

Infant mortality, the rate at which babies and children of less than one year of age die, reflects the effect of economic and social conditions on the health of mothers and newborns, as well as the effectiveness of health systems.

In most European countries, infant mortality is low and there is little difference in rates (Figure 1.8.1). A small group of countries, however, have infant mortality rates above five deaths per 1 000 live births. In 2010, rates ranged from a low of less than three deaths per 1 000 live births in Nordic countries (with the exception of Denmark), Portugal, Slovenia and the Czech Republic, up to a high of 9.8 and 9.4 in Romania and Bulgaria respectively, and 13.6 in Turkey. Infant mortality rates were also relatively high (more than six deaths per 1 000 live births) in Serbia and the Former Yugoslav Republic of Macedonia. The average across the 27 EU member states in 2010 was 4.2 deaths per 1 000 live births. Infant mortality rates tend to be higher than the EU average in central European countries, with the exceptions of the Czech Republic and Slovenia, both of which have had consistently lower rates.

Around two-thirds of the deaths that occur during the first year of life are neonatal deaths (i.e. during the first four weeks). Birth defects, prematurity and other conditions arising during pregnancy are the principal factors contributing to neonatal mortality in developed countries. With an increasing number of women deferring child-bearing and the rise in multiple births linked with fertility treatments, the number of pre-term births has tended to increase (see Indicator 1.9 “Infant health: Low birth weight”). In a number of higher-income countries, this has contributed to a leveling-off of the downward trend in infant mortality rates over the past few years. For deaths beyond one month (post neonatal mortality), there tends to be a greater range of causes – the most common being SIDS (Sudden Infant Death Syndrome), birth defects, infections and accidents.

All European countries have achieved remarkable progress in reducing infant mortality rates from the levels of 1970, when the average was 25 deaths per 1 000 live births, to the current average of 4.2 (Figure 1.8.1). This equates to a cumulative reduction of over 80% since 1970. Portugal has seen its infant mortality rate reduced by 7.5% per year on average since 1970, moving from the country

with the highest rate in Europe to an infant mortality rate among the lowest in Europe in 2010 (Figure 1.8.2). Large reductions in infant mortality rates have also been observed in Slovenia, Italy, Cyprus and Greece, as well as the Former Yugoslav Republic of Macedonia and Croatia. The reduction in infant mortality rates has been slower in Bulgaria, Latvia and the Netherlands, although rates in the latter two countries were low in 1970. Infant mortality rates in Poland declined rapidly in the early 1990s to approach the EU average.

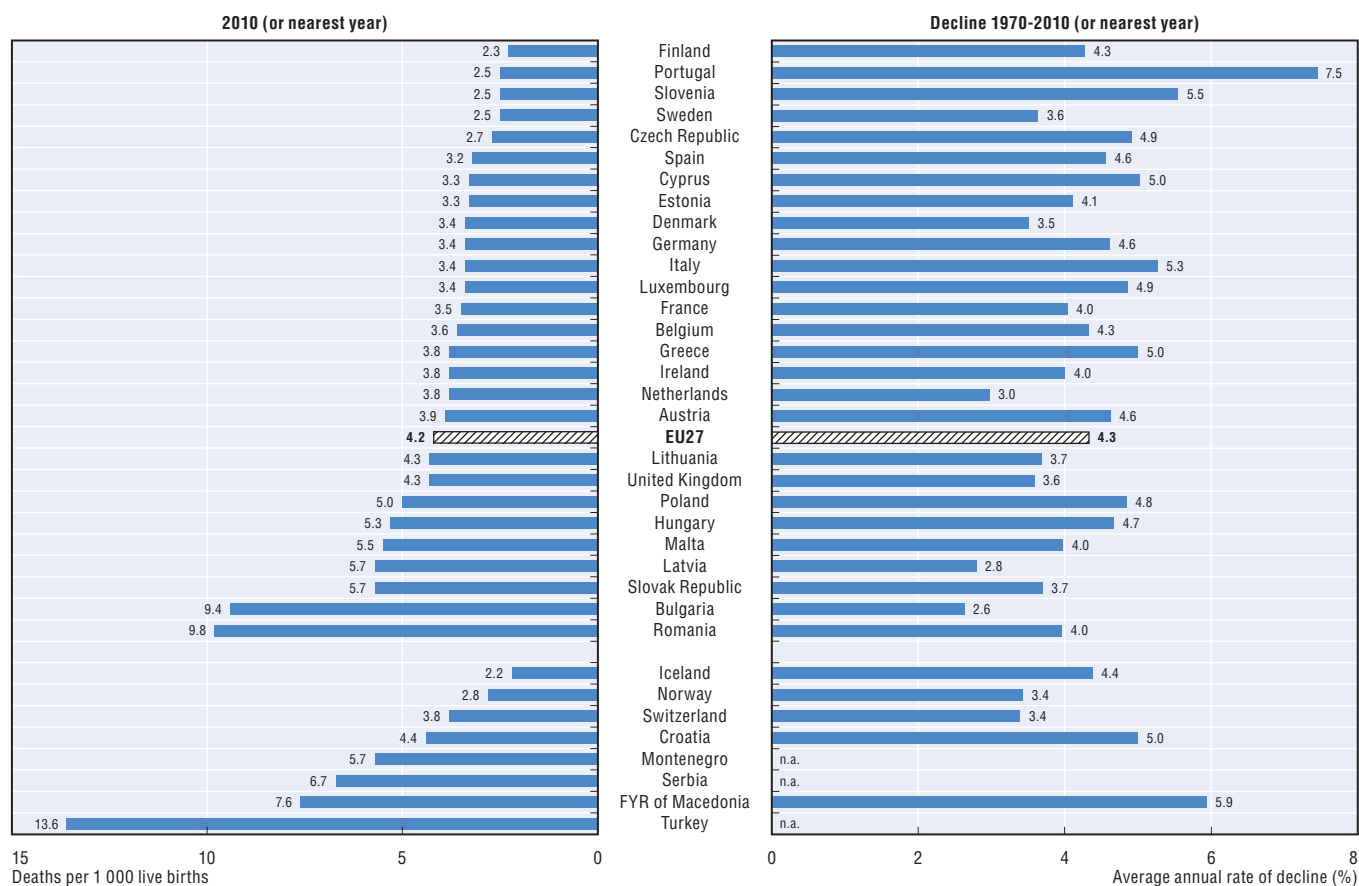
Numerous studies have used infant mortality rates as a health outcome to examine the effect of a variety of medical and non-medical determinants of health (e.g. OECD, 2010a). Although most analyses show an overall negative relationship between infant mortality and health spending, the fact that some countries with a high level of health expenditure do not exhibit low levels of infant mortality suggests that more health spending is not necessarily required to obtain better results (Retzlaff-Roberts *et al.*, 2004). A body of research also suggests that many factors beyond the quality and efficiency of the health system – such as income inequality, the social environment, and individual lifestyles and attitudes – influence infant mortality rates (Schell *et al.*, 2007).

### Definition and comparability

The infant mortality rate is the number of deaths of children under one year of age in a given year, expressed per 1 000 live births. Neonatal mortality refers to the death of children under 28 days.

Some of the international variation in infant and neonatal mortality rates may be due to variations among countries in registering practices of premature infants. Most countries have no gestational age or weight limits for mortality registration. Minimal limits exist for Norway (to be counted as a death following a live birth, the gestational age must exceed 12 weeks) and in the Czech Republic, the Netherlands and Poland a minimum gestational age of 22 weeks and/or a weight threshold of 500 grams is applied.

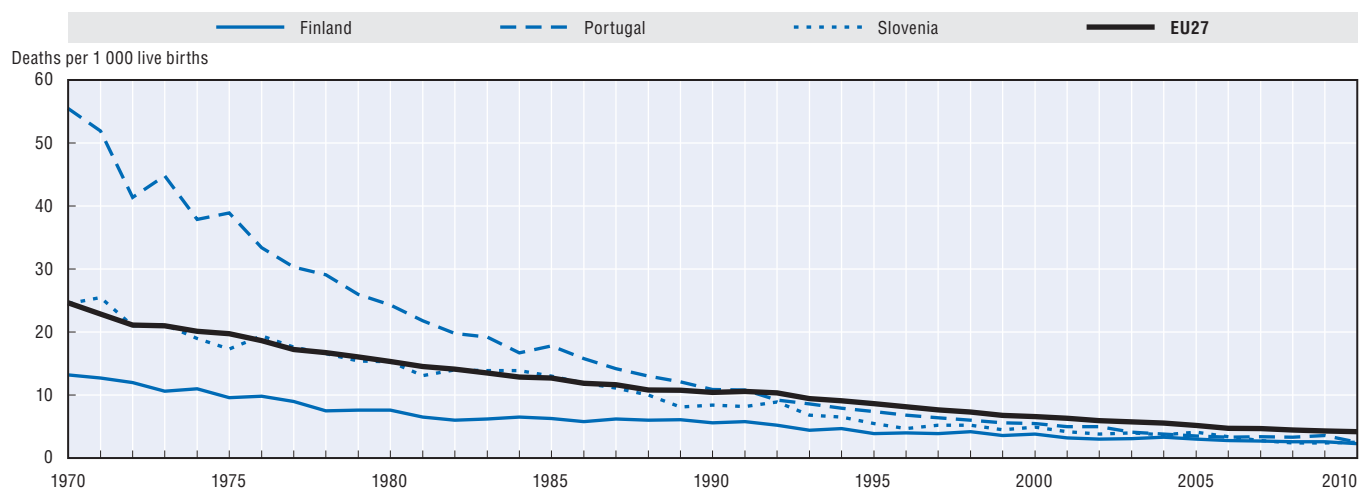
1.8.1. Infant mortality rates, 2010 and decline 1970-2010



Source: Eurostat Statistics Database.

StatLink <http://dx.doi.org/10.1787/888932703316>

1.8.2. Infant mortality rates, selected European countries, 1970-2010



Source: Eurostat Statistics Database.

StatLink <http://dx.doi.org/10.1787/888932703335>