

The Factors Affecting with Filariasis Incidence at Dekai Public Health Regional Yahukimo District

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ABSTRACT

Background: Disease Filariasis or elephant foot caused by filaria worm by mosquito infection of bed environmental physical factor and society behavior.

Target of research: Factor - Factor related to Occurrence Filariasis at Region Work Puskesmas Dekai Sub-Province Yahukimo

Method Research: Analytic with study sectional cross device. Population [is] society following mikrofilaria test in public health Dekai as much 95 people as sample by totally population. Data approach used questionnaire and analysed used Chi-Square test and regression binary logistics.

The results of the study: Factor related to occurrence of filariasis in Public health centre Dekai Sub-Province Yahukimo is knowledge (p-value 0,000; RP = 21,452; CI95% (2,975 - 154,711), attitude (p-value 0,038; RP = 2,750; CI95% (1,128 - 6,706), existence of livestock (p-value 0,002; RP = 27,200; CI95% (1,751 - 29,601), habit go out nighttime (p-value 0,007; RP = 3,317; CI95% (1,471 - 7,479), house distance with health service) (p-value 0,000; RP = 11,487; CI95% (2,799 - 47,145). Factor which [do] not relate to occurrence [of] filariasis in Public health centre Dekai Sub-Province Yahukimo [is] age (p-value 0,721; RP = 0,720; CI95% (0,260 - 1,991), gender (p-value 0,809; RP = 1,245; CI95% (0,529 - 2,993), education (p-value 0,185; RP = 2,422; CI95% (0,757 - 7,749), work (p-value 0,335 RP = 1,863; CI95% (0,667 - 5,207), earnings (p-value 0,505 RP = 1,615; CI95% (0,580 - 4,496), existence [of] place Perindukan [of] mosquito (p-value 0,119; RP = 2,222; CI95% (0,909 - 5,430), house distance with livestock cage (p-value 0,098; RP = 0,195; CI95% (0,028 - 1,385), usage of gauze anti mosquito (p-value 0,368; RP

= 1,733; CI95% (0,673 - 4,465) and usage anti mosquito (lotion) (p-value 0,292; RP = 3,443; CI95% (0,493 - 24,053). Dominant factor related to occurrence [of] filariasis [in] Puskesmas Dekai Sub-Province Yahukimo is knowledge, existence of livestock, habit go out house distance and nighttime with kesehatan service with occurrence of filariasis in Public health centre Dekai Sub-Province Yahukimo.

Keywords: Filariasis Incidence, Characteristic, Environment, Behavior

1. INTRODUCTION

Filariasis is a type of re-emerging diseases, which is a disease that once existed, then no longer exists (lost) and now reappears. Typical cases of filariasis sufferers are found in regions with sub-tropical and tropical climates such as in Indonesia. Filariasis was first discovered in Indonesia in 1877, after which it did not appear and now reappears. Filariasis is widespread in almost all provinces in Indonesia. Based on the results of a survey report in 2000, there were 1,553 villages in 647 health centers spread across 231 districts 26 provinces as endemic locations, with a total number of chronic cases of 6,233 people (Ministry of Health, 2000). To eradicate filariasis to completion, WHO has established a Global Agreement (The Global Goal of Olympic Filariasis as a Public Health Problem by the Year 2020), which is a filariasis elimination program in bulk. WHO itself has stated filariasis as the second sequence of causes of permanent disability in the world. In Indonesia it has

gradually carried out filariasis elimination starting in 2002 in 5 pilot districts. Regional expansion will be carried out annually (Ministry of Health, 2005).

Indonesia stipulates that filariasis elimination is one of the National priorities for eradicating infectious diseases in accordance with Republic of Indonesia Presidential Regulation number 7 of 2005 concerning the 2004-2009 National Medium Term Development Plan. The elephant foot disease eradication program has been carried out since 2005, especially in high endemic areas. Based on the Minister of Health's circular number 612 / Menkes / VI / 2004, it was addressed to the Governor and Regent / mayor in Indonesia regarding the implementation of elephantiasis disease endemicity mapping, mass treatment of elephantiasis endemic areas in all regions. Besides that, the management program for elephantiasis cases, which is one of the elimination programs, was determined as one of the mandatory authorities of the Regional Government in accordance with the Decree of the Minister of Health of the Republic of Indonesia Number 1457 / MENKES / SK / X / 2003 concerning Minimum Service Standards in Health Regency / City. The main strategy for eradicating infectious diseases is to break the chain of transmission by mass treatment in endemic areas and prevention efforts, limiting disability through the management of clinical sufferers of elephantiasis.

Efforts to eradicate filariasis cannot be done by the government alone. The community must also actively eradicate this disease. By knowing the mechanism of the spread of filariasis and prevention, treatment and rehabilitation efforts, it is expected that the Healthy Indonesia program in 2020 can be realized, one of which is free from filariasis (Elephant's foot) endemic in 2013. Filariasis case tracking and 23 positive filarians (RI Ministry of Health, 2015). Based on the results of the survey in 2000 there were 1,553 villages spread across 231 regencies and 26 provinces, with a total number of chronic cases of 6,233 people.

This disease is one of the serious public health problems in Indonesia. It is estimated that up to 125 million people in 337 regencies / cities filariasis endemic (Republic of Indonesia Ministry of Health, 2015) are estimated to be at risk of contracting filariasis.

In these endemic districts / cities, 11,914 chronic cases have been found and it is estimated that the prevalence of microfilaria is 19%, more or less this disease will affect 40 million people. Three provinces with the highest number of filariasis cases were Nanggroe Aceh Darussalam with 2,359 people, East Nusa Tenggara with 1,730 people and Papua with 1,058 people. The three provinces with the lowest cases were Bali, as many as 18 people, Maluku Utaras with 27 people and North Sulawesi with 30 people (Ministry of Health, 2015). Based on observations throughout the year from 2013-2016, the authors would like to conduct research on community behavior towards controlling elephantiasis, factors related to compliance with filariasis medication and public acceptance of filariasis (POPM) mass treatment. Working area of Dekai District Yahukimo Health Center most are due to areas directly adjacent to Asmat Regency which have many sufferers of Filariasis. The cultural element is very influential and transportation access to Asmat Regency is very close to crossing the Logpon River, environmental factors that influence the density of filariasis vectors. The ideal environment for mosquitoes can be made a potential place for breeding and restoring mosquitoes, so that the density of mosquitoes will increase. Environmental factors that affect the density of filariasis vectors are physical environment, biological environment, and social and economic environment. In addition to these factors the mobility of people traveling to endemic areas is one of the risk factors for filariasis (MOH, 2008). Biological environmental factors include aquatic plants and bushes. The existence of biological and physical environments is closely related to bionomic

filariasis vectors. Environmental factors that support the presence of filariasis vectors can be a risk of filariasis transmission (MOH, 2008).

The next risk factor is a behavior factor, some people in the District of Dekai Yahukimo District usually go out at night to hunt and are not used to using mosquito nets that are distributed because the weather is very hot at night, houses are built on swamps and do not like to use night clothes, behavioral factors play an important role in the transmission of filariasis. The assumption of the community is that if one of their families affected by Filariasis argues that the person is subjected to a curse because they are going wrong or stepping on an item that is considered a sahklar (magic) in the middle of the forest. Based on the description above, the author was motivated to conduct a study that analyzed "Factors related to Filariasis in the work area of Dekai District Yahukimo Health Center".

2. MATERIALS AND METHODS

Research design is a proof or testing strategy for variables covered by research. The type of research used is quantitative research with a cross sectional study design (cross section). The cross sectional study (cross sectional) is a design of epidemiological studies that studies the relationship of disease and exposure by observing exposure status and simultaneous disease in individuals of the population, research where the study can be done at the same time is effective and efficient (Hidayat, 2008).

Population

All community populations in the working area of the Pukesmas of Dekai in Yahukimo Regency have been blood tested by the Yahukimo District Health Filarias program.

Samples

The sample used was the number of people who had been examined for blood (finger blood survey) and was based on a total population of 95 people.

3. RESULTS

Bivariate Analysis

a. Age Relationship with Filariasis Events

Table 1. Age Relationship with Filariasis occurrence in Dekai Puskesmas Yahukimo District, 2018

No	Age	Filariasis occurrence				n	%
		Yes		No			
		n	%	n	%		
1	Tennager	4	14,8	23	85,2	27	100
2	Adults	14	20,6	54	79,4	68	100
Total		18	18,9	77	81,1	95	100
<i>p-value = 0,721; RP = 0,720; CI95% (0,260 – 1,991)</i>							

Table 1 shows that of 27 people in their teens there were 4 people (14.8%) experiencing filariasis and as many as 23 people (85.2%) did not experience filariasis. While from 68 adults of age there were 14 people (20.6%) experiencing filariasis and as many as 54 people (79.7%) did not experience filariasis. The results of the chi square statistical test on the significance value of 95% ($\alpha = 0.05$) obtained p-value 0.721 or $p > \alpha (0.05)$, this means that there is no relationship between age and the incidence of filariasis at the Dekai Yahukimo District Health Center. The prevalence ratio (RP) = 0.720; CI95% (0.260 - 1.991) interpreted that age is not significant with the incidence of filariasis.

b. Sexual Relationship with Filariasis Events

Table 2. Sex Relationships with Filariasis Events at Dekai Puskesmas Yahukimo District, 2018

No	Sex	Filariasis occurrence				n	%
		Yes		No			
		n	%	n	%		
1	Male	11	20,8	42	79,2	53	100
2	Female	7	16,7	35	83,3	42	100
Total		18	18,9	77	81,1	95	100
<i>p-value = 0,809; RP = 1,245; CI95% (0,529 – 2,993)</i>							

Table 2 shows that out of 53 men of male sex there were 11 people (20.8%) experiencing filariasis and as many as 42 people (79.2%) did not experience filariasis. Whereas from 42 female people there were 7 people (16.7%) had filariasis and as many as 35 people (83.3%) did not experience filariasis. The results of the chi square statistical test on the significance value of 95% ($\alpha = 0.05$) obtained p-value 0.809 or $p > \alpha (0.05)$, this means that there is no sex

relationship with the incidence of filariasis in the Puskesmas Dekai Kabupaten Yahukimo. Prevalence ratio test results (RP) = 1,245; CI95% (0.529 - 2.993) with a lower value that does not include 1 that is interpreted that gender is not significant with the incidence of filariasis.

c. Educational Relationship with Filariasis Events

Table 3. Relationship between Education and Filariasis Events in Dekai Puskesmas Yahukimo District, 2018

No	Education	Filariasis occurrence				n	%
		Yes		No			
		n	%	n	%		
1	No school	15	23,4	49	76,6	64	100
2	School	3	9,7	28	90,3	31	100
Total		18	18,9	77	81,1	95	100
<i>p-value</i> = 0,185; RP = 2,422; CI95% (0,757 - 7,749)							

Table 3 shows that out of 64 people who did not attend school there were 15 people (23.4%) who experienced filariasis and as many as 49 people (76.6%) did not experience filariasis. While from 31 people who attended school there were 3 people (9.7%) experiencing filariasis and as many as 28 people (90.3%) did not experience filariasis. The results of the chi square statistical test on the significance value of 95% ($\alpha = 0.05$) obtained p-value 0.185 or $p > \alpha$ (0.05), this means that there is no relationship between education and the incidence of filariasis in the Dekai District of Yahukimo Health Center. Prevalence ratio test results (RP) = 2,422; CI95% (0.757 - 7.749) interpreted that education was not significant with the incidence of filariasis.

d. Employment Relationship with Filariasis Events

Table 4. Employment Relationship with Filariasis Events at Dekai Puskesmas Yahukimo Regency, 2018

No	Occupation	Filariasis occurrence				n	%
		Yes		No			
		n	%	n	%		
1	Risiks	14	22,6	48	77,4	62	100
2	Not risk	4	12,1	29	87,9	33	100
Total		18	18,9	77	81,1	95	100
<i>p-value</i> = 0,335; RP = 1,863; CI95% (0,667 - 5,207)							

Table 4 shows that of the 62 people who worked at risk there were 14 people (22.6%)

experiencing filariasis and as many as 48 people (77.4%) did not experience filariasis. While from 33 people who worked not at risk there were 4 people (12.1%) experiencing filariasis and as many as 29 people (87.9%) did not experience filariasis. The results of the chi square statistical test on the significance value of 95% ($\alpha = 0.05$) obtained p-value 0.335 or $p > \alpha$ (0.05), this means that there is no work relationship with the incidence of filariasis in the Dekai Yahukimo District Health Center. Prevalence ratio test results (RP) = 1,863; CI95% (0,667 - 5,207) interpreted that work was not significant with the incidence of filariasis.

e. Income Relationship with Filariasis Events

Table 5. Relationship of Income with Filariasis Events at Dekai Puskesmas Yahukimo Regency, 2018

No	Income	Filariasis occurrence				n	%
		Yes		No			
		n	%	N	%		
1	Less	14	21,5	51	78,5	65	100
2	Enough	4	13,3	26	86,7	30	100
Total		18	18,9	77	81,1	95	100
<i>p-value</i> = 0,505; RP = 1,615; CI95% (0,580 - 4,496)							

Table 5 shows that out of 65 people who have less income 14 people (21.5%) experience filariasis and as many as 51 people (86.7%) do not experience filariasis. While from 30 people with sufficient income there were 4 people (13.3%) experiencing filariasis and as many as 26 people (86.7%) did not experience filariasis. The results of the chi square statistical test on the significance value of 95% ($\alpha = 0.05$) obtained p-value 0.505 or $p > \alpha$ (0.05), this means that there is no relationship between income and the incidence of filariasis at the Puskesmas Dekai Kabupaten Yahukimo. Prevalence ratio (RP) = 1.615; CI95% (0.580 - 4.496) interpreted that income was not significant with the incidence of filariasis.

f. Knowledge Relationship with Filariasis Events

Table 6 shows that out of 42 people who were knowledgeable there were 17 people

(40.5%) experiencing filariasis and as many as 25 people (59.5%) did not experience filariasis. While from 53 people who were well-informed there was 1 person (1.9%) experiencing filariasis and as many as 52 people (98.1%) did not experience filariasis. The results of the chi square statistical test on the significance value of 95% ($\alpha = 0.05$) obtained p-value 0,000 or $p < \alpha$ (0.05), this means that there is a relationship of knowledge with the incidence of filariasis in the Dekai District of Yahukimo Health Center. The prevalence ratio (RP) = 21.452; CI95% (2,975 - 154,711) interpreted that knowledge was more likely to be exposed to filariasis 21,422 times than respondents who were well-informed.

Table 6. Knowledge Relationship with Filariasis Events at Dekai Puskesmas Yahukimo District, 2018

No	Knowledge	Filariasis occurrence				n	%
		Yes		No			
		n	%	n	%		
1	Less	17	40,5	25	59,5	42	100
2	Good	1	1,9	52	98,1	53	100
Total		18	18,9	77	81,1	95	100
<i>p-value = 0,000; RP = 21,452; CI95% (2,975 - 154,711)</i>							

g. Relationship of Attitudes with Filariasis Events

Table 7. Relationship between Attitudes with Filariasis Events at Dekai Puskesmas Yahukimo District, 2018

No	Attitude	Filariasis occurrence				n	%
		Yes		No			
		n	%	N	%		
1	Negative	12	30	28	70	40	100
2	Positive	6	10,9	49	89,1	55	100
Total		18	18,9	77	81,1	95	100
<i>p-value = 0,038; RP = 2,750; CI95% (1,128 - 6,706)</i>							

Table 7 shows that out of 40 people who behave negatively there are 12 people (30%) experiencing filariasis and as many as 28 people (70%) do not experience filariasis. While from 55 people who were positive there were 6 people (10.9%) experiencing filariasis and as many as 49 people (89.1%) did not experience filariasis. The results of the chi square statistical test on the significance value of 95% ($\alpha = 0.05$) obtained p-value 0.038 or $p < \alpha$ (0.05), this means that there is a relationship between the attitude and the incidence of filariasis in Puskesmas Dekai Kabupaten Yahukimo. The prevalence ratio (RP) = 2.750; CI95%

(1,128 - 6,706) interpreted that negative attitudes were more likely to be exposed to filariasis 2,750 times than respondents who were kind.

h. Relationship The existence of mosquito breeding sites with Filariasis Events

Table 8. Relationship between the existence of mosquito breeding sites and Filariasis events at Dekai Puskesmas Yahukimo Regency, 2018

No	existence of mosquito breeding sites	Filariasis occurrence				n	%
		Yes		No			
		n	%	n	%		
1	Exist	12	26,7	33	73,3	45	100
2	None	6	12	44	88	50	100
Total		18	18,9	77	81,1	95	100
<i>p-value = 0,119; RP = 2,222; CI95% (0,909 - 5,430)</i>							

Table 8 shows that out of 45 people who have mosquito breeding sites there are 12 people (26.7%) experiencing filariasis and as many as 33 people (73.3%) did not experience filariasis. Whereas from 50 people who did not have mosquito breeding sites there were 6 people (12%) experiencing filariasis and as many as 44 people (88%) did not experience filariasis. The chi square statistical test results at 95% significance value ($\alpha = 0.05$) obtained p-value 0.119 or $p > \alpha$ (0.05), this means that there is no correlation between the existence of mosquito breeding sites and the incidence of filariasis in Dekai District Health Center Yahukimo. Prevalence ratio (RP) = 2.222; CI95% (0.909 - 5.430) which was interpreted that the presence of mosquito breeding sites was not significant with the incidence of filariasis.

4. DISCUSSION

4.1 Age Relationship with Filariasis Events

The results of the study showed that there was no relationship between age and the incidence of filariasis at the Dekai Yahukimo District Health Center. This research is in line with the research conducted by Yanuarmi (2015) which revealed that age is not related to the incidence of filariasis and is not a risk factor for the occurrence of filariasis, because in basically everyone can get filariasis if they

get an infective mosquito puncture (containing stage 3 larvae) thousands of times (MOH, 2008).

The results of the analysis obtained that respondents aged adolescents 14.8% experienced filariasis; respondents aged 20.6% experienced filariasis. This shows that each respondent has the same risk as the incidence of filariasis. This agrees with Santoso (2014), that adolescents and adults are ages who are vulnerable to filariasis because at that age productive age is a lot of activities which increases the risk of getting filariasis vector bites. The absence of an age relationship and not being significant with the incidence of filariasis at the Dekai District Yahukimo Health Center was due to a stronger relationship including knowledge, attitudes and habits at night.

4.2 Sexual Relationship with Filariasis Events

The results showed that there was no sex relationship with the incidence of filariasis at the Dekai Yahukimo District Health Center. This research is in line with the research conducted by Yanuarmi (2015) which revealed that gender was not related to the incidence of filariasis and was not a risk factor with the incidence of filariasis. According to Mubarak (2011), gender can influence the type of work, so it can be different from the risk of the disease. The results of the analysis showed that male respondents 20.8% had filariasis, while female sex 16.7% had filariasis. This shows that there is a risk factor similar to the incidence of filariasis.

The absence of sex relations and not meaningful with the incidence of filariasis in the Dekai District of Yahukimo Health Center was due to a stronger relationship involving work done at night, so that it had a habit of going out at night. In men, jobs such as hunting at night while women generally sell at night as traders peddling their crops so that they are equally at risk with filariasis mosquito bites.

4.3 Educational Relationship with Filariasis Events

The results showed that there was no relationship between education and the incidence of filariasis at the Dekai Yahukimo District Health Center. This research is in line with previous research conducted by Fitriyanti (2017), that education is not related to the incidence of filariasis due to the existence of stronger knowledge factors in influencing the incidence of filariasis.

Respondents who did not go to school 23.4% experienced filariasis, while respondents who attended school 9.7% experienced filariasis. This shows that the education level of a person is equally at risk with the incidence of filariasis. According to Faujiah (2011), states that education will relate to the level of one's knowledge which means that individual education factors will be related to the level insight and knowledge. This affects the level of understanding of information about filariasis. But Menurt Notoatmodjo (2011) revealed that not always a high-educated person has good knowledge because of how much exposure information he receives about health problems.

The absence of educational links and is a protective factor because most of them are not in school and the respondents who attend school are mostly elementary and junior high school graduates, so they have limited thinking power. In addition, the distance factor of a home with health services is more strongly related to the incidence of filariasis, where more often a person interacts with health services, then getting more information about health affects their knowledge.

4.4 Employment Relationship with Filariasis Events

The results showed that there was no work relationship with the incidence of filariasis at the Dekai Yahukimo District Health Center. In this job category there were 62 people (65.3%) with a risk category, namely work done at night. The work of men is more often done at night when hunting and more women as traders and farmers. Job is an activity carried out by

respondents to generate income to meet their daily needs. Job is an important aspect of social class and is one of the best indicators for knowing one's way of life. Risky work allows work to experience multi-vector filariasis transmission bites. When compared with gender, the work has the greatest risk of having a male sex sufferer (Ministry of Health Republic of Indonesia, 2012).

Respondents who worked at risk of 22.6% experienced filariasis, while respondents who worked did not risk 12.1% and had the same risk as the incidence of filariasis. This is confirmed by the results of the prevalence ratio test that work is not meaningful and not significant with the incidence of filariasis. Generally women from the work area of Dekai Puskesmas Yahukimo District have a tradition, where women predominantly work as farmers and traders, while men mostly as farmers and hunt for cushions and bats in addition to consumption and hunting products are also sold in the market.

4.5 Income Relationship with Filariasis Events

The results of the study showed that there was no relationship of income with the incidence of filariasis at the Puskesmas Dekai Kabupaten Yahukimo. This research is in line with the research conducted by Garjito (2013), that income is not related to the incidence of filariasis. This is due to the fact that the general public has similarities in the form of houses whose traditions are almost the same. This also happened in Yahukimo Public Housing where most respondents had the same home characteristics without using wire netting. In this regard, regardless of their economic level, they are still having the risk of contracting filaria. Income will affect someone in accessing health services and home sanitation facilities (Notoamtodjo, 2011). Respondents with less income 21.5% experienced filariasis, while respondents with enough income 13.3% experienced filariasis. The prevalence ratio test results obtained that income is not meaningful and

protective with the incidence of filariasis. This is due to the lack of healthy home sanitation facilities for the community, especially in the use of wire mesh and the presence of livestock and pet cages with poor sanitation conditions and a lack of access to health services so that there is less information about filariasis.

4.6 Knowledge Relationship with Filariasis Events

The results of the study showed that there was a relationship of knowledge with the incidence of filariasis at the Puskesmas Dekai Kabupaten Yahukimo. This research is in line with previous research conducted by Mufidawatu (2016), that the majority of people with good knowledge have a positive perception and are 3,249 times in prevention of filariasis. There were 40.5% of respondents in the Dekai Puskesmas Working Area who were knowledgeable with filariasis, while 1.9% of respondents who were well-informed had filariasis. This indicates that the risk of getting filariasis is higher in respondents who are knowledgeable less than good knowledge and from the results of the prevalence ratio test (RP) = 21,452; CI95% (2,975 - 154,711) interpreted that knowledge was more likely to be exposed to filariasis 21,422 times than respondents who were well-informed.

Based on the results of the study it can be seen that the majority of respondents already have good knowledge totalling 55.8%. The large numbers of respondents who have good knowledge mostly only know the understanding and causes of elephantiasis disease and prevention while 44.2% of respondents who are less knowledgeable about prevention and treatment. This research is in line with the research conducted by Garjito (2013) in Central Sulawesi Province. It also shows that most respondents already knew about filariasis. Respondents who have good knowledge because in their environment there are people who have been exposed to filariasis, so that they indirectly know the problem in perceiving something that

happens in their environment. While respondents who are knowledgeable are a problem that has implications for the knowledge of filariasis prevention measures. The low level of education and lack of information to the public exacerbates a morbidity of health problems in the community. The active role of health workers and health cadres is very important in providing counseling through the filariasis elimination program to the community, in addition to providing drug programs, it is necessary to provide information and physical sanitation conditions in the home environment in preventing filaria mosquito bites.

4.7 Relationship of Attitudes with Filariasis Events

The results showed that there was a relationship between the attitude and the incidence of filariasis at the Dekai Yahukimo District Health Center. Asri's research (2016) revealed the same thing about the relation between the attitudes of the people in Blang Krueng Village, Baitussalam District, District Aceh Besar in preventing filariasis. According to Veridiana et al (2013), one of the activities carried out to support the elimination of filariasis program was to increase the knowledge, attitudes and behavior of the community, both individuals and community institutions to play an active role in eradicating filariasis. According to Notoatmodjo (2010), the formation of attitudes starts from the cognitive domain in the sense that the subject or individual knows in advance the stimulus in the form of material or objects outside, which creates new knowledge in the individual so that an inner response appears in the individual's attitude towards the object he knows.

There were 30% of respondents who behaved negatively experiencing filariasis, while positive respondents had 10.9% of them experiencing filariasis. This shows that the risk of filariasis is greater if the public has a negative attitude about filariasis, especially prevention of filariasis. The prevalence ratio (RP) test results that

negative attitudes are more likely to be exposed to filariasis 2,750 times than respondents who are good. The formation of attitudes is influenced by several factors, namely personal experience, culture, other people who are considered important, mass media, educational institutions or institutions and religious institutions, emotional factors in individuals (Azwar, 2011). 42.1% of respondents in the Puskesmas Puskesmas working area, especially about prevention, included cleanliness of the home environment, not using mosquito nets or using mosquito repellent when going out at night, and the low participation in health programs organized by puskesmas in the treatment of filariasis. The observation that the attitude of the community is low because of the influence of the social environment, most of which do not understand the importance of environmental and personal hygiene.

Efforts need to be further improved by health workers in changing people's attitudes, especially indigenous people in the area to maintain environmental hygiene and personal hygiene through counseling with approaches by community leaders and local traditional leaders who can change the behavior of the community to live clean and healthy lives.

4.8. Relationship The existence of mosquito breeding sites with Filariasis Events

The physical environment includes, among others, climatic conditions, geographical conditions, geological structures and so on. Based on astronomical reviews, Yahukimo Regency is located between 03 degrees 39 "36" LS - 05 degrees 12 "36" LS and 138 degrees 46 "12" BT-140 degrees 07 "12" BT, with altitudes located above the coastline between 100 - 3000 meters. The results of the observation that as many as 47.4% of the existence of mosquito breeding in the form of bushes.

There were 26.7% of respondents who had mosquito breeding sites experiencing filariasis, while 12% of respondents who did not have mosquito

breeding sites experienced filariasis. The results of the chi square statistical test revealed no relationship and were a protective factor for the existence of mosquito breeding sites with the incidence of filariasis at the Dekai Yahukimo District Health Center.

This research is in line with previous research conducted by Yanuarini (2015), that the presence of mosquito breeding is not related but is a protective factor in preventing the occurrence of filariasis. Filariasis events are closely related to several risk factors, one of which is behavioral factors. Behavior of people who lack hygiene, such as the presence of stagnant water, waste water and ditches with garbage scattered around the house is one of the good habitats for breeding and resting places certain species of vectors or mosquitoes, especially filariasis vector (Ministry of Health of Republic of Indonesia, 2012). There is no correlation between the existence of mosquito breeding sites and filariasis occurrences in the work area of the Dekai Community Health Center due to the physical condition of the house and the habit of people who cook using firewood in a narrow house made of honai causing smoke which causes filaria mosquitoes not to enter the house and cause health problems others such as acute respiratory infections.

5. CONCLUSION

Based on the results and research can be concluded as follows:

- a. There was no significant association of age with the incidence of filariasis at the Dekai District Yahukimo Health Center p-value 0.721; Rp = 0.720; CI95% (0,260 - 1,991).
- b. There was no significant relationship between sex and the incidence of filariasis in the Dekai District of Yahukimo Health Center (p-value 0.809; RP = 1,245; CI95% (0.529 - 2,993).
- c. There was no significant relationship between education and the incidence of

filariasis in Dekai Yahukimo District Health Center (p-value 0.185; RP = 2,422; CI95% (0.757 - 7,749).

- d. There was no significant relationship of work with the incidence of filariasis in the Dekai District of Yahukimo Health Center (p-value 0.335 RP = 1.863; CI95% (0.667 - 5.207).
- e. There was no significant relationship of income with the incidence of filariasis in Dekai Yahukimo District Health Center (p-value 0.505 RP. = 1.615; CI95% (0.580 - 4.496).
- f. There was a meaningful relationship of knowledge with the incidence of filariasis in the Dekai District of Yahukimo Health Center (p-value 0,000; RP. 21,452; CI95% (2,975 - 154,711).
- g. There was a significant relationship between attitudes and the incidence of filariasis in Dekai Yahukimo District Health Center (p-value 0.038; RP = 2.750; CI95% (1,128 - 6,706).
- h. There was no significant correlation between the existence of mosquito breeding sites and the incidence of filariasis in Dekai Yahukimo District Health Center (p-value 0.119; RP = 2.222; CI95% (0.909 - 5.430).

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How to cite this article: Puhili MK, Rantetampang AL, Sandjaya B et.al. The factors affecting with filariasis incidence at Dekai public health regional Yahukimo district. *International Journal of Science & Healthcare Research*. 2018; 3(4): 234-244.
