S1 Table: Definition and values of model parameters

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| Parameter | Definition | Values/Priors\* | References |
| Fixed parameters |
| B*V* | Pupal deposit rate | 0.0505 days-1 | [[17]](https://paperpile.com/c/bPz99N/lm1U) |
| $ε$*P* | Pupal maturation rate | 0.022 days-1 | [[61]](https://paperpile.com/c/bPz99N/OVPV) |
| $μ$*P* | Pupal death rate  | 0.006 days-1 | [[61,62]](https://paperpile.com/c/bPz99N/OVPV%2BN0Ol) |
| $μ$*V* | Baseline tsetse mortality rate | 0.03 days-1 | [[29]](https://paperpile.com/c/bPz99N/uTF6) |
| $$α$$ | Tsetse biting rate | 0.333 days-1 | [[29]](https://paperpile.com/c/bPz99N/uTF6) |
| $τ$*V* | Incubation rate in tsetse | 0.034 days-1 | [[63,64]](https://paperpile.com/c/bPz99N/u7iy%2BBgu5) |
| $τ$*H* | Incubation rate in humans | 0.0833 days-1 | [[29]](https://paperpile.com/c/bPz99N/uTF6) |
| $γ$*H1* | Stage 1 progression rate | 1/526 days-1 | [[65]](https://paperpile.com/c/bPz99N/Uu1s) |
| $γ$*H2* | Stage 2 progression rate | 1/251 days-1 | [[65]](https://paperpile.com/c/bPz99N/Uu1s) |
| $$δ\_{H}^{T}$$ | Treatment immunity loss rate | 0.1 days-1 | [[11]](https://paperpile.com/c/bPz99N/PraR) |
| $d$*H* | Human natural death rate | 4.66x10-5 days-1 | [[66]](https://paperpile.com/c/bPz99N/PRL3) |
| $$γ\_{T}$$ | Baseline screen and treat rate  | 0.0014 days-1 | [[35,36]](https://paperpile.com/c/bPz99N/39gu%2BE6mx) |
| $$ς$$ | Efficacy of treatment | 0.95 | [[67,68]](https://paperpile.com/c/bPz99N/3QuP%2BcB9g) |
| *fH* | Proportion of bites on humans | 0.38 | [[15,69]](https://paperpile.com/c/bPz99N/ylyY%2BVpTv) |
| $$T\_{mig}$$ | Tsetse migration rate | 0.0015 - 0.0255 days-1 | [[31,32]](https://paperpile.com/c/bPz99N/zR7y%2B0Tie) |
| $μ$*c* | Vector control induced mortality rate | 0.01 - 0.08 days-1 |  [[41]](https://paperpile.com/c/bPz99N/FvQh) |
| Fitted parameters |
| $β$*HV* | Probability of tsetse infection per bite | U(0.01,0.14) | [[18,29,70]](https://paperpile.com/c/bPz99N/uTF6%2BurUk%2BoJhM) |
| $β$*VH* | Probability of human infection per bite | U(0.05,0.62) | [[18,29,70,71]](https://paperpile.com/c/bPz99N/uTF6%2BurUk%2BoJhM%2Bt5gA) |
| *nHV* | Relative density of vectors per host | U(0,10) |  |
| *Ph* | Proportion of population in high risk group | U(0,0.5) |  |
| *Pl* | Proportion of population in low risk group | 1-*Ph* |  |
| *ch* | Relative contact of tsetse with high risk group | U(1,5) |  |

\* U(a,b) - Uniform distribution