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## Newborn-Care Training in Developing Countries

**To the Editor:** Carlo et al. (Feb. 18 issue)<sup>1</sup> report the results of the First Breath study of newborn care training in developing countries. Neonatal death is the leading cause of death among children, yet it receives little attention in research and programming.<sup>2,3</sup> However, one of the study's findings, in particular, was somewhat unanticipated.

Although training in the Essential Newborn Care course was associated with a 30% reduction in stillbirths, the study showed no significant benefit from training in the Newborn Resuscitation Program. We wish to underscore that these findings do not necessarily negate the potentially critical role that neonatal resuscitation training may play in these settings.

The study was, by design, limited in its capacity to assess the effect of neonatal resuscitation alone. First, all the birth attendants — both those in the intervention group and those in the control group — received resuscitation training and ventilation devices; only birth attendants for birth clusters that were randomly assigned to the Neonatal Resuscitation Program were given subsequent training in that program. Second, the study included a large number of physicians, who showed less benefit from training in the Essential Newborn Care course and who typically participate in a minority of births in these settings.

Neonatal resuscitation training could still play an important role among previously untrained, community-based, nonphysician providers — those who deliver the majority of newborns in developing countries.<sup>4</sup>

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**The authors reply:** Olson and colleagues are correct that further resuscitation training may not have had an additional effect, since resuscitation training had been taught as part of the Essential Newborn Care course. However, that initial resuscitation training was limited to basic knowledge and skills; our findings suggest that in-depth training may not be more effective. The overwhelming majority of the births (87%) were not attended by physicians, so the lack of a benefit of more advanced resuscitation training was not due to having had a large proportion of deliveries attended by advanced practitioners.

Our cluster-randomized, controlled trial cannot answer the question of whether resuscitation training alone could reduce stillbirths or neonatal mortality. Some experts would consider it unethical to do such a randomized, controlled trial without providing the birth attendants in control clusters with some basic training. Therefore, we designed the trial to provide essential newborn-care training to all birth attendants as early as possible during the study. Furthermore, an integrated approach that includes training in resuscitation as part of a package of interventions may be the most effective and cost-effective approach.<sup>1</sup>

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