

Additional file 4. Figure S4.

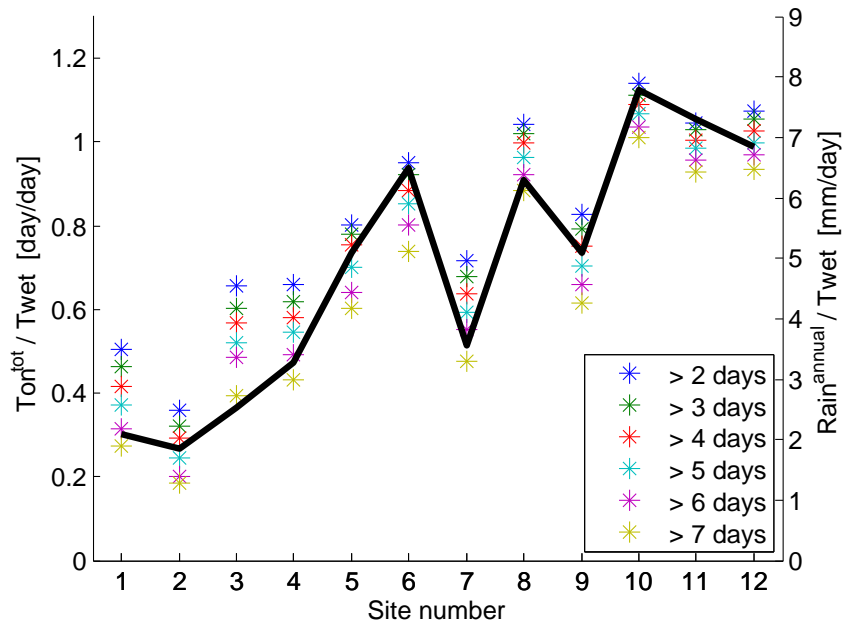


Fig. S4: Comparison between T_{on}^{tot}/T_{wet} and $annual-rainfall/T_{wet}$. T_{on}^{tot} was obtained from HYDREMATS simulation results by Yamana [1], by aggregating the time that the major pool in the simulation domain existed. A value was included in T_{on}^{tot} only if the pool persisted for more than a certain number of days because the most short-lived temporary pools do not contribute to mosquito population dynamics. T_{on}^{tot} calculation hence depends on the imposed requirement for the pool persistence. The minimum persistence of pools was set at 2 to 7 days, as indicated in the legend. The value of T_{on}^{tot}/T_{wet} was calculated for each minimum persistence (stars), and it is shown on the left y-axis. $Annual-rainfall/T_{wet}$ is shown in black line on the right y-axis. All of T_{on}^{tot} , T_{wet} , annual-rainfall, and T_{wet} shown here are the fifteen-year average from 1998 to 2012. A significant correlation between T_{on}^{tot}/T_{wet} and $annual-rainfall/T_{wet}$ was found.

[1] Yamana TK. Mechanistic modelling of the links between environment, mosquitoes and malaria transmission in the current and future climates of West Africa. PhD thesis, Massachusetts Institute of Technology, February 2015.