

Goal 4: Reduce Child Mortality

In most economies, a child has a very good chance of reaching the **fifth birthday** if he or she survives the first year of life. In over 40% of the economies with available data, **child deaths** are 30 or less per 1,000 live births. The People's Republic of China is in this group but the other four most populous countries all have higher rates. **Measles immunization rates** are generally rising in the region. In 2000, only 12 economies had measles vaccination percentages of 95% or better, but by 2007 the number had risen to 17. Immunization against measles in the first year of life can be particularly effective in reducing **child mortality**.

Introduction

The target is to reduce *by two-thirds, between 1990 and 2015, the under-five mortality rate.*

Two related indicators are considered here:

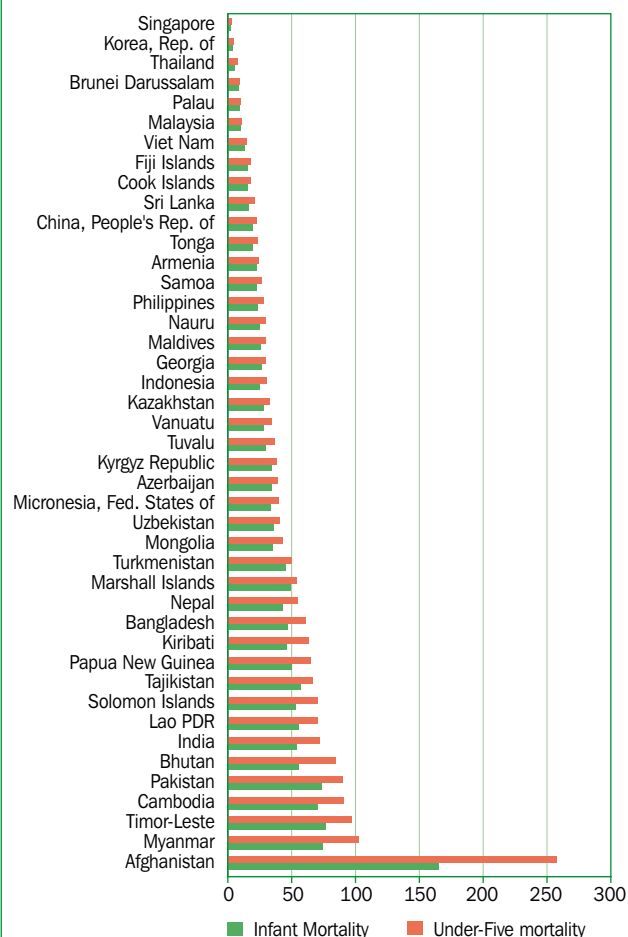
- (i) Deaths per thousand live births of children under 1 year old (referred to as the *infant mortality rate*).
- (ii) Percentage of 1-year-old children who have been immunized against measles.

Immunization against measles has a direct impact on child mortality, and the percentage of 1-year-olds who have been immunized is also a good indicator of the quality of the child health care system.

Key Trends

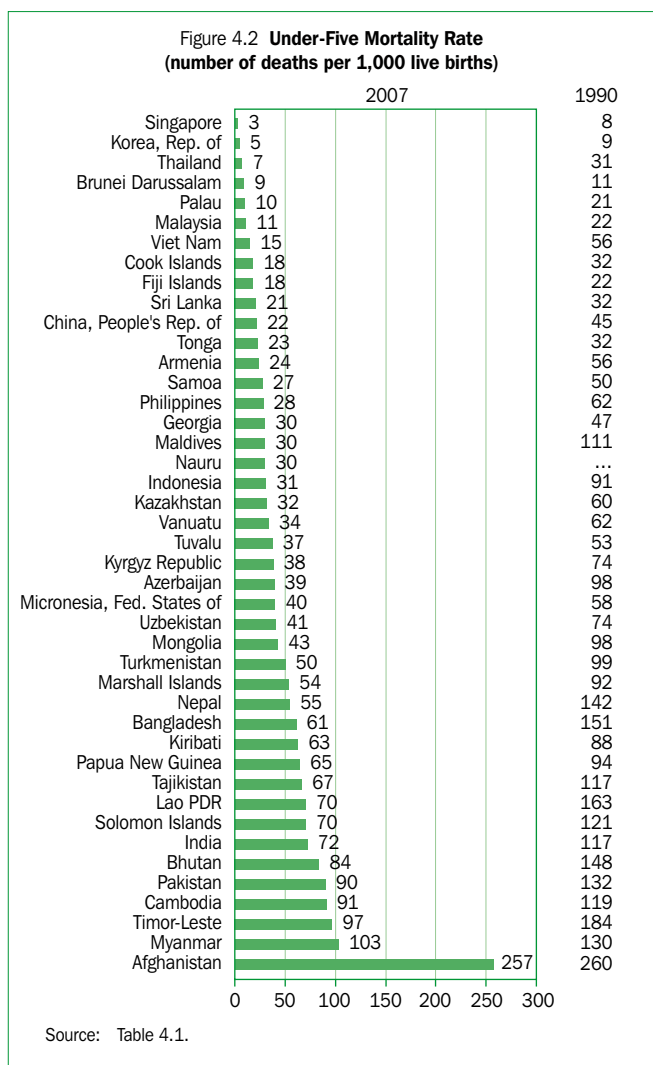
Most deaths of young children happen in their first year. Figure 4.1 shows the number of deaths per 1,000 live births of children under 5 years old and of children under 1 year. In most cases the red bars, which are the under-five mortality rates, are only slightly longer than the blue bars showing mortality rates for 1-year olds. This illustrates the important point that the first year of life is especially hazardous. Once a child has survived this first year, the chances of attaining the age of five are very good in most countries. That is why post-natal care, advice to mothers, and immunization programs for the very young are crucial for reducing child mortality rates.

Figure 4.1 **Under-Five Mortality and Infant Mortality Rates, 2007**
(per 1,000 live births)



Source: Table 4.1.

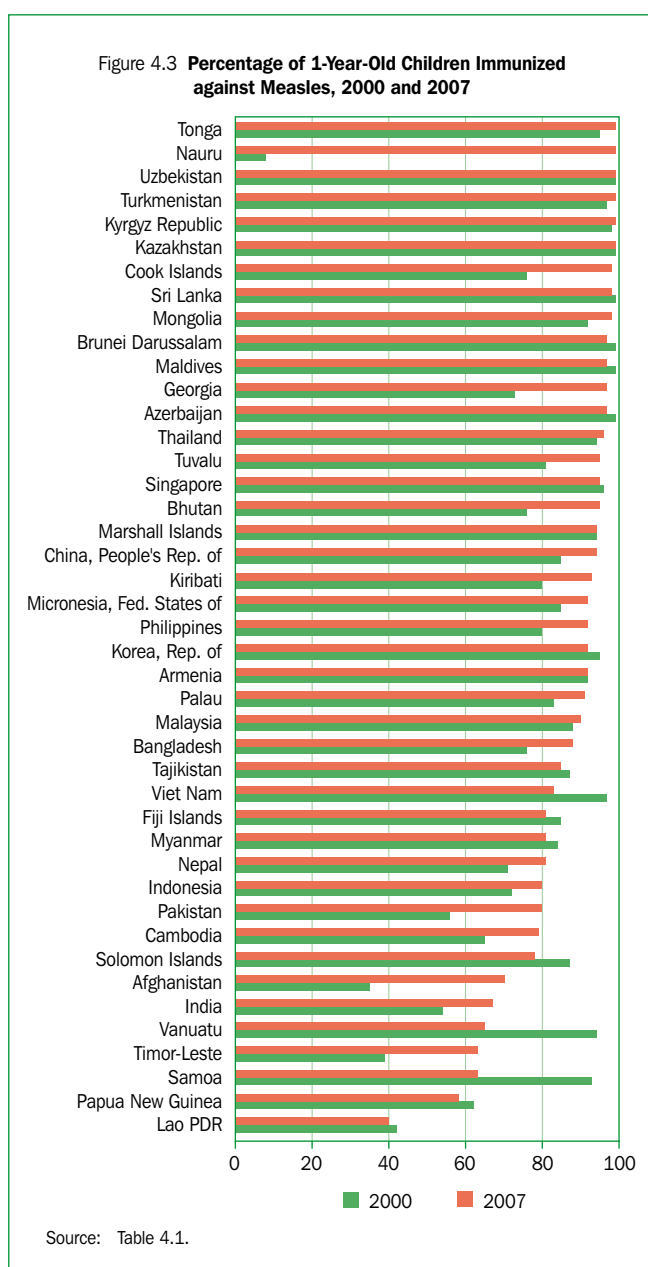
Child deaths are 30 or less per 1,000 live births in more than 40% of the economies in the region. Figure 4.2 shows the under-five mortality rate for 43 economies for 1990 and 2007. No economy experienced increased child mortality rates over the period. In more than 40% of the economies in Figure 4.2, child deaths are 30 or less per 1,000 live births. In developed countries, child mortality rates are now mostly about six or less per thousand live births. Of the economies listed in Figure 4.2 only the Republic of Korea and Singapore have achieved rates of six or less, although Hong Kong, China would probably be in this group if data were available.



Measles immunization rates are generally rising in the region. Figure 4.3 shows the third indicator of the quality of child health care—the percentage of 1-year-old children immunized against measles. This immunization program is promoted by the World Health Organization and helps to keep babies healthy during the first crucial

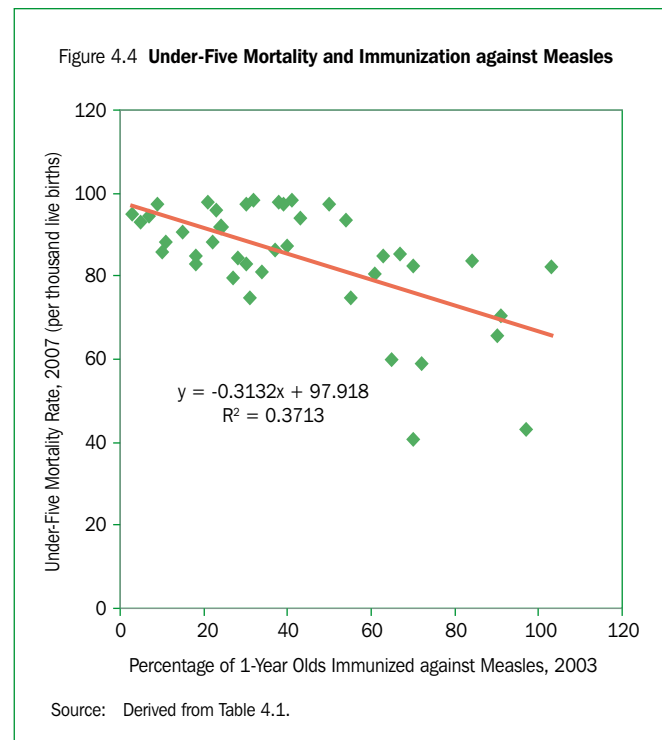
year of life. Figure 4.3 covers 43 economies, and in 24 of them, the immunization percentages were higher in 2007 than in 2000. Gains have been particularly dramatic in economies that started from a low base in 2000 such as Afghanistan, Bhutan, Georgia, Nauru, and Pakistan. Moreover, in 2000, only 12 economies had percentages above or equal to 95%, but by 2007, 17 economies recorded percentages in this range.

In 15 economies, however, immunization rates were lower in 2007 than they had been in 2000. In most cases, the falls were only 1 to 3 percentage points and probably within the statistical margin of error but much larger reductions were recorded by Viet Nam and three Pacific economies: Samoa, Solomon Islands, and Vanuatu.



Increasing the immunization rate can reduce the number of child deaths. Figure 4.4 relates measles immunization in 2003 to under-five mortality in 2007. Different dates are used because it is assumed that immunization in the first year of life continues to have a beneficial effect during the next 4 years. The immunization rate for 2003 was estimated by linear interpolation between the rates for 2000 and 2007.

Figure 4.4 suggests that just over 37% of the variation in under-five mortality is explained by measles immunization. The regression also suggests that an increase of three percentage points in the immunization rate reduces the number of deaths by one per thousand live births. Measles immunization is of course just one of a range of programs to fight child mortality. Others are improved water supply, better sanitation, and anti-malaria nets.



Data Issues and Comparability

In the more developed countries, data on mortality are usually taken from vital statistics registration records. In most developing countries, this source is not available and the data are usually taken from living standards, demographic surveys, and health surveys of households. As coverage of these surveys is often incomplete and the surveys may not be held each year, econometric estimation techniques may be used to produce a consistent time series. For these reasons, mortality data are of varying quality in the Asia and Pacific region.

Data on immunization may be provided directly by the health workers and clinics providing inoculation or, more commonly in the Asia and Pacific region, the information is collected from samples of households in health and demographic surveys. As with mortality data, estimation techniques will often be used to convert partial data into comprehensive estimates.