Infant mortality, deaths in children aged less than one year, reflects the effect of economic, social and environmental conditions on the health of mothers and infants, as well as the effectiveness of health systems. Factors such as the education of the mother, quality of antenatal and childbirth care, preterm birth and birth weight, immediate new-born care and infant feeding practices are important determinants of infant mortality (see sections "Preterm birth and low birthweight" and "Pregnancy and birth" in Chapter 4). Diarrhoea, pneumonia, infection and undernutrition continue to be among the leading causes of death in both mothers and infants see sections "Child malnutrition (including undernutrition and overweight)" and "Overweight or obese adults" in Chapter 4]. In the LAC region, around one third of the deaths in the first year of life occur during the neonatal period (i.e. during the first four weeks of life or days 0-27) (Black et al., 2016[3]).

In 2017, the infant mortality average in LAC was 15.7 deaths per 1 000 live births. Infant mortality was lower in countries such as Cuba, Antigua and Barbuda, The Bahamas and Chile (under 7 deaths per 1 000 live births), while higher in Guyana, Bolivia and particularly Haiti (26, 28 and 54 per 1 000 live births, respectively) (Figure 3.4). Between 2000 and 2017, the average infant mortality rate has fallen by 35% in the LAC region, with the majority of countries experiencing declines between 25% and 45% (Figure 3.4). Antigua and Barbuda, Bahamas, Brazil and Peru saw declines of over 55%. Both Grenada and Venezuela experienced increases in infant mortality rate, particularly the latter, with a nearly 40% increase.

Across countries, important determinants of infant mortality rates are income status and mother education. For instance, in Colombia, infant mortality is more than four times higher in the poorest quintile compared to the richest quintile, and almost five times higher when mothers have low education than higher (no education or primary vs secondary or tertiary). Geographical location (urban or rural) is another determinant of infant mortality in the region, though relatively less important in comparison to income or mother's education. For example, infant mortality rate in rural areas of Peru reaches 25 deaths per 1 000 live births, compared to 16 deaths per 1 000 live births in urban areas (Figure 3.5).

Infant mortality can be reduced through cost-effective and appropriate interventions. These include immediate skin-to-skin contact between mothers and new-borns after delivery, early and exclusive breastfeeding for the first six months of life, and kangaroo mother care for babies weighing 2 000g or less. Postnatal care for mothers and new-borns within 48 hours of birth, delayed bathing until after 24 hours of childbirth and dry cord care are important to reducing infant deaths. Management and treatment of neonatal infections, pneumonia, diarrhoea and malaria is also critical. Oral rehydration therapy is a cheap and effective means to offset the debilitating effects of diarrhoea, and countries could also implement relatively inexpensive public health interventions including immunisation, and provide clean water and sanitation (see indicator "Water and sanitation" in Chapter 4 and "Childhood vaccination programmes" in Chapter 7). Reductions in infant mortality will require not only the aforementioned strategies, but also ensuring that all segments of the population benefit from these improvements (Gordillo-Tobar, Quinlan-Davidson and Mills, 2017[4]).

### **Definition and comparability**

Infant mortality rate is defined as the number of children who die before reaching their first birthday in a given year, expressed per 1 000 live births. Some countries base their infant mortality rates on estimates derived from censuses, surveys and sample registration systems, and not on accurate and complete registration of births and deaths. Differences among countries in registering practices for premature infants may also add slightly to international variations in rates. Infant mortality rates are generated by either applying a statistical model or transforming under age 5 mortality rates based on model life tables.

Data on mortality by socio-economic conditions is from DHS surveys and MICS. These surveys allow for the disaggregation of household data by education level (no education and primary vs secondary and tertiary), income (lowest and highest quintiles of income) and rural and urban residency.

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Figure 3.4. Infant mortality rates, 2000 and 2017 (or nearest year)

Source: The World Bank World Development Indicators Online 2019, Ministry of Health for Costa Rica.

StatLink ans https://stat.link/k4gt81



## Figure 3.5. Infant mortality rate ratios by socio-economic and geographic factor, selected countries and latest year available

Source: Demographic and Health Survey (DHS) and Multiple Indicator Cluster Survey (MICS) 2005-14.

StatLink ans https://stat.link/9p7dt2



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