

1. HEALTH STATUS

1.9. Infant health: low birth weight

Low birth weight – defined here 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 being an adolescent mother, having a previous history of low weight births, harmful behaviours such as smoking, excessive alcohol consumption and poor nutrition, a low Body Mass Index, a background of low parental socio-economic status or minority race, as well as having in-vitro fertilisation treatment (IHE, 2008).

In 2007, the Nordic countries – including Iceland, Sweden and Finland – reported the smallest proportions of low weight births, with less than 4.5% of live births defined as low birth weight. Turkey, Japan, Greece, the United States and Hungary are at the other end of the scale, with rates of low birth weight infants above 8% (Figure 1.9.1). These figures compare with an overall OECD average of 6.8%.

Since 1980 the prevalence of low birth weight infants has increased in a number of OECD countries (Figure 1.9.2). 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 older age at childbearing and increases in the use of delivery management techniques such as induction of labour and caesarean delivery.

Japan, Portugal and Spain, historically among a group of countries with a low proportion of low birth weight, have seen great increases in the past 25 years. As a result, the proportion of low birth weight babies in these countries is now above the OECD average (Figure 1.9.3). In the case of Japan, a number of risk factors have been cited as contributing to this increase, including the rising prevalence in smoking among younger women from the 1970s onwards together with a significant move towards later

motherhood (Ohmi et al., 2001). Despite the increase in low birth weight babies, Japanese medical care for newborns has been particularly successful in reducing infant mortality.

Figure 1.9.4 shows some correlation between the percentage of low birth weight infants and infant mortality rates. 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 for the Nordic countries. Japan, however, is an exception, reporting the highest proportion of low birth weight infants but one of the lowest infant mortality rates.

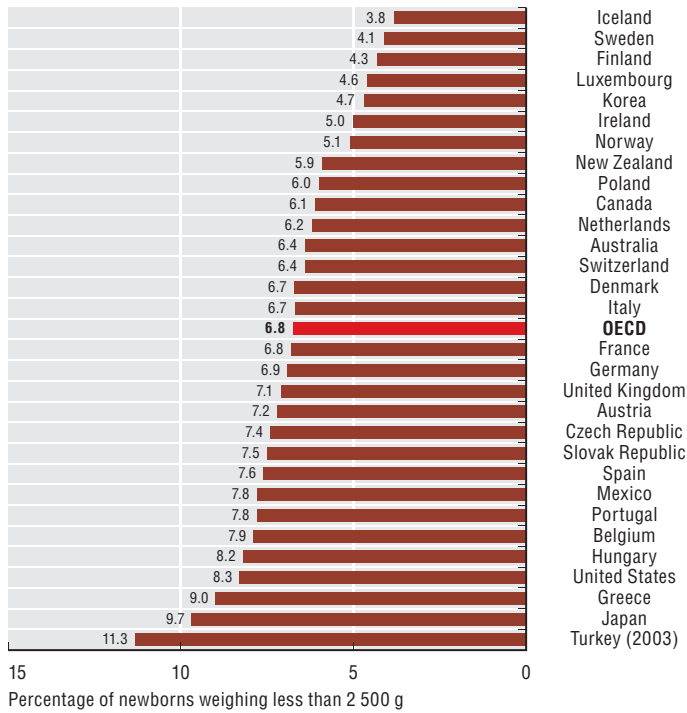
Comparisons of different population groups within countries show that the proportion of low birth weight infants is also influenced by differences in education, income and associated living conditions. In the United States, marked differences between groups in the proportion of low birth weight infants have been observed, with black infants having a rate almost double that of white infants (CDC, 2009a). Similar differences have also been observed among the indigenous and non-indigenous populations in Australia (Laws and Hilder, 2008) and Mexico, reflecting the disadvantaged living conditions of many of these mothers.

Definition and deviations

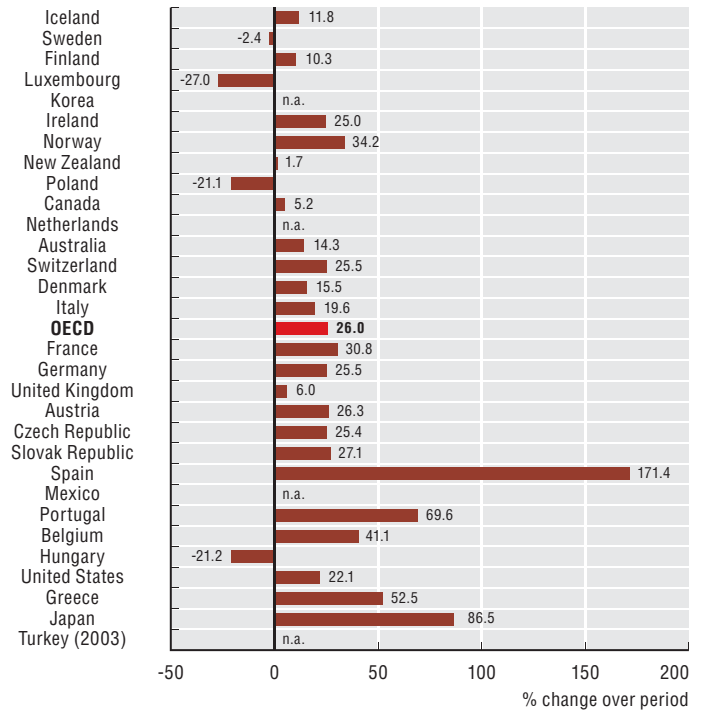
Low birth weight is defined by the World Health Organisation (WHO) as the weight of an infant at birth of less than 2 500 grams (5.5 pounds) irrespective of the gestational age of the infant. This is based on epidemiological observations regarding the increased risk of death to the infant and serves 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.

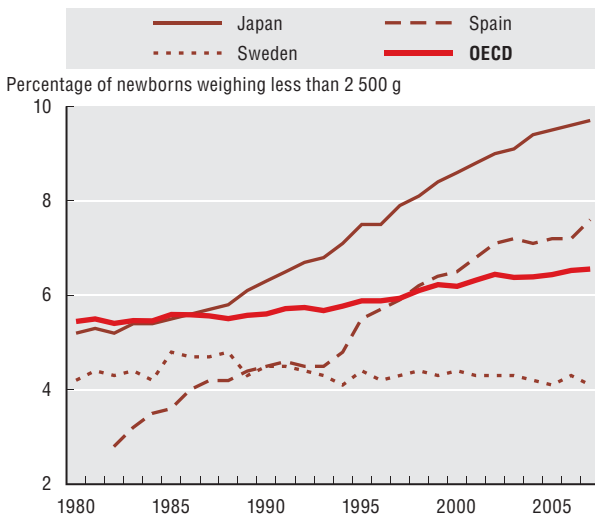
1.9.1 Low birth weight infants, 2007 (or latest year available)



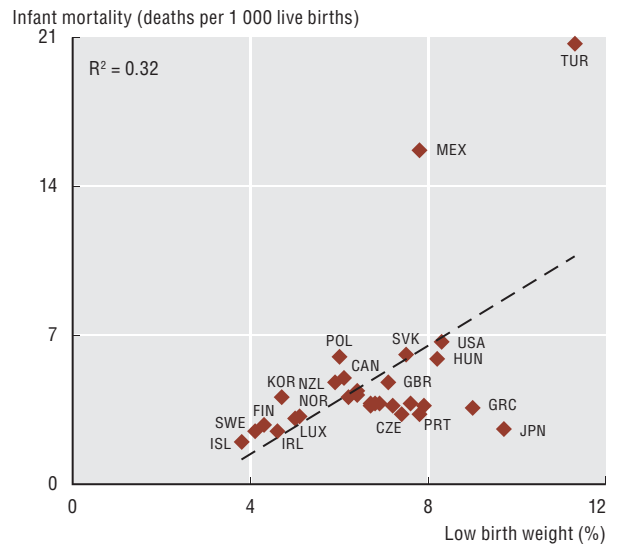
1.9.2 Change in proportion of low birth weight infants, 1980-2007



1.9.3 Trends in low birth weight infants, selected OECD countries, 1980-2007



1.9.4 Low birth weight and infant mortality, 2007 (or latest year available)



Source: OECD Health Data 2009.

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