World Health Organization

Newborns: reducing mortality

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Key facts

- Globally 2.5 million children died in the first month of life in 2018 —approximately 7 000 newborn deaths every day with about one third dying on the day of birth and close to three quarters dying within the first week of life.
- Neonatal mortality declined more slowly than mortality among children aged 1–59 months. As a result, the share of neonatal deaths among all under-five deaths increased from 40 (39, 41) per cent in 1990 to 47 (45, 49) per cent in
- Children who die within the first 28 days of birth suffer from conditions and diseases associated with lack of quality care at birth or skilled care and treatment immediately after birth and in the first days of life.
- Preterm birth, intrapartum-related complications (birth asphyxia or lack of breathing at birth), infections and birth defects cause most neonatal deaths.
- Women who receive midwife-led continuity of care (MLCC) provided by professional midwives, educated and regulated to internationals standards, are 16% less likely to lose their baby and 24% less likely to experience pre-term birth.

Who is most at risk?

Neonates

Globally 2.5 million children died in the first month of life in 2018. There are approximately 7 000 newborn deaths every day, amounting to 47% of all child deaths under the age of 5-years, up from 40% in 1990. About the same number of babies were born stillbirth (in 2015).

The world has made substantial progress in child survival since 1990. Globally, the number of neonatal deaths declined from 5.0 million in 1990 to 2.5 million in 2018. However, the decline in neonatal mortality from 1990 to 2018 has been slower than that of post-neonatal under-5 mortality The share of neonatal deaths among under-five deaths is still relatively low in sub-Saharan Africa (36 per cent), which remains the region with the highest under-five mortality rates. In Europe and Northern America, which has one of the lowest under-five mortality rates among SDG regions, 54 per cent of all under-five deaths occur during the neonatal period. An exception is Southern Asia, where the proportion of neonatal deaths is among the highest (62 per cent) despite a relatively high under-five mortality rate

Sub-Saharan Africa had the highest neonatal mortality rate in 2018 at 28 deaths per 1,000 live births, followed by Central and Southern Asia with 25 deaths per 1,000 live births. A child born in sub-Saharan Africa or in Southern Asia is 10 times more likely to die in the first month than a child born in a high-income country.

Causes

The majority of all neonatal deaths (75%) occurs during the first week of life, and about 1 million newborns die within the first 24 hours. Preterm birth, intrapartum-related complications (birth asphyxia or lack of breathing at birth), infections and birth defects cause most neonatal deaths in 2017. From the end of the neonatal period and through the first 5 years of life, the main causes of death are pneumonia, diarrhoea, birth defects and malaria. Malnutrition is the underlying contributing factor, making children more vulnerable to severe diseases.

Priority Strategies

The vast majority of newborn deaths take place in low and middle-income countries. It is possible to improve survival and health of newborns and end preventable stillbirths by reaching high coverage of quality antenatal care, skilled care at birth, postnatal care for mother and baby, and care of small and sick newborns. In settings with well-functioning midwife programmes the provision of midwife-led continuity of care (MLCC) can reduce preterm births by up to 24%. MLCC is a model of care in which a midwife or a team of midwives provide care to the same woman throughout her pregnancy, childbirth and the postnatal period, calling upon medical support if necessary. With the increase in

facility births (almost 80% globally), there is a great opportunity for providing essential newborn care and identifying and managing high risk newborns. However, few women and newborns stay in the facility for the recommended 24 hours after birth, which is the most critical time when complications can present. In addition, too many newborns die at home because of early discharge from the hospital, barriers to access and delays in seeking care. The four recommended postnatal care contacts delivered at health facility or through home visits play a key role to reach these newborns and their families.

Accelerated progress for neonatal survival and promotion of health and wellbeing requires strengthening quality of care as well as ensuring availability of quality health services or the small and sick newborn.

Essential newborn care

All babies should receive the following:

- **thermal protection (e.g. promoting skin-to-skin contact between mother and infant);**
- **hygienic umbilical cord and skin care;**
- **early and exclusive breastfeeding;**
- **assessment for signs of serious health problems or need of additional care (e.g. those that are low-birth-weight, sick or have an HIV-infected mother**
- **preventive treatment (e.g. immunization BCG and Hepatitis B, vitamin k and ocular prophylaxis)**

Families should be advised to:

- **seek prompt medical care if necessary (danger signs include feeding problems, or if the newborn has reduced activity, difficult breathing, a fever, fits or convulsions, or feels cold);**
- **register the birth;**
- **bring the baby for timely vaccination according to national schedules.**

Some newborns require additional attention and care during hospitalization and at home to minimize their health risks.

Low-birth-weight and preterm babies:

- **If a low-birth weight newborn is identified at home, the family should be helped in locating a hospital or facility to care for the baby.**
- **increased attention to keeping the newborn warm, including skin-to-skin care, unless there are medically justifiable reasons for delayed contact with the mother;**

- assistance with initiation of breastfeeding, such as helping the mother express breast milk for feeding the baby from a cup or other means if necessary;
- extra attention to hygiene, especially hand washing;
- extra attention to danger signs and the need for care; and
- additional support for breastfeeding and monitoring growth.

Sick newborns

- Danger signs should be identified as soon as possible in health facilities or at home and the baby referred to the appropriate service for further diagnosis and care;
- If a sick newborn is identified at home, the family should be helped in locating a hospital or facility to care for the baby.

Newborns of HIV-infected mothers

- preventive antiretroviral treatment (ART) for mothers and newborns to prevent opportunistic infections;
- HIV testing and care for exposed infants; and
- counselling and support to mothers for infant feeding. Community health workers should be aware of the specialized issues around infant feeding. Many HIV-infected newborns are born prematurely and are more susceptible to infections.

WHO response

WHO is working with ministries of health and partners to: 1) strengthen and invest in care, particularly around the time of birth and the first week of life as most newborns are dying in this time period; 2) improve the quality of maternal and newborn care from pregnancy to the entire postnatal period, including strengthening midwifery; 3) expand quality services for small and sick newborns, including through strengthening neonatal nursing.; 4) reduce inequities in accordance with the principles of universal health coverage, including addressing the needs of newborns in humanitarian and fragile settings; 5) promote engagement of and empower mothers, families and communities to participate in and demand quality newborn care; and 6) strengthen measurement, programme-tracking and accountability to count every newborn and stillbirth.