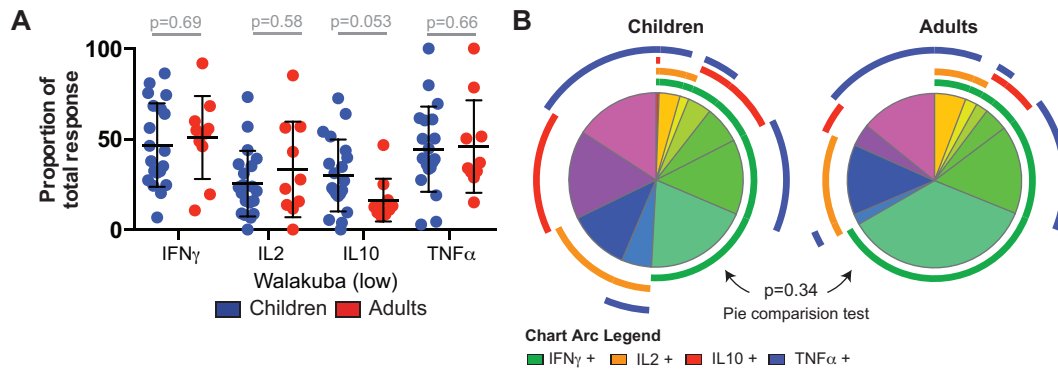


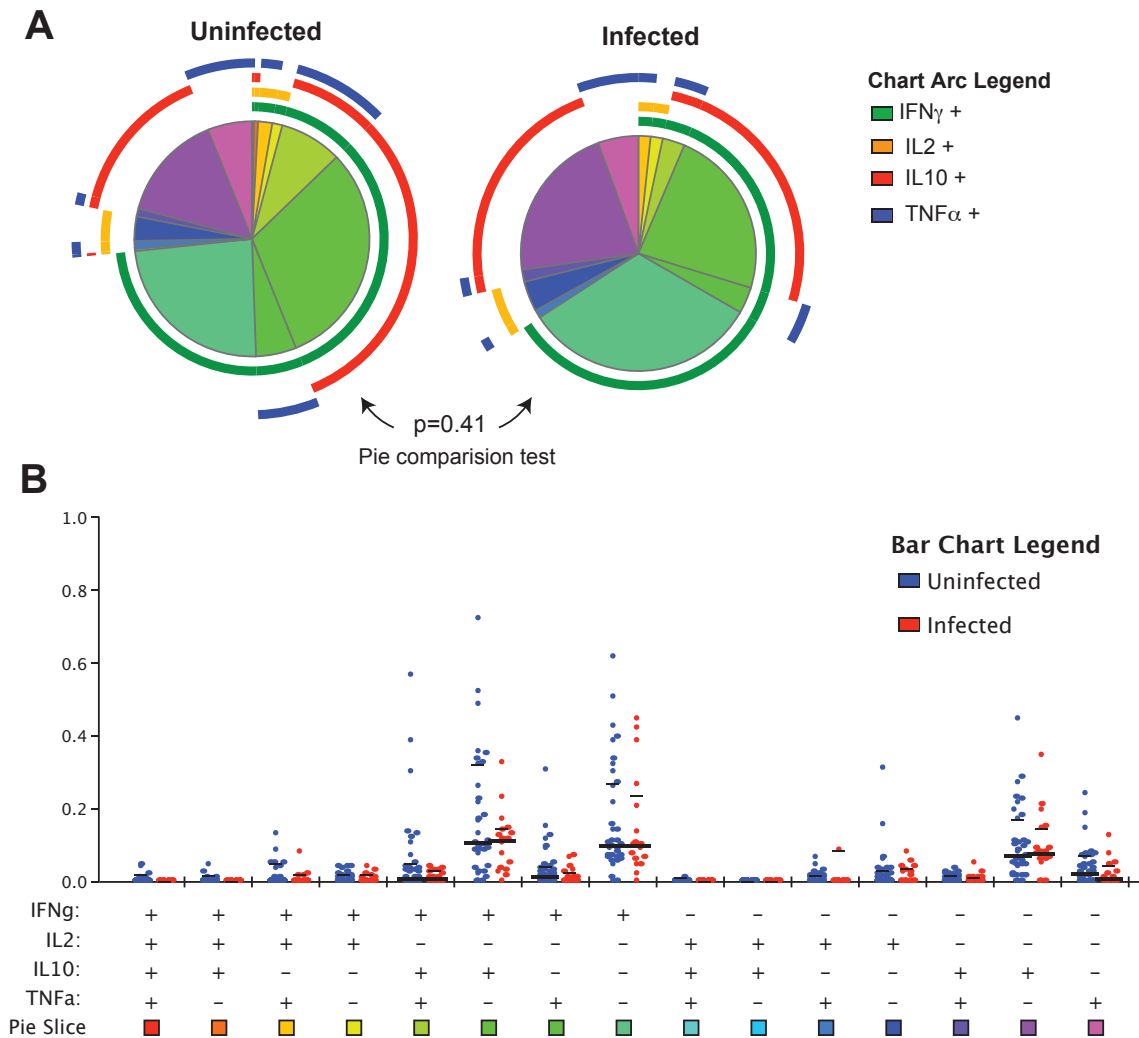
## Supplementary Figures 1:



### Supplementary Figure 1: In areas of low transmission intensity, malaria specific CD4 responses are similar in children and adults

(A) The overall fractions of CD4+CD45RA- cells producing IFN $\gamma$ , IL2, IL10 and TNF $\alpha$  was compared in children (blue) and adults (red) from low exposure settings (Walakuba). There were no differences between the fraction of total IFN $\gamma$ , IL2, IL10 or TNF $\alpha$  contributing to the overall response between children and adults. (B) The overall composition of responding cells did not differ between Walakuba children and adults. (partial permutations test p=0.34).

## Supplementary Figure 2

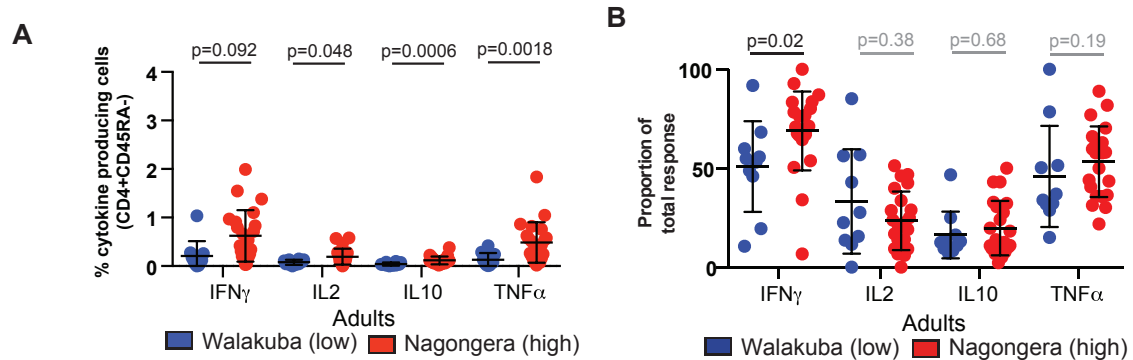


### Supplementary Figure 2: The composition of CD4 response is similar between uninfected and infected children from Nagongera.

(A) The composition of cytokine response was similar between uninfected and asymptomatic infected (microscopy) children from Nagongera, Pie comparison  $p=0.41$ .

(B) In children from Nagongera, the overall frequencies of CD4+CD45RA- cells producing any combination of IFN $\gamma$ , IL2, IL10 and TNF $\alpha$  were the same between uninfected and asymptotically infected children as measured by microscopy.

### Supplementary Figure 3:



### Supplementary Figure 3: The composition of CD4 response is similar between adults from low and high transmission settings.

(A) In adults, the overall frequencies of CD4+CD45RA- cells producing IFN $\gamma$ , IL2, IL10 and TNF $\alpha$  were higher in participants from Nagongera (high transmission) compared to Walakuba (low transmission). (B) The composition of cytokine response as a fraction of total responding cells was analyzed in adults from Walakuba compared to Nagongera. The fraction of IFN $\gamma$  was increased in adults from Nagongera, but there was no difference in the fraction of IL2, IL10 or TNF $\alpha$  between the two sites.