

Implementation Control of Dengue Hemorrhagic Fever (DHF) in the District Health Office of Maros

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Abstract-Dengue Hemorrhagic Fever (DHF) is a disease that occurs in the tropics, where DHF is a contagious disease caused by the dengue virus is transmitted from patient to another by the bite of *Aedes aegypti* mosquito. DHF control management that must be considered is the environmental factor or ecological vector of dengue. The need for attention to the physical, social and environmental aspects of management that consists of programs or policy, technical operations and public awareness needs to be done in an effort to reduce the incidence of dengue. The purpose of the study to analyze the implementation of disease control programs of dengue fever in the region District Health Office of Maros and evaluate controlling dengue hemorrhagic fever (DHF). This research method is a descriptive observational research. The population in this study consisted of health workers health clinic, a sample size of six health centers that serve the respondent is responsible for implementing both dengue disease control programs. six health centers studied for there is only one health center with good value scale, namely public health centers Camba Score of 71%. While all five health centers derive considerable value scale with a score of 57%, namely public health centers Lau, Bantimurung, housewives in Turkale, Mandai, and Marusu. Public health centers working area of District Health Office Maros from 11 variables there are only four variables are eligible for variable vector surveillance plan, larvasidasi, fogging. Of the 11 variables there are 3 health centers which scored 45% with 5 categories of eligible, namely public health centers Camba, Mandai, Marusu. For the three health centers scored 36% with 4 categories are eligible, namely public health centers Lau, Bantimurung, housewives in Turkale. The conclusion from this study that the implementation of control dengue fever is still lacking in the aspect of input (infrastructure and training), the process aspect (vector surveillance, larvasidasi, fogging, monitoring and evaluation). Suggestions for the clinic and Health Department personnel to strive to increase the dengue control program in Maros.

Keyword: Public Health Centers, DHF, Control, *Aedes aegypti*.

1. INTRODUCTION

Health problems in Indonesia until now one of them are dengue hemorrhagic fever (DHF). In 1968 in Surabaya and Jakarta to an increase in the incidence of dengue and it spread throughout the district that is in the province of East Timor Republic of Indonesia. Mortality due to dengue cases is still high, dengue disease vector *Aedes aegypti* one of them is still prevalent in the region of Indonesia^[1].

Cases of dengue in Maros regency in the year 2010-2012 underreported as many as 422 cases with details of which 276 cases in 2010, the year 2011 is 96 cases and in 2012, namely 97 cases (DHO. Maros, 2012). Sub-district level distribution of dengue cases in 2010-2012 were highest in the region, namely the District housewives in Turkale 126 cases while the lowest in the District Simbang 8 cases (DinkesMaros, 2012).

An area is said to be endemic if within the last 3 years, every year there are patients with DHF or

because of environmental conditions, among others due to the dense population, has a bustling transport links with other areas, so that a high risk outbreak^[4].

Maros is an area that has accompanied the tourism potential in the presence of an international airport, causing a fairly high population mobility, Maros district is also a transit area for people who go to outside the region and outside the island. This causes the density of the houses, the number of houses nonpermanen frequently changing occupants are sometimes overlooked cleanliness and hygiene maintained environment case (DinkesMaros, 2012).

The high incidence of cases of DHF in Maros, South Sulawesi Province into a reason for choosing the location of dengue control program implementation research in the area of Maros which is a transit area fairly solid. Management control of dengue as an environmental intervention in an attempt breeding places of mosquito nest eradication^{[4][5]}.

DHF control management that must be considered is the environmental factor or ecological vector of dengue. The need for attention to the physical, social and environmental aspects of management that consists of programs or policy technical operations and public awareness needs to be done in an effort to reduce the incidence of dengue. Implementation of dengue control program was conducted in six health centers, three health centers represent cases increased and decreased 3 Public health centers cases ^[6].

It is an effort to see the comparison of the overall results of a program that has been implemented and further analyzed and submitted a recommendation in disease control DHF. The purpose of this study was to analyze the implementation of disease control programs of dengue fever in the region of Maros District Health Office and evaluate controlling fever dengue hemorrhagic fever (DHF).

2. METHOD

This research method is a descriptive observational research. The draft evaluation have in

order to know the implementation of disease control dengue fever in the region District Health Office of Maros.

Health center which is used as the study site is three health centers the number of cases is increasing and three health centers the number of cases decreased. The location selected studies are public health centers Lau, housewives in Turkale, Bantimurung, Mandai, Marusu, Camba.

The sample size is 6 public health centers consists of one respondent, namely managing dengue disease control program activities, which have been working or on duty in the clinic for at least 1 year and the health center will be a place for sampling is a health center that has the incidence of DHF cases as many as six people.

3. RESULT

Respondents in this study were health workers in health centers in managing and implementing the program DHF, has worked at least one year. Characteristics officer can be seen in Table 1.

No	Variable	Public Health Centers (Qualify/not eligible)					
		Lau	Bantimurung	Turikale	Camba	Mandai	Marusu
1	Quantities Power	Qualify	Qualify	Qualify	Qualify	Qualify	Qualify
2	Power Quality	Qualify	Qualify	Qualify	Qualify	Qualify	Qualify
3	Means Larva Survey	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible
4	Means Fogging	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible
5	Ingredients Larvasidasi	Qualify	Qualify	Qualify	Qualify	Qualify	Qualify
6	Material Fogging	Qualify	Qualify	Qualify	Qualify	Qualify	Qualify
7	Training related to dengue	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible
Number of Qualify		4	4	4	5	4	4
Scor Qualify (%)		57%	57%	57%	71%	57%	57%
Scale Value		Enough	Enough	Enough	Good	Enough	Enough

Table 1 that the information obtained in the Work Area Health Center District Health Office of Maros, there were 7 variables that can be measured. Of 7 of these variables are variables that do not meet the first requirement, namely training relating to the control of dengue. For all six health centers studied there is only one health center with good value scale, namely public health centers Camba Score of 71%. While all five health centers derive considerable value scale with a score of 57%, namely public health centers Lau, Bantimurung, housewives in Turkale, Mandai, and Marusu.

Table 2 Results of the evaluation process components dengue control programs in Maros

No	Variable	Public Health Centers (Qualify/ Not eligible)					
		Lau	Bantimurung	Turikale	Camba	Mandai	Marusu
1	Surveillance of vektors	Qualify	Qualify	Qualify	Qualify	Qualify	Qualify
2	Survey eggs	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible
3	Survey flick	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible
4	Surveying mosquito	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible
5	Vector control	Qualify	Qualify	Qualify	Qualify	Qualify	Qualify
6	Larvasidasi	Qualify	Qualify	Qualify	Qualify	Qualify	Qualify
7	Abatisasi	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible
8	Fogging	Qualify	Qualify	Qualify	Qualify	Qualify	Qualify
9	mosquito eradication	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible
10	Monitoring and evaluation	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible	Not eligible
Number Qualify		4	4	4	5	5	5
Score Qualify (%)		36%	36%	36%	45%	45%	45%
Scale value		less	less	less	less	less	less

Table 2 obtained information that at the health center working area of District Health Office Maros from 10 variables there are only four variables are eligible for variable vector surveillance plan, larvasidasi, fogging. Of the 11 variables there are 3 health centers which scored 45% with 5 categories of eligible, namely public health centers Camba, Mandai, Marusu. For the three health centers scored 36% with 4 categories are eligible, namely public health centers Lau, Bantimurung, housewives in Turkale.

4. DISCUSSION

Human Resources in Health should have a sufficient quantity and quality and well distributed, it proved to be a positive effect on the increase and the smoothness of a program. six health centers already qualified which is sufficient number of implementing control programs of dengue fever. When viewed from the rules Priesiden No. 72 Year 2012 on the National Health System that as executor of health effort required health human resources are sufficient in number and distributed fairly and equitably according to the demands of the health development needs ^[6].

Health workers involved in the implementation of control programs of dengue in 6 public health centers working area District Health Office Maros has been educated DIII / S1 health. This refers to the Kepmenkes No. 1116 of 2003 on the implementation of surveillance systems that guidance resources or the delivery of health professionals undergraduate health. Although there are one health center that has health workers implementing dengue program are derived from the field of nursing and midwifery ^[9].

Implementation of mosquito larvae surveys in six public health centers working area of District Health Office Maros included in the value scale of good and qualified in its implementation. From 4 to 6 public health centers no health center with excellent value scale that public health centers Bantimurung, housewives in Turkale, Mandai, Marusu with a value of $\geq 80\%$. 2 health centers obtain better value scale with values $\geq 67\%$ that public health centers Lau and Camba. When viewed from the item in question did larva survey once every 3 months; the answers of the respondents are not, for the implementation of the larva survey into the category is not eligible.

Implementation of mosquito larvae surveys at the health center working area Health Department is only done in case of dengue, is not done according to the rules or three months because of budget constraints [9].

For the implementation of abatisasi in six publichealth centers working area of District Health Office Maros, fall into the category very well. Although implementation or division abate if seen from the statement on the implementation of the division of all respondents abate only be implemented if a region experiencing dengue cases. This means that for the implementation abate division does Not eligible.

Fogging in six publichealth centers working area Maros District Health Department there are 5 health centers which scored $\geq 90\%$, namely public health centers Lau, housewives in Turkale, Camba, Mandai health centers, and health centers health centers Marusu.1 scored 88%, namely publichealth centersBantimurung. But the question item fogging is done in 2 cycles of all respondents answered only implemented in the event of dengue cases in publichealth centers. This is due to limited funds, so as to fogging is still classified in the statement are not eligible.

Implementation of education on mosquito nest elimination in public by officers kesehatan already qualified. Counseling is done by collecting societies or door to door. But the extension of the mosquito nest elimination does not qualify because sometimes implementation is only done when there is a case working area of each health center. For power extension methods mosquito nest elimination did not use the leaflet or poster to the people, they only delivered verbally to the public.

Six public health centers working area of District Health Office Maros there are two health centers that do get the total assessment 85%, namely community health centers Mandai and Marusu, while one health center gained a total of 78%, namely public health centers Camba and Lau gained 68%, Bantimurung and housewives in Turkale gain value of 55%. However, in the field they do not conduct monitoring or evaluation on the implementation of dengue fever, absence also report on monitoring and evaluation of programs of DHF.

5. CONCLUSION

1. Of the seven variables there are 3 that are not eligible larva survey is a means, a means of fogging, training related to dengue. For possession of Public Health Centers in fogging means there is only one health center that has the means fogging namely public health centers Camba. Meanwhile, Lau, Bantimurung, housewives in Turkale, Mandai, and Marusu still

do not have yet the means fogging equipment directly from the Office of Maros.

2. Of the 10 variables there are six variables that do not eligible so included into the category of less. 4 variables are eligible for variable vector surveillance plan, larvasidasi, fogging. Of the 10 variables there are 3 health centers which scored 45% with 5 categories of eligible, namely public health centers Camba, Mandai, Marusu. For the three health centers scored 36% with 4 categories are eligible, namely public health centers Lau, Bantimurung, housewives in Turkale.

SUGGESTION

To the clinic and Health Department personnel to strive to increase the dengue control program in Maros and empower people to be more effective dengue control program conducted.

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