CO1.3: Low birth weight

Definitions and methodology

As defined by the World Health Organization (WHO), an infant is considered to have a low birth weight if their weight at birth is less than 2,500 grams (5.5 pounds). 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 live births weighing less than 2500 grams divided by the total number of live births.

Key findings

On average across OECD countries about 6.5% of live births are recorded as low-weight births, but this rate varies considerably from country to country. Rates of low-weight births are lowest in the Nordic and Baltic OECD countries (Estonia, Finland, Iceland, Latvia, Norway, Sweden), where in all cases around or less than 5% of live births are recorded as ‘low weight’. By contrast, rates are far higher in Greece and Japan, where low-weight births make up around 9.5% of live births.

Chart CO1.3.A. Low birth weight infants as a proportion of total live births, 2014 or latest available year

Number of live births weighing less than 2500 grams as a proportion (%) of total live births

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a) Data for Belgium, Canada, the Netherlands, Colombia an Costa Rica refer to 2012, and for Australia, France, Germany, Latvia, Slovenia, Bulgaria, Croatia, Lithuania, Malta and Romania to 2013
b) Exact definitions of low birth weight and of live births may differ slightly across countries. For more details see OECD Health Statistics: Definitions, Sources and Methods
c) 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.

Source: OECD Health Statistics; European Community Health Indicators (ECHI), accessed through the HEIDI data tool

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, Mexico, Poland and New Zealand where it has decreased, and Latvia and Norway where it has remained stable. 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 new-borns has been particularly successful in reducing infant mortality (see indicator CO1.1).

Chart CO1.3.B. Changes in low birth weight infants as a proportion of total live births, 1990\(^a\) to 2014 or latest available year\(^b\)
Percentage point change in the number of live births weighing less than 2500 grams\(^c\) as a proportion (%) of total live births between 1990 and 2014 (or latest available year)

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 (for more details see OECD Health Statistics: Definitions, Sources and Methods).

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. 