

# Community Behavior in Prevention of Dengue Hemorrhagic Fever through Activities of Eradication of Dengue Fever Mosquito Nests

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## Community Behavior in Prevention of Dengue Hemorrhagic Fever through Activities of Eradication of Dengue Fever Mosquito Nests

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### ABSTRACT

Dengue Hemorrhagic Fever is one of the main public health problems in Indonesia. The number of sufferers and the area of spread are increasing along with increasing mobility and population density. Community Service Results in 2016 found that the larvae-free number from the three hamlets in Banjarejo Village was still low and the potential for cases of dengue hemorrhagic fever. This was a descriptive study with a cross sectional approach. The population of this study was 1037 (the head of the family). The sample size was 88 families, selected by proportional random sampling. The research instrument were questionnaires and observation sheets. Data were analyzed using descriptive statistics, in the form of frequency and percentage. Data from research on respondents' perceptions of support from community leaders were 48 respondents (53.3%). There were 5 respondents (57.8%) actions in Eradication of Dengue Fever Mosquito Nests were sufficient and 11 respondents (12.2%) actions in Eradication of Dengue Fever Mosquito Nests were good. The role of community leaders has a positive effect on the Eradication of Dengue Fever Mosquito Nests.

**Key words:** Dengue hemorrhagic fever, Community leader, Eradication of mosquito-nests.

### INTRODUCTION

This Dengue Hemorrhagic Fever can be affected by local climate change. This climate change can prolong the period of transmission of vector-borne diseases and change their geographical area with the possibility of spreading to areas with low population immunity or lack of public health infrastructure. In addition to climate change, risk factors that may also influence transmission of Dengue Hemorrhagic Fever are factors, environment, urbanization, population mobility, population density and transportation and community behavior in the prevention of Dengue Hemorrhagic Fever<sup>(1)</sup>.

Behavior is the second biggest factor after environmental factors that affect the health of individuals, groups, or communities<sup>(2)</sup>. The experience gained in the implementation of education in both developed and developing countries experiences various obstacles in order to achieve its goals, namely to realize healthy living behavior for the community. The biggest obstacle is the enabling factor (enabling factor). Based on the studies that have been revealed, even though the awareness and knowledge of the community is high about health, but the practice (practice) about health or healthy living behavior of the community is still low<sup>(3)</sup>.

Dengue Hemorrhagic Fever in Magetan District has become an endemic disease every year and there are reports of people who died. Based on data from Magetan District Health Office, the incidence of Dengue Hemorrhagic Fever in 2013 reached 82 cases with 3 mortality rates (CFR = 3.66%). In 2014, there were 76 cases with 1 death rate (CFR = 1.36%) while in 2015 there were 131 cases with 3 deaths (CFR = 2.29%)<sup>(4)</sup>. One of the endemic areas of Dengue Hemorrhagic Fever is Banjarejo Village which is the work area of Panekan Health Center.

Banjarejo Village is one of the villages in the Panekan Health Center working area which is one of the villages with endemic status with Dengue Hemorrhagic Fever because the data obtained from the Panekan Health Center found that for three consecutive years the case occurred. In 2013 there were 3 patients with 0 deaths (CFR = 0%), in 2014 there were 3 patients with 0 deaths (CFR = 0%) while in 2015 there was an increase of 4 patients with 1 death (CFR = 25%)<sup>(4)</sup>.

### METHODS

This research used cross sectional design. The study population was all (1037) family heads in Banjarejo Village, Panekan District. The sampling technique was proportional random sampling. The sample size was 88

families. Data collection tools were questionnaires and observation sheets. The categorical data were analyzed using descriptive statistics, in the form of frequency and percentage<sup>(5)</sup>.

## RESULTS

Areas of Banjarejo Village, Panekan District, Magetan Regency, East Java Province, Indonesia; presented visually as shown in Figure 1. This image was taken from google maps<sup>(6)</sup>.

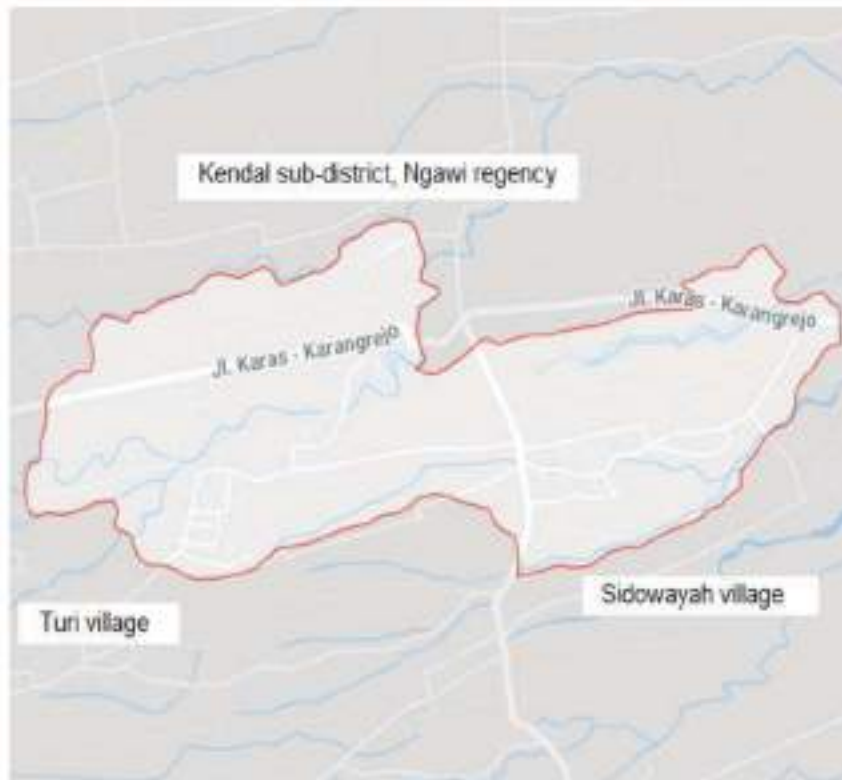


Figure 1. The area of Banjarejo village

(Source: <https://www.google.com/maps/place/Banjarejo,+Panekan,+Kabupaten+Magetan,+Jawa+Timur/@-7.5900511,111.2982553,14z/data=!3m1!1e4m5!3m4!1s0x2e7992ce962a158b0x16c16125242f818818m2!3d-7.59140914d111.3232546>)

Table 1. Distribution of job

Job status	Frequency	Percentage
Government employees	2	2.2
Private employees	11	12.2
Entrepreneur	6	6.7
Labor	4	4.4
Trader	5	5.6
Does not work	19	21.1
Farmer	36	40
Miscellaneous	7	7.8
Total	90	100

Table 1 shows that the most types of work were farmers (40%).

Table 2. Activities of eradication of dengue fever mosquito nests based on role of community leaders

Role of community leaders	Action						Total	
	Less		Enough		Good			
	f	%	f	%	f	%	f	%
Not supportive	11	12,2	5	5,6	1	1,1	17	18,9
Supportive	7	7,8	11	12,2	3	3,3	21	23,3
Very supportive	9	10	36	40	7	7,8	52	57,8
Total	27	30	52	57,8	11	12,2	90	100

Table 2 shows a tendency that the higher the level of support from community leaders, the higher the activity to eradicate dengue fever mosquito nests. Chi square test results show that  $p\text{-value} = 0.007$ , so it could be concluded that community leadership support was significantly associated with community activities to eradicate dengue fever mosquito nests.

## DISCUSSION

The results of this study indicate that the opinions of respondents regarding the role of health workers, most of them stated that health workers were supportive in the activities of eradication of dengue fever mosquito nests, but there were still respondents who behaved in the activities of eradication of dengue fever mosquito nests category less.

The involvement of officers in this case is the health center staff by carrying out home visits to the family. In this home visit, all family members are gathered and information is provided regarding the behavior that is promoted. Giving systematic information can grow new knowledge. If the means to carry out the behavior in question are available, it is also expected that a phase is able to carry out<sup>(7)</sup>.

Hasyim's (2013) study of the factors related to the actions of the activities of eradication of dengue fever mosquito nests in Surau Gadang Sub-District, Nanggalo District states that efforts can be made by providing counseling conducted by health center officers routinely in the community, so that the community understands the right way activities of eradication of dengue fever mosquito nests. This is expected to be the role of health workers who are active in distributing pamphlets, counseling, activities of eradication of dengue fever mosquito nests in the environment followed by support from community leaders, so that they can change people's behavior to be better<sup>(8)</sup>.

The results of this study indicate that the opinions of respondents regarding the role of community leaders, most of them stated that community leaders supported the activities of eradication of dengue fever mosquito nests. In this support it can be illustrated that there is a tendency that the increasing support of community leaders or the awareness of community leaders will improve good behavior, especially regarding the activities of eradication of dengue fever mosquito nests.

In line with Bahtiar's (2012) research in the Kawalu Health center, Tasikmalaya City showed that negative attitudes tended to show a lack of participation by community leaders in DHF control. Attitude becomes a real action including facilities and encouragement from others<sup>(9)</sup>.

This study illustrates that non-supportive attitudes from community leaders tend to show a lack of respondent's role in the activities of eradication of dengue fever mosquito nests. Supporting or not the role and attention of community leaders, the community and the environment around his residence will greatly affect the behavior and welfare of the local community.

The role of community leaders is a level of behavior expected by others towards someone according to their position in a system. The role is also influenced by social conditions both inside and outside and is stable. Community elements who act as community leaders are expected to influence or mobilize the wider community in a variety of positive activities for the community itself.

The results of the study also show that the tendency of experience in attending health education will be influential in the activities of eradication of dengue fever mosquito nests. Behavior is an individual response to stimulus, both from outside and inside him. Stimulation, response or stimulus in this case is health counseling about prevention and prevention of dengue fever that originates from health workers and from electronic media other sources of information<sup>(10)</sup>. In line with the research of Dewi (2015) which states that counseling provided by health workers to the community will affect good knowledge and positive attitudes which will eventually become a behavior of eradication of dengue fever mosquito nests. The experience of getting health counseling is very closely related to increasing knowledge and understanding of the community so that it is able

to encourage people to implement behavioral change efforts that are better than before. On the other hand, the lack of counseling from health workers is due to the limitations of health workers, so health workers are more oriented inside the building as cumulative workers, so health workers will go to the field if an issue becomes an extraordinary event. Where we know that prevention is more important than treatment, with this awareness, health workers will be oriented towards counseling programs rather than treatment efforts.

### CONCLUSION

Increasing support from community leaders or the concern of community leaders will improve good behavior, especially regarding PSN-DBD. The role of community leaders is a level of behavior expected by others towards someone according to their position in a system. The role is also influenced by social conditions both inside and outside and is stable. Community elements who act as community leaders are expected to influence or mobilize the wider community in a variety of positive activities for the community itself.

It is recommended that there be an increase in the role of health workers in PSN-DBD, through counseling, reactivation of jurnantik cadres, improve communication and information related to the behavior of PSN-DBD through mass media, communication media and material delivery to school children. Improve monitoring and evaluation of the achievement of prevention of dengue fever.

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