Profile

Abdullah Baqui: saving newborn lives in Bangladesh and globally

See **Comment** page 2096

Baqui AH, El-Arifeen S, Darmstadt GL, et al. Effect of community-based newborn-care intervention package implemented through two service-delivery strategies in Sylhet district, Bangladesh: a cluster-randomised controlled trial. *Lancet* 2008; **371:** 1936–44.

To vote for this paper as *The Lancet*'s 2008 **Paper of the Year** see http://www.thelancet.com

Abdullah Baqui has spent most of his career working to reduce child mortality, particularly in the areas of diarrhoeal diseases, micronutrients, and vaccines in his native Bangladesh. But in the past 8 years or so he has felt the need to focus his efforts on the 4 million newborn babies who die every year and the many more stillbirths. It has been, he believes, a neglected area. "We are making progress in child survival but not really so much in newborn survival", he says. "There was a perception 10 to 15 years ago that it is not easy to reduce mortality in the first month because it probably needs high technology or a hospital unit. That perception is not quite right. Some newborn babies will need high technology but most of them don't."

Baqui's *Lancet* paper outlines strategies that are simple but effective in reducing the death toll and, importantly, are capable of being replicated widely in Bangladesh and elsewhere. Women, with no health-care background, were trained to advise mothers on preparations for birth and the care of newborn babies. They visited women in their homes twice before the birth and then went back on the first, third, and seventh days after the birth to assess the baby and give basic care or refer if the infant was sick. The comparison with women who received usual care was marked: deaths in neonates were reduced by 34% in the homecare group.

Baqui, associate professor in international health at Johns Hopkins Bloomberg School of Public Health, Baltimore, USA, and his team began by looking at the issues around neonatal mortality in Sylhet district of Bangladesh in partnership with the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), the Ministry of Health, and local non-governmental organisations (NGOs). Their intervention involves the training of one community worker per 4000 women, which is the usual ratio in Bangladesh for health workers involved in family planning and health. "Illustrating something and providing the proof of principle that something works is important, but if there is no uptake, what is the point of doing it?" asks Baqui. "It is very important to formulate your research questions with the stakeholders who are responsible for large-scale implementation." Soon after the study was completed a USAID-funded NGO went ahead and implemented the intervention throughout the district of 3·5 million people.

Baqui grew up in Gopalganj, a small town in southern Bangladesh, where his father was a lawyer. "As a young boy, I had very little understanding of the link between poverty and ill health. I thought ill health was the problem. I remember epidemics of smallpox and cholera and so many premature deaths. I thought if I became a physician, I would probably be able to help people." After his medical studies in Dhaka, Baqui joined the Cholera Research Laboratory, in 1978, which soon became the ICDDR,B. There he learned that health problems are linked not only to poverty, "but to so many social and cultural practices. The health system is quite dysfunctional in so many countries. Within those constraints, you can make a lot of improvements in health if you can change some of these practices as well as making the health system responsive to the needs of the population."

Baqui says it is crucial to respect a community's culture and social customs, "We spent quite a time understanding their perceptions and practices around pregnancy, delivery, and newborn care". There was a belief, for instance, that babies should not be taken out of the home in the first 40 days of life, for fear not only of the evil eye but also the cold, but these days it is only enforced for the first 7 days. What is dangerous is that the focus immediately after birth is exclusively on the mother. "The baby is in a blind spot in the first 15 to 20 minutes", says Baqui. The concern is to have the placenta delivered, but the baby is left on the ground and may need urgent attention for respiratory difficulties, coldness, or infection. This is where a woman from the village with training can help. "We think behaviour change is possible if the messages are compatible with local culture", he says.

Robert Black, Edgar Berman Professor in International Health at Johns Hopkins and a coauthor of the paper, paid tribute to Baqui's work. "He conducted this study in an area of Bangladesh with very high neonatal mortality and difficult field conditions, but managed to carry out a trial of high quality and policy relevance". Black adds that showing that "community-based approaches to management of potentially life-threatening neonatal infections can be safe and effective provides the evidence needed to enable expansion of this avenue to reduce the 1 million annual deaths from these infections". Massee Bateman, director of the Saving Newborn Lives programme of Save the Children USA, agrees: "The important contribution of this study is to help us better understand how to make practical choices to take life-saving programmes to scale." As a result of the work, "global and national policies and programmes will be informed and propelled to provide community-based approaches as a key strategy to improve newborn survival."

Baqui says that future work must find out how to scale up what we know: "There are a lot of good studies out there showing impact. But when we take them into larger programmes, we lose the effectiveness. We need research on how you take an intervention from half a million people to the millions of people living in poor communities of Asia and Africa without losing effectiveness."

Sarah Boseley
sarah.boseley@guardian.co.uk