CO1.1: Infant mortality

Definitions and methodology

The infant mortality rate is the number of deaths of children under one year of age in a given year, expressed per 1 000 live births. Neonatal mortality refers to the death of children not yet 28 days. Post-neonatal mortality refers to the number of infant deaths occurring between 28 days and 11 months of life (inclusive). Data on infant mortality are taken from the OECD Health data and WHO Global Health Observatory.

Key findings

In 2011, infant mortality rates in OECD countries ranged from a low of under 3 deaths per 1 000 live births in the Czech Republic, Japan, the Nordic countries (with the exception of Denmark), Portugal and Slovenia, up to a high of over 10 deaths per 1 000 live births in Mexico, Romania and Turkey (Chart CO1.1.A). Infant mortality rates were also relatively high (more than 6 deaths per 1 000 live births) in Chile, some Central and Eastern European countries, and the United States.


2009 for Chile and New Zealand; 2008 for Belgium, Bulgaria, Canada, Cyprus, Ireland, Italy, Latvia, Lithuania, Malta and Romania
1 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”.
2 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.
3 The 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.
Source: OECD Health Data (version April 2014) and WHO Global Health Observatory 2014

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.
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 developed 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.

With an increasing number of women deferring childbearing (SF2.3) and the rise in multiple births linked with fertility treatments, the number of pre-term births has tended to increase (see indicator CO1.3) leading to a rising number of babies born with low birth weights. As a result, there is an increased risk of neonatal deaths which has contributed in some countries to a leveling-off of the downward trend in infant mortality rates. Indeed, the increase in the birth of very small infants was cited as the main reason for the first increase since the 1950s in infant mortality rates in the United States between 2001 and 2002 (see Chart CO1.1.B).


All OECD countries have made remarkable progress in reducing infant mortality over the last 40 years. On average across the OECD, the infant mortality rate was just below 30 deaths per 1 000 live births in 1970, and fell to under 5 deaths per 1 000 live births in 2011 (Chart CO1.1.B). Chart CO1.1.C shows the decline equates to a cumulative reduction of over 80% since 1970, and in 2011 infant mortality rates were less than 10% of what they were in 1970 in Chile, Korea, Portugal and Turkey.
Chart CO1.1.C: Decline in infant mortality rates, 1970 to 2011

For Israel, change is relative to 1980 rate. Korea shows the overall change from 1970 to 2011.  
1) see note 3 in Chart CO1.1.A  
Source: OECD Health Data (version April 2014)

Chart CO1.1.C shows that the largest reductions in infant mortality rates in OECD countries took place between 1970 and 1980, when the number of infant deaths decreased by nearly 40% on average. Since 1980, infant deaths have continued to decline but at a decreasing rate, except for in the Czech Republic, Estonia, New Zealand, the Slovak Republic and Turkey, where the largest reductions occurred between 1980 and 1990. Estonia has made the largest reduction in infant mortality rates in the last decade more than halving the incidence from 8% in 2000 to 3% in 2011.

Comparability and data issues

Data on infant mortality has been taken from two sources: the OECD Health Data for OECD countries and the WHO Global Health Observatory for non-OECD countries. The year of reference is 2011.

Some of the international variation in infant and neonatal mortality rates may be due to variations among countries in the registration of premature deaths of infants (whether they are reported as live births or foetal deaths). In several countries, such as in Canada, Japan, the Nordic countries and the United States, very premature babies with relatively low odds of survival are registered as live births. This increases mortality rates compared with other countries that register them as foetal deaths instead of live births.