

## COMMUNITY EMPOWERMENT IN PREVENTING DENGUE FEVER FEVER IN BESAR URBAN VILLAGE, MEDAN LABUHAN DISTRICT IN 2022

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### Abstract

Dengue hemorrhagic fever (DHF) is still a public health problem in urban and semi-urban areas. DHF can carry the risk of death, and disturb the public because of its very fast spread. The main cause of DHF is the female mosquito of the *Aedes aegypti* type. The purpose of this activity is to provide knowledge and understanding of the community about the dengue outbreak in the Besar Urban Village area as well as to provide knowledge and understanding of the community about dengue prevention in the area. the community service method is carried out in several stages of activity. Starting with the Self-Inspection Survey (SMD), distributing the Self-Inspection questionnaire to sub-districts 2, 3, 4, and 5 which was confirmed by the lurah. Next, conduct a village meeting to determine the priority of the problem and the last intervention activity. Based on the results of the analysis, it was shown that there was an increase in the knowledge of residents about Dengue Hemorrhagic Fever (DHF) from before the activity was carried out. Where the increase in knowledge from the pretest and posttest scores affects outreach activities, providing mosquito repellent (Abate & Soffel), and cooperation.

**Keywords:** Dengue Hemorrhagic Fever (DHF), Community Empowerment, Intervention.

### INTRODUCTION

Dengue Hemorrhagic Fever (DHF) is a disease that develops in people's lives, there are data on patients who are infected with DHF every year, and there are data that several medical institutions are also infected with DHF. The main cause of dengue fever is the bite of a female mosquito of the *Aedes aegypti* type. Dengue fever can also be caused by *Aedes aegypti* mosquitoes that live in forests and suburbs (WHO, 2018) (Binsasi et al., 2021). Dengue Hemorrhagic Fever (DHF) is one of the infectious diseases that is a public health concern in Indonesia. Dengue hemorrhagic fever occurs as a natural disaster (CSR), carries a risk of death, and is troubling to the community because of its very rapid spread. (East Java Provincial Health Office, 2017) (Case et al., 2018).

The World Health Organization (WHO) reports that cases of dengue fever continue to increase worldwide, from 2.2 million in 2010 to more than 3.34 million in 2016. In America, it reported more than 2.38 million cases in 2016. , Brazil has 1.5 million fewer cases, about three times that of 2014, and about 1,032 deaths from dengue are also reported.(Irma & Masluhiya AF, 2021).

The number of cases of DHF that occurs must be addressed wisely to make efforts to provide solutions to provide comprehensive treatment. In general, the government has made many efforts to deal with DHF but has not shown positive results, as revealed by the Ministry of Health of the Republic of Indonesia, which believes that the Incidence Rate (IR) of DHF tends to increase from year to year (Taamu et al., 2017).

Community empowerment can be realized through various programs. Community empowerment intends to provide power as well as an effort to prevent disease in an area (Kusiawati, 2017). Community service is part of the learning process by applying basic health theories to the community to be able to analyze a health problem that occurs in the area under study. This activity is carried out in the community seeking to improve the competence of public health students by identifying health problems, determining problem priorities, and compiling and conducting interventions to resolve a problem that occurs (Fadillah et al., 2021).

This community service through counseling aims to provide knowledge and understanding of the community about the dengue outbreak in the Besar Urban Village area as well as provide community knowledge and understanding about dengue prevention in the area. The benefit of this activity is that the wider community knows various information on DHF outbreaks and their prevention and actively participates in efforts to eradicate various DHF outbreaks.

## **IMPLEMENTATION METHOD**

The method of implementing community service is carried out in several stages of activity. Starting with the Self-Inspection Survey (SMD), distributing the Self-Inspection questionnaire to sub-districts 2, 3, 4, and 5 recommended by the lurah. Next, conduct a village meeting to determine priority problems and finally intervention activities.

In determining the priority of the problem, starting with analyzing the situation in environments 2, 3, 4, and 5, using the Bryant Method to get an overview of the health problems that exist in the environment and prioritizing them. The situation analysis was carried out by considering secondary data obtained from the Martbung Health Center and then continued with the distribution of questionnaires to the large urban village community whose criteria were >19 years.

## **RESULTS AND DISCUSSION**

Implementation of Field Learning Experience activities carried out on September 1 – October 5, 2022, by group 1 students consisting of nine people with two supervisors, namely academic supervisors and field supervisors which were carried out in Besar Urban Village, Medan Labuhan District, Medan City. Intervention activities are carried out directly in the field and an analysis of the regional situation is carried out by each group member in the area located in Besar Urban Village.

The results of the survey at the community service location, namely Besar Urban Village, Medan Labuhan, found that there was a problem in the form of cases of Dengue Hemorrhagic Fever (DHF). The community of Besar Urban Village, Medan Labuhan still lacks knowledge regarding Dengue Hemorrhagic Fever (DHF) and its prevention. The implementation of community service is divided into 4 stages, namely a pre-test using a

questionnaire, village consultation, counseling, and giving abate powder, and a post-test using a questionnaire (Zahra et al., 2022).

The main series in community service is distributing questionnaires for pre-test to the community to see the level of community knowledge in Besar Urban Village. After the pre-test was completed, it was followed by a village consultation with stakeholders to determine health problems in Besar Urban Village, Medan Labuhan (Zahra et al., 2022).

### 1. Determining the Priority of the Problem

**Table 1. Bryant. Method**

No.	Health problems	P	S	M	C	Total	Priority Problem
1	Upper respiratory tract infection	5	4	4	3	240	III
2	Dengue fever	5	5	5	4	500	I
3	Hypertension	5	3	4	2	120	IV
4	Smoke	5	5	4	3	300	II

From the table above, the calculation of the priority of the problem using the Bryant method is given a score of 1-5. Several criteria must be met:

1. Prevalence: Big problem faced
2. Seriousness: The bad impact caused by community problems in the form of morbidity and mortality due to these health disorders.
3. Manageability: The extent to which the ability to cope with the available resources (manpower, funds, facilities, and methods)
4. Community concern: Attitudes and feelings of the community towards this health problem.

**Table 2. Distribution of Characteristics of Respondents in the Besar Urban Village Area in 2022**

No	Variable	Frequency	Percentage (%)
<b>1.</b>	<b>Gender</b>		
	Man	94	44.8
	Woman	116	55.2
	<b>Total</b>	<b>210</b>	<b>100</b>
<b>2.</b>	<b>Age</b>		
	20-25	25	11.9
	26-35	94	44.8
	36-45	53	25.2
	46-55	31	14.8
	56-65	5	2.4
	>66	2	1
	<b>Total</b>	<b>210</b>	<b>100</b>

<b>3. Education</b>		
Elementary School	9	4.3
Junior High School	17	8.1
Senior High School	146	69.5
Bachelor's	38	18.1
<b>Total</b>	<b>210</b>	<b>100</b>
<b>Pekerjaan</b>		
Teacher /PNS	18	8.6
Private sector employee	20	9.5
Farmer	12	5.7
Housewife	58	27.6
Self-employed	89	42.4
Student	13	6.2
<b>Total</b>	<b>210</b>	<b>100</b>

Based on the results from the table of respondents' characteristics in Besar Urban Village above, gender indicates that there are 116 female respondents (55.2%) more than male respondents (44.8%). Furthermore, according to the age of the respondents, the majority were aged 26-35 years, namely as many as 94 people (44.8%). Then, more respondents took education at the SMA/MA/SLTA level as many as 146 people (69.5%). Followed by the work of the community in the Besar Urban Village dominated by the category of work self-employed by as many as 89 people (42.4%).

## 2. Plan of Action (PoA)

This PoA will be used to develop plans to be implemented for each planned activity. After the village consultations, an agreement was reached on the health activities to be carried out.

**Table 3. POA (Plan Of Action) Health Problems in Besar Urban Village**

<b>Problem</b>	<b>Activity</b>	<b>Destination</b>	<b>Target</b>	<b>Cost/ Source</b>	<b>Time Place</b>	<b>&amp; Information</b>
Dengue fever	• Counseling & Providing mosquito repellent  •Doing gotong royong together with the environmental community III	To prevent the spread of dengue mosquitoes in large urban areas	Ladies and gentlemen	Rp. 170.000	Wednesday, 21/09/22  Place: Kepling 3	Activities run smoothly and well.

Health intervention actions that are in line with the Plan of Action (POA) for cases of Dengue Hemorrhagic Fever (DHF) provide mutual assistance, counseling, and mosquito repellent (abate and soffel) for the people of Besar Urban Village in Medan Labuhan. The intervention activity was completed on Wednesday, September 21, 2022, at 08:30 WIB until it was finished and the target of the intervention was the people of Kepling 3 Besar Urban Village.



**Figure 1. Gotong royong with residents of Besar Urban Village**



**Figure 2. Counseling and giving abate and soffel powder to the people of Besar Urban Village**

The intervention activities aim to educate the community in the big village, collaborate and provide mosquito repellent (Abate & Soffel) to reduce mosquito bites from Dengue Hemorrhagic Fever (DHF) in Medan Labuhan District, Besar Village.

Based on the results of the analysis, it was shown that there was an increase in community knowledge about dengue fever from before the activity was carried out. Where the increase in knowledge affects the extension activities and providing mosquito repellent (Abate & Soffel) to the increase in the pre-test and post-test scores. With the increasing knowledge of the people of Besar Urban Village, Medan Labuhan, it is hoped that the community will understand the DHF disease and how to prevent it (Zahra et al., 2022).

## CONCLUSION

Counseling on Dengue Hemorrhagic Fever (DHF) conducted in the Besar Urban Village, Medan Labuhan Subdistrict, Medan City has been carried out well and smoothly. With this intervention, it is hoped that it will increase public understanding and public awareness of the importance of clean and healthy living as well as efforts to provide abate and soffel powder to prevent the incidence of Dengue Hemorrhagic Fever (DHF).

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