

Table 1. Bednet use and sleeping patterns amongst study participants

Household survey (N=80)	n	%	95% CI
Median number of people in the household, n; (range); IQR	5 (1; 10); IQR: 4-6		
Median number of people per bednet, n; (range); IQR	2; (0; 5); IQR: 2-3		
Coverage of bednets within a household (N=80)			
NA	2	2.5	
1-2 persons/net	58	72.5	[62.5; 82.5]
≥3 persons/net	20	25	[15.3; 34.7]
Proportion of broken bednets per household (N=78)			
Intact bednets	19	24.3	[14.61 34.1]
Less than 50%	8	10.2	[3.45; 17.14]
More than 50% (<100%)	25	32.0	[21.6; 42.6]
100% bednets are broken	26	33.3	[22.6; 44.0]
Frequency of bednet washing (N=78)			
Every week	28	35.9	[26.1; 47.0]
Once every 2 weeks	17	21.8	[14.1; 32.1]
Once every 3-4 weeks	24	30.8	[21.6; 41.7]
Less than once a month	9	11.5	[6.2; 20.5]
Duration until the bednet was broken (N=78)			
< 6 months	1	1.3	[0.2; 6.9]
7-12 months	13	16.7	[1.0; 26.4]
13-24 months	29	37.2	[27.3; 48.3]
≥25 months	35	44.9	[34.3; 55.9]
Alternative use of the broken bednet (N=59)			
Baby carrier	6	10.1	[3.8; 20.8]
Scrubbing the floor	15	25.4	[14.9; 38.4]
Blanket	20	33.8	[22.0; 47.3]
Pillow	29	49.1	[35.8; 62.5]
Fishing nets	17	28.8	[17.7; 42.0]
Respondents who practiced sleeping in the kitchen (N=80)			
Yes	48	60.0	[49.02; 71.0]
No	32	40.0	[29.02; 51.0]
Respondents who thought that smoke in the kitchen drove mosquitoes away (N=80)			
Yes	60	75.0	[65.3; 84.7]
No	19	23.8	[14.2; 33.3]
No answer	1	1.3	
Individual survey (N=141)			
Frequency of sleeping under a hung bednet (N=141)			
Always	109	77.3	[69.7; 83.4]
Sometime	12	8.5	[4.9; 14.3]
Never	20	14.2	[9.4; 20.9]
Reasons to sleep under a hung bednet (N=121)			
Warm	2	1.6	[0.3; 7.9]
Protect from malaria	73	60.3	[47.0; 69.7]
Nuisance of mosquitos/small insects	9	7.5	[1.5; 12.2]
Protect from mosquitos, but I don't know why	15	12.4	[7.1; 23.2]
Fever	7	5.8	[2.3; 14.2]
Other / No answer	15	12.4	[7.7; 19.4]
Used a bednet the night before the survey (N=141)			
Yes	116	82.2	[75.8; 84.1]
No	25	17.7	[11.3; 24.1]
If yes, used your bednet as a blanket or a hung bednet? (N=116)			
As a hung net	9	7.8	[2.8; 9.7]
As a blanket	107	92.2	[87.3; 97.1]

Table 2. Forest activities, multiple residences, and bednet use amongst households (N=80)

	n	%	95% CI
Households who owned a forest field (cinnamon plantation)			
Yes	78	97.5	[94.0; 1.0]
No	2	2.5	[0.9; 5.9]
Households who owned a plot hut in the forest field			
Yes	57	71.2	[60.0; 80.8]
No	23	28.8	[19.1; 39.9]
Period of staying in the forest field			
Prepare the forest field for a new crop	18	22.5	[13.9; 33.2]
Whole year	27	33.7	[23.5; 45.1]
Harvesting time	1	1.3	
Other (periodic removal of grass, visiting the forest field)	34	42.5	[31.5; 54.0]
Median traveling in minutes between home and the forest field n; (range); IQR			
	79		
	74 (10; 180); IQR: 40-120		
Median days staying in the forest field n; (range); IQR			
	53		
	19 (2; 56); IQR: 10-28		
Brought bednet to the forest field to sleep (N=57)			
Yes	23	40.3	[27.5; 54.1]
No	31	54.3	[40.6; 67.6]
Sometimes	2	3.5	
NA	1	1.7	

Table 3. Knowledge of malaria transmission (N=141 individuals)

	n	%	95% CI
What is the main cause of malaria?			
Hard work	1	0.7	[0.1; 3.9]
Mosquito bites	61	43.3	[35.4; 51.5]
Spirits	1	0.7	[0.1; 3.9]
Do not know	76	53.9	[45.7; 61.9]
No answer	2	1.4	
Can too much hot sun give you malaria?			
Yes	74	52.4	[40.1; 56.9]
No	58	41.1	[43.1; 59.9]
Do not know	9	6.4	
Can heavy rain give you malaria?			
Yes	67	47.5	[43.4; 60.4]
No	62	44.0	[39.6; 56.5]
Do not know	12	8.5	
Can drinking bad water give you malaria?			
Yes	58	41.1	[36.3; 53.2]
No	72	51.1	[46.8; 63.7]
Do not know	11	7.8	
Can working too hard cause malaria?			
Yes	69	48.9	[44.2; 61.0]
No	62	44.0	[39.0; 55.8]
Do not know	10	7.1	

Table 4: Risk factor analysis for appropriate bednet use the night before survey (using survey logistic regression; N=141)

Risk factors	n/N	%	95% CI	OR	95% CI	AOR	95% CI
Sex							
Male	51/67	76.1	[0.63; 0.85]	1			
Female	65/74	87.8	[0.76; 0.94]	2.26	[0.88; 5.80]	8.08	[1.73; 37.86]*
Education							
Illiterate	31/43	72.1	[0.55 ;0.84]	1			
Primary	41/49	83.7	[0.70; 0.91]	1.98	[0.75; 5.22]		
Secondary and higher	37/41	90.2	[0.76; 0.96]	3.58	[1.12; 11.48]*	—	
Occupation							
None (children, disabled)	15/23	65.2	[0.43; 0.81]	1			
Farmers	52/64	81.2	[0.70; 0.88]	2.31	[0.94; 5.62]		
Others (officer, business,...)	42/46	91.3	[0.79; 0.88]	5.6	[1.78; 17.58]*	—	
Coverage of bednet							
1-2.5 persons/net	90/99	90.9	[0.82; 0.95]	4.61	[1.60;13.31]*		
3-10 person/net	26/38	68.4	[0.49; 0.82]	1		—	
Knowledge of mosquito bites-malaria link							
No	88/112	78.6	[0.68; 0.85]	1		1	
Yes	26/27	96.4	[0.76; 0.99]	7.0	[0.90; 55.40]	7.43	[1.70; 32.41]*
Sufficient coverage of bednet							
No	24/41	58.5	[0.41; 0.73]	1		1	
Yes	92/98	93.9	[0.87;0.97]	10.86	[3.84; 30.70]**	21.69	[4.61; 102.07]**
Sufficient coverage of blanket							
No	10/16	62.5	[0.35; 0.83]	1			
Yes	106/125	84.8	[0.75; 0.90]	3.34	[0.95; 11.79]	—	
Sleeping in the kitchen							
No	84/88	95.5	[0.88; 0.98]	13.78		1	
Yes	32/53	60.4	[0.43; 0.75]	1	[4.53; 41.91]**	24.57	[4.74; 127.22]**
Sleeping under a blanket the night before the survey							
No	12/19	63.2	[0.37; 0.82]	1			
Yes	104/122	85.3	[0.75; 0.91]	0.30	[0.09; 0.96]*	—	

CI: Confidence interval; OR: Odd ratio; AOR: Adjusted odd ratio; *p<0.1; **p<0.001