

## 1. HEALTH STATUS

### 1.8. Infant health: Low birth weight

Low birth weight – defined as newborns weighing less than 2 500 grams – is an important indicator of infant health because of the close relationship between birth weight and infant morbidity and mortality. There are two categories of low birth weight babies: those occurring as a result of restricted foetal growth and those resulting from pre-term birth. 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 and WHO, 2004). Risk factors for low birth weight include maternal smoking and excessive alcohol consumption, poor nutrition, low body mass index, lower socio-economic status, and having had in-vitro fertilisation treatment and multiple births.

One in 15 babies born in OECD countries in 2011 – or 6.8% of all births – weighed less than 2 500 grams at birth (Figure 1.8.1). The proportions of low-weight births were lowest in Nordic countries (Iceland, Finland, Sweden, Norway, with the exception of Denmark) and Estonia, with less than 5% of live births defined as low birth weight. Alongside a number of key emerging countries (India, South Africa and Indonesia), Turkey, Greece and Japan have the highest proportions among OECD countries, with rates of low birth weight infants above 9%. Some of these variations across countries may be due to physiological differences in size between populations (Euro-Peristat, 2013). In some emerging countries, the high proportion of low birth weight infants is mainly associated with maternal malnutrition before and during pregnancy, poor health and limited access to proper health care during pregnancy.

In almost all OECD countries, the proportion of low birth weight infants has increased over the past two decades (Figure 1.8.1, right panel and Figure 1.8.2). There are several reasons for this rise. 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 explain the rise in low birth weight are older age at childbearing, and increases in the use of delivery management techniques such as induction of labour and caesarean delivery, which have increased the survival rates of low birth weight babies.

Korea, Spain, Greece, Japan and Portugal have seen large increases of low birth weight babies over the past two decades. In Japan, this increase can be explained by changes in obstetric interventions, in particular the greater use of caesarean sections, along with changes in maternal socio-demographic and behavioural factors (Yorifuji et al., 2012). This contrasts with sharp decreases in Poland and Hungary, although most of the reduction in these two countries occurred in the first half of the 1990s, with little change since then.

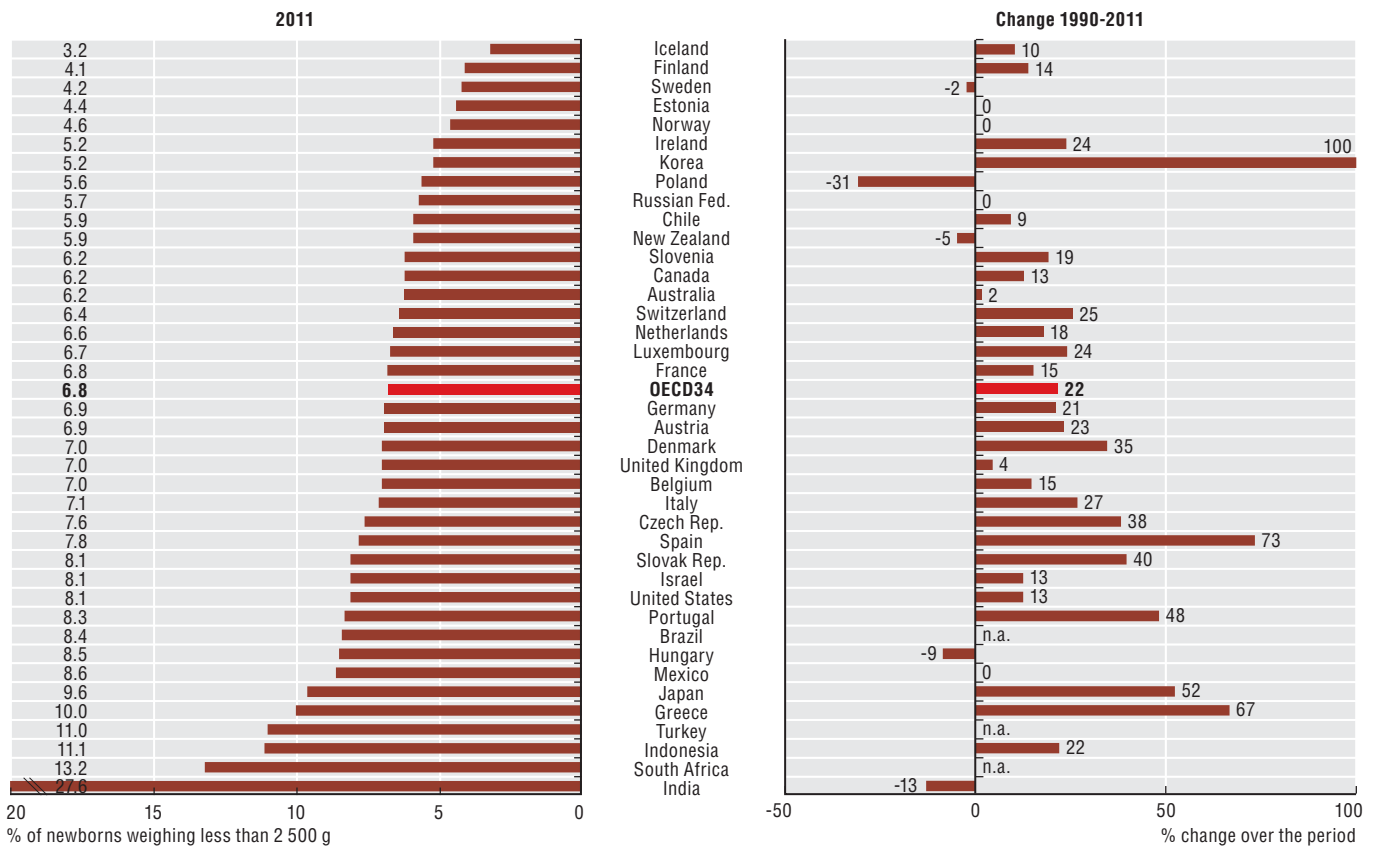
Comparisons of different population groups within countries indicate that the proportion of low birth weight infants may also be influenced by differences in education level, income and associated living conditions. In the United States, there are marked differences in the proportion of low birth weight infants among racial groups, with black infants having a rate almost double that of white infants (13.2% versus 7.1% in 2010) (NCHS, 2013). Similar differences have also been observed among the indigenous and non-indigenous populations in Australia, Mexico and New Zealand, often reflecting the disadvantaged living conditions of many of these mothers.

The proportion of low birth weight infants is also much higher among women who smoke than for non-smokers. In the United States, the rate reached 12.0% for cigarette smokers compared with 7.4% for non-smokers in 2010 (NCHS, 2013).

#### **Definition and comparability**

Low birth weight is defined by the World Health Organization (WHO) as the weight of an infant at birth of 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 for international comparative health statistics. The number of low weight births is then expressed as a percentage of total live births.

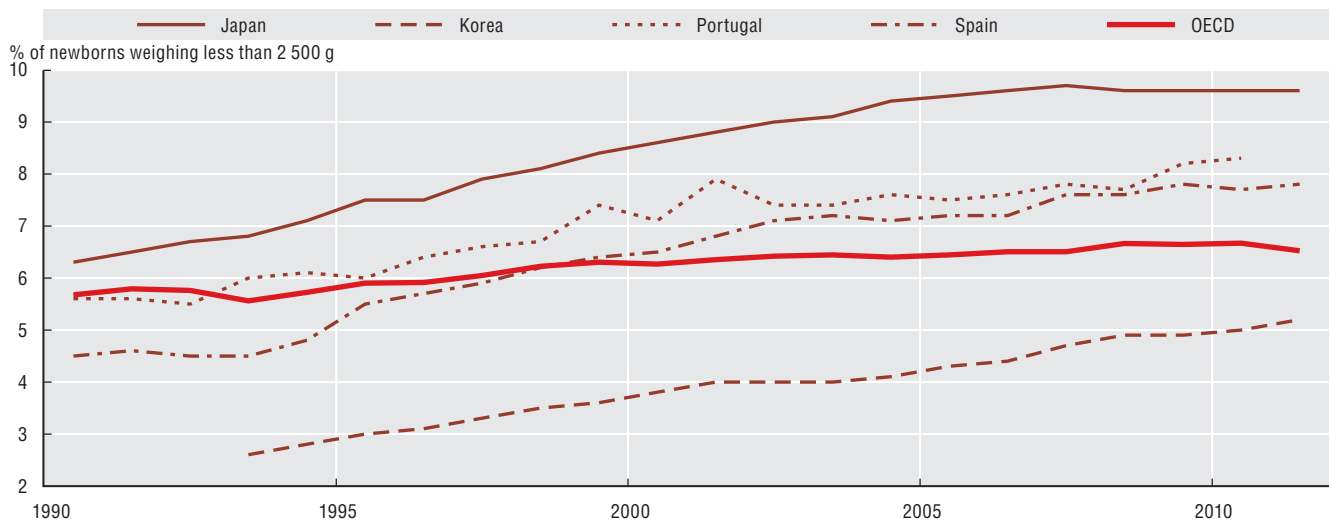
1.8.1. Low birth weight infants, 2011 and change between 1990 and 2011 (or nearest year)



Source: OECD Health Statistics 2013, <http://dx.doi.org/10.1787/health-data-en>; World Bank and WHO for key partners.

StatLink <http://dx.doi.org/10.1787/888932916287>

1.8.2. Trends in low birth weight infants, selected OECD countries, 1990-2011



Source: OECD Health Statistics 2013, <http://dx.doi.org/10.1787/health-data-en>.

StatLink <http://dx.doi.org/10.1787/888932916306>



**From:**  
**Health at a Glance 2013**  
OECD Indicators

**Access the complete publication at:**  
[https://doi.org/10.1787/health\\_glance-2013-en](https://doi.org/10.1787/health_glance-2013-en)

**Please cite this chapter as:**

OECD (2013), "Infant health: Low birth weight", in *Health at a Glance 2013: OECD Indicators*, OECD Publishing, Paris.

DOI: [https://doi.org/10.1787/health\\_glance-2013-12-en](https://doi.org/10.1787/health_glance-2013-12-en)

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