

CO2a: Low birth weight

Definitions and methodology

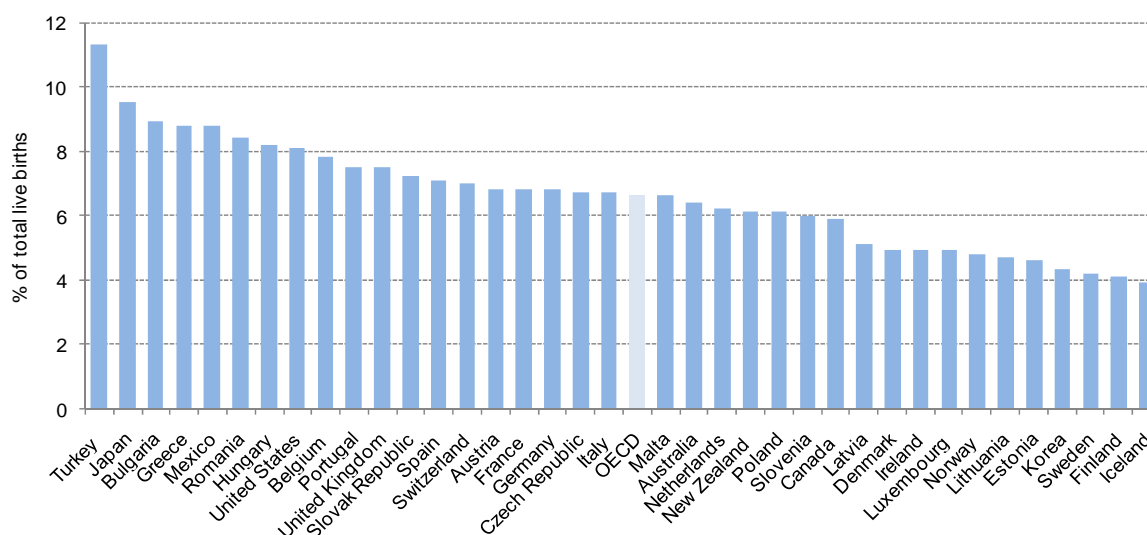
As defined by the World Health Organization (WHO), an infant is considered to be of low birth weight if his/her weight at birth is less than 2 500 grams (5.5 pounds) irrespective of the gestational age of the infant. This threshold is based on epidemiological observations regarding the increased risk 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 and infant morbidity and mortality (see CO1: Infant mortality). 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

Compare with an overall OECD average of 6.6% in 2005, the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden), along with Ireland, Korea and Luxembourg reported the smallest proportions of low birth weight with 5% or less of live births below 2.5 kilos (Chart CO2a.1). By contrast, Greece, Hungary, Japan, Mexico, Turkey and the United States reported proportions of low birth weight infants above 8% (Chart CO2a.1).

Chart CO2a.1: Low birth weight infants, 2005*

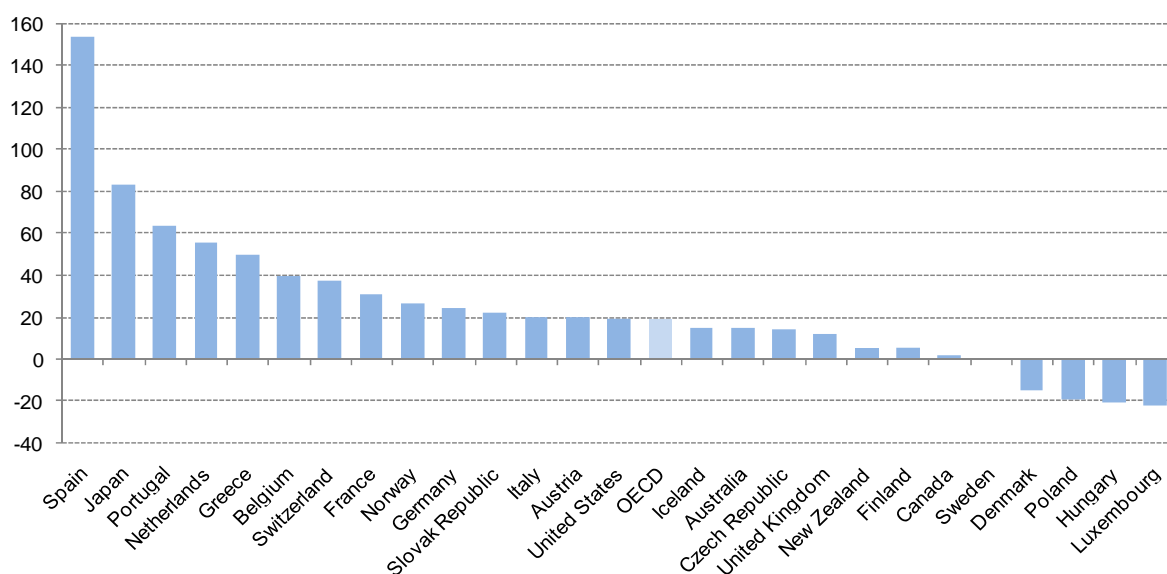


Source: OECD Health Data 2007 and World Health Organization Regional Office for Europe (the "Health for all database").
 *Data refers to 2005, except for Australia, Belgium, Canada, France, Iceland, Italy, New Zealand, Norway, Spain, Sweden and the United States (2004) and Turkey and Luxembourg (2003).

Other relevant indicators: CO1: Infant mortality rates; CO3: Breastfeeding rates; CO4: Disease-based indicators: Prevalence of diabetes and asthma among children; and CO5: Obesity among children aged 10

Since 1980 the prevalence of low birth weight infants has increased in a number of OECD countries (Chart CO2a.2). There may be several reasons for this rise. First, the number of multiple births, with the increased risks of pre-term births and low birth weight, has risen steadily, partly as a result of the rise in fertility treatments. Other factors which may have influenced the rise in low birth weight are increased age of mothers at childbirth and, as for example in Japan, an increase in smoking among young women from the 1970s onwards (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, 2007 edition).

Chart CO2a.2: Change in proportion of low birth weight infants (weighing less than 2.5 kg), 1980-2005



Source: OECD Health Data 2007

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, marked differences between ethnic groups in the proportion of low birth weight infants have been observed, and 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 database: www.oecd.org/health/healthdata and *OECD Health at a Glance 2007*; 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.