International Journal of Innovative Research and Advanced Studies (IJIRAS)
Volume 9 Issue 7, July 2022

ISSN: 2394-4404

Factors Related To The Event Of Malaria In The Work Area Of Hamadi Public Health Center, Jayapura City In 2022

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Abstract: ***Malaria in Indonesia is a public health problem that affects infant mortality, children under five years of age and mothers giving birth and reduces work productivity. The morbidity rate of this disease is still relatively high, especially in eastern Indonesia. Research Objectives To analyze the factors associated with the incidence of malaria in the working area of the Hamadi Public Health Center, Jayapura City, Papua Province in 2022.***

Research design This research uses quantitative methods with a cross sectional research design. The sample in the study was 13, the instrument used in this study was a questionnaire.

Results of Mosquito Breeding Sites Value OR=1,000 with 95% CI=0,095-10,544, Installation of Wire Gauze value OR=0,662 with 95% CI=0,188-2,337, Presence of Livestock Cages OR=1,371 with 95% CI=0,298-6,318, Existing Habits outdoors at night OR=2,625 with 95% CI=0,291-14,639, use of mosquito nets p=0,002, use of mosquito repellent OR=0,519 with 95% CI=0,143-1,874.

Mosquito breeding places, The existence of cattle pens, The habit of being outside the house at night, The use of mosquito repellent is not a risk factor for the incidence of malaria.

Keywords: Malaria

I. BACKGROUND

Malaria is found in almost all parts of the world, especially in countries with tropical and sub-tropical climates. The population at risk of malaria is about 2.3 billion people or 41% of the world's population in 90 countries. Each year the cases amount to 300-500 million cases and result in 1.4-2.6 million deaths, mainly in African countries (Prabowo, 2004).

Malaria in Indonesia is a public health problem that affects infant mortality, children under five years of age and mothers giving birth and reduces work productivity. The morbidity rate of this disease is still relatively high, especially in eastern Indonesia. Malaria still threatens public health status, especially for the poor who live in remote areas, so the government considers malaria to be a serious matter to be handled (Kemenkes RI, 2016). The incidence of malaria is still one of the public health problems that can cause death, especially in high-risk groups, namely infants, children under five, and pregnant women. In addition, malaria directly causes anemia and can reduce work productivity (Permenkes RI, 2013).

The influence of the socio-cultural environment has more of an impact on the malaria prevention measures taken. The results of research conducted by Friaraiyatini (2006), Harmendo (2008) and Bosa (2012) show that the socio-cultural environment of the community affects the preventive actions taken so that it has an impact on increasing or decreasing the risk of being infected with malaria.

The role of population mobility to malaria endemic areas also plays a role in the spread of malaria to other non-endemic areas and is supported by the presence of local vectors. This is in line with the research of Yangzom et al (2012) in Bhutan which stated that malaria cases could occur because of imported cases.

ISSN: 2394-4404

Based on the problems above, researchers are interested in examining factors related to the incidence of malaria in the working area of Hamadi Health Center Jayapura City, Papua Province in 2022.

II. RESEARCH METHODS

This study uses a quantitative method with a cross sectional research design, which is a research design in which measurements and observations are carried out simultaneously at one time (once).

The study was conducted from January 17 to February 17 2022 at the Hamadi Health Center in Jayapura City. Data on the number of patient cases were obtained when the patient came for treatment and was declared to be suffering from malaria based on laboratory examinations/RDT by officers.

The population in this study were all residents in the working area of the Hamadi Health Center who went to the Hamadi Health Center and checked blood in the laboratory and were recorded in the malaria examination register from January 17 to February 17, 2022, totaling 313 people.

The case samples were all malaria positive patients based on laboratory examinations/RDT at the time of conducting the study and met the criteria of 13 people. The control sample was all residents in the working area of the Hamadi Health Center who received treatment and checked blood in the laboratory and were declared free of malaria and selected by marching age and sex the same as the case. The comparison of the number of cases and controls was 1: 3 (1 malaria patient: 3 malaria-free controls).

The instruments used in this study were questionnaires, observation sheets, and stationery. Data were collected through interviews using questionnaires and direct observation.

III. DISCUSSION RESULT

Mosquito Breeding Places The odds ratio test results give a value of OR = 1,000 with 95% CI = 0.095-10,544 so it can be said that the presence of mosquito breeding sites within a radius of 500 meters from the house gives a risk of 1,000 times to get malaria compared to houses that are not within a radius of 500 meters from the mosquito breeding grounds. Installation of wire gauze The results of the odds ratio test gave an OR value of 0.662 with 95% CI = 0.188-2.337, which means that the installation of wire netting is a protective factor against the incidence of malaria. Existence of Cattle Cages The results of the odds ratio test gave an OR value of 1.371 with 95% CI = 0.298-6.318, so it can be said that the presence of cages within a 10 meter radius of the house provides a risk of 1.371 times for contracting malaria compared to houses that are not within a 10 meter radius of the house. cattle pen. The habit of being outside the house at night, the results of the odds ratio test gave an OR = 2.625 with a 95% CI = 0.291-14,639 so it can be said that the habit of being outside the house at night gives a risk of 2.625 times to get malaria compared to those who are not outside the house at night. The use of mosquito nets P value = 0.002 (<0.05), then the use of mosquito nets is a risk factor for the incidence of malaria.

IV. CONCLUSION

Mosquito breeding places, The existence of cattle pens, The habit of being outside the house at night, The use of mosquito repellent is not a risk factor for the incidence of malaria.

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