MALARIA PREVENTIVE PRACTICES AND DELIVERY OUTCOMES: A CROSS SECTIONAL STUDY OF PARTURIENT WOMEN ATTENDING MBALE REGIONAL HOSPITAL, EASTERN UGANDA.

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Declaration

To the best of my knowledge, the work presented here is original and has never been presented anywhere either partially or in total for any award unless otherwise stated. I would therefore like to present it for the award of a Master Degree in Public Health, faculty of Health Sciences, Busitema University, Uganda.

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ABSTRACT

Background: Globally, 125 million pregnant women are at risk of plasmodium falciparum infection each year and 30 million of these are from Sub Saharan African.

Pregnant women are three times more likely to suffer from severe disease as a result of malarial infection compared with their non-pregnant counterparts. Malaria causes maternal anaemia and adversely affects birth outcome leading to low birth weight, preterm deliveries, abortions and stillbirths. Despite the availability of malaria preventive measures, the burden of malaria among pregnant women is still high.

Objective: The aim of this study therefore was to determine the use of malaria preventive strategies during pregnancy and the presence of malaria infection, anemia and low birth weight babies at delivery among parturient women at Mbale regional referral hospital in eastern Uganda.

Methods: A cross-sectional survey was conducted among 210 women delivering at MRRH between July 2017 and January 2018. Information on demographics, ANC and prevention practices was collected using an interviewer-administered questionnaire. Maternal venous blood and cord blood samples were screened for malaria infection by both microscopy of Giemsa-stained blood films and pf. HPR2 RDT. The presence of anemia was determined by use of an automated hemoglobin analyzer. Data was analyzed using descriptive and analytical statistics.

Results: Of the 210 women, 3 (1.4 %) and 19(9.1%) tested positive for malaria by using Giemsia stained blood smear microscopy and malaria pf (HRP2) Ag RDT tests respectively. Twenty nine percent of the women had anaemia and 11 (5.2 %) had LBW babies. Mothers aged below 25years were mostly affected. Only 23.3% of the women received at least three doses of IPTp-SP and 57.9% slept under ITN the night before the survey. The women who slept under a mosquito net the previous night (OR 0.67, 95% CI: 0.24-1.86) and those who took fansidar as a directly observed therapy (OR 0.31, 95% CI: 0.04-2.39) appeared to have less chances of getting malaria infection though the findings were not statistically significant

Conclusion: The use of malaria preventive strategies (IPT-SP and ITN) has improved as most of the women had taken IPT-SP during antenatal period. Most of them took less than three doses and there was no strict adherence to the recommended directly observed therapy. Prevalence of malaria infection during pregnancy has gone down though maternal anaemia and low birth weight are still above unacceptable levels in this region.

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DEDICATION

This thesis is dedicated to my friend and husband Dr. Julius Nteziyaremye and our children Kathryn, Christian and baby Victor who have supported me and endured my continued absence from home in order to accomplish this work. It is also dedicated to Susan, Jesca and Esther who have greatly supported me in taking care of the children.

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List of abbreviations, acronyms and definition of key terms

ANC	Antenatal Care
CD36	Cluster of Differentiation
CDC	Center for Disease Control
DALY	Disability Adjusted Life Years
DOT	Directly Observed Treatment
IPT	Intermittent Preventive Treatment
IPTp-SP	Intermittent Preventive Treatment with Sulfadoxine- Pyrimethamine.
IRS	Indoor Residual Spraying
ITN	Insecticide Treated Net
LBW	Low Birth Weight
LDMS	Laser Desorption Mass Spectrometry
LLINS	Long lasting Insecticidal Nets
MIP	Malaria in Pregnancy
MOH	Ministry of Health
MRRH	Mbale Regional Referral Hospital
NMCP	National Malaria Control Program
P. falciparum	*Plasmodium Falciparum*
PfCSA-L	*Plasmodium Falciparum* Chondroitin Sulfate A- Ligand
PCR	Polymerase Chain Reaction
PM	Placental Malaria
RDT	Rapid Diagnostic Test
UDHS	Uganda Demographic Health Survey
UMCSP	Uganda Malaria Control Strategic Plan
USHS	Uganda Shillings
WHO	World Health Organization

Definition of key terms

Parturient woman:

A woman in labor/ about to give birth

Prevalence:

A measure of disease occurrence that is the total number of individuals who have the attribute for example, disease at a particular time divided by the population at risk of having the attribute or disease at that point in time.

Delivery outcome:

Maternal malaria infection, maternal anemia and baby's birth weight