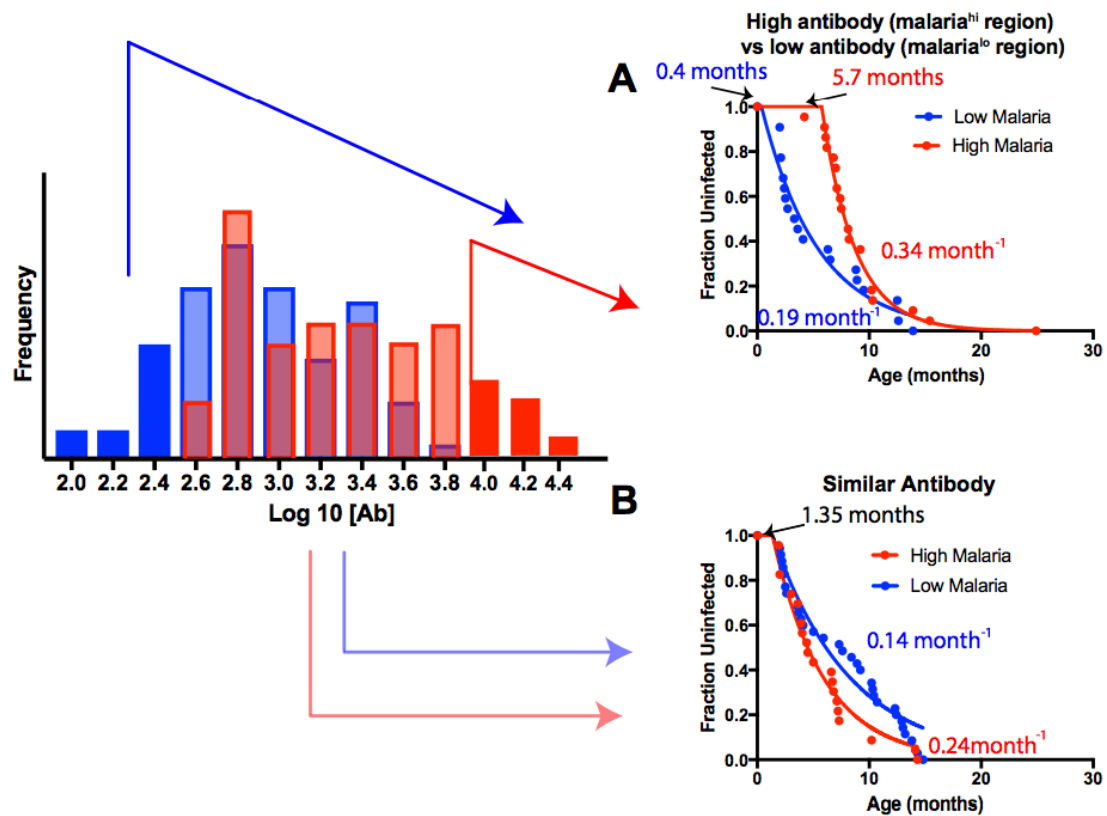


Additional file 7



Additional file 7. Time-to-first *P. falciparum* infection in Nandi vs Kisumu based on the observed levels of maternal antibody (MSP1-FVO). We subdivided infants into four groups. We first compared the two extremes of antibody levels (panel A), infants from a region of high malaria transmission with high levels of MSP1-FVO and infants from a low transmission region with low levels of MSP1-FVO, and compared the time-to-first infection. We found evidence for a longer period of inherited immunity in the high group (due to presumably maternal antibody), and also a higher infection rate once immunity has decayed. We then compared two groups with homogenous antibody levels, but from regions of different malaria exposure (panel B). The infants from a region of high malaria transmission and children from a low transmission region were compared to see the time-to-first infection and subsequent infection rate between these two groups. We found no significant difference in time-to-first infection between the two groups. Using a parametric survival analysis, assuming a constant rate of infection, we found that the infection rate is higher in children from a region of high transmission.