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, the social environment, individual lifestyles as well as the characteristics and effectiveness of health systems.

In most OECD countries, infant mortality is low and there is little difference in rates (Figure 1.7.1). In 2011, the average in OECD countries was just over four deaths per 1 000 live births, with rates being the lowest in Nordic countries (Iceland, Sweden, Finland, Norway), Japan and Estonia. A small group of OECD countries still have relatively high rates of infant mortality (Mexico, Turkey and Chile), although in these three countries infant mortality rates have come down rapidly over the past few decades (Figure 1.7.2).

In some large non-member countries (India, South Africa and Indonesia), infant mortality rates remain above 20 deaths per 1 000 live births. In India, nearly one-in-twenty children die before their first birthday, although the rates have fallen sharply over the past few decades. Infant mortality rates have also been reduced greatly in Indonesia.

In OECD countries, 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 levelling-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 just over four. Besides Mexico, Chile and Turkey where the rates have converged rapidly towards the OECD average (Figure 1.7.2), Portugal and Korea have also achieved large reductions in infant mortality rates, moving from countries that were well above the OECD average in 1970 to being well below the OECD average in 2011.

By contrast, in the United States, the reduction in infant mortality has been slower than in most other OECD countries. In 1970, the US rate was well below the OECD average, but it is now well above (Figure 1.7.1). Part of the explanation for the relatively high infant mortality rates in the United States is due to a more complete registration of very premature or low birth weight babies than in other countries (see box on "Definition and comparability"). However, this cannot explain why the post-neonatal mortality rate (deaths after one month) is also greater in the United States than in most other OECD countries. There are large differences in infant mortality rates among racial groups in the United States, with black (or African-American) women more likely to give birth to low birth weight infants, and with an infant mortality rate more than double that for white women (11.6 vs. 5.2 in 2010) (NCHS, 2013).

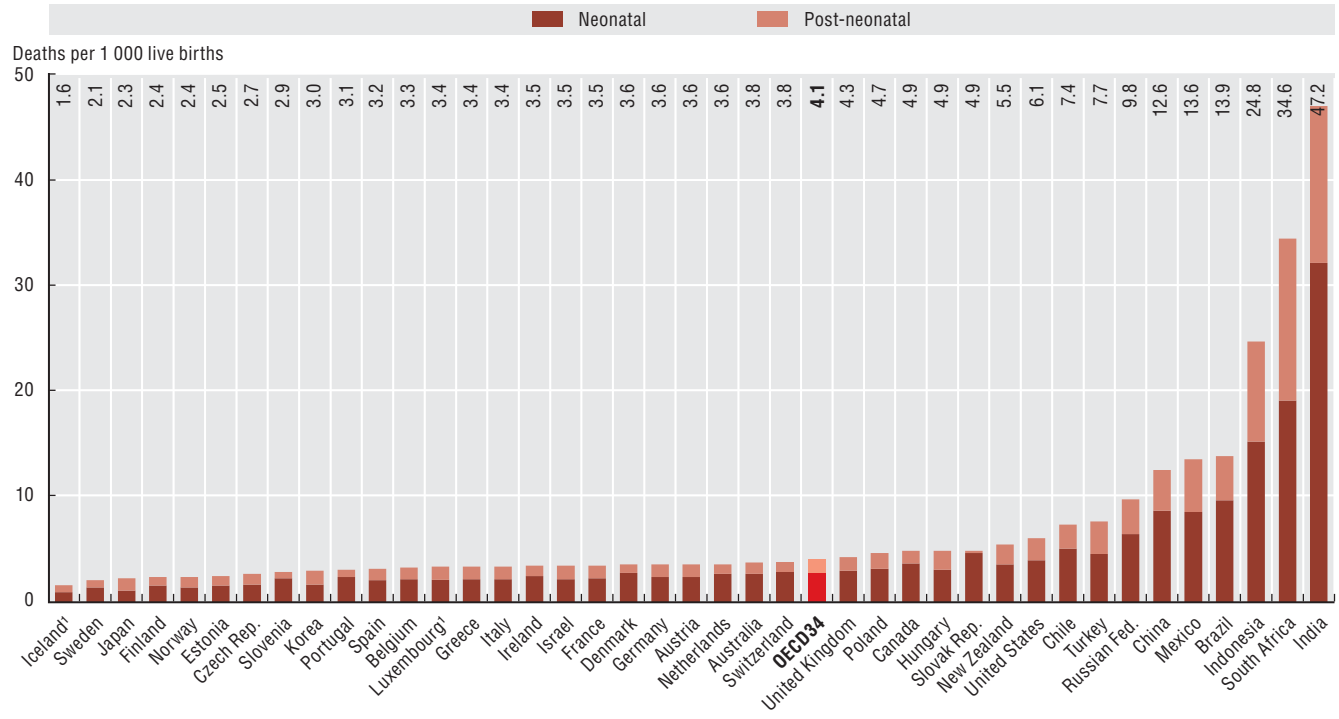
Many studies use infant mortality as a health outcome to examine the effect of a variety of medical and non-medical determinants of health (e.g., OECD, 2010a). Although most analyses show that higher health spending tends to be associated with lower infant mortality, the fact that some countries with 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 socio-economic environment and individual lifestyles, 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, expressed per 1 000 live births. Neonatal mortality refers to the death of children during the first four weeks of life. Post-neonatal mortality refers to deaths occurring between the second and the twelfth months of life.

Some of the international variation in infant and neonatal mortality rates is due to variations among countries in registering practices for premature infants. The United States and Canada are two countries which register a much higher proportion of babies weighing less than 500 g, with low odds of survival, resulting in higher reported infant mortality (Joseph et al., 2012). In Europe, several countries apply a minimum gestational age of 22 weeks (or a birth weight threshold of 500g) for babies to be registered as live births (Euro-Peristat, 2013).

1.7.1. Infant mortality rates, 2011 (or nearest year)

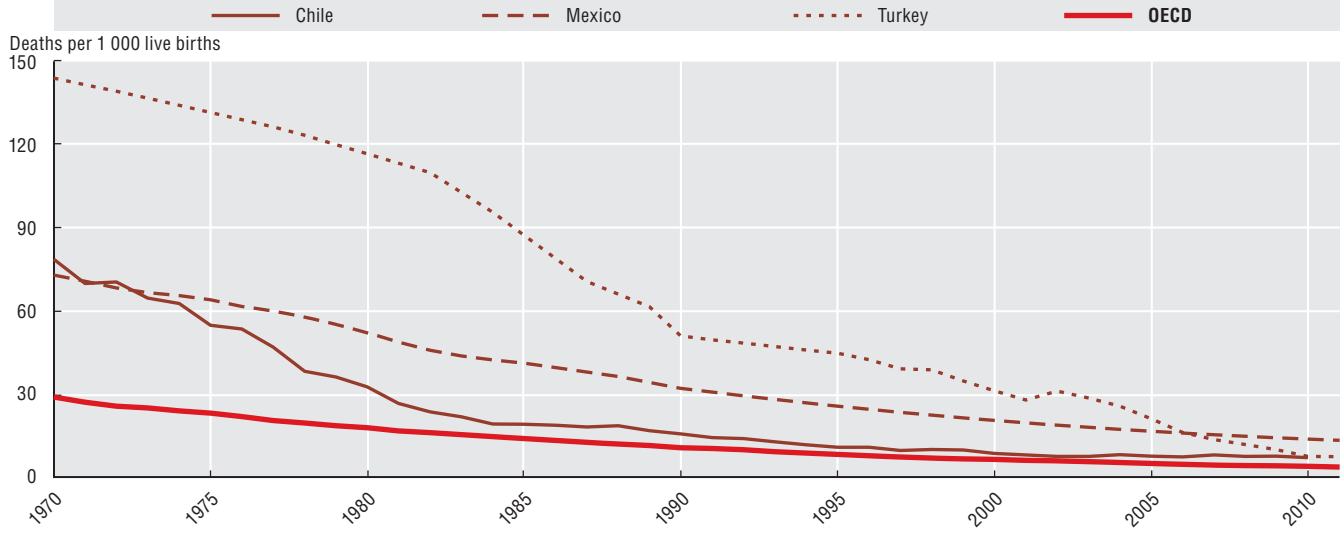


1. Three-year average (2009-11).

Source: OECD Health Statistics 2013, http://dx.doi.org/10.1787/health-data-en; World Bank for non-OECD countries.

StatLink http://dx.doi.org/10.1787/888932916249

1.7.2. Infant mortality rates, selected OECD countries, 1970-2011



Source: OECD Health Statistics 2013, http://dx.doi.org/10.1787/health-data-en.

StatLink http://dx.doi.org/10.1787/888932916268

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