

Low birth weight – defined as a newborn 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 background of low parental socio-economic status, and having had in-vitro fertilisation treatment.

One-in-fifteen babies born in the European Union in 2010 – or 6.9% of all births – weighed less than 2 500 grams at birth. A north-south gradient is evident for low birth weight in Europe, in that the Nordic countries and Baltic States – including Estonia, Finland, Iceland, Latvia, Lithuania and Sweden – reported the smallest proportions of low weight births, with less than 5.0% of live births so defined. Countries from Southern Europe including Cyprus, Greece, Portugal and Spain, as well as Bulgaria, Hungary, Romania, Turkey and the Former Yugoslav Republic of Macedonia, are at the other end of the scale with rates of low birth weight infants above 7.5%. The proportion of low birth weight among European countries varies by a factor of almost three (Figure 1.9.1).

Since 1980, and more so after 1995, the prevalence of low birth weight infants has increased in most European countries (Figure 1.9.1). 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 birth weight babies.

Greece, Malta, Portugal and Spain have seen great increases in the past three decades (Figure 1.9.2). As a result, the proportion of low birth weight babies in these countries is now above the European average. Low birth

weight proportions in Poland and Hungary have declined over the same time period. Little change occurred in Nordic countries including Denmark, Finland, Iceland and Sweden, although a rise was observed in Norway.

Figure 1.9.3 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. Greece, however, is an exception, reporting a high proportion of low birth weight infants but a low infant mortality rate.

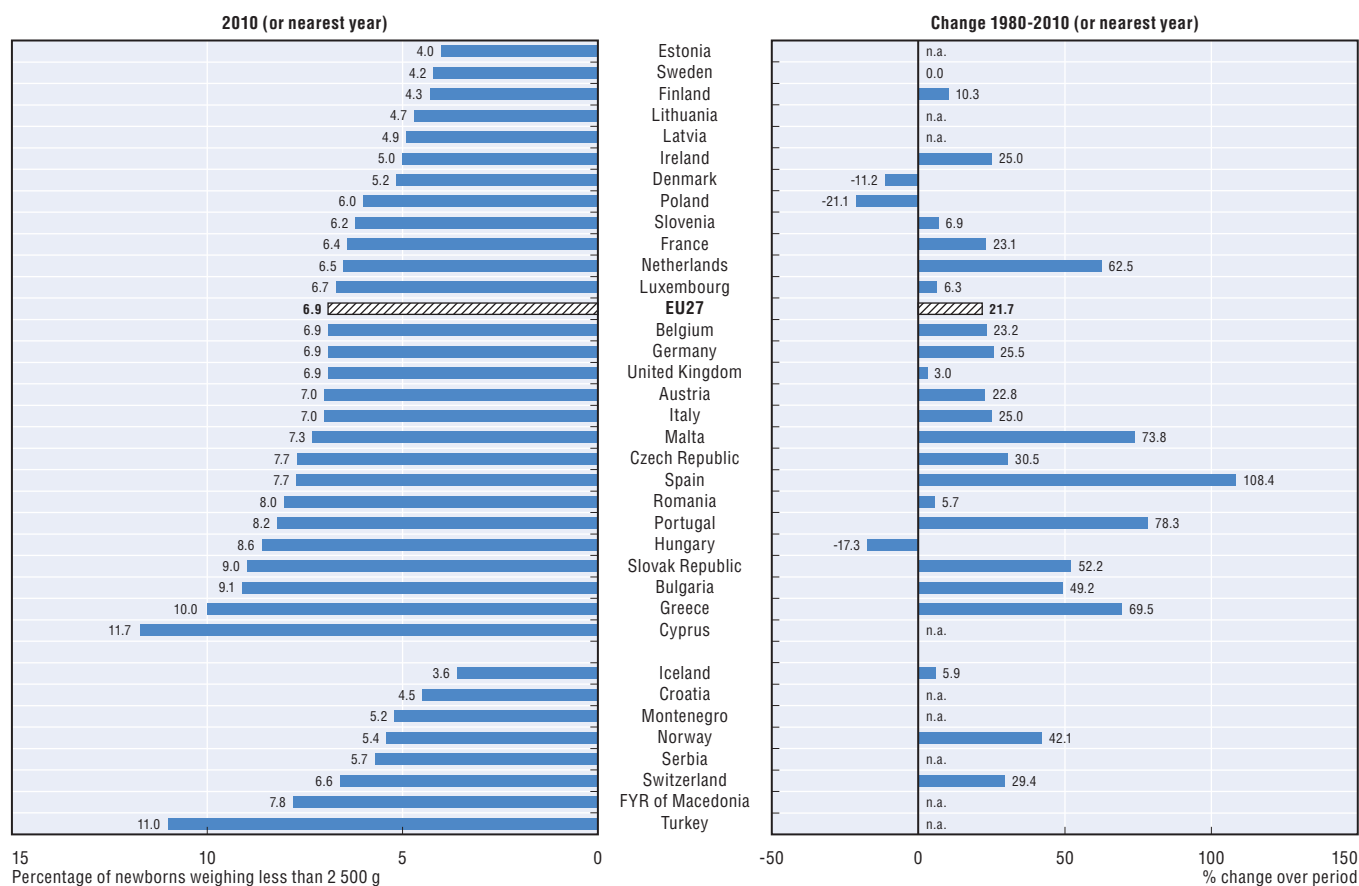
Despite the widespread use of a 2 500 grams limit for low birthweight, physiological variations in size occur among different countries and population groups, and these need to be taken into account when interpreting differences (EURO-PERISTAT, 2008). Some populations may have lower than average birth weights than others because of genetic differences. Comparisons of different population groups within countries show that the proportion of low birth weight infants is also influenced by non-medical factors. In England and Wales, mothers' marital status at birth, being a mother from non-White ethnic group and living in a deprived area were associated with low birth-weight (Bakeo and Clarke, 2006). In Greece, marital status, education, maternal occupation and region of residence were significant factors (Lekea-Karanika *et al.*, 1999).

### 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. A small number of countries supply data for selected regions or from surveys.

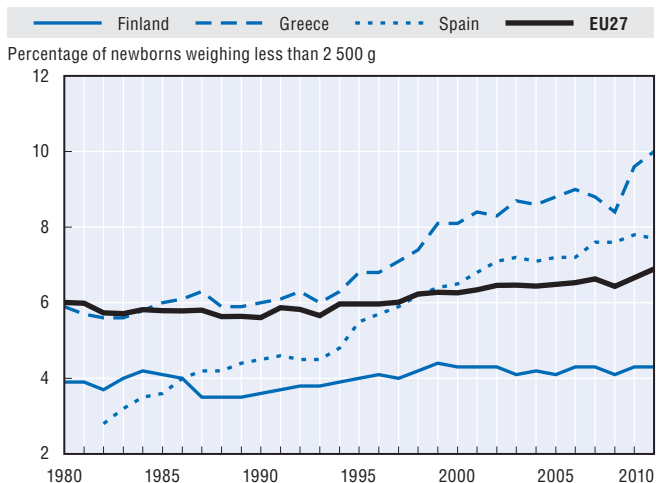
1.9.1. Low birth weight infants, 2010 and change 1980-2010



Source: OECD Health Data 2012; WHO European Health for All Database.

StatLink <http://dx.doi.org/10.1787/888932703354>

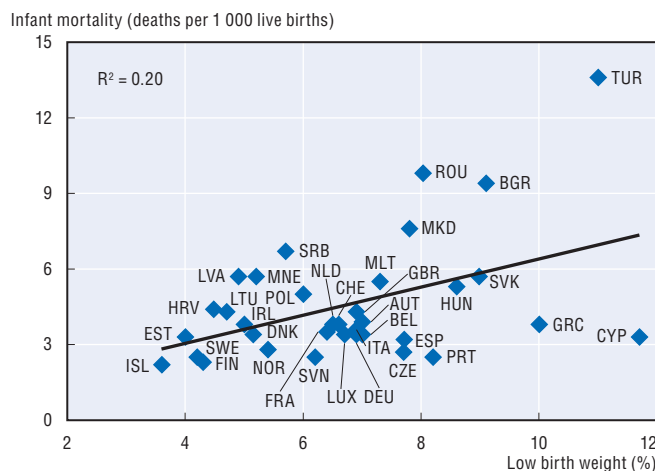
1.9.2. Trends in low birth weight infants, selected European countries, 1980-2010



Source: OECD Health Data 2012; WHO European Health for All Database.

StatLink <http://dx.doi.org/10.1787/888932703373>

1.9.3. Low birth weight and infant mortality, 2010 (or nearest year)



Source: OECD Health Data 2012; WHO European Health for All Database.

StatLink <http://dx.doi.org/10.1787/888932703392>