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Knowledge, Attitudes towards Health Insurance, Eradication of Mosquito Breeding Places and the Incidence of Dengue Hemorrhagic Fever in Badung Regency

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ABSTRACT

People who have health insurance feel comfortable and safe because their health is protected. If they are hospitalized, there is an institution that pays, so that efforts to prevent themselves from becoming sick are forgotten. People are reluctant to take preventive measures, such as being lazy to eradicate mosquito nests. The purpose of this study was to analyze the relationship between knowledge, attitudes towards health insurance, eradication of mosquito breeding places, and the incidence of dengue hemorrhagic fever in Badung Regency. This type of research was observational, involving 330 people as sample selected by cluster sampling. The cluster number was 10, each cluster consisted of 33 respondents. The cluster was selected using the Probability Proportional to Size (PPS) technique. Data were collected through filling out questionnaires and then analyzed using multivariate statistics. The results showed that there was a positive correlation between knowledge and attitude and the incidence of dengue hemorrhagic fever; negative correlation between knowledge and attitude with the act of eradicating mosquito nests; and a negative correlation between action and the incidence of dengue hemorrhagic fever. It is hoped that the community will be more active in doing voluntary work or cleaning the environment periodically, both weekly and monthly.

Keywords: *Dengue hemorrhagic fever, Mosquito breeding places, Eradication, Health insurance, Knowledge, Attitude*

INTRODUCTION

National Health Insurance provides several benefits for the community, namely affordable premiums, the existence of quality control and cost principles, is a social health insurance that guarantees the certainty of sustainable health service financing, as well as social health insurance that can be used in all regions of Indonesia^{(1),(2)}.

Community behavior is a person's response to stimuli related to illness and disease, health care systems, food, and the environment. There are passive human responses such as knowledge, perception, and attitude; some are active⁽³⁾. Public knowledge about the

National Health Insurance is very minimal, especially in the periphery areas need to be solved gradually. In overcoming this problem, government policies on health must be carefully determined, so that investments made so far do not become futile⁽⁴⁾.

In Indonesia, until now dengue haemorrhagic fever is still a major health problem. Since it was first reported in Jakarta and Surabaya in 1968, the incidence of this disease is increasing and spreading throughout Indonesia⁽⁵⁾. The regions with the highest morbidity are Java, Bali and parts of the island of Borneo. *Aedes aegypti* has several characteristics, which are only able to live at a temperature of 8 °C to 37 °C, on the body there are silvery white or yellowish white spots⁽⁶⁾.

The Badung District Health Office reported that cases of dengue fever in Badung Regency were included in the high category, with 2178 cases in 2015, with deaths of 6 people, with IR 0.3%. As of the end of July 2016 there were 2751 cases, with 10 deaths, with IR 0.4%⁽⁷⁾.

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People who have become members of the National Health Insurance program feel comfortable and safe because their health is protected or guaranteed, so in their thinking, if they are sick or hospitalized, there are institutions that pay. With the existence of such thoughts, then there is one aspect that is forgotten, namely prevention of self so as not to experience health problems or suffer from disease. The community becomes lazy to take actions that can prevent the occurrence of illness, such as lazy to eradicate mosquito breeding places in order to prevent the incidence of dengue fever.

The statement of the problem in this study is: Is there a correlation between knowledge, attitudes toward health insurance with the eradication of mosquito breeding places and the incidence of dengue hemorrhagic fever in Badung Regency? The purpose of this study was to analyze the relationship between knowledge, attitudes towards health insurance, eradication of mosquito breeding places, and the incidence of dengue hemorrhagic fever in Badung Regency.

MATERIALS AND METHOD

This research was carried out in Badung Regency, Bali Province, Indonesia in 2017. This study was observational research that examined programs that had been carried out by the government⁽⁸⁾. The sample was 330 people selected by cluster sampling technique. The cluster number was 10, each cluster consisted of 33 respondents. The cluster (Table 1) was selected using the Probability Proportional to Size (PPS) technique, using software⁽⁹⁾.

Table 1: List of Selected Clusters

Cluster	Name of Village
1	Abiansemal
2	Bongkasa
3	Darmasaba
4	Mengwi
5	Kapal
6	Kuta
7	Kerobokan
8	Tibubeneng
9	Unggasan
10	Jimbaran

The independent variable in this study was knowledge and attitudes towards national health insurance, the intermediate variable was the act of eradicating mosquito breeding places, while the dependent variable was the incidence of dengue hemorrhagic fever. Data were collected through filling out questionnaires. The categorical data were presented in the form of frequency and percentage⁽¹⁰⁾, then analyzed using multivariate statistics.

FINDINGS

Description of Knowledge and Attitude toward Health Insurance, The Act of Eradicating Mosquito Breeding Places and The Incidence of Dengue Hemorrhagic Fever

Table 2: Distribution of Knowledge about Health Insurance

Knowledge about Health Insurance	Frequency	Percentage
Good	309	93.64
Not Good	21	6.36

Table 3: Distribution of Attitude toward Health Insurance

Attitude toward Health Insurance	Frequency	Percentage
Good	273	82.73
Not Good	57	17.27

Table 4: Distribution of The Act of Eradicating Mosquito Breeding Places

The Act of Eradicating Mosquito Breeding Places	Frequency	Percentage
Good	127	38.48
Not Good	203	61.52

Table 5: Distribution of The Incidence of Dengue Hemorrhagic Fever

The Incidence of DHF	Frequency	Percentage
Not Occur	156	47.27
Occur	174	52.73

Referring to table 2 to table 5, the majority of people had a good level of knowledge and attitude towards

health insurance, but the act of eradicating mosquito breeding places tend to be not good, and more dengue fever occurs.

HYPOTHESIS TESTING RESULTS

Table 6: The Correlation between Knowledge about Health Insurance, Attitude toward Health Insurance, The Act of Eradicating Mosquito Breeding Places and The Incidence of Dengue Hemorrhagic Fever

Correlation	r	p-value
Knowledge–The Act of Eradicating Mosquito Breeding Places	-0.597	0.000
Knowledge–The Incidence of Dengue Hemorrhagic Fever	0.694	0.000
Attitude–The Act of Eradicating Mosquito Breeding Places	-0.545	0.000
Attitude–The Incidence of Dengue Hemorrhagic Fever	0.676	0.000
The Act of Eradicating Mosquito Breeding Places–The Incidence of Dengue Hemorrhagic Fever	-0.835	0.000

Table 6 shows that each correlation test produces p-value <0.05; so it was concluded that all correlation test results were significant.

DISCUSSION

The majority of respondents’ knowledge about national health insurance is in the good category. This can be seen from the National Health Insurance participants who generally come from communities with sufficient economic levels, the community has a culture of saving in preparation for the occurrence of illness, there are still people who think that the National Health Insurance is not a government program to seek profits, and there are people who do not know about the principles of National Health Insurance that are applied such as mutual cooperation, without seeking profit, sustainable social security, and compulsory participation for all Indonesian people.

Knowledge is the result of knowing, which occurs after a person has sensed a particular object⁽¹¹⁾. Knowledge is also an effort that underlies a person to think scientifically, while the level depends on the knowledge or basic

education of the person concerned⁽¹²⁾. Thus, knowledge can be influenced by education, experience, age, economic status, information, environment and culture.

The results showed that knowledge of national health insurance correlated negatively with the eradication of mosquito breeding places. This shows that respondents’ knowledge of national health insurance is good, the community feels comfortable and safe when they have health insurance, so they forget to take preventive measures to avoid dengue fever. With these findings, it is expected that the community will be more active in carrying out mutual cooperation activities to eradicate the breeding of mosquitoes.

Community attitudes towards national health insurance are generally in the good category. Most people who already have a national health insurance card. But there are also people who do not have a National Health Insurance card. They did not immediately register themselves as national health insurance participants, even though the conditions needed were easily obtained. There are also people who consider that it is still difficult to obtain national health insurance registration requirements. On the other hand there are also people who consider that national health insurance is not a public health insurance.

Actually, people already know about national health insurance even though there is little information that can be absorbed by the community. Many people still think that national health insurance can be taken care of suddenly when it is needed to get medical check up or to pay for expensive treatment; whereas national health insurance has 6 principles, namely mutual cooperation, non-profit, portability, mandatory participation principle, trust fund, and the results of the management of social security funds⁽¹⁾.

Attitude is a feeling of supporting (favorable) or not supporting (unfavorable) such as readiness to react in a certain way if the individual is faced with a stimulus that requires a response⁽¹³⁾.

The results showed a negative correlation between attitudes towards national health insurance and eradication of mosquito breeding sites. This shows the attitude of the people who are lazy to carry out mutual cooperation activities to clean the mosquito breeding grounds. The community considers that if they suffer from dengue fever, there is already health insurance

that covers the funding at the hospital. It is hoped that the community will continue to increase its awareness through health education, so that they can prevent dengue fever by eradicating mosquito breeding sites.

With the national health insurance program, community actions to eradicate mosquito breeding sites are in the “not good” category. Perception is a process in a person in understanding the situation or situation in his environment, which involves organizing and interpreting as a stimulus in a psychological experience. Perception is formed in a process with sufficient time to produce a response. Perception can help someone to choose and interpret something that is felt or seen as a complete and meaningful form, such as an action that appears⁽¹⁴⁾.

The results showed that there was a negative correlation between eradication of mosquito breeding sites and the number of people affected by dengue fever in one house. This shows that the eradication of mosquito breeding sites plays an important role in the prevention of dengue fever. The more inactive in carrying out mutual cooperation activities to clean the environment, the more chance for dengue hemorrhagic fever to occur.

Based on the results of this study, it is expected that the community will be more active in carrying out voluntary work activities to eradicate mosquito breeding sites, coupled with activities to close water reservoirs, bury containers and drain water reservoirs. Community service activities to clean the environment can be done in the yard, in public places, schools and others; periodically every week or monthly.

CONCLUSION

The results showed that in Badung Regency, the incidence of dengue hemorrhagic fever was related to the eradication of mosquito breeding sites. Knowledge and attitudes towards national health insurance have weakened the eradication activities of mosquito breeding sites, due to a tendency to rely on the existence of health insurance.

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Ethical Clearance: Yes

Conflict of Interest: No

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