id21 health highlights #19

maternal & child health

communicating international development research

Promoting breastfeeding in Brazil

The Baby-Friendly Hospital (BFH) Initiative is the most popular strategy for increasing the rate and duration of exclusive breastfeeding. Brazil has 289 BFH, more than any other country. But research in Pernambuco State suggests that the strategy has limited impact without additional community-based support for mothers.

If 90 percent of babies were exclusively breastfed up to five months of age and continued to breastfeed from six to eleven months, there would be an estimated 13 percent reduction in child deaths worldwide. But exclusive breastfeeding rates are much lower than this in most countries, and the duration of breastfeeding is often short.

Researchers from the Federal University of Pernambuco and the London School of Hygiene and Tropical Medicine compared two ways to promote exclusive breastfeeding based on the BFH initiative. They worked in two hospitals where staff had received BFH training, and 175 mothers took part in the hospital-based system, while another 175 received a combination of the hospital programme plus ten home visits over six months. Mothers were allocated randomly to the two groups.

They found that:

- BFH training achieves a high rate (70 percent) of exclusive breastfeeding in the hospitals, but this falls once mothers get home. Only 30 percent are exclusively breastfeeding their babies at ten days of age.
- Health workers completed 99.6 percent of the four home visits planned for the first month and five of the six (83 percent) later visits.
- The mean rate of exclusive breastfeeding over the six month period is 45 percent among the group given home visits, compared with 13 percent for the group that have none. The mean rate before the BFH training was seven percent.
- Fewer mothers in the home visit group feed water, tea or other milks or give bottles or pacifiers to their babies in their first six months.
- With hospital-based training, exclusive breastfeeding is more common among better-off and better-educated mothers. This inequity is not seen when mothers receive home visits.

In Brazil, mothers stay in hospital only 24 to 36 hours after delivery or 48 hours after a Caesarean section. This early discharge reduces the chance for individual contact and support and may explain the stronger effect of home visits over the hospital-based system. However, a hospital can achieve Baby-Friendly status even if it offers only minimal post-natal support.

The researchers draw the following conclusions for health policy:

- It may be unwise to rely on the BFH initiative alone for breastfeeding promotion.
- A combination of hospital and community based systems is needed so that mothers can receive ongoing help locally, especially in the early weeks after the birth when difficulties commonly arise.
- Home support is likely to be especially important in countries where mothers stay in hospital for a short time.
- In different countries, home visits could involve traditional birth attendants, village-based workers, auxiliary nurse midwives, community health workers and other health care providers.
- Further research is needed to work out the best number and timing of visits for success.

Ann Ashworth
Nutrition and Public Health Intervention Research Unit, London School of Hygiene and Tropical Medicine, London WC1E 7HT, UK
T +44 (0) 20 79588108 **F** +44 (0) 20 79588111
ann.hill@lshtm.ac.uk

'Comparison of the effect of two systems for the promotion of exclusive breastfeeding', *The Lancet* 366, pages 1094-1100, by Sonia Bechara Coutinho et al., 2005

Testing a vaccine for childhood pneumonia in the Gambia

Almost one in five of child deaths worldwide are caused by pneumonia. A vaccine against the disease could reduce many of these deaths. A vaccine tested in the Gambia has proven to be effective against pneumonia.

A study led by the UK Medical Research Council was carried out in rural Gambia to assess the efficacy of a vaccine against pneumonia and other serious diseases caused by the pnuemococcal bacterium in children aged two years and younger.

More than 17,000 children took part in the study. Of those, about half were randomly assigned to the intervention group (those who received the vaccine) and half to the control group (those who received a placebo). The vaccine was given to children in three doses .

After inoculation, children were monitored over a two year period to determine whether they developed pneumonia that could be diagnosed via x-ray (radiological pneumonia) or clinical diagnosis (clinical pneumonia).

Researchers found:

- 388 cases of pneumonia confirmed by x-ray, the most accurate diagnostic test, among children who had received the vaccine whereas 590 of those unvaccinated were diagnosed. Researchers established that the vaccine showed an efficacy of 37 percent. This efficacy level was similar in children regardless of age and sex.
- Laboratory tests in a portion of participants showed that vaccinated children had half the rate of pnuemococcal pneumonia, meningitis, and septicaemia as unvaccinated children.
- There was an overall reduction in mortality by 16 percent among the children who received the vaccine.

In sum, the study found that the vaccine is highly effective against pneumonia, reducing hospital admissions and increasing survival rates.

A vaccine similar to the one used in the study is already licensed and widely used in developing countries, and newer vaccines are expected to be licensed in the next three years. The study calls for:

- international agencies and developing country governments to prioritise the wider use of pnuemococcal vaccine in children
- donors, governments and vaccine manufacturers to commit to sustainable financing and affordable prices
- studies to evaluate newer vaccines and to make them available as soon as possible.

Felicity Cutts
Initiative for Vaccine Research, World Health Organization, CH 1211, Geneva-27, Switzerland
cuttsf@who.int

'Efficacy of nine-valent pneumococcal conjugate vaccine against pneumonia and invasive pneumococcal disease in Gambia: randomised, double blind, placebo-controlled trial', *The Lancet* 365, pages 1139-1146, by Felicity Cutts et al., 2005

Gender and child health care seeking in Nepal

The mortality rates for children under five in Nepal are among the highest in the world, with substantial differences existing between the rates for boys and girls. If efforts to reduce child mortality are to be more effective, an understanding is needed of how gender influences households' decisions to seek health care for their children.

While the overall child mortality rates have declined in the past decade, the government of Nepal has introduced a five-year plan and a long-term health plan which aim to reduce the deaths further by prioritising preventive and curative care for childhood diseases. If these programmes are to be implemented effectively, programme managers and policymakers need to look at the factors influencing household decisions on the use of child health care.

A study by the University of Heidelberg, Germany, focuses on the extent to which gender influences child health care. It considers four stages of a health seeking action, including reporting of illness; choosing external care; choosing a health care provider; and spending money on treatment for the ill child. Gender was found to be a factor in all four stages. While being a boy only marginally affected the reporting of illness, it played a stronger role in choosing external care as well as public provider and money spent with private health providers.

Further findings include:

- A boy was 15 percent more likely to be reported ill than a girl, irrespective of the family's income.
- For a boy, the likelihood of external care being sought was 42 percent higher than for a girl.
- Boys were 43 percent more likely to be taken to the public health care provider than girls.
- Households spent more money with private health care providers for a male child.

While the strong son-preference in Nepal may offer an explanation for the gender difference in health care choices, it appears that discrimination against girls may not be mainly the result of economic difficulties. Furthermore, because the study focuses on the outcome of households' health care choices and not the process of making these choices, it can offer no explanation as to why households show son-preference in child health care use. Thus the study is not able to make policy suggestions for reducing these gender disparities.

However, it suggests that:

- Health policies should focus on changing families' perceptions of girls' illnesses. Studies have shown, for instance that women's education increases their use of health care.
- Increasing the number of health care outlets and removing financial barriers to care by subsidising the supply side may not have the desired effect, due to the wider social and cultural roots of gender bias, including the perception of illness.
- However, providing the poorest households with demand-side subsidies for health insurance may help reduce the gender gap.

Subhash Pokhrel
Department of Tropical Hygiene and Public Health, University of Heidelberg, INF 324, D-69120 Heidelberg, Germany
T +49 6221 564886 **F** +49 6221 565948
subhash.pokhrel@urz.uni-heidelberg.de

'Gender role and child health care utilization in Nepal', *Health Policy* 74, pages 100-109, by Subhash Pokhrel et al, 2005

Care-seeking during childbirth in rural India

Maternal morbidity and mortality are high in India, yet the majority of maternal deaths would be avoided if timely and effective care could be accessed at childbirth. If maternal heath is to be improved and maternal mortality reduced, there is an urgent need to understand how women seek care and to provide services that respond to their needs.

Worldwide, the high number of deaths occurring during childbirth has been a major focus of the international community since the Safe Motherhood campaign was launched in 1987. Despite this, the high levels of maternal mortality remain. In India, where the Child Survival and Safe Motherhood Programme was initiated in 1992, an estimated 540 mothers die per 100,000 live births.

In rural areas, a key component of maternal care is putting a strategy in place for accessing effective and well-managed health care when a complication arises in childbirth. A study by the Belaku Trust, Bangalore, the National Institute of Mental Health and Neuro Sciences, Bangalore and the University of Southampton, UK, followed 388 women in Karnataka in southern India through pregnancy, childbirth and the postpartum period.

The study collected information about the health-seeking decisions of the pregnant women and their families, as their pregnancies developed. The focus of the study was the delay in the care-seeking process caused by decision-making in the woman's household about when and from which provider to seek care from.

Research findings include the following:

- During childbirth, the number of mothers seeking unplanned care at institutions was high – only 11 percent planned to give birth in hospital but 35 percent actually did.
- A high proportion of women (49 percent) planned a home delivery assisted by an auxiliary nurse midwife yet a significant proportion of these (more than half) actually used a lay attendant.
- Important factors influencing health seeking behaviour during childbirth were perceived quality of care, education, wealth, caste, problems in the antenatal period and problems experienced in earlier pregnancies.
- Many women sought care in response to serious morbidities, but sometimes this was only after a long delay.
- Women who did not perceive that they had a satisfactory progression of labour were most likely to go to hospital unexpectedly for their delivery.

When life threatening illnesses occurred, the woman's attendants were usually aware that care should be sought. Delays in seeking this care were clearly influenced by perceptions of the quality of care likely to be received from local services.

The study suggests that:

- Programmes that extend the use of routine antenatal care, teach health education to communities, increase the number of births in institutions, encourage 'lying in' homes close to well-equipped health facilities and offer improved transportation to institutions could improve the situation in rural areas of Karnataka.
- The unmet demand for skilled attendants indicates that it is essential that outreach systems provide a better level of coverage.
- Governments should give more thought to improving the quality of the health care provided to women in times of emergencies at public health facilities.

Zoë Matthews
Division of Social Statistics, University of Southampton, Southampton SO17 1BJ, UK
T +44 (0) 23 80593997 **F** +44 (0) 23 80593846
Z.Matthews@soton.ac.uk

'Birth rights and rituals in rural south India: care seeking in the intrapartum period', *Journal of Biosocial Science* 37, pages 385-411, by Zoë Matthews et al, 2005

id21
Institute of Development Studies
University of Sussex
Brighton, BN1 9RE UK

T +44 (0) 1273 678787
F +44 (0) 1273 877335
E id21@ids.ac.uk

Institute of Development Studies

id21 health highlights bring the latest research to health policymakers and practitioners with limited internet access. Please photocopy and distribute them to your colleagues. If you would like to subscribe free of charge, please send your contact details to the address above. id21 is hosted by the Institute of Development Studies and supported by the UK Department for International Development.

Keywords: breastfeeding, health promotion, exclusive breastfeeding, vaccine, childhood pneumonia, gender, child health, maternal health services, health care seeking, health service utilisation, childbirth