

Neonatal mortality

Neonatal mortality, deaths in children within 28 days of birth, encompasses the effect of socio-economic and environmental factors on newborns and mothers, and the capacities and responsiveness of national health systems.

Indicators such as the education of the mother, quality of antenatal and childbirth care, preterm birth and birthweight, Early Essential Newborn Care (EENC), and feeding practices are important determinants of neonatal mortality (see section “Family planning” in Chapter 4). Early Essential Newborn Care (EENC) is evidence-based, cost-effective, and comprises feasible interventions provided during childbirth and in the postnatal period. The First Embrace is the core of EENC, defined as a life-saving practice that promotes skin-to-skin contact immediately after birth between mother and child for no less than 90 minutes. Other EENC interventions include: (1) ensuring the presence of a birth companion; (2) adopting a position of choice; (3) providing adequate food and fluids; (4) using evidence-based criteria for episiotomy, and other procedures; (5) eliminating harmful or unnecessary practices such as fundal pressure, forced pushing, and enema; (6) administering oxytocin within one minute of birth. EENC has been introduced and scaled up across countries and territories in Asia-Pacific (WHO, 2022^[1]).

For instance, in India, three causes accounted for three out of every four neonatal deaths in 2015: prematurity and low birthweight; neonatal infections; and birth asphyxia and birth trauma. However, even if neonatal infections and birth asphyxia and birth trauma have steadily decreased since 2000, neonatal mortality due to prematurity and low birthweight increased, rising from 342 000 deaths in 2000 to around 370 000 in 2015 (Fadel et al., 2017^[2]). Congenital anomalies and other conditions arising during pregnancy are also listed as primary causes of mortality during the first four weeks of life. Undernutrition continues to be amongst the leading causes of death in both mothers and newborns [see section “Child malnutrition (including undernutrition and overweight)” in Chapter 4]. In the Asia-Pacific region, 72% of the deaths in the first year of life occurred during the neonatal period in 2020 (IGME, 2021^[3]).

Sustainable Developing Goals set a target of reducing neonatal mortality to 12 deaths or less per 1 000 live births by 2030. In 2020, the average amongst lower-middle- and low-income countries and territories in Asia-Pacific was 15.8 deaths per 1 000 live births, almost halving the rate observed in 2000 but still above the SDG target (Figure 3.5). Upper-middle-income Asia-Pacific countries almost reached the SDG target already in 2000 reporting a rate – on average – of 12.2 deaths per 1 000 live births, which then decreased to 6.2 in 2020. High-income Asia-Pacific countries and territories reported neonatal mortality rates similar to those of the OECD, with an average of 2.1 deaths per 1 000 live births in 2020.

In general, high-income countries and territories in Asia-Pacific experienced lower neonatal mortality rates than lower-middle- and low-income countries and territories in the region. Singapore, Japan, Hong Kong (China), Macau (China) and Korea reported two deaths or less per 1 000 live births in 2020, whereas neonatal mortality rates were higher than 20 per 1 000 live births in Myanmar, Lao PDR, Papua New Guinea and India, and higher than 40 per 1 000 live births in Pakistan.

Between 2000 and 2020, the neonatal mortality rate has fallen in almost all Asia-Pacific countries and territories (Figure 3.5). The rate in 2020 was one-third of the rate in 2000 in DPRK and Mongolia, while in China the rate reported in 2020 was one-sixth of the one reported in 2000. Both Brunei Darussalam and Fiji reported an increase in neonatal mortality rates between 2000 and 2020.

Amongst the main determinants of neonatal mortality rates across countries and territories, we find income status, geographical location, and mother education. For instance, in Pakistan, neonatal mortality is almost three times higher in the poorest households compared to richest ones, and 50% higher when mothers have no formal education rather than secondary or tertiary education. Geographical location is another determinant of differences reported in neonatal mortality in the region, though relatively less impactful in comparison to households’ income. For example, neonatal mortality rate in rural areas of Lao PDR and Pakistan was one-third higher than the rate reported for urban areas, and a quarter higher in the case of Mongolia (Figure 3.6).

Neonatal mortality rates recede through cost-effective and appropriate interventions. These include neonatal resuscitation training, prevention, and management of neonatal sepsis, reducing mortality from prematurity, and prioritising the roles of breastfeeding and antenatal corticosteroids (Conroy, Morrissey and Wolman, 2014^[4]).

Reductions in neonatal mortality will require not only the aforementioned strategies, but also ensuring that all segments of the population benefit from these (Gordillo-Tobar, Quinlan-Davidson and Lantei Mills, 2017^[5]).

Definition and comparability

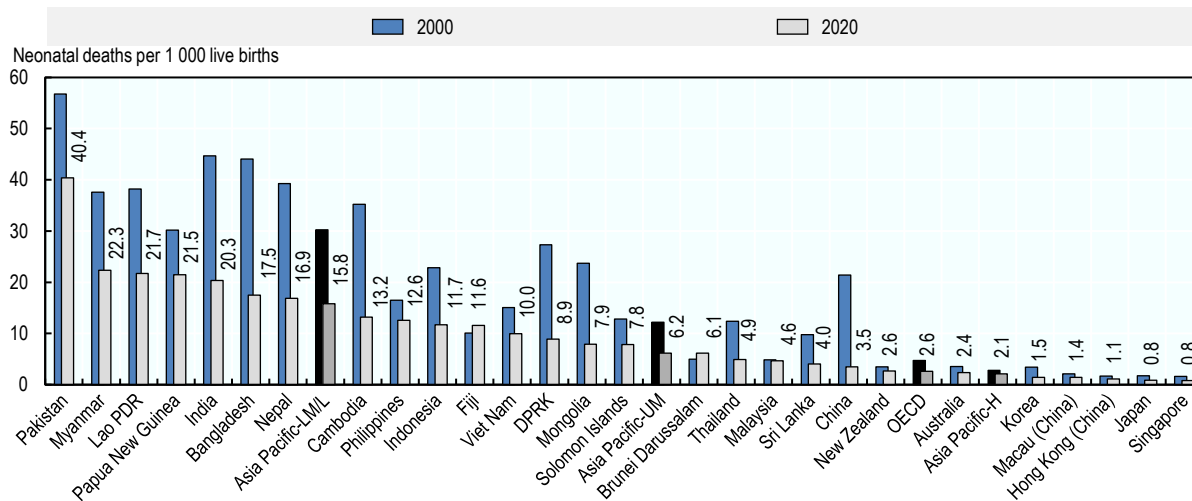
Neonatal mortality rate is defined as the number of children who die during their first 28 days of life, expressed per 1 000 live births.

Mortality data are estimated using the UN IGME model, except for Hong Kong (China) and Macau (China), for which data are gathered from local sources.

References

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- Gordillo-Tobar, A., M. Quinlan-Davidson and S. Lantei Mills (2017), “Maternal and Child Health: The World Bank Group’s Response to Sustainable Development Goal 3: Target 3.1 & 3.2”. [5]
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- WHO (2022), *Scaling up Early Essential Newborn Care*, World Health Organization Western Pacific Regional Office, <https://www.who.int/westernpacific/activities/scaling-up-early-essential-newborn-care>. [1]

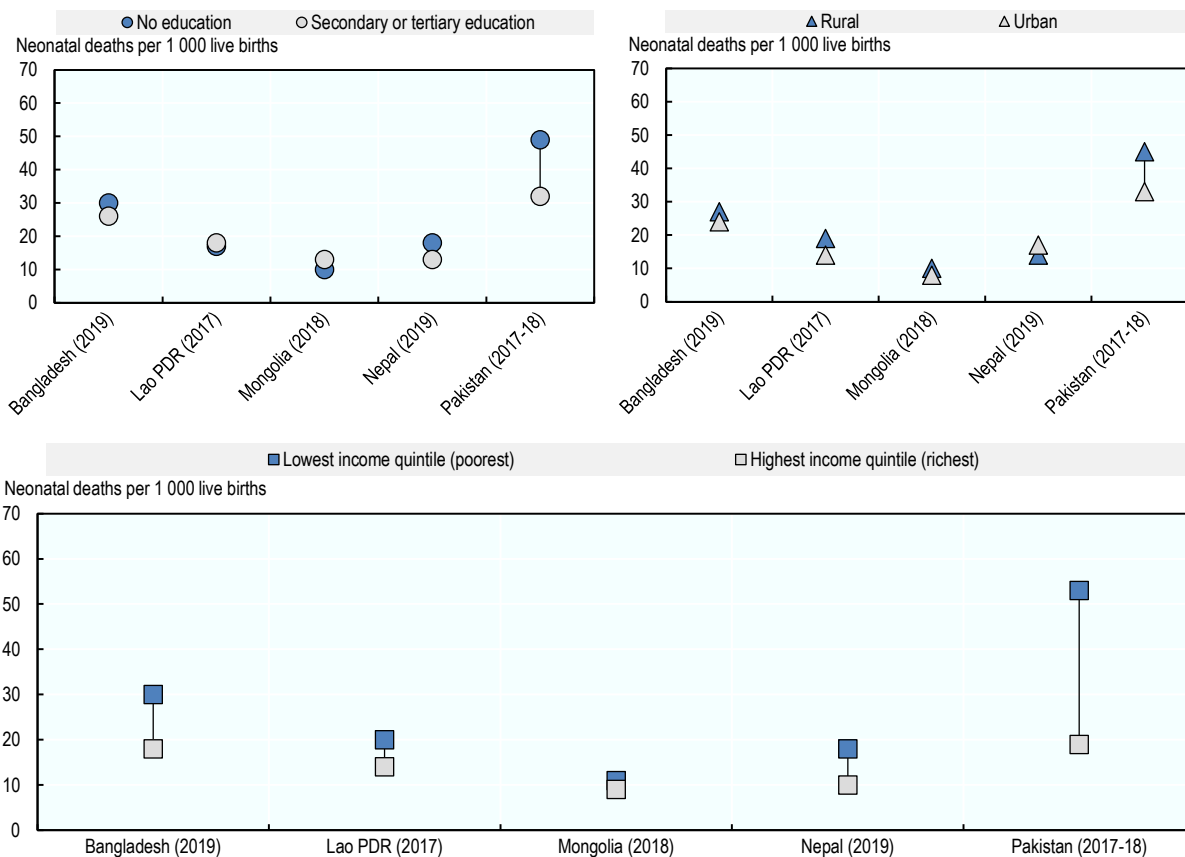
Figure 3.5. Neonatal mortality rates, 2000 and 2020



Source: UN Inter-agency Group for Child Mortality Estimation (IGME) 2021; Hong Kong annual digest of statistics 2021; Macau yearbook of Statistics, 2021.

StatLink <https://stat.link/ncg50i>

Figure 3.6. Neonatal mortality rates by socio-economic characteristic, selected countries and territories, nearest year



Source: DHS and MICS surveys, various years.

StatLink <https://stat.link/na9wrz>



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