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Seeking treatment for child malaria in rural Sudan

How and when parents seek treatment for a child with malaria can affect outcomes. In rural Sudan, parents explore different options before seeking formal medical care, thus delaying vital treatment. In such settings effective home-based management of malaria would utilise local health infrastructure to improve treatment outcomes.

In order to effectively treat children under five years of age with malaria, it is necessary that parents recognise the symptoms and act quickly to provide the right treatment. The aim of this study, involving researchers from Sudan's National Malaria Control Programme, the Sudan Ministry of Health, the University of Juba and the University of Liverpool (UK), was to understand how parents recognise malaria in children and what treatment option they choose.

Researchers designed a study that combined qualitative and quantitative data gathering methods. They surveyed 96 mothers who had accessed medical treatment for their children with malaria. In addition, the study also conducted ten focus group interviews and observations of daily life in a number of villages in the study area. Researchers found that:

- The majority of mothers were capable of recognising the symptoms of malaria, including high fever. They also knew the seriousness of these symptoms.
- The response of mothers to malaria was normally to ask for advice but not from health facilities. Parents used medical personnel or health facilities only when a child's condition deteriorated.
- Parents used four different types of treatment. These included traditional medicine, herbal remedies, self-treatment and finally medical care. Self-treatment was particularly common.

The choice of treatments depended on a number of factors. These were the availability of formal health facilities, the costs involved in treatment and medicines, the difficulties associated with travelling and belief in the effectiveness of traditional medicine.

In sum, the study found that Sudanese mothers tend to seek medical attention for malaria when their children's condition deteriorates. Before reaching this state, they normally go through a series of different alternatives which result in unnecessary delays in seeking care. The study calls for a successful malaria home management strategy that includes:

- taking into account existing treatment options
- training and equipping nominated volunteers from each village to link with existing health facilities
- storing the required drugs in pharmacies, health centres and hospitals.

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'Treatment-seeking behaviour for malaria in children under five years of age: implications for home management in rural areas with high seasonal transmission in Sudan', *Malaria Journal* 5(60), by Elfatih Mohamed Malik et al, 2006
www.malariajournal.com/content/5/1/60

Midwives assisting homebirths face opposition in rural Bangladesh

In Bangladesh countless women still die during child labour. Many of these deaths occur at home. A trained midwife could prevent large numbers of these deaths. In response, countries in South Asia are now promoting the policy of homebirths supervised by a trained midwife.

The Centre for Health and Population Research, Dhaka, looked at the experiences of midwives attending homebirths in the rural region of Matlab. In Bangladesh, 91 percent of births still take place at home and only 13 percent are assisted by a doctor or midwife. In 1987, a health initiative was introduced in Matlab to allow midwives to attend women in the home.

Researchers conducted interviews and group discussions with 13 midwives in Matlab in 2003 and 2004 to learn what difficulties they faced during their work. The study found midwives experienced many problems conducting home deliveries. The biggest challenges they faced were related to attitudes of the family members who often wanted to maintain traditional childbirth practices. If a complication arose during labour it could take hours or even days to persuade the family to allow the mother to go to a hospital that offered care. Moreover, childbirth was seen as dirty and whoever touched a woman giving birth was viewed as impure. As a result the midwives did not receive the help and respect they expected.

Other difficulties confronting the midwives were:

- Feeling unsafe because they were required to travel and work at night.
- Poor transport. The women had to travel on foot, by rickshaw or by boat.
- Delivering babies in dark and often dirty conditions.
- Lack of equipment and supplies. Midwives often had to return to the clinic for extra supplies if something unexpected occurred. Sometimes, to save time, they took the new-born baby with them.
- Lack of training in homebirths and inadequate supervision. There was a monthly meeting to discuss problems but the midwives wanted more direct supervision.

Midwives felt more comfortable working in a hospital environment. However in the hospital the midwives behaviour was often reported to be inappropriate. Some midwives shouted at and humiliated their patients for screaming during labour, for taking too long to deliver or for refusing to show their genitals. The midwives' modern attitudes clashed with the traditional values of the families both in the clinic, where the midwives felt more in control, and in the home, where the families were dominant.

The researchers suggest:

- adapting modern birthing methods to accommodate traditional practices as long as they do not endanger mother or child
- training midwives to show respect towards the women in their care
- community education programmes on childbirth and the role of the midwife so that families feel less threatened and offer more support

Even with these improvements the midwives will face many obstacles during homebirths. Governments should consider carefully whether a clinic or home-based approach is the best option for ensuring skilled birthing care.

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'Attending home vs. clinic-based deliveries: perspectives of skilled birth attendants in Matlab, Bangladesh', *Reproductive Health Matters* 14(27), pages 51-60, by Lauren S. Blum et al, 2006

Managing severe acute malnutrition in children

Between one and two million children die each year around the world from wasting, or severe acute malnutrition (SAM) due to poverty and poor diet. Nevertheless SAM has been ignored by health programmes and the World Health Organization (WHO) does not recognise the term 'acute malnutrition'.

Valid International (UK) has been studying ways of improving care for these severely malnourished children. SAM is diagnosed in young children whose weight is more than 70 percent below the average for their height or who have an upper-arm circumference of less than 11cm. Hospital mortality rates for children with SAM have remained unchanged since the 1950s at 20-30 percent even though there have long been ways of reducing mortality to below five percent. Even more worryingly, hospital treatment reaches less than 10 percent of children who need it.

If trained staff looked after children in well-provisioned hospitals using the latest protocol survival rates would increase dramatically. However, these children live in the poorest regions of the poorest countries in the world. There are not enough hospital beds or trained medical staff to care for them. Other ways of saving these children's lives must be found.

Community-based therapeutic care is much cheaper and can reach many more children than traditional hospital-based care. Health programmes which provide children with ready-to-use food have proved successful. The special nutrient-dense food, with added minerals and vitamins, does not need cooking and can be kept unrefrigerated for several months. Moreover, the food can be made from local crops using basic local technology. The studies found that when children suffering from SAM were treated in the community:

- parents did not have to travel long distances, find money for fares, or leave work to accompany the child
- the proportion of children suffering from SAM who were treated increased to 70 percent
- children were treated earlier and the number of deaths fell to four percent
- beds and staff were made available for the sickest children with complications, such as diarrhoea, septicaemia and respiratory infections
- the costs of treating individual children were significantly reduced. In Bangladesh for example, home-based care cost as little as a fifth of hospital care: US$29 instead of US$156.

Economic development and public health programmes to improve diet in these regions would prevent almost all of these deaths. The study recommends that:

- community-based care for SAM should be scaled up with training for medical and nursing staff
- WHO adopts the term 'acute malnutrition' so that 'wasting', where the child is much too thin, can be differentiated from 'stunting' or stunted growth. The two conditions, both caused by malnutrition, require different treatment
- wasting must be given a higher profile, and given in official records as the cause of death, so that decision-makers are made aware of it
- health campaigns need to inform policymakers and funders that there are successful, inexpensive ways of treating wasting
- measuring the circumference of a child's arms should be included as a standard element in growth monitoring programmes so that the condition is caught early, before complications arise, and can be treated in the community.

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'Management of severe acute malnutrition in children', *The Lancet* 368, pages 1992-2000, by Steve Collins et al, 2006

Poverty, malnutrition and child development

More than 200 million children under five years old are malnourished and living in poverty. They do badly at school and have low productivity in adulthood. As a result they pass on poverty and deprivation to future generations. They are unable to fulfil their development potential.

University College London (UK), together with the London School of Hygiene and Tropical Medicine (UK) and an international group of academics, carried out a review to assess the links between poverty, stunted growth – often caused by ill health and malnutrition – and low achievement at school. Many children under the age of five in sub-Saharan Africa and South Asia live in poverty: they are malnourished, have poor health and live in home environments that do not provide the stimulation they need to develop properly.

As a result, the children have low IQs and do badly at school, which leads to low incomes and high fertility in their adult lives. They are unable to provide proper care for their children and the cycle of deprivation continues. This problem extends beyond individual families. In countries where many families are raising children in these conditions, national development is inevitably affected.

The environment in which children spend the first few years of life is crucial because the brain develops rapidly during this period. Essential development occurs in all areas: mental, physical and emotional. Poor nutrition, lack of micronutrients, stress and lack of social interaction can affect the structure and function of the brain as well as having long-lasting emotional effects.

The reviewers found that:

- Many mothers in poor families were uneducated, suffered from stress and depression and were unable to provide a stimulating home environment.
- Poor children often attended inadequate schools and had little support from family members who did not appreciate the benefits of education.
- Stunted children were less likely to be enrolled in school. If they did go to school, they were more likely to enrol late, get lower grades and have a low IQs for their age.
- Stunted children were less likely to have completed their primary education.

Poor and/or stunted children learn less during each year of school. Both their mathematics and reading falls below levels reached by other children. Moreover, poor children attend school for fewer years than other children. The study found a strong link between school success and economic prosperity: each year of schooling increases adult wages by almost 10 percent.

The study made a conservative estimate that 219 million children worldwide were living in deprived circumstances or were stunted. This figure makes up 39 percent of all children under the age of five in developing countries. The study strongly recommends that child health, nutrition and development programmes be set up in developing countries in order to break the cycle of deprivation. Helping these children at an early age can bring rapid improvement and allow them to achieve their full potential. For the sake both of the individual children and the prosperity of the whole country, action must be taken immediately.

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'Developmental potential in the first 5 years for children in developing countries', *The Lancet Child Development in Developing Countries Series*, 369, pages 60-70, by Sally Grantham-McGregor et al, 2007

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