# Breastfeeding: the medical profession sweeping at its own doorstep

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Child mortality has dropped considerably in the period of the Millennium Development Goals, 1990–2015. For instance in India, the under-5 mortality rate has dropped from 126 per 1000 livebirths in 1990 to 53 per 1000 livebirths in 2013.[1] Of the 2013 under-5 mortality, as much as 77% (41 per 1000 livebirths) is accounted for by infant mortality (before 1 year of age) and 55% (29 per 1000 livebirths) by neonatal mortality (before 28 days of age), which means that a large proportion of the deaths occur early in life. As the attention is now turning towards addressing neonatal and infant mortality, many of us are seeing this as an uphill task where large investments are needed in malfunctioning health systems—for instance, improved access to facility birth care. Yet we are still hoping for some cheap and feasible interventions that could be implemented everywhere and make a difference. One of the hopes was neonatal supplementation with vitamin A. Because of mixed results in previous studies, the three large NEOVITA trials[2-4] were launched in the hope that they would bring us a simple intervention with promising results. The three trials done in Ghana, Tanzania, and Haryana, India, were published in 2015, again with mixed results, the intervention being beneficial in India and having no effect or being harmful in the two African studies. The overall conclusion in the accompanying commentary was that it is now time to move on.

But in *The Lancet Global Health* comes the good news from these three NEOVITA studies: there are other effective, feasible interventions that can be implemented everywhere.[5] Rajiv Bahl and colleagues[5] identify that early initiation of breastfeeding and exclusive breastfeeding have independent beneficial effects on neonatal mortality.

This study analyses data from the randomised trials as a cohort. Concerns of reverse causation were addressed—ie, by restricting the analysis to infants who were exclusively breastfed for at least 4 days. The association between early initiation and lower risk of mortality was, however, not weakened. Therefore the present study provides solid evidence that both early initiation of breastfeeding and exclusive breastfeeding are independently protective against neonatal and post-neonatal death in the first 6 months of infants' lives. As such the analysis is an important tie-breaker in the discussion on how important the two factors are: each of them is important.

Even though WHO has been recommending early initiation of breastfeeding since 1989,[6] only about half of newborn babies in low-income countries begin breastfeeding within the first hour of life.[7] What are the barriers for implementing such a simple and low-cost practice? The medical profession has a long tradition of providing non-evidence-based advice on breastfeeding, starting with the Greek physician Soran, from the 2nd century CE, who warned against colostrum and early initiation of breastfeeding.[8] Upper-class women were therefore advised not to let their newborn baby have anything in the first 2 days, and thereafter leave the breastfeeding to a multipara wet nurse. Soran's ideas were transmitted to other continents and various versions are still followed in many places.[10] Even today, there are several examples of non-evidence-based medical practices that have been difficult to stamp out—for instance, separation of mother and child after birth, and particularly after a caesarean section.

To support mothers in early breastfeeding initiation, immediate and uninterrupted skin-to-skin care has been shown to be effective.[11] Studies suggest that healthy newborn infants, if placed skin to skin on the mother's chest, have an inborn sequential behavioural pattern towards the breast to initiate suckling within 1 h following birth.[12]

The novel finding from Bahl and colleagues' study is that the effect of early initiation of breastfeeding is independent of the effect of exclusive breastfeeding. In accordance with previous studies,[13] exclusive breastfeeding was associated with reduced infant mortality. With the present study, the evidence for Step 4 in the WHO/UNICEF Baby-friendly Hospital Initiative about early initiation of breastfeeding has been strengthened.[14] Early initiation of breastfeeding is of great value, even though it costs almost nothing. The recent *Lancet* Series on breastfeeding provides an overview of the road to improvement of breastfeeding practices. This study can be seen as the medical profession

For the ***Lancet* Series on breastfeeding** see http://www.thelancet.com/series/breastfeeding

sweeping at its own doorstep by moving away from non-evidence-based medical advice to evidence-based advice.

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1 UNICEF. The state of the world's children 2015. New York: United Nations Children's Fund, 2014.
2 Edmond KM, Newton S, Shannon C, et al. Effect of early neonatal vitamin A supplementation on mortality during infancy in Ghana (Neovita): a randomised, double-blind, placebo-controlled trial. *Lancet* 2015; **385:** 1315–23.
3 Masanja H, Smith ER, Muhihi A, et al. Effect of neonatal vitamin A supplementation on mortality in infants in Tanzania (Neovita): a randomised, double-blind, placebo-controlled trial. *Lancet* 2015; **385:** 1324–32.
4 Mazumder S, Taneja S, Bhatia K, et al. Efficacy of early neonatal supplementation with vitamin A to reduce mortality in infancy in Haryana, India (Neovita): a randomised, double-blind, placebo-controlled trial. *Lancet* 2015; **385:** 1333–42.
5 NEOVITA Study Group. Timing of initiation, patterns of breastfeeding, and infant survival: prospective analysis of pooled data from three randomised trials. *Lancet Glob Health* 2015; **4:** e266–275.
6 World Health Organization. Protecting, promotion, support of breastfeeding: the special role of maternity services. A Joint WHO/UNICEF Statement. Geneva: World Health Organization, 1989.
7 Victora C, Bahl R, Barros A, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *Lancet* 2016; **387:** 475–90.
8 Sorani. Gynaeciorum vetus translatio latina cum additis graeci textus reliquiis. Lipsiae, 1882.
10 Khanal V, Scott JA, Lee AH, Karkee R, Binns CW. Factors associated with early initiation of breastfeeding in western Nepal. *Int J Environ Res Public Health* 2015; **12:** 9562–74.
11 Moore ER, Anderson GC, Bergman N, Dowswell T. Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database Syst Rev* 2012; **5:** CD003519.
12 Widstrom AM, Lilja G, Aaltomaa-Michalias P, Dahllof A, Lintula M, Nissen E. Newborn behaviour to locate the breast when skin-to-skin: a possible method for enabling early self-regulation. *Acta Paediatr* 2011; **100:** 79–85.
13 Sankar MJ, Sinha B, Chowdhury R, et al. Optimal breastfeeding practices and infant and child mortality: a systematic review and meta-analysis. *Acta Paediatr* 2015; **104:** 3–13.
14 WHO/UNICEF. Baby-Friendly Hospital Initiative. Revised, updated and expanded for integrated care 2009. Original BFHI Guidelines developed 1992. Geneva: World Health Organization, 2009.