INFANT MORTALITY

Infant mortality reflects the effect of economic and social conditions of mothers and newborns, the social environment, individual lifestyles as well as the characteristics of health systems. Some countries have low levels of infant mortality and also low levels of health expenditure, suggesting that higher spending is not necessarily a precondition to improve outcomes in this area.

Definition

The infant mortality rate is the number of deaths of children under one year of age in a year, 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.

Comparability

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

Overview

In most OECD countries, infant mortality is low and there is little difference in rates. A small group of OECD and emerging countries, however, have infant mortality rates above 10 deaths per 1 000 live births. In 2009, rates among OECD countries 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. The average across all OECD countries was 4.4 in 2009.

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 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 levellingoff 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. 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 among the lowest in the OECD in 2009. Large reductions in infant mortality rates have also been observed in Korea, Israel and Turkey. On the other hand, the reduction in infant mortality rates has been slower in the Netherlands and the United States. The infant mortality rates in the United States used to be well below the OECD average, but it is now above average.

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HEALTH • HEALTH STATUS

INFANT MORTALITY

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Infant mortality

Deaths per 1 000 live births

	1970	1980	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Australia	17.9	10.7	8.2	5.7	5.2	5.3	5.0	4.8	4.7	5.0	4.7	4.2	4.1	4.3
Austria	25.9	14.3	7.8	5.4	4.8	4.8	4.1	4.5	4.5	4.2	3.6	3.7	3.7	3.8
Belgium	21.1	12.1	8.0	6.0	4.8	4.5	4.4	4.1	3.9	3.7	4.0	3.9	3.7	3.4
Canada	18.8	10.4	6.8	6.1	5.3	5.2	5.4	5.3	5.3	5.4	5.0	5.1		
Chile	79.3	33.0	16.0	11.1	8.9	8.3	7.8	7.8	8.4	7.9	7.6	8.3	7.8	7.9
Czech Republic	20.2	16.9	10.8	7.7	4.1	4.0	4.1	3.9	3.7	3.4	3.3	3.1	2.8	2.9
Denmark	14.2	8.4	7.5	5.1	5.3	4.9	4.4	4.4	4.4	4.4	3.5	4.0	4.0	3.1
Estonia	17.7	17.1	12.3	14.9	8.4	8.8	5.7	7.0	6.4	5.4	4.4	5.0	5.0	3.6
Finland	13.2	7.6	5.6	3.9	3.8	3.2	3.0	3.1	3.3	3.0	2.8	2.7	2.6	2.6
France	18.2	10.0	7.3	5.0	4.5	4.6	4.2	4.2	4.0	3.8	3.8	3.8	3.8	3.9
Germany	22.5	12.4	7.0	5.3	4.4	4.3	4.2	4.2	4.1	3.9	3.8	3.9	3.5	3.5
Greece	29.6	17.9	9.7	8.1	5.9	5.1	5.1	4.0	4.1	3.8	3.7	3.5	2.7	3.1
Hungary	35.9	23.2	14.8	10.7	9.2	8.1	7.2	7.3	6.6	6.2	5.7	5.9	5.6	5.1
Iceland	13.2	7.7	5.9	6.1	3.0	2.7	2.2	2.4	2.8	2.3	1.4	2.0	2.5	1.8
Ireland	19.5	11.1	8.2	6.4	6.2	5.7	5.1	5.1	4.8	4.0	3.6	3.1	3.8	3.2
Israel		15.6	9.9	6.8	5.5	5.1	5.4	4.9	4.6	4.4	4.0	3.9	3.8	3.8
Italy	29.6	14.6	8.1	6.1	4.3	4.4	4.1	3.9	3.9	3.8	3.6	3.5	3.3	3.7
Japan	13.1	7.5	4.6	4.3	3.2	3.1	3.0	3.0	2.8	2.8	2.6	2.6	2.6	2.4
Korea	45.0	17.0	10.0	7.7	6.2		5.3			4.7	4.1	3.6	3.5	
Luxembourg	24.9	11.5	7.3	5.5	5.1	5.9	5.1	4.9	3.9	2.6	2.5	1.8	1.8	2.5
Mexico	80.9	52.6	39.2	27.7	19.4	18.3	18.1	17.3	17.6	16.8	16.2	15.7	15.2	14.7
Netherlands	12.7	8.6	7.1	5.5	5.1	5.4	5.0	4.8	4.4	4.9	4.4	4.1	3.8	3.8
New Zealand	16.7	13.0	8.4	6.7	6.3	5.6	6.2	5.4	5.9	5.0	5.1	4.8	5.0	4.7
Norway	11.3	8.1	6.9	4.0	3.8	3.9	3.5	3.3	3.2	3.1	3.2	3.1	2.7	3.1
Poland	36.7	25.5	19.3	13.6	8.1	7.7	7.5	7.0	6.8	6.4	6.0	6.0	5.6	5.6
Portugal	55.5	24.3	10.9	7.4	5.5	5.0	5.0	4.1	3.8	3.5	3.3	3.4	3.3	3.6
Slovak Republic	25.7	20.9	12.0	11.0	8.6	6.2	7.6	7.9	6.8	7.2	6.6	6.1	5.9	5.7
Slovenia	24.5	15.3	8.4	5.5	4.9	4.2	3.8	4.0	3.7	4.1	3.4	2.8	2.4	2.4
Spain	28.1	12.3	7.6	5.5	4.4	4.1	4.1	3.9	4.0	3.8	3.5	3.5	3.3	3.3
Sweden	11.0	6.9	6.0	4.1	3.4	3.7	3.3	3.1	3.1	2.4	2.8	2.5	2.5	2.5
Switzerland	15.1	9.1	6.8	5.1	4.9	5.0	4.5	4.3	4.2	4.2	4.4	3.9	4.0	4.3
Turkey	145.0	117.5	51.5	45.2	31.6	28.3	25.4	22.8	20.5	18.4	16.9	15.9	14.9	13.1
United Kingdom	18.5	12.1	7.9	6.2	5.6	5.5	5.2	5.2	5.1	5.1	5.0	4.8	4.7	4.6
United States	20.0	12.6	9.2	7.6	6.9	6.9	7.0	6.8	6.8	6.9	6.7	6.8	6.5	
OECD average	29.3	18.2	9.9	8.6	6.7	6.3	5.9	5.7	5.5	5.2	4.9	4.7	4.6	4.4
Brazil	95.2	72.0	46.0	36.1	28.2					21.5	20.4	19.3	18.3	17.3
China	82.8	46.1	36.8	36.4	32.2					21.5			14.9	13.8
India	126.2	103.2	83.8	77.0	67.6	66.0	64.0			57.2	55.4	53.6	51.9	50.3
Indonesia	103.0	78.1	56.4	45.6	39.5					33.7	32.6	31.7	30.7	29.8
Russian Federation	23.0	22.1	17.3	18.1	15.4	14.6	13.4	12.6	11.8	11.0	10.2	9.4	8.5	8.2
South Africa		68.1	47.8	48.2	54.3					52.4	48.9	46.9	44.7	43.1

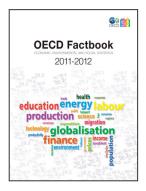
StatLink and http://dx.doi.org/10.1787/888932507787

Infant mortality

Deaths per 1 000 live births



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