

Mosquito Nets

Topic: Mosquito Nets and Deployment

Medium: Implementation Design

Designer: ??

Scale: Mostly the Developing World in Africa and parts of Asia

Era: 18th Century – Modern Times

The mosquito net has origins that date back to even Egyptian times, but the modern use of the net occurred after the discovery of mosquitos as vectors of transmission by Ronald Ross in 1897 (History of Malaria Control). Currently, the mosquito net's primary purpose is to impede the spread of malaria, *Plasmodium falciparum*, and other forms of vector transmitted diseases, and in particular to impede the *Anopheles Gambiae* genus of mosquitos (Tsuang). But are these nets working?

The design of the mosquito net has traditionally been exclusively to prevent the spread of Malaria, but in some cases it has not proven to be an effective means for change, exclusively. Some studies have shown that the greater the ration in the household to net, the higher the usage rate (Tsuang). According to a study in Papua New Guinea, the average ownership of a net of any form is over 80%, however, usage hovers around 44% (Hertzal). The distribution was able to reach a great deal and increase ownership to over 80% but why the low use? Another study attempts to answer this question with a meta research analysis. This found, based on 22 other academic studies, that the main reasons for the lack of use of mosquito nets was due to discomfort from heat, and a lack of the perceived mosquito density (Pulford).

Though this sounds like a reasonable answer, if we look to a very humanistic report by the New York Times, we see a different reason. An article reported that a primary reason for the lack of use for mosquito nets in Zambia was that they were being used as fishing nets (Gettleman). We can see a clear disconnect between the intended use of the nets, and the value of which the people see their own needs and resources. Sonia Shah says in a L.A. Times article about the failure of Malaria Prevention,

“Perhaps what we need is a whole new approach. Instead of masterminding solutions for distant problems and then handing them down from on high – as we do not just in our anti-malaria efforts but in a variety of aid programs aimed at extreme poverty – we should empower the poor to come up with their own solutions, and then help figure out how to implement them.” (Shah)

This is demonstrative of the way a distant idea to solve a health based problem can be disconnected with the actual people and their needs. The people of Zambian coast clearly see the need for fresh food to be of greater priority than the mosquito threat, valid or not. This disconnect is also demonstrative of how quantitative data is insufficient to be used to validate the effectiveness of products and deployments, as an in person evaluation needs to be done.