

Objective: To determine baseline data among pregnant women consenting to participate in a randomized trial of alternative strategies of malaria chemoprophylaxis in Kigoma urban district, western Tanzania. **Design:** Cross-sectional study. **Setting:** The study was conducted in an urban MCH clinic in Kigoma town in western Tanzania. **Subjects:** All consenting pregnant women who fulfilled entry criteria were recruited into the study. **Baseline studies:** Baseline data were collected prior to randomisation of women to antimalarial prophylactic regimens. Baseline measurements included examination for blood depleting parasitic infections (stool and urine examinations), haemoglobin levels, haematocrit, sickling test, and blood slide for malaria parasites. **Results:** A total of 728 pregnant women consented to participate in the interview and of these 705 participated in baseline studies constituting a participation rate of 96.8%. The age of participating women ranged from 14 to 45 years with a mean age of 23.7 years (standard deviation [SD] = 5.4) while the mean number of pregnancies ranged from 1 to 13 with a mean of 3.2 (SD = 2.2). The prevalence of malaria parasitaemia among the pregnant women examined was 9.4% (N = 705) while the prevalence of anaemia (defined as Hb < 8.5 g/dl) 12.4% (N = 579). No significant difference was observed in prevalence proportions of malaria parasitaemia in relation to age, parity, marital status and use of mosquito bednets. However the prevalence of anaemia among women in the age group 31-45 years was significantly lower than that observed among women in the age group 14-20 years (2.9% versus 18.9%; crude odds ratio [OR] = 0.13; 95% confidence interval [CI], 0.02-0.55). Sickle cell disease (HbAS) was found in 2.3% (N = 564) of the pregnant women examined. **Conclusion:** It is concluded that the prevalence of malaria parasitaemia and anaemia was very high in this population suggesting the need for interventions directed at controlling these major causes of maternal morbidity and mortality in Tanzania.