b) parental orphanhood from the 1999 and 2005 DHS; (c) siblings deaths from the 1999, 2005 and 2012 DHS; (d) implied relationship between child mortality and adult mortality based on the North model of the Coale-Demeny Model Life Tables in 1950-1955 and assumed to converge over time toward the South model of the Coale-Demeny Model Life Tables by the 1990s. Data from West African rural demographic surveillance sites and urban vital registration were also considered, including from the 1957 Urban Survey (Konkoure).

International migration: Based on refugee statistics compiled by UNHCR, and estimates derived as the difference between overall population growth and natural increase during intercensal periods.

Guinea-Bissau

Total population: Estimated to be consistent with the 1950, 1979, 1989 and 2009 censuses adjusted for underenumeration, with the total population enumerated in the 1991 census, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) data on children ever born and births in the preceding 12 months (or 24 months), both classified by age of mother, from the 1950 census, 2000 MICS2, 2006 MICS3, 2010 MICS4-IDSR1 and 2014 MICS5 surveys; (b) data on births in the preceding 12 months classified by age of mother from the 1960, 1979 and 1991 censuses; and (c) birth cohorts enumerated in 1979 and 1989 censuses and 2006 MICS3 and 2010 MICS4-IDSR1 surveys; (d) cohort-completed fertility from these surveys and censuses; and (e) the own-children method applied to the 2006 MICS3. Estimates based on the reverse survival method applied to the 2010 MICS4-IDSR1 survey were also considered.

Infant and child mortality: Infant mortality: Derived from child mortality rates using the North model of the Coale-Demeny Model Life Tables. Child mortality: Based on: (a) data on births and deaths under-five calculated from maternity-history data from the 2010 MICS4-IDSR1 and 2014 MICS5 surveys, and (b) data on children ever-born and surviving classified by age of mother (and the North model of the Coale-Demeny Model Life Tables) from censuses, and the 2000 and 2006 MICS surveys.

Life expectancy at birth: Estimated using the South model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15). Adult mortality estimates were derived from (a) parental orphanhood from the 2000 and 2006 MICS surveys, and (b) implied relationship between child mortality and adult mortality based on the North model of the Coale-Demeny Model Life Tables in 1950-1955 and assumed to converge over time toward the South model of the Coale-Demeny Model Life Tables by the 1990s. Data from West African rural demographic surveillance sites (e.g., Bandim) and urban vital registration were also considered.

International migration: Based on refugee statistics compiled by UNHCR, and on estimates of net international migration derived as the difference between overall population growth and natural increase during intercensal periods.
Guyana

**Total population:** Estimated to be consistent with the 1970, 1980, 1991, 2002 and 2012 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 2003 and 2009 Demographic and Health Survey (DHS), and the 2014 MICS; (b) estimates from the 1975 World Fertility Survey; and (c) official registration of births by age of mother from 1954 through 1975.

**Infant and child mortality:** Based on: (a) estimates from the 2009 DHS and the 2000/01, 2006 and 2014 Multiple Indicator Cluster Survey (MICS); (b) estimates from the 1975 World Fertility Survey; (c) estimates from the 2002 census; and (d) estimates from the 1975 World Fertility Survey.

**Life expectancy at birth:** Derived from child and adult mortality estimates through 2010 by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables. Adult mortality estimates based on the Global Burden of Disease Study 2010 were considered.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase.

Haiti

**Total population:** Estimated to be consistent with the 2003 census adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) estimates from the 1987, 1994/95, 2000, 2005/06 and 2012 DHS; (c) estimates from the 1971, 1982 and 2003 censuses; and (d) estimates from the 1983 Enquête Haitienne sur la Prévalence de la Contraception (EHPC) and the 1977 Enquête Haitienne sur la Fécondité (EHF).

**Infant and child mortality:** Based on: (a) estimates from the 1987, 1994/95, 2000, 2005/06 and 2012 DHS; (b) estimates from the 1982 and 2003 censuses; and (c) registered deaths by age and sex adjusted for incompleteness using the growth-balance method and the 1971 census population by age and sex.

**Life expectancy at birth:** Based on: (a) estimates from the 1987, 1994/95, 2000, 2005/06 and 2012 DHS; (b) estimates from the 1982 and 2003 censuses, (c) registered deaths by age and sex adjusted for incompleteness using the growth-balance method and the 1971 census population by age and sex; and (d) estimates from the 1977 Enquête Haitienne sur la Fécondité (EHF).

**International migration:** Based on: (a) the number and characteristics of Haitians enumerated in the 1990 and 2000 round of censuses of Canada, the Dominican Republic and the United States of America, and (b) data from the Programme on International Migration in Latin America (IMILA).

Holy See

**Total population:** Estimated to be consistent with the 2010 census, and the assumed subsequent trend in the growth rate of the population.
Honduras

**Total population:** Estimated to be consistent with the 1950, 1961, 1974, 1988, 2001 and 2013 censuses, with official estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) registered births by age of mother and the underlying mid-year female population by age from 1950 through 1983 and from 2000 through 2012; (b) estimates from the 2005/06 and 2011/12 ENDESA (DHS); (c) estimates from the 1991/92, 1996 and 2001 ENESF; (d) estimates from the 1987 EFHS, the 1984 MCH/PF, the 1971/72 and 1983 EDENH, the 1981 National Contraceptive Prevalence Survey (EPAH); and (e) estimates from the 1974, 1988 and 2001 censuses.

**Infant and child mortality:** Based on: (a) registered deaths by age and sex and the underlying mid-year population by age and sex from 1950 through 1983 and from 2000 through 2011; (b) specific death rates from the 2005/06 and 2011/12 ENDESA (DHS); (c) specific death rates from the 1991/92, 1996 and 2001 ENESF; (d) specific death rates from the 1987 EFHS, the 1984 MCH/PF, the 1971/72 and 1983 EDENH, the 1981 National Contraceptive Prevalence Survey (EPAH); and (e) estimates from the 1974, 1988 and 2001 censuses.

**Life expectancy at birth:** Based on: (a) registered deaths by age and sex and the underlying mid-year population by age and sex from 1950 through 1983 and from 2000 through 2011; (b) ages-sex-specific death rates from the 2005/06 and 2011/12 ENDESA (DHS); (c) ages-sex-specific death rates from the 1991/92, 1996 and 2001 ENESF; (d) ages-sex-specific death rates from the 1987 EFHS, the 1984 MCH/PF, the 1971/72 and 1983 EDENH, the 1981 National Contraceptive Prevalence Survey (EPAH); and (e) estimates from the 1974, 1988 and 2001 censuses. The number of deaths was adjusted using the growth-balance method.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase.

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Hungary

**Total population:** Estimated to be consistent with official population estimates through 2014, and with estimates of the fertility, mortality and international migration.

**Total fertility:** Official estimates of total fertility and age specific fertility rates through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2014.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2014. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database.

**International migration:** Based on estimates derived as the difference between overall population growth and natural increase through 2009 and official estimates of international migration from 2010 to 2015.

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Iceland

**Total population:** Estimated to be consistent with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official registration data of births by age of mother through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2015.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2015. The age pattern of mortality is based on life tables through 2013 from the Human Mortality Database.

**International migration:** Based on official estimates of international migration and estimates derived as the difference between overall population growth and natural increase through 2015.
India


Total fertility: Based on: (a) adjusted annual data from the Sample Registration System for age-specific fertility rates from 1969 to 2014, (b) maternity-history data from the 1992/93, 1998/99 and 2005/06 India National Family Health Surveys (NFHS-1, NFHS-2, NFHS-3), and (c) adjusted births in the preceding 12 months classified by age of mother from the 1979 Survey on Infant and Child Mortality, and 1981, 1991, 2001 and 2011 censuses. Births in the preceding 36 months classified by age of mother from the 2007/08 DLHS3 survey, and estimates based on the own-children method applied to the 2002/04 DLHS2 and 2007/08 DLHS3 surveys were also considered.


Life expectancy at birth: Based on life tables derived from age and sex-specific mortality rates from the Sample Registration System from 1968-1969 up to 2014 adjusted for infant and child mortality, and for adult death underregistration by using the growth-balance and synthetic-extinct generation methods.

International migration: Based on emigration data from India to developed countries and on labour migration data from India to other Asian countries.

Indonesia

Total population: Estimated to be consistent with censuses from 1961 to 2010, and with estimates of the subsequent trends in fertility, mortality and international migration.


Infant and child mortality: Based on estimates from the 2002/03, 2007 and 2012 DHS and the 2010 census.

Life expectancy at birth: Derived from estimates of infant, child, adult and old-age mortality. Adult and old age mortality estimates are based on: (a) the 2002/03, 2007 and 2012 DHS, (b) the 1990, 2000 and 2010 censuses, and (c) the 2007/08 Indonesia Family Life Survey (IFLS), and (d) the SUSENAS surveys (National Socio-economic Surveys).

International migration: Based on: (a) information on Indonesians admitted by the main countries of destination, (b) data on labour migration, and (c) estimates of net international migration derived as the difference between overall population growth and natural increase during the 1950-2010 period.
Total population: Estimated to be consistent with the 1956, 1966, 1976, 1986, 1996, 2006, and 2011 censuses, the primary results of the 2016 census, and with estimates of the subsequent trends in fertility, mortality and international migration. Official estimates for the 1991 intercensal survey and for 2009 were also considered.

Total fertility: Based on adjusted age-specific fertility rates from: (a) the own-children method applied to the 1986, 1996, 2006 and 2011 censuses as well as the 2000 DHS and 2010 MIDHS; (b) maternity-history data from the 1996 MFS; (c) births in the preceding 12 months classified by age of mother from the 1988 National 1% Population Survey; (d) data on children ever born and recent births, both classified by age of mother, from the 1966, 1976 and 1986 censuses, 1973-1976 PGS, 1991 intercensal survey, 1993 Population Sample Survey, 1996 one-per-cent post-census enumeration survey, 1998 PGS, 2001-2003 SCIHI; (e) cohort-completed fertility from these surveys and censuses; and (f) the crude birth rate and the number of births registered through 2014.


Life expectancy at birth: Based on life tables derived from age and sex-specific mortality rates from (a) registered 2000-2012 annual deaths adjusted for infant and child mortality, and for adult death underregistration using the growth-balance and synthetic-extinct generation methods; (b) the 1956-1966 intercensal survival, 1973/76 Population Growth Survey, 1976, 1986 and 1991 censuses, and 2000 Demographic and Health Survey; and (c) estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables. For 1980-1988, excess mortality due to the war was factored in the overall mortality levels based on the PRIORI Battle Deaths Dataset version 3.0, released in October 2009.

International migration: Based official statistics and on refugee statistics compiled by UNHCR, data on migrants from Iran to developed countries, and estimates of net international migration derived as the difference between overall population growth and natural increase.
Iraq

**Total population:** Estimated to be consistent with the 1957, 1965, 1977, 1987 and 1997 censuses, the officially estimated population based on food ration system through July 2009, official estimated population up to 2015 and with estimates of the subsequent trends in fertility, mortality and international migration. Data by age and sex from the 2004 Iraq Living Conditions Survey, the 2006 and 2011 MICS survey, and the 2006/07 Iraq Family Health Survey were also used. The population estimates refer to the whole of Iraq, including the three northern governorates.

**Total fertility:** Based on: (a) births classified by age of mother registered for 1991-2000; (b) maternity-history data from the Iraq 2004 Living Conditions Survey, 2006 MICS3 and 2011 MICS4; (c) the own-children method applied to the 1997 census and 2006 MICS3 survey, (d) the reverse survival method applied to the 2011 MICS4 and earlier censuses and surveys; (e) data on children ever born and births in the preceding 12 months (or 36 months), both classified by age of mother, from the 1974 Fertility Survey, 1997 census and 1999 Child and Maternal Mortality Survey; (f) births in the preceding 12 months classified by age of mother from the 1989 Gulf Child Health Survey and 2000 MICS; (g) data on children ever born classified by age of mother from the 1987 census, 1990 Iraq Immunization, Diarrhoeal Disease, Maternal and Childhood Mortality Survey, and 2006/07 Iraq Family Health Survey; and (h) cohort-completed fertility from these surveys and censuses.

**Infant and child mortality:** Based on: (a) data on births and deaths under-five calculated from maternity-history data from the 2006 and 2011 MICS, 2004 Iraq Living Conditions Survey, and 1989 National child health survey; (b) data on children ever-born and surviving classified by age of mother (and the West model of the Coale-Demeny Model Life Tables) from the 1957 census, 1974 Fertility Survey, 1987 census, 1989 National child health survey, 1990 Iraq Immunization, Diarrhoeal Disease, Maternal and Childhood Mortality Survey, 1997 census, 2006/07 Iraq Family Health Survey; and (c) recent household deaths from the 1973/74 Demographic Sample Survey and Sample Registration. Data from the 1991 Child Mortality Survey and 1999 Iraq Child and Maternal Mortality Survey were also considered.

**Life expectancy at birth:** Estimated using the West model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15). Adult mortality estimates are derived from: (a) recent household deaths data from the 1973/74 Demographic Sample Survey and Sample Registration, and 1999 Child and Maternal Mortality Survey (female only); (b) parental orphanhood from the 1997 census, 2004 Iraq Living Conditions Survey and 2006 MICS3; (c) siblings deaths from the 1990 Iraq Immunization, Diarrhoeal Disease, Maternal and Childhood Mortality Survey (female only), and the 2006/07 Iraq Family Health Survey; (d) intercensal survivorship from successive census age distributions (smoothed and unsmoothed) for periods 1957-1965, 1965-1977, 1977-1987 and 1987-1997; (e) implied relationship between child mortality and adult mortality based on the West model of the Coale-Demeny Model Life Tables. For 1980-1988, excess mortality due to the war was factored in the overall mortality levels based on the PRIO Battle Deaths Dataset version 3.0, released in October 2009. For 2000-2005 and 2005-2010, excess mortality due to the war was factored in the overall mortality levels; there is a high level of uncertainty in the current estimates. The estimated numbers of war related deaths, as provided by the Iraqi Ministry of Health, have also been taken into account.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1997-2013 period. Data on refugee flows compiled by UNHCR were also taken into account. Estimates of Iraqis entering and leaving the country because of the war have been taken into account.
Ireland

**Total population:** Estimated to be consistent with the 2011 census and the 2016 census preliminary results, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of age-specific fertility rates through 2014.

**Infant and child mortality:** Based on: (a) official estimates through 2013, and (b) death rates estimated through 2014.

**Life expectancy at birth:** Based on official estimates of life expectancy through 2014. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database.

**International migration:** Based on: (a) estimates of net international migration derived as the difference between overall population change and natural increase during intercensal periods, and (b) official estimates of immigration and emigration between 2005 and 2016 (preliminary). Official migration projections for the 2016-2046 period were considered in the projection method.

Isle of Man


Israel

**Total population:** Estimated to be consistent with the 1961, 1972, 1983, 1995 and 2008 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration. Population figures exclude the Arab population residing in East Jerusalem and include the Israeli citizens residing in the Occupied Palestinian Territory. Official annual population estimates for 1950-2015 from the Israeli Central Bureau of Statistics were also considered.

**Total fertility:** Based on annual births registered from 1953 through 2015 classified by age of mother.

**Infant and child mortality:** Based on births and infant deaths registered through 2014.

**Life expectancy at birth:** Based on: (a) life tables derived from official estimates of registered deaths and enumerated census population by age and sex from 1948 to 2014, and (b) life tables through 2014 from the Human Mortality Database. Mortality rates for older ages were adjusted.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during intercensal periods. Assumptions on migration levels made in the official Israeli population projections were also considered.
Italy

**Total population:** Estimated to be consistent with the 2011 census, and with estimates of the subsequent trends in fertility, mortality and international migration. Estimates from the Municipal Resident Population Register for 2015 were also considered.  
**Total fertility:** Based on official estimates of age-specific fertility rates and registered births by age of mother through 2013.  
**Infant and child mortality:** Based on (a) life tables through 2014 from the National Statistical Office (Istat) and Eurostat; (b) life tables through 2012 from the Human Mortality Database; and (c) births and infant deaths registered from 1950 to 2012.  
**Life expectancy at birth:** Based on: (a) life tables through 2014 from the National Statistical Office (Istat) and Eurostat; (b) life tables through 2012 from the Human Mortality Database.  
**International migration:** Based on national estimates of international migration and estimates derived as the difference between overall population growth and natural increase through 2015.

Jamaica

**Total fertility:** Based on: (a) births registered through 2006 and births registered in 2011 classified by age of mother and the underlying mid-year of female population by age; (b) official estimates through 2007; (c) estimates from the 1975/76 World Fertility Survey; (d) estimates from the 1983 and 1989 Jamaica Contraceptive Prevalence Surveys; (e) estimates from the 1970 census; and (f) estimates from the 1993, 1997, 2002/03 and 2008 Jamaica Reproductive Health Surveys.  
**Infant and child mortality:** Based on: (a) estimates from the 1982, 2001, and 2011 censuses; (b) estimates from 2000 and 2005 Multiple Indicator Cluster Survey; (c) estimates from the 2008/09 Reproductive Health Survey; and (d) estimates from the 1983 and 1989 Jamaica Contraceptive Prevalence Survey and the 1975/76 World Fertility Survey.  
**Life expectancy at birth:** Based on: (a) registered deaths by age and sex through 2005, adjusted for underreporting of infant and child deaths; (b) official estimates for 1991, 2002, 2003 and 2006; and (c) estimates from the 2001 and 2011 censuses.  
**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1991-2001 and 2001-2011 intercensal periods. Estimates of net migration from the Planning Institute of Jamaica for the period 2000-2010 were considered.

Japan

**Total population:** Estimated to be consistent with the censuses from 1950 through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.  
**Total fertility:** Based on official estimates of age-specific fertility rates through 2014.  
**Infant and child mortality:** Based on life tables derived from official estimates through 2014.  
**Life expectancy at birth:** Based on life tables derived from official estimates through 2014. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database.  
**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.
Jordan

Total population: Estimated to be consistent with the 1961, 1972, 1975, 1979, 1994, 2004 and 2015 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration. Official estimates through 2011 from the Jordanian Department of Statistics were also taken into account.

Total fertility: Based on adjusted age-specific fertility rates from: (a) births classified by age of mother registered for 1969-1979 and 2007; (b) maternity-history data from the 1976 WFS/JFS, 1983 JFFHHS, 1990, 1997, 2002, 2007, 2009 and 2012 Jordan Demographic and Family Health Surveys; (c) births in the preceding 12 months classified by age of mother from the 1982 JMS; (d) data on children ever born classified by age of mother from the 1961 and 1979 censuses, 1972 NFS and 1981 JDS surveys; (e) data on children ever born classified by age of mother from the 1988 and 1990 EPI-CDDCM surveys; (f) cohort-completed fertility from these surveys and censuses.


Life expectancy at birth: Estimated using the West model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) estimates of adult mortality (45q15) implied by the relationship between child mortality and adult mortality based on the South model of the Coale-Demeny Model Life Tables in 1950-1955 and assumed to converge over time toward the West model of the Coale-Demeny Model Life Tables by the 1980s. Life tables based on the 1961 and 1979 censuses, 1972 National Fertility Survey and 1976 WFS, indirect estimates of adult mortality based on widowhood data from the 1961 and 1979 censuses and 1976 WFS, as well as parental orphanhood from the 1976 WFS and 1981 Demographic Survey were also taken into account.

International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1994-2004 intercensal period. Official population estimates for the year 2011 were also considered. UNHCR estimates of Iraqi and Syrian refugees in Jordan until March 2017 have been taken into account. For the projection period, it is assumed that 40 per cent of Syrian refugees return in 2020-20205, 30 per cent in 2025-2030 and 10 per cent in 2030-2035.

Kazakhstan

Total population: Estimated to be consistent with the 1959, 1970, 1979, 1989, 1999 and 2009 censuses, with official population estimates through 2014, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) official estimates of total fertility available through 2015, (b) maternity-history data from the 1995 and 1999 Kazakhstan DHS, and (c) births in the preceding 12 months from the 2010 and 2015 MICS classified by age of mother.

Infant and child mortality: Based on: (a) data on children ever born and surviving classified by age of mother from the 1989 and 1999 censuses, 1996 LSMS and 2006, 2010 and 2015 MICS, (b) maternity-history data from the 1995 and 1999 DHS, and (c) official estimates of mortality through 2013.
Kazakhstan (cont.)

**Life expectancy at birth**: Based on official estimates of life expectancy available through 2012 adjusted for underreporting of infant and child mortality. The age pattern of mortality is derived from a life table based on 2010-2013 data.

**International migration**: Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2014.

Kenya

**Total population**: Estimated to be consistent with the 1962, 1969, 1979, 1989, 1999 and 2009 censuses adjusted for underenumeration and with estimates of the subsequent trends in fertility, mortality and international migration.


**International migration**: Based on refugee statistics compiled by UNHCR and on the number of migrants from Kenya to developed countries recoded in the censuses in these developed countries.

Kiribati


**Total fertility**: Based on: (a) estimates from 1978, 1985, 1990, 1995, 2000, 2005 and 2010 censuses; (b) estimates from the 2009 DHS; (c) estimates from births classified by age of mother from 1993 to 1996; and (d) estimates from the Secretariat of the Pacific Community were also considered.

**Infant and child mortality**: Based on: (a) estimates from the 2009 DHS, (b) estimates from the 1978, 1985, 1990, 1995, 2000, 2005 and 2010 censuses; (c) registered births and infant deaths by sex from 1951 to 1971; and (d) estimates from the Secretariat of the Pacific Community were also considered.

**Life expectancy at birth**: Based on: (a) estimates in the 2005 and 2010 censuses; (b) estimates from deaths by age and sex from 1995 to 2001 and in 2011; (c) child mortality estimates by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables; and (d) estimates from the Secretariat of the Pacific Community were also considered.
Kiribati (cont.)

International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the intercensal periods.

Kuwait


Total fertility: Based on annual births registered from 1963 through 2014 classified by age of mother. Adjustments were required for some years.

Infant and child mortality: Based on: (a) births and infant deaths registered annually from 1975 through 2014, and (b) data on children ever-born and surviving classified by age of mother from the 1975 and 1980 censuses and the West model of the Coale-Demeny Model Life Tables.

Life expectancy at birth: Based on life tables derived from official estimates of registered deaths and enumerated census population by age and sex from 1964 to 2010, adjusted for infant and child mortality. Mortality rates for older ages were adjusted. For 1950-1965, life tables were derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the South model of the Coale-Demeny Model Life Tables in 1950-1955 and converges over time toward the estimated 1965-1970 life table.

International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.

Kyrgyzstan

Total population: Estimated to be consistent with the 1959, 1970, 1979, 1989, and 1999 and 2009 censuses, with official population estimates through 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) births registered through 2015 classified by age of mother adjusted for underregistration, and (b) maternity-history data from the 1997 Kyrgyzstan DHS. Estimates derived from the 2012 DHS were also considered.

Infant and child mortality: Based on: (a) maternity-history data from the 1997 and 2012 DHS, (b) data on children ever-born and surviving classified by age of mother from the 2005 MICS, and (c) official estimates of mortality through 2015.

Life expectancy at birth: Based on official estimates of life expectancy available through 2015 adjusted for underreporting of infant and child mortality.

International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.
Lao People’s Democratic Republic

**Total population:** Estimated to be consistent with the 1985, 1995, 2005 and 2015 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) data on children ever born and births in the preceding 12 months, both classified by age of mother, from the 1993 Lao Social Indicator Survey, and the 1995, 2005 and 2015 censuses, (b) maternity-history data from the 1994 Fertility and Birth Spacing Survey, the 2000 and 2005 Lao Reproductive Health Surveys, and the 2011/12 Lao Social Indicator Survey (LSIS); (c) births in the preceding 12 months classified by age of mother from the 1986/88 Multi-round survey, (d) the own-children method applied to the 2000 MICS2 and 2006 MICS3 surveys; and (e) births in the preceding 24 months classified by age of mother from the 2006 MICS3 survey; (f) the reverse survival method applied to the 2015 census; and (g) cohort-completed fertility from these surveys and censuses.

**Infant and child mortality:** Based on: (a) maternity-history data from the 1994 Fertility and Birth Spacing Survey, the 2000 and 2005 Lao Reproductive Health Surveys, and the 2011/12 Lao Social Indicator Survey (LSISI); and (b) data on children ever born and surviving classified by age of mother from the 1993 Laos Social Indicator Survey, the 1995, 2005 and 2015 censuses, the 2000 and 2005 Lao Reproductive Health Surveys, and the 2011/12 Lao Social Indicator Survey.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables.

**International migration:** Based on estimates of international migration for the 1995-2005 and 2005-2015 intercensal period, and estimates from UNHCR.

Latvia

**Total population:** Estimated to be consistent with the 1959, 1970, 1979, 1989, 2001 and 2011 censuses, with official population estimates for 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official registration data of births by age of mother through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2015, adjusted upward through 1991 by a factor of 1.25 to compensate for infant deaths omitted owing to the use of a definition of infant death that did not conform to international standards.

**Life expectancy at birth:** Based on official life tables available through 2015.

**International migration:** Based on official estimates of international migration, and estimates derived as the difference between overall population growth and natural increase through 2015.
**Lebanon**

**Total population:** In the absence of census since 1943, population estimates are based on the 1970 PAL survey, 1995/96 Population and Housing Survey, 2004 National Survey of Household Living Conditions, 2007 Living Conditions Survey, 2009 MICS3 survey and associated population estimates provided by the Central Administration for Statistics of Lebanon (CAS), adjusted to take into account the number of Palestinians residing in camps, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) birth registrations from the Ministry of Interior, General Directorate of Civil Status; (b) maternity-history data from the 1996 Lebanon Maternal and Child Health Survey and 2004 Lebanon Family Health Survey; (c) the own-children method applied to the 1995/96 Population and Housing Survey (PHS); (d) the reverse survival method applied to the 1970 PAL survey, 2004 National Survey of Household Living Conditions and 2007 Living Conditions Survey, and the 2009 MICS3 survey; (e) data on children ever born and births in the preceding 12 months, both classified by age of mother, from the 1971 National Fertility and Family Planning Survey, the 1995/96 PHS; and (f) cohort-completed fertility from these surveys and censuses. For the period 2010-2015, total fertility was adjusted to account for different fertility patterns of large Syrian refugee population.

**Infant and child mortality:** Based on: (a) data on children ever-born and surviving classified by age of mother (and the West model of the Coale-Demeny Model Life Tables) from the 1971 National Fertility and Family Planning Survey, 1990 National EPI CDD IMR Survey, 1995/96 Population and Housing Survey, 1996 MSHS, 2000 and 2009 Multiple Cluster Indicator Surveys; and (b) data on births and deaths under-five calculated from maternity-history data from the 1996 Maternal and Child Health Survey (MCHS) and 2004 Family Health Survey. For the period 2010-2015, infant and child mortality was adjusted to account for different mortality patterns of large Syrian refugee population.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables. For the period 2010-2015, life expectancy at birth was adjusted to account for different mortality patterns of large Syrian refugee population.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1970-2007 period. For the period 2010-2015, data on refugee flows from Syria up to March 2017 compiled by UNHCR were taken into account. For the projection period, it is assumed that 40 per cent of Syrian refugees return in 2020-2025, 30 per cent in 2025-2030 and 10 per cent in 2030-2035.

**Lesotho**

**Total population:** Estimated to be consistent with the 1956, 1966, 1976, 1986, 1996 and 2006 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) data on children ever born and births in the preceding 12 months, both classified by age of mother from the 1977 Lesotho World Fertility Survey and the 2014 Lesotho DHS; (b) data on children ever born and births preceding the 1986, 1996 and 2006 censuses, using the P/F ratio method; (c) estimates derived from the 2002 Lesotho Reproductive Health Survey and the 1991 Lesotho Demographic Health Survey; and (d) maternity-history data from the 2004 and 2009 Lesotho Demographic Health Surveys.
Lesotho (cont.)

**Infant and child mortality:** Based on: (a) maternity-history data from the 2004, 2009 and 2014 Lesotho DHS; (b) recent household deaths from the 2006 census; and (c) data on children ever born and surviving classified by age of mother from 1968 Rural Household Consumption and Expenditure Survey, 1971 Lesotho Demographic Survey, 1977 World Fertility Survey, 2001 Lesotho Demographic Survey, 2001 Lesotho MICS, and the 1986, 1996 and 2006 censuses. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables. The demographic impact of AIDS has been factored into the mortality estimates.

**International migration:** Based on refugee statistics compiled by UNHCR and on data on the number of migrant workers in South Africa.

Liberia

**Total population:** Estimated to be consistent with the 1962, 1974, 1984 and 2008 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data adjusted for underreporting from the 1986, 2007 and 2013 DHS, as well as the 2009 and 2011 MIS; (b) data on children ever born and births in the preceding 12 months (or 36 months), both classified by age of mother, from these surveys and from the 1969/71 Population Growth Surveys, the 1974, 1984 and 2008 censuses, and the 2008/09 MIS; (c) data on births in the preceding 36 months classified by age of mother from the 1999/00 LDHS; (d) cohort-completed fertility from these surveys and censuses. Results from the own-children method applied to the 2009 and 2011 MIS were also considered.

**Infant and child mortality:** Infant mortality: Derived from child mortality rates using the West model of the Coale-Demeny Model Life Tables. Child mortality: Based on: (a) data on births and deaths under-five calculated from maternity-history data from the 1986, 2007 and 2013 Liberia DHS, and the 2009 and 2011 MIS; (b) recent household deaths from the 1969/71 Population Growth Surveys and the 1978 National Demographic Survey; (c) data on children ever-born and surviving classified by age of mother (and the West model of the Coale-Demeny Model Life Tables) from these surveys, the 1974, 1984 and 2008 censuses, and the 1999/00 LDHS.

**Life expectancy at birth:** Estimated using the South model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15) derived from (a) recent household deaths data from the 1969-1970 and 1970-1971 Population Growth Surveys; (b) parental orphanhood from the 2007 DHS; (c) siblings deaths from the 2007 and 2013 DHS; (d) implied relationship between child mortality and adult mortality based on the West model of the Coale-Demeny Model Life Tables in 1950-1955 and assumed to converge over time toward the South model of the Coale-Demeny Model Life Tables by the 1990s. Data from West African rural demographic surveillance sites and urban vital registration were also considered.

**International migration:** Based on refugee statistics compiled by UNHCR.
Libya


Infant and child mortality: Based on: (a) maternity-history data from the 1995 PAPCHILD Survey and the 2007 PAPFAM Survey, and (b) data on children ever-born and surviving classified by age of mother (and the West model of the Coale-Demeny Model Life Tables) from these surveys, the 2003 MICS, and the 1973 census.

Life expectancy at birth: Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms the East model of the Coale-Demeny Model Life Tables and converges over time toward the West model of the Coale-Demeny Model Life Tables from 1950 to 2010.

International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase during intercensal periods, and estimates from IOM.

Liechtenstein

Total population: Estimated to be consistent with the 1960, 1970, 1990, 2000 and 2010 censuses, with official population estimates through 2015, and the assumed subsequent trend in the growth rate of the population.

Lithuania

Total population: Estimated to be consistent with the 2011 census, with official population estimates for 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on official registration data of births by age of mother through 2015.

Infant and child mortality: Based on births and infant deaths registered through 2015, adjusted upward through 1991 by a factor of 1.25 to compensate for infant deaths omitted owing to the use of a definition of infant death that did not conform to international standards.

Life expectancy at birth: Based on official estimates of life expectancy available through 2015. The age pattern of mortality is based on life tables through 2013 from the Human Mortality Database.

International migration: Based on official estimates of international migration, and estimates derived as the difference between overall population growth and natural increase through 2015.

Luxembourg

Total population: Estimated to be consistent with official population estimates through 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on official registration data of births by age of mother through 2015.

Infant and child mortality: Based on births and infant deaths registered through 2014.

Life expectancy at birth: Based on official estimates of life expectancy available through 2014. The age pattern of mortality is based on official life tables through 2014.

International migration: Based on official estimates of international migration, and estimates derived as the difference between overall population growth and natural increase through 2015.
Madagascar

**Total population:** Estimated to be consistent with the 1975 and 1993 censuses, with official population estimates for 2011, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 1992, 1997, 2003/04 and 2008/09 DHS; (b) data on children ever born and births in the preceding 12 months, both classified by age of mother, from the 1975 and 1993 censuses; (c) estimates from the 1966 Demographic Survey; (d) estimates from the 1980 Household Budgets Survey; and (e) estimates from the 2011 and 2013 Malaria Indicator Survey. Census estimates were adjusted upwards by applying the P/F ratio method.

**Infant and child mortality:** Based on: (a) maternity-history data from the 1992, 1997, 2003-2004 and 2008-2009 DHS, (b) estimates from the 1995 and 2000 MICS, (c) estimates from the 2011 and 2013 MIS, (d) registered live births by age of mother, infant deaths, and deaths by age under age 5 through 1972 and in 1993; and (e) estimates from the 1966 Demographic Survey.

**Life expectancy at birth:** Based on: (a) estimates from the 1966 Demographic Survey and the 1973 and 1993 censuses; (b) estimates derived from registered age-sex-specific deaths and underlying age-sex-specific population; (c) estimates derived from implied relationships between child mortality and adult mortality from the 1992, 1997, 2003/04 and 2008/09 DHS based on the North model of the Coale-Demeny Model Life Tables; and (d) 1966 estimates from OECD were also considered.

**International migration:** Based on data on persons born in Madagascar and enumerated by the censuses of key countries of destination, especially France.

Malawi

**Total population:** Estimated to be consistent with the 1977, 1987, 1998 and 2008 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.


**Infant and child mortality:** Based on: (a) data on children ever-born and surviving classified by age of mother from the 1977, 1988, 1998 and 2008 censuses; (b) maternity-history data from the 1992, 2000, 2004, 2010 and 2015-2016 Malawi DHS; and (c) estimates from the 2006 MICS survey and 2014 MDG Endline survey. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the South model of the Coale-Demeny Model Life Tables. Estimates from the 1987, 1998 and 2008 censuses and official estimates from the National Statistical Office of Malawi were also considered. The demographic impact of AIDS has been factored into the mortality estimates.

**International migration:** Based on: (a) estimates of net international migration derived as the difference between overall population change and natural increase during different intercensal periods; (b) refugee statistics compiled by UNHCR; and (c) data on the number of migrant workers in South Africa.
Malaysia

Total population: Estimated to be consistent with censuses from 1960 through 2010, and with the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on official estimates of total fertility through 2014.

Infant and child mortality: Based on births and infant deaths registered through 2014.

Life expectancy at birth: Based on reported deaths by age and sex through 2014 and the underlying population by age and sex.

International migration: Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2010, and on information on Malaysian emigrants admitted by the main countries of immigration.

Maldives


Total fertility: Based on: (a) data on children ever born and births in the preceding 12 months, both classified by age of mother, from the 1977, 1985, 1990, 1995, 2000, 2006 and 2014 censuses; (b) the own-children method applied to the 1995 and 2000 censuses; (c) the reverse survival method applied to the 2006 and 2014 censuses; (d) births in the preceding 12 months from the 2002 fertility survey; (e) maternity-history data from the 2009 DHS; (f) cohort-completed fertility from these surveys and censuses; and (g) the crude birth rate and births classified by age of mother registered through 2012.

Infant and child mortality: Based on: (a) adjusted annual data from vital registration from 1978 to 2012; (b) data on births and deaths under-five calculated from maternity-history data from the 2009 DHS; and (c) data on children ever-born and surviving classified by age of mother (and the South-Asian model of the United Nations Model Life Tables) from the 1977, 1985, 1990, 1995, 2000 and 2006 censuses, and the 1997 Poverty and Vulnerability Survey.


International migration: Net international migration estimates derived as the difference between overall population growth and natural increase through 2014.
Mali

Total population: Estimated to be consistent with the 1976, 1987, 1998 and 2009 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) maternity-history data from the 1987, 1995/96, 2001, 2006 DHS and 2012/13 DHS, adjusted for underreporting; (b) data on children ever born and births in the preceding 12 months (or 36 months), both classified by age of mother, from these surveys and from the 1957/58 Demographic Survey (Central Delta), 1960/61 Demographic Survey, 1987 and 2009 censuses; (c) cohort-completed fertility from these surveys and censuses; and (d) the own-children method applied to the 1987 and 1998 censuses, 2003 WHS, and 2010 Mali Enquête sur la prévalence de l’Anémie et de la Parasitémie palustre chez les enfants.

Infant and child mortality: Based on: (a) recent household deaths from the 1957-58 Demographic Survey (Central Delta) and 1960-61 Demographic Survey, 1981-82 multiround survey, 1976, 1987, 1998 and 2009 censuses; (b) data on births and deaths under-five calculated from maternity-history data from the 1987, 1995-96, 2001, and 2006 DHS; (c) data on children ever-born and surviving classified by age of mother (and the North model of the Coale-Demeny Model Life Tables) from these surveys, as well as from the 1976, 1987 and 2009 censuses. Estimates from the 2015 MICS, the 2015 MIS, the 2012-13 DHS and 2009 census were considered.

Life expectancy at birth: Estimated using the South model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15) derived from (a) recent household deaths data (unadjusted and adjusted for underregistration using the growth-balance and synthetic-extinct generation methods) from the 1957/58 Demographic Survey (Central Delta) and 1960/61 Demographic Survey, the 1976, 1987, 1998 and 2009 censuses; (b) parental orphanhood from the 1995-96, 2001 and 2006 DHS; (c) siblings deaths from the 1995-96, 2001, 2006 and 2012-2013 DHS; (d) intercensal survivorship from successive census age distributions (smoothed and unsmoothed) for periods 1976-1987, 1987-1998, and 1998-2009; (e) implied relationship between child mortality and adult mortality based on the North model of the Coale-Demeny Model Life Tables in 1950-55, and assumed to converge over time toward the South model of the Coale-Demeny Model Life Tables by the 1980s.

International migration: Based on: Refugee statistics compiled by UNHCR, the number of Malians enumerated in other countries of the region, and REMUAO surveys carried out by CERPOD.

Malta

Total population: Estimated to be consistent with the 1985, 1995, 2005 and 2011 censuses, 2015 official estimate, and with estimates of the subsequent trends in fertility, mortality, international migration.

Total fertility: Based on official estimates of age-specific fertility rates through 2014.

Infant and child mortality: Based on official life tables through 2012.

Life expectancy at birth: Based on official life tables through 2014.

International migration: Based on estimates of net international migration derived as the difference between overall population change and natural increase during the 1958-2011 intercensal period.
Marshall Islands

**Total population:** Estimated to be consistent with the 2011 census, and the assumed subsequent trend in the growth rate of the population.

Martinique


**Total fertility:** Based on official estimates of total fertility through 2013. Estimates from the 2004 Greater Caribbean Survey were also considered.

**Infant and child mortality:** Based on: (a) official estimates of infant mortality from 2000 to 2013, and (b) annual life tables for 1967, 2002 and 2007.

**Life expectancy at birth:** Based on: (a) official estimates of life expectancy at birth from 2000 to 2013, and (b) annual life tables for 1967, 2002 and 2007.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1990-2013 period.

Mauritania

**Total population:** Estimated to be consistent with the 1977, 1988, 2000 and 2013 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 1981/82 Fertility Survey of Mauritania (WFS), 1990/91 Maternal Child and Health Survey, the 2000/01 Mauritania DHS and the 2003/04 Mauritania Infant Mortality and Malaria Survey (EMIP), and 2007 MICS, adjusted for underreporting; (b) data on children ever born and births in the preceding 12 months (or 36 months), both classified by age of mother, from the 1977 and 1988 censuses; (c) births in the preceding 12 months classified by age of mother from the 2000 and 2013 censuses, and the 2011 MICS; (d) cohort-completed fertility from these surveys and censuses; and (e) the own-children method applied to the 2003 WHS and 2007 MICS.

**Infant and child mortality:** Based on: (a) data on births and deaths under-five calculated from maternity-history data from the 1981/82 Mauritania Fertility Survey (WFS), the 1990/91 Maternal Child and Health Survey, the 2000/01 Mauritania DHS and the 2003/04 Mauritania Infant Mortality and Malaria Survey (EMIP); (b) data on children ever-born and surviving classified by age of mother (and the North model of the Coale-Demeny Model Life Tables) from these data sources, as well as from the 1964/65 survey, the 1996 and 2007 MICS surveys; and (c) recent household deaths from the 1957 Fouta Toro survey, 1977 and 1988 censuses. Results from the 2011 MICS were also considered.

**Life expectancy at birth:** Estimated using the South model of the Coale-Demeny Model Life Tables and implied relationships between life expectancy at birth and estimates of infant and child mortality, and estimates of adult mortality (45q15). Adult mortality estimates were derived from: (a) parental orphanhood from the 2007 MICS, 2000/01 DHS, 1964/65 Demographic Survey and 1981/82 Fertility Survey of Mauritania (WFS), (b) siblings deaths from the 2000/01 DHS, (c) household deaths data from the 1957 Fouta Toro survey, 1977 and 1988 censuses, and (d) intercensal survivorship from successive census age distributions (smoothed and unsmoothed) for periods 1965-1977, 1977-1988 and 1988-2000.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during intercensal periods.
Mauritius

**Total population:** Estimated to be consistent with the 2011 census adjusted for underenumeration at ages 0-14, with official population estimates for 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of age-specific fertility rates through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2015.

**Life expectancy at birth:** Based on official life tables through 2015.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1950-2015 period. Official analysis of migration data from the 2011 census was also considered.

Mayotte

**Total population:** Estimated to be consistent with the 2012 census, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on estimates of total fertility for selected years through 2012.

**Infant and child mortality:** Based on life tables of Réunion.

**Life expectancy at birth:** Based on the life tables of Réunion.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2012.

Mexico


**Total fertility:** Based on: (a) births registered from 1950 through 2013 classified by age of mother and underlying female population by age; (b) estimates from the 1992, 2009 and 2014 Encuesta Nacional de la Dinámica Demográfica (ENADID); (c) estimates from the 1970, 1990, 2000 and 2010 censuses; and (d) estimates from the 1995 Encuesta Nacional de Planificación Familiar, 1987 DHS, 1978 and 1979 ENPUMA, and 1976 WFS.

**Infant and child mortality:** Based on: (a) registered live births and infant and child deaths through 2013, (b) estimates from the 1992, 2006 and 2009 Encuesta Nacional de la Dinámica Demográfica (ENADID) and the 1987 DHS, (c) estimates from the 1978 and 1979 ENPUMA, and the 1976 WFS, and (d) estimates from the 1970, 1990, 2000, and 2010 censuses

**Life expectancy at birth:** Based on: (a) registered deaths by age and sex through 2013 and underlying population by age and sex, (b) estimates from the 1992, 2006 and 2009 Encuesta Nacional de la Dinámica Demográfica (ENADID), (c) estimates from the 1978 and 1979 ENPUMA, and the 1976 WFS, (d) estimates from the 1970, 1990, 2000 and 2010 censuses. The number of deaths was adjusted using the growth-balance method.

**International migration:** Based on: number of foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America; 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; estimates derived as the differences between overall population growth and natural increase.
Micronesia (Fed. States of)

**Total population:** Estimated to be consistent with the 2010 census, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) estimates from the 1973, 1980, 1994, 2000 and 2010 censuses; and (b) estimates from registered births by age of mother from 2000 to 2006.

**Infant and child mortality:** Based on: (a) estimates from births and infant deaths through 2011, (b) estimates from the 1994, 2000 and 2010 censuses, (c) estimates from the 2005 MICS, and (d) estimates from the Secretariat of the Pacific Community were also considered.

**Life expectancy at birth:** Based on estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1950-2015 period.

Monaco


Mongolia

**Total population:** Estimated to be consistent with censuses from 1956 through 2010, with official estimate for 2016, and with estimates of the subsequent trends in fertility, mortality and international migration. Recent official estimates include Mongolian citizens living abroad from more than 6 months.

**Total fertility:** Based on: (a) official estimates of total fertility through 2015; (b) full birth history data from the 1994 and 1996 Demographic Survey of Mongolia, the 1998 Reproductive Health Survey (RHS), the 2013 Social Indicator Sample Survey (SISS); (c) truncated birth history data (last five years before the survey) from the 2003 and 2008 RHS; and (d) indirect estimates obtained from the application of the reverse survival method to the 1956, 1963, 1969, 1979, 1989, 2000 and 2010 censuses, to the 2000, 2005 and 2010 Multiple Indicator Cluster Survey (MICS), and to the 2013 SISS.

**Infant and child mortality:** Based on: (a) official estimates through 2015; (b) direct estimates from full or truncated birth history data from the 1989 census, the 1994 and 1996 Demographic Survey of Mongolia, the 1998, 2003 and 2008 Reproductive Health Survey (RHS), and the 2013 Social Indicator Sample Survey (SISS); and (c) data on the children ever born and surviving classified by age of mother from the 1989 census, the 1994 Demographic Survey of Mongolia, the 1998, 2003 and 2008 RHS, the 2000, 2005 and 2010 MICS, and the 2013 SISS.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2015 adjusted for underreporting of infant and child mortality.

**International migration:** Based on official data on international migration and estimates derived as the difference between overall population growth and natural increase through 2015.
Montenegro


**Total fertility:** Based on official estimates of total fertility available through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2015.


**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase, and on refugee statistics compiled by UNHCR.

Montserrat

**Total population:** Estimated to be consistent with the 2011 census, with estimates of international migration, and the assumed subsequent trend in the growth rate of the population.

Morocco

**Total population:** Estimated to be consistent with the 1960, 1971, 1982, 1994, 2004 and 2014 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) direct estimates from the 1986/88 Enquête Nationale Démographique à Passages Répétés (ENDPR), 1995 Enquête de Panel sur la Population et la Santé (EPPS/DHS), the 1998/99 Living Standards Survey, the 1996/97 and 2003/04 PAPCHILD Surveys of Morocco (ENSME and EPSF), the 2009/10 Demographic survey and the 2011 Enquête Nationale sur la Population et la Santé; (b) data on births during the past 12 months, classified by age of mother, from the 1982, 1994, 2004 and 2014 censuses; (c) maternity-history data from the 1987 and 1992 Enquêtes Nationales sur la Population et la Santé (ENPS-I and II/DHS); (d) indirect estimates obtained from the application of the own-children method to the 1982, 1994 and 2004 censuses; and (e) indirect estimates obtained from the application of the reverse survival method to the estimates derived from the 1960 and 1971 censuses.


**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality initially conforms to the mortality patterns resulting from the blending from the East model of the Coale-Demeny Model Life Tables to the West model of the Coale-Demeny Model Life Tables from 1950 to 2000. For the period 2000-2015, life expectancy was derived from the life table of the 2009-2010 Demographic survey.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the intercensal periods.
Mozambique

**Total population:** Estimated to be consistent with the 1980, 1997 and 2007 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) data on children ever born and births in the preceding 12 months, both classified by age of mother, from the 1997 and 2007 censuses; (b) maternity-history data from the 1997, 2003 and 2011 DHS; and (c) estimates derived from the 2002/03 Inquérito de Agregados Familiares.

**Infant and child mortality:** Based on: (a) data on children ever-born and surviving classified by age of mother from the 1970, 1980, 1997 and 2007 censuses; and (b) maternity-history data from the 1997, 2003 and 2011 DHS, the 1995 and 2009 Multiple Indicator Cluster Survey, and the 2009 AIDS Indicator Survey. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables. The demographic impact of AIDS has been factored into the mortality estimates.

**International migration:** Based on refugee statistics compiled by UNHCR, data on migration of workers to South Africa, and on the results of the 1997 and 2007 censuses regarding persons residing abroad five years before the enumeration.

Myanmar

**Total population:** Estimated to be consistent with the 1973, 1983, and the 2014 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration. Population estimate from the 1991 Myanmar Population Change and Fertility Survey, and official population estimates for various years up to 2010 were also considered.

**Total fertility:** Based on: (a) data on the number of births in the preceding 12 months classified by age of mother from the 1983 and 2014 censuses; (b) maternity-history data from the 1991 Population Change and Fertility Survey, and the 1997, 2001 and 2007 Fertility and Reproductive Health Surveys, and the 2015-2016 Demographic and Health Survey; (c) indirect estimates obtained from the application of the reverse survival method to the 1973, 1983, and 2014 censuses, the 1991 Population Change and Fertility Survey, the 2000 Multiple Indicator Cluster Survey (MICS), the 2001 Fertility and Reproductive Health Survey, the 2003 World Health Survey, the 2009-2010 MICS; (d) 2004-2009 official estimates; and (e) cohort-completed fertility from these surveys and censuses.

**Infant and child mortality:** Based on: (a) maternity-history data from the 1991 Myanmar Population Change and Fertility Survey, the 1997, 2001, and 2007 Fertility and Reproductive Health Surveys, the 1999 National Mortality Survey, the 2002-2003 Overall and Cause-Specific Under-Five Mortality Survey, the 2009-2010 Multiple Indicator Cluster Survey and the 2015-2016 Demographic Health Survey; (b) data on children ever-born and surviving classified by age of mother (and the West model of the Coale-Demeny Model Life Tables) from the 1983 and 2014 censuses, the 1991 Population Change and Fertility Survey, the 1997, 2001, 2007 Fertility and Reproductive Health Survey, and the 2009-2010 Multiple Indicator Cluster Survey; and (c) recent household deaths from the 2014 census.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables. Official estimates of life expectancy at birth by sex from the 1991 Myanmar Population Change and Fertility Survey and the recent household deaths data from the 2014 census were also considered.
**Myanmar (cont.)**

**International migration:** Based on: (a) refugee statistics compiled by UNHCR; (b) assumed trends in labour migration; and (c) estimates of net international migration derived as the difference between overall population growth and natural increase. The registration data of Burmese from Thailand statistical office were also taken into account.

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**Namibia**

**Total population:** Estimated to be consistent with the 1991, 2001 and 2011 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 1992, 2000, 2006/07 and 2013 Namibia Demographic Health Surveys; and, (b) official total fertility estimates from Statistics Namibia derived from the 1991 and 2001 censuses were also considered.

**Infant and child mortality:** Based on: (a) data on children ever born and surviving and maternity-history data from the 1992, 2000, 2006/07 and 2013 Namibia DHS; and (b) official estimates from Statistics Namibia derived from the 2001 census. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables. Official estimates from Statistics Namibia were also considered. The demographic impact of AIDS has been factored into the mortality estimates. Adjustments were made to adult male mortality levels in some periods.

**International migration:** Based on refugee statistics compiled by UNHCR and assumed immigration levels.

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**Nauru**

**Total population:** Estimated to be consistent with the 1961, 1966, 1977, 1992, 2000, and 2011 censuses, with estimates of in international migration, and the assumed subsequent trend in the growth rate of the population.

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**Nepal**


Nepal (cont.)

**Infant and child mortality:** Infant mortality: Derived from the child mortality rates using the West model of the Coale-Demeny Model Life Tables, and consistent with national estimates. Child mortality: Based on: (a) maternity-history data from the 1976 Nepal Fertility Survey, the 1991 Nepal Fertility, Family Planning and Health Survey, the 1996 Nepal Family Health Survey, the 2001 and 2006 Nepal DHS, and 2014 MICS5; and (b) data on children ever-born and surviving classified by age of mother (and the West model of the Coale-Demeny Life Tables) from these surveys and from the 1971, 1981 and 1991 censuses, the 1981 Contraceptive Prevalence Survey, and the 1985-1986 Fertility and Family Planning Survey.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables.

**International migration:** Based on: (a) information on household members abroad gathered by the 1981, 1991, 2001 and 2011 censuses, and (b) information on refugee flows to and from the country.

**Netherlands**

**Total population:** Estimated to be consistent with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of total fertility through 2014.

**Infant and child mortality:** Based on births and infant deaths registered through 2015.

**Life expectancy at birth:** Based on official estimates of life expectancy derived from registered deaths through 2015. The age pattern of mortality is based on official life tables for 1950 to 2015.

**International migration:** Based on official data on international migration and estimates derived as the difference between overall population growth and natural increase through 2015.

**New Caledonia**


**Total fertility:** Based on: (a) registered births by age of mother and the female population derived from the world population prospects from 1962 to 2012; (b) official estimates through 2010; and (c) estimates from the 2004, 2009 and 2014 censuses.

**Infant and child mortality:** Based on: (a) official estimates from 1980 to 2010; (b) estimates from registered birth and infant deaths from 1976 to 2012; and (c) estimates from the Secretariat of the Pacific Community were also considered.

**Life expectancy at birth:** Based on: (a) official estimates from 1980 to 2010; (b) registered deaths by age and sex from 1962 to 2010 and the underlying age-sex-specific population; and (c) estimates from the Secretariat of the Pacific Community were also considered.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.
New Zealand

Total population: Estimated to be consistent with official population estimates for 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on official registration data of births by age of mother through 2015.

Infant and child mortality: Based on births and infant deaths registered through 2015.

Life expectancy at birth: Based on official estimates of life expectancy available through 2013-2015. The age pattern of mortality is based on life tables through 2013 from the Human Mortality Database.

International migration: Based on official estimates of international migration, and estimates derived as the difference between overall population growth and natural increase through 2015.

Nicaragua

Total population: Estimated to be consistent with the 1950, 1963, 1971, 1995 and 2005 censuses, with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on: (a) registered births by age of mother from 1955 through 2011 and underlying female population by age; (b) estimates from the 1998, 2001, 2006/07, and 2011/12 ENDESA (DHS); (c) estimates from the 1971, 1995, and 2005 censuses; and (d) estimates from the 1992/93 Family Health Survey, 1993 and 2001 LSMS; 1985/86 National Socio-Demographic Survey, and 1978 National Retrospective Demographic Survey. Estimates from: Epema, E. (1983) were considered.

Infant and child mortality: Based on: (a) registered births and infant and child deaths from 1968 through 2011; (b) estimates from the 1998, 2001, 2006/07, and 2011/12 ENDESA (DHS); (c) estimates from the 1992/93 Family Health Survey, the 1993 and 2001 National Household Survey on Living Standards Measurement (LSMS); the 1985/86 National Socio-Demographic Survey, the 1978 National Retrospective Demographic Survey; and (d) estimates from the 1953, 1963, 1971, 1995, and 2005 censuses.

Life expectancy at birth: Based on: (a) registered births and infant and child deaths from 1968 through 2011; (b) estimates from the 1998, 2001, 2006/07, and the 2011/12 ENDESA (DHS); (c) estimates from the 1992/93 Family Health Survey, the 1993 and 2001 National Household Survey on Living Standards Measurement (LSMS); the 1985/86 National Socio-Demographic Survey, the 1978 National Retrospective Demographic Survey; and (d) estimates from the 1953, 1963, 1971, 1995 and 2005 censuses. The number of deaths was adjusted using the growth-balance method.

International migration: Based on: (a) number of foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, (b) estimates derived as the differences between overall population growth and natural increase.
**Niger**

**Total population:** Estimated to be consistent with the 1977, 1988, 2001 and 2012 censuses, adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data adjusted for underreporting from the 1992 and 1998 DHS, as well as 2006 DHS-MIC3 and the 2012 DHS-MIC4; (b) data on children ever born and births in the preceding 12 months (or 36 months), both classified by age of mother, from these surveys and from the 1959/60 Demographic Survey, 1988 and 2001 censuses, and 2000 MICS2 survey; (c) cohort-completed fertility from these surveys and censuses; (e) the own-children method applied to the 2001 census. Estimates based on the 2010 EMS and -2016 PMA-R 1were also considered.

**Infant and child mortality:** Based on: (a) data on births and deaths under-five calculated from maternity-history data from the 1992, 1998 DHS, 2006 and 2012 DHS-MIC3, the 2015 Etude Nationale d’Evaluation d’Indicateurs Socio-Economiques et Demographiques (ENISED), and the 2010 Enquete Nationale sur la survie des enfants de 0 à 59 mois et la mortalite au Niger (EMS); (b) recent household deaths from the 1959/60 Demographic Survey, 1988 and 2001 censuses; (d) data on children ever-born and surviving classified by age of mother (and the North model of the Coale-Demeny Model Life Tables) from these surveys, as well as from the 1996 and 2000 MICS surveys.

**Life expectancy at birth:** Estimated using the South model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15). Adult mortality estimates were derived from (a) recent household deaths data (unadjusted and adjusted for underregistration using the growth-balance and synthetic-extinct generation methods) from the 1959/60 Demographic Survey, 1977, 1988 and 2001 censuses; (b) parental orphanhood from the 1988 and 2001 censuses, 1992 and 1998 DHS, 2006 DHS-MIC3; (c) siblings deaths from the 1992 DHS, 2006 DHS-MIC3 and 2012 DHS-MIC4; (d) intercensal survivorship from successive census age distributions (smoothed and unsmoothed) for periods 1977-1988, and 1988-2001; (e) implied relationship between child mortality and adult mortality based on the North model of the Coale-Demeny Model Life Tables in 1950-1955, and assumed to converge over time toward the South model of the Coale-Demeny Model Life Tables by the 1990s. Data from West African rural demographic surveillance sites and urban vital registration were also considered.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during intercensal periods.

**Nigeria**

**Total population:** Estimated to be consistent with the 1963, 1991 and 2006 censuses, adjusted for underenumeration, with the age and sex structure from the 2011 MICS4 survey, and with estimates of the subsequent the trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data adjusted for underreporting from the 1981/82 Nigeria WFS, the 1990, 1999, 2003, 2008 and 2013 DHS, as well as the 2010 MIS; (b) data on children ever born and births in the preceding 12 months (or 36 months), both classified by age of mother, from these surveys and from the 1965/66 Nigerian rural demographic inquiry, the 1971/73 KAP survey, the 1991 census, the 2000 Nigeria Sentinel Survey, the 2007 MICS3 and 2011 MICS4; (c) data on children ever born classified by age of mother from the 1995 MICS and 1999 MICS2 surveys; (d) cohort-completed fertility from these surveys and censuses; (e) the own-children method applied to the 2007 MICS3 and 2010/11 GHS. Estimates based on the reverse survival method applied to the 2011 MICS4 were also considered.
Nigeria (cont.)

**Infant and child mortality:** Infant mortality: Derived from the child mortality rates using the North model of the Coale-Demeny Model Life Tables. Child mortality: Based on: (a) recent household deaths from the 1965-1966 Nigerian rural demographic inquiry; (b) data on births and deaths under-five calculated from maternity-history data from the 1990, 2003, 2008, and 2013 Nigeria DHS, and 2010 MIS; (c) data on children ever-born and surviving classified by age of mother (and the North model of the Coale-Demeny Model Life Tables) from these surveys. Estimates based on the 1962-1977 Malumfashi DSS, the 1971/73 National Fertility, Family and Family Planning survey, the 1981/82 Nigeria WFS, the 1995 and 1999 Nigeria Multiple Indicator Cluster Surveys, the 1999 Nigeria DHS, the 2000 Nigeria Sentinel survey, and the 2007 and 2011 MICS were also considered.

**Life expectancy at birth:** Estimated using the South model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15). Adult mortality estimates were derived from: (a) recent household deaths data from the 1965-1966 Nigerian rural demographic inquiry, the 2008 and 2013 DHS, and the 2010/11 GHS; (b) parental orphanhood from the 1986, 1999, 2003, 2008 and 2013 DHS, the 2007 MICS3 and 2010/11 GHS; (c) siblings deaths from the 2008 DHS; (d) implied relationship between child mortality and adult mortality based on the North model of the Coale-Demeny Model Life Tables. Data from West African rural demographic surveillance sites including for Malumfashi in 1962-1966 and 1974-1977 and urban vital registration were also considered.

**International migration:** Based on information on Nigerian-born persons enumerated in neighbouring countries, flows of Nigerians to selected developed countries, and information obtained at the time of the repatriation of undocumented migrants that took place in 1983 and 1985.

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**Niue**


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**Northern Mariana Islands**

**Total population:** Estimated to be consistent with the 2010 census, with estimates of international migration, and the assumed subsequent trend in the growth rate of the population.

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**Norway**


**Total fertility:** Based on official registration data of births by age of mother through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2015.

**Life expectancy at birth:** Based on official life tables available through 2015. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database.

**International migration:** Based on official estimates of international migration and estimates derived as the difference between overall population growth and natural increase through 2015.
Oman

**Total population:** Estimated to be consistent with the 1993, 2003 and 2010 censuses adjusted for underenumeration, with official population estimates for 2015 and 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on adjusted age-specific fertility rates from: (a) annual births classified by age of mother registered for 1995-2014; (b) maternity-history data from the 1988/89 Child Health Survey, 1995 Gulf Family Health Survey; (c) births in the preceding 12 months classified by age of mother from the 2003 census; (d) data on children ever born and recent births, both classified by age of mother, from these surveys, as well as from 1975-1979 Socio-Demographic Surveys, 1984 Demographic and Social Survey, 1993 census, and 2000 Comprehensive Health Survey for Evaluation and Reproductive Health; and (f) cohort-completed fertility from these surveys and censuses.

**Infant and child mortality:** Based on: (a) recent household deaths from the 2003 census; (b) births and infant deaths registered from 1972 through 2014; (c) data on births and deaths under-five calculated from maternity-history data from the 1988/89 Child Health Survey, 1995 Gulf Family Health Survey; and (d) data on children ever-born and surviving classified by age of mother (and the using the West model of the Coale-Demeny Model Life Tables) from these surveys, and from the 1975-1979 Socio-Demographic Surveys, 1993 and 2003 censuses, and 2000 Comprehensive Health Survey for Evaluation and Reproductive Health.

**Life expectancy at birth:** Based on life tables derived from official estimates of registered deaths for 2009-2011 and 2010 enumerated census population by age and sex, adjusted for infant and child mortality. For 1950-2007, life tables were derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the South model of the Coale-Demeny Model Life Tables in 1950-1955 and converges over time toward the estimated 2009-2011 life table.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2014.

Pakistan

**Total population:** Estimated to be consistent with the 1951, 1961, 1972, 1981 and 1998 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) adjusted age-specific fertility rates from the Pakistan Demographic Survey from 1984 to 2007; (b) births in the preceding 12 or 24 months classified by age of mother from the 1962-1965 Population Growth Estimation Experiment, 1968/69 National Impact Survey, 1976-1979 Population Growth Survey II, the 2003 Status of Women, Reproductive Health, and Family Planning Survey, the 2007/08 and 2011/12 Living Standards Measurement Surveys; (c) maternity-history data from the 1974/75 Pakistan Fertility Survey, the 1979/80 Population, Labor Force and Migration Survey, the 1996/97 Fertility and Family Planning Survey, the 2000/01 Reproductive Health and Family Planning Survey, the 2006/07 and 2012/13 DHS adjusted for underreporting; (d) data on children ever born and recent births, both classified by age of mother, from these surveys and from the 1968-1971 Population Growth Survey, the 1984/85, 1993 and 1994/95 Contraceptive Prevalence Surveys, the annual Pakistan Integrated Household Surveys from 1991, 1995/96 to 2001/02, the 1998 census, the 2000/01 Reproductive Health and Family Planning Survey, the 2005/06 Living Standards Measurement Survey; (e) cohort-completed fertility from these surveys, the 1981 census, and 1991 Living Standards Measurement Survey. Estimates based on the reverse survival method applied to the annual Labor Force Surveys up to 2010/11 were also considered.
Pakistan (cont.)


Life expectancy at birth: Based on life tables derived from age and sex-specific mortality rates from: (a) the 1962-1965 Population Growth Estimation Experiment, 1968-1971 Population Growth Survey I, 1976-1979 Population Growth Survey II; (b) the 1984-2007 annual Pakistan Demographic Surveys adjusted for infant and child mortality, and for adult death underregistration for males in 1950-1970 using the growth-balance and synthetic-extinct generation methods, as well as cross-validation with other countries experiencing similar mortality levels; and (c) estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the South-Asian model of the United Nations Model Life Tables. Estimates are consistent with those based on parental survival and widowhood data from the 1984 PDS. Mortality rates for older ages were adjusted.

International migration: Based on information on the outflow of migrant workers, on data on Pakistani immigrants admitted by the main countries of immigration and data on refugee flows compiled by UNHCR.

Palau


Panama


Total fertility: Based on: Based on: (a) registered births by age of mother from 1952 through 2014 and underlying female population by age; (b) estimates from the 2013 MICS, the 2009 Encuesta Nacional de Salud Sexual y Reproductiva (RHS), the 1984 M-CH/FP Survey, the 1975/77 Encuesta Demográfica Nacional, and the 1975/76 WFS; and (c) estimates from the 1950, 1970, 1980, 1990, 2000 and 2010 censuses.

Infant and child mortality: Based on: (a) registered births and infant and child deaths from 1952 through 2013; (b) estimates from the 1950, 1970, 1980, 1990, 2000 and 2010 censuses; (c) official life tables for 1960, 1970, 1979, 1989 and 1999; and (d) estimates from the 1975/76 WFS.
Panama (cont.)

**Life expectancy at birth:** Based on: (a) registered deaths by age and sex and underlying population by age and sex from 1952 through 2013; (b) estimates from the 1950, 1970, 1980, 1990, 2000, and 2010 censuses; and (c) official life tables for 1960, 1970, 1979, 1989 and 1999. The number of deaths was adjusted using the growth-balance method.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase.

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**Papua New Guinea**

**Total population:** Estimated to be consistent with censuses from 1966 through 2011, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on data on children ever born and births during the year preceding the 2000 census and 2006 DHS, using the P/F ratio method.

**Infant and child mortality:** Based on: (a) data on children ever born and surviving classified by age of mother from the 2000 census, and (b) data on child mortality from the 1996 and 2006 DHS.

**Life expectancy at birth:** Based on: (a) infant and child mortality estimates, (b) parental survivorship (orphanhood) data by age from the 2000 census, (c) child mortality data from the 1996 and 2006 PNG DHS, by assuming that the age pattern of mortality conforms to the Far Eastern model of the United Nations Model Life Tables.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.

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**Paraguay**

**Total population:** Estimated to be consistent with the 1962, 1972, 1982, 1992, and 2002 censuses, with preliminary results of the 2012 census, with official estimates through 2014, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) registered births by age of mother in 2008 and underlying female population by age; (b) estimates from the 2004 and 2008 ENDSSR and the1995/96 ENDSSR; (c) estimates from the 2003 WHS, the 1998 National Maternal and Child Health Survey, the 1990 DHS, the 1987 RHS, the 1979 WFS, and the 1977 National Demographic Survey; and (d) estimates from the 1950, 1962, 1972, 1982, 1992 and 2002 censuses, and preliminary results from the 2012 census.

**Infant and child mortality:** Based on: (a) registered births and infant and child deaths through 2006; (b) estimates from the 2004 and 2008 ENDSSR and the1995/96 ENDSSR; (c) estimates from the 2003 WHS, the 1998 National Maternal and Child Health Survey, the 1990 DHS, the 1987 RHS, the 1979 WFS, and the 1977 National Demographic Survey; and (d) estimates from the 1950, 1962, 1972, 1982, 1992, and 2002 censuses, and preliminary results from the 2012 census.

**Life expectancy at birth:** Based on: (a) registered deaths by age and sex through 2006 and underlying population by age and sex; (b) estimates from the 2004 and 2008 ENDSSR and the1995/96 ENDSSR; (c) estimates from the 2003 WHS, the 1998 National Maternal and Child Health Survey, the 1990 DHS, the 1987 RHS, the 1979 WFS, and the 1977 National Demographic Survey; and (d) estimates from the 1950, 1962, 1972, 1992, and 2002 censuses, and preliminary results from the 2012 census. The number of deaths was adjusted using the growth-balance method.
Paraguay (cont.)

International migration: Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain (Padrón Municipal) and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase during intercensal periods.

Peru


Total fertility: Based on: (a) registered births by age of mother from 1950 through 2015 and underlying female population by age; (b) maternity-history data from the 2004-2012 continuous Encuestas Demográficas y de Salud Familiar (ENDES/DHS), and the 1986, 1991/92, 1996 and 2000 ENDES; (c) estimates from the 1977/78 World Fertility Survey, the 1974/76 National Demographic Survey, and the 1981 ENPA (CPS), and (d) estimates from the 1961, 1972, 1981, 1993 and 2007 censuses.


International migration: Based on (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase through 2007.

Philippines

Total population: Estimated to be consistent with censuses from 1960 through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.


Infant and child mortality: Based on: (a) infant and child mortality estimates from the 1978 World Fertility Survey (WFS), the 1993, 1998, 2003, 2008 and 2013 DHS, and the 2011 Family Health Survey; and (b) data on children ever born and surviving classified by age of mother from these surveys and the 1970 and 1980 censuses, the 1988 Demographic Survey, and the 2006 Family Planning Survey. Estimates from the vital registration system were also considered.
Philippines (cont.)

**Life expectancy at birth:** Based on: (a) infant and child mortality estimates from the 1998, 2003, 2008 and 2013 DHS, and the 2006 Family Planning Survey, (b) official estimates from a life table of 2006, and (c) the West model of the Coale-Demeny Model Life Tables and the Lee-Carter method.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2010, and on information on Filipino emigrants admitted by the main countries of immigration.

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**Poland**

**Total population:** Estimated to be consistent with the 2002 and 2011 censuses, with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of total fertility through 2015 adjusted for underreporting.

**Infant and child mortality:** Based on official estimates of infant mortality available through 2015.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2015. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.

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**Portugal**


**Total fertility:** Based on: (a) official estimates of total fertility available through 2012; and (b) registered births by age of mother from 1951 through 2014 and underlying female population by age.

**Infant and child mortality:** Based on: (a) births and infant deaths registered through 2012; (b) estimates from the 1979/80 World Fertility Survey; (c) life tables through 2014 from the National Statistical Office (INE) and Eurostat; and (d) life tables through 2012 from the Human Mortality Database.

**Life expectancy at birth:** Based on: (a) life tables through 2014 from the National Statistical Office (INE); and (b) life tables through 2015 from the Human Mortality Database.

**International migration:** Based on: (a) official estimates of immigration and emigration from the National Statistical Office (INE); and (b) estimates of net international migration derived as the difference between overall population growth and natural increase through 2011. For the projection period, official projections of net migration for 2015-2020 were considered.
Puerto Rico


**Total fertility:** Based on: (a) official estimates of total fertility through 2014; and (b) registered births by age of mother through 2015 with underlying female population by age.

**Infant and child mortality:** Based on: (a) registered births and infant and child deaths through 2015, and (b) estimates from the US Census Bureau were also considered.

**Life expectancy at birth:** Based on: (a) registered deaths by age and sex through 2015 and underlying population by age and sex, and (b) official estimates of life expectancy available through 2015.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1990-2000 and 2000-2010 intercensal periods, and estimates of net flows for Puerto Rico from the US Census Bureau.

Qatar

**Total population:** Estimated to be consistent with the 1986, 1997, 2004, 2010 and 2015 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration. Official estimates for other years were also taken into account.

**Total fertility:** Based on annual births registered from 1984 through 2014 classified by age of mother.

**Infant and child mortality:** Based on: (a) births and infant deaths registered annually from 1981 through 2015 adjusted for underregistration; (b) data on births and deaths under-five calculated from maternity-history data from the 1987 CHS and 1998 GFH surveys; and (c) data on children ever-born and surviving classified by age of mother from these surveys and the 2004 census, using the West model of the Coale-Demeny Model Life Tables.

**Life expectancy at birth:** Based on life tables derived from official estimates of registered deaths and enumerated census population by age and sex from 1981 to 2011, adjusted for infant and child mortality. Mortality rates for older ages were adjusted. For 1950-1980, life tables were derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the South model of the Coale-Demeny Model Life Tables in 1950-1955 and converges over time toward the estimated 1980-1985 life table.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.

Republic of Korea

**Total population:** Estimated to be consistent with censuses from 1955 through 2010, with official estimates through 2015 and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) official estimates of age-specific fertility rates through 2008, and (b) official estimates of total fertility through 2015.

**Infant and child mortality:** Based on official estimates of infant and child mortality through 2015.

**Life expectancy at birth:** Based on official estimates of life expectancy through 2015.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.
Republic of Moldova

**Total population:** Estimated to be consistent with the 1959, 1970, 1979 and 1989 censuses, the 2004 census of the Republic of Moldova and the region of Transnistria, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) official estimates of total fertility available through 2015, (b) maternity-history data from the 1997 RHS and 2005 Moldova DHS, and (c) estimates derived from the 2012 MICS were also considered.

**Infant and child mortality:** Based on: (a) births and infant deaths registered through 2014 adjusted to compensate for infant deaths omitted owing to the use of a definition of infant death that does not conform to international standards prior to 1991, (b) data on children ever born and surviving classified by age of mother from the 1989 census, and (c) maternity-history data from the 2005 Moldova DHS and the 2012 MICS.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2015 adjusted for underreporting of infant and child mortality. The age pattern of mortality is derived from a life table based on data for 2012.

**International migration:** Based on estimates of net international migration derived as the difference between overall population change and natural increase.

Réunion

**Total population:** Estimated to be consistent with official population estimates for 2013, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of age-specific fertility rates through 2014.

**Infant and child mortality:** Based on official estimates of infant mortality available through 2013.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2014, and reported deaths by age and sex through 2011.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase.

Romania

**Total population:** Estimated to be consistent with the 1956, 1966, 1977, 1992, 2002 and 2011 censuses, with an official estimate of the total population for 1 July 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) official estimates of total fertility available through 2015, (b) direct estimates from the 1978 World Fertility Survey (WFS), the 2004 Reproductive Health Survey (RHS), and (c) indirect estimates obtained from the application of the reverse survival method to the 1956, 1966, 1977, 1992 and 2002 censuses.

**Infant and child mortality:** Based on births and infant deaths registered through 2015.

**Life expectancy at birth:** Based on official life tables through 2015.

**International migration:** Based on estimates of net international migration derived as the difference between overall population change and natural increase through 2015.
Russian Federation

**Total population:** Estimated to be consistent with the 1959, 1970, 1979, 1989, 2002 and 2010 censuses, with official population estimates through 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of total fertility available through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2014 adjusted by a factor of 1.25 to compensate for infant deaths omitted owing to the use of a definition of infant death that does not conform to international standards.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2015. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database. Both estimates incorporate an adjustment to infant mortality.

**International migration:** Based on estimates of net international migration derived as the difference between overall population change and natural increase through 2015.

Rwanda

**Total population:** Estimated to be consistent with the 1978, 1990, and 2002 censuses adjusted for underenumeration, with provisional results from the 2012 census adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration. The 2002 and 2012 censuses were conducted on a 'de jure' basis.


**Life expectancy at birth:** Based on the estimated level of infant mortality and taking into account the unusual numbers of deaths caused by the 1993-1994 civil war. The demographic impact of AIDS has been factored into the mortality estimates.

**International migration:** Based on the estimates of net international migration derived as the difference between overall population growth and natural increase, and refugee statistics compiled by UNHCR.
Saint Helena


Saint Kitts and Nevis

**Total population:** Estimated to be consistent with the 1960, 1970, 1980, 1991 and 2001 censuses, and the assumed subsequent trend in the growth rate of the population. The 2011 census was considered but not used.

Saint Lucia


**Total fertility:** Based on: (a) official estimates of total fertility through 2000; (b) registered births by age of mother through 2005 and underlying female population by age; and (c) estimate from the 2001 census.

**Infant and child mortality:** Based on: (a) registered births and infant and child deaths through 2005; and (b) the estimates of WHO vital registration data: the 2015 revision.

**Life expectancy at birth:** Based on: (a) official estimates of life expectancy available through 2005; (b) registered deaths by age and sex through 2005 and underlying population by age and sex; and (c) estimates from the 1991 and 2001 censuses.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase in each five-year period.

Saint Pierre and Miquelon

**Total population:** Estimated to be consistent with an official population estimate for 1 January 2012, and the assumed subsequent trend in the growth rate of the population.

Saint Vincent and the Grenadines


**Total fertility:** Based on: (a) official estimates in 1960, 1980, 1996 and from 2001 to 2006; and (b) registered births by age of mother through 2009 and underlying female population by age.

**Infant and child mortality:** Based on: (a) registered births and infant and child deaths through 2014, and (b) the estimates of WHO vital registration data: the 2015 revision.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables. Registered deaths by age and sex through 2009 with underlying population by age and sex were considered.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase in each five-year period.
Samoa


**Total fertility:** Based on: (a) registered births by age of mother from 1963 through 1980 and 2011 and underlying female population by age; (b) adjusted official estimates from the 1966, 1971, 1976, 1986, 1991, 2001, 2006 and 2011 censuses; (c) estimates from the 1999 and 2009 DHS; and (d) estimate from the 2000 Demographic and Vital Statistics Survey.

**Infant and child mortality:** Based on: (a) registered deaths and infant and child death through 1998; (b) estimates from the 1999 and 2009 Samoa DHS; (c) estimates from the 2001, 2006 and 2011 censuses; and (d) estimates from the 2000 Demographic and Vital statistics Survey.

**Life expectancy at birth:** Based on: (a) registered deaths by age and sex from 1980 through 2009 with the underlying population by age and sex, and (b) estimates from the 2001, 2006 and 2009 Samoa DHS. The age pattern of mortality was assumed to conform to the Far Eastern model of the United Nations Model Life Tables. Estimates from the 2001, 2006 and 2011 censuses were also considered.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1991-2011 intercensal period.

San Marino

**Total population:** Estimated to be consistent with 2000 and 2010 censuses, with official population estimates through 2015, and with estimates of the growth rate of the population.

Sao Tome and Principe


**Total fertility:** Based on: (c) estimates from the 2014 MICS and the 2008/09 DHS; (b) registered births by age of mother for 1958, 1968 to 1971, and 1978, and underlying female population by age; and (c) official estimates of total fertility derived from the 1981, 1991 and 2001 censuses.

**Infant and child mortality:** Based on: (a) estimates from the 2008/09 DHS; (b) maternity-history data from the 2000 and 2006 MICS; and (c) estimates from the 1980, 1991 and 2001 censuses.

**Life expectancy at birth:** Based on: (a) official estimates and life table derived from the 2001 census; and (b) death rates calculated from registered deaths by age and sex through 1979 and underlying population by age and sex. Estimates from WHO-GBD and estimates derived from child and adult mortality using North Model of the Coale-Demeny Model Life Table were also considered.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1960-2012 intercensal period.
Saudi Arabia

**Total population:** Estimated to be consistent with the 1974, 1992, 2004 and 2010 censuses adjusted for underenumeration, with official population estimates for 2005, 2009, 2012, 2015 and 2016, and with estimates of the subsequent trends in fertility, mortality and international migration. Due to fluctuations in the reported data, priority was given to the estimates of certain years.

**Total fertility:** Based on adjusted age-specific fertility rates from: (a) maternity-history data from the 1996 Gulf Family Health Survey; (b) data on children ever born and recent births, both classified by age of mother, from this survey, as well as from the 1987 Child Health Survey, 1991 MCHS, 1999, 2000 and 2007 Demographic Surveys, and the 2004 census; (c) cohort-completed fertility from these surveys and censuses; and (d) reported number of live births till 2015 and total fertility estimates till 2012 were also taken into account.

**Infant and child mortality:** Based on: (a) recent household deaths from the 1999, 2000 and 2007 Demographic Surveys and the 2004 census; (b) births and infant deaths registered annually from 1999 through 2013, (c) data on births and deaths under-five calculated from maternity-history data from the 1996 Gulf Family Health Survey; and (d) data on children ever-born and surviving classified by age of mother (and the using the West model of the Coale-Demeny Model Life Tables) from the 1987 Child Health Survey and 1996 Gulf Family Health Survey.

**Life expectancy at birth:** Based on official estimates of life expectancy at birth for 2010-2013. For 1995-2010, based on life-tables, calculated from adjusted deaths in the past 12 months by age and sex, and the population by age and sex from the 1999 Demographic Survey, 2004 census and 2007 Demographic Survey adjusted for infant and child mortality, and old-age mortality. For 1950-1995, life tables were derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the South model of the Coale-Demeny Model Life Tables in 1950-1955 and converges over time toward the West model of the Coale-Demeny Model Life Tables and the estimated 1999-2007 life tables. Life tables based on annual deaths from the 2000 Demographic Survey, and on 2005 and 2009 registered deaths were also considered.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015. The return of Yemeni citizens to their country in the aftermath of the Gulf War was also considered.

Senegal

**Total population:** Estimated to be consistent with the 1976, 1988, 2002 and 2013 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data adjusted for underreporting from the 1978 WFS, the 1999 Senegal EGIS survey, 2006 ENPS-I and 2008/09 ENPS-II surveys, the 1986, 1992/93, 1997, 2005 and 2012/13 DHS, the 2010/11 DHS-MICS, and the 2014 and 2015 DHS (EDS-continue); (b) data on children ever born and births in the preceding 12 months (or 36 months), both classified by age of mother, from these surveys and from the 1957 Middle Senegal Valley survey, 1960/61 survey, 1988, 2002 and 2013 censuses; (c) births in the preceding 12 months classified by age of mother from the 1970/71 National Demographic Survey and 2000 MICS2; (d) cohort-completed fertility from these surveys and censuses; and (e) the own-children method applied to the 1988 and 2002 censuses, and 2003 WHS.
Senegal (cont.)

**Infant and child mortality:** Based on: (a) recent household deaths from the 1957 Middle Senegal Valley survey and 1978/79 Multi-round Survey and 1988 census; (b) data on births and deaths under-five calculated from maternity-history data from the 1960/61 survey, the 1978 WFS, the 1986, 1992/93, 1997, 2005, 2012/12 and 2014 DHS, 1999 Senegal ESIS, 2006 and 2008/09 ENPS surveys, and 2010/11 DHS-MICS; and (c) data on children ever-born and surviving classified by age of mother (and the North model of the Coale-Demeny Model Life Tables) from these surveys, the 1996 and 2000 MICS and the 2013 census (using the South model of the Coale-Demeny Model Life Tables).

**Life expectancy at birth:** Estimated using the South model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15). Adult mortality estimates were derived from (a) recent household deaths data (unadjusted and adjusted for underregistration using the growth-balance and synthetic-extinct generation methods) from the 1978/79 Multi-round Survey, 1988, 2002 and 2013 censuses; (b) parental orphanhood from these sources and the 1986, 1992/93, 2005 DHS and 2010/11 DHS-MICS, 1988 census, and 2000 MICS; (c) siblings deaths from the 1992/93, and 2005 DHS and 2010/11 DHS-MICS; (d) intercensal survivorship from successive census age distributions (smoothed and unsmoothed) for periods 1976-1988 and 1988-2002; (e) implied relationship between child mortality and adult mortality based on the North model of the Coale-Demeny Model Life Tables in 1950-1955, assumed to converge over time toward the South model of the Coale-Demeny Model Life Tables by the 1990s; and (f) central deaths rate by age from the 2013 census.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during intercensal periods.

**Serbia**

**Total population:** Estimated to be consistent with the 1953, 1961, 1971, 1981, and 1991 censuses, adjusted to reflect the de facto population, the 2002 and 2011 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration. Results from the 2011 census of Kosovo were also taken into account.

**Total fertility:** Based on official estimates of total fertility available through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2012.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2015. The age pattern of mortality is based on official life tables for 1997, and for 2005 to 2012.

**International migration:** Based on refugee statistics compiled by UNHCR, and estimates of net international migration derived as the difference between overall population growth and natural increase through 2012.

**Seychelles**


**Total fertility:** Based on: (a) registered births by age of mother through 2015 and underlying female population by age, and (b) official estimates available through 2015.

**Infant and child mortality:** Based on: (a) official estimates from the National Statistics Office through 2015; (b) registered births and infant and child deaths through 2015; and (c) estimates from the 1960 and 1971 censuses.
Seychelles (cont.)

**Life expectancy at birth:** Based on: (a) official estimates available through 2015, and (b) registered deaths by age and sex through 2015 and underlying population by age and sex.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase.

Sierra Leone

**Total population:** Estimated to be consistent with the 1963, 1974, 1985, 2004 and 2015 censuses, adjusted for underenumeration and with estimates of the subsequent trends in fertility, mortality and international migration. Population structures by age and sex from the 2007 CWIQ, 2010 MICS4, and the 2008 and 2013 DHS were also considered.

**Total fertility:** Based on: (a) maternity-history data from the 2008 and 2013 DHS and the 1973-1975 Ad-hoc survey in Greater Freetown, the Western area and Makeni in the Northern Province (retrospective, registration and follow-up); (b) data on children ever born and births in the preceding 12 months, both classified by age of mother, from these surveys and from the 1973 and 2003 pilot censuses, 1974, 1985 and 2004 censuses, 1992 Demographic and Social Monitoring survey, and 2010 MICS4 survey; (c) data on children ever born classified by age of mother from the 1969/70 National Fertility Survey, 2000 MICS2 and 2005 MICS3 surveys; (d) cohort-completed fertility from these surveys and censuses; and (e) the own-children method applied to the 2004 census, 2005 MICS3, 2007 CWIQ and 2010 MICS4.


**Life expectancy at birth:** Estimated using the South model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15). Adult mortality estimates were derived from: (a) recent household deaths data from the 1992 Demographic and social monitoring survey and the 2004 census; (b) parental orphanhood from the 1973 pilot census. 1974, 1985 and 2004 censuses, 2000 MICS2, 2005 MICS3, 2007 CWIQ and 2008 DHS surveys; (c) female sibling deaths from the 2005 MICS3, and sibling deaths from the 2008 and 2013 DHS; (d) intercensal survivorship from successive census age distributions (smoothed and unsmoothed) for periods 1963-1974, 1974-1985, 1985-2004; (e) implied relationship between child mortality and adult mortality based on the South model of the Coale-Demeny Model Life Tables for males, and the North model for females for the 1950-1970 period. Data from West African rural demographic surveillance sites (including from the 1973/75 Ad-hoc survey in Greater Freetown, the Western area and Makeni in the Northern Province) and urban vital registration were also considered.

**International migration:** Based on refugee statistics compiled by UNHCR.
Singapore

**Total population:** Estimated to be consistent with censuses from 1957 through 2010, and with estimates of the subsequent trends in fertility, mortality and international migration. Official estimates up to 2016 are also considered.

**Total fertility:** Based on official estimates of age-specific fertility rates through 2015.

**Infant and child mortality:** Based on official estimates of life tables through 2015.

**Life expectancy at birth:** Based on official estimates of life tables through 2015.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.

Sint Maarten (Dutch part)

**Total population:** Estimated to be consistent with the 1960, 1972, 1981, 1992, 2001 and 2011 censuses, with an official estimate of population for 1 January 2016, and with estimates of trends in fertility, mortality and international migration.

Slovakia

**Total population:** Estimated to be consistent with the 2001 and 2011 censuses, with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of total fertility available through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2015.

**Life expectancy at birth:** Based on official life tables through 2015. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database.

**International migration:** Based on estimates of net international migration derived as the difference between overall population change and natural increase through 2015.

Slovenia

**Total population:** Estimated to be consistent with the 2002 and 2011 censuses, with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of total fertility available through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2014.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2014. The age pattern of mortality is based on blended life tables (from the East model of the Coale-Demeny Model Life Tables assumed to convert over time toward the empirical data in 1980) between 1950 and 1980, and official life tables from 1980 to 2014.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.
Solomon Islands

**Total population:** Estimated to be consistent with the 1959, 1970, 1976, 1986, 1999 and 2009 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) estimates from the 2007 DHS; (b) official estimates for 2005, (c) the own-children method applied to the 1976 and 1986 censuses; (d) maternity-history tabulations from the 1995 KAP Survey (Knowledge, Attitude and Practices); and (d) data on children ever born and births in the past 12 months from the 1999 census.

**Infant and child mortality:** Based on: (a) indirect estimates from 1976, 1986, 1999 and 2009 censuses; and (b) indirect and direct estimates from the 2007 DHS.

**Life expectancy at birth:** Based on: (a) data on children ever born and surviving from the 1986 and 1999 censuses; (b) official estimates based on census analysis and WHO-GBD estimates for 2006; and (c) 1980-1984 life table based on indirect methods assuming that the pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015.

Somalia

**Total population:** Estimated to be consistent with the 1975 census adjusted for underenumeration, the 2014 Population Estimation Survey of Somalia (PESS), and with estimates of the subsequent trends in fertility, mortality and international migration. Estimates from the 2002 Somalia Socio-Economic Survey were also considered, and adjusted upwardly.

**Total fertility:** Based on: (a) data on children ever born and recent births, both classified by age of mother, from the 1975 census, the 1980-1981 Fertility and Mortality Survey of Banadir, Bay & Lower Shebelle Regions, 1982 Labour Force Survey, the 1986 census and the 1999 Multiple Indicator Cluster Survey (MICS), (b) births in the preceding 12 months classified by age of mother from the 1982 Labour Force Survey, the 2002-2003 Reproductive Health Survey (RHS), (c) maternity history from the 2006 MICS; (d) indirect estimates obtained from the application of the reverse survival method to the 1975 census, 1982 Labour Force Survey, 1999 and 2011 MICS; and (e) indirect estimates obtained from the application of the own-children method to the 2006 MICS. The 2011 MICS was conducted only in the Somaliland and Northeast regions. Estimates were adjusted while taking into account population levels and trends.

**Infant and child mortality:** Based on: (a) data on children ever born and surviving from the 1975 census, the 1983 Family Health Survey in Five Cities, the 1999 and 2006 Multiple Indicator Cluster Survey (MICS); and (b) maternity-history data from the 2006 MICS.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables. Estimates from GBD-WHO were also considered. Additional deaths due to the famine of 1992 and the war have been factored into the mortality estimates.

**International migration:** Based on refugee statistics compiled by UNHCR and on estimates of Somali nationals residing in neighbouring countries.
South Africa


**Total fertility:** Based on: (a) official estimates of total fertility available through 2016 from Statistics South Africa, (b) data on children ever born and the births of the last born children from the 2007 Community Survey, (c) maternity-history data from the 1998 and 2003 DHS, and (d) data on children ever born and births in the preceding 12 months, both classified by age of mother, from the 1996 census.

**Infant and child mortality:** Based on: (a) 2013 South Africa Rapid Mortality Surveillance estimates, (b) data on household deaths from the 2007 Community Survey, (c) maternity-history data from the 1998 DHS, (d) data on children ever born and surviving classified by age of mother from the 1996 census corrected for still births, and (d) data from 1991 HSRC survey. Estimates from the Actuarial Society of South Africa and the 2004 DHS were also considered. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the Far Eastern model of the United Nations Model Life Tables from 1980 onwards. The demographic impact of AIDS has been factored into the mortality estimates. Official estimates from Statistics South Africa and the Actuarial Society of South Africa were also considered. For the period 1950-1970, the West model of the Coale-Demeny Life Tables was used and we assumed convergence to the Far Eastern model during the 1970s.

**International migration:** Based on: (a) the number of immigrants from South Africa to developed countries, (b) immigration and emigration statistics for South Africa, (c) data on migrant workers compiled by the Chamber of Mines, (d) refugee statistics provided by UNHCR, and (e) estimates of illegal migration to South Africa. Official estimates produced by Statistics South Africa were also considered.

South Sudan

**Total population:** Estimated to be consistent with the 1973, 1983, 1993 and 2008 censuses, adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) births in the preceding 12 months classified by age of mother from the 1993 (urban only) and 2008 censuses; (b) maternity-history data from the 2010 Sudan Household Health Survey (SHHS); (c) indirect estimates obtained from the application of the reverse survival method to the 1973, 1983, 1993 and 2008 censuses, the 2000 Multiple Indicator Cluster Survey (MICS), and the 2006 and 2010 SHHS; (d) indirect estimates obtained from the application of the own-children method to the 2008 census; and (e) estimate for the year 2001 from the New Sudan Centre for Statistics and Evaluation.

**Infant and child mortality:** Based on: (a) data on children ever born and surviving classified by age of mother from the 1973, 1993 (collected in urban areas only, but adjusted to derive a national figure) and 2008 censuses (data from the 1983 census were also considered), and the 2006 and 2010 Sudan Household Health Surveys (SHHS); (b) number of deaths in the household in the 12 months preceding the census/survey from the 1956, 1993 (urban areas only) and 2008 censuses and the 2006 SHHS; and (c) maternity-history data from the 2010 SHHS.
South Sudan (cont.)

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables.

**International migration:** Based on the estimates of net international migration derived as the difference between overall population growth and natural increase, and the refugee statistics compiled by UNHCR and on estimated levels of labour migration.

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**Spain**


**Total fertility:** Based on: (a) official estimates of fertility by age groups and total fertility available through 2015; and (b) registered births by age of mother from 1950 to 2015 and underlying female population by age.

**Infant and child mortality:** Based on: (a) registered births and infant and child deaths through 2012; and (b) estimates from the Human Mortality Database.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2014. The age pattern of mortality is based on (a) registered deaths by age and sex through 2012 and underlying population by age and sex, and (b) life tables through 2014 from the Human Mortality Database.

**International migration:** Based on official statistics of the foreign-born or the foreign populations in all countries of the world, and on estimates derived as the difference between overall population growth and natural increase during the intercensal periods.

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**Sri Lanka**

**Total population:** Estimated to be consistent with the 1953, 1963, 1971, 1981 and 2001 censuses (including estimates for Jaffna, Mannar, Vavuniya, Mullaitivu Killinochchi, Batticaloa and Trincomalee districts), the 2012 census, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) births classified by age of mother registered through 2010; (b) maternity-history data from the 1975 Sri Lanka WFS, the 1987, 1993 and 2006/07 Sri Lanka DHS; (c) births in the preceding 12 months classified by age of mother from the 1982 CPS and 2000 DHS; and (d) official estimates of crude birth rate through 2013.

**Infant and child mortality:** Infant mortality: Based on: (a) births and infant deaths registered through 2010; (b) data on births and deaths under-five calculated from maternity-history data from the 1975 Sri Lanka WFS, the 1987, 1993, 2000 and 2006 Sri Lanka DHS; and (c) data on children ever-born and surviving classified by age of mother (using the West model of the Coale-Demeny Model Life Tables) from these surveys and 1971 census. Child mortality: Based on official vital statistics through 2008, consistent with official estimates.

**Life expectancy at birth:** Based on: life tables derived from official estimates of registered deaths and population by age and sex from 1950 to 2010, adjusted for infant and child mortality, and for adult death underregistration for males before 1980 by using tabulations of paternal orphanhood (before marriage) by age of respondent from the 1987 Sri Lanka DHS.

**International migration:** Based on: (a) estimates of net international migration derived as the difference between overall population growth and natural increase during the 1963-1981 intercensal period, (b) official estimates of net international migration for 1981-2014 prepared by the Sri Lanka Department of Census and Statistics, and (c) refugee data from UNHCR.
State of Palestine

**Total population:** Estimated to be consistent with the 1997 and 2007 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration. Population figures include the Arab population residing in East Jerusalem and exclude Israeli citizens residing in the Occupied Palestinian Territory. Official annual population estimates from 1994 through 2012 from the Palestinian Central Bureau of Statistics were also taken into account.

**Total fertility:** Based on adjusted age-specific fertility rates from: (a) maternity-history data from the 1995 Demographic Survey, 2006 and 2010 Family Health Survey and 2014 Multiple Indicator Cluster Survey (MICS); (b) births in the preceding 12 months classified by age of mother from the 1992 UNICEF-JFPPA Survey; (c) data on children ever born and recent births, both classified by age of mother, from these surveys, as well as from the 1992 Survey of Living Conditions, 1997 census, 2000 Health Survey, and 2004 DHS; (d) data on children ever born classified by age of mother from the 1967 census; (e) annual births classified by age of mother registered for 1968-1995; and (f) cohort-completed fertility from the surveys and censuses mentioned above.

**Infant and child mortality:** Based on: (a) data on births and deaths under-five calculated from maternity-history data from the 1995 Demographic Survey, 2000 Health Survey, 2004 Demographic and Health Survey (DHS), 2006 and 2010 Family Health Survey, and 2014 Multiple Indicator Cluster Survey (MICS); and (b) data on children ever-born and surviving classified by age of mother (using the West model of the Coale-Demeny Model Life Tables) from these surveys and from the 1992 FALCOT survey and 1997 census.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1997-2015 period.

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Sudan

**Total population:** Estimated to be consistent with the 1973, 1983, 1993 and the 2008 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) births in the last 12 months preceding the 1973, 1983, 1993 and 2008 censuses; (b) indirect estimates obtained from the application of the reverse survival method to the 1973, 1983, 1993 and 2008 censuses; (c) indirect estimates obtained from the application of the own-children method to the 2008 census; (d) maternity-history data from the 1978-1979 World Fertility Survey (WFS), 1989-1990 Sudan DHS, the 1992-1993 SUDMCHS/PAPCHILD, the 1999 Safe Motherhood Surveys of Sudan and the 2014 MICS5 survey; and (e) estimates for 2001 from the New Sudan Centre for Statistics and Evaluation.

**Infant and child mortality:** Based on: (a) data on children ever born and surviving classified by age of mother from the 1973, 1983, 1993 and 2008 censuses, the 1978-1979 World Fertility Survey (WFS), the 1989-1990 Sudan DHS, the 1992-1993 SUDMCHS/PAPCHILD, the 1999 Safe Motherhood Survey of Sudan, the 2006 and 2010 Sudan Household Health Surveys (SHHS); (b) number of deaths in the household in the 12 months preceding the census/survey from the 1956 and 1993 censuses, 1989-1990 Sudan DHS, the 1992-1993 SUDMCHS/PAPCHILD, the 1999 Safe Motherhood Surveys of Sudan, and the 2006 and 2010 SHHS; and (c) data on births and deaths under-five calculated from maternity-history data from the 2014 Multiple Indicator Cluster Survey (MICS).
Sudan (cont.)

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables.

**International migration:** Based on the estimates of net international migration derived as the difference between overall population growth and natural increase, refugee statistics compiled by UNHCR, and estimated levels of labour migration.

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**Suriname**


**Total fertility:** Based on: (a) estimates from the 2004 and 2012 censuses; (b) official estimates of total fertility from 1990 to 1995 and from 2004 to 2013; (c) official registration data of births by age of mother through 2014; and (c) estimates from the Pan American Health Organization.

**Infant and child mortality:** Based on: (a) registered births and infant and child deaths through 2013; and (b) estimates from the 2000 and 2006 Multiple Indicator Cluster Survey (MICS).

**Life expectancy at birth:** Based on: (a) registered deaths by age and sex through 2013 and underlying population by age and sex, and (b) official estimates for 1963, 1980, 2004 and 2006.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1950-2012 intercensal period.

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**Swaziland**

**Total population:** Estimated to be consistent with the 1956, 1966, 1976, 1986 and 1997 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration. Results from the 2007 census have been considered.

**Total fertility:** Based on: (a) maternity-history data from the 2006 DHS and the 2010 and 2014 MICS, and (b) data on children ever born and births in the preceding 12 months, both classified by age of mother, from the 1966, 1976, 1986 and 1997 censuses, and the 1991 Demographic and Housing Survey, adjusted for underregistration.

**Infant and child mortality:** Based on: (a) maternity-history data from the 2006 DHS and the 2010 and 2014 MICS, and (b) data on children ever born and surviving classified by age of mother from the 1966, 1976, 1986, 1997 censuses and the 2000 MICS. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables. The demographic impact of AIDS has been factored into the mortality estimates.

**International migration:** Based on refugee statistics compiled by UNHCR and on information on migrant workers to South Africa.
Sweden

Total population: Estimated to be consistent with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on official registration data of births by age of mother through 2015.

Infant and child mortality: Based on births and infant deaths registered through 2015.

Life expectancy at birth: Based on official estimates of life expectancy available through 2015. The age pattern of mortality is based on life tables through 2014 from the Human Mortality Database.

International migration: Based on official estimates of international migration through 2015 and estimates derived as the difference between overall population growth and natural increase.

Switzerland

Total population: Estimated to be consistent with the 1990 and 2000 censuses, with official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

Total fertility: Based on official estimates of total fertility available through 2015.

Infant and child mortality: Based on births and infant deaths registered through 2015.

Life expectancy at birth: Based on official life tables from through 2015.

International migration: Based on: (a) official estimates of immigrants and emigrants available, (b) estimates derived as the difference between overall population growth and natural increase through 2015, and (c) assumptions made in official population projections.

Syrian Arab Republic


Total fertility: Based on adjusted age-specific fertility rates from: (a) maternity-history data from the 1993 Maternal and Child Health Survey, and 2001 Family Health Survey; (b) births in the preceding 12 months classified by age of mother from the 1993 Integrated Demographic Survey, 2004 census and 2009/10 Family Health Survey; (c) the own-children method applied to the 2006 MICS3 survey; (d) data on children ever born and recent births, both classified by age of mother, from these surveys, as well as from 1970 census, 1976 Sample Census, 1976-1979 Follow-up Demographic Survey, 1978 WFS, 1981 census, 1987 Maternal and Child Health Survey, 1990 EPI-CDD survey, 1994 census, and 2006 MICS3; and (e) cohort-completed fertility from these surveys and censuses.

Infant and child mortality: Based on: (a) recent deaths from the 2004 census, and the 2007/08 Health Survey for Causes of Child Deaths; (b) data on births and deaths under-five calculated from maternity-history data from the 1978 WFS, 1993 Maternal and Child Health Survey, 2001 Family Health Survey and 2009/10 PAPFAM survey; and (c) data on children ever-born and surviving classified by age of mother (using the West model of the Coale-Demeny Model Life Tables) from these surveys, as well as from the 1970, 1976, 1981 and 1994 censuses, 1990 EPI/CDD and Child Mortality Survey, 2000 and 2006 MICS survey.
Syrian Arab Republic (cont.)

**Life expectancy at birth:** For 2005-2010, based on a life-table calculated from 2005-2007 registered deaths by age and sex, and post-censal population estimates by age and sex derived from the 2004 census and 2010 official estimates adjusted for infant and child mortality, and old-age mortality. For 1950-2005, due to the lack of adult mortality information and life tables for this period, life tables were derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms for males to the South model of the Coale-Demeny Model Life Tables in 1950-1955 and converges over time toward the West model of the Coale-Demeny Model Life Tables and the estimated 2005-2007 life table. For females a similar approach was used assuming that the age pattern of mortality conformed since 1950 to the West model. For each sex, the underlying mortality pattern and implied adult mortality, are consistent with the life table from the 1976-1979 Syrian Follow-up Demographic Survey. For the 2010-2015 period, excess mortality due to the conflict was taken into account.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1994-2004 intercensal period, and 2004-2010 period using official estimates. For the period 2010-2015, data on refugee flows from Syria up to March 2017 compiled by UNHCR were taken into account. For the projection period, it is assumed that 40 per cent of Syrian refugees return in 2020-20205, 30 per cent in 2025-2030 and 10 per cent in 2030-2035.

Tajikistan

**Total population:** Estimated to be consistent with the 1959, 1970, 1979, 1989, 2000 and 2010 censuses, with official population estimates through 2014, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 2012 DHS, (b) births registered through 2014 classified by age of mother adjusted for underregistration, and (c) data on children ever born from the 2000 and 2005 Tajikistan Multiple Indicator Cluster Surveys. Official estimates from vital registration were considered.

**Infant and child mortality:** Based on maternity history data and/or data on children ever born and surviving classified by age of mother from the 1989 census, the 1999, 2003 and 2007 Living Standards Measurement Surveys, the 2000 and 2005 Multiple Indicator Cluster Surveys, and the 2002 DHS. Official estimates from vital registration system and the 2012 DHS were also considered.

**Life expectancy at birth:** Based on registered deaths and population by age and sex through 2013, adjusted for underregistration of deaths.

**International migration:** Based on estimates of net international migration derived as the difference between overall population change and natural increase through 2010.
TFYR Macedonia

**Total population:** Estimated to be consistent with the 1953, 1961, 1971, 1981, 1994, 2002 and 2011 censuses, with official population estimates for 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) official estimates of total fertility through 2015, (b) indirect estimates obtained from the application of the reverse survival method to the 1953, 1961, 1971, 1981, 1991, 1994 and 2002 censuses, (c) indirect estimates obtained from the application of the own-children method to the 2005 Multiple Indicator Cluster Survey (MICS).

**Infant and child mortality:** Based on births and infant deaths registered through 2014.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2014. The age pattern of mortality is based on an official life table for 2010-2014.

**International migration:** Based on: (a) statistics on international migration available through 1998 and from 2006 to 2012, and (b) the difference between overall population growth and natural increase.

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Thailand


**Total fertility:** Based on: (a) adjusted annual data from Vital Registration for age-specific fertility rates from 1950 through 2011; (b) maternity-history data from the 1975 WFS, and from the 1974/75, 1985/86, 1989, 1991, 1995/96 Surveys of Population Change, and the 1987 Thailand DHS; (c) births in the preceding 12 or 24 months classified by age of mother from the 1996 CPS, 2005/06 and 2012 MICS and 2006 RHS; and (d) data on children ever born and recent births, both classified by age of mother, from these surveys and from the 1960-2000 censuses, the 1968-1972 Longitudinal Study of Economic, Social and Demographic Change, and from the 1978, 1981, and 1984 contraceptive prevalence surveys.

**Infant and child mortality:** Based on: (a) official annual vital statistics from 1948 through 2010, (b) estimates derived from the 1974-76, 1984/86, 1989, 1991, 1995/96, and 2005/06 Surveys of Population Change, (c) maternity-history data from the 1975 WFS and 1987 DHS, and (d) data on children ever born and surviving from these surveys, the 1978 and 1981 CPS, 1979 NSMFP survey, the 1980, 1990, 2000 censuses, and from the 2005/06 MICS3 survey.

**Life expectancy at birth:** Based on life tables derived from official estimates of registered deaths and enumerated census population by age and sex from 1948 to 2011, adjusted for infant and child mortality and for underregistration of adult deaths.

**International migration:** Based on: (a) refugee statistics compiled by UNHCR, (b) information on the number of Thai workers cleared to work abroad, (c) the estimated stock of foreigners in Thailand, (d) official statistics on the number of arrivals and departures from Thailand, and (e) estimates of net international migration derived as the difference between overall population growth and natural increase.
**Timor-Leste**

**Total population:** Estimated to be consistent with censuses from 1950 through 2010, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on maternity-history data from the 2003 Timor Leste Demographic and General Health Survey, the 2009/10 Demographic and Health Survey and official fertility estimates derived from the 2004 census data.

**Infant and child mortality:** Based on: (a) data on children ever born and surviving classified by age of mother from the 2004 census; (b) maternity-history data from the 2003 Timor Leste Demographic and General Health Survey and the 2009/10 DHS; and (c) estimates from the 2002 Timor Leste Multiple Indicator Cluster Survey (MICS).

**Life expectancy at birth:** Based on child mortality and adult mortality estimates from the 2009/10 Timor-Leste DHS. Life tables are estimated using the Flexible two-dimensional model life table and Lee-Carter method. For 1950-2005, derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the West model of the Coale-Demeny Model Life Tables. Official estimates of life expectancy at birth for the year 2002 were also taken into account.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2010.

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**Togo**

**Total population:** Estimated to be consistent with the 1958/60, 1970, 1981 and 2010 censuses, as well as with the structure by age and sex from the 2006 MICS3 survey (adjusted for underenumeration), and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) maternity-history data from the 1988, 1998 DHS, 2013/14 DHS adjusted for underreporting; (b) data on children ever born and births in the preceding 12 months (or 36 months), both classified by age of mother, from these surveys and from the 1958-1960 and 1970 censuses, the 1961 Demographic Survey, the 2006 MICS3 and 2010 MICS4 surveys; (c) cohort-completed fertility from these surveys and censuses; and (d) the own-children method applied to the 2006 MICS3 survey. Estimates based on the reverse survival method applied to the 2010 MICS4 survey were also considered.

**Infant and child mortality:** Infant mortality: Derived from the child mortality rates using the North model of the Coale-Demeny Model Life Tables. Child mortality: Based on: (a) data on births and deaths under-five calculated from maternity-history data from the 1988, 1998 DHS and 2013/14 DHS; (b) data on children ever-born and surviving classified by age of mother (and the North model of the Coale-Demeny Model Life Tables) from these surveys as well as from the 1961 and 1971 Demographic Surveys, 2010 census, 2006 MICS3 and 2010 MISC4 surveys.

**Life expectancy at birth:** Estimated using the South model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) adjusted estimates of adult mortality (45q15). Adult mortality estimates were derived from (a) recent household deaths data from the 1960 survey, 1970 and 1981 censuses; (b) parental orphanhood from the 1998 DHS, 2000 MICS2 and 2006 MICS3; (c) siblings deaths from the 1998 DHS; (d) implied relationship between child mortality and adult mortality based on the North model of the Coale-Demeny Model Life Tables in 1950-1955 and assumed to converge over time toward the South model of the Coale-Demeny Model Life Tables by the 1990s.

**International migration:** Based on estimates derived as the difference between overall population growth and natural increase; on refugee statistics compiled by UNHCR; and on official statistics on the foreign-born or the foreign population in all countries of the world.
Tokelau


Tonga

**Total population:** Estimated to be consistent with the 1956, 1966, 1976, 1986, 1996, 2006 and 2011 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration. Estimates from the Secretariat of the Pacific Community were also taken into account. The preliminary result of de jure population in the 2016 census was considered, but it was not used.

**Total fertility:** Based on: (a) maternity-history data from the 2012 DHS; (b) data on children ever born and births in the preceding 12 months, both classified by age of mother, from the 1966, 1976, 1986, 1996, 2006 and 2011 censuses, (c) registered births by age of mother from 1990 to 2003; (d) official estimates from 1996 to 2007; and (e) estimates from the Secretariat of the Pacific Community.

**Infant and child mortality:** Based on: (a) registered births and infant and children through 2006; (b) estimates from the 1986, 1996 and 2006 censuses; and (c) estimates from the Secretariat of the Pacific Commission were taken into account.

**Life expectancy at birth:** Based on: (a) the registered deaths by age and sex from 1957 to 1966 and from 1982 to 2006 and underlying population by age and sex; and (b) estimates from the 1996 and 2006 censuses by assuming that the age pattern of mortality conforms to the Far Eastern model of the United Nations Model Life Tables. Estimates from the Secretariat of the Pacific Community were also considered.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1996-2011 intercensal period.

Trinidad and Tobago

**Total population:** Estimated to be consistent with the 1960, 1970, 1980, 1990, 2000 and 2011 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) registered births by age of mother through 2009 and underlying female population by age; (b) official estimates through 2012; and (c) estimates from the 1977 World Fertility Survey and the 1987 DHS.

**Infant and child mortality:** Based on: (a) registered births and infant and child deaths through 2012 with underlying population by age and sex; (b) estimates from the 2000 and 2006 MICS; (c) estimates from the 1987 DHS; and (d) estimates from the 1977 World Fertility Survey.

**Life expectancy at birth:** Based on: (a) registered death by age and sex through 2009 and underlying population by age and sex, and (b) official estimates through 2011.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase through 2015. Border statistics of people from Trinidad and Tobago admitted by the United States of America were considered.
Tunisia

**Total population:** Estimated to be consistent with the 1956, 1966, 1975, 1984, 1994, 2004 and 2014 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) official estimates of total fertility through 2014; (b) maternity-history data from the 1978 Enquête Tunisienne sur la Fécondité (ETS), the 1988 Enquête Démographique et de Santé and the 2001 Tunisian Family Health Survey; (c) indirect estimates obtained from the application of the reverse survival method to the 1966, 1975, 1984, 1994 and 2004 censuses, and the 2003 World Health Survey (WHS) and the 2013 Enquête Nationale sur la Population et l'Emploi (ENPE); and (d) indirect estimates obtained from the application of the own-children method to the 2007 and 2009 ENPE.

**Infant and child mortality:** Based on: (a) official estimates of infant mortality rates available through 2012; (b) maternity-history data from the 1978 World Fertility Survey (WFS), the 1988 Demographic and Health Survey, the 1994 Maternal and Child Health Survey (PAPCHILD), and the 2001 (PAPFAM); (c) data on children ever born and surviving from the 1975 and 1984 censuses, 1988 DHS, 1983 Contraception Prevalence Survey, and 1978 WFS.

**Life expectancy at birth:** Based on official estimates of life expectancy from 1995 to 2014 from INS Tunisia. The age pattern of mortality is based on national life table from various years adjusted for under-five mortality.

**International migration:** Based on data on Tunisian emigrants admitted by the main countries of immigration and on intercensal population changes.

Turkey


**Total fertility:** Based on: (a) estimates from the 1978 World Fertility Survey; (b) estimates from the 1983 and 1988 PHS; (c) estimates from the 1993, 1998, 2003, 2008 and 2013 Turkey DHS; and (d) official estimates of total fertility from the Turkish Institute of Statistics through 2010.

**Infant and child mortality:** Based on: (a) registered births and infant and child deaths from 1989 to 2011; (b) estimates from the 1989, 1993, 1998, 2003, 2008, and 2013 Turkey DHS; (c) estimates from the 1970, 1975, 1980, 1985 and 1990 censuses; (d) estimates from the 1983 and 1988 Population Health Survey; (e) estimates from the 1967 Turkey Demographic Survey, and the 1978 World Fertility Survey; (f) official estimates from the Turkish Institute of Statistics through 2009; and (g) estimates from the 2012 Turkey Child Mortality Survey were taken into account.

**Life expectancy at birth:** Based on: (a) adjusted estimates from registered deaths by age and sex from 1952 to 2006 and for 2009 with underlying population by age and sex; (b) official estimates for 1989, 2006, 2008 and 2011; and (c) estimates from 1990 to 2010 from the Turkish Institute of Statistics.

**International migration:** Based on: (a) data on the migration of Turks to and from European countries and the overseas countries of immigration, (b) estimates of the migration to Turkey, and (c) refugees statistics compiled by UNHCR. Estimates from the Council of Europe were also considered. For the period 2010-2015 and the period 2015-2020, data on refugee flows from Syria up to March 2017 compiled by UNHCR were taken into account. For the projection period, it is assumed that 40 per cent of Syrian refugees return in 2020-20205, 30 per cent in 2025-2030 and 10 per cent in 2030-2035.
Turkmenistan

**Total population:** Estimated to be consistent with the 1989 census, and with estimates of the subsequent trends in fertility, mortality and international migration. Data from the 1995 census was also considered.

**Total fertility:** Based on: (a) official estimates of total fertility available through 2006, and (b) maternity-history data from the 2000 Turkmenistan DHS and the 2015-16 MICS.

**Infant and child mortality:** Based on maternal history data and/or data on children ever born and surviving classified by age of mother from the 2000 Turkmenistan DHS, 2006 MICS and 2015-16 MICS.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2006 and reported deaths by age and sex for 2012 and 2013, adjusted for underregistration of deaths.

**International migration:** Based on official estimates of net international migration available through 1995. Data on migration from Turkmenistan to the Russian Federation were also considered.

Turks and Caicos Islands

**Total population:** Estimated to be consistent with the 1960, 1970, 1980, 1990, 2001 and 2012 censuses, and the assumed subsequent trend in the growth rate of the population.

Tuvalu

**Total population:** Estimated to be consistent with the 1991, 2002, and 2012 censuses and with estimates of the subsequent trends in fertility, mortality and international migration. Estimates from the Secretariat of the Pacific Community were also taken into account.

Uganda

**Total population:** Estimated to be consistent with the 1959, 1969, 1980, 1991, 2002 and 2014 censuses, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) estimates from the 1988/89, 1995, 1999, 2006 and 2011 DHS; (b) estimates from the 1969, 1991, 2002 and 2014 censuses; and (c) estimates from the 2009 and 2014 MIS.

**Infant and child mortality:** Based on: (a) estimates from the 1988/89, 1995, 1999, 2006 and 2011 DHS; and (b) estimates from the 1969, 1991, 2002 and 2014 censuses. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Derived from estimates of infant and child mortality, and adult mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables. Adult mortality (45q15) estimates were based on: (a) parental orphanhood from the 1969, 1991, 2002 and 2014 censuses, and the 1988/89, 1995, 2001, 2006 and 2011 DHS; (b) siblings deaths from the above DHS; (c) intercensal survivorship from successive census age distributions (smoothed and unsmoothed) for the period of 1991-2002. The demographic impact of AIDS has been factored into the mortality estimates.

**International migration:** Based on: (a) refugee statistics compiled by UNHCR, (b) assumed levels of emigration, and (c) the estimated number of Ugandans who were expelled from the country in the early 1970s. Migration estimates after 1980 were derived from the difference between overall population growth and natural increase through 2015.
**Ukraine**

**Total population:** Estimated to be consistent with the 1959, 1970, 1979, 1989 and 2001 census, with official population estimates through 2013, and with estimates of the subsequent trends in fertility, mortality and international migration. Including the population of Crimea.

**Total fertility:** Based on: (a) official estimates of total fertility available through 2015, and (b) maternity-history data from the 1999 RHS and 2007 Ukraine DHS.

**Infant and child mortality:** Based on: (a) births and infant deaths registered through 2015 adjusted by a factor of 1.25 to compensate for infant deaths omitted owing to the use of a definition of infant death that does not conform to international standards, (b) data on children ever born and surviving classified by age of mother from the 1989 and 2001 censuses and the 2005 MICS, and (c) maternity-history data from the 2007 DHS.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2015. The age pattern of mortality is based on life tables through 2013 from the Human Mortality Database. Both estimates incorporate an adjustment to infant mortality.

**International migration:** Based on a) estimates of net international migration derived as the difference between overall population change and natural increase through 2013 and b) UNHCR data on refugees.

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**United Arab Emirates**

**Total population:** Estimated to be consistent with the 1968, 1975, 1980, 1985, 1995 and 2005 censuses, with official population estimates for 2010, and with estimates of the subsequent trends in fertility, mortality and international migration. The population estimates include temporary/seasonal workers.

**Total fertility:** Based on adjusted age-specific fertility rates from: (a) annual births classified by age of mother registered for 1980-2012; (b) maternity-history data from the 1995 Gulf Family Health Survey; (c) data on children ever born and recent births, both classified by age of mother, from these surveys, as well as from the 1975 and 1980 censuses, and 1987 Child Health Survey; and (d) cohort-completed fertility from these surveys and censuses.

**Infant and child mortality:** Based on: (a) births and infant deaths registered annually from 1988 through 2015, adjusted for underregistration, and (b) data on births and deaths under-five calculated from maternity-history data from the 1995 GFH surveys; and (c) data on children ever-born and surviving classified by age of mother (and the using the West model of the Coale-Demeny Model Life Tables) from this survey, the 1975 and 1980 censuses, and the 1987 Child Health Survey.

**Life expectancy at birth:** Based on life tables derived from official estimates of registered deaths and enumerated census population by age and sex from 1988 through 2010, adjusted for infant and child mortality. Mortality rates for older ages were adjusted. For 1950-1988, life tables were derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the South model of the Coale-Demeny Model Life Tables in 1950-1955 and converges over time toward the estimated 1985-1990 life table.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1995-2005 intercensal period, and 2005-2010 official estimates.
United Kingdom

**Total population:** Estimated to be consistent with the 2011 census, official population estimates through 2015, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of age-specific fertility rates through 2014.

**Infant and child mortality:** Based on: (a) official life tables for 2010-2012, and (b) life tables derived from official estimates of registered deaths and population from 1950 to 2011.

**Life expectancy at birth:** Based on official life tables for 2010-2012. The age pattern of mortality is based on (a) registered deaths by age and sex through 2011 and underlying population by age and sex, and (b) life tables through 2013 from the Human Mortality Database.

**International migration:** Based on: (a) official estimates of immigration and emigration through 2015; and (b) estimates of net international migration derived as the difference between overall population change and natural increase during intercensal periods.

United Republic of Tanzania

**Total population:** Estimated to be consistent with the 1967, 1978, 1988, 2002 and 2012 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) estimates from the 1992, 1996, 1999, 2004/05, 2010 and 2015/16 DHS; (b) estimates from the 1995 SUMVE; (c) estimates from the 1967, 1978, 1988, 2002, 2012 censuses; and (d) estimates from the 1999 Reproductive and Child Health Survey (RCHS).

**Infant and child mortality:** Based on: (a) estimates from the 1991/92, 1996, 1999, 2005, 2010 and 2015/16 DHS; (b) estimates from the 2007/08 AIDS Indicator Survey; (c) estimates from the 1967, 1978, 1988, 2002 and 2012 censuses; and (d) estimates from the 1999 RCHS. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables. The demographic impact of AIDS has been factored into the mortality estimates. Estimates of adult mortality were also considered. These were based on: (a) parental orphanhood from the 1978, 1988 and 2002 censuses, and the 1992, 1996, 1999, 2004/05, 2010 and 2015/16 DHS; (b) siblings deaths from the above DHS; (c) intercensal survivorship from successive census age distributions (smoothed and unsmoothed) for the period of 1988-2012.

**International migration:** Based on refugee statistics compiled by UNHCR.

United States of America

**Total population:** Estimated to be consistent with the 2010 census, which includes the population in the territory of the United States and United States citizens serving in the overseas armed forces; with official population estimates for 2015; and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on official estimates of total fertility available through 2015.

**Infant and child mortality:** Based on official estimates of infant mortality available through 2011.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2014. The age pattern of mortality is based on life tables through 2011 from the Human Mortality Database.

**International migration:** Based on official data on international migration and estimates derived as the difference between overall population growth and natural increase through 2014.
United States Virgin Islands

**Total population:** Estimated to be consistent with the 2010 census, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on births registered by age of mother and estimates of total fertility through 2015.

**Infant and child mortality:** Based on births and infant deaths registered through 2012 and official infant mortality estimates through 2012.

**Life expectancy at birth:** Based on: (a) number of deaths registered through 2010, (b) life expectancy estimates through 2010 and the assumption that the age pattern of mortality conforms to the West model of the United Nations Model Life Tables.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase.

Uruguay

**Total population:** Estimated to be consistent with the 1963, 1975, 1985, 1996, 2004, and 2011 censuses, with official estimates through 2016, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) registered births by age of mother through 2014 and underlying female population by age; (b) official estimates from 1952 to 2008; and (c) estimates from the 1963, 1975, 1985, 1996, 2004, and 2011 censuses.


**Life expectancy at birth:** Based on: (a) registered deaths by age and sex through 2013 and underlying population by age and sex; (b) official estimates from 1964 to 2008; and (c) estimates from the 1963, 1975, 1985, 1996, 2004, and 2011 censuses. The number of deaths was adjusted using the growth-balance method.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase.

Uzbekistan

**Total population:** Estimated to be consistent with the 1989 census, with official population estimates through 2014, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) official estimates of total fertility available through 2014, and (b) maternity-history data from the 1996 Uzbekistan DHS and 2002 Health Examination Survey.

**Infant and child mortality:** Based on maternal history data and/or data on children ever born and surviving classified by age of mother from the 2000 and 2006 Uzbekistan MICS surveys, and the 2002 Uzbekistan Health Examination Survey. Estimates from the 1996 Uzbekistan DHS and official estimates calculated from live births and child deaths through 2014 were also considered.

**Life expectancy at birth:** Based on official estimates of life expectancy available through 2014, adjusted for underregistration of deaths.

**International migration:** Based on estimates of net international migration derived as the difference between overall population change and natural increase through 2014.
Vanuatu

**Total population:** Estimated to be consistent with the 2009 census, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) data on children ever born and births in the preceding 12 months, both classified by age of mother, from the 1999 and 2009 censuses; and (b) estimates from the 2013 DHS-MICS.

**Infant and child mortality:** Based on: (a) indirect estimates from the 1967, 1989, 1999 and 2009 censuses; and (b) indirect estimates from the 2007/08 MICS, and the 2013 DHS-MICS.

**Life expectancy at birth:** Based on: (a) infant and child mortality estimates; (b) parental survivorship (orphanhood) data by age of respondent from the 1999 census; and (c) the assumption that the age pattern of mortality conforms to the Far Eastern model of the United Nations Model Life Tables.

**International migration:** Based on official data on international migration and estimates derived as the difference between overall population growth and natural increase through 2015.

Venezuela (Bolivarian Republic of)


**Total fertility:** Based on: (a) registered births by age of mother from 1950 through 2015 and underlying female population by age; (b) estimates from the 2008 and 2010 Demographic Survey (ENDEVE); (c) estimates from 1950, 1961, 1971, 1981, 1990, 2001 and 2011 censuses; and (d) estimates from the 1977 World Fertility Survey and the 1998 Population and Family Survey.


**Life expectancy at birth:** Based on: (a) registered deaths by age and sex from 1950 through 2013 and underlying population by age and sex; (b) estimates from the 1950, 1961, 1971, 1981, 1990, 2001 and 2011 censuses; (c) official estimates for 1974, 1975, 1985, 2000-2002 and 2007; and (d) estimates from the 1977 World Fertility Survey and the 1998 Population and Family Survey. The number of deaths was adjusted using the growth-balance method.

**International migration:** Based on: (a) information on foreign-born populations from censuses and registers from the Latin American countries, Spain and United States of America, and (b) estimates derived as the differences between overall population growth and natural increase.
Viet Nam

**Total population:** Estimated to be consistent with the 1979, 1989, 1999 and 2009 census, and with estimates of the subsequent trends in fertility, mortality and international migration. Estimates from the 2014 Intercensal Population and Housing Survey and official population estimates through 2015 were also considered.

**Total fertility:** Based on adjusted age-specific fertility rates from: (a) the own-children method applied to the 1989, 1999 and 2009 censuses, 2003 WHS, 2006 MICS3 and 2011 MICS4 surveys; (b) maternity-history data from the 1988, 1997 and 2002 Demographic and Health Surveys; (c) births in the preceding 12 months classified by age of mother from the 1979, 1999 and 2009 censuses, 1994 Intercensal Demographic Survey, 2000-2013 Population Change and Family Planning Surveys, 2006 MICS3, 2011 MICS4 and 2013/14 MICS5; (d) the reverse survival method applied to the 1979 census; (e) data on children ever born and recent births, both classified by age of mother, from these sources; and (f) cohort-completed fertility from these surveys and censuses. Estimates from the 2014 Intercensal Population and Housing Survey were also considered.

**Infant and child mortality:** Based on: (a) registered births and infant and child deaths from 2005 through 2011, (b) data on births and deaths under-five calculated from maternity-history data from the 1988 Demographic and Health Survey, 1994 Intercensal Demographic Survey, 1997 and 2002 Demographic and Reproductive Health Surveys, and (c) data on children ever-born and surviving classified by age of mother (and the West model of the Coale-Demeny Model Life Tables) from the 1989, 1999 and 2009 censuses, 2000 and 2006 MICS. Data from the 1962 and 1967 Saigon surveys, as well as the 2006/11 Population Change and Family Planning Surveys and the 2014 Intercensal Population and Housing Survey were also considered.

**Life expectancy at birth:** Based on life tables derived from age and sex-specific mortality rates from: (a) recent household deaths data from the 1979, 1989, 1990 and 2009 censuses (unadjusted and adjusted for underregistration using the growth-balance and synthetic-extinct generation methods), and from the 2007 Population Change and Family Planning survey; (b) annual deaths for 2009 from the Viet Nam national sample mortality surveillance programme adjusted for infant and child mortality, and for adult death completeness according to capture-recapture survey; (c) direct and indirect estimates based on parental orphanhood and siblings survival from the 1991 Vietnam Life History Survey and 1995/98 Vietnam Longitudinal Survey; and (d) 1979-1989 intercensal survival estimates adjusted for outflows of refugees and differential completeness of census enumeration. For 1950-1970 life tables were derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the average experienced of the North and West models of the Coale-Demeny Model Life Tables in 1950-1955 and converged over time toward 1980s life tables. For 1965-1975, excess mortality due to the war was factored in the overall mortality levels based on direct and indirect adult mortality estimates derived from parental orphanhood and siblings survival from the 1991 VHS and 1995/98 VLS, and from the PRIO Battle Deaths Dataset.

**International migration:** Based on: (a) refugees resettled in the major countries of immigration; (b) refugee statistics compiled by UNHCR; (c) the number of immigrants from Viet Nam to developed countries; (d) NSO estimates; and (e) estimates of net international migration derived as the difference between overall population growth and natural increase during intercensal periods.
Wallis and Futuna Islands

**Total population:** Estimated to be consistent with the 1963, 1969, 1976, 1990, 1996, 2003, 2008 and 2013 censuses, and the assumed subsequent trend in the growth rate of the population. Estimates from the Secretariat of the Pacific Community were also taken into account.

Western Sahara

**Total population:** Estimated to be consistent with the coverage of the territory of Western Sahara by the 1982, 1994, 2004 and 2014 censuses of Morocco, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) official age-specific fertility estimates for several sub-regions of Western Sahara, as reported in the 2004 census of Morocco; (b) official figures for sub-regions of Western Sahara, as reported in the 2014 census of Morocco; (c) data on births during the past 12 months, classified by age of mother, for the regions of Oued-Ed-Dahab-Lagouira and Laayoune-Boujdour-Sakia El Hamra from the 1982, 1994 and 2004 censuses; (d) own-children estimates for the regions of Oued-Ed-Dahab-Lagouira and Laayoune-Boujdour-Sakia El Hamra from the 1982, 1994 and 2004 censuses; and (e) data on births during the past 12 months, classified by age of mother, for several sub-regions of Western Sahara from the Enquête Nationale Démographique à Passages Répétés 2009/10.

**Infant and child mortality:** In the absence of statistics indicative of mortality in childhood, infant mortality was assumed to have levels and follow trends similar to those estimated for neighbouring countries with similar socio-economic conditions as those of Western Sahara.

**Life expectancy at birth:** In the absence of statistics indicative of mortality levels and trends, life expectancy was assumed to have levels similar to those estimated for neighbouring countries with similar socio-economic conditions as those of Western Sahara. The age pattern of mortality was assumed to conform to the West model of the Coale-Demeny Model Life Tables.

**International migration:** Based on estimates of net international migration derived as the difference between overall population growth and natural increase during the 1994-2004, and the 2004-2014 intercensal period. Data on refugee flows compiled by UNHCR were also taken into account.
Yemen

**Total population:** Estimated to be consistent with the 1994 and 2004 censuses, with official population estimates for 2014, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on adjusted age-specific fertility rates from: (a) maternity-history data from the 1979 WFS, 1991/92 Demographic Maternal and Child Health Survey, 1997 DHS, 2003 Family Health Survey and the 2013 National Health and Demographic Survey; (b) the own-children method applied to the 2006 MICS3 survey; (c) data on children ever born and recent births, both classified by age of mother, from these surveys, as well as from the 1986-1988, 1994 and 2004 censuses and 2006 MICS3; and (d) cohort-completed fertility from these surveys and censuses.

**Infant and child mortality:** Based on: (a) household deaths from the 2004 census; (b) data on births and deaths under-five calculated from maternity-history data from the 1991/92 Demographic Maternal and Child Health Survey, 1997 DHS, 2003 Family Health Survey, 2006 MICS3 and the 2013 National Health and Demographic Survey; (c) data on children ever-born and surviving classified by age of mother (using the West model of the Coale-Demeny Model Life Tables) from these surveys, and from the 1979 WFS, 1994 and 2004 censuses. Official estimates of under-five mortality rates from the Central Statistical Organization of Yemen were also taken into account.

**Life expectancy at birth:** Estimated using the West model of the Coale-Demeny Model Life Tables and three parameters: (1-2) direct and indirect estimates of infant and child mortality, and (3) estimates of adult mortality (45q15). Adult mortality estimates were implied by the relationship between child mortality and adult mortality based on the South model of the Coale-Demeny Model Life Tables and assumed to converge over time toward the West model of the Coale-Demeny Model Life Tables by the 1980s. Indirect estimates of adult mortality based on widowhood data from the 1979 WFS, as well as parental orphanhood from this survey and the 2004 census were also considered. Official estimates of life expectancy at birth from the Central Statistical Organization of Yemen were also taken into account.

**International migration:** Based on estimates of the number of Yemeni migrants who returned to Yemen during the aftermath of the Gulf War, refugee statistics compiled by UNHCR, and estimates of net international migration derived as the difference between overall population growth and natural increase through 2014.

Zambia

**Total population:** Estimated to be consistent with the 1980, 1990, 2000 and 2010 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.


**Infant and child mortality:** Based on: (a) data on children ever born and surviving classified by age of mother from the 1969, 1974, 1980, 1990 2000 and 2010 censuses; and (b) maternity-history data from the 1992, 1996, 2001-02 , 2007 and 2013-14 DHS. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables. The demographic impact of AIDS has been factored into the mortality estimates.

**International migration:** Based on refugee statistics compiled by UNHCR and on data on Zambians migrating to selected developed countries.
Zimbabwe

**Total population:** Estimated to be consistent with the 1982, 1992, 2002 and 2012 censuses adjusted for underenumeration, and with estimates of the subsequent trends in fertility, mortality and international migration.

**Total fertility:** Based on: (a) estimates from the 1988, 1994, 1999, 2005/06, 2010/11 and 2015 DHS; (b) estimates from the 2014 MICS, (c) estimates from the 1969, 1982, 2002 and 2012 censuses; and (d) estimates from the 1984 National Reproductive Health Survey.

**Infant and child mortality:** Based on: (a) estimates from the 1988, 1994, 1999, 2005/06, 2010/11 and 2015 DHS; (b) estimates from the 1969, 1982, 2002 and 2012 censuses; and (c) estimates from the 1984 National Reproductive Health Survey; (d) estimates from the 2014 MICS. The demographic impact of AIDS has been factored into the mortality estimates.

**Life expectancy at birth:** Derived from estimates of infant and child mortality by assuming that the age pattern of mortality conforms to the North model of the Coale-Demeny Model Life Tables. The demographic impact of AIDS has been factored into the mortality estimates.

**International migration:** Based on estimates derived as the difference between overall population growth and natural increase through 2015.