Assessing the knowledge, attitude, and practice of pregnant women and their families in the utilization of Insecticide-treated nets

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Introduction

- In malaria endemic areas, pregnant women are the major adult group at risk for the disease.

- Annually, more than 50 million pregnant women worldwide will be exposed to malaria.

- Approximately 30 million of these women live in African countries.

- Requires a multidisciplinary and multi-dimensional solution.

- Support of the WHO, The Global Fund, CDC, USAID, etc.
In Ghana, *Plasmodium falciparum* has been known to have specific severe consequences on the pregnant woman and her baby.

**Strategies for preventing malaria in pregnancy:**

1. Intermittent Preventive Treatment during Pregnancy (IPTp)

2. Vector Management Strategies with Insecticide-Treated Nets (ITNs)

Although ITNs have been found to be effective, utilization among pregnant women in African regions is still low.

Focus of this study is to assess the attitudes and practices of pregnant women and their families when it comes to utilizing the ITNs in both Axim and Kintampo, Ghana.
Methods

- Qualitative, analytical assessment of the utilization of ITNs in pregnant patients and their families at AGH and KMH
- Conducted in both sites over the period of April 4 to April 21, 2011 during the days of antenatal clinic (ANC) with the help of an interpreter.
- Only inclusion criterion was pregnancy, regardless of gestational age
- 25 patients from each site were individually interviewed while they sat in the waiting area of the ANC
10-question survey:

1. Demographics (age, marital status, occupation)
2. Number of pregnancies
3. Number of living children under the age of 5
4. Their knowledge of Malaria
5. If any of their children ever had malaria
6. If they have a “mosquito” net at home
7. If they and their family utilized the nets
8. Reasons for not having or utilizing the (ITN)
Results: Axim

- Ages ranged from 15 to 40; mean age: 28.08.
- Twenty-three out of the 25 patients (92%) were married.
- Missing occupation data from 5 patients
- Eighteen out of 20 patients (90%) were from households where both husband and wife were employed
- For twenty-one out of the 25 women (84%), this was not their first pregnancy
- Nine out of the 21 women (42%) had a child with prior history of malaria
- Seventeen out of the 25 women (68%) had living children who were under the age of five
- Twenty-four out of 25 patients (96%) had prior knowledge of the disease based on symptoms and transmission of the disease.
Fig 1. Number of patients with ITN at home
Fig 2. Patients who utilize ITN at home
Fig 3. Reasons for not utilizing ITN

- Too hot (N=3)
- Hole in net (N=2)
Fig 4. Reasons for not having ITN

- Lack of money (N=10)
- Other (N=1)
Homestretch
Ages ranged from 19 to 38; mean age of 27.70.

All of the patients were married.

Eighteen out of 25 patients (72%) were from households where both husband and wife worked.

For twenty out of the 25 women (80%), this was not their first pregnancy.

Six out of the 20 women (30%) reported having children who had a prior history of malaria.

Seventeen out of the 25 women (68%) had living children who were under the age of five.

Twenty-four out of 25 patients (96%) had prior knowledge of the disease based on symptoms and transmission of the disease.
Fig 5. Number of patients with ITN at home
Fig 6. Patients who utilize ITN at home
Fig 7. Reasons for not utilizing ITN at home
Fig 8. Reasons for not having ITN

- Lack of Money (N=5)
- Other (N=1)
Discussion

- A major constraint for pregnant patients and their families not having an ITN is due to the lack of funds.

- Even when pregnant patients own an ITN, they do not always utilize them, the main reason being the unfavorable hot weather.

- Many of these women, they had prior knowledge of the disease process either from the symptoms that were described i.e. fever, shivering, headache or through its transmission via a mosquito.

- The majority of them understood that they were at risk for the disease through prior counseling on malaria prevention with their previous pregnancies.

- In addition to the encouraging these women, during their antenatal visits, to utilize ITNs and receive their recommended dosages of Sulfadoxine-Pyrimethamine, they should also be educated on other cost-effective, protective measures against mosquitoes.
Limitations

- Sample size
- Language barrier
- Respondent bias
- Simplicity of the survey
Conclusion

- Malaria in pregnancy remains a social and medical problem.
- Prevention still remains the best approach to addressing this issue.
- One preventive strategy is the promotion of the use of ITNs during antenatal clinics.
- Although these ITNs are effective in reducing malaria, for many of these women, in this study, lack of money hinder them from owning an ITN.
- Even for those who have ITNs, utilization may still be low due to the hot weather.
Conclusion cont’d

- In June 2008, the National Malaria Control Program led the development of a revised National Strategic Plan.

- This new plan calls for a universal coverage with ITNs, which would mean one net for every two people in a household.

- The aim of the plan:
  1. reduce the morbidity and mortality of malaria by 75% by 2015
  2. increase the number of children under five and pregnant women sleeping under an ITN to 85% by 2015.

- Long lasting insecticide nets (LLINs) will be distributed and hung up free of charge in each home with the goal of achieving universal coverage by December 2011.
Questions?


Ghana’s Ministry of Health: Guideline for Malaria in Pregnancy booklet

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