



**Supplementary Figure S1.** Models of constant positive selection do not fit the temporal pattern of allele frequency change at chloroquine resistance loci. Allele frequencies (with 95%CI) of the resistance alleles of genes *crt* (codon 76T) are shown on the top row, and *mdr1* (codon 86Y) on the bottom row, plotted on a time scale assuming 2 parasite life cycle generations per year (50 generations from 1984 to 2008). Models of constant positive selection are shown with dashed lines for selection coefficients of  $s = 0.10$  (left column) and  $s = 0.13$  (right column).