

Community Based Newborn Care

The recent meta-analysis on this topic [1] was useful but its limitations may confuse policymakers. First, the objective was to conduct a meta-analysis on the effect of care by community health workers (CHWs) on newborn mortality (NMR) in resource-limited settings, but our women's group trials in Nepal, Jharkhand and Orissa, and Bangladesh did not use CHWs. Lay women were the facilitators of groups.

Second, would a journal publish a meta-analysis of micronutrient supplementation with a combined effect of trials of iron, vitamin A, and zinc? Clearly not, since these are quite different interventions. Likewise, "supply-side" CHW programs to provide home visits are different from "demand-side" mobilization of women's groups by lay facilitators. Any overall effect size has little meaning if some are small-scale efficacy studies and others larger-scale trials of community effectiveness. Also, trials of traditional health education to provide "messages" to women or health workers are neither the same nor as effective as participatory approaches where women actively seek strategies to reduce mortality risk.

Third, the abstract ignored large mortality reductions from women's group trials and focused only on home visits on the two days after birth. For trials like Hala, Pakistan, and Shivgarh, India, which had both community groups and home visits, one cannot disentangle the effects. The only trial that supported the conclusion about home visits was not replicated in scale-up studies [2-4]. Early home visits are the preference of funding agencies, but conclusions must be based on evidence. Coverage and timing are important, but so are quality of supervision, antenatal contact, refresher training, and availability of antibiotics.

The review provides four important conclusions:

1. Newborn mortality reduction does not simply depend on health worker contact. Participatory women's groups substantially reduce NMR where baseline mortality is above 30 per 1000, and at least one quarter of newly pregnant women enrol. This approach can be scaled up in India through the accredited social health activist (ASHA) cadre, although further evaluation at scale is needed [5].
2. CHWs providing home visits can reduce mortality above a critical coverage and with good links to facilities.
3. The prevention and prompt treatment of sepsis is a

critical component of community newborn care [6]. However evidence for impact of asphyxia management and community resuscitation after home delivery is weak.

4. A combination of home visits and community mobilisation through women's groups is the best way forward. Critical questions are operational and centre on coverage, support and management of CHWs.

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REFERENCES

1. Gogia S, Ramji S, Gupta P, Gera T, Shah D, Mathew JL, *et al.* Community based newborn care: a systematic review and meta-analysis of evidence: UNICEF-PHFI series on newborn and child health, India. *Indian Pediatr.* 2011;48:537-46.
2. Baqui AH, El-Arifeen S, Darmstadt GL, Ahmed S, Williams EK, Seraji HR, *et al.* Effect of community-based newborn-care intervention package implemented through two service-delivery strategies in Sylhet district, Bangladesh: a cluster-randomised controlled trial. *Lancet.* 2008;371:1936-44.
3. Darmstadt GL, Choi Y, Arifeen SE, Bari S, Rahman SM. Evaluation of a cluster-randomized controlled trial of a package of community-based maternal and newborn interventions in Mirzapur, Bangladesh. 2010 *PLoS ONE* 5(3): e9696.
4. Baqui AH, Williams EK, Rosecrans AM, Agrawal PK, Ahmed S, Darmstadt GL, *et al.* Impact of an integrated nutrition and health program on neonatal mortality in rural northern India. *Bull WHO.* 2008;86:796-804.
5. Tripathy P, Nair N, Mahapatra R, Rath S, Gope RK, Rath S, *et al.* Community mobilisation with women's groups facilitated by Accredited Social Health Activists (ASHAs) to improve maternal and newborn health in underserved areas of Jharkhand and Orissa: study protocol for a cluster-randomised controlled trial. *Trials.* 2011;12:182.
6. Bang AT, Bang RA, Baitule SB, Reddy MH, Deshmukh MD. Effect of home-based neonatal care and management of sepsis on neonatal mortality: field trial in rural India. *Lancet.* 1999;354:1955-61.

REPLY

1. It may be pertinent to point out the objective of the systematic review and meta-analysis was to evaluate the effect of community based neonatal interventions on neonatal mortality in resource limited settings and