

EDITORIAL

Improving Neonatal Survival: Achieving the Millennium Development Goal for child survival

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Each year, over four million neonatal deaths occur around the world. Many of these deaths occur in developing countries where poverty prevails highly and where the health system is weak. The gap between low neonatal mortality countries (3-4 death/1000 live birth) and high mortality countries (countries with over 100 neonatal deaths) is also very high. In populations with high child mortality rates neonatal deaths account for about 20% of all deaths while the proportion may rise to 50% in populations with child mortality rates of below 35 per 10000 live births. About 66% of the deaths occur in just ten countries. Sub-Saharan Africa has the highest rate of neonatal mortality in the world (1).

In developing countries the major direct causes of neonatal deaths include infections, premature birth and birth asphyxia. About 75% of neonatal deaths occur in the first week of life with the highest risk of death on the first day of life, which emphasize the need for expanding delivery services using skilled birth attendants. Unfortunately, in sub-Saharan Africa, where the majority of deaths are occur, information on trends and causes of neonatal mortality is very limited and emphasis has not been given on the gathering and use of such information (1).

Contrary to the wide spread belief that neonatal survival is dependent only on advanced technological interventions, recent studies indicate that simple, cost-effective health interventions that could be widely employed even in developing countries can avert the majority of the deaths if they are systematically organized and delivered. These include: tetanus toxoid vaccinations for pregnant women, promoting clean delivery, exclusive breastfeeding,

care for low-birth-weight babies, and antibiotics for neonatal infection (2).

Evidences indicating the availability of cost-effective interventions that could be applicable even in low-income settings are encouraging for the health care planners in developing countries. Given that the health system in there countries is severely constrained by the shortage of human resources the delivery strategies that are recommended along with these cost effective interventions also suit the settings of developing countries. In fact, excessive medicalization of services alone may not bring about the desired reduction in neonatal mortality rates (3). Expansion of services at the health facility level, implementing the family-community approach and expanding outreach services can effectively and timely address the needs of many women, including those living in rural areas, and who are in need of the services that improve neonatal survival (2). Efforts to expand health services at grass roots level in Ethiopia can potentially improve community-level and outreach services. However, emphasis needs to be given to adequately train and supervise service providers at that level to maximally benefit from their presence at the community level. International initiatives can support efforts towards this end in low-income countries and achieve substantial results with very little resources if interventions are packaged appropriately and delivered timely. Millions of neonatal deaths occur due to lack of simple interventions (4).

Achieving the Fourth Millennium Goal (MDG) of reducing child mortality by two-thirds, is highly dependent on the reduction of neonatal mortality rates. Thus, adequate emphasis needs

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to be given to incorporate cost-effective health interventions that can be delivered without the application highly advanced technologies.

Readers interested in this issue are encouraged to refer to a recent series of articles published on neonatal survival in *The Lancet*. The articles provide detailed insight to the magnitude of neonatal mortality, the myths that hinder effective actions targeting neonates, the challenges of reducing neonatal mortality, and produce evidence on ways of effectively improving neonatal survival using appropriate technologies and available skills in developing countries.

Reference

1. Lawn JE, Cousens S, Zupan J; Lancet Neonatal Survival Steering Team. 4 million neonatal deaths: When? Where? Why? *The Lancet*. 2005 Mar 2;365(9462):891-900.
2. Darmstadt GL, Bhutta ZA, Cousens S, Adam T, Walker N, de Bernis L; Lancet Neonatal Survival Steering Team. Evidence-based, cost-effective interventions: how many newborn babies can we save? *The Lancet*. 2005 Mar 9;365(9463):977-88.
3. Barros FC, Victora CG, Barros AJ, Santos IS, Albernaz E, Matijasevich A, Domingues MR, Sclowitz IK, Hallal PC, Silveira MF, Vaughan JP. The challenge of reducing neonatal mortality in middle-income countries: Findings from three Brazilian birth cohorts in 1982, 1993, and 2004. *The Lancet*. 2005 Mar 2;365(9462):847-54.
4. Knippenberg R, Lawn JE, Darmstadt GL, Begkoyian G, Fogstad H, Walelign N, Paul VK; Lancet Neonatal Survival Steering Team. Systematic scaling up of neonatal care in developing countries. *The Lancet*. 2005 Mar 16;365(9464):1087-98.