Is that a good understanding that the workflow would provide parameterisation for both the entomological component of OpenMalaria as well as GVI (or only for GVI)?

*We have not finalised exactly what will be delivered in terms of OpenMalaria parameterisations by the initial version of the package. It would be logical to include the parameterisation of the <Anopheles> elements as well as the interventions, but we will not be able to provide the EIR and seasonality components without incorporating more inputs. I suggest that we should, in general, continue to estimate EIR for input to OpenMalaria by back estimation from parasitological and clinical data from humans.*

**Completion of ideal input information for each mosquito species:**

Endophagy: proportion of biting that is indoors => measured through human landing catch?

* *Measured though human landing, or any other trapping method to that catches host seeking mosquitoes with similar efficiency indoors and outdoors.*

Ratio of indoor resting to biting mosquitoes => How is this measured?

* *Resting mosquitoes are captured via spray catches in the early morning. Biting mosquitoes by either human landing or any other trapping of host seeking mosquitoes calibrated against human landing.*

Endophily: proportion of mosquitoes resting indoors => Measured through lining techniques (or aspiration)?

* *Estimated from experimental hut collections, in which there is an exit trap.*

Human blood index => measured by capturing through light traps?

* *This should be measured in fed mosquitoes (i.e. resting mosquitoes captured in spray collections or by a manual search for resting mosquitoes)*

Anthropophilous index from human vs buffalo (or other animal) collections  => measured by capturing through light traps?

* *I understand this to be done by matched landing collections. One human does a landing collection on themselves and another on buffaloes. I’ve never sen*
* *This should be measured in fed mosquitoes (i.e. resting mosquitoes captured in spray collections or by a manual search for resting mosquitoes)*

Duration of the resting period => How can this be measured?

* *The ratio of fed:gravid, among resting mosquitoes is sometimes used to estimate the duration of the resting period (see accompanying document on data input for the package.*

Biting rhythm indoors (proportion of bites by hour of the night) => measured through human landing catch?

Biting rhythm outdoors => measured through human landing catch?

* *Usually the biting rhythms both indoors and outdoors are measured with human landing catches, but any trap that records host seeking mosquitoes by hour would be valid.*

**For humans**

Times when people are indoors during the night => measured through observations?

Times when people are in bed during the night => measured through observations?

* Both MAP and Imperial College seem to be working on collecting these data prospectively using sensors. The existing datasets, reviewed by Ellie Sherrard-Smith [1], are mainly from the MTIMBA studies (e.g. [2]) which included observations of when people went into their houses (mainly mud huts) in the evening, and when they emerged in the morning. We found one study from Haiti, which is from an anthropologist interested in sleeping patterns[3]. I don’t think anyone in the malaria community has done a thorough search of the non-malaria literature for information on either times of going indoors or times of going to bed.

1. Sherrard-Smith E, Skarp JE, Beale AD, Fornadel C, Norris LC, Moore SJ, Mihreteab S, Charlwood JD, Bhatt S, Winskill P *et al*: **Mosquito feeding behavior and how it influences residual malaria transmission across Africa**. *Proc Natl Acad Sci U S A* 2019.

2. Gosoniu L, Vounatsou P, Tami A, Nathan R, Grundmann H, Lengeler C: **Spatial effects of mosquito bednets on child mortality**. *BMC Public Health* 2008, **8**:356.

3. Knutson KL: **Sleep duration, quality, and timing and their associations with age in a community without electricity in Haiti**. *Am J Hum Biol* 2014, **26**(1):80-86.