

Comparison of Malaria Control Interventions in Angola

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ABSTRACT

Background: There is lack of evidence on which of the two highly recommended malaria prevention methods, mosquito bednets and indoor residual spraying, is more effective than the other.

Objective: To compare the effectiveness of mosquito bednets and indoor residual spraying in the prevention of malaria. Based on the Health Belief Model, the research questions tested whether there is any relationship between the use of mosquito bednet or the use of indoor residual spraying and contracting malaria.

Materials and Methods: Using a quantitative research design, secondary data from the 2011 Angola malaria indicator survey were analyzed using IBM/SPSS version 24. Chi-square for association, logistic regression, and multinomial logistic regression tests were conducted with significance level set at p value of ≤ 0.05 .

Results: From 578 children who slept under mosquito bednet the night before data collection 9.2% ($n = 28$) had malaria compared to 5.7% ($n = 31$) of 331 children who did not sleep under mosquito bednet. However, there was no statistically significant association between the use of mosquito bednet and having malaria $\chi^2 (1) = 3.324, p = 0.068$, odds = 0.613, 95% CI [0.361, 1.042]. From 2139 children who lived in dwellings that were not sprayed against mosquito 13.2% ($n = 250$) had malaria compared to 5.6% ($n = 7$) of 133 children who lived in sprayed dwellings. Furthermore, there was a statistically significant association between the use of indoor residual spraying and having malaria, $\chi^2 (1) = 5.152, p = 0.023$, odds = 2.382, 95% CI [1.100, 5.158].

Conclusion: The malaria prevention programs in Angola should focus on indoor residual spraying. It is recommended that all households in Angola malaria prone areas should be regularly sprayed.

Keywords: Malaria, Malaria control, Angola, Indoor residual spraying, Malaria prevention methods

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