

# Package: malariaEquilibriumVivax (via r-universe)

June 2, 2026

**Type** Package

**Title** Return equilibrium solution to malaria transmission model (P. vivax)

**Version** 1.0.1

**Description** Often we are interested in the state of a given malaria transmission model at equilibrium. However, some models (e.g. the Griffin et al. 2014 model, the White et al. 2018 model) are quite complex, and can result in equilibrium solutions that are fairly in-depth. In these situations it is useful to have a ``canonical'' equilibrium solution that is tried and tested, and can be used reliably by multiple users. This package complement the malariaEquilibriumVivax package to store canonical equilibrium solutions for Plasmodium vivax malaria models.

**License** MIT + file LICENSE

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 7.3.2

**BugReports** <https://github.com/mrc-ide/malariaEquilibriumVivax/issues>

**Imports** statmod, magrittr

**Repository** <https://mrc-ide.r-universe.dev>

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**RemoteUrl** <https://github.com/mrc-ide/malariaEquilibriumVivax>

**RemoteRef** master

**RemoteSha** 49ff745a0329275244c2eb7050d23e0879089c78

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`malariaEquilibriumVivax`*malariaEquilibriumVivax*

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### Description

Often we are interested in the state of a given malaria transmission model at equilibrium. However, some models (e.g. the Griffin et al. 2014 model, the White et al. 2018 model) are quite complex, and can result in equilibrium solutions that are fairly in-depth. In these situations it is useful to have a "canonical" equilibrium solution that is tried and tested, and can be used reliably by multiple users. This package complement the malariaEquilibriumVivax package to store canonical equilibrium solutions for Plasmodium vivax malaria models.

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### See Also

Useful links:

- Report bugs at <https://github.com/mrc-ide/malariaEquilibriumVivax/issues>

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`malariaEqVivax_file`    *Load system file for this package*

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### Description

Load and return file from within the inst folder of this package.

### Usage

```
malariaEqVivax_file(name)
```

### Arguments

name	name of file
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vivax_equilibrium	<i>Vivax equilibrium solution with biting heterogeneity</i>
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**Description**

Returns the vivax equilibrium states for the model of White et al., (2018).

**Usage**

```
vivax_equilibrium(  
  EIR,  
  ft,  
  p,  
  age = c(0, 0.2, 0.4, 0.6, 0.8, 1, 1.2, 1.4, 1.6, 1.8, 2, 2.2, 2.4, 2.6, 2.8, 3, 3.4,  
    3.8, 4.2, 4.6, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 11, 12, 13, 14, 15, 16,  
    17, 18, 19, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 45, 50, 55, 60, 65, 70, 75,  
    80)  
)
```

**Arguments**

EIR	EIR for adults, in units of infectious bites per person per year
ft	proportion of clinical cases effectively treated
p	vector of model parameters
age	vector of age groups, in units of years

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