

# Community-based approaches for neonatal survival: meta- analyses of randomized trial data

Hanson C, Kujala S, Waiswa P, Marchant T, Schellenberg J

WHO theme issue on measuring quality-of-care in the context of sustainable development goal 3.



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# Background and Methods

## Home visits by community health workers to prevent neonatal deaths in developing countries: a systematic review

Siddhartha Gogia<sup>a</sup> & Harshpal Singh Sachdev<sup>a</sup>



Bull WHO 2010



**2009: WHO proposes postpartum home visits because meta analyses suggest 45% reduction in neonatal mortality**

## Effect of the Newhints home-visits intervention on neonatal mortality rate and care practices in Ghana: a cluster randomised controlled trial

Betty R Kirkwood, Alexander Manu, Augustinus H A ten Asbroek, Seyi Soremekun, Benedict Weobong, Thomas Gyan, Samuel Danso, Seeba Amenga-Etego, Charlotte Tawiah-Agyemang, Seth Owusu-Agyei, Zelee Hill



## Women's groups practising participatory learning and action to improve maternal and newborn health in low-resource settings: a systematic review and meta-analysis

Audrey Prost, Tim Colbourn, Nadine Seward, Kishwar Azad, Ari Coomarasamy, Andrew Copas, Tanja A J Houweing, Edward Fottrell, Abdul Kuddus, Sonia Lewycka, Christine MacArthur, Dharma Manandhar, Joanna Morrison, Charles Mwansa, Nirmla Nair, Bejoy Nambiar, David Osrin, Christina Pagel, Tambosi Phiri, Anni-Maria Pulkki-Brännström, Mikey Rosato, Jolene Skordis-Worrall, Naomi Saville, Neena Shah-More, Bhim Shrestha, Prasanta Tripathy, Amie Wilson, Anthony Costello

Exclusion of 3 non-randomized trials



Lancet 2013



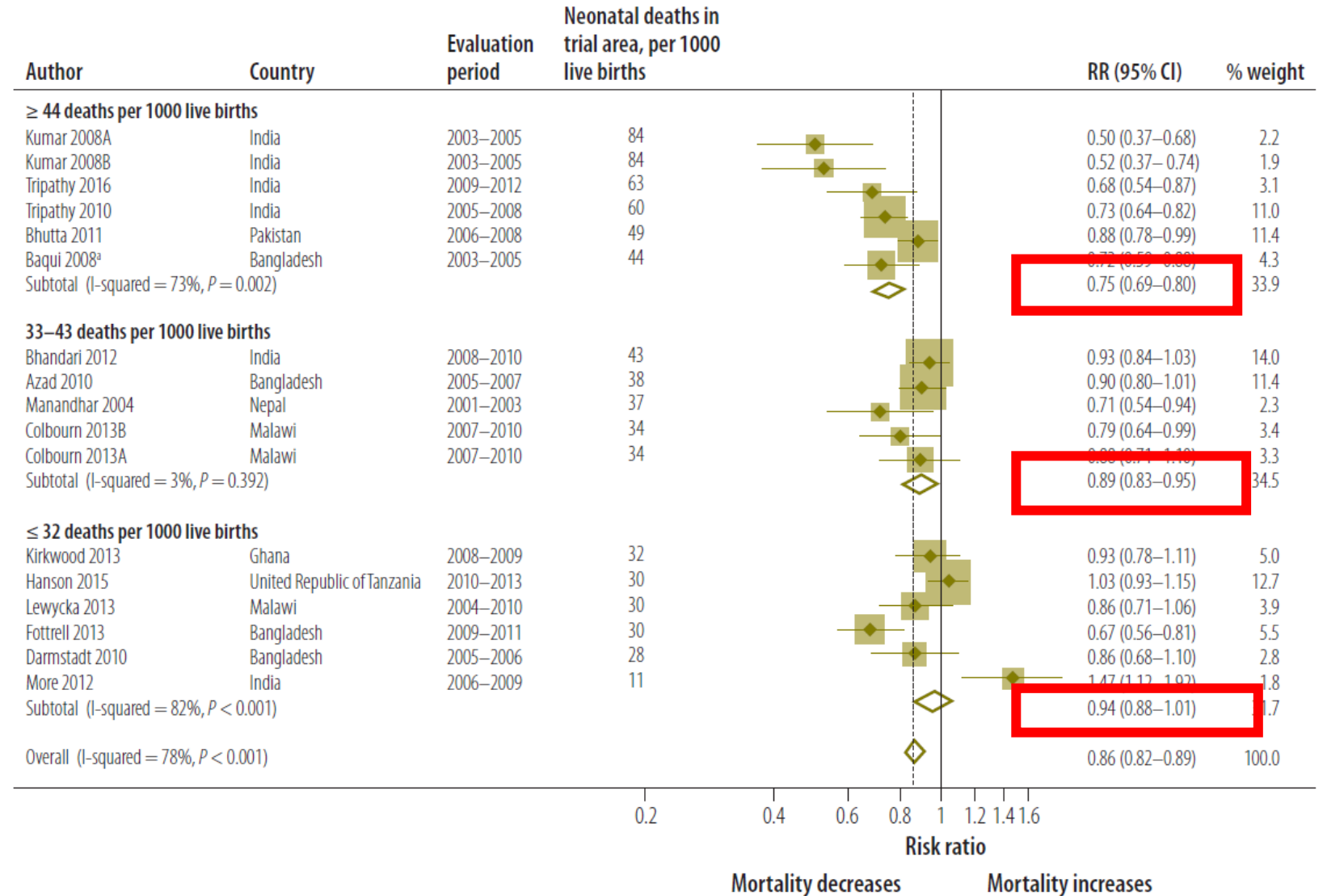
Lancet 2013

+ Hanson et al. PLoS Med 2015  
+ Tripathy et al Lancet GH 2016

7 papers / 8 trials on home-based counselling  
8 papers / 9 trials using women's groups

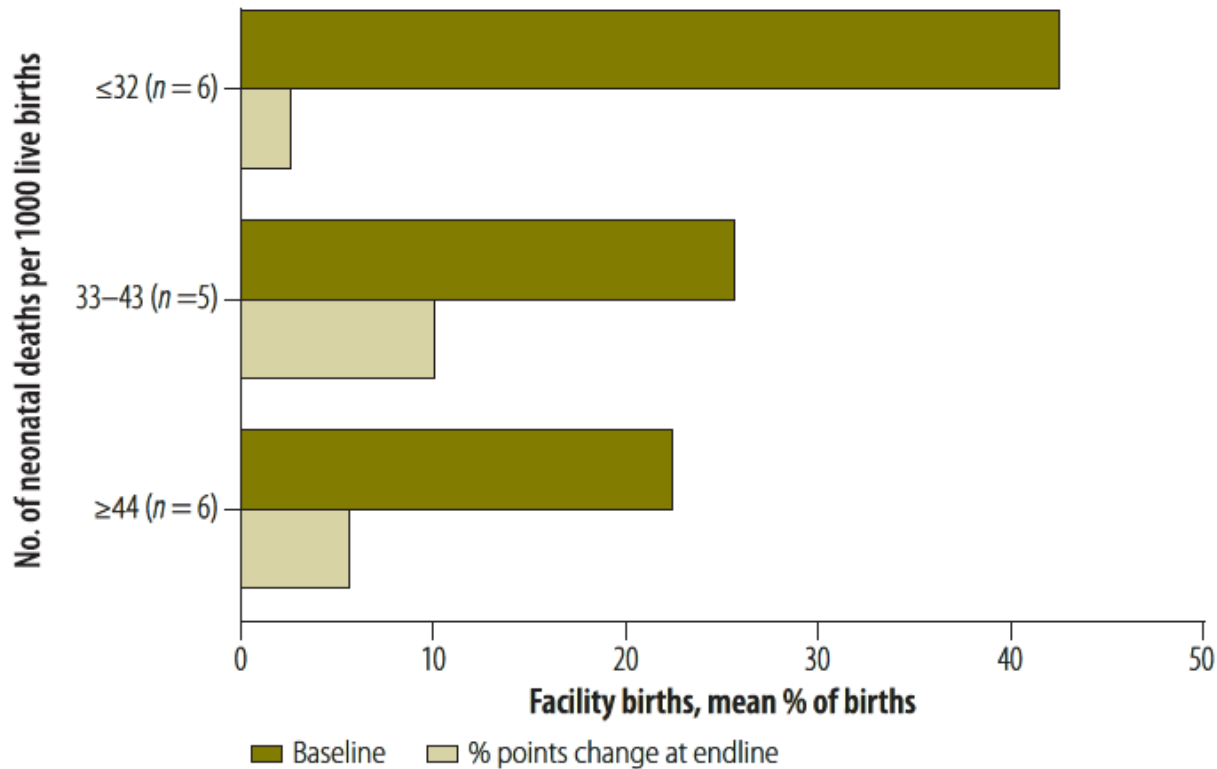
# Result

*How does the effect of community-based approaches differ by context?*



**Can the difference be explained by factors on the pathway of proposed effects?  
Does the health system or quality of care explain differences?**

Fig. 8. Mean baseline and changes in proportion of women delivering in a facility, by neonatal mortality in trial area



Note: Facility birth was defined in all studies as the percentage of births in a health-care facility. *n* is the number of trials.

The density of facilities varied from 17 per 100,000 (Tanzania) to 2 per 100,000 population (Haryana state, India)

Stratification variable	No. of trials or trial arms	RR (95% CI) random effects model	Tests for heterogeneity $I^2$ , %
<b>Density of facilities in study area, no. per 100 000 population</b>			
$\le 8$	5	0.84 (0.78–0.90)	74
$> 9$	4	0.95 (0.88–1.04)	48
<b>Density of nurses and midwives in study area, no. per 1000 population</b>			
$\le 0.4$	4	0.85 (0.79–0.92)	87
$> 0.4$	2	0.86 (0.73–0.99)	0

# Discussion

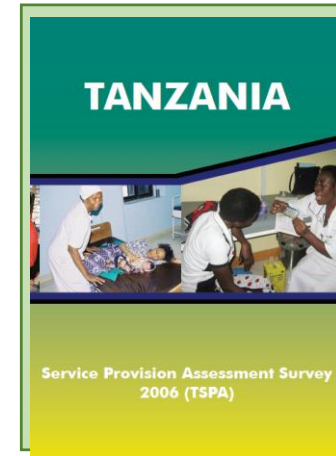
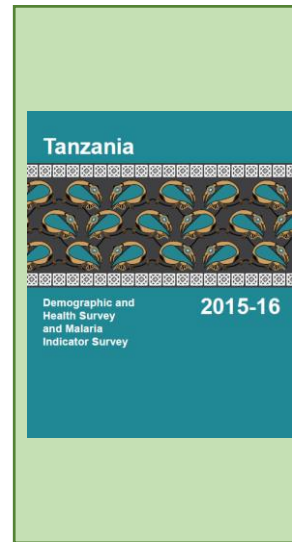
***What are the implications for quality of care and measuring quality of care ?***

The context is different and rapidly changing !

**Measures reflecting the steps in the implementation pathway are needed, otherwise our interventions might miss the point**



*Equity of access*



*Readiness / structural and operational quality*

What is the clinical practice?  
Quality of care?

*Effective care  
Appropriate intervention for the "right" women, at the "right" time*

***How can community action support the delivery and measurement of good quality of care?***

Complementing



Supporting ?



Strengthening ?



Accountability ?