

Table S7. Parameter values of the full ODE model.

Parameter	Description	Value	Ref
N_H	Human population in Myanmar	50,000,000	^a
N_V	Mosquito population in Myanmar	$N_H * 2$	[2]
β	Transmission rate	70 year ⁻¹	[2]
μ_H	Human host birth rate = death rate	1/60 year ⁻¹	[2]
μ_V	Mosquito birth rate = death rate	365/14 year ⁻¹	[2]
$1/\sigma_H$	Average latent period of human infected with DENV-1 only	5/365 year	[2]
$1/\sigma_{H,D}$	Average latent period of dually infected human	Varies in model	
$1/\sigma_V$	Average incubation period of mosquitoes infected with DENV-1 only	10/365 year	[2]
$1/\sigma_{V,D}$	Average incubation period of dually infected mosquitoes	Varies in model	
$1/\gamma_H$	Average infectious period of human infected with DENV-1 only	6/365 year	[2]
$1/\gamma_{H,D}$	Average infectious period of dually infected human	Varies in model	
a	Seasonality coefficient for mosquito birth rate	0.7 (unless specified)	^b
b	Phase of seasonality. The value of b is chosen such that the number of dengue cases peaks in July as shown in [3].	0.3	^b
P	Relative efficiency of tDP-only transmission from dually infected individuals compared to the rate of DENV-1 transmission from singly infected individuals	Varies in model Baseline value: 0.01	
Q	Relative efficiency of DENV-1-only transmission from dually infected individuals compared to the rate of DENV-1 transmission from singly infected individuals	Varies in model Baseline value: 0.01	
W	Relative efficiency of dual transmission from dually infected individuals compared to the rate of DENV-1 transmission from singly infected individuals. When the dually infected humans and mosquitoes are considered separately, W_H and W_V denote the relative rates of dual transmission from dually infected humans and mosquitoes, respectively.	Varies in model Baseline value: 1.00	

^a Source: Myanmar 2000, United Nations.

^b The seasonality parameters are chosen such that the seasonal pattern in the model simulation is consistent with the monthly case reports in [3].