

Antenatal care: A crucial tool in Ethiopia's fight against malaria in pregnancy

- With tailored training and support, midwives are able to test and treat febrile expectant mothers for malaria at antenatal care clinics, significantly speeding up life-saving treatment.
- Antenatal care registers should be modified to collect data on malaria in pregnancy to strengthen service delivery and decision making.
- During national distribution campaigns, the Ministry of Health should guarantee that maternal waiting rooms receive a sufficient number of long lasting insecticidal nets to protect pregnant women during evening and overnight visits.

Background

Pregnant women are three times more likely than non-pregnant women to contract malaria due, in part, to their reduced immunity.^[1] They are also more likely to suffer severe cases and die from the disease. Malaria in pregnancy (MiP) not only carries substantial risks for expectant mothers, but also for their babies; infection with malaria has been linked to anaemia, spontaneous abortion, stillbirth, prematurity and low birth weight.^[2] Every year, MiP is responsible for 10,000 maternal deaths globally, and contributes to 20 percent of stillbirths and 11 percent of newborn deaths in sub-Saharan Africa.^[3] However, MiP is preventable through the use of long lasting insecticidal nets (LLINs) and can be promptly diagnosed and effectively treated.^[4]

Although around 60 percent of Ethiopia's population is at risk of malaria^[5] — with 1.5 million confirmed cases in 2018^[6] — there is very limited evidence on the epidemiology of MiP in the country. The Ethiopian Federal Ministry of Health (FMOH) does not capture MiP case management data in its district health information system (DHIS2), which complicates the design of targeted MiP interventions. While the FMOH does prioritise pregnant women during LLIN distributions and targets them with related social and behavioural change activities at health facilities and the community level, there has been no systematic effort to turn antenatal care (ANC) facilities into 'one-stop centres' for febrile expectant mothers.

Our view

We echo the World Health Organization's 2019 call for greater support for those most vulnerable to malaria — pregnant women and children under five^[7] — and believe that strengthening existing health systems is one of the most sustainable approaches for doing so. Training and supporting midwives to diagnose, treat and record case management data on malaria presents a great opportunity to reach more pregnant women with life-saving treatment in a speedy and resource-efficient way, and to ensure data-informed decision making at all levels.

Our experience

To test this approach in an operational context, we have been supporting the Government of Ethiopia to implement malaria prevention and case management activities in Amhara, Oromia, the Southern Nation, Nationalities and Peoples' Region (SNNPR), and Tigray through the USAID Transform: Primary Health Care project.

A 2017 rapid assessment carried out by the project revealed that not all maternal waiting rooms had sufficient and/or correctly-hung LLINs, and that MiP case management indicators were not being tracked during ANC visits. Most ANC clinics referred pregnant women with a fever to outpatient departments for diagnosis and treatment as they had not been trained on malaria case management.

To use the health system's resources more efficiently and improve the speed and quality of care delivered, project partners and government experts:

- trained 1,256 midwives across the four regions on malaria case management
- distributed and supported the use of modified outpatient registers in 2,000 health facilities to pilot the capture of MiP data (e.g. the number of malaria tests and treatments provided)
- collated and analysed the data captured from 1,030 health facilities.

Before the intervention, 516 health facilities in Amhara were using Public Health Emergency Management (PHEM) reporting forms to report the number of positive cases among pregnant women — as described in laboratory registers — to regional and national systems. The remaining 514 health facilities (in Oromia, SNNPR

and Tigray) were not collecting any MiP data. After the intervention, all 1,030 health facilities were found to be reporting the number of positive and negative MiP cases to the same systems, using data acquired from the modified outpatient registers. This shows that midwives are capable of accurately recording invaluable MiP data that can be used to inform decision making.

The intervention also showed that with the right training and follow-up support, midwives at ANC facilities are able to test and treat febrile expectant mothers for malaria, following national guidelines, significantly speeding up the delivery of life-saving care. This success indicates that there would be value in replicating the intervention elsewhere in the country.

Recommendations

Learning from this experience, we recommend that the government scales up the initiative in other regions and takes the below recommendations into account.

1. **The FMoH should ensure that MiP is included in midwives' pre-service education curricula and in-service training.** This would facilitate the attainment of a 'one-stop service' for febrile pregnant women and, in so doing, confer resource efficiencies for the health system while improving the speed and quality of care delivered.
2. **The FMoH/National Malaria Control Programme (NMCP) should update ANC registers to facilitate the reporting of the following indicators:** the patient's fever and malaria history, the type of malaria test conducted, the test result, the type of malaria parasite detected, and the treatment provided and/or referral recommended. This will allow for the capture of evidence on the epidemiology of MiP in the country.
3. **The NMCP should advocate for the inclusion of the above MiP case management indicators in DHIS2 for effective programme monitoring at the national and regional levels.** This would facilitate data-informed decision making around the quality of care provided at ANC clinics and the volume of antimalarial drugs required to protect pregnant women and their unborn babies.
4. **The FMoH should take the lead in providing continuous training to health facilities in data interpretation** to facilitate use of the data for ongoing service improvement and decision making at the health facility level — e.g. to evaluate ANC clinics' procurement needs.
5. **The FMoH and other involved stakeholders should ensure that the national LLIN distribution plan is adhered to with respect to protecting pregnant women.** This requires nets to be used in all maternal waiting rooms and maternity waiting homes, i.e. where pregnant women from remote areas can stay for two to four weeks to prevent pregnancy complications and facilitate a safe delivery. This would significantly decrease the risk of them contracting malaria while attending ANC.

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