Quest Journals
Journal of Medical and Dental Science Research
Volume 1 ~ Issue 2 (2014) pp: 07-13
ISSN(Online) : 2394-076X ISSN (Print):2394-0751
www.questjournals.org

Research Paper

Characteristics of Family Behaviors in Malaria Prevention Efforts in Teluk Dalam Nias Sub-District, East Jakarta, DKI

Lasmaria Magdalena Hutahaean
Public Health Community Medical Center Tiga panah, Kab karo Indonesia

Received 22 December 2014; **A**ccepted 31 December 2014 © The author(s) 2014. Published with open access at **www.questjournals.org**

ABSTRACT:- Malaria is disease infection parasite caused by Plasmodium attacking eritrosite (red corpuscle) and marked with finding asexual form in blood that able to character of acute and cronic. The highest value malaria incidence happened in regency East Jakarta Province of South Kalimantan there are in work region Puskesmas Teluk Dalam Nias, in district Teluk Dalam Nias. Therefore the aim of this study was to analized characteristic correlation study such as old, education, occupation, amount members of family and salary with behavior of family in the effort to handled malaria in district Teluk Dalam Nias. This study was designed as survey analytic with cross sectional design with simple random sampling technique, conducted in September-December 2014. Sample in this research is households with head of family, sample size was 99 households with head of family stayed in district Teluk Dalam Nias. Analysis data the statistical test that is Chi-Square with interval confidence 95% with SPSS 21 for Windows program. Statistical result for old characteristic (p=0,174), education (p=0,581), amount members of family (p=0,639 (two tail) and p=0,336 (one tail), occupation (p=0,893) and salary (p=0,024). It is concluded that salary characteristic have a related to the behavior in the effort to handled malaria.

Keywords:- Family Behavior, Malaria, East Jakarta,

I. INTRODUCTION

Malaria is one of morbidity indicators in health development which is a part of the vision of Healthy Indonesia 2010. National target of malaria morbidity in 2010 was 5 per 1000 people. Over 90 million people in Indonesia live in malaria endemic areas. It's estimated that 30 million malaria cases happen annually and only 10 people are treated in health facilities (Department of Health of RI, 2003). The majority of malaria happens in provinces in east Indonesia where malaria is endemic disease. Based on data from health facilities in 2001, malaria prevalence was 850,2 per 100.000 people. Household Health Survey (SKRT) in 2001 estimated specific mortality rate due to malaria in Indonesia was 11 per 100.000 for men and 8 per 100.000 for women (National Development Planning Body, 2013).

Efforts to erase malaria in Indonesia have been done by spraying houses with insecticide, using mosquito nests, larviciding, disseminating fishes which eat larvae and anti-larva actions by environmental management, but the disease persists, some area even has outbreaks (3,4). Malaria prevention can be implemented well by involving various parties such as society, government, youth and students, health personnel and doctors (Nasronudin, 2013). This is similar with Wijanarko et al. (2002) who state efforts to erase risk factors of malaria involves individuals, families and society, especially by family empowerment by improving knowledge so that families are able to recognize risk factors and potentials to erase risk factors of malaria. This is also supported by the opinion of Goode in Kusyogo (2012) that behaviors learnt in families are sample of behaviors required in others aspects in the society. Base on the statement of Wijanarko et al. and Goode in Kusyogo, a conclusion is drawn that family behaviors are a risk factor of high number of malaria incidences. Factors influencing high number of malaria incidences in several regions are different from other regions. The number of malaria incidences in DKI in 2012 was 8.000 cases which caused 10 deaths. The number of clinical malaria cases in DKI until April 2013 was around 1.557 cases. The result of blood check showed that 422 people positively had malaria and 17 of them died. On Juli 2013, four cities/cities in DKI, which were Banjarbaru, Banjar, East Jakarta, and Balangan were declared to have a malaria outbreak (KLB) which cuased 22 deaths (Syaifullah, 2013). East Jakarta is one of the cities with high malaria cases. In 2011 there were 1380 malaria cases while in 2012 there were 1068 malaria cases and in

2013 until June there were 706 malaria cases. The highest number of malaria incidences was in the working area of Teluk Dalam Nias Public Health Center. In 2011 there were 591 malaria cases and increased in 2012 to 629 cases and in 2013 until June there were 237 cases. Malaria cases were discovered in every urban village. Based on the fact above, this study tested the Characteristics of Family Behaviors in Malaria Prevention Efforts in Teluk Dalam Nias Sub-District, East Jakarta, DKI

Based on preliminary survey conducted in Teluk Dalam Nias Sub-District, it's discovered that daily family behaviors related to malaria were people's habit to not use mosquito nets when sleeping and not using insect screen at home, most people work in coal mining sector far from housing and in the mines there are many former mining pits are the breeding habitats of Anopheles sp. mosquitoes. Based on the above, the possibility of risk communities to have malaria is quite high. Based on the theory and facts above, the problem was high nimer of malaria incidences in the working area of Teluk Dalam Nias Public Health Center. This problem occurred due to various factors including environmental factor, family/community behaviors and health service factors. Family behavior factor is one of the factors in preventing risk factors of malaria. Families as the smallest units in the society have a very strategic position in preventing malaria, especially breaking the chain of disease transmission in implementing malaria Mosquito Breeding Nest Eradication (PSN). According to Bloom's theory, an individual's behaviors are influenced by other factors which are knowledge, attitude, and practice (Notoadmodjo, 1997). It means that an individual with good behaviors, particularly in his/her family, has good attitude, knowedge and practice on prevention of malaria. Family behaviors in malaria prevention are also influenced by family characteristics which include age, education, occupation, number of family members and income. Based on the background above, a study on the relation between family characteristics and behaviors in preventing malaria in Teluk Dalam Nias Sub-District East Jakarta DKI Province was required.

II. RESEARCH METHOD

The study was analytical survey because it analyzed the relation between family characteristics and behaviors in efforts of preventing malaria by cross sectional approach. The population in this study was householders (KK) in Teluk Dalam Nias Sub-District, East Jakarta, DKI province on September-December 2013, spread in 14 urban villages with total 8249 householders. The sample in this study was householders with analysis units which are family members over 17 years of age as the deputies of the householders who could provide information for the study on family characteristics and behaviors in efforts to prevent malaria in Teluk Dalam Nias Sub-District. Based on equation, the sample collected with 90% confidence level yielded a sample of 99 KK. Sampling was performed by random sampling with simple random sampling technique. Independent variables in this study were family characteristics which included age, education, occupation, number of family members and income. Dependent variable in the study was family behaviors in efforts to prevent malaria. Data analysis used Chi-Square statistical test at 95% confidence level.

III. RESULT AND DISCUSSION

Characteristics of householders (KK) who became the subjects of this study by age is shown in the figure below:

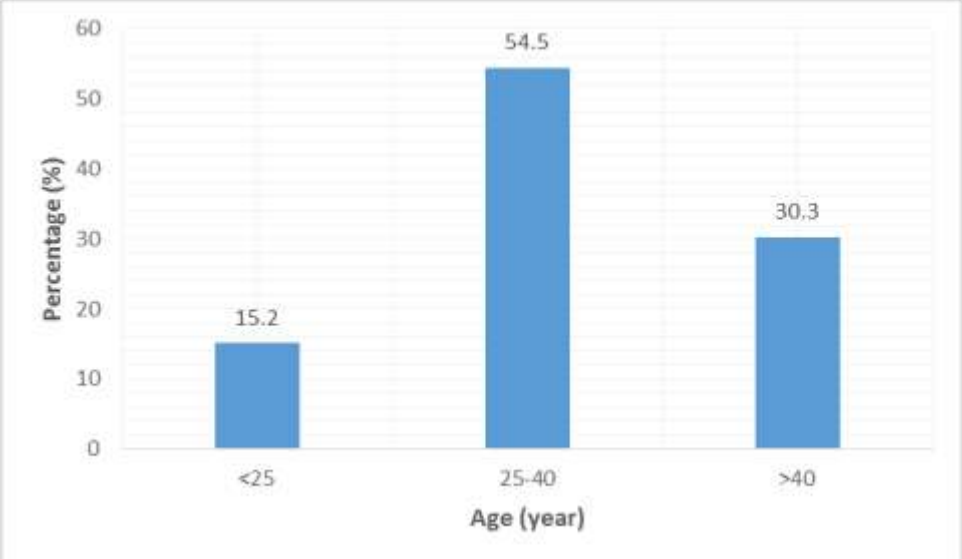

Figure 1. Characteristics of households by age at Teluk Dalam Nias, 2014

Figure 1 shows that the majority of the age of Households ranged between 25-40 years with 54 Households (54,5%), age >40 years 30 Households (30,3%) and age <25 years 15 Households (15,2%). Characteristics of householders (KK) who became the subjects of this study by highest education is shown in the figure below:

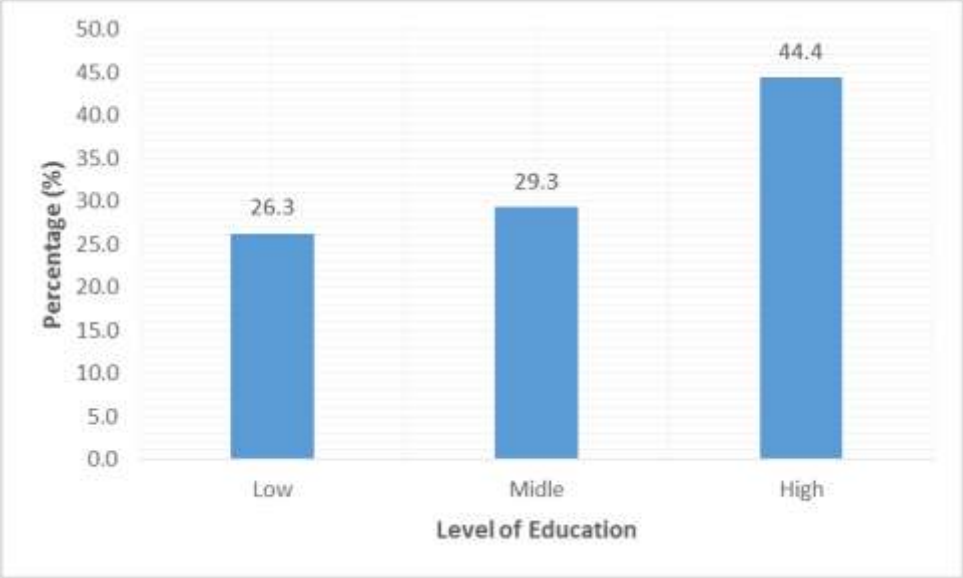

Figure 2. Characteristics of households by level of education in Teluk Dalam Nias

Figure 2 shows that the majority of the highest education of Households is high school graduate or equivalent with 44 Households (44,4%), junior high school graduate or equivalent 29 Households (29,3%) and not graduated from elementary schools or equivalent 26 Households (26,3%). Characteristics of Households who became the subjects of this study by occupation is shown in the figure below:

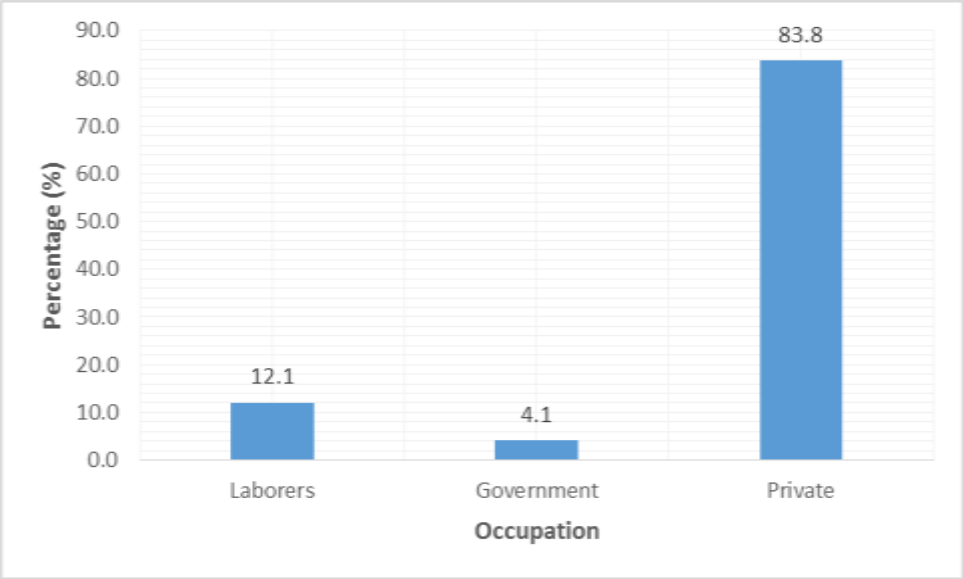

Figure 3. Characteristics of households based occupation in Teluk Dalam Nias, 2014

Figure 3 shows that the majority of the occupations of Households is in private sector with 83 Households (83,8%), laborers (12,1%) and Gonverment Employee (4,1%). Characteristics of Households who became the subjects of this study by number of family members is shown in the figure below:

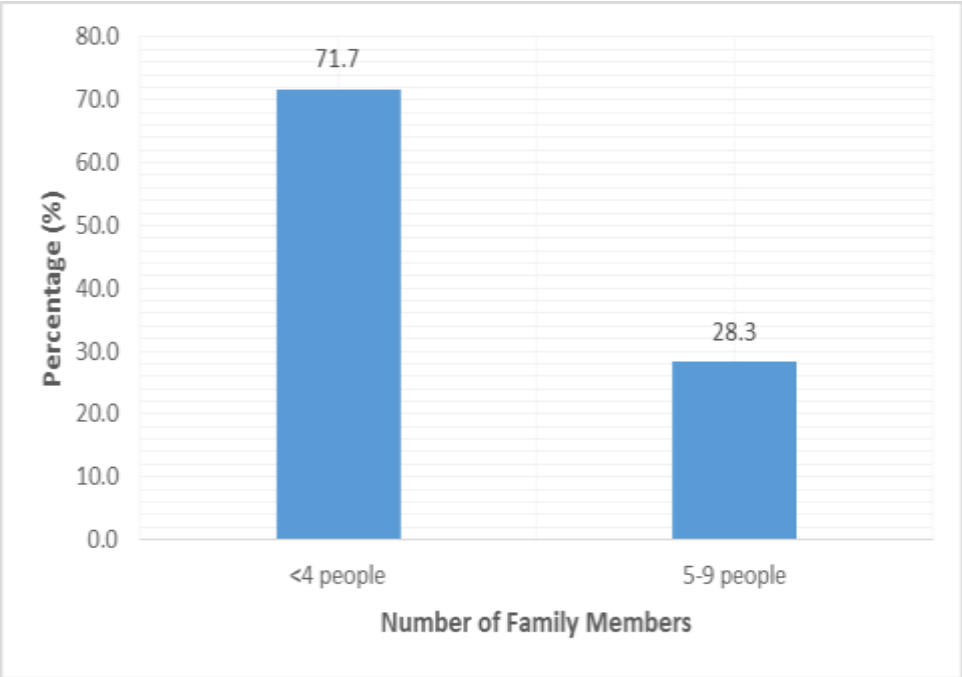

Figure 4. Characteristics of households based on the number of family members in Teluk Dalam Nias, 2014

Figure 4 shows the majority of the number of family members is small families (<4 people) with 71 Households (71,7%) and large families (5-9 people) 28 Households (28,3%). Characteristics of Households who became the subjects of this study by income is shown in the figure below:

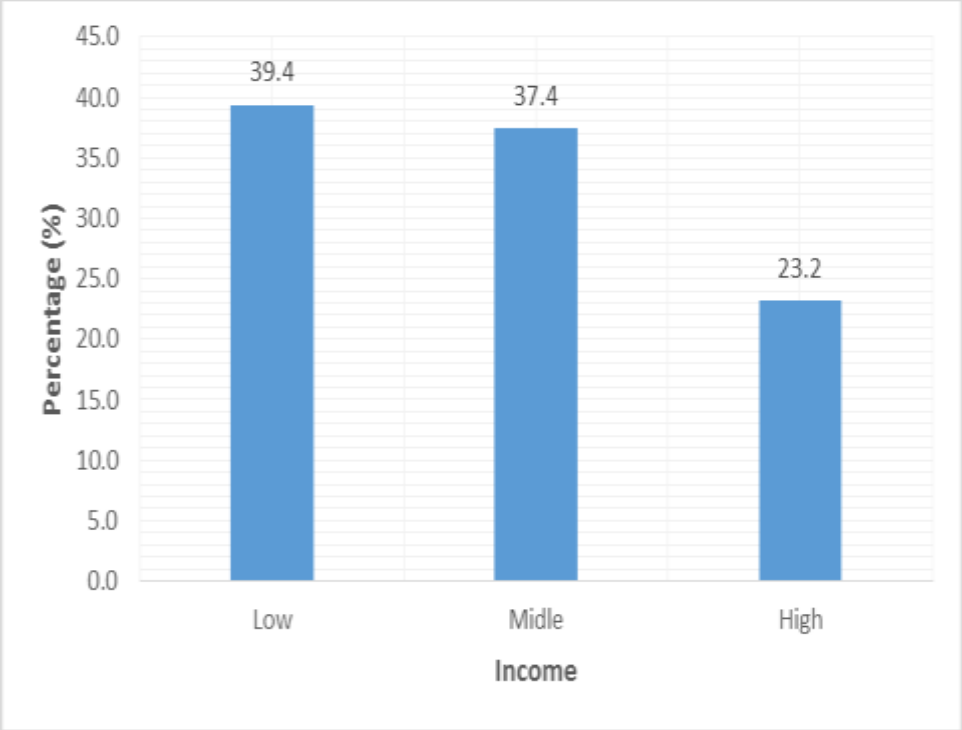

Figure 5. Characteristics of households by income in Teluk Dalam Nias, 2014

Figure 5 shows that the majority of the income of Households is high income which is >1.000.000 with 39 Households (39,4%), moderate income which is 500.000-1.000.000 with 37 Households (37,4%) and low income which is <500.000 with 23 Households (23,2%). Behaviors of Households who became the subjects of this study by chacactersitic is shown in the figure below:

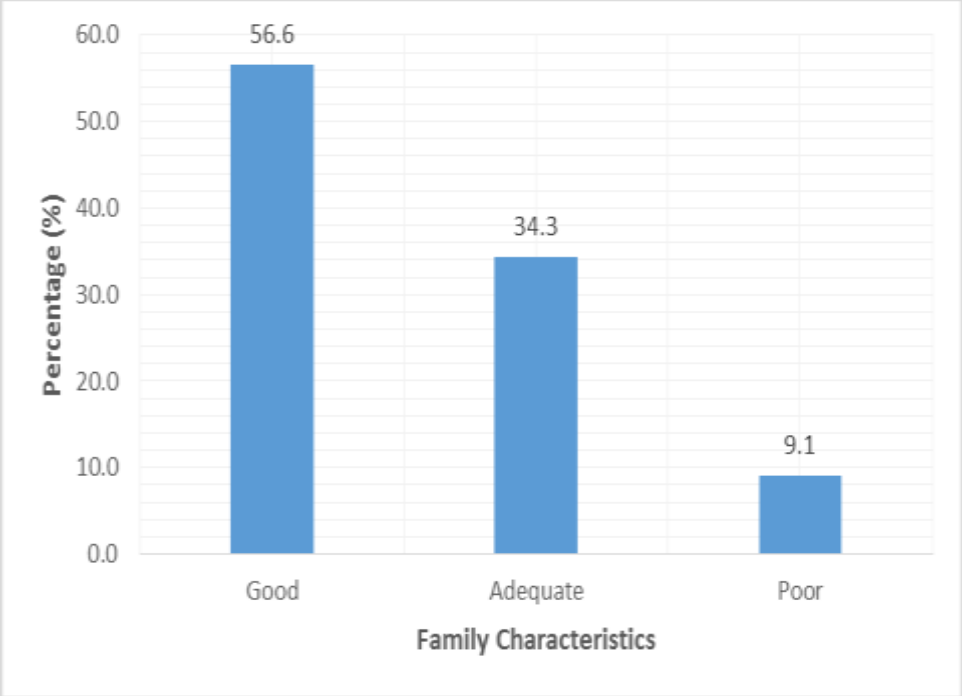

Figure 6. Families characteristif against malaria in Teluk Dalam Nias

Figure 6 shows that the majority of Households' behaviors in preventing malaria in Teluk Dalam Nias Sub-District is good behaviors with 56 Households (56,6%), adequate behaviors 34 Households (34,3%) and poor behaviors 9 Households (9,1%). The result of this study was similar with Bloom's statement. Based on Bloom's theory, an individual with good behaviors especially in his/her family in preventing malaria has good attitude, knowledge and practice in preventing malaria.

Good behaviors might happen due to one's experiences and environmental factors, whether physical or non-physical. Experience and environment were discovered, perceived and believed, creating motivation, intention to act, and finally realization of those intentions in behaviors (Kusyogo, 2012). The result of this study was also in line with Green's statement that behaviors are influenced by predisposed factors which are factors which facilitate behaviors in an individual, including one's knowledge and attitude on what one's is going to do (Notoatmodjo, 2003).

3.1. Relation between characteristic of householders' age on behaviors in efforts to prevent malaria

Partially, this variable didn't have significant relation with Households' behaviors. This was seen in the result of statistical test with Chi-Square. The significance value is bigger than 0,05 (0,363>0,05), showing that age variable as the independent variable didn't have any relation with the dependent variable (behaviors). It meant higher age of Households didn't mean better Households' behaviors. Similarly, the younger the Households' age didn't mean worse behaviors. This might happen due to the developmental process of Households, starting from education and life experienced in interacting with social environment. There are several social aspects which influence health status aside age, i.e. sex, occupation and social economy. In terms of age group, there's a difference in disease pattern by age group (Notoatmodjo, 2012). The result of Yahya et al.'s (Friaraiyatini, 2012) study shows that there's a tendency that the higher an individual's age, it doesn't meant that the better the individual knowledge is. However, the higher an individual's age in means there's a tendency to have positive attitude to malaria. According to WHO, an individual behaves due to several determinants, including thoughts, feelings or personal considerations on an object which is the initial capital to behave.

3.2. Relation between characteristic of householders' education on behaviors in efforts to prevent malaria

Partially, this variable didn't have significant relation with Households' behaviors. This was seen in the result of statistical test with Chi-Square. The significance value is bigger than 0,05 (0,640>0,05), showing that education variable as the independent variable didn't have any relation with the dependent variable (behaviors). It meant that the higher the Households' education didn't meant better behaviors on malaria

prevention. It meant that although a KK was in low education category, it didn't mean that the KK's behaviors were poor to malaria prevention. This result wasn't in line with the result of Syafrizal's study (2002) which states that education is basic human needs required to develop self. The higher the education level, the easier to accept and develop knowedge nad technology. Better education can improve one's intellectual maturity and is an important factor in the process of information absorption. Improvement of insight and way of thinking will then impact knowledge, perception, values and attitudes which will determine one's decision to behave. The result of Benyamin and Reflinar's study states that there is correlation between knowledge and formal education and behaviors, however relation between respondents' education and disease prevention behaviors hasn't been proven (Notoatmodjo, 2003).

3.3. Relation between characteristic of householders' occupation on behaviors in efforts to prevent malaria

Based on the result of Kolmogorov-Smirnov test, significance value is 0,992, meaning, partially, this variable didn't have significance relation with Households' behaviors. This is shown by the result of statistical test Kolmogorov-Smirnov which has bigger significance value than 0,05 (0,992>0,05). The result showed that occupation variable as the independent variable didn't have any relation with the dependent variable (behaviors). It showed that whether Households worked in areas prone to malaria (mining) or not work in prone areas (civil servants, laborers and merchants) didn't influence Households' behaviors in preventing. This result was different from the result of the study of Piyarat and Yahya et al. which connects job and risk factors. According to Piyarat and Yahya (Friaraiyatini, 2012) people who work in forests risk catching malaria because forests are the habitat and nests of Anopheles sp. mosquitoes with high density. This is also confirmed by the result of Harijanto's study (2012) that there is significant relation between occupation (farmers, fishermen and laborers who work at night) and malaria incidences.

3.4. Relation between characteristic of number of family members on behaviors in efforts to prevent malaria

The result of Fisher 's Exact statistical test is 0,823 significance value for 2- sided (two tail) and 0,438 for 1-sided (one tail). Partially, this variable didn't have significance relation with Households' behaviors. This was shown in the result of statistical test by Fisher's Exact which has bigger significance value than 0,05 (0,823 and 0,438>0,05). The result shows that number of family member variable as independent variable didn't have any relation with dependent variable (behaviors). It showed that the higher the number of family members didn't mean better behaviors in malaria prevention. This was consistent with Kusyogo's study (2012) which states that the characteristic of number of family members doesn't influence someone in accepting health beliefs because one's confidence is determined by life experience, daily observation and influence of people around him/her.

3.5. Relation between characteristic of family income on behaviors in efforts to prevent malaria

Partially, this variable had significant relation with Households' behaviors. This was shown in the result of statistical test by Chi-Square which has smaller significance value than 0,05 (0,033<0,05). The result showed that income variable as independent variable had a relation with the dependent variable (behaviors). It showed that the higher the Households' income, the better Households' behaviors in preventing malaria. This was consistent with the study of Yahya et al. (2012) which states that there's a tendency that someone with economic resources has ease in facilities which can be information sources, such as television, radio, newspapers, magazines and books. The result of this study was also in line with Green's statement in Notoatmodjo (2003) that behavioral factors are influenced by enabling factors, which are factors which enable or facilitate behaviors, i.e. facilities and infrastructures for health behaviors.

IV. CONCLUSION

Based on analysis and discussion result, a conclusion could be drawn that: Family behaviors in efforts to prevent malaria in Teluk Dalam Nias Sub-District were mostly in good category, which was 56 Households (56,6%). Only income characteristic factor was significantly related to behaviors in efforts to prevent malaria.

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