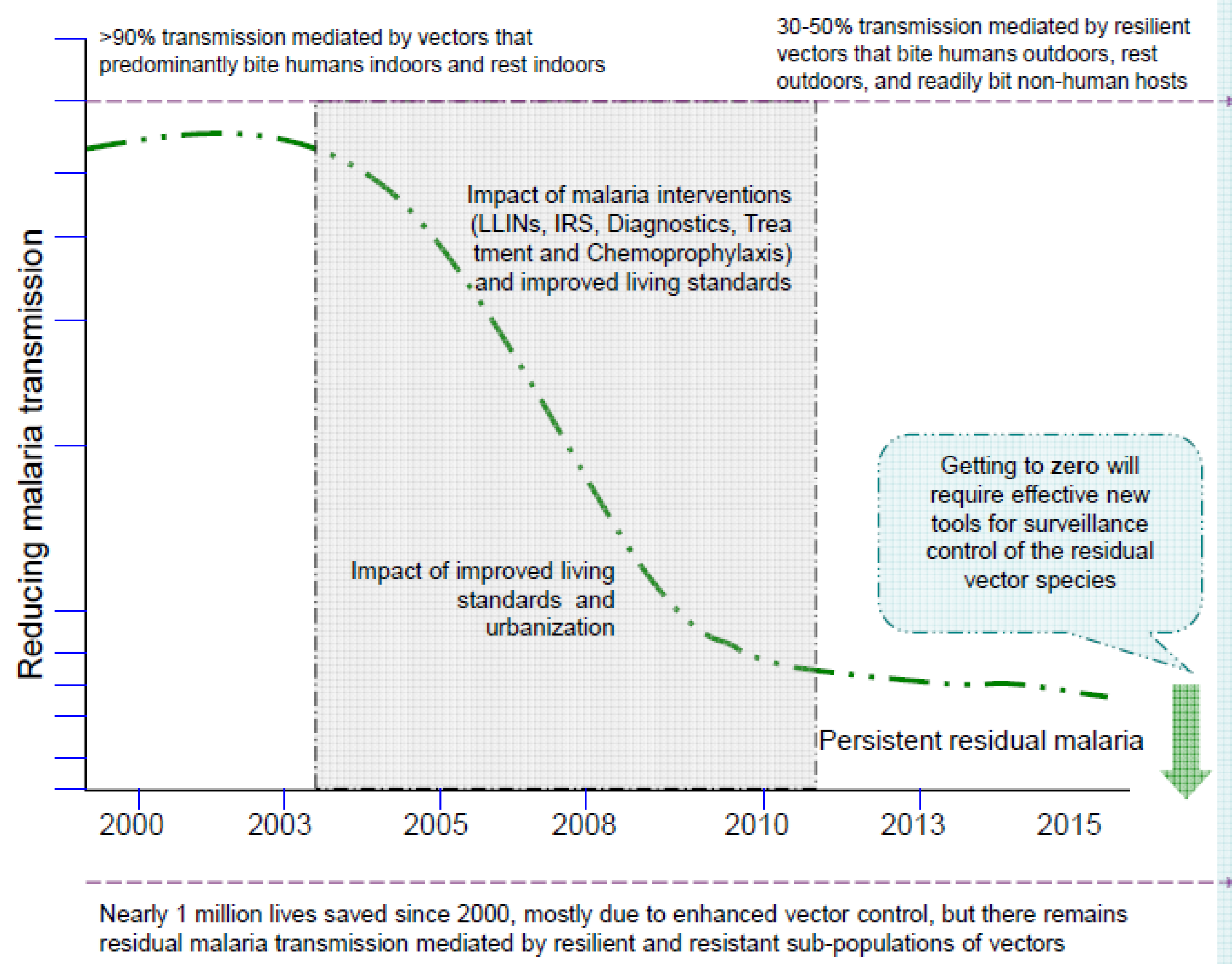


Community practices and perceptions regarding outdoor malaria transmission in South-eastern Tanzania

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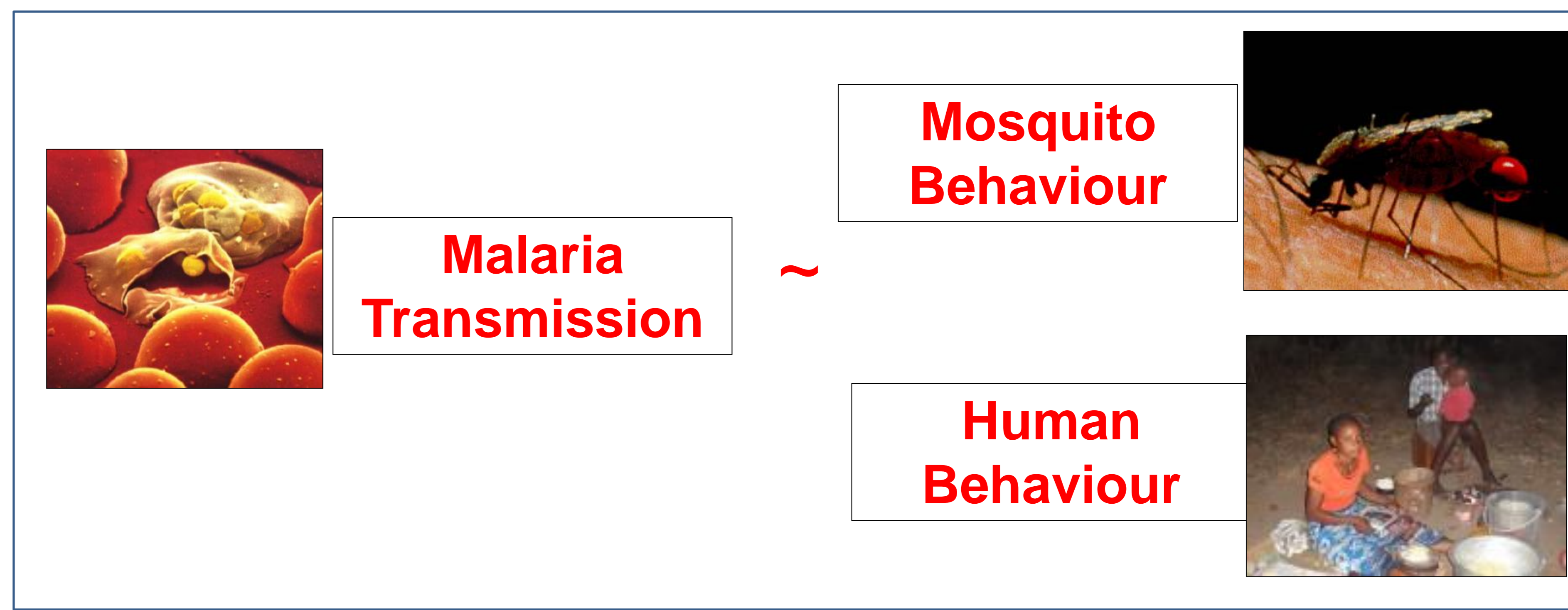
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Background

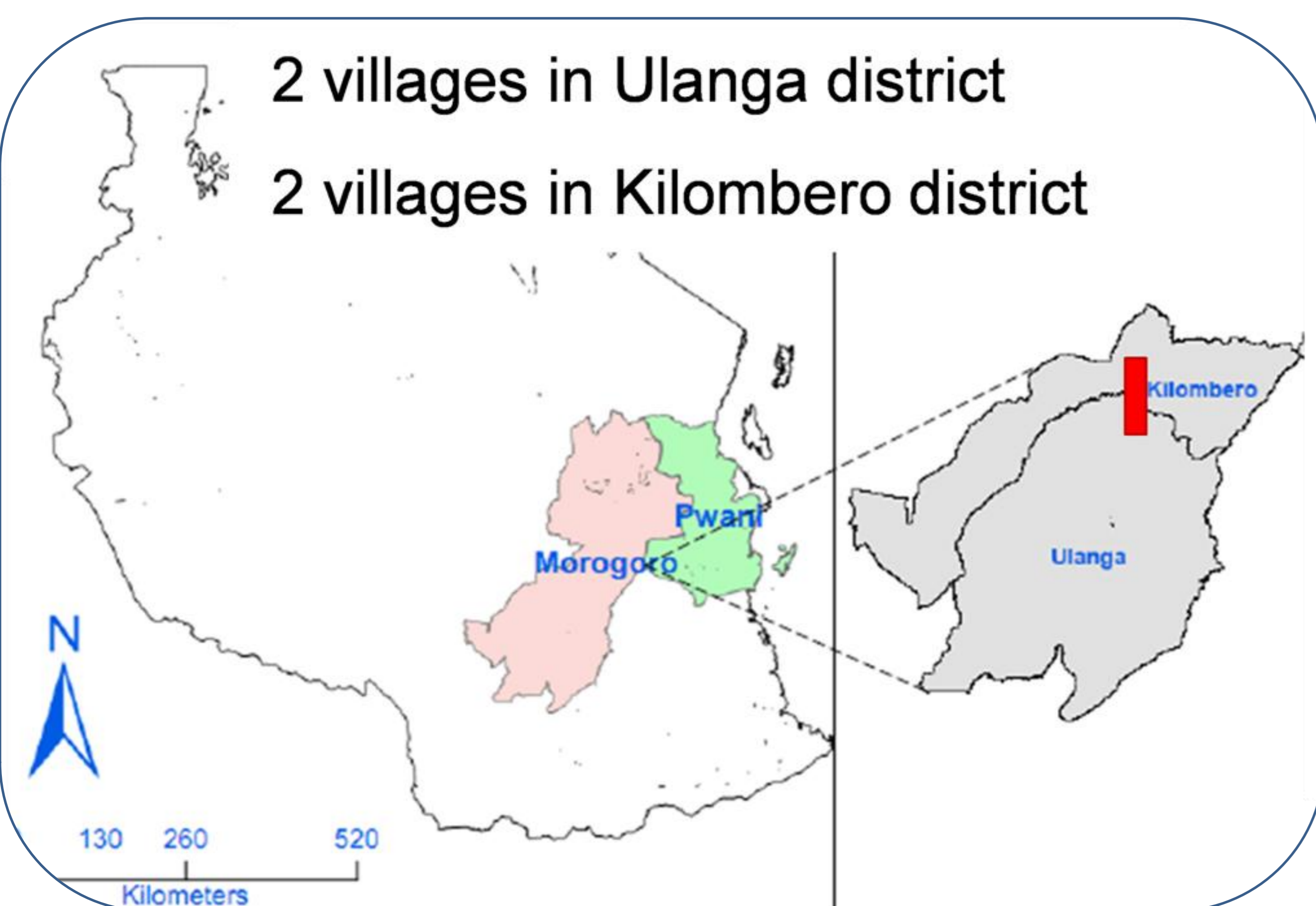


Despite remarkable achievements in malaria control, residual transmission still exists in many endemic communities.

Our **objective** is to examine how human outdoor activities and perceptions contribute towards the ongoing residual malaria transmission in southern Tanzania.



Methods



(1) Semi-structured interviews to assess community views and behaviours

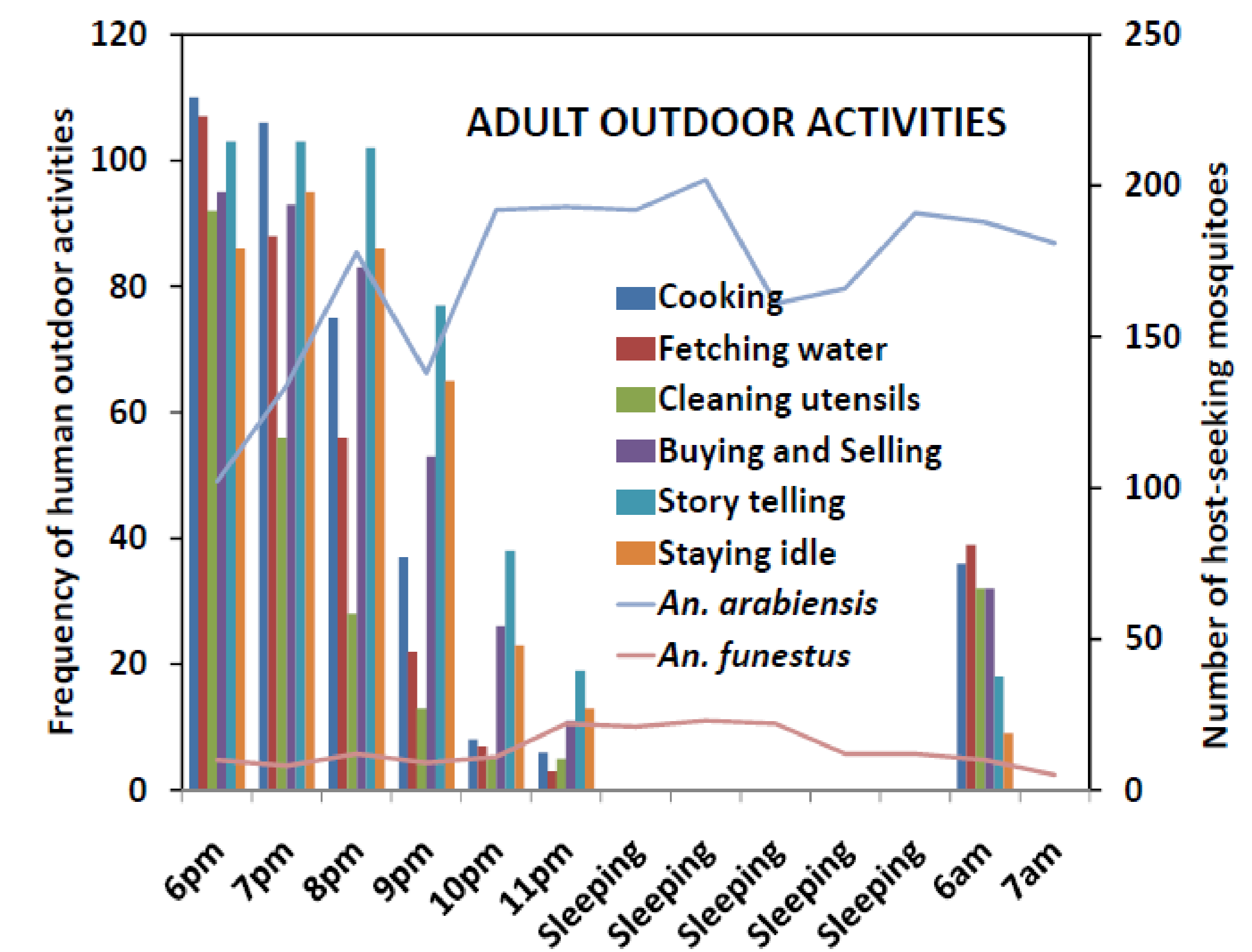
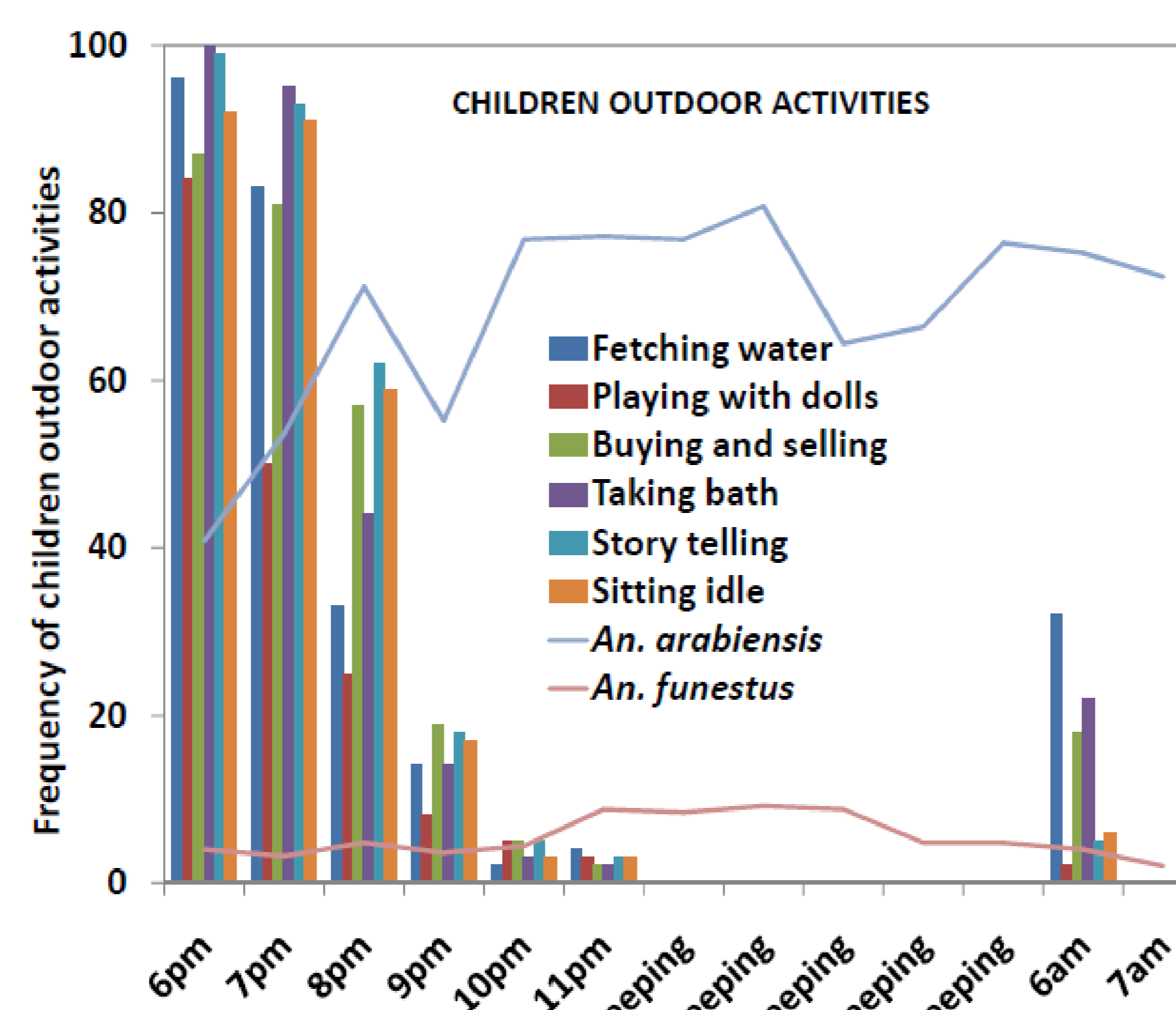
(2) Participant observations to catalogue outdoor activities

PART III: ACTIVITIES LIST	1. Tell us about your household's outdoor activities									
	6-7 pm	7-8 pm	8-9 pm	9-10 pm	10-11 pm	11-12 pm	After 12 pm or Early Morning			
Instructions: Please COMPLETE with a 'Yes mark (✓) or No mark (x) if you see people doing the things listed below. Please INDICATE also if the activity involves only one person (i) or more than one person (g)										
Example: Adults sitting (i) outdoors	✓	g	✓	g	✓	g	✓	g	✓	g
Children cooking outdoors										
Adults eating outdoors										
Children eating outdoors										
Adults fetching water outdoors										
Children fetching water outdoors										
Adult playing board games outdoors										
Children playing with toys outdoors										
Children playing sport										

(3) Entomological assessment of nightly mosquito biting patterns

Results

- Outdoor activities included buying and selling, socializing, storytelling, cooking, eating and fetching water,
- The activities took place at times when outdoor biting mosquitoes were also active, but with little or no protection
- Most people knew of malaria, had experienced outdoor bites and complained of malaria persistence, though most believed transmission occurs mostly indoors



Graph indicating summary observations of correlations between various common adult and children outdoor activities (bars) and the peak biting time (line) of the major African vectors, Anopheles arabiensis and Anopheles funestus.

Conclusion

Human behaviour as observed from activities performed outdoors with no/little protection, play a crucial role to the existing residual transmission since when they are outdoors, it is also the time that the host seeking mosquitoes are active outdoors. that people appreciate outdoor biting and the likelihood of outdoor transmission but use of intervention other than bed nets indoors, was rare. Therefore, new interventions targeting residual transmission must consider the contribution of human behaviour.