

Trends in ITN, IPTp-SP usage and malaria prevalence and anaemia in pregnant women on Bioko Island, Equatorial Guinea

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The World Health Organization (WHO) recommends and emphasizes the use of insecticide treated bednets (ITNs) and intermittent preventive treatment (IPT) for all pregnant women in areas of stable transmission of *P. falciparum* malaria. The Bioko Island Malaria Control Project (BIMCP) in partnership with the Ministry of Health and Social Welfare of Equatorial Guinea aims at increasing the proportion of pregnant women sleeping under ITNs and receiving IPT with Sulphadoxine-pyramethamine (SP). This study examined the coverage of these interventions among pregnant women on Bioko Island and the optimal protection they confer against malaria and anaemia. Long-lasting insecticidal nets (LLINs) are distributed to pregnant women at public health facilities during antenatal care visits. The first dose of IPT-SP is administered through directly observed therapy (DOT) during the second trimester of gestation. Malaria education is also provided to women during antenatal care visits. The BIMCP conducts annual cross-sectional Malaria Indicator Surveys (MIS) on Bioko Island to determine malaria prevalence and anaemia. In 2014, the number of pregnant women who slept under ITNs was 19.3%. This increased to 53.5% in 2015 following a mass distribution campaign, but later dropped to 36.8% in 2016. The percentage of pregnant women who received at least one dose of IPT-SP during their pregnancy remained stable from 2014 to 2016 (79.8% in 2014, 73.6% in 2015 and 73.4% in 2016). However, 22.7% took three or more doses in 2014. This increased to 37.2% in 2015 and more than doubled to 64.7% in 2016. *Plasmodium falciparum* parasitemia among pregnant women was 11.5% in 2014, which dropped to 10.5% in 2015 and further to 5.2% in 2016. Moderate/severe anaemia among women was 3.2% in 2014, 3.4% in 2015 and 1.5% in 2016. The substantial increases in the consumption of three or more doses of IPT-SP during pregnancy could have contributed to the reduction of *P. falciparum* parasitemia and moderate/severe anaemia among pregnant women on Bioko Island.