

1. HEALTH STATUS

1.7. Infant mortality

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 OECD countries, infant mortality is low and there is little difference in rates (Figure 1.7.1). A small group of OECD and emerging countries, however, have infant mortality rates above ten deaths per 1 000 live births. In 2009, rates ranged from less than three deaths per 1 000 live births in Nordic countries (Iceland, Sweden, Finland), Japan, Slovenia, Luxembourg and the Czech Republic, up to a high of 13 and 15 in Turkey and Mexico respectively. Infant mortality rates were also relatively high (six or more deaths per 1 000 live births) in the United States and in Chile.

In emerging countries (India, South Africa, Indonesia and Brazil), infant mortality rates are above 20 deaths per 1 000 live births. In India, one-in-twenty children die before their first birthday. The recent UN Commission on Information and Accountability for Women's and Children's Health has called for renewed efforts by emerging countries to accurately measure and monitor maternal and child deaths and the health expenditure committed to improving the health of mothers and babies (UN Commission, 2011).

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 childbearing and a rise in multiple births linked with fertility treatments, the number of pre-term births has tended to increase (see Indicator 1.8 "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 a 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 OECD countries have achieved remarkable progress in reducing infant mortality rates from the levels of 1970, when the average was approaching 30 deaths per 1 000 live births, to the current average of 4.4 (Figure 1.7.2). This equates to a cumulative reduction of 85% since 1970. Portugal has seen its infant mortality rate reduced by nearly 7% per year on average since 1970, moving from the country with the highest rate in Europe to an infant mortality rate which is among the lowest in the OECD in 2009 (Figure 1.7.1). Large reductions in infant mortality rates have also been observed in Korea, Israel and Turkey.

The reduction in infant mortality rates has been slower in the Netherlands and the United States. At one time the infant mortality rates in the United States was well below the OECD average, but it is now above average (Figure 1.7.2). Significant differences are evident among ethnic groups in the United States, with Black or African-American women more likely to give birth to high-risk, low birthweight infants, and with an infant mortality rate more than double that for white women (12.9 *versus* 5.6 in 2006) (NCHS, 2011).

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 (Kiely *et al.*, 1995).

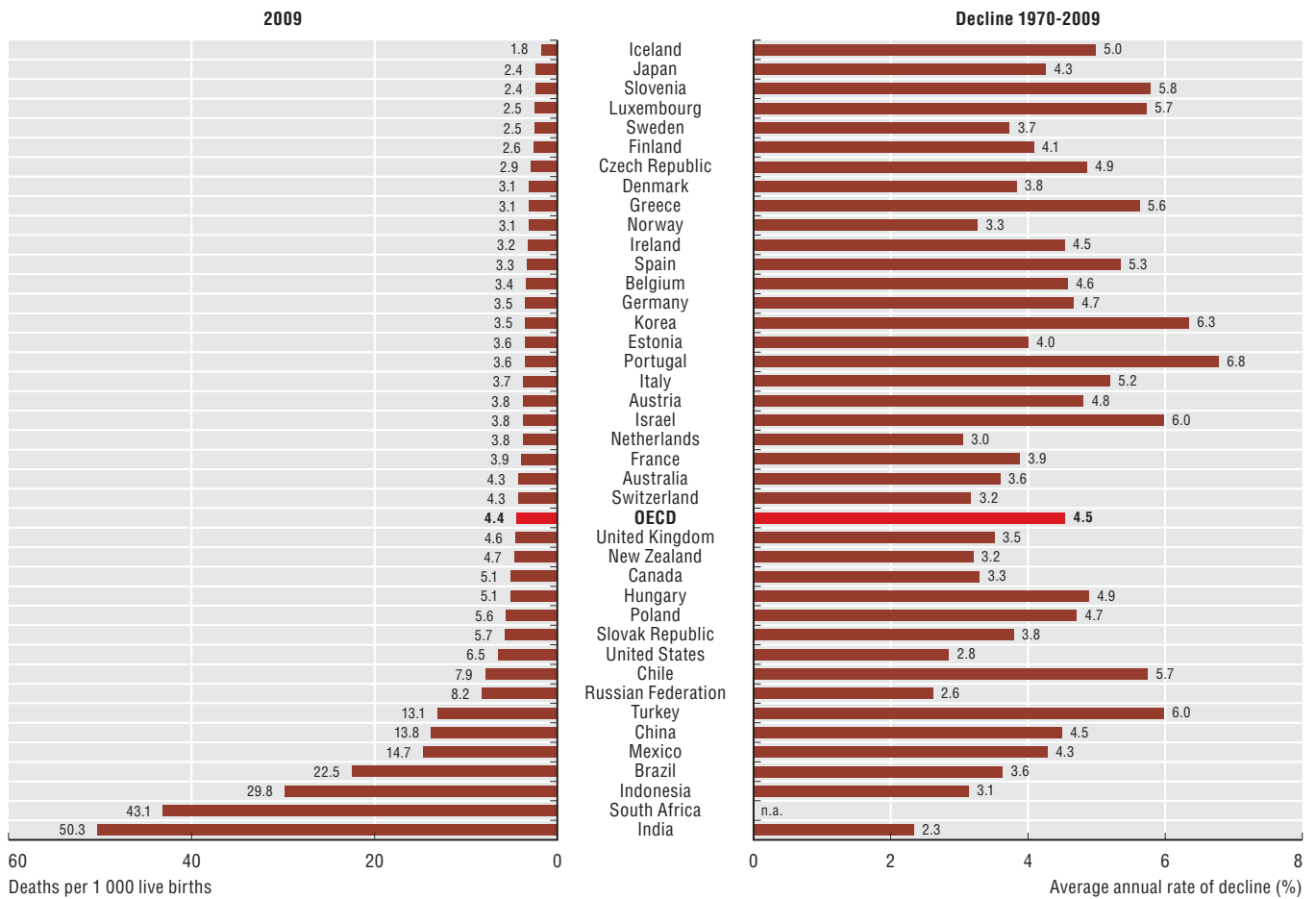
Definition and comparability

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 among live birth infants. 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 500g is applied.

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

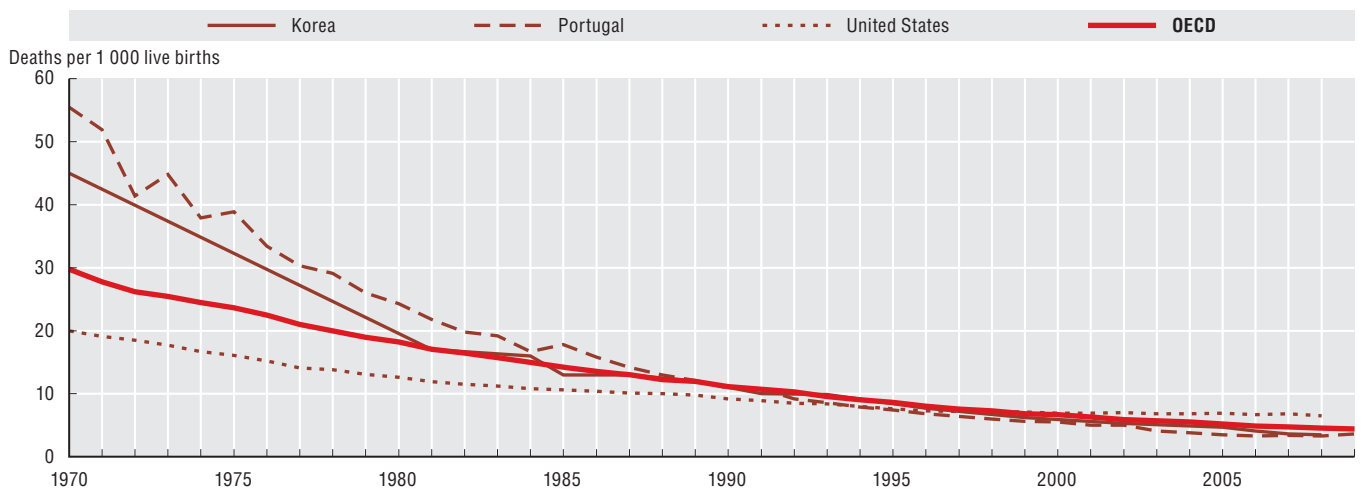
1.7.1 Infant mortality rates, 2009 and decline 1970-2009 (or nearest year)



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

StatLink <http://dx.doi.org/10.1787/888932523614>

1.7.2 Infant mortality rates, selected OECD countries, 1970-2009



Source: OECD Health Data 2011.

StatLink <http://dx.doi.org/10.1787/888932523633>



From:
Health at a Glance 2011
OECD Indicators

Access the complete publication at:
https://doi.org/10.1787/health_glance-2011-en

Please cite this chapter as:

OECD (2011), "Infant mortality", in *Health at a Glance 2011: OECD Indicators*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/health_glance-2011-10-en

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.