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). Babies with a birth weight under 1500 grams are termed very low birth weight babies and are at the highest risk.

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.

Around one in 15 babies born in EU countries in 2012 – or 6.8% of all births – weighted less than 2 500 grams at birth (Figure 1.9.1). A north-south gradient is evident for low birth weight in Europe, in that the Nordic and Baltic countries – including Finland, Sweden, Iceland, Norway, Estonia, Latvia and Lithuania – reported the smallest proportions of low weight births, with less than 5% of live births so defined. Countries from southern and eastern Europe including Cyprus, Greece, Hungary, Portugal, Romania and Bulgaria, are at the other end of the scale with rates of low birth weight infants above 8%. The proportion of low birth weight among European countries varies by a factor of almost three.

Since 1980, and particularly after 1995, the prevalence of low birth weight infants has increased in most European countries (Figures 1.9.1 and 1.9.2). Portugal, Malta and Greece have seen particularly large increases over the past three decades. As a result, the proportion of low birth weight babies in these countries is now above the European average. These increases may be due to a number of factors, including a rise in the number of multiple births with increased risks of pre-term births and low birth weight (partly linked to the rise in fertility treatments), older age of mother 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. In Greece, the rise in the proportion of low birth weight babies started well before the crisis, in the mid-1990s, but has reached a peak in recent years. Some researchers have suggested that the marked increase in the number of low birth weight babies since 2008 may be linked to the economic crisis which has resulted in higher unemployment rates and lower family incomes (Kentikelenis, 2014).

By contrast, the proportion of low birth weight babies in Poland and Hungary has declined since 1980, although it remains relatively high and above the EU average in Hungary.

Despite the widespread use of a 2 500 gram limit for low birth weight, physiological variations in size occur among different countries and population groups, and these need to be taken into account when interpreting differences (Euro-Peristat, 2013). 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). A recent study (Pedersen et al., 2013) has also shown that exposure to ambient air pollutants during pregnancy is associated with restricted fetal growth and that a substantial proportion of cases of low birth weight may be prevented in Europe if urban air pollution was reduced (see Indicator 2.6 "Air pollution").

Definition and comparability

Low birth weight is defined by the World Health Organization 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 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.

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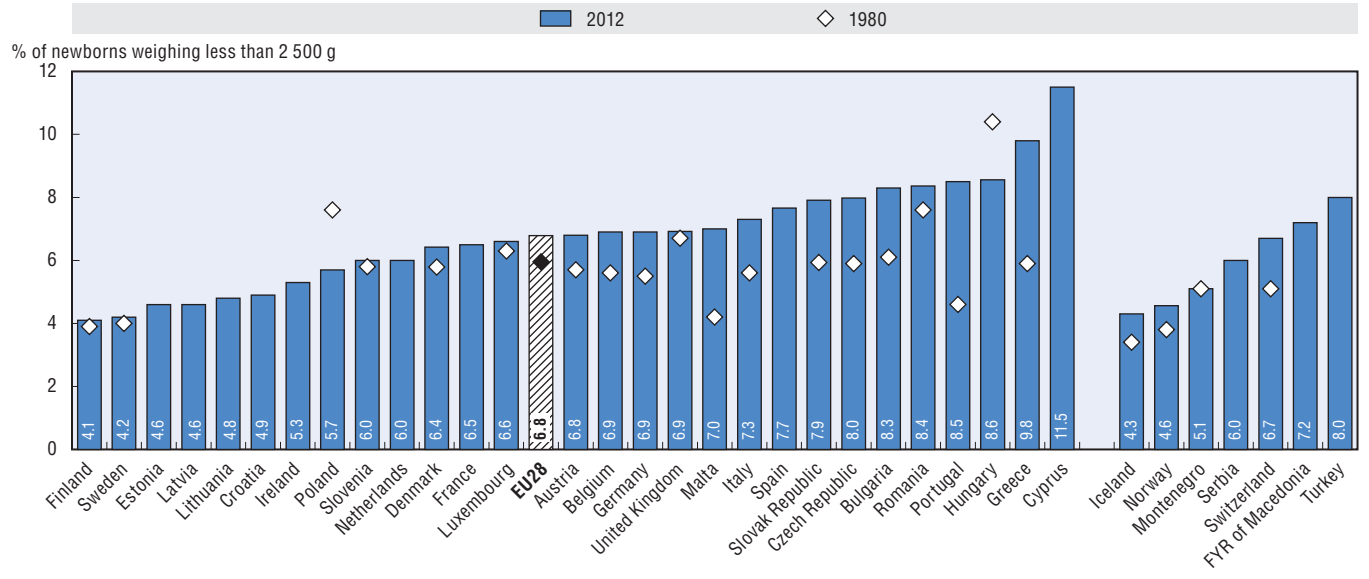
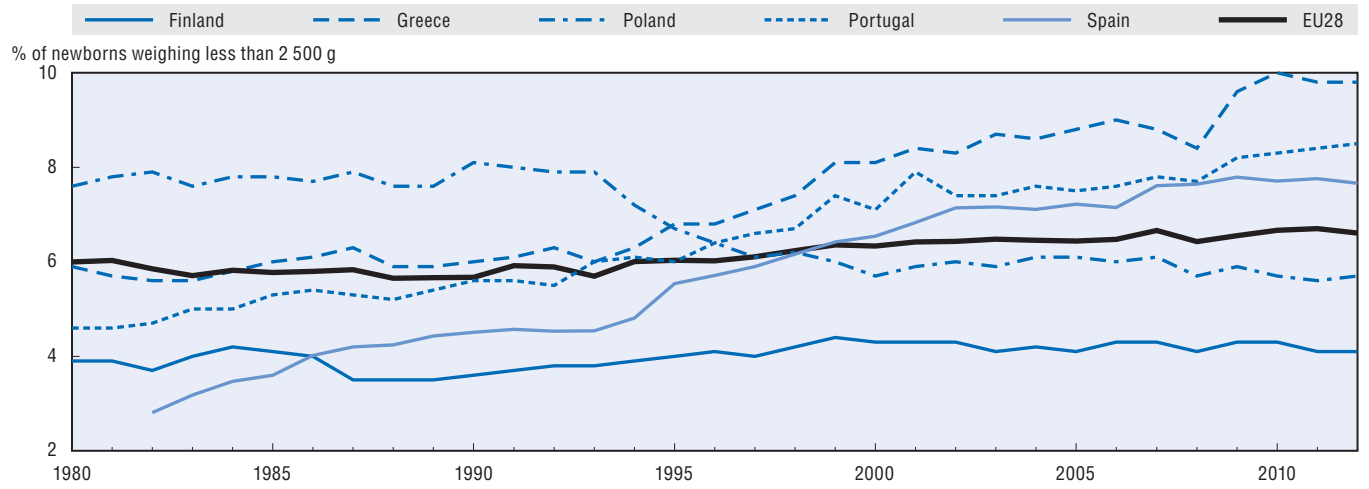
1.9.1. Low birth weight infants, 1980 and 2012



Source: OECD Health Statistics 2014, http://dx.doi.org/10.1787/health-data-en, WHO Europe Health for All Database.

1.9.2. Trends in low birth weight infants, selected European countries, 1980-2012



Source: OECD Health Statistics 2014, http://dx.doi.org/10.1787/health-data-en, WHO Europe Health for All Database.

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