

Resources

MATERNAL, NEWBORN AND CHILD HEALTH

Bringing maternal and newborn health together for 2015 and beyond

The Every Newborn Series in The Lancet highlights many of the future opportunities and challenges in forging true integration between the maternal and newborn health communities. In the post-2015 agenda there needs to be a cluster of targets on reproductive, maternal, newborn, and child health so that their linkages across the continuum of care are clear. Also as countries adopt more integrated approaches to designing, implementing, and funding health services and health systems, there is less appetite for externally driven initiatives. In keeping with country preferences, the Every Newborn Action Plan calls for strengthening a specific newborn focus within maternal, child, and reproductive health plans. This needs to include ways to deliver the most effective technical interventions for saving the lives of newborn babies, which in turn needs an educated, enabled workforce in sufficient numbers; functioning commodity systems; attention to quality of care; and effective mechanisms for recording, analysing, and using data.

Ref: Starrs A.M. Survival convergence: bringing maternal and newborn health together for 2015 and beyond *Lancet*, Volume 384, Issue 9939, Pages 211 - 213, 19 July 2014

Cost of preventing deaths of newborns

The authors reviewed existing interventions and then modelled the effect and cost of scale-up in the 75 high-burden countries. More effective quality care for all women and newborn babies delivering in facilities could prevent an estimated 113 000 maternal deaths, 531 000 stillbirths, and 1.325 million neonatal deaths each year by 2020 at an estimated cost of US\$4.5 billion per year. Increased coverage and quality of preconception, antenatal, intrapartum, and postnatal interventions by 2025 could avert 71% of neonatal deaths, 33% of stillbirths and 54% of maternal deaths per year at an annual cost of US\$5.65 billion (which amounts to US\$1928 for each life). Most (82%) of this effect is attributable to facility-based care which, although more expensive than community-based strategies, improves the likelihood of survival. The maximum effect on neonatal deaths is through interventions delivered during labour and birth, including for obstetric complications (41%), followed by care of small and ill newborn babies (30%). To meet the unmet need for family planning with modern contraceptives would contribute to around a halving of births and therefore deaths.

Reference: Bhutto et al. Can available interventions end

preventable deaths in mothers, newborn babies, and stillbirths, and at what cost? for The Lancet Newborn Interventions Review Group. The Lancet Every Newborn Study Group *The Lancet*, Volume 384, Issue 9940, Pages 347 - 370, 26 July 2014

Maternal, fetal and neonatal deaths in low- and middle-income countries

An estimated 340 000 maternal deaths, 2.7 million stillbirths and 3.1 million neonatal deaths occur worldwide each year – almost all in low-income countries. In some parts of sub-Saharan Africa, a woman's lifetime risk of dying in childbirth is as high as one in seven.... Most deaths occurred near to delivery and most obstetric complications are not recognized in advance, so the intervention most likely to reduce mortality is the provision of high-quality emergency obstetric and neonatal care in hospitals capable of carrying out deliveries by caesarean section, blood transfusion and neonatal resuscitation in addition to other key elements of obstetric care, such as uterine evacuation of the retained products of conception, manual removal of the placenta, assisted vaginal delivery by forceps or vacuum and the administration of oxytocin, anticonvulsants and antibiotics. This paper underlines the importance of increased investment in healthcare facilities.

Ref: Sarah Saleem et al. A prospective study of maternal, fetal and neonatal deaths in low- and middle-income countries. *Bulletin of the World Health Organization* 2014;92:605-612. From HIFA August 2014.

Malaria and pregnancy – a review

Infection with malaria during pregnancy causes severe anaemia, miscarriages, and preterm births, and kills about 10,000 women and 100,000 children each year. This paper reviewed 37 studies in Africa and concluded: 'Barriers to access to WHO-recommended treatment among women included poor knowledge about drug safety, and the use of self-treatment practices such as taking herbal remedies. Factors that affected the treatment-seeking behavior of pregnant women included prior use of antenatal care, education, and previous experience of a miscarriage. Among healthcare providers, reliance on clinical diagnosis of malaria was consistently reported, as was poor adherence to the treatment policy.'

Ref: Jenny Hill et al. Women's Access and Provider Practices for the Case Management of Malaria during Pregnancy: A Systematic Review and Meta-Analysis. <http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.1001688>.

From HIFA August 2014.

Integrated community case management (iCCM) of childhood illness in Rwanda

Between 2008 and 2011, Rwanda introduced integrated community case management (iCCM) of childhood illness nationwide. Community health workers in each nearly 15,000 villages were trained in iCCM and equipped for empirical diagnosis and treatment of pneumonia, diarrhoea, and malaria; for malnutrition surveillance; and for comprehensive reporting and referral services. Data from the health management information system (HMIS) were used to calculate monthly all-cause under-5 mortality rates, health facility use rates, and community-based treatment rates for childhood illness in each district. A 3-month baseline period prior to iCCM implementation was compared with a seasonally matched comparison period 1 year after iCCM implementation, and the actual changes in all-cause child mortality and health facility use over this time period was compared with the changes that would have been expected based on baseline trends. The number of children receiving community-based treatment for diarrhoea and pneumonia increased significantly in the 1-year period after iCCM implementation. On average, total under-5 mortality rates declined significantly by 38%, and health facility use declined significantly by 15%. These decreases were significantly greater than would have been expected based on baseline trends. This is the first study to demonstrate decreases in both child mortality and health facility use after implementing iCCM of childhood illness at a national level. While the study design does not allow for direct attribution of these changes to implementation of iCCM, these results are in line with those of prior studies conducted at the sub-national level in other low-income countries.

Ref: Mugenia and Levine et al. Nationwide implementation of integrated community case management of childhood illness in Rwanda. <http://m.ghspjournal.org/content/early/2014/08/04/GHSP-D-14-00080.abstract?ma>

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From CHILD2015 and Malaria Update

Pneumonia and counting beads

CHWs are trained to count the respiratory rate of a child with cough and/or difficulty breathing, and determine whether the child has fast breathing or not based on how the child's breath count relates to age-specific respiratory rate cut-off points. This can be difficult and counting beads were designed to overcome these challenges. This article presents findings on the using these beads, with a timer, to improve classification of fast breathing, and found that, in some situations, the use of counting bead improved the assessment and classification of fast breathing but that it decreased the accuracy of counting breaths among literate CHWs. The key messages from these finding were that:

- The use of age-specific and colour-coded beads enables community health workers to track rather than mentally count the child's respiratory rate and eliminates the need to remember the age-specific fast breathing cut-offs for pneumonia classification.

- Well-designed age-specific and colour-coded counting beads, when used with an accurate timing device, have the potential to improve correct classification of fast breathing by CHWs with limited numeracy and literacy.

Ref: Noordam AC et al. The use of counting beads to improve the classification of fast breathing in low-resource settings: a multi-country review. *Health Policy Plan.* (2014) doi: 10.1093/heapol/czu047

<http://heapol.oxfordjournals.org/content/early/2014/07/07/heapol.czu047.abstract.html?papetoc>

From CHILD 2015 <https://dgroups.org/groups/child2015>

Tippy tap (see page 72)

The tippy tap is a hands-free way to wash your hands that is especially appropriate for rural areas where there is no running water. It is operated by a foot lever and thus reduces the chance for bacteria transmission as the user touches only the soap. It uses only 40 millilitres of water to wash your hands versus 500 millilitres using a mug. Additionally, the used "waste" water can go to plants or back into the water table.

While the tippy tap is a great technology, it is just that – a technology. It is important to recognise that there is a difference between great technology and adoption of the technology. However, it is a great tool that can help kick start the conversation about hand washing with soap and help increase this behaviour. And it does so in a fun and easy manner that is especially appealing to children.

For more information about the tippy tap and how to use it as part of hand washing promotion campaign, see www.tippytap.org

SSMJ thanks Sowmya Somnath, WASH Program Director, for permission to publish the directions on how to build a tippy tap.