

The Influence of Socio-Cultural Environment and Behavior on The Incidence of Malaria in The Village of Kori Ntt

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Abstract

The problems studied in this research are derived from observations and preliminary data from the SBD Health Department which shows that malaria disease is still the top ten diseases to be prioritized with morbidity rate in 2016 amounted to 4,354 souls. an increase of malaria morbidity rate occurs in 2017 amounted to 8,954 souls. The purpose of this study is to analyze the factors causing the incidence of malaria in the community residing in Kori Village. This is correlation analytical research with cross sectional approach. The number of sample is 280 respondents. The instruments used are questionnaires, observation sheets and checklists. Data analysis is conducted by means of multiple linear regression. The result of the research indicates (1) There is influence of socio-cultural environment on the incidence of malaria with p-value of $0,001 < \alpha (0,05)$. (2) There is influence of behavior on the incidence of malaria with p-value of $0,002 < \alpha (0,05)$. The Community should implement a healthy lifestyle, while the Department of health and local government should conduct a comprehensive health education.

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INTRODUCTION

Malaria is a contagious disease of global concern. This is still a public health problem since it often causes extraordinary events (KLB), has a broad impact on quality of life and economy, and may lead to death. Data of WHO 2014 noted 214 million cases of malaria occur globally and cause 438,000 / 100,000 deaths in 2015 WHO (2016). The prevalence of malaria in 2013 in Indonesia is 6.0%. The five provinces with the highest incidence and prevalence are Papua (9.8% and 28.6%), East Nusa Tenggara (6.8% and 23.3%), West Papua (6.7% and 19.4%), Central Sulawesi (5.1% and 12.5%), and Maluku (3.8% and 10.7%). Out of 33 Provinces in Indonesia, 15 Provinces have malaria prevalence above the National figure which is mostly occurred in Eastern Indonesia. East Nusa Tenggara Province is in the second place in the spread of malaria disease, Riskesdes (2013).

Malaria is still a cause of mortality and morbidity for infants, toddlers and pregnant women in Southwest Sumba with the number of morbidity in 2016 is as many as 4,354 cases of malaria disease. Malaria is one of the contagious diseases of which control efforts become a global commitment in Sustainable Development Goals (SDGs). 90% of villages in NTT province is 100% malaria-endemic. Malaria endemic areas are generally in remote villages with poor environmental conditions, difficult transportation and communication means, lack of access to health services, low levels of education and socioeconomic conditions, and less healthy community behavior on healthy lifestyle habits Health Profile of NTT Province (2012). Consistent with a research conducted by Elly Yane (2014) that the habits of people going out of their house, just hanging out or telling stories into risk factors that increase the incidence of malaria. Babba Research (2007), People's Habits that do not use mosquito nets are risk factors for malaria incidence, one who does not use mosquito nets during their sleep has a greater chance in comparison to the one who use mosquito nets. A research by Peterson et al.,

(2009) environment is one of the factors causing incidence of malaria related to resting place and breeding place for Saikhu mosquitoes (2007).

Based on a preliminary study conducted on October 10, 2017 at the Southwest Sumba Health Office and a survey in Kori Village that Malaria is still one of the health problems in Southwest Sumba district, where malaria is still a cause of mortality and morbidity for infants, toddlers and pregnant women and can reduce labor productivity by the number of morbidity in 2016 as many as 4355 cases of malaria. This occurs due to socio-cultural environment and behavior of the community to the prevention of malaria is in less healthy category. The purpose of the researcher in conducting this research is to find out the influence of socio-cultural environment and behavior to the incidence of malaria in the Village of Kori East Nusa Tenggara (NTT).

METHOD

This research is a quantitative research. The Research design is Analytical correlation with cross sectional design. The population in this study is all communities who live in the Village of Kori Southwest Sumba which are as many as 932 people. The sampling technique of this research is random sampling. The number of samples in this research are 280 respondents. Variables in this research consist of independent variable that is socio-cultural environment and behavior, and dependent variable that is the incidence of malaria. This research uses multiple linear regression analysis technique.

RESULT AND DISCUSSION

Descriptive Analysis

Table 1. Frequency Distribution of Characteristics of respondents in the Village of Kori NTT

Characteristic	Category	Number	Percentage
Sex	Male	143	51.1
	Female	137	48.9
Age	17-27 Years Old	105	37.5
	28-38 Years Old	80	28.9
	39-49 Years Old	45	16.1
	50-60 Years Old	34	12.1
	61-70 Years Old	12	4.3
	71-80 Years Old	3	1.4
	Number of Occupants	< 3 People	162
3 People		15	5.3
>3 People		103	36.8
Education	Undergraduate	2	0.7%
	Senior High School	26	9.3
	Junior High School	39	13.9
	Elementary School	34	12.1
	No School	179	63.9
	Occupation	Teacher	2
College student		1	0.4
Employee		1	0.4
Student		32	11.4
Farmers		244	87.1
Total			280

Based on table 1. the majority is male sex with the number of 143 respondents or (51.1%),

while female Sex has the number of 137 respondents or (48.9%). Based on the age of the most dominant respondents in this study are in the age range of 17-27 years old, with the number of 105 respondents or (37.5%), whereas the least respondents are found in the age range of 71-80 years old with the number of 3 respondents or (1.4%), while the minority is obtained the mean value of 34.75 which means that the age average is at the age of 34-35. Based on the number of occupants of 280 respondents, it is mostly found the houses which are inhabited by less than 3 people are as many as 162 respondents or 57.9%, while the least found the houses which are inhabited by only 3 people as many as 15 respondents or 5.3%, the mean value of 3.18 means that the average number of occupants in one house is 3 people. Based on education of non-school respondents become the majority in this study with the number of 179 respondents or (63.9%), whereas the least are undergraduate educated respondents with the number of 2 respondents or (1.1%). And based on the livelihood of respondents whose livelihood is as farmers in this research is dominating with the number of 244 respondents or (87,1%) while the least is college student and employee with the number of 1 respondent or (0,4%).

Table 2. The Distribution of Respondents Based on Socio-Cultural Environment in the Village of Kori NTT

Socio-cultural Environment	Number	Percentage
Less	132	47.1
Fair	96	34.3
Good	52	18.6
Total	280	100

Based on table 2. it is found that from 280 respondents, the most respondents with bad social cultural environment are 132 respondents (47,1%), whereas the least respondent is respondent with good social cultural environment which is about 52 respondents (18,6%). Thus it can be stated that the socio-cultural environment in the Village of Kori, Kodi Utara Sub District Southwest Sumba Regency,

East Nusa Tenggara in the category of less good.

Table 3. The Distribution of Respondents by Behavior in the Village of Kori NTT

Behavior	Number	Percentage
Less	144	51.4
Fair	97	31.1
Good	49	17.5
Total	280	100

Based on table 3. it is known that from 280 respondents, most of which has bad behavior that is about 144 respondents (51.4%), community behavior included in fair category is about 97 people or 31.1% while the least respondents with good behavior is about 49 respondents (0.4%). Therefore, it can be stated that the behavior in Kori Village, Kodi Utara Sub District, Southwest Sumba District, East Nusa Tenggara in poor category.

Table 4. The Incidence of Malaria in The Village of Kori NTT

Incidence of Malaria	Number	Percentage
Not occur	135	48.2
Occur	145	51.8
Total	280	100

Based on table 4. respondents who experience the incidence of malaria in this study is dominant; that is as many as 145 respondents or (51.8%). While respondents who do not experience the incidence of malaria is about 135 respondents or (48.2%). Thus it can be stated that the incidence of malaria in Kori Village, Kodi Utara Sub District, Southwest Sumba District, East Nusa Tenggara in quite good category.

Table 5. Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	1.391	.170		8.159	.000
X3	-.234	.071	-.195	-3.302	.001
X4	-.226	.072	-.186	-3.150	.002

a. Dependent Variable: Y

Testing of Hypothesis 1. Regression results obtain t value of -3.302 with p (sig.) is 0.001 <0.05, meaning that the socio-cultural environment has a significant effect on the incidence of malaria. By looking at the value of t means that the socio-cultural environment (X1) has a negative effect on the incidence of malaria (Y), meaning that if the socio-cultural environment increases (good), the incidence of malaria shall decrease.

Testing of Hypothesis 2. Regression results obtain t value of -3,150 with p-value (sig.) is 0,002 <0,05, meaning that behavior has significant effect to the incidence of malaria . By looking at the value of t, it means that the behavior (X2) has a negative effect on the incidence of malaria (Y), meaning that if the behavior increases (good), the incidence of malaria shall decrease.

Table 6. Regression Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.298 ^a	.089	.082	.47956

a. Predictors: (Constant), X4, X3

R Square is 0.089, meaning that socio-cultural environment and behavior variables can explain the incidence of malaria of 8.9%, the rest is influenced by other variables outside the model.

The influence of the socio-cultural environment on the incidence of malaria in the village of Kori, East Nusa Tenggara.

Based on the results of multiple linear regression, it shows that the socio-cultural environment proved to affect the incidence of malaria with a coefficient of 0.302 (p = 0.001 <0.05) that the first hypothesis states "the Socio-cultural environment against the incidence of malaria in the Village of Kori, East Nusa Tenggara." is Accepted. In line with a research of Puryadi, et al (2011) Social culture and physical environment affect the incidence of malaria. Reinforced by the theory from DEPARTMENT OF HEALTH OF THE REPUBLIC OF INDONESIA (2007) socio-cultural factors have a

considerable influence compared to other environmental factors. The people living in Kori village are generally indigenous peoples without any mixture of other communities, generally the rural atmosphere of Kori Village is close to the sea, the life of people living in a group (village) which surrounding is houses surrounded by gardens and bushes. Generally the bushes are located behind the house of residents. Almost every night they sit or talk in the open house which is commonly called as bale-bale luar, people generally have the same habit in the use of mosquito nets, since not all people use mosquito nets with some reasons found in the field that is because it is too hot that they do not use it. Almost all houses have received mosquito net from the government through Kori Community Health Center, each house has only 1 mosquito net and at most 2 mosquito nets. Research of Kunche, D.N.D (2016), states that the environment is one of the risk factors of high rates of malaria incidence and behavior associated with the incidence of malaria. Research of Ria Nurfitriana AS (2013), that the biological environment includes the existence of the bushes, the condition of cattle pen, and the people's habit of going out-of-house is a risk factor of the incidence of malaria . A Research of Kukuh (2015) the surrounding neighborhoods affect the incidence of malaria. It means that in order to improve the socio-cultural environment associated with community habits, both the customs and the surrounding social environment. A research of Mardiana (2009) unhealthy environment can affect the incidence of malaria. The research results in the field that there are still many people of Kori Village who behave poorly related to the practice of prevention of disease which is still low, the findings in the field of environmental and physical conditions of House on stilts is still quite unhealthy because the house does not have a window, bedroom merges with a cooking area, and cattle pen in the house or around the house. In line with a research of Siti Maryatul (2017), The close distance of house with a cattle pen shall be a trigger of the spreading of mosquitoes.

The influence of behavior on the incidence of malaria in the village of Kori, East Nusa Tenggara.

Based on the results of path analysis, it is showed that the behavior proved to directly affect the incidence of malaria with path coefficient of 0.124 ($p = 0.002 < 0.05$), thus the second hypothesis that states "Behavior influences the incidence of malaria in the village of Kori, East nusa tenggara." is Accepted. In line with a research conducted by Elviera, G. (2013) that malaria is influenced by community behavior in the form of prevention against malaria. A research of Fenny Etrawati (2012), behavior and environment are quite dominant factors in influencing one's health status. The livelihood of the people of Kori village is mostly as a farmer of fields, causing the community is incapable of buying mosquito repellent continuously due to weak economic factors, in terms of education of 280 respondents, there are 63.9% of the people of Kori Village never gone to school. This means that low community education wich causes low levels of community knowledge have an impact on community behavior in the prevention of malaria which is low categorized or the not maximal forms of prevention by the community in avoiding mosquito bites. Skinner in Notoatmojo (2010) found that behavior is one of the factors that influence the pattern of behavior of society. People in Kori Village think that malaria is not a very dangerous and curable disease that people tend to respond to malaria as an ordinary event or known as seasonal disease in the rainy season that happens almost every year. In line with the research conducted by Curtain, J, et al (2016), there is a correlation between behavioral factors to malaria incidence associated with the use of bed nets, the habit of going out the house at night, cattle pen location, mosquito repellent and mosquito breeders. Diana, A. (2012) states that the low level of knowledge and behavior of the respondents leads to high rates of malaria incidence.

CONCLUSSION

Based on the results of research and discussion conducted in the Village of Kori, Kodi Utara Sub District, Southwest Sumba shall be concluded the socio-cultural environment and behavior influence the incidence of malaria. The amount of contribution of socio-cultural environment and behavior to the incidence of malaria amounted to 8.9% Consistent with a research of Dwi Sarwani R et al., (2016) attitudes and behaviors may affect the incidence of malaria

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