

## Prevent Dengue Hemorrhagic Fever with the Implementation of Clean and Healthy Living Behavior in Elementary Schools in SDN Sukamanah II 2022

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### Abstract

Dengue hemorrhagic fever (DHF) is a disease caused by dengue viruses, which are spread by *Aedes aegypti* and *Aedes albopictus* mosquito bites. DHF is most common in unconcerned residential areas with poor environmental sanitation. This can be attributed to the community's lack of knowledge and application of clean and healthy live behaviors (CHLB). Purpose: To increase knowledge and change the habitual behaviors of children in SDN Sukamanah II to avoid the DHF virus by doing clean and healthy live behavior. Method: Lecture, discussion, and giving a pre-and post-test. Result: The average children at SDN Sukamanah II do not know about the transmission, causes, symptoms, dangers, and prevention of DHF by implementing clean and healthy live behavior in schools. So it can be concluded that our community service activities at SDN Sukamanah II are successful because there is an increase in knowledge among the respondents.

**Keywords:** Dengue Hemorrhagic Fever, Clean and Healthy Live Behavior

### INTRODUCTION

In Indonesia, dengue hemorrhagic fever (DHF) is still a serious public health problem. Dengue infection has been endemic in Indonesia for the last two centuries. This disease is self-limiting, but in recent years it has shown clinical manifestations that are increasingly severe, such as DHF, and the frequency of extraordinary events is increasing.

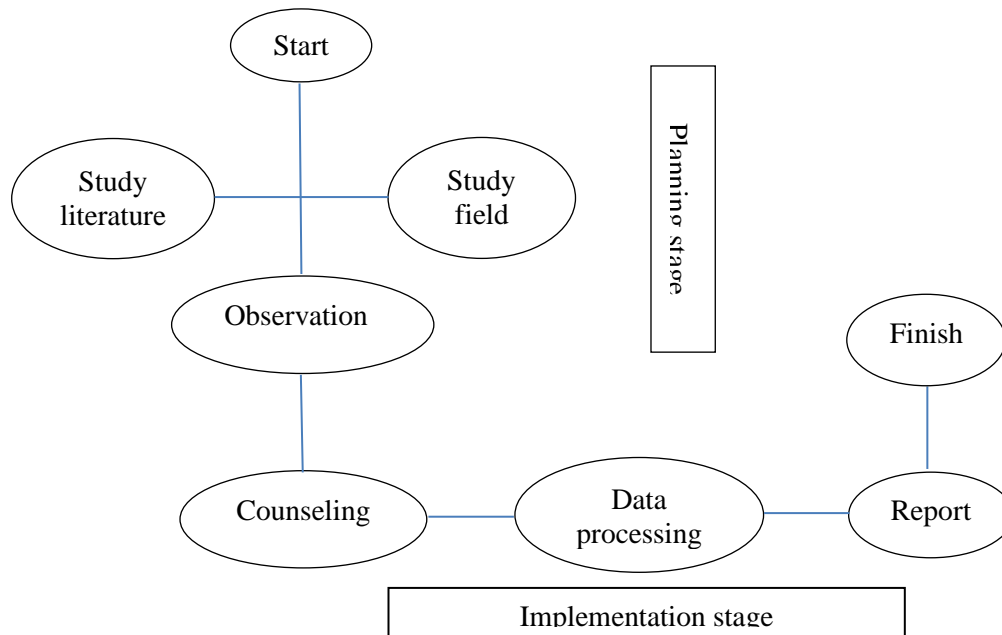
The epidemiological pattern of dengue infection has changed from year to year, with the number of cases peaking every 10-year cycle. The group affected by dengue changed into a group of adolescents and adults. This change in DHF cases is very complex, namely, among other things: 1) high and fast population growth; 2) unplanned and uncontrolled urbanization; 3) the absence of effective mosquito vector control in endemic areas; and 4) the improvement of transportation facilities.

### Empirical Data

The number of world dengue cases is estimated at 390 million each year, found in more than 100 countries. According to the Ministry of Health, there were 52,313 cases of dengue fever in Indonesia in early 2022. From this data, a total of 448 deaths were reported in 451 districts or cities spread across 34 provinces. Regencies and cities that recorded the highest DHF cases included Bandung City with 4196 cases, Bandung Regency with 2777 cases, Bekasi City with 2059 cases, Sumedang Regency with 1647 cases, and Tasikmalaya City with 1542 cases. Based on [detikjabar.com](http://detikjabar.com) (2022), DHF cases in Sumedang Regency in 2021 will reach 1331 cases with a death rate of 15 per 1,000. Meanwhile, in 2022, there were 1648 cases of DHF, with a death rate of 14 people.

The Ministry of National Education (Mustar et al., 2018) states that schools have a strategic role and position in education and health promotion efforts. This is because most children aged 5 to 19 spend quite a long time in educational institutions every day. There are 25.409,200 people aged 7 to 12, and 25.267,914 children (99.4%) are enrolled in school. For the 13- to 15-year-old group, there were 12.070.200 people and 10.438.667 children (86.5% were active in school).

## METHOD



**Figure 1.** Community service activities

### Planning Stage

- It starts since early October 2022 with prepare to form a team and identify various health problems in the community.
- Looking for data by conducting literature studies and field studies. For literature studies read various references through journals and other website sources. Meanwhile, for field studies, data was collected from local service facilities such as Integrated healthcare center and Public health center in Rancakalong sub-district

### Implementation Stage

- After determining the problems in the Rancakalong sub-district, especially at SDN SUKAMANA II, an observation was made of the school's environment.
- Counseling related to DHF prevention was carried out by implementing clean and healthy live behavior in school settings at SDN SUKAMANA II on November 8, 2022. The target of this community service was grade 6 students at SDN SUKAMANA II.
- The data generated from filling out the questionnaire during counseling was then processed to find out the description of the knowledge of Grade 6 students at SDN SUKAMANA II regarding DHF and the implementation of PHBS at school.
- Furthermore, the preparation of reports and publication of manuscripts.

## RESULTS

Based on the results of the activities that have been carried out with 20 student respondents, some data regarding adolescent knowledge was obtained both before and after receiving counseling about the material. A comparison of the level of knowledge of adolescents before and after receiving counseling is an evaluation of the achievement of the activity objectives, namely increasing knowledge and changing the behavior of children at SDN Sukamanah II to avoid dengue by carrying out PHBS behavior in elementary school settings. The results of environmental observations are as follows: 1) There is a lack of trash bins, so the trash is scattered. 2) There is a pile of garbage on the cliff above the school. 3)

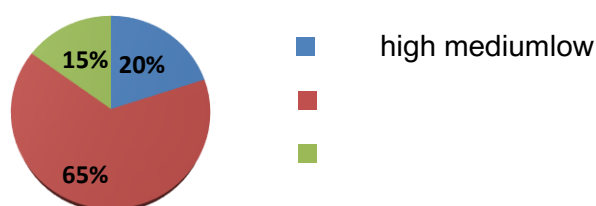
There is no drain from the sink, so the water flows directly in front of the classroom and forms a puddle. 4) The condition of school toilets that are less supportive. 5) There is no UKS room available.

Based on the results of observations, it can be concluded that the awareness of school residents at SDN SUKAMANAH II about the importance of protecting the environment in order to create a clean and healthy environment is still lacking, and with strategic areas that are located in densely populated settlements and areas that are quite humid because they are in an area near the forest, the environment is likely to be a breeding ground for dengue mosquitoes.



**Figure 2.** Condition of the Sukamanah II elementary school environment

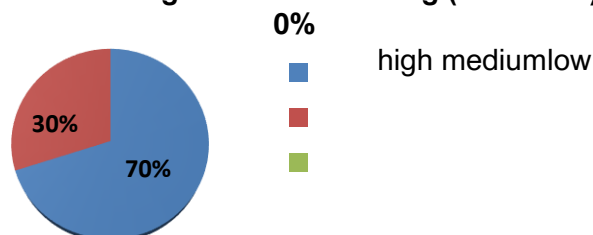
### Overview of Knowledge Before Counseling (Pre-Test)



**Figure 3.** Illustrates the level of knowledge of students before counseling

Figure 3 of the circle diagram above shows the level of knowledge of the students before being given counseling on DHF prevention by implementing PHBS in the school setting. Most of the students had low knowledge of 15%, moderate knowledge of 65%, and high knowledge of 20%.

### Overview of Knowledge After Counseling (Post-Test)



**Figure 4.** Illustrates the level of knowledge of students after counseling

Figure 4 of the circle diagram above shows the level of knowledge of the students after receiving counseling on the prevention of DHF by implementing PHBS in the school setting. The majority of students have low knowledge, with as little as 0%, moderate knowledge (30%), and high knowledge (70%).

## CONCLUSION

Community service activities at SDN Sukamanah II Rancakalong District went well in environmental observations and counseling sessions, namely counseling about DHF and prevention of DHF by implementing PHBS. This activity received a positive response from the school and provided new knowledge for students.

The post-test results of the students also showed an increase in knowledge after they were given counseling for the low category, which was initially 15% to 0%; the medium category, which was initially 65% to 30%; and the high category, which was initially 20% to 70%.

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