

Global Challenges, Efforts, and Controversies in Neonatal Care



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KEYWORDS

- Global health • Millennium Development Goals • Neonatal mortality • Low-resource
- Low-income • Community health worker • Traditional birth attendant
- Essential newborn care

KEY POINTS

- Despite impressive advancements for the care of preterm infants in high-income countries, the greatest reduction in global neonatal mortality can be achieved by ensuring universal access to essential newborn care, such as clean delivery, cord care, and immediate warmth of infants, both for facility-based and in-home births.
- Low-income countries suffer from a significant shortage of resources and health care professionals amidst burgeoning needs. Global mobilization and innovative solutions are required to address this gap.
- Intervention packages are being implemented to achieve Millennium Development Goals 4 and 5, combining health care system improvements along a continuum of care (preconception, antenatal, childbirth, and postnatal) and also involving actions from the community, primary care, referral, and governmental levels.
- High-resource institutions can play a vital role in improving the care of newborns globally, particularly through engaging in twinning initiatives, which help to build health care infrastructure with global partners in low-resource settings.
- As global neonatal mortality is reduced, outcomes need to be measured, including tracking for incremental increase in childhood rates of disability.

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INTRODUCTION

The fourth Millennium Development Goal (MDG) targets a two-thirds reduction of the under-5-year mortality (U5MR) between 1990 and 2015 (from 90 deaths per 1000 live births to 30). Although progress has been made, the rate of U5MR reduction has averaged 2.6% annually worldwide (2000–2010), less than the 4.4% rate that is required to reach the MDG goal. Neonatal deaths account for approximately 3 million of the total 7.6 million under-5 deaths annually, primarily related to preterm birth complications (14% of under-5 deaths), intrapartum-related complications (9%), and neonatal sepsis or meningitis (5%) (Fig. 1).¹ Approximately 99% of neonatal deaths occur in low-income and middle-income countries, up to two-thirds of which are preventable.² More than half the total neonatal deaths occur in 5 countries: India, Nigeria, Pakistan, China, and the Democratic Republic of the Congo.

The reduction in U5MR has been faster among children aged 1 to 59 months than neonates (2.9% reduction per year compared with 2.1%, respectively). This disparity has resulted in an increase in the proportion of under-5 child deaths occurring among newborns, from 37% to 44% (1990–2012).³ These numbers do not capture the huge and equal burden of third-trimester stillbirths, which are not tracked in the MDGs, thereby underestimating the childbirth-related deaths by almost half.

Given these statistics, the issue of newborn deaths has gained attention on the world's agenda over the past decade, coupled with increased awareness of

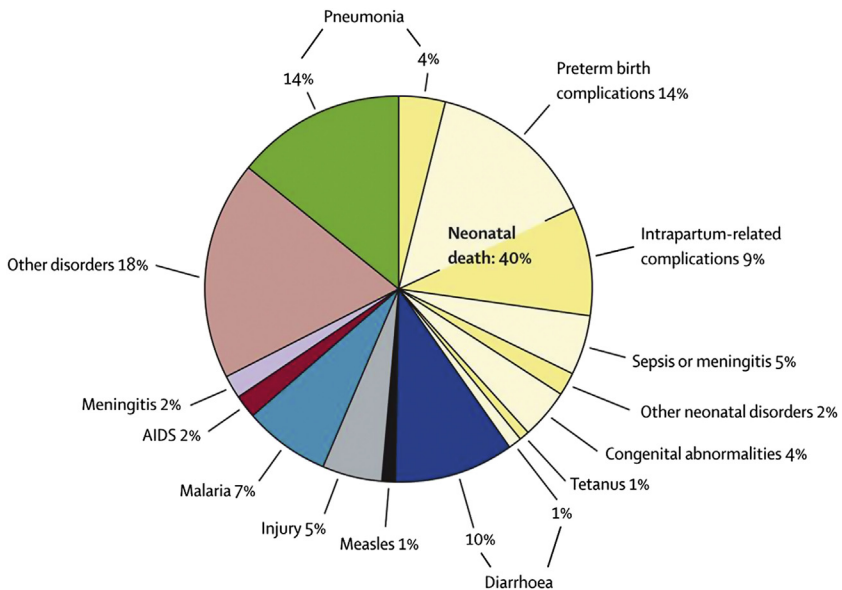


Fig. 1. Global causes of childhood deaths in 2010. Note that more than 60% of neonatal deaths are associated with low birth weight (causes that led to <1% of deaths are not shown). (From Liu L, Johnson HL, Cousens S, et al. Global, regional, and national causes of child mortality: an updated systematic analysis for 2010 with time trends since 2000. *Lancet* 2012;379(9832):2155; with permission.)

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