



# Malaria

## Is It A Problem In Our Area?

26. Mwapachu

Mashee Bakar, Ibrahimu Maumba and Devotha Bwire

### Introduction:

In the Tanga District of coastal Tanzania, malaria is one of the primary causes of mortality for children under the age of five. While some children are treated with malaria medications in biomedical facilities, as the World Health Organization recommends, others receive home-care or treatment from traditional healers. Recognition of malaria is difficult because symptoms can range from fever with uncomplicated malaria to convulsions with severe malaria. This study explores why caregivers in the Tanga District of Tanzania pursue particular courses of action to deal with malaria in their children.

### AIM

The aim of this project is to determine problem of Malaria in our area. Most of students are frequently suffered from Malaria in our area and this hinders the lessons progressivity at school and home.



Studying malaria treatment at the local level in Africa would be incomplete without considering the role of traditional healers and traditional medicines, as traditional healers represent the first line of care for over 70 percent of the population in Tanzania. Currently, malaria is diagnosed and treated by traditional healers in a variety of ways including biomedical, traditional, or combinations of both, depending on the symptoms. The literature has shown repeatedly that traditional healers are consulted most often when the cause of illness is believed to be spiritual or demonic. A traditional healer may prescribe an array of treatments for a child with malaria including herbal remedies, such as prepared plants or roots, or spiritual remedies, such as exorcism.

The Tanga District is known both for high rates of malaria and its vast network of traditional healers. With a population of over 240,000, the district is subdivided into 24 wards of varying size and population, and contains three large district hospitals and many smaller clinics [.

The causative agent of Malaria is Protozoan parasite *Plasmodium*.

There are some types of Plasmodium that cause the Malaria. These are;

**Plasmodium vivax**; it causes tertiary Malaria whose attack comes after every 48 hours.

**Plasmodium falciparum**; it causes malignant malaria found mostly in Central America, Brazil, Africa and Asia.

**Plasmodium ovale**; it causes mild tertiary malaria which attack after 48 hours

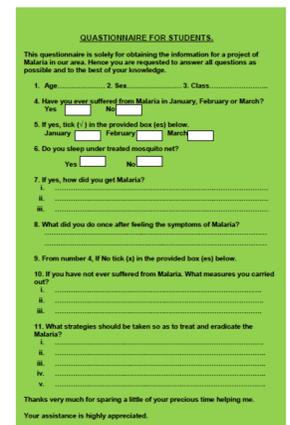
**Plasmodium malariae**; it causes quaternary malaria in which attacks occurs after every 72 hours.

*Plasmodium falciparum* is more common and found in both tropics and is the largest single cause of death in Africa.

Malaria is transmitted by the female mosquitoes of the *Genus Anopheles*. *Anopheles arabiensis* is a parasite (vector)

visiting human blood as occasional meals. During feeding, infected mosquitoes pass on the Malaria parasite from the salivary glands.

A mature Plasmodium is injected into the blood stream to the liver to multiple and reproduces and affects the other liver cells.



### Methods

The data were collected from the three areas of the study; these are

Mwapachu Secondary School

Mwakidila Clinic

The following formula was used to calculate the percentages

**Percentage of male students suffered from malaria (Pm) = (nm/tm) X100 %**

Where:

**(nm)**=Number of male students suffered from malaria from form one-form four

**(tm)** =Total number of male students from form one-form four

**Percentage of female students suffered from malaria (Pf) = (nf/tm) X100%.**

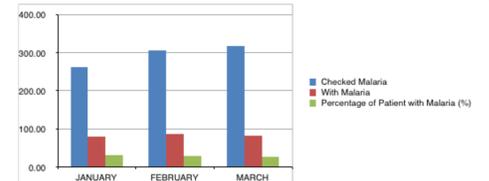
Where

**(nf)**=Number of female students suffered from malaria from form one-form four

**(tm)**=Total number of female students from form one-form four

The data from Mwakidila Clinic was collected from January to March, 2012. Show the children below five (5) years and above five (5) years attended for checking Malaria.

PATIENTS	JANUARY	FEBRUARY	MARCH
Below five years children	151	143	182
Above five years	241	253	291



But the below data were obtained after the measurements of checking the *Plasmodium falciparum*

PATIENTS	JANUARY	FEBRUARY	MARCH
Checked Malaria	261	306	318
With Malaria	79	87	81
Percentage of Patient with Malaria (%)	30.27	28.43	25.47

Month	TM	TF	MM	FM	Pm	Pf
January	306	320	78	64	25.49	20.00
February	306	320	69	57	22.55	17.81
March	306	320	73	70	23.86	21.88

**Conclusions:** The data interpretation was confirmed the prevalence of Malaria in our area.

But Malaria prevention and control strategies may provide a greater benefit than the mere reduction of Malaria alone. Therefore the Malaria is a problem in our area.

Malaria may treated by using Anti-Malarian drugs to prevent disease. Examples of Anti-Malarian drugs are Chloroquine, Fansidar, and Metakephine.

Not only the malaria can be prevented by using anti-drugs but also the other measures such as clothing (long sleeves and trousers).

Sleep under a treated mosquito net which can repel and kill mosquitoes at night. This can help the people to be prevented from transmissions of malaria.

Furthermore; by smearing the mosquitoes repellent creams make the mosquitoes not to attack the person who slept at night.

Therefore the Government (Ministry of Health) has to make effort so as to reduce or remove the high population of people suffered from malaria frequently in our area.

The people must be taught about malaria and their effects. This may help to increase awareness on malaria.

The Ministry of health has to emphasis the Government on water constructions in the some area where the water can lead the breeding sites of mosquitoes.

The Government has to set the principles or policy of environment especially in our are (Region in Tanga). This can lead the awareness. For example here in Tanga there is programmer called **Kalembu day** at the end of each month but most of the people are not evolved in this programme in cleaning the environment. So this programme must be emphasized

### References:

- Mader, S.S. (2001). **Biology**. (5<sup>th</sup>).Mc Graw- Hill: Boston
- Magasi, S.C. (2008). **New Essentials of Biology:For Secondary School**: Book one:Nyambari Nyangwine Publishers:Dar-es-Salaam.
- Mwaniki, I.M & Geoffrey, G.G. (2001). **Fundamental of Biology**. Delah Educational Publishers: Tanzania
- Taylor, D.J. (1997). **Biological Science**. (3<sup>rd</sup>ed ).Cambridge University Press: UK
- Clegg, C.J&Mackean, D.G.(2004). **Advanced Biology:Principles&Applications**.(2nd).John Murray Publishers:London
- National Institute for Medical Research (NIMR): Tanga

**Acknowledgements:**We are grateful to the patients and their parents who made this work possible. We acknowledge our lovely Teacher Maulidi Said Omar for his assistance (supervision).Also we thank Doctors at Mwakidila Clinic and all technical staff and Research assistants who were evolved in clinical and laboratory data collection.

### Further information:

Download at: [www.youngscientists.co.tz/posters](http://www.youngscientists.co.tz/posters)