

Addressing the gap between net ownership and use: Lessons from the culture of net use study

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► Introduction:

While mass distribution campaigns have been successful in achieving high rates of net ownership in many countries including Senegal, there is concern that this does not necessarily translate into consistent use of nets (Baume and Marin, 2007; Githinji et al, 2010; Thwing et al, 2008). Recent studies have found that the most common reported reasons for non-use of nets included discomfort of nets due to heat, the perception of low mosquito density, outdoor sleeping, fears about insecticide used in treated nets and difficulty hanging (Pulford et al, 2011; Galvin et al, 2011). The aim of this research was to explore the culture of net use in Senegal, a country with high coverage due to a recently completed a universal coverage campaign. Furthermore, the research sought to understand the factors that may result in non-use of nets.

► Methods:

This study utilized both quantitative and qualitative methods and was conducted in eight regions in Senegal during two phases of data collection. Phase one was conducted in January 2012 among 24 households. Phase two was collected in August 2012 during the rainy season and included follow up visits to the initial 24 households and enrolled an additional 32 households. This analysis is based on 24 in-depth interviews, 20 focus group discussions and 255 sleeping space questionnaires from phase one and 56 in-depth interviews, 8 focus group discussions and 556 sleeping space questionnaires. Qualitative data was analyzed using ATLAS.ti and the quantitative data was analyzed in STATA statistical software.

► Results:

The results from the sleeping space questionnaires demonstrated high net use among net owners during the previous night during both phases one (73%) and two (over 80%). The results of this research support the existing literature in that challenges to net use were related to access and user preferences. Several respondents mentioned not having enough nets in the household for all household members and not having the resources to purchase additional nets. However, in comparison to other items used for malaria prevention, nets were highly valued and people reported being willing to pay for them if they had the means. Respondents had preferences for certain net shapes, concerns about the quality of nets distributed for free and irritations and fears related to the insecticide. While several respondents discussed fears of side effects from the insecticide, others mentioned that they appreciated the insecticide and sometimes wished it were more powerful. Traditional methods of malaria prevention and treatment were commonly used in the communities but respondents reported that traditional remedies did not deter people from using the nets.

Respondent: *Once, I slept under a treated net with a high dose of insecticide and my arm and leg came into contact with the net. The next day, where my arm and leg touched the net were very hot. That's how I know the dosage was high. Plus, my wife says similar things.*

Interviewer: *What did you do when you saw that your arm was hot?*

Respondent: *Nothing. I just knew that the net had a high dose of insecticide which caused it.*

Interviewer: *And the net...what do you do with the net?*

Respondent: *Despite everything, I continue to use it.*

- Male, St. Louis – Fanaye, Rural

Respondent: *My mosquito net is rectangular, but I took a circular piece of iron to transform it into a conical shape to make it easier to attach. Also, I put a mattress on the floor for my children and I can protect them also; if I left the net rectangular, it would only cover one sleeping space.*

- Female, Louga – Ndamé Ngott, Rural.

► Conclusion:

Consistent with existing literature, respondents often discussed negative attributes of mosquito nets and challenges to using them, even when access was not a problem. For example, participants mentioned concerns about the insecticide's safety, shape preferences and differential value for nets that had been purchased as compared to those received for free. However, given the high rates of net use in the regions studied, it is likely that these reported challenges are more likely to be nuisances rather than true barriers to use. This suggests that in settings, like Senegal, where net use is normative, negative experiences with or attributes of nets are more commonly nuisances than true barriers to use.

► Literature cited:

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Githinji, S., Herbst, S., Kisteemann, T & Noor, A.M. (2010). Mosquito nets in a rural area of Western Kenya: Ownership, use and quality. *Malaria Journal*, 9(250).

Pulford, J., Hetzel, M.W., Bryant, M., Siba, P.M., Mueller, I. (2011). Reported reasons for not using a mosquito net when one is available: a review of the published literature. *Malaria Journal*, 10: 83.

Thwing, J., Hochberg, N., Vanden Eng, J., Issifi, S., Eliades, M.J., Minkoulou, E., Wolkton, A., Gado, H., Ibrahim, O., Newman, R.D., & Lama, M. (2008). Insecticide-treated net ownership and usage in Niger after a nationwide integrated campaign. *Tropical Medicine and International Health*, 13(6), 827-834.



Interviewer: *You said that it was during the rainy season when there are more mosquitoes that you sleep under nets. Are there other seasons which you will not sleep under a mosquito net?*

Respondent: *There is a small number of the population that sleeps with their nets throughout the year, but they are few. It's sufficient enough to sleep with nets during the rainy season and once its finished, everyone is free to sleep without nets.*

Interviewer: *And why is that?*

Respondent: *It is believed that mosquitoes are harmful, or that one senses them, only during the rainy season. In the dry season, as I said before, we didn't notice mosquitos, except near areas of stagnant water, like the latrines."*

- Female, Louga – Ndamé Ngott, Rural.

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