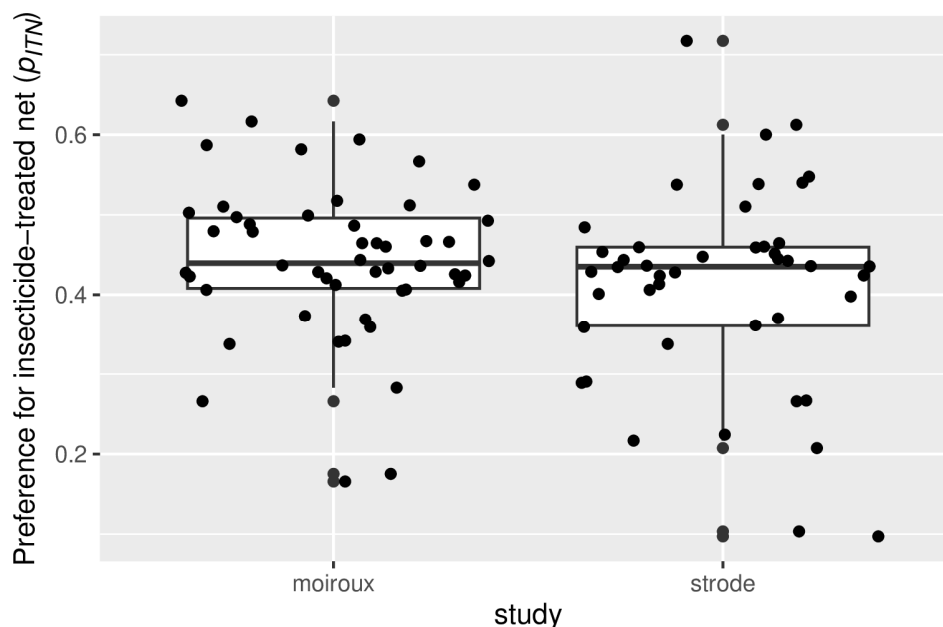


Supplementary materials

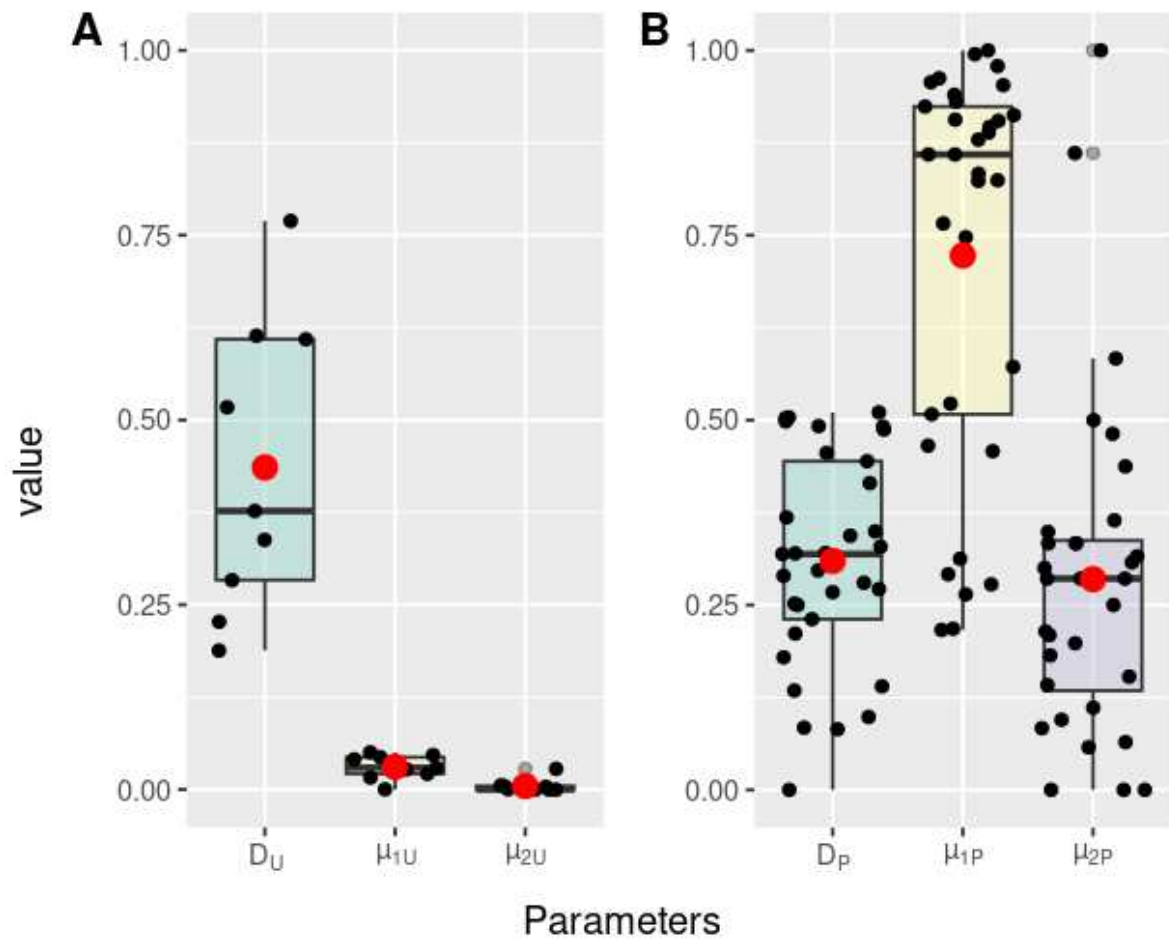


Supp. Fig 1: Vector preference for insecticide treated nets measured in the fields through experimental hut trials.

Data come from two meta-analysis studies (Strode *et al.*, 2014; Moiroux *et al.*, 2017). Each dot represent an ITN. Boxplots show 25th, 50th, and 75th percentiles, whiskers indicate 5th and 95th percentiles. There is 50 values coming from 9 Experimental hut Trials (EHT) in Moiroux *et al.* (Moiroux *et al.*, 2017) and 44 points coming from 13 EHT in Strode *et al.* (Strode *et al.*, 2014). Most of points are below 0.5 indicating deterrence. About 25 % of points are between 0.5 and 0.75 indicating attraction.

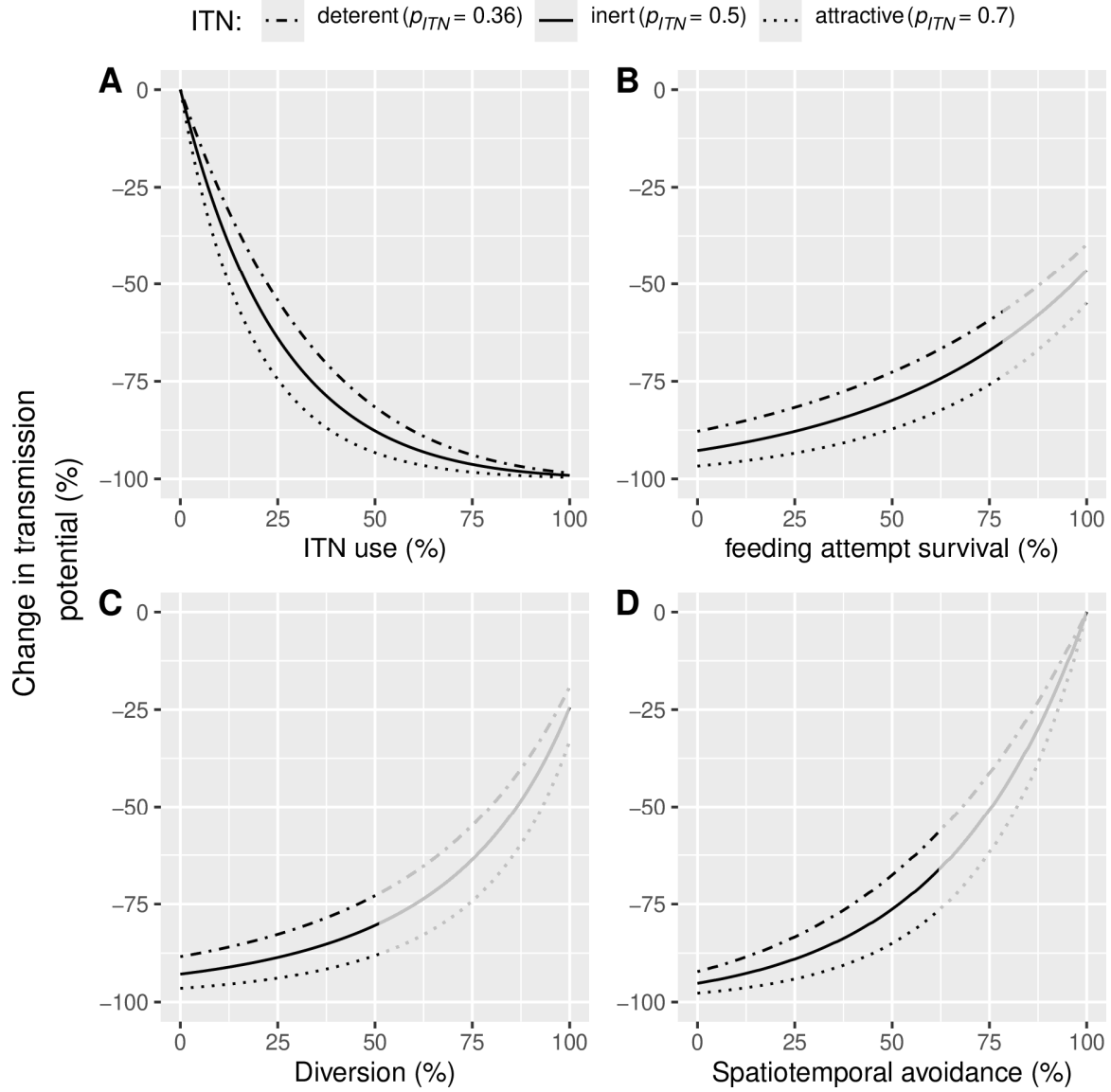
Moiroux, N. *et al.* (2017) 'Remote Effect of Insecticide-Treated Nets and the Personal Protection against Malaria Mosquito Bites', *PLOS ONE*, 12(1), p. e0170732. Available at: <https://doi.org/10.1371/journal.pone.0170732>.

Strode, C. *et al.* (2014) 'The Impact of Pyrethroid Resistance on the Efficacy of Insecticide-Treated Bed Nets against African Anopheline Mosquitoes: Systematic Review and Meta-Analysis', *PLoS Med*, 11(3), p. e1001619. Available at: <https://doi.org/10.1371/journal.pmed.1001619>.



Supp. Fig 2: Fields measure of diversion (D), pre-bite mortality (μ_1) and post-bite mortality (μ_2) in a hut without (A) or with ITN (B).

Red dots indicates arithmetic means that were used as default value in the model.



Supp. Fig 3: Reduction in *Plasmodium* transmission potential induced by deterrent, inert, and attractive insecticide-treated nets (ITNs), compared to no nets, for varied levels of (A) ITN usage rates, (B) physiological resistance, (C) quantitative behavioral resistance, and (D) qualitative behavioral resistance.