

CO1.1: Infant mortality

Definitions and methodology

This indicator presents information on infant mortality through three measures:

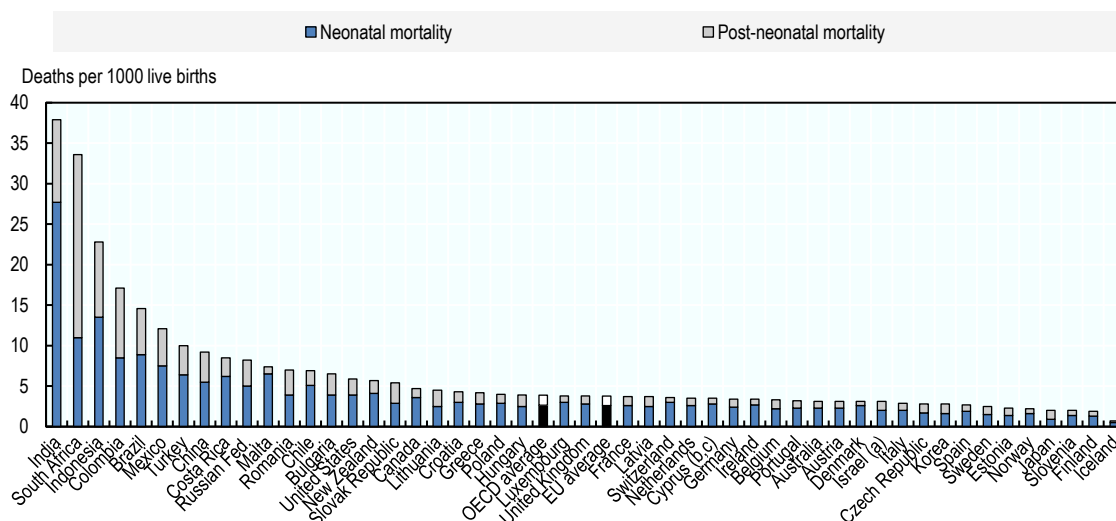
- i) The *infant mortality rate*, defined as the number of deaths of children aged less than one in a given year per 1000 live births.
- ii) The *neonatal mortality rate*, defined as the number of deaths of children aged less than 28 days in a given year per 1000 live births.
- iii) The *post-neonatal mortality rate*, defined as the number of deaths of children aged between 28 days and one year in a given year per 1000 live births.

The infant mortality rate is equivalent to the sum of the neonatal and post-neonatal mortality rates. Data for most countries come from OECD Health Statistics, with data for non-OECD EU member states coming from Eurostat.

Key findings

Infant mortality rates are generally very low across the OECD, but do vary slightly from country to country (Chart CO1.1.A). In most OECD countries infant mortality rates stand at somewhere between 2.5 and 5 deaths per 1000 live births, with the OECD average infant mortality rate at 3.9. Rates are lowest at fewer than 2.5 deaths per 1000 live births in Estonia, Finland, Japan, Iceland, Norway and Slovenia, and highest at 10 and 12.1 deaths per 1000 live births in Turkey and Mexico, respectively.

Chart CO1.1.A. **Infant mortality, neonatal mortality, and post-neonatal infant mortality rates, 2016 or latest available**
 Deaths per 1000 live births (no minimum threshold of gestation period or birthweight)



Other relevant indicators: CO1.3 and CO1.4: Early childhood indicators: Low birth weight and child immunisation; CO1.5: Breastfeeding rates; CO1.6: Disease-based indicators: prevalence of diabetes and asthma among children; and, CO1.7: Obesity among children aged 10.

Note: Infant mortality is defined as deaths of children aged less than one year per 1000 live births (no minimum threshold of gestation period or birthweight). Neonatal mortality is defined as deaths of children aged less than 28 days old per 1000 live births (no minimum threshold of gestation period or birthweight). Post-neonatal mortality is defined as deaths of children aged between 28 days and one year of age per 1000 live births (no minimum threshold of gestation period or birthweight). Data for Cyprus refer to 2012, for the Russian Fed. To 2013, for Canada and New Zealand to 2014, and for Belgium, Chile, Ireland, Italy, the United States, Colombia, Costa Rica, Brazil, China, India, Indonesia, and South Africa to 2015.

a. 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.

b. Footnote by Turkey: The information in this document with reference to « Cyprus » relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognizes the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of United Nations, Turkey shall preserve its position concerning the "Cyprus issue";

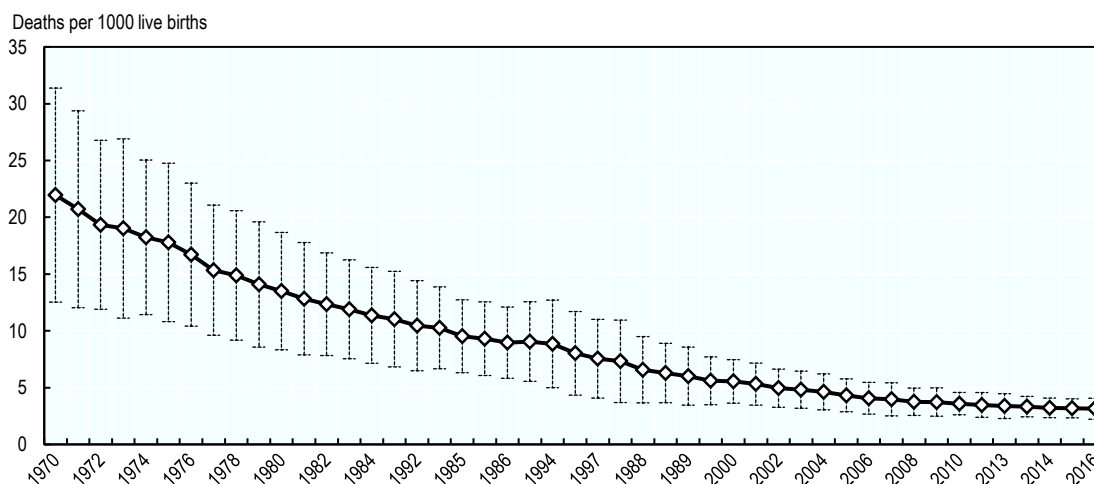
c. Footnote by all the European Union Member States of the OECD and the European Commission: The Republic of Cyprus is recognized by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Sources: [OECD Health Statistics](#); [Eurostat Mortality Data](#)

On average, around two-thirds of the deaths that occur during the first year of life are neonatal deaths (Chart CO1.1.A). Congenital malformations, pre-maturity and other conditions arising during pregnancy are the principal factors contributing to neonatal mortality in OECD countries. For deaths beyond a month (post-neonatal mortality), there tends to be a greater range of causes – the most common being SIDS (Sudden Infant Death Syndrome, more commonly known as “cot death”), birth defects, infections and accidents.

OECD countries have made considerable progress in reducing infant mortality over the past 40 years or so (Chart CO1.1.B). In 1970, the OECD-29 average infant mortality rate stood at 22.0 deaths per 1000 live births. With a few minor exceptions, it has decreased year-on-year ever since. By 1980 the OECD-29 average infant mortality rate had declined to 13.5 deaths per 1000 live births, and by 1990 it had fallen to 11. The OECD-29 average has levelled off slightly since the turn of the century – in 2016 it was, at 3.1 deaths per 1000 live births, only 2.4 points lower than in 2000 (5.5 deaths per 1000 live births). Nevertheless, this still represents a decrease of around 40% over the intervening sixteen years.

Chart CO1.1.B. Trends in infant mortality rates, 1970-2016
 OECD-29 unweighted average deaths per 1000 live births (no minimum threshold of gestation period or birthweight), with error bars set at one standard deviation



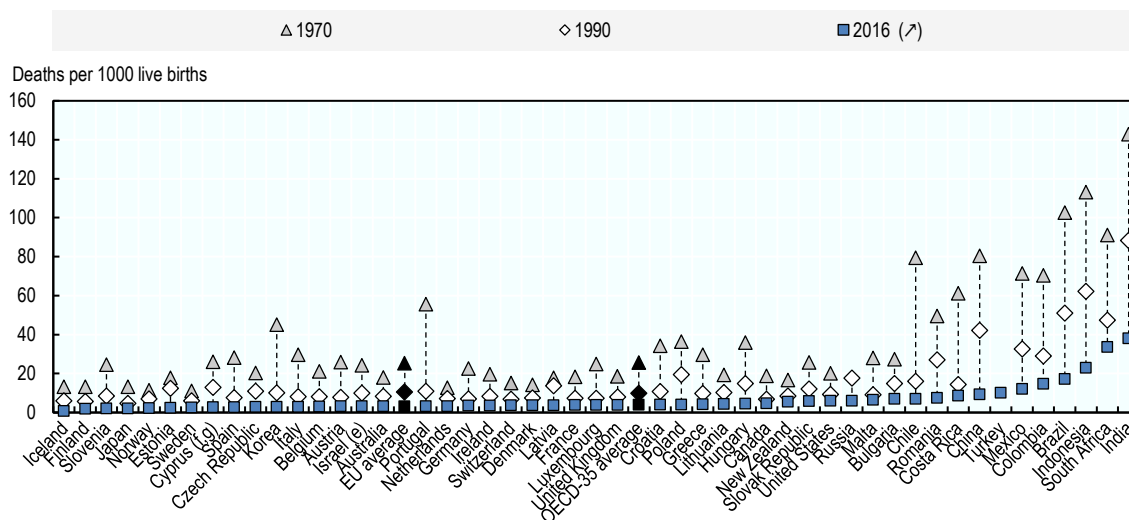
Note: Deaths of children aged less than one year per 1000 live births (no minimum threshold of gestation period or birthweight). Unweighted average for the 29 OECD countries with data available for all years since 1970. Canada, Chile, Korea, Mexico, New Zealand, Turkey and the United States are excluded due to missing data.

Sources: [OECD Health Statistics](#)

The largest reductions in infant mortality took place in the two Latin American OECD countries, Chile and Mexico (Chart CO1.1.C). In Mexico, infant mortality rates fell by almost 60 points between

1971 and 2016, while in Chile they decreased from just under 80 deaths per 1000 live births in 1970 to just 7.0 in 2016. But, infant mortality rates have also fallen in all other OECD countries since 1970. In most, the bulk of the decrease occurred between 1970 and 1990 with any further progress made between 1990 and 2016 generally comparatively small, in absolute terms at least. Notably, no OECD country has seen rates increase since 1990.

Chart CO1.1.C. **Infant mortality rates, 1970, 1990 and 2016 or latest available**
 Deaths per 1000 live births (no minimum threshold of gestation period or birthweight)



Note: Deaths of children aged less than one year per 1000 live births (no minimum threshold of gestation period or birthweight). For 1970, data for Mexico refer to 1971, and for South Africa to 1974. For 1990, data for Korea refer to 1991. For 2016, data for the Russian Federation refer to 2013, for Canada and New Zealand to 2014, and for Brazil, Chile, China, Colombia, Costa Rica, India, Indonesia, South Africa and the United States refer to 2015. The OECD-35 average excludes Turkey due to missing data.

- a. See note a to Chart CO1.1.A
- b. See note b to Chart CO1.1.A
- c. See note c to Chart CO1.1.A

Sources: [OECD Health Statistics](#); [Eurostat Mortality Data](#)

Comparability and data issues

Data on infant mortality come from *OECD Health Statistics* and *Eurostat*, both of which themselves use data from national statistical authorities. Despite efforts to ensure comparability of definitions and concepts across countries, it is possible that differences between countries in the treatment and registration of deaths of premature infants could influence cross-country variation in infant and neonatal mortality rates. For example, while in most countries all infants are included in birth and mortality statistics, others specify additional criteria based on some combination of gestational age, birth weight or survival. In Poland, for example, only infants with a birth weight of at least 500 grams are registered as live births. For more information on cross-national variations in the registration process, see [OECD Health Statistics](#).

Sources and further reading: *OECD Health Statistics*: www.oecd.org/health/healthdata; and *WHO Global Health Observatory*.