

Opportunities to Improve Maternal and Neonatal Health Care

Maternal and neonatal health care ensures that mothers and newborns survive and are healthy during pregnancy, childbirth, and the first month of life (neonatal period).

Scope of maternal and neonatal health care

Maternal health care spans from pre-pregnancy, antenatal care during pregnancy, skilled birth attendance and emergency obstetric care during delivery, and postpartum care after childbirth. Neonatal health care refers to newborn care during the first month of life.



Consequences of inadequate care

Maternal death¹ and newborn death² are the main consequences of inadequate maternal and neonatal health care.

Maternal death

The top two direct causes of maternal mortality are severe bleeding (haemorrhage, 35%) and high blood pressure (hypertension, 18%), which together cause over half of maternal deaths. Other direct causes include unsafe abortions (9%) and infections (sepsis, 8%). Indirect causes, including death due to malaria, HIV/AIDS and cardiac diseases, account for approximately one-fifth of maternal deaths. Women may also develop physical and mental disabilities as a result of complications during pregnancy and childbirth (WHO & UNICEF 2010).

Newborn death

Newborn death includes perinatal deaths, which refers to stillbirth and death during the first week of life. Newborn deaths account for 41% of child deaths before the age of five. The top three causes of newborn death are:

- Infections, including sepsis, pneumonia, meningitis, tetanus and diarrhea (36%)
- Pre-term birth (28%)
- Asphyxia, or severely deficient supply of oxygen, during birth (23%) (WHO 2011)

Population affected by inadequate care

Reproductive health related mortality and morbidity account for 20% of the burden of disease among the world's population overall (United Nations Dev. Group 2010).

- Globally, approximately 300,000 women die annually (WHO 2013) and 10 to 20 million women develop disabilities (United Nations Dev. Group 2010) due to complications during pregnancy or childbirth
 - 99% of these deaths are in developing countries, with high concentrations in Sub-Saharan Africa (55%) and South Asia (29%) (United Nations Dev. Group 2010)
 - The average lifetime risk of dying from complications in childbirth and pregnancy is one in 150 in developing countries, in contrast to one in 3800 in high-income countries (WHO 2013)

¹ Maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, regardless of the site or duration of pregnancy, from any cause related to or aggravated by the pregnancy or its management.

² Newborn death is defined as the death of a newborn in the first four weeks of life.

Managerial Briefing

- Globally, over 2.6 million babies are stillborn and an additional 2.9 million die within their first month of life (Bill & Melinda Gates Foundation 2013)
 - Over 50% of deaths occur in five countries – India, Nigeria, Pakistan, China and Democratic Republic of the Congo (WHO & Save the Children 2011)
 - ✧ India: more than 900,000 newborn deaths (28% of total) annually
- Maternal and newborn morbidity is higher in rural areas, among poorer and less educated communities and for adolescent pregnancies
 - Adolescent women, aged 15-19, face an increased risk of maternal death and disability and their infants at a higher risk of low birth weight and mortality (United Nations Dev. Group 2010)

Treatment and prevention options & required inputs

Simple and low-cost interventions that can prevent unnecessary maternal and newborn deaths exist at each stage, but have not adequately reached the affected population.

Interventions

| Pre-pregnancy | Pregnancy | Childbirth | Postpartum/Neonatal |
|--|---|--|---|
| <ul style="list-style-type: none"> • Contraceptives to limit or space births • Counseling on family planning and birth preparedness • Educational campaigns on healthy behaviors and encouragement to seek out quality care | <ul style="list-style-type: none"> • Micronutrient supplementation • Prevention of mother to child transmission of HIV • Intermittent preventive treatment for malaria • Distribution of insecticide nets • Immunization of mother with tetanus vaccine for neonatal protection • Antenatal corticosteroids to advance lung maturation in fetus | <ul style="list-style-type: none"> • Sterile blades for cutting umbilical cords • Treatment of hypertension to prevent eclampsia • Drugs (e.g. oxytocin, misoprostol) that prevent postpartum haemorrhage | <ul style="list-style-type: none"> • Drugs (e.g. oxytocin, misoprostol) that treat postpartum haemorrhage • Exclusive breastfeeding and skin-to-skin contact to protect newborn from infection • Antibiotics for the treatment of child pneumonia, diarrhea, malaria |

While inputs such as antibiotics and blades are critical, the key input enabling interventions at each stage is skilled health providers. However, currently half of all births in Sub-Saharan Africa and South Asia take place without a skilled birth attendant and less than 50% of developing countries have coverage for four or more antenatal care visits, as recommended by UNFPA and WHO (United Nations Dev. Group 2010).

There is a need to strengthen the skills of frontline healthcare workers for effective delivery of existing interventions. Working with community-level healthcare providers is one opportunity for strengthening delivery (Bill & Melinda Gates Foundation 2013).

Conclusion

In sum, maternal and newborn deaths could be prevented by strengthening delivery of simple and low-cost interventions during the pre-pregnancy, pregnancy, childbirth, and postpartum/neonatal stages. The presence of skilled health providers is vital for ensuring effective delivery of care at each stage.

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