Maternal and perinatal mortality in resource-limited settings

Authors' reply

We thank John Bolnga and colleagues for raising the question of whether we saw an effect of distance to a health facility on perinatal mortality. We are, unfortunately, not able to report on perinatal mortality as we did not record stillbirths. However, our data show some evidence of neonatal mortality rising with distance to a hospital. Neonatal mortality increased from 29·6 (95% CI 25·4–34·6) per 1000 livebirths for those living less than 5 km from a hospital to 39·7 (33·5–47·1) for those living more than 35 km from a hospital (crude odds ratio 1·31 [95% CI 0·98–1·76], p=0·0139 using a test for trend; figure). Others have also reported that distance to care is a determinant of neonatal mortality—although not in all settings.[1,2]

Bolnga and colleagues rightly raise the question of whether maternal and perinatal mortality reduce in parallel. Without doubt, babies suffer severely and mortality rates are high if the mother faces complications during childbirth such as eclampsia or obstructed labour. But neonates could more commonly be affected by complications such as premature birth or asphyxia, whereas the mother might not always be at risk. Consequently, the distance decay of maternal mortality and neonatal mortality could differ.

Importantly, it is not sufficient to focus on distance to facilities. We also need to consider the quality of care available, the type of complications, and whether the mother or the baby is affected. The second key message of our Article is that both pregnancy-related and maternal mortality rates are high even within a 5 km radius around the hospitals, despite the fact that 72% of women gave birth in a hospital and 8% had a caesarean section. This finding suggests that the quality of care in hospitals could be a key problem.[3] Quality of care could also be a key factor contributing to neonatal mortality, which is also unacceptably high for those living within 5 km of a hospital at 29·6 per 1000 livebirths.

Policy makers in resource-poor settings might have to make difficult decisions about whether to prioritise accessibility or quality of care. We welcome the recent WHO initiative of prioritising the quality of intrapartum care[4] and hope that this and other quality improvement initiatives in resource-poor settings will target both the mother and her baby.

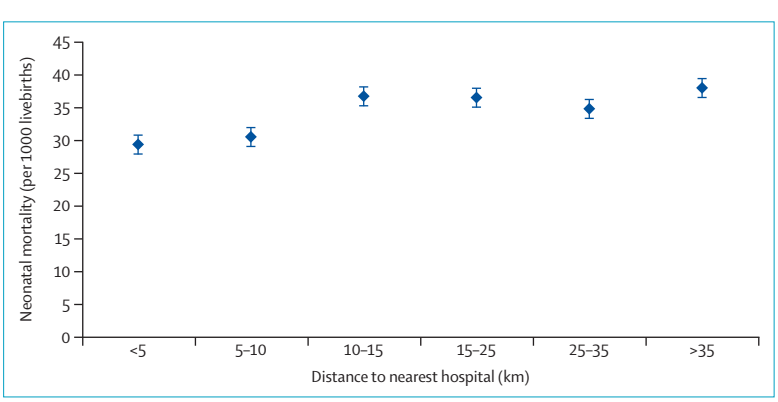

***Figure*: Neonatal mortality by distance to a hospital in southern Tanzania, mid-2004 to mid-2007**
Data are mean and error bars are 95% CI.

We declare no competing interests.

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