



September 2008

**Malaria Consortium submission to UK All Party Parliamentary Group on Population, Development and Reproductive Health enquiry on Maternal Morbidity**

**Malaria and Maternal Morbidity**

- Maternal Morbidity is defined as illness or disability occurring as a result of or in relation to pregnancy, childbirth or in the postpartum period.
- Malaria is a parasitic disease transmitted by mosquitoes and is one of the leading causes of death and disease in the developing world. The link with maternal morbidity is that pregnant women are the adult group most at risk from Malaria and they are four times more likely to suffer malaria than other adults (throughout all regions).
- Pregnancy reduces a woman's immunity to malaria making her more likely to become infected/affected. Pregnant women's increased vulnerability to malaria can have devastating consequences for both the women and her unborn child. In sub-Saharan Africa malaria infection is estimated to cause 400,000 cases of severe maternal anaemia which contributes significantly to maternal mortality - causing an estimated 10,000 deaths per year.
- According to the recent World Malaria Report 2008, published by the World Health Organisation, surveys in 18 African countries found that only 27% of pregnant women slept under an insecticide treated net.
- The problems that malaria infection causes during pregnancy differ depending on the type of malaria transmission area. For example, in high transmission areas where women have gained a level of immunity to malaria that is lessened during pregnancy, malaria infection is likely to result in severe maternal anaemia and delivery of low birth-weight infants. In areas of low transmission where women generally have developed no immunity to malaria infection during pregnancy infection is more likely to result in severe malaria disease, maternal anaemia, premature delivery, or stillbirth. There is also the possibility of malnutrition (no appetite during fevers) and an increased risk of miscarriage.
- The burden of malaria in pregnancy is exacerbated by HIV infection which increases susceptibility to malaria in pregnancy, reduces the effectiveness of antimalarial interventions, and complicates the use of antimalarials because of potential drug interactions.
- One of the difficulties in diagnosing malaria is that the disease-related symptoms can be easily confused with pregnancy-related symptoms.

## **Malaria Prevention and Treatment for Pregnant Women**

- Efforts to prevent malaria in pregnant women focus on sleeping under insecticide-treated nets (ITNs) and intermittent treatment with an antimalarial drug. ITNs decrease both the number of malaria cases and the number of malaria deaths in pregnant women and their children. Studies have shown that in areas where there are high rates of malaria, women protected by ITNs every night during their first four pregnancies give birth to 25 percent fewer underweight or premature newborns.
- Intermittent preventive treatment (IPT) involves providing pregnant women with at least two preventative treatment doses of a long-acting antimalarial drug. Evidence shows this is a safe, inexpensive and effective way of preventing malaria during pregnancy with a decline in both infection rates, and in the number of low birth weight babies

## **Malaria & Maternal Health Services**

- Integration of malaria and reproductive health programmes offers a high potential in the fight against malaria and vice versa. Antenatal Care (ANC) centers and clinics are a key point of entry for the provision of maternal health services. In areas where ANC attendance is high, ANC facilities can make an excellent conduit for achieving malaria prevention during pregnancy.
- The World Health Organization (WHO) has introduced malaria guidelines into their Making Pregnancy Safer programme. As we have said previously, antenatal clinics are a key setting where women can be made aware of the problems of malaria and take preventative steps. However, whilst delivery of malaria interventions through antenatal clinics in malaria-endemic areas needs to be widespread, WHO acknowledges that currently this approach is the exception rather than the rule.
- Pregnant women who do not attend antenatal clinics or who attend only for the first visit or too late during pregnancy need to be reached. Many women are not aware that pregnancy makes them more susceptible to malaria and new strategies are needed to encourage these women to attend antenatal care early and consistently.
- Other challenges include drug resistance and the safe and appropriate use of different antimalarial drugs during pregnancy. As resistance to antimalarial drugs increases, the challenges of treatment and prevention of malaria among pregnant women become greater. Research in this area is therefore a high priority.
- Effective management and treatment of malaria have also been hampered due to lack of research/development linked to issues of drug safety concerns for pregnant women which make companies reluctant to test drugs and treatments in pregnant women.

## **Case study- Northern Uganda**

The Malaria Consortium works in partnership with the Ministry of Health in Uganda to strengthen the services offered at ANCs and deliver free long lasting insecticide treated nets (LLINs) through the ANC clinics to all pregnant women in northern Uganda. ANC services are improved and the availability of the nets helps to increase uptake of the service, with a long term aim of reducing malaria transmission and lessening infant mortality rates.

The system of delivering LLINs through routine antenatal services to pregnant women was based on the principle of partnership and ownership: the system was designed as an integral part of the Ministry of Health services at the district level. Planning and training was done in partnership with the District Health Services with on-going distribution to health facilities and supervision integral to routine district activities.

During the design, linkages to existing services and community-based organisations were stressed. LLINs are distributed at the end of the first antenatal visit to the pregnant woman.

As the net is handed over pregnant women are educated on key messages about the importance of the nets. The project emphasized raising awareness on issues around LLIN use, the safety of insecticides and the family members most in need of protection, carried out through interpersonal communication between the health facility staff and the mothers. Talk shows on the local radio have also been used and proven particularly popular with the public's questions being addressed and the answers able to reach a wide audience. During the project 16,629 LLINs were delivered to pregnant women through ANC services covering 50-60% of the expected numbers of pregnant women in the two districts served during this period. Over three years 210,000 nets have been distributed.

Six months after the start up of distributions a net retention and use survey was carried out, demonstrating high retention with 86-93% of LLINs still in the possession of the women but only 47% of the targeted women having used the net the previous night. A refocusing on health education messages then took place to address specific concerns of the mothers (e.g. not wanting to use the net during pregnancy but saving it for when the baby was delivered). This was extremely effective with a recent survey carried out (2 years after the previous survey) showing over 85% use of nets by pregnant women who had received one through the ANC system 6 months ago.

**Points to note:**

This ANC LLIN delivery has been funded by Irish Aid, DFID and UNICEF in the past three years. UNICEF remains a major supporter of this project and USAID through the US President's Malaria Initiative and our AFFORD project have provided funding for massive scale up of this approach. The Ministry of Health is committed to continuing the delivery of LLINs through health facilities and our delivery mechanism is a standardized model which can be scaled up to other areas of the country.

In northern Uganda, the cost of delivering an LLIN to a pregnant woman is around \$1.50 US.

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**Description of organisation:**

Malaria Consortium is an organisation dedicated to improving delivery of prevention and treatment to combat malaria and other communicable diseases in Africa and Asia. We work with communities, health systems, government and non-government agencies, academic institutions and local and international organisations, to ensure good evidence supports delivery of effective services.

More than 90% of our human and technical resources are based in Africa and Asia supporting Ministries of Health and partners in over twenty countries through our offices in: the United Kingdom (Malaria Consortium International), Uganda (Malaria Consortium Africa), Thailand (Malaria Consortium Asia), Mozambique, Sudan, Southern Sudan Zambia, Nigeria, & Ethiopia

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