Placental Malaria Is Rare among Zanzibari Pregnant Women Who Did Not Receive Intermittent Preventive Treatment in Pregnancy

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BRIEF PROBLEM STATEMENT
A marked decline in malaria prevalence in Zanzibar during the past decade (from 50% in 2003 to 0.5% in 2012 among children under 5) has shifted Zanzibar to the malaria pre-elimination phase. Zanzibar is revising its malaria in pregnancy (MIP) control strategy and questioning the need to continue with intermittent preventive treatment for pregnant women (IPTp). This study sought to establish rates of placental malaria infection among women who had not had IPTp.

During a period of one year at six health facilities across Zanzibar, dried blood spots were collected from 1,339 placentas of just delivered women who had not received IPTp and were analyzed using polymerase chain reaction to determine malarial infection.

SAMPLE COLLECTION AND POSITIVES FOUND IN RELATION TO SEASON

DISCUSSION
Findings triangulated well with other sources of malaria data. Screening by mRDT for peripheral parasitemia at first ANC visit showed prevalence of 0.2% in 2011–2012, and Zanzibar’s Malaria Early Epidemic Detection System (MEEDS) reported malaria positivity rates in outpatient departments of 1.2% and 0.9% in 2011 and 2012, respectively. Although overall annual malaria prevalence is low, periodic localized increases during rainy seasons do occur. Zanzibar’s proximity to the Tanzania mainland, where prevalence is 6–10% in coastal regions, should be taken into consideration.

OBJECTIVES
The study objectives were to:

• Measure placental parasitemia among pregnant women delivering in selected facilities in Zanzibar who received no IPTp.
• Provide information to the Ministry of Health regarding whether IPTp is still a valid public health strategy in Zanzibar.

KEY FINDINGS
• Less than 1% (0.7%, 95% CI) or 9 of 1,349 specimens were positive for Plasmodium falciparum infection.
• Positive cases were found on both Unguja and Pemba islands; there was no seasonal variation.
• One of the nine placental infections had a negative outcome: a stillborn infant of low birth weight.
• The proportion of anemic women was similar in women with and without placental malaria.

INFLUENCE ON POLICY
Discontinuation of IPTp requires simultaneous maintenance and strengthening of vector control, prompt diagnosis and effective treatment, and surveillance systems to monitor malaria transmission. During the review of the National Treatment and Diagnosis Guidelines for Malaria in Zanzibar in 2014, the Zanzibar Malaria Elimination Programme discontinued the use of IPTp for pregnant women and introduced intermittent screening and treatment (IST) approach during antenatal care. The implementation of IST has been slow due to lack of recommendations from WHO on prevention of malaria in pregnancy in low prevalence settings. Further cost analyses are needed to understand the implications of discontinuing IPTp SP.