

Definition and measurement

The World Health Organisation (WHO) defines low birth weight as a birth weight below 2 500 grams, irrespective of gestational age. This cut-off is based on epidemiological observations regarding the increased risk of death of the infant. The number of low birth weight births is then expressed as a percentage of total live births. The majority of the data comes from birth registers. However, data for the Netherlands and Turkey comes from a national health interview survey.

The infant mortality rate is the annual number of deaths of children under one year of age per 1 000 live births. Some international variation in infant mortality rates may be due to country variation in defining live children following birth. There are no gestational age or weight limits for birth mortality registration in Austria, Belgium, Denmark, Germany, Hungary, Italy, Portugal, the Slovak Republic, Finland, Spain, Sweden and the United Kingdom (EURO-PERISTAT Project 2008). There are also no limits in Canada and the United States. Minimal limits exist for Norway (to be counted as a death following birth the gestational age must exceed 12 weeks) and in the Czech Republic, France, the Netherlands and Poland a minimum gestational age of 22 weeks and/or a weight threshold of 500 g is applied. Australia and New Zealand have no gestational age limit. Requirements in the balance of OECD countries are unclear, but are not likely to differ greatly.

Low birth weight and infant mortality are both important indicators of infant health. Low birth weight infants have greater risks of poor health and development. Risk factors for both low birth weight and infant mortality include parental socio-economic status, maternal age, multiple births, maternal smoking and alcohol consumption, and timely access to and quality of pre-natal care.

On average across OECD countries 1 in every 15 children born is low birth weight. Iceland, Sweden, Finland and Korea reported the smallest proportions of low weight births among OECD countries, with 4.5% of low birth weight. Turkey, Japan and Greece are at the other end of the scale, with rates of low birth weight infants above 9% (HE3.1). Mexico, Hungary and the United States are close behind with over 8% of all live births reported as low birth weight.

On average one in 200 children born in the OECD dies in infancy. Infant mortality rates in OECD countries in 2006 ranged from lows of less than three deaths per 1 000 live births in Iceland, Sweden, Finland, Luxembourg and Japan, to highs of 18 and 23 deaths in Mexico and Turkey (HE3.2). Infant mortality rates were also relatively high in Poland, the Slovak Republic and the United States. All OECD countries have achieved remarkable progress in reducing infant mortality rates over the past four decades, with especially large falls in Portugal and Korea.

The prevalence of low birth weight infants has increased in several OECD countries in the last generation (HE3.3). There may be several reasons for this rise. First, the number of multiple births has risen steadily, partly as a result of the increase in fertility treatments. Second, women are increasingly delaying childbearing, which again implies an increase of the risk of low birth weight infants. Third, new medical technology and improved prenatal care are increasing survival of smaller infants.

Countries with a low proportion of low birth weight infants also have low infant mortality rates (HE3.4). Japan is an exception, with a highest proportion of low birth weight infants but a low infant mortality rate. Japan has recorded large rises in shares of low birth weight infants, rising from 5% of newborns in the late 1970s and approaching 10% by 2006. There are a number of possible causes. Smoking amongst younger Japanese women has increased and they are having their children at older ages (Jeong and Hurst, 2001).

Further reading

EURO-PERISTAT Project (2008), *European Perinatal Health Report*, www.europeristat.com/publications/european-perinatal-health-report.shtml.

Jeong, H.S. and J. Hurst (2001), "An Assessment of the Performance of the Japanese Health Care System", OECD Labour Market and Social Policy Occasional Papers, No. 56, OECD, Paris.

Figure notes

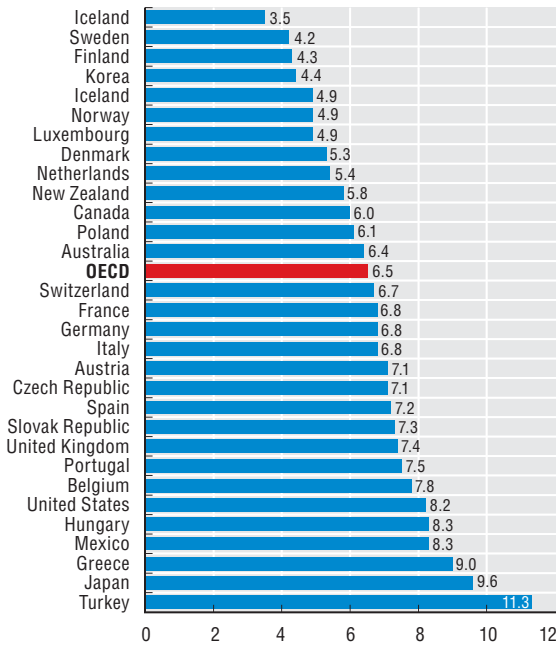
Figures HE3.1 and HE3.2: In Canada, Japan, the United States and some of the Nordic countries, very premature babies with a low chance of survival are registered as live births, resulting in higher reported rates compared to countries that do not.

Figure HE3.1: 2005 for Australia, Canada, Italy, Portugal and the United States. 2004 for Belgium, France and Sweden. 2003 for Luxembourg and Turkey.

Figure HE3.2: 2005 for Belgium, Canada and the United States. 2004 for Italy, 2002 for Korea.

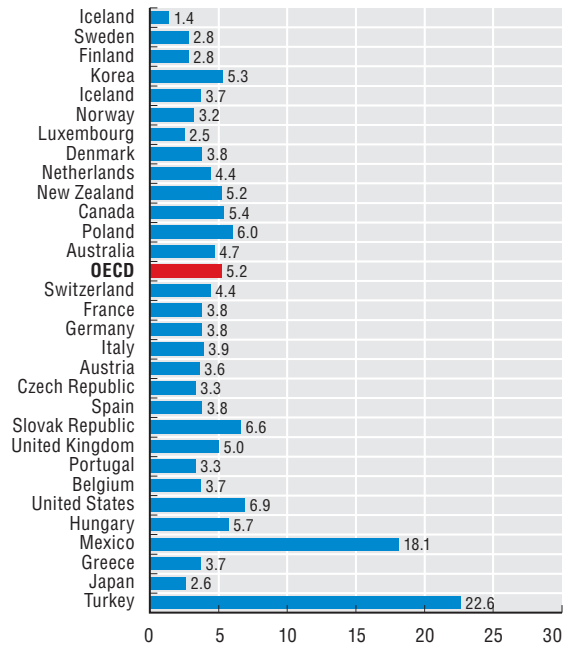
HE3.1. On average across OECD countries, one in every 15 children born is low birth weight

Percentage of newborns weighing less than 2 500 g, 2006



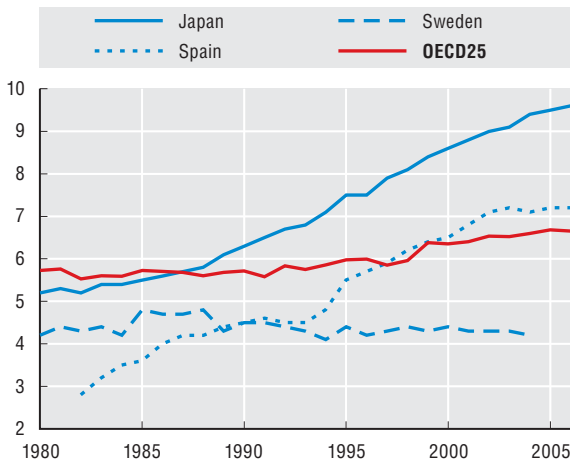
HE3.2. On average one in 200 children born in the OECD die in infancy

Deaths per 1 000 live births, 2006



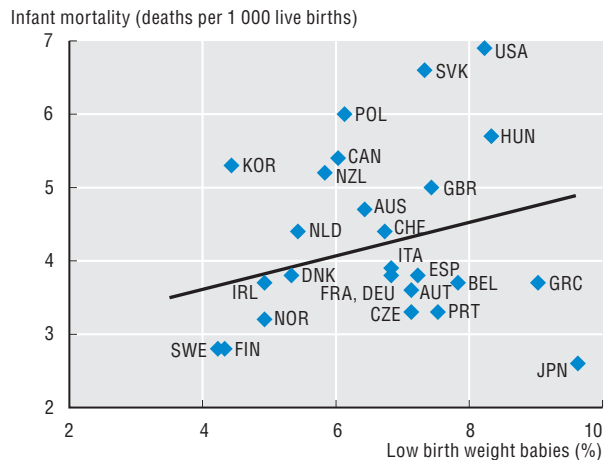
HE3.3. The prevalence of low birth weight infants has increased in several OECD countries in the last generation

Percentage of newborns weighing less than 2 500 g, 2006



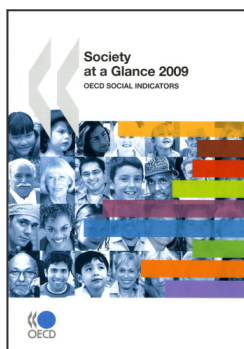
HE3.4. Countries with a small proportion of low birth weight infants also have low infant mortality

2006



Source: OECD (2008), OECD Health Data 2008, OECD, Paris (www.oecd.org/health/healthdata).

StatLink <http://dx.doi.org/10.1787/550600314458>



From:
Society at a Glance 2009
OECD Social Indicators

Access the complete publication at:
https://doi.org/10.1787/soc_glance-2008-en

Please cite this chapter as:

OECD (2009), "Infant health", in *Society at a Glance 2009: OECD Social Indicators*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/soc_glance-2008-24-en

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