In this talk, we will use a deterministic parametrized mathematical model of malaria to capture the clinical data of Ogbodo et al. and Onyido et al., and then use the ”fitted” model to study the impact of various control measures on malaria incidence among pregnant women of Ngbo in Ohaukwu Local Government Area of Ebonyi State in Nigeria. Our simulation results suggest control measures that will lead to the least episodes of the malaria disease infection among pregnant women, the most vulnerable group in the malaria hyper endemic region. (Received September 18, 2018)