OECD Health Statistics 2015
Definitions, Sources and Methods

Perinatal mortality

The ratio of deaths of children within one week of birth (early neonatal deaths) plus foetal deaths of minimum gestation period 28 weeks or minimum foetal weight of 1000g, expressed per 1000 births.

Note that some variations exist in the definitions for some countries, particularly with regard to foetal deaths, and as such, care should be exercised when making comparisons between countries.

Sources and Methods

The **Eurostat database** (accessed in June 2015) is the main data source for European countries, except for France and the United Kingdom.

Australia

Source: Australian Institute of Health and Welfare. National Perinatal Statistics unpublished data and **Australian Bureau of Statistics**. Perinatal deaths, Australia. ABS Cat. No. 3304.0. Canberra: ABS.
From 2001: **Australian Bureau of Statistics**. Causes of Death, Australia. ABS Cat. No. 3303.0. Canberra: ABS.
Methodology:
Break in time series in 1999: Data from 1999 comprise foetal deaths (400g at delivery or 20 weeks gestation) and neonatal deaths (within 28 days of birth) per 1000 total births.
Data for 1978-1998 live births exclude those under 1000g, which comprise about 0.4% of the total.
Break in time series in 1978: Data before 1978 comprise foetal deaths (500g at delivery or 22 weeks gestation) and neonatal deaths (within 28 days of birth) per 1000 total births.
Further information: http://www.abs.gov.au/ and http://www.aihw.gov.au/.

Austria

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Belgium

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Deviation from the OECD definition: Death occurring before the 8th day of life. The minimum gestation period for a foetal death is 26 weeks and minimum foetal weight of 500g.
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Canada

Source: Statistics Canada, Canadian Vital Statistics Birth and Death Databases.

From 1991: CANSIM Table 102-0508.
1960-1990: Selected Infant Mortality and Related Statistics, Canada, 1921-1990, Cat. No. 82-549.
Only foetal deaths of more than 20 weeks of gestational age or 500 grams are registered in Canada.
Further information: http://www.statcan.gc.ca/.

Chile

Source: National Committee of Vital Statistics, composed of the National Institute of Statistics (INE), the Ministry of Health (MINSAL, Department of Health Statistics and Information DEIS) and the National Service of Civil Identification Registry ("Servicio de Registro Civil e Identificación", SRCeI).
Methodology:
- Foetal deaths, which are only recorded for statistical purposes, have been collected since 2001 with the same forms as those used for deaths. For further information see the process explained for infant mortality.
Further information: Information on Vital Registries available at http://www.deis.cl/?page_id=757 (in Spanish).

Czech Republic

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Break in time series in 1965: Until 1964, **live birth** was defined as a birth of a fetus that showed signs of life (breathing or a heartbeat), born after 28 weeks of gestation, longer than 35 cm and weighing at least 1000 grams. All fetuses not meeting the criteria of live birth but surviving at least 24 hours were considered live births. Those surviving less than 24 hours were registered as spontaneous abortions. A fetus, or at least 28 weeks gestation, that was not breathing, with a body length of at least 35 cm and with a birth weight of at least 1000 grams was considered a **stillbirth**. In 1965, the former Czechoslovakia started using the internationally recommended definition of live birth. Such change in definition resulted in a sudden jump in infant mortality rates between 1964 and 1965 in both the Czech Republic and Slovak Republic. **Live birth** child was defined as a birth of a fetus that showed signs of life (no minimum threshold). A fetus with no signs of life, born at least 28 week gestation and with a birth weight of at least 1000 grams was considered a **stillbirth**.
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Denmark

Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Estonia

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information:
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Finland

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

France

Sources:
From 1998: **Eurostat database**. Data extracted in May 2015.

Until 1997: **Institut national de la statistique et des études économiques** (Insee).
Methodology:
Breaks in time series:
- **2002:** The strong growth of perinatal mortality and stillbirth rates in 2002 is due to a legislative change. According to the November 2001 circular, a stillborn certificate now matches 22 weeks of amenorrhea term or a 500-grams weight, following the viability criteria defined by WHO (http://www.insee.fr/fr/methodes/default.asp?page=sources/sou-adm-etat-civil.htm). These criteria replace the previously used 180 gestation days or 28 weeks. Deaths which were previously counted as intra-uterine deaths are thus now considered stillborn.
- **2009:** In 2008, a new legislative change took place. The decree No. 2008-800 of August 20th 2008 has redefined the notion of a lifeless child. The certificate for a lifeless child is based on a medical birth certificate. The criteria (22 weeks of gestation or a 500-grams weight) are no longer taken into account.
- Before March 1993, when a child was dead at the time of declaration, registrars were not allowed to draw up a birth certificate nor a death certificate, they drew up a lifeless child certificate.
Further information:
From 1998: http://epp.eurostat.ec.europa.eu/portal/page/portal/population/data/database > Demography - National data (demo) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).
Until 1997: http://www.insee.fr/fr/themes/tableau.asp?reg_id=0&ref_id=NATnon02230. Insee, *Données détaillées des statistiques d'état civil sur les décès en 2013, séries longues, tableau T77 : Décès d'enfants de moins d'un an selon le sexe et la durée de vie* (http://www.insee.fr/fr/themes/detail.asp?reg_id=0&ref_id=ir-irsocsd20133).

Germany

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Deviation from the OECD definition:
Definition of still births in Germany has changed over time.
- From April 1994: still births relate to births with a weight of 500 grams or more.
- From July 1979 to March 1994: the definition required a weight of 1000 grams or more.
- Before July1979: still births referred to cases with a minimum length of 35 cm.
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Greece

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Hungary

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Methodology: Since 1970, the national birth statistics have included all live births that occurred in the legal resident population. Before 1970, the vital statistics included live births occurring in the *de facto* population.
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Iceland

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Ireland

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Israel

Source: Central Bureau of Statistics. Based on birth, death and foetal death registrations.
Further information: http://www.cbs.gov.il/shnaton65/st_eng03.pdf.
Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Italy

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Japan

Source: Ministry of Health, Labour and Welfare, Vital Statistics of Japan (published annually).
Methodology:
- The live births are registered regardless of the gestation period, so very premature babies are registered as live births.
- Note that 1966 was the year of "Hinoe-Uma" (an old superstitious belief in Japan saying that females born in the year of "C-Horse" are doomed to an ominous destiny).
Further information: http://www.mhlw.go.jp/english/database/db-hw/vs01.html and http://www.e-stat.go.jp/SG1/estat/eStatTopPortalE.do.

Korea

Sources:
From 2009: **National Statistical Office**, Annual Report on the Cause of Death Statistics (based on vital registration).
1996- 2008: **Ministry of Health and Welfare** and the **Korea Institute for Health and Social Affairs**, Infant Mortality Survey Report.
Methodology:
- Information on deaths under seven days and foetal deaths at 28 weeks or more of gestation was gathered from various existing sources and integrated into one set, after adjusting any overlap among datasets from the various sources (medical insurance data, survey data from medical facilities and vital registration data).
- Total perinatal deaths divided by estimated total live births based on vital registration.
Further information: http://kosis.kr/eng/, http://english.mohw.go.kr/front_eng/index.jsp and http://www.kihasa.re.kr/html/english/main.jsp.

Luxembourg

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Mexico

Source: National Institute of Statistics (INEGI) / **Ministry of Health**, Mortality database 1990-2013, and database

on foetal deaths 1990-2013, and **National Population Council** (CONAPO), Mexico 2013, Demographic estimations 1990-2009 and Population projections 2010-2030, Mexico.
Methodology:
- Early neonatal mortality (1990-2010) was estimated by multiplying the proportion of early neonatal deaths of infant deaths observed by child deaths estimated by the National Population Council. In the case of foetal deaths (28 weeks or more), derived from the underreporting of Vital Statistics System (foetal death certificate) for which coverage varies by state, 60% was added to correct underreporting. From 2011 information from birth certificates and administrative death records is used.
- The denominator is calculated using the estimated live births plus foetal deaths estimated.
- From 2011 information from birth certificates and administrative death records is used.
Further information: http://www.inegi.gob.mx/ and http://www.salud.gob.mx/ (both in Spanish).

Netherlands

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Methodology: Data come from the Causes of death statistics, based on the obligatory registration in the population register. Stillbirths are obligatory registered with a minimum threshold of 24 weeks (and before 1991, 28 weeks); children who die within 7 days after birth are also included.
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

New Zealand

Source: Ministry of Health (National Collections).
Methodology:
- Birth data from 1991 onwards are based on live births registered in New Zealand by the date of registration to mothers resident in New Zealand. Before 1991, birth data were based on births registered in New Zealand to mothers resident in New Zealand and mothers visiting from overseas by the date of registration. Late birth registrations are included in the denominator population.
- Death data from 1991 onwards are based on deaths registered in New Zealand of New Zealand residents by the date of registration. Before 1991, deaths data were based on deaths registered in New Zealand of New Zealand residents and people visiting from overseas by the date of registration.
- The Ministry of Health National Collections and Reporting Team provides infant mortality figures which include late registrations of birth data, after resolving misregistered infant deaths and still births (i.e. registered as one when it is the other) based on additional information that they receive. These data processes cause delays in provision of final data (for both infant and neonatal mortality statistics).
- Data relate to the year ending in December.
- Additionally, perinatal mortality requires complete still births information, and the process used by the National Collections and Reporting Team to produce complete still births counts is quite complex and lengthy. The data processes involved in producing perinatal mortality statistics cause delays in provision of final data.
Lower limits of registration of still-births in New Zealand: more than 20 weeks of gestational age or a minimum of 400 grams birth weight. Prior to 1996, the definition used for foetal death was gestational age of 28 weeks or more. There were no birth-weight criteria in the definition.
Further information: http://www.health.govt.nz/nz-health-statistics/national-collections-and-surveys/collections/mortality-collection.

Norway

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Poland

Sources:
From 2000: **Eurostat database**. Data extracted in June 2015 (extracted on June 10th, 2015).
Until 1999: **Central Statistical Office of Poland**, published annually (Demographic Yearbook of Poland).
Methodology: The CSO sources of data are "Notification of death" and "Notification of birth (live and still)", secondarily utilised by national statistics.
In Poland, the criteria for registration of live births are a minimum weight of 500 grams.
Further information:
From 2000: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).
Until 1999: http://www.stat.gov.pl/english/.

Portugal

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Slovak Republic

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Break in time series in 1965: Until 1964, **live birth** was defined as a birth of a fetus that showed signs of life (breathing or a heartbeat), born after 28 weeks of gestation, longer than 35 cm and weighing at least 1000 grams. All fetuses not meeting the criteria of live birth but surviving at least 24 hours were considered live births. Those surviving less than 24 hours were registered as spontaneous abortions. A fetus, of at least 28 weeks gestation, that was not breathing, with a body length of at least 35 cm and with a birth weight of at least 1000 grams was considered a **stillbirth**. In 1965, the former Czechoslovakia started using the internationally recommended definition of live birth. Such change in definition resulted in a sudden jump in infant mortality rates between 1964 and 1965 in both the Czech Republic and Slovak Republic.
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Slovenia

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Spain

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Methodology:
Until 1975, "the foetus could only be considered born if it had a human figure and lived for twenty four hours completely separate from the womb" (Art. 30 Civil Code). The statistics on births and deaths carried out until 1975 did not meet the demographic concepts recognised internationally, as these did not include those born alive who died within 24 hours of birth (which in the Civil Code are called "aborted babies" (Art. 745)).
Break in time series: Data for the period 1960-1979 may include deaths of non-residents in Spain and stillbirths whose mother was non-resident in Spain (that occurred in Spanish territory). In the same way, the ratio may include births whose mother was non-resident in Spain. From 1980, data apply exclusively to deaths of children of residents in Spain and live births whose mother was a resident of Spain.
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Sweden

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Switzerland

Source: Eurostat database. Data extracted in June 2015 (extracted on June 10th, 2015).
Break in time series in 2005: Since 2005, the minimal gestation period to register a fœtal death is 22 weeks, or a minimum fœtal weight of 500g. Until 2004, the minimal gestation period was 24 weeks, or a minimum fœtal length of 30 cm.
Further information: http://ec.europa.eu/eurostat/data/database > Population and social conditions > Demography and migration (pop) > Mortality (demo_mor) > Infant mortality rates (demo_minfind).

Turkey

Sources:
2009-2013: **Ministry of Health**, Public Health Institution of Turkey.
1993-2003-2008: **Hacettepe University, the Institute of Population Studies** and **the Ministry of Health**, Mother and Child Health and Family Planning Department, The Turkey Demographic and Health Survey, 1993 (advanced analyses), 2003 and 2008.
Methodology:
2012-2013: Data were collected by the routine reporting system. The ratio of deaths of children within one week of birth (early neonatal deaths) plus foetal deaths of minimum gestation period 28 weeks or minimum foetal weight of 1000g, expressed per 1000 births.
2009-2011: The ratio of deaths of children within one week of birth (early neonatal deaths) plus foetal deaths of minimum gestation period 22 weeks or minimum foetal weight of 500g, expressed per 1000 births.
1993-2003-2008: TDHS (The Turkey Demographic and Health Survey) reflects the average value of the 5 years prior to the survey date.
Further information: http://www.hips.hacettepe.edu.tr/tnsa2008/data/TDHS_2008_Main_Report.pdf.

United Kingdom

Source: Information Centre for Health and Social Care using data from:
From 2010:
- England and Wales: Vital Statistics Tables, ONS.
- Scotland: **ISD Maternity**, Annual Reports.
- Northern Ireland: Northern Ireland Statistics and Research Agency, Annual Reports.

2006-2009: **UK Health Statistics, ONS**.
1974-2005:
- England and Wales: Office for National Statistics, Mortality Statistics: Childhood, infant and perinatal, England and Wales' annual reference volumes series DH3 (1974-2005).
- Scotland: General Register Office for Scotland, Annual Reports.
- Northern Ireland: Northern Ireland Statistics and Research Agency, Annual Reports.

1960-1973: Registrar General's Annual Statistical Review of England and Wales (1960-1973).
Coverage: 1960-1973: Data cover only England and Wales.
Break in time series: 1 October 1992: In the UK, the definition of a stillbirth was amended to cover 24 weeks gestation or more (but voluntary notification at 22 and 23 weeks is possible). Before 1992, it was 28 weeks.
Further information: http://www.hscic.gov.uk and http://www.statistics.gov.uk/statbase/Product.asp?vlnk=6637

United States

Sources:

1998 onwards: **U.S. Department of Health and Human Services/Centers for Disease Control and Prevention/National Center for Health Statistics**. Deaths: Final (several issues).
1980 to 1997: **U.S. Department of Health and Human Services/Centers for Disease Control and Prevention/National Center for Health Statistics**. Vital Statistics of the United States, Volume II, Mortality, and Part A (published annually).
1960-1979: **U.S. Department of Health and Human Services/Centers for Disease Control and Prevention/National Center for Health Statistics**. Vital Statistics of the United States, Vol. II Mortality. Unpublished data.
Coverage: National.National Vital Statistics Registration System.
Methodology:
1972-1976: Deaths based on a 50 percent sample. Data based on 50 largest U.S. Standard Metropolitan Statistical Areas (SMSA).
The US federal guidelines recommend reporting those foetal deaths whose birth weight is over 12.5 oz (350g), or those having more than 20 weeks gestation.
Further information: NCHS Vital Statistics website, http://www.cdc.gov/nchs/nvss.htm.

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http://www.oecd.org/health/health-data.htm