

# Malaria crisis in ghana-west africa

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## Malaria Crisis in Ghana-West Africa

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Ghana is in the western part of Africa. Ghana is known to have several water bodies of which some of them are stagnant which makes it easy for mosquitoes to breed / lay eggs. Hence the topic Malaria. So, in this essay I am going to talk about Ghana. A country terrorized by the malaria disease. Malaria is a disease caused by the Plasmodium parasite which uses mosquitoes as a vector. This disease can be contracted through the bite of the female Anopheles mosquito. Some symptoms of the disease include fever, vomiting, yellow eyes amongst others. children of ages of 1 month to 6years record the highest mortality from malaria. This is due to their weaker immune system. Stagnant water, blocked drainage systems, poor ways of dumping refuse form part of the many ways mosquitoes are breed. In finding out whether young ones are ill. The nurse would have to ask your prevalent questions to determine whether or not the child is sick. To break the language barrier, one has to get a translator to help ease in nonverbal communication and also an interpreter to help make verbal communication easy and faster. Its not advisable to use family members as interpreters as it might lead to biasness in translating what the patient says.

First and foremost, there will be a need to contact local clinics and practitioners. Secondly, there should be an evaluation of local nurses. Evaluation can be done through theoretical and practical examinations. There should be a selection of the qualified team to be assigned the task at hand. This will help develop a more functioning team. I would recommend getting nurses who are from Ghana and familiar with the diverse types of ethnic groups in Ghana. As it might not be easy to get access to such nurses I would try and contact red cross, plan international organization, UNICEF and other locally owned non-profit businesses that can provide us with volunteers.

As a nurse some nursing interventions I can provide is make sure mosquito nets are distributed to the areas involved in this crisis. Let's say Volta region and Greater Accra Region are the most affected ones, I will make sure they receive enough mosquito nets, mosquito repellents and mosquito coils. I will ensure that the people involved in this crisis are educated about how important it is to sleep under long-lasting insecticide nets. They need to be thought how to set the mosquito net up and sleep in. I will also make sure that gutters are cleaned out, flooded places are drained out all stagnant waters are gotten rid off. I prioritize these interventions because if the root of the problem it not fixed then nothing is going to benefit the clients. So once the stagnant water and floods are taken care off, it would be comfortable for these people to be able to sleep peacefully under their long-lasting insecticide net.

Malaria is one of the main killer diseases in the world. To unravel the transmission intensity of malaria, researchers employ several methods. The traditional method which is known as entomological inoculation rate (EIR), simply, the number of infectious bites per individual per annual is said to have a number of limitations. The article however argues that whereas this method is useful, it is time consuming, expensive, and inflexible. Therefore, the research avert these limitations by analyzing serological data to estimate the transmission intensity of malaria. This analysis was done by using catalytic models to estimate the antibody seroconversion rate (SCR) to identify whether there was a relationship between the rate of exposure and the estimated SCR derived from the modelling they used. The study in its best form can be described as quantitative in nature as mathematical models were developed in analyzing the data. It is however, explicit in nature as the authors suggest their new model is unique and useful. The researchers did not set any specific hypothesis to be tested however, they sought to argument existing analysis model by developing their own model and identifying if there is a correlation between their new model and the existing one, specifically, EIR.

The methodology employed in this study involved the sampling of 12 villages in Ghana and targeting respondents of age up to 46 years old. To mirror the ranges of malaria transmission intensity, the respondents in these villages were selected in areas of high, medium, and low altitude. In all a total of 5227 individuals were surveyed. As the major finding, the article identified that, there is a strong correlation between the estimated rate at which individuals were exposed and the estimated seroconversion rate derived

from the model they used. In essence, a strong correlation between their model and the most widely used analysis model such as the EIR. Another interesting finding of this study was that the exposure rates of the malaria parasites were found to be higher among villagers living at a lower altitude than their counterparts at a higher altitude.

Unfortunately, however, the researchers did less in explaining why this was the case. For example, what conditions prevails at the higher altitude regions that results in the lower exposure rate and vice versa. It could be said the study successfully achieved its objective in developing a new model to analyze serological data, however further research needs to be conducted to confirm if indeed their new model is as useful as they claim it is.

Notwithstanding that, the study is useful in my practice in the sense that the plasmodium parasite that causes malaria still persists in the host after several years of infection and since most of these tests are done in the laboratory the article gives me an idea of how this new model can be used to analyze serological data to estimate the intensity of transmission in the future.

In any case, the finding of the study was useful as it provides a new model in analyzing serological data in understanding the transmission intensity of malaria. This is because identifying the intensity of malaria transmission helps in evaluating the impact of any anti-malaria prevention efforts.

### **References:**

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