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# ESTIMATING *Aedes Aegypti* DEMOGRAPHIC PARAMETERS

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Monitoring programs need reliable estimates of population sizes and demographic rates to aid control methods for the decision making processes related to modelling transmission of infection agents such as *Aedes aegypti*. Population dynamic models are based on parameters estimates usually taken from the available literature, but often derived from previous field studies [1]. Population indices are generally used to calibrate model predictions and for validation of model results. However, unless these indices are properly adjusted, they may be misleading in terms of bias, with consequences for model predictions. We describe some of the sampling methods that have been used to estimate dengue mosquito survival and dispersal, and probabilistic models useful to correct for incidence/prevalence rates due to underreport cases in surveillance systems. A common methodology is known as capture recapture sampling and it has been used generally with these two purposes [2]. We highlight the importance of using integrated approaches for modelling dengue dynamics and simultaneously estimating demographic parameters from field experiments to incorporate model uncertainty in predictions.

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## References

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