

A qualitative study to assess consumer preferences and barriers to use of long lasting insecticidal nets in Myanmar

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Abstract

Background

Previous assessments have highlighted a lack of data on consumer preferences towards the range of malaria prevention tools, particularly in high-risk groups such as mobile populations. A qualitative study was undertaken in mid-2014 across three regions in Myanmar with varying levels of artemisinin resistance, to explore preferences and barriers associated with using long lasting insecticidal nets (LLINs).

Methods

A maximum variation sampling approach was followed to include a range of participant perspectives sufficient to reach theoretical saturation. Focus group discussions and key informant interviews were conducted in rural and urban sites across three regions with a total of 339 participants, including community members, migrant workers, forest goers, health facility, NGO, government staff and community health volunteers. Translated verbatim transcripts were analysed using a content analysis approach.

Results

Across the regions, community level participants were not always able to correctly explain how malaria is transmitted and prevented. A common theme among participants was a dislike towards the hard, rough LLIN texture, strong odour, and reported adverse effects; influencing usage of LLINs. Texture was the most consistent and important feature of nets reported, with participants preferring soft nets with small holes. Migrant workers and forest goers generally preferred a single sized net, while community members and those with large families preferred larger nets. Most participants preferred LLINs over untreated nets due to the insecticidal action to kill mosquitoes and prevent malaria.

Conclusion

Knowledge gaps around malaria transmission among community members, migrant workers and forest goers highlight the need to improve health awareness to further encourage the use of effective prevention tools. Strong preferences were reported for particular net characteristics, with the potential to enhance the usage.

Figure 1: Map of Myanmar



Table 1: Factors influencing net use (from most commonly cited reasons to least common response)

Range of reasons cited for not using untreated nets	Range of reasons cited for not using LLINs
<ul style="list-style-type: none"> Low levels of health education and malaria awareness Difficulties in carrying the net when travelling Leaving behind the net for family to use Too hot to sleep under a net Difficult to hang net Too tired to hang up net Too tired to hang net at night Perception that there are not many mosquitoes in the area Apathetic towards prevention/not interested Net "too beautiful to use"; store instead or save for guests Using a net is not part of a routine Want to sleep in the open air, "naturally" Alcohol use Divine protection 	<ul style="list-style-type: none"> Adverse side effects associated with LLINs: burning, itching, choking, rashes Texture Holes too big (Sagaing) Smell Use net for fishing instead

Table 2. Comments from a range of participants on long lasting insecticidal nets

Positive perceptions of LLINs	Negative perceptions of LLINs
Prevents mosquito bites, malaria	Too hard, rough
Kills lice, ants, cockroaches, other insects	Big holes
Long lasting	Too short in height
Free of charge	Not large enough for families
	Hot/burning sensation
	Becomes smaller, mis-shapen after washing
	Offensive odour/strong smell
	Easily damaged, torn after a short period

Table 3. Number of key informant interviews (KIIs), focus group discussions (FGDs) and participants per tier

Tier	Site location	Number of KIIs	Number of FGDs	Number of participants
Tier 1	Tanintharyi, Maw Taung	16	12	110
Tier 2	Kayah, Loi Kaw	17	12	118
Tier 3	Sagaing, Kale	15	12	111
Total:		48	36	339



Temporary shelter of migrant workers



Focus group discussion with migrant workers

Area stratification (Table 3)

Participants were sampled from areas of Myanmar which have varying levels of evident and suspected artemisinin resistant *Plasmodium falciparum*, specifically referred to as Tier 1 (strong evidence of artemisinin resistance, widespread ecological and social risk factors, intensive population movement), Tier 2 (unclear evidence of suspected resistance; located near suspected resistance areas in Myanmar, Thailand and China) and Tier 3 (rest of country).

For more information

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