

CO1.3: Low birth weight

Definitions and methodology

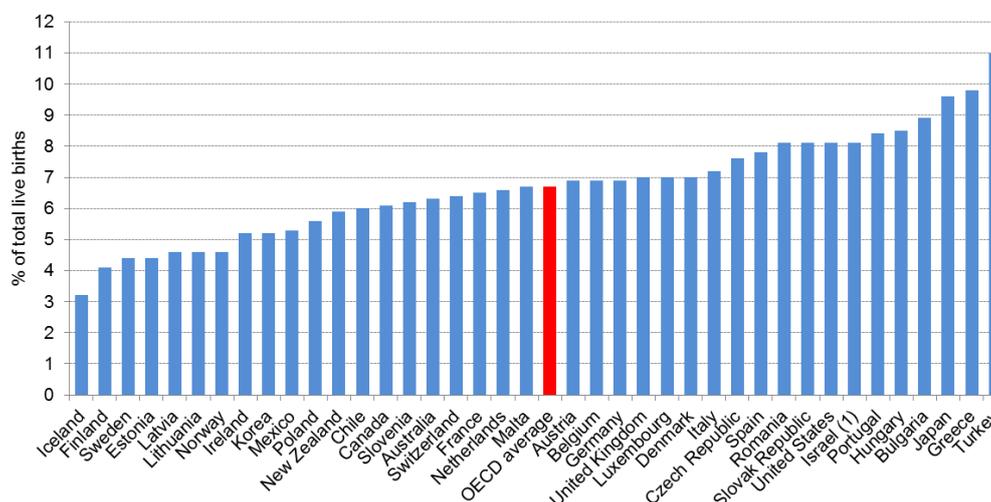
As defined by the World Health Organization (WHO), an infant is considered to be of low birth weight if his/her weight at birth is less than 2 500 grams (5.5 pounds) irrespective of the gestational age of the infant. This threshold is based on epidemiological observations regarding the increased risk of death to the infant and serves as a benchmark for international comparisons. The proportion of low birth weight infants is then the number of low birth weight births divided by the total number of live births.

Low birth weight is an important indicator of infant health because of the close relationship between birth weight, infant mortality (see CO1.1) and health issues during life. Low birth weight infants have a greater risk of poor health or death, require a longer period of hospitalisation after birth, and are more likely to develop significant disabilities (UNICEF & WHO, 2004). Risk factors for low birth weight include low parental socio-economic status, increased maternal age and multiple fertility, harmful parental behaviours such as smoking, excessive alcohol consumption and poor nutrition during pregnancy, as well as a poor level of pre-natal care.

Key findings

Compared with an overall OECD average of 6.7% in 2011, four Nordic countries (Iceland, Finland, Norway and Sweden), along with Estonia reported the smallest proportions of low birth weight with less than 5% of live births below 2.5 kilograms (Chart CO1.3.A). In contrast, Greece, Japan and Turkey reported proportions of low birth weight infants at above 9%.

Chart CO1.3.A: Low birth weight infants, 2011*



* Data refer to 2010 for Belgium; 2008 for Turkey.

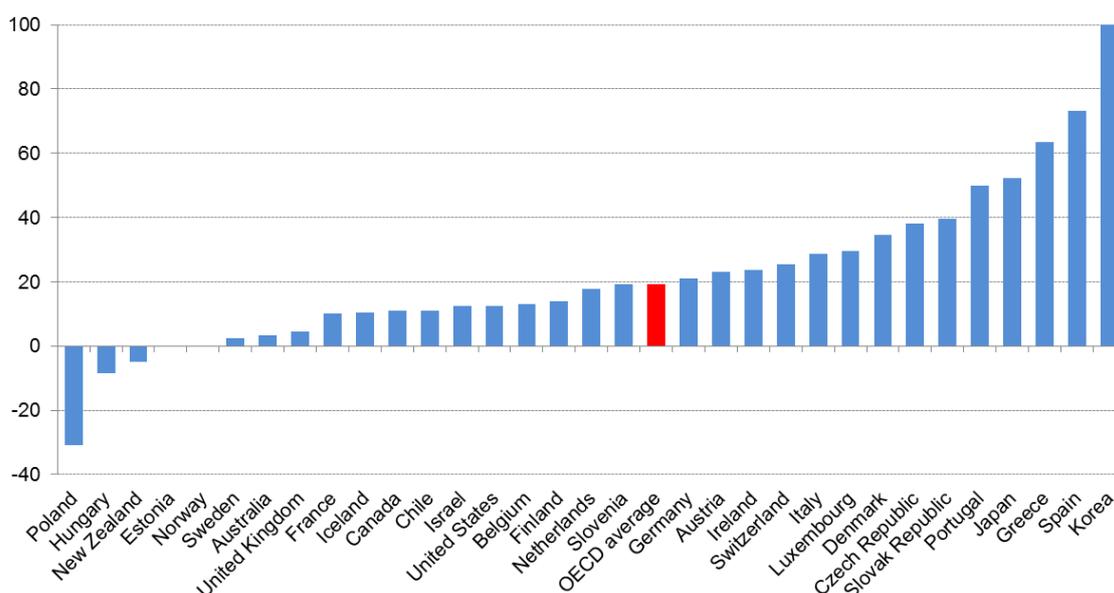
1 The data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD Health Data v June 2014, World Bank (World Development Indicators) v June 2014, and WHO Regional Office for Europe (Health for all database) v June 2014

Other relevant indicators: CO1.1: Infant mortality rates; CO1.5: Breastfeeding rates; CO1.6: Disease-based indicators: Prevalence of diabetes and asthma among children; and CO1.7: Obesity among children aged 10

The prevalence of low birth weight infants has increased in most OECD countries since 1990 (Chart CO1.3.B), with the exception of Hungary, Poland and New Zealand where it decreased, and Estonia and Norway where it has remained the same. The reasons for this increase include: (i) increase in the number of multiple births, partly as a result of the rise in fertility treatments; (ii) the increased age of mothers at childbirth; and (iii) an increase in smoking among young women from the 1970s onwards, as for example in Japan (Ohmi, *et al*, 2001). Despite the increase in the number of low birth weight infants, medical care for newborns has been particularly successful in reducing infant mortality (OECD Health at a Glance, 2013 edition).

Chart CO1.3.B: Change in proportion of low birth weight infants (weighing less than 2.5 kg), 1980-2011*



* For 2011 data refer to 2008 for Belgium. For 1990 data refer to 1992 for Estonia, 1993 for France and Korea.

1) see note 1 for Chart CO1.3.A.

Source: OECD Health Data v June 2014

Comparability and data issues

The majority of the data comes from birth registers, except for the Netherlands, where data is taken from a national health survey.

National population data mask differences in outcomes across different population groups. Comparisons of different population groups within countries suggest that the proportion of low birth weight infants might also be influenced by differences in education, income and associated living conditions. In the United States there are marked differences between ethnic groups in the proportion of low birth weight infant. Large differences have also been observed, for example, when considering the indigenous and non-indigenous populations in Australia and Mexico.

Sources and further reading: OECD Health Data: www.oecd.org/health/healthdata, *OECD Health at a Glance 2013 and OECD Health Data 2013* (Statistics and Indicators); Ohmi, H., K. Hirooka, A. Hata and Y. Mochizuki (2001), Recent trend of increase in proportion of low birthweight infants in Japan, *International journal of Epidemiology*, 30: pp. 1269-71.