

## INFANT MORTALITY

Numerous studies have taken infant mortality rates as a health outcome to examine the effect of a variety of medical and non-medical determinants of health. The infant mortality rate, the rate at which babies 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. The fact that some countries with a high level of health expenditure do not necessarily exhibit low levels of infant mortality has led to the conclusion that more health spending is not necessarily required to obtain better results. A body of research suggests that many factors beyond the quality and efficiency of the health system, such as income inequality, social environment, and individual lifestyles and attitudes, influence infant mortality rates.

### Definition

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 under 28 days.

### Long-term trends

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. The OECD average in 2006 stood at 5.2 deaths per 1 000 live births, which equates to a reduction of over 80% since 1970. Portugal has seen its infant mortality rate reduced by over 90% since 1970, moving from the country with the highest rate in Europe to one with an infant mortality rate among the lowest in the OECD in 2006. Large reductions in infant mortality rates have also been observed in Korea. On the other hand, the reduction in infant mortality rates has been slower in the United States.

Around two-thirds of the deaths that occur during the first year of life are neonatal deaths (i.e. during the first four weeks). Congenital malformations, 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 the rise in multiple births linked with fertility treatments, the number of pre-term births has tended to increase. 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.

### Comparability

Some of the international variation in infant and neonatal mortality rates may be due to variations among countries in registering practices of premature infants (whether they are reported as live births or fetal deaths). In several countries, such as in the United States, Canada, Japan and the Nordic countries, very premature babies with relatively low odds of survival are registered as live births, which increases mortality rates compared with other countries that do not register them as live births.

### Source

- OECD (2008), *OECD Health Data 2008*, OECD, Paris.

### Further information

#### Analytical publications

- OECD (2004), *The OECD Health Project: Towards High-Performing Health Systems*, OECD, Paris.
- OECD (2004), *The OECD Health Project: Towards High-Performing Health Systems – Policy Studies*, OECD, Paris.
- OECD (2008), *OECD Health Policy Studies: The Looming Crisis in the Health Workforce: How Can OECD Countries Respond?*, OECD, Paris.

#### Statistical publications

- OECD (2006), *Economic Valuation of Environmental Health Risks to Children*, OECD, Paris.
- OECD (2007), *Health at a Glance 2007: OECD Indicators*, OECD, Paris.

#### Online databases

- OECD Health Data.

#### Websites

- OECD Health Data, [www.oecd.org/health/healthdata](http://www.oecd.org/health/healthdata).



### Infant mortality

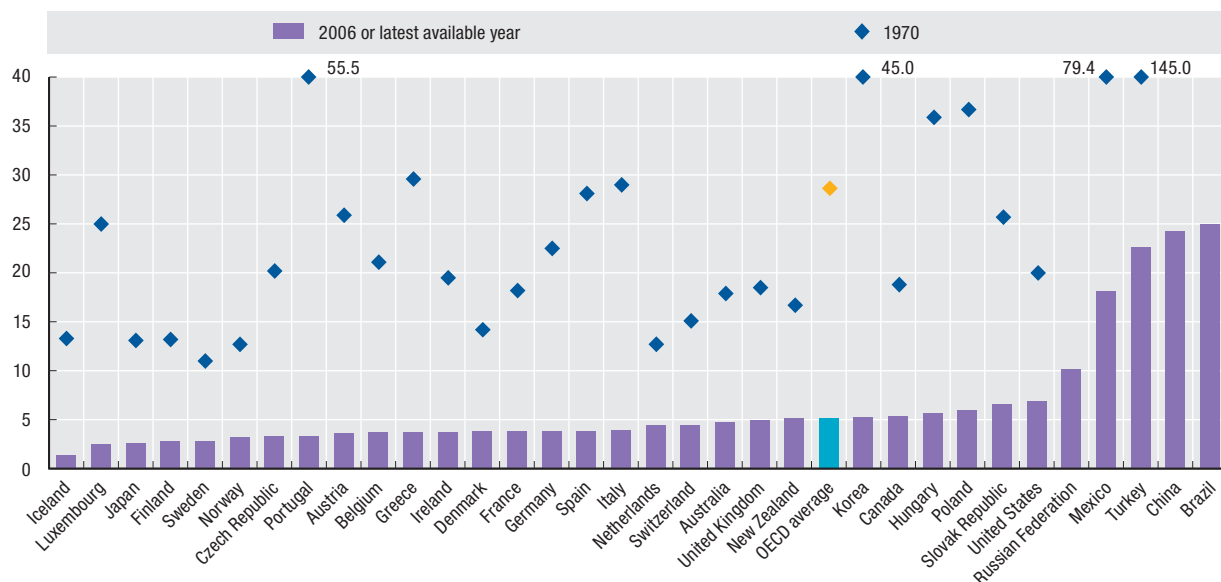
Deaths per 1 000 live births

	1970	1980	1990	1995	2000	2001	2002	2003	2004	2005	2006
Australia	17.9	10.7	8.2	5.7	5.2	5.3	5.0	4.8	4.7	5.0	4.7
Austria	25.9	14.3	7.8	5.4	4.8	4.8	4.1	4.5	4.5	4.2	3.6
Belgium	21.1	12.1	6.5	5.9	4.8	4.5	4.4	4.3	4.3	3.7	..
Canada	18.8	10.4	6.8	6.1	5.3	5.2	5.4	5.3	5.3	5.4	..
Czech Republic	20.2	16.9	10.8	7.7	4.1	4.0	4.1	3.9	3.7	3.4	3.3
Denmark	14.2	8.4	7.5	5.1	5.3	4.9	4.4	4.4	4.4	4.4	3.8
Finland	13.2	7.6	5.6	3.9	3.8	3.2	3.0	3.1	3.3	3.0	2.8
France	18.2	10.0	7.3	4.9	4.5	4.6	4.2	4.2	4.0	3.8	3.8
Germany	22.5	12.4	7.0	5.3	4.4	4.3	4.2	4.2	4.1	3.9	3.8
Greece	29.6	17.9	9.7	8.1	5.4	5.1	5.1	4.0	4.1	3.8	3.7
Hungary	35.9	23.2	14.8	10.7	9.2	8.1	7.2	7.3	6.6	6.2	5.7
Iceland	13.3	7.8	5.8	6.0	3.0	2.7	2.3	2.4	2.8	2.3	1.4
Ireland	19.5	11.1	8.2	6.4	6.2	5.7	5.0	5.3	4.6	4.0	3.7
Italy	29.0	14.6	8.2	6.2	4.5	4.6	4.3	3.9	3.9	..	..
Japan	13.1	7.5	4.6	4.3	3.2	3.1	3.0	3.0	2.8	2.8	2.6
Korea	45.0	17.0	10.0	7.7	6.2	..	5.3	..	..	..	..
Luxembourg	25.0	11.4	7.3	5.5	5.1	5.9	5.1	4.9	3.9	2.6	2.5
Mexico	79.4	51.0	36.2	27.6	23.3	22.4	21.4	20.5	19.7	18.8	18.1
Netherlands	12.7	8.6	7.1	5.5	5.1	5.4	5.0	4.8	4.4	4.9	4.4
New Zealand	16.7	13.0	8.4	6.7	6.3	5.6	6.2	5.4	5.9	5.0	5.2
Norway	12.7	8.1	6.9	4.0	3.8	3.9	3.5	3.4	3.2	3.1	3.2
Poland	36.7	25.5	19.3	13.6	8.1	7.7	7.5	7.0	6.8	6.4	6.0
Portugal	55.5	24.2	11.0	7.5	5.5	5.0	5.0	4.1	3.8	3.5	3.3
Slovak Republic	25.7	20.9	12.0	11.0	8.6	6.2	7.6	7.9	6.8	7.2	6.6
Spain	28.1	12.3	7.6	5.5	4.4	4.1	4.1	3.9	4.0	3.8	3.8
Sweden	11.0	6.9	6.0	4.1	3.4	3.7	3.3	3.1	3.1	2.4	2.8
Switzerland	15.1	9.1	6.8	5.0	4.9	5.0	5.0	4.3	4.2	4.2	4.4
Turkey	145.0	117.5	55.4	43.0	28.9	27.8	26.7	28.7	24.6	23.6	22.6
United Kingdom	18.5	12.1	7.9	6.2	5.6	5.5	5.2	5.2	5.1	5.1	5.0
United States	20.0	12.6	9.2	7.6	6.9	6.8	7.0	6.9	6.8	6.9	..
OECD average	28.1	17.9	11.0	8.4	6.7	6.4	6.1	6.0	5.7	5.4	5.2
Brazil	..	69.1	47.0	37.9	30.1	29.2	28.4	27.5	26.6	25.8	25.0
China	..	..	32.9	..	28.4	..	..	..	..	24.3	..
Russian Federation	..	22.1	17.4	18.1	15.3	14.6	13.3	12.4	11.6	11.0	10.2

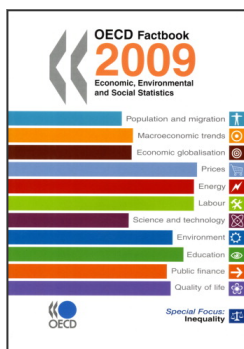
StatLink <http://dx.doi.org/10.1787/544372178375>

### Infant mortality

Deaths per 1 000 live births



StatLink <http://dx.doi.org/10.1787/538513502878>



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