

KAP STUDY ON MALARIA IN UNION COUNCIL KOAZ BAHRAM, DHERI, PAKISTAN

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ABSTRACT

The present survey assessed the knowledge, attitude and practices (KAP) of learners on issues related to health in Union Council Koaz Bahram. The aims of the KAP survey to collect information from the local population, what is known, believed and done in relation to malaria. The KAP study is effective way to create awareness in the community. The present KAP survey will be helpful for the plan, implement and evaluate of malaria control program in Union Council Koaz Bahram. The study was conducted in the Union Council Koaz Bahram District Charsada Khyber Paktunkhwa, Pakistan. The data were collected from six villages of Union Council Koaz Bahram, Fazal Kally, Sargund Kally, Main Jan Kally, Landi Shah, Habib -Ur-Rahman Kally and Sanizo Shah. The study was carried out during the September 2013. The data are collected orally by an interviewer using a standardized, structured questionnaire. The questionnaire was translated to the local population and filled in. The simple random sampling method was used for the collection of data. Among the local population the total 106 peoples were interviewed from different villages of Union Council Koaz Bahram. The data were analyzed for different factor contributing to disease. The result show that chill and fever is common in malaria along with headache. The transmission of malaria occurred through mosquito. The 97.17% people show that the malaria is curable. The main source of the mosquito reported in this study was dirty water and house. Of the total interviewed people 100% says that the mosquito bite hand and feet. The local population suggested that the burden of malaria occurrence was high in the summer season as compare to other season. From this survey it was concluded that the local population of Union Council koaz Bahram have the basic knowledge about the malaria.

Keywords: Malaria, Random sampling, Questionnaire

INTRODUCTION

The malaria is a mosquito borne disease cause by parasite known as *plasmodium*. The four species of Plasmodium commonly infect humans known as *Plasmodium vivax*, *Plasmodium falciparum*, *Plasmodium malariae* and *Plasmodium ovale*. The *P. vivax* and *P. falciparum* are the most common. Even in this modern era malaria remains a significant cause of morbidity and mortality especially in poor countries (WHO, 2009). According World Health Organization (WHO) the malaria is currently endemic over 100 countries. The 3 billion people at risk of infection and 225 million new cases occurred worldwide along with approximately 781,000 deaths in 2009 (WHO, 2010). Worldwide each year 350 to 500 million cases of malaria occurred. More than 1 million peoples are died due to malaria every year and mostly the children. The leading cause of deaths is tribute to *P. faciparum* worldwide. The common symptom of malaria are fever, and then sweating, chills, headache and muscular pain. The malaria is transmitted from the infected person by the bite of mosquito belonging to genus *Anopheles*. In 1961, nationwide malaria eradication campaign was launched. During

1960s, the malaria was nearly eliminated from Pakistan. But unfortunately the malaria is re-emerged in 1970s, reaching epidemic proportion in 1972-73, due to administrative constraints, financial and misadventure. And then strategy switched from eradication to control in 1975. Approximately 150 million (97%) of the Pakistani population is at risk reported by WHO, while 1.6 cases occur per year (WHO, 2002; Asif, 2008; WHO, 2006-2010).

During the last ten years the incidence of malaria strikingly increased. Since, for long time malaria is a major public health of Pakistan. In 2001, Pakistan joins the global control strategy Roll Back Malaria (RBM), but the result is not promising (Roll Back Malaria, 2002a; Roll Back Malaria, 2002b; Asif, 2008). Most of the peoples don't know about the malaria and its control program. For the control of malaria along with drug and vaccine the education of the community regarding the disease and effective vector control cannot be ignored (Khan *et al.*, 2010). By the use of mass media and other forums should need to mobilize community education regarding the disease.

MATERIALS AND METHODS

Study location

Based on the history of malaria the present study was conducted in Union Council Koaz Bahram District Charsada Khyber Paktunkhwa, Pakistan.

Villages

The villages include Fazal Kally, Sargund Kally, Main Jan Kally, Landi Shah, Habib -Ur-Rahman Kally and Sanizo Shah.

Duration of study

The study was carried in September 2013. The people were interviewed during the time 9:00 AM to 5:00 PM.

Data collection

A descriptive study was design for the collecting of knowledge, attitude and practice (KAP) on malaria among the local population of Union Council Koaz Bahram. For the collection of data a standard and structured questionnaire were used. To collect fact on demographic characteristics (sex, age, education, marital status, and monthly income) people's knowledge about malaria and its vector and practice using close and open ended question. The local populations were interviewed by using the simple random method. The data were collected on paper.

Analysis of data

After collection of data the raw data were compiling, and analyzed for the KAP study.



Pictures: Data collecting from the local population of Union Council Koaz Bahram

RESULTS AND DISCUSSION

A total 106 peoples were interviewed for the KAP study on malaria in Union Council Koaz Bahram during September 2013. The 27 peoples were interviewed from Fazal Kally, 24 from Sargand Kally, 21 from Mian Jan Kally, 19 from Landi Shah Kally, 10 from Habib- Ur- Rahman Kally and 5 respondents were from Sanizo Shah Kally (Figure 1).

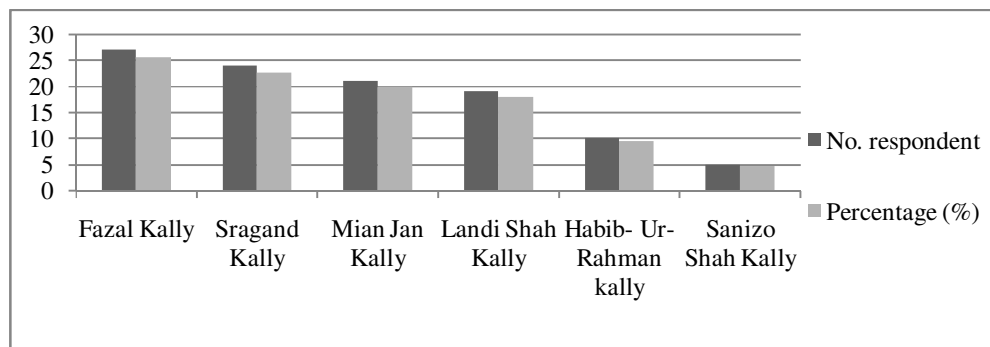


Figure 1. Distribution of respondents from different villages of Union Council Koaz Bahram

Of the total interviewed peoples 104 (98.11%) were male and 2 (1.89%) were female as shown in figure 2.

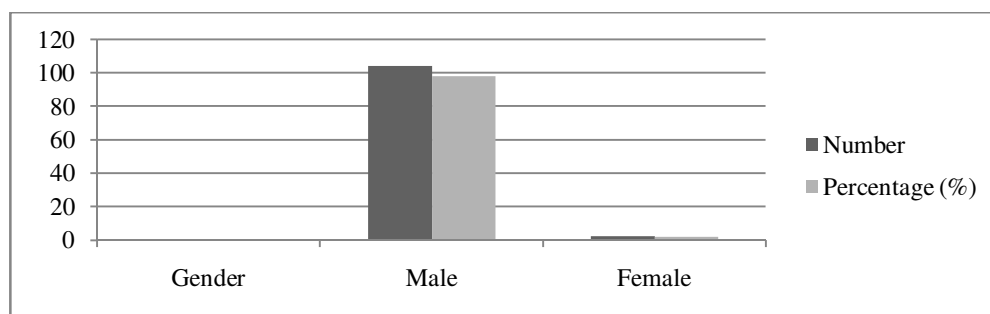


Figure 2. Gender wise distribution of respondent

The local population was interviewed for different factor demographic characteristics, factor contributing the disease, spread of disease and prevention of disease. The local population was divided in to three group age group 1: 0-14 years, age group 2: 15-44 years and age group 3: >45 years. The study shows that the majority of peoples belong to age group 2: 84/106 (79.24%) follow by age group 3: 14/106 (13.21%) and age group 1: 8/106 (7.55%) as shown in figure 3.

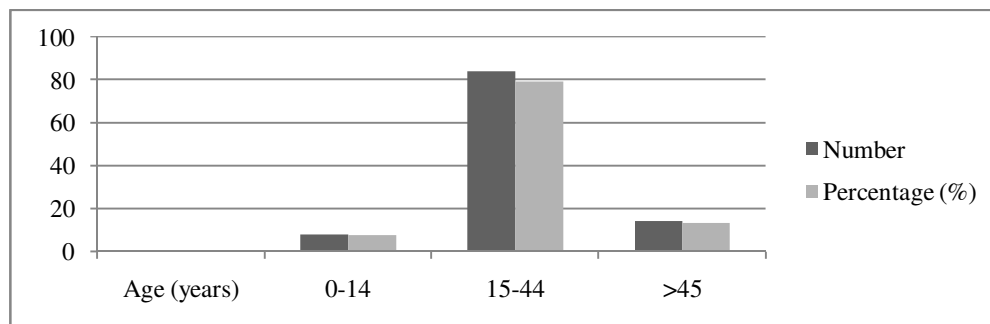


Figure 3. Age wise distribution of the local population

The demographic characteristic of the area show that 45/106 (42.45%) are uneducated while the 61/106 (57.55%) were educated. Out of the total educated population the 17/61 (27.87%) are matriculate, 19/61 (31.15%) intermediate, 14/61 (22.95%) are graduate and 11/61 (18.03%) were master degree holder (Figure 4).

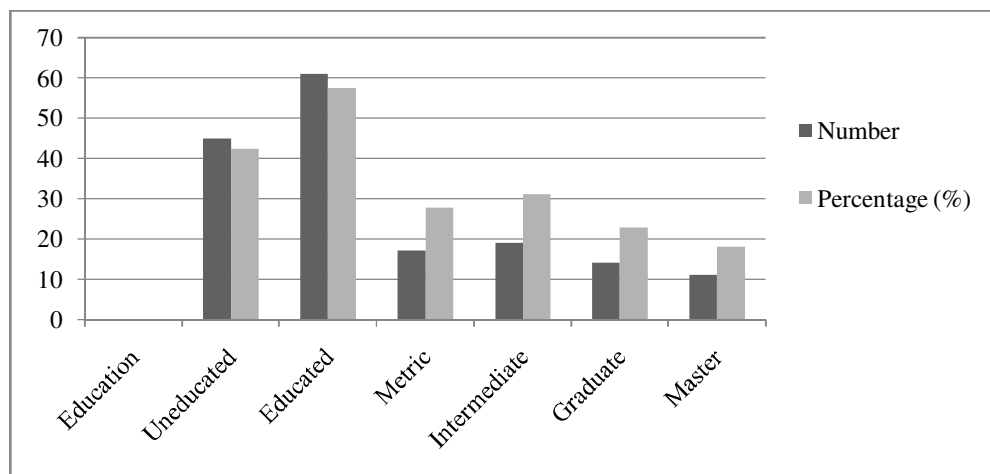


Figure 4. Educational status of the local population

Where the occupation is concern the majority peoples were Students 32.08% followed by Private 29.24%, Farmer 28.30, Teacher 8.49% and House wife are 1.89%. In the present study the socioeconomic condition of the local population were also considered which show the majority of peoples (46.23%) have 11000-25000 PKR monthly income followed by peoples have 10000 PKR (27.36%) and those who have their monthly income is >25000 were (26.41%) as shown in figure 5.

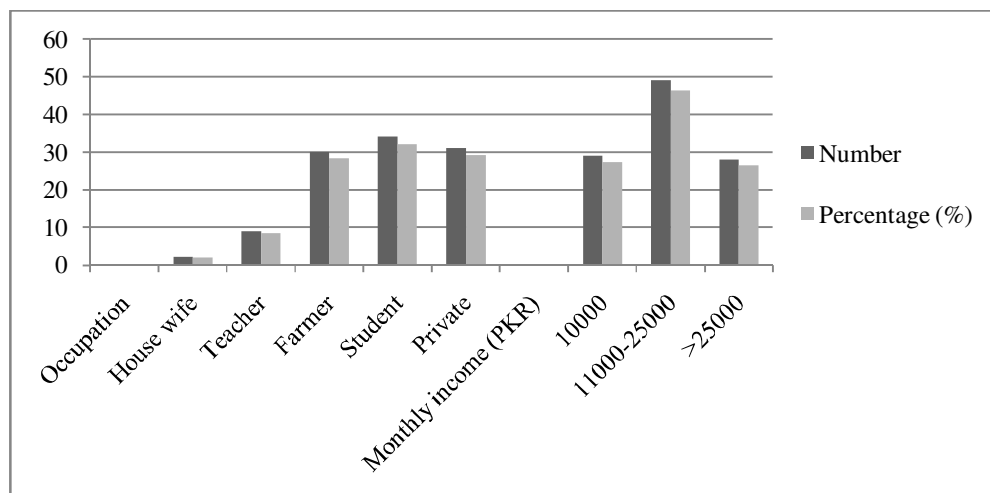


Figure 5. Occupation and monthly income of the respondent

The result of the current study shows that the 100/106 (94.34%) peoples of Union Council Koaz Bahram known three or more than three symptom of malaria while the 6/106 (5.66%) peoples have known two symptom of malaria while none of them were recorded to know one symptom of malaria. The chill and fever are the most common symptom of malaria reported in the present study. The 105/106 (99.06%) of the respondent answer that chill is common in malaria followed by fever 104/106 (98.11%), headache 92/106 (86.79%), Arthralgis 18/106 (16.98%) and malaise 15/106 (14.15%) as shown in figure 6.

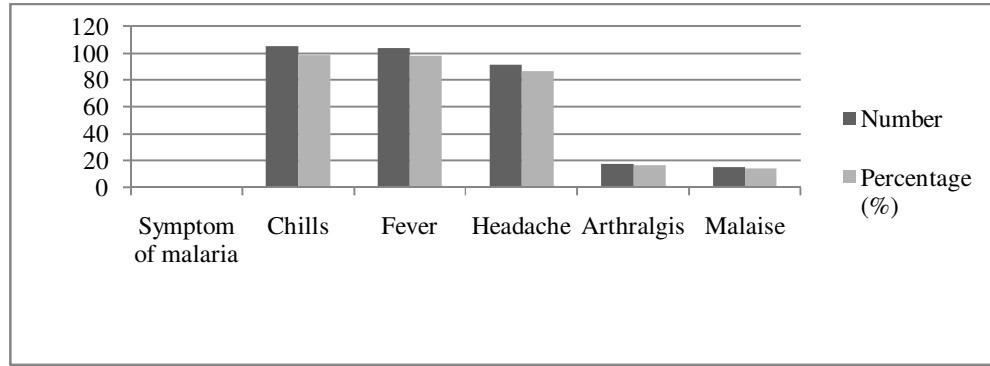


Figure 6. Knowledge of the symptom of malaria

The local population of Union Council Koaz Bahram show good response against the knowledge about the transmission and prevention of malaria. Out of total interviewed population 106/106 (100%) peoples give answer that the transmission of malaria is occurred through mosquito while one (0.94%) of them also stated that the transmission of malaria is occurred through water as shown in figure 6. While the 101/106 (95.28%) population of Union Council Koaz Bahram stated that by the use of chemical the malaria can prevent. Among of the interviewed 6/106 (5.66%) respondent give answer by the use of mosquito nets and others the malaria can prevent. The 103/106 (97.17%) local population says that the malaria is a curable disease while the 3/106 (2.83%) people of the local community says that the malaria is not curable (Figure 7).

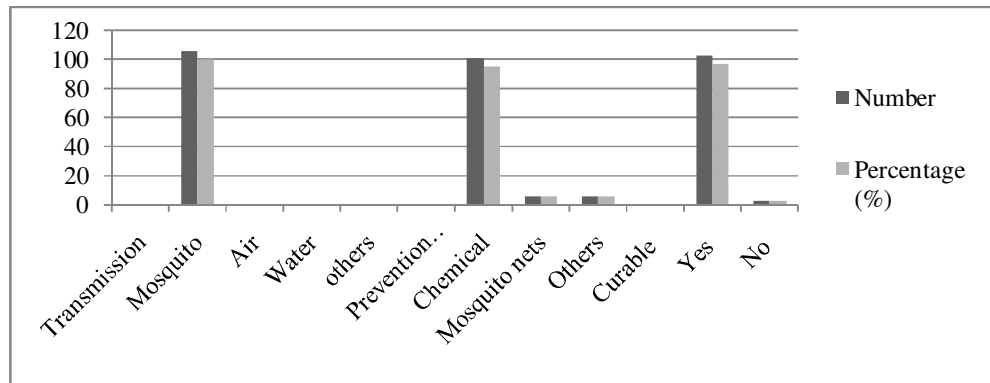


Figure 7. Knowledge about the transmission and prevention of malaria

The result of the current study shows that the mosquito spread the malaria and dengue as shown in figure 8.

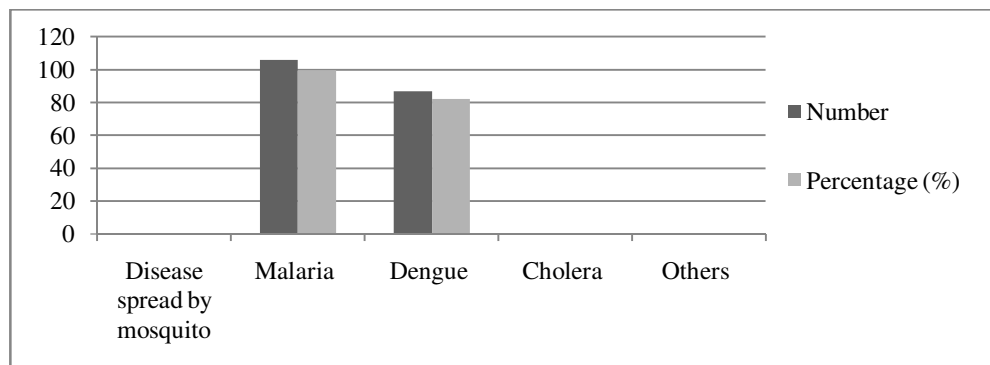


Figure 8. Knowledge about diseases spread by mosquito

The local community of the Union Council Koaz Bahram also shows good response about the general knowledge of malaria (Figure 8). The 3.77% know the one source of mosquito while the 25.47% know two sources while the 64.16% have known three or more than three sources of mosquito. The 6.60% people don't know about the mosquito sources. The 35.85% people of the community know two parts of the body (i.e hand, feet, face etc) where the mosquito bite while the 64.15% people know three or more than three parts of the body where the mosquito bite (Figure 9).

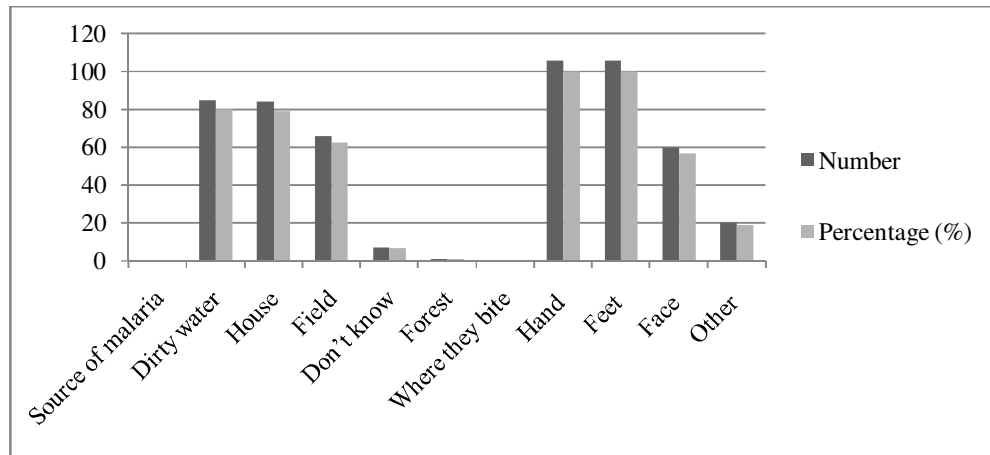


Figure 9. Knowledge about source and where the malaria bite

Where the seasons concern the 104/106 (98.11%) show that the malaria is common in summer as compared to other season. While the 100% respondent stated that the government and non government organization never spray and not arrange the seminar etc in the Union Council Koaz Bahram. The 77/106 (72.64%) people of the local population suggested that the future probability of malaria spread have high chances while, the 29/106 (27.36%) people of the local population response to future probability of malaria spread have little chances (Figure 10).

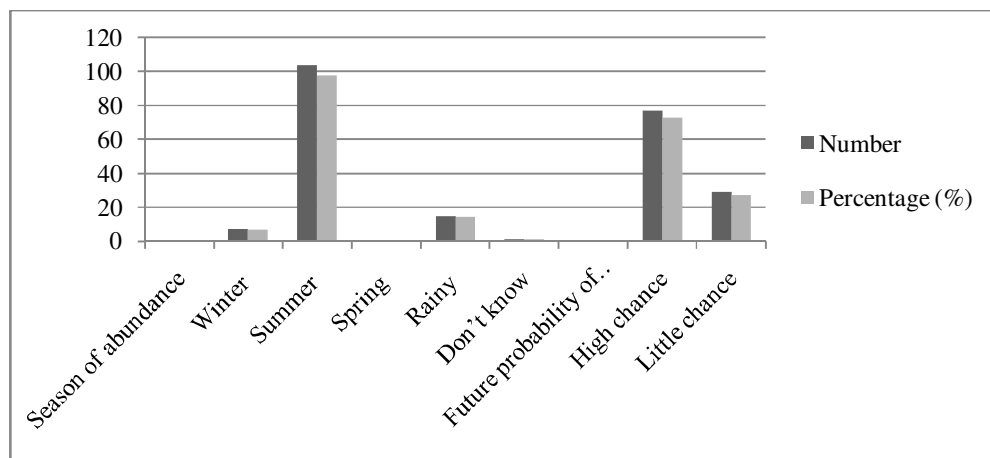


Figure 10. Seasonal occurrence and future probability of malaria

The sources of information are varying among the local population of the community. Of the total respondent stated that nor ever spray by the government and non government organization and nor arrange the seminar etc on malaria as shown in figure 11.

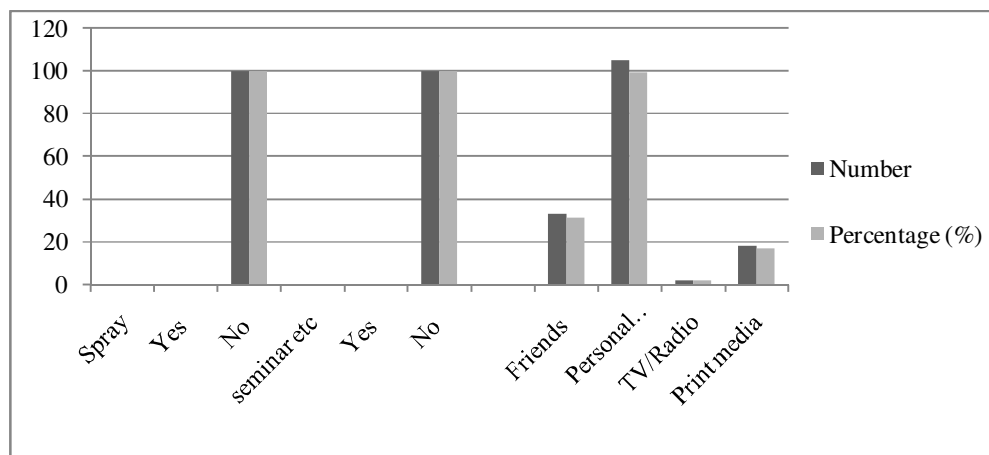


Figure 11. Government role and source of information

The result of the present study show that the illiteracy rate among respondents was high (42.45%), 31.15% had an intermediate school education level. The result is comparable with Hanafi-Bojd *et al.*, (2011) reported (44.2%) illiteracy level in Bashagard district in northeastern Hormozgan Province, southern Iran. The illiteracy can affect the success of control programs. There is a direct correlation between literacy levels with practice. Among the local population the knowledge about malaria transmission routes was good. Of the total respondent the 100% transmission of malaria is occurred through mosquito. This level was 34% in Zanzibar (Alilio and Bammek, 1998), 73% in Vietnam (Anh *et al.*, 2005), 48.8% in Ethiopia (Paulander *et al.*, 2009) and 99.7% in Swaziland (Hlongwana *et al.*, 2009). The (94.34%) knew three or more than three symptom of malaria the result is comparable with other (Hanafi-Bojd *et al.*, 2011; Paulander *et al.*, 2009). Most of the respondents in the present study believed chemical use could protect them against malaria infection. In our study only 5.66% population believed the use of mosquito nets prevent the malaria. These rates need to increase by the use of education.

CONCLUSION

From the present study it was concluded that the local population of Union Council Koaz Bahram have high illiteracy level which can affect the control program. The local populations were familiar with the symptoms of malaria, sources of mosquito, mode of transmission and also have general knowledge about the malaria.

Competing interests

The author contributing equally and declare that they have no competing interests.

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