

## 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 adolescent motherhood, a previous history of low weight births, engaging in harmful behaviours such as smoking and excessive alcohol consumption, having poor nutrition, a low body mass index, a background of low parental socio-economic status, and having had in-vitro fertilisation treatment.

One-in-fifteen babies born in OECD countries in 2009 – or 6.7% of all births – weighed less than 2 500 grams at birth (Figure 1.8.1). The Nordic countries (Iceland, Sweden and Finland), Estonia, Ireland and Korea reported the smallest proportions of low-weight births, with less than 5% of live births defined as low birth weight. Alongside a number of emerging countries (India, South Africa and Indonesia), Turkey and Japan are at the other end of the scale, with rates of low birth weight infants above 9% (Figure 1.8.1).

Since 1980, and more so after 1995, the prevalence of low birth weight infants has increased in most OECD countries (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 have influenced 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 birthweight babies.

Japan, Portugal and Spain have seen large increases in the past three decades, such that the proportion of low birth weight babies in these countries is now above the OECD average (Figure 1.8.2). This contrasts with the proportions of low birth weight babies in Chile, Poland and Hungary which have declined over the same time period. Little change has occurred in Finland, Sweden and Denmark, although Iceland and Norway saw rises.

Figure 1.8.3 shows some correlation between the percentage of low birth weight infants and infant mortality rates, a relationship which is stronger with the inclusion of emerging countries. In general, countries reporting a low proportion of low birth weight infants also report relatively low infant mortality rates. This is the case, for instance, in the Nordic countries. Japan is an exception, since it reports the highest proportion of low birth weight infants but one of the lowest infant mortality rates.

Comparisons of different population groups within countries show that the proportion of low birth weight infants can also be influenced by differences in education, income and associated living conditions. In the United States, marked differences between groups in the proportion of low birth weight infants have been observed, with black infants having a rate almost double that of white infants (NCHS, 2011). 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.

#### **Definition and comparability**

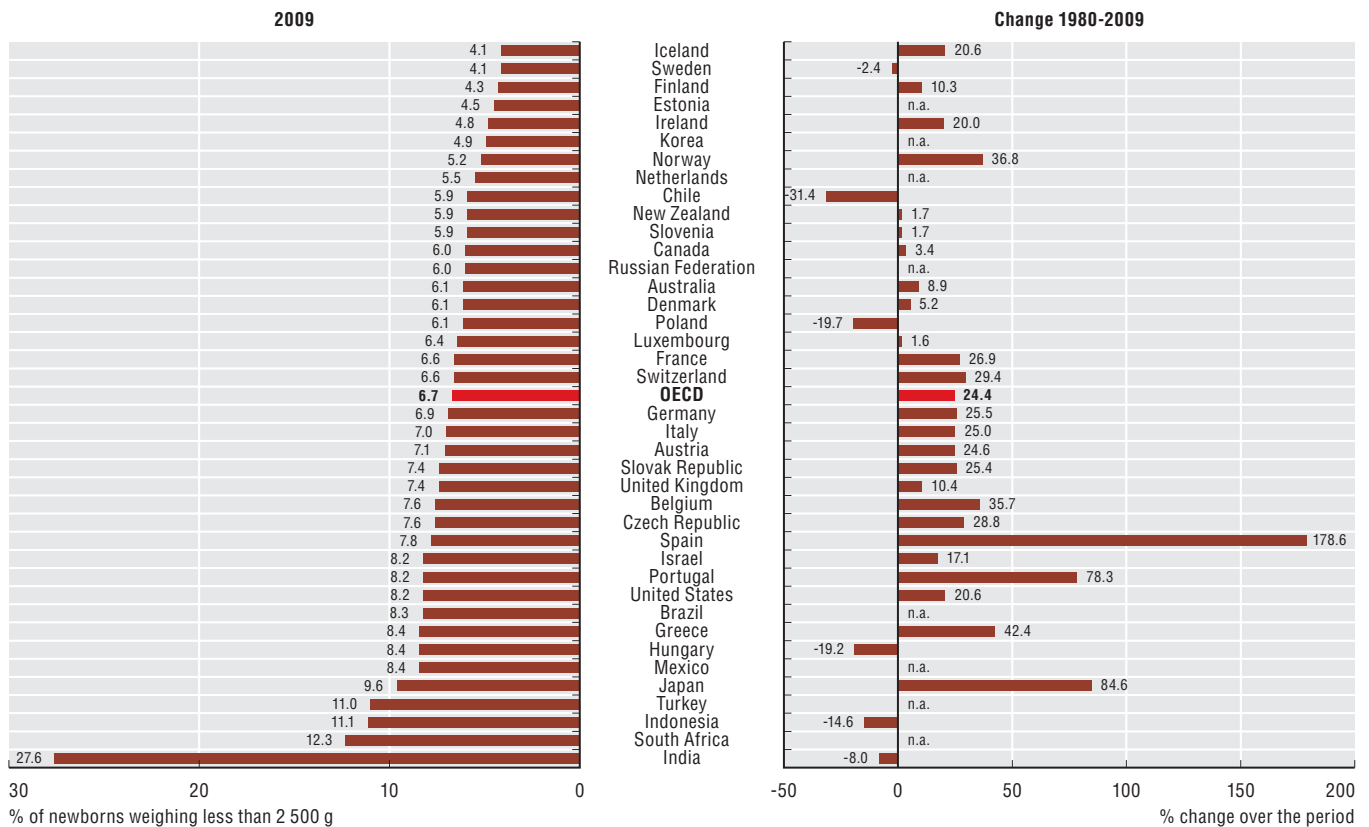
Low birth weight is defined by the World Health Organization (WHO) as the weight of an infant at birth of less than 2 500 grams (5.5 pounds) irrespective of the gestational age of the infant. This is based on epidemiological observations regarding the increased risk of death to the infant and serves for international comparative health statistics. The number of low weight births is then expressed as a percentage of total live births.

The majority of the data comes from birth registers, however for Mexico the source is a national health interview survey. A small number of countries supply data for selected regions or hospital sectors only.

Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

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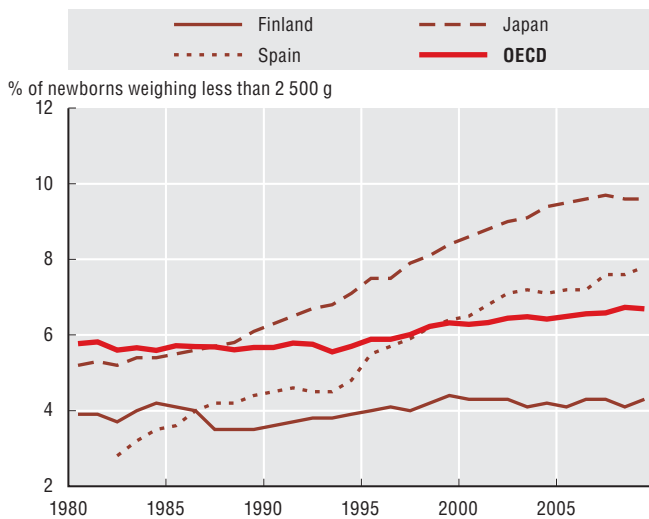
1.8.1 Low birth weight infants, 2009 and change 1980-2009 (or nearest year)



Source: OECD Health Data 2011; World Bank and national sources for non-OECD countries.

StatLink <http://dx.doi.org/10.1787/888932523652>

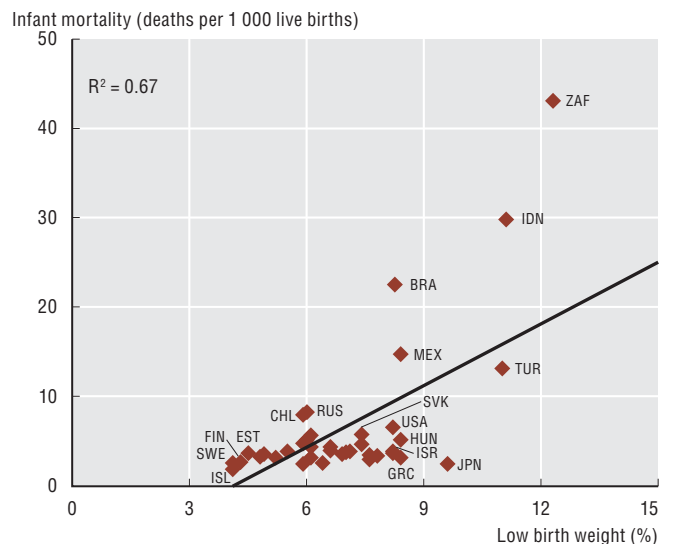
1.8.2 Trends in low birth weight infants, selected OECD countries, 1980-2009



Source: OECD Health Data 2011.

StatLink <http://dx.doi.org/10.1787/888932523671>

1.8.3 Low birth weight and infant mortality, 2009 (or nearest year)



Source: OECD Health Data 2011; World Bank and national sources for non-OECD countries.

StatLink <http://dx.doi.org/10.1787/888932523690>



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