



## EFFECTIVENESS OF BUNDO PEDULI JENTIK PROGRAM IN CONTROLLING THE DENGUE HEMORRHAGIC FEVER

Wike Anggraini<sup>1\*</sup>, Arwanto<sup>2</sup>, Saskia Pratiwi Danda<sup>3</sup>

<sup>1</sup>Institut Pemerintahan Dalam Negeri

Jl.Ir. Soekarno KM 20 Jatinangor, Sumedang, Jawa Barat, Indonesia

<sup>2</sup>Institut Pemerintahan Dalam Negeri

Jl.Ir. Soekarno KM 20 Jatinangor, Sumedang, Jawa Barat, Indonesia

<sup>3</sup>West Sumatera Provincial Government

Jl. Jendral Sudirman No.51, Padang, Sumatera Barat, Indonesia

\*corresponding author

E-mail: [wikeanggraini@ipdn.ac.id](mailto:wikeanggraini@ipdn.ac.id)

### Abstract

Dengue Hemorrhagic Fever(DHF) was the deadliest disease in Indonesia with the highest number of cases in 2016. This study aims to determine the effectiveness of Bundo Peduli Jentik program, one of the Health Department of Padang City Government programs, in controlling DHF, especially in Lubuk Kilangan Sub-district. This is a descriptive qualitative research with an inductive approach. Data and information collection were done by observation, interviews and documentation. The theory used is the theory of effectiveness proposed by Budiani that measures effectiveness comprising the accuracy of program targets, program socialization, program objectives and program monitoring. The result showed that the Bundo Peduli Jentik program has been categorized as effective based on the theory used. This is proven by the DHF cases continue to decline every year and there were no number of deaths due to DHF since 2017 in Lubuk Kilangan, Padang City.

**Keywords:** Dengue Hemorrhagic Fever, Effectiveness, Government Program

### Abstrak

Demam Berdarah Dengue (DBD) pernah menjadi penyakit paling mematikan di Indonesia dengan jumlah kasus terbanyak di tahun 2016. Penelitian ini bertujuan untuk mengetahui efektivitas program Bundo Peduli Jentik, salah satu program Dinas Kesehatan Pemerintah Kota Padang, dalam pengendalian DBD terutama di Kecamatan Lubuk Kilangan. Metode penelitian dalam penelitian ini adalah metode kualitatif deskriptif dengan pendekatan induktif. Pengumpulan data dan informasi dilakukan dengan cara observasi, wawancara dan dokumentasi. Teori yang digunakan dalam penelitian ini adalah teori efektivitas yang dikemukakan oleh Budiani yang mengukur efektivitas menggunakan variabel-variabel, diantaranya ketepatan sasaran program, sosialisasi program, tujuan program dan pemantauan program. Hasil penelitian menunjukkan bahwa program Bundo Peduli Jentik dapat dikategorikan efektif berdasarkan teori yang digunakan. Hal ini dibuktikan dengan kasus DBD yang terus menurun setiap tahunnya bahkan tidak ada lagi kasus kematian karena DBD sejak tahun 2017 di Kecamatan Lubuk Kilangan, Kota Padang.

**Kata Kunci:** Demam Berdarah Dengue, Efektivitas, Program Pemerintah

## I. INTRODUCTION

Indonesia is a developing country that is also densely populated and tends to have many health problems. One of the health problems that is classified as high in Indonesia is a contagious disease, including Dengue Hemorrhagic Fever (DHF). This is a very serious health problem and is often found to occur in Indonesia and is included in the health problems of extraordinary events (*KLB*) with high mortality rates.

Ministry of Health of the Republic of Indonesia in RI Law No. 4 of 1984 has regulated the plague of infectious diseases. Plague is an outbreak of an infectious disease in a

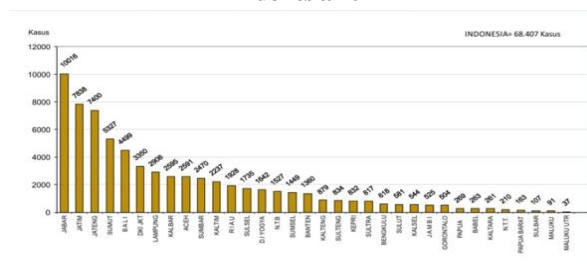
society where the number of sufferers increases significantly in certain times and regions and can cause havoc. DHF virus is included as a contagious virus and in a tropical country, it develops and spreads very quickly.

The disease virus transmitted by female *Aedes Aegypti* mosquitoes has caused nearly 390 million people to be infected each year. Based on data from the World Health Organization (WHO), Asia Pacific bore 75 percent of the total world DHF cases in 2004-2010, while Indonesia was reported as the second country after Brazil with the largest cases among endemic countries or regions in the world (WHO, 2011). The increasing number of dengue cases is due

to the increasing area infected with dengue virus from time to time, the lack of awareness of the community towards cleanliness of the surrounding environment, as well as the geographical location of Indonesia that supports the proliferation of vectors and virus growth. The worse thing is the lack of community participation in the prevention of DHF.

DHF in Indonesia was first suspected to be present in Surabaya in 1968. Since then, the virus from DHF has spread widely throughout the archipelago with the number of cases which continues to increase significantly from year to year. Based on internal disease prevention and control data (P2P) the Ministry of Health of the Republic of Indonesia recorded the number of sufferers of DHF cases reached 68,407 with 493 fatalities in 2017. WHO states that Indonesia is the highest country that has deaths due to DHF problems.

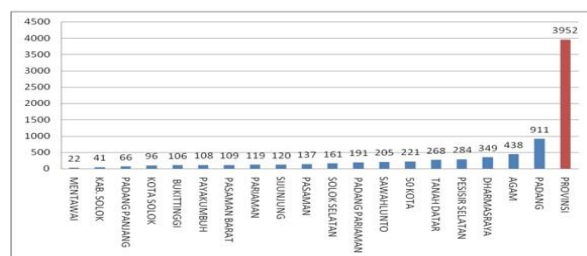
**Figure 1**  
**Figures for Dengue Hemorrhagic Fever Cases in Indonesia 2017**



Source: Center of Data And Information The Ministry of Health, 2018

From the above figure, West Sumatera Province is one of the provinces that has high number of dengue cases. According to the data, the province was on the 10th position out of 34 provinces in Indonesia. This fever becomes an important concern for the West Sumatera Provincial Health Office due to the increasing number of cases. The following is a case data of DHF fever in West Sumatra Province.

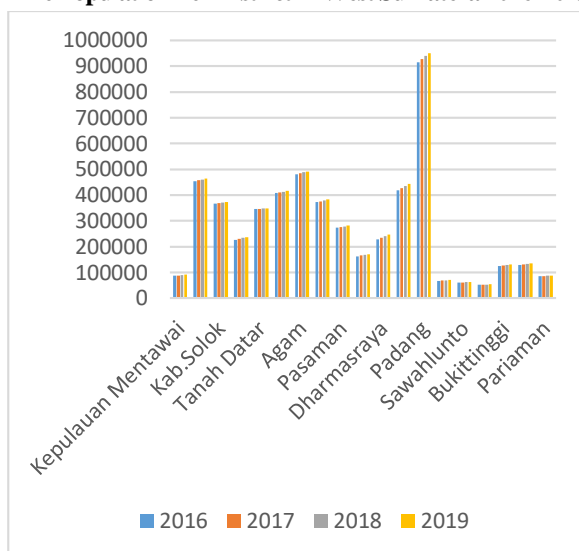
**Figure 2**  
**Figures for Dengue Hemorrhagic Fever Cases in West Sumatra Province 2017**



Source: The Department of Health of Padang City, 2017

From the above figure, the highest number of DHF cases found in Padang City, the capital of West Sumatera. This city has the most population compared to other districts or regency. It can be seen from this following table:

**Figure 3**  
**The Population Per District in West Sumatera 2016-2019**



Source: Central Bureau of Statistic, 2020

The Padang City Health Service described the number of DHF cases fluctuating from year to year. The following are DHF data released by the Padang City Health Office from 2012 to 2017.

**Table 1**  
**Data on Dengue Hemorrhagic Fever Cases in Padang City**

DATA	2012	2013	2014	2015	2016	2017
Case Number	1626	998	666	1.126	911	608
Number of Deaths	10	9	6	8	11	4
Number of Sub-districts affected	104	104	104	104	104	104

Source: The Department of Health of Padang City, 2017

The problem of DHF in Padang City received a special attention from its local government. It created a special regulation regarding this, through the Mayor of Padang Regulation No. 26 of 2017 on the Dengue Hemorrhagic Fever Control to reduce the number of dengue cases in Padang. Mitigation efforts undertaken by the Padang City Health Service include prevention of DHF, handling suspects or DHF sufferers in health care facilities according to applicable standards, and prevention of DHF outbreaks. This is regulated in Padang Mayor Regulation Number 26 Year 2017 article 2.

The Padang City Government through the Padang City Health Office in carrying out efforts to prevent dengue fever has formed a community-based program. This program invites the community to eradicate and stop the spread of existing dengue infectious diseases. The program's name is

Bundo Peduli Jentik, it is a program to increase the participation of mothers in the community in the prevention of DHF as regulated in the Minister of Health Regulation No. 28/2014 article 42, which is the management guidance in the form of community empowerment.

The Padang City Health Office through regional health center spread throughout the city of Padang along with the regional apparatus in the sub-district and urban village area have been promoting the Bundo Peduli Jentik program. The program is considered successful in the prevention and handling of dengue cases because a mother is a highly respected figure in West Sumatera Province. Bundo Peduli Jentik is a group mothers in the community who have been trained to empower community to eradicate mosquito nest by means of "3M" plus, which are draining, closing water reservoirs, recycle used goods, and avoiding mosquito bites.

Mothers who are the members of Bundo Peduli Jentik program are given education about the prevention, eradication and control of DHF. Their task is inviting all community members to play an active role in the process. This program aims to reduce the number of sufferers and mortality rates due to DHF by increasing the participation of mothers, who are in the community environment in carrying out prevention, eradication, and control of DHF.

However, in the program implementation process, there are still a number of problems, one of them is a lack of community awareness in protecting their environment. According to the Central Statistics Agency of Padang City (2017), 82 % of the people in Padang City have jobs, and half of them working full days. This is one of the factors why they are not paying much attention to the cleanliness of environment where they live. According to the Head of the Lubuk Kilangan Health Center, Linda Hasmi (2019), there are still some people who are less concerned with their environment such as letting a puddle of water and letting the piles of garbage in their environment that could become one of factors of DHF virus rapid spread.

The authors focus on Lubuk Kilangan Sub-district because the number of DHF cases and the mortality rate due to DHF is quite high on this area. According to the Padang City Health Office, DHF cases that occurred in Lubuk Kilangan Sub-district in 2016 amounted to 10 % of the total 911 cases and 18.18 % of cases died from 11 recorded cases.

## II. METHOD

The authors use a descriptive qualitative method in making observation. The method aims to see and understand the phenomena that occur in the research subjects such as perception, behavior and others. According to John W Best in Sukmadinata (2005) "a descriptive research does not stop at collecting data, organizing, analyzing and drawing interpretations and conclusions, but continues with comparison, looking for similarities and casual relationships in

various ways". The point is that descriptive research is not just limited to getting data but looking for comparisons between all of them.

The approach used in this research is the inductive approach. According to Moleong (2009) the inductive approach has the understanding as the search for data to provide information related to the thing being studied with the intention to answer all existing problems, not as proof of the hypothesis. This research also used a purposive sampling method as the tool for informant selection.

## III. RESULT AND DISCUSSION

First, the authors observe the reality and comparing it with various regulations and other laws and regulations. Comparisons made by observing the reality that occurs is in accordance or not with the values set out in the legislation and other applicable regulations.

The Ministry of Health issued a regulation to tackle the spread of dengue infectious carrier virus through The Health Department Regulation No. 374 of 2010 concerning vector control. In responding to regulations issued by the Minister of Health, the Padang City Health Office conducts monthly socialization in the context of vector control and conduct surveillance of dengue infectious diseases annually to determine its development.

The author conducted an interview with the Head of the Padang City Health Service, Dr. Ferimulyani Hamid, M.Biomed to find out the socialization and surveillance of DHF conducted by the Padang City Health Office. Based on the interview, the authors got information that the Padang City Health Office together with the Health Center in Padang City, and the Bundo Peduli Jentik cadres carry out socialization activities regarding the control of DHF that conducted 4 times a year.

The people of Padang City, especially Lubuk Kilangan Sub-district certainly felt the impact resulting from the results of the socialization and surveillance conducted by the Padang City Health Office. The author conducted an interview with the community living in Tarantang Village, they stated that it was true that a socialization activity was carried out by the City Health Office through the Lubuk Kilangan Health Center to the Bundo Peduli Jentik cadre which was then socialized to the community. Furthermore, the community stated that health surveillance was also carried out in a regular basis by the Lubuk Kilangan Health Center to find out how many mosquito larvae were still existed, died and were no longer the cause of the proliferation of DHF vectors in the Lubuk Kilangan District.

The Minister of Health as the central government made an order letter to all governors in Indonesia regarding the increasing preparedness of dengue cases. In responding to this, the governor of West Sumatera shared his duties and authority to the mayors or regents of their respective regions.

The Mayor of Padang in particular issued the Padang Mayor Regulation No. 26 of 2017 concerning Control of Dengue Fever.

Control of Dengue Hemorrhagic Fever is carried out by each party and in particular the Padang City Health Office, in this case who is responsible for the existence of the Padang City public health program, to create a program to control Dengue Fever. Thus, Bundo Peduli Jentik program was created. This is necessary to have a community participation in supporting the government in carrying out the DHF controlling program. The City Government of Padang has involved the community as stipulated in the Mayor of Padang Regulation number 26 of 2017, chapter XI article 29 and chapter XII articles 30 to article 32.

These are the explanation of the regulation: article 29 contains an invitation to the public to actively participate in DHF Controlling Program, so that the disease can be suppressed and does not occur again. The people of Padang City in general and Lubuk Kilangan Sub-district in particular through the Bundo Peduli Jentik cadre have given their active role in controlling DHF in the surrounding area. The participation was carried out in various ways including giving information about the presence of DHF sufferers in their environment, assisting the government in implementing DHF control, creating self-motivation to be able to participate in DHF control, reporting to the health center or the Padang City Health Office if there are undue events regarding the program implementation.

Community participation is needed in controlling Dengue Hemorrhagic Fever in order to reduce the development of existing viruses. Based on the author's interview with one of Bundo Peduli Jentik cadres in Lubuk Kilangan sub-district, they have already carried out all forms of participation required by the Mayor of Padang based on the regulations that had been issued. When the observation conducted, the authors found out that Bundo Peduli Jentik cadres indeed carried out tasks such as conducting socialization related to DHF control, monitoring mosquito larvae and inviting the public to understand how to control DHF properly and correctly.

Article 30 contains the role of the community in reporting the existence of dengue cases in their environment to health care institutions, whether carried out by the regional government or the private sector so that any DHF cases in the community can be immediately detected and prevented as early as possible. According to the head of the Lubuk Kilangan Health Center, Linda Hasmi (2020) the Bundo Peduli Jentik cadres have provided regular reports on the presence of dengue in their area, and reported to the health authorities in case of dengue cases in Lubuk Kilangan sub-district.

Article 31 discusses the task of the government in providing guidance to the public regarding the understanding of controlling DHF. According to the Lubuk Kilangan

Community Health Center, they conduct a regular training for Bundo Peduli Jentik cadres, which are conducted periodically so that each cadre is able to provide relevant information to all levels of the community around their residence.

Article 32 contains supervision over the implementation of the DHF controlling program. Supervision is carried out in stages starting from the village level carried out by the village head, sub-district level by the district head, and the city level carried out by the mayor. In the implementation process, Lubuk Kilangan Health Center through the health promotion program holders, supervise the performance of Bundo Peduli Jentik, so that the program objectives can be implemented optimally, and DHF case can be suppressed.

Sedarmayanti (2009:59) states that effectiveness is the representation of the target. Meanwhile, according to Mahmudin (2005) effectiveness is relationship between outputs to the goal, the greater the contribution output to the achievement of the objectives, the more effective the organization, programs or activities. Effectiveness is understood as a measurement that states how far a target has been achieved, and as a benchmark to assess the success of a program in certain ways to fulfill that purpose as well. So, it can be concluded that effectiveness is a way or effort to achieve a planned targets.

Therefore, concept of effectiveness can be used to evaluate a program by assessing its input, process and output. Program can be claimed as efficient when implemented precisely, according to the procedure and also save in material element while it is said to be effective if the activity is well executed and maximum results in a short time and the results obtained provide very clear benefits.

According to Krech, Cruthfied and Ballachey quoted by Danim (2004:119-120) the effectiveness measurement can be done by assessing size of the program, the amount of results issued, the level of satisfaction gained, the creative product, and the intensity achieved. This is done in order to achieve a program can be implemented effectively so that the effectiveness of a program that is to be expected.

Furthermore, Budiani (2007:53) stated that to measure the effectiveness of the use of variables such as the accuracy of the program target, program socialization, program objectives, program monitoring. This is done in order for each program to be implemented regularly and directed according to the plan that has been drafted so that the effective results in the implementation. Thus, the second method to analyze the effectiveness of Bundo Peduli Jentik, the authors used this theory.

#### **a. Accuracy of Program Targets**

The accuracy of program goals is a condition where a plan is made in accordance with existing targets. Accuracy of program goals, according to Makmur in Budiani (2007) is related to the level of truth or success and error, so the lower the level of error or error that occurs, of course, will be closer

to the accuracy of program targets in the implementation of any activity or work that has been predetermined.

The accuracy of program goals is related to the program targets. The most important target of the Bundo Peduli Jentik program is the cadres can be succeeded in suppressing DHF cases. The mothers, who are known to play an important role in community life in the Minangkabau area, are expected to be able to invite all levels of society in their environment, to carry out DHF control activities so that the cases can be suppressed. Lubuk Kilangan Sub-district has 177 cadres of Bundo Peduli Jentik, spread across seven villages (*kelurahan*).

According to the author's interview with the Head of the Lubuk Kilangan Health Center, the main target of the Bundo Peduli Jentik program is the presence of Bundo cadres, who can assist government work in controlling DHF in Lubuk Kilangan Sub-district. According to the Lubuk Kilangan Health Center DHF control program holder, to control this disease, it cannot be successful only by routine socialization to the community. It requires an implementing control that is directly carried out by health workers and assisted by Bundo Peduli Jentik cadres. Each of them plays a role to go directly to the community and invite them directly in the process of controlling DHF, also helping them to monitor larvae numbers in each house. It needs at least 10-20 cadres in each village depending on the width of the area.

The total number of active cadres in Lubuk Kilangan Sub-district is 177 people with the total number of villages in Lubuk Kilangan Sub-district is 7 villages. It means that each village has an average of 20 to 25 cadres who work actively. This shows that the number of cadres is sufficient based on the results of the author's interviews with the program holders at the Lubuk Kilangan Health Center.

The recruitment of cadres carried out by Lubuk Kilangan Community Health Center staff that exceeded the planned target between 15-20, and in the implementation process, the government could recruit as many as 20-25 cadres in each village. This number is enough to support the government program target, which is to assist the community in controlling the DHF cases.

**b. Program Socialization**

Program socialization aims that information about the program can be conveyed to the general public and the target participants in particular. The DHF controlling program that has been established by the Padang City Health Office, has been socialized by health workers through the health promotion program holder of the Lubuk Kilangan Health Center, to Bundo Peduli Jentik cadres, by providing a joint socialization at the health center.

According to the author's interview with the head of the Lubuk Kilangan Health Center regarding the socialization stage of the DHF control program, she explained that the socialization carried out by the Lubuk Kilangan Health Center was conducted every 3-5 times a year. While the author's

interview with the Bundo Peduli Jentik cadre, stated that the socialization of the DHF control program carried out by Lubuk Kilangan Health Center health workers to the Bundo Peduli Jentik cadre was conducted every 3 months, plus an additional socialization if there was a DHF case.

After the socialization by the Lubuk Kilangan Community Health Center, then the Bundo Peduli Jentik cadres, who got the information about DHF control, gave the socialization to the people in their neighborhood. They have the authority to provide information related to DHF control to each community to be implemented.

Bundo Peduli Jentik cadres carry out socialization every month through several activities, such as mutual cooperation, integrated healthcare center (*Posyandu*) and others. Special socialization on DHF control is held routinely every 2-4 times in one year. According to the people in Lubuk Kilangan Sub-district, through the author's interview with several residents in Lubuk Kilangan Sub-district, the Bundo Peduli Jentik cadres have made an active socialization and introduced ways of controlling DHF to the community every time there were community activities.

The socialization of the DHF control program conducted by the Lubuk Kilangan Health Center to Bundo Peduli Jentik cadres and subsequently to the community has been carried out according to plan, the presence of Bundo Peduli Jentik can be said to be effective in helping the government in conducting socialization to the community.

**c. Program Objectives**

Program objectives, namely the extent of conformity between the results of the program with program goals that have been previously set. If the goals or objectives that have been set previously successfully achieved, then it is said to be effective. Likewise, if the goals set previously are not achieved or not in accordance with the targets set, it is said to be ineffective.

The purpose of the Bundo Peduli Jentik Program is to recruit mothers as cadres to control DHF so that the cases can be suppressed. The number of Bundo Peduli Jentik cadres is 177 people, indicating that the number exceeded the target. The number of cadres targeted is only 140 cadres. On the other hand, regarding the DHF control Sub-district, it can be proven by the data of DHF cases in Padang in the last 5 years, which are contained in the following table:

**Table 2**  
**DHF Case Data in Padang City**

DATA	2015	2016	2017	2018	2019
Case Number	1.126	911	608	609	296
The Number of Death	8	11	4	3	1

Source: The Health Department of Padang City, 2019

Based on the above table, it can be seen that the dengue cases in Padang City have decreased from year

to year. Only in 2018 there was an increase in one case compared to 2017. The case of DHF in Padang City decreased by more than 50% in 2019 compared to 2018. In fact the case decreased by 74% compared to 2015. This significant decreased cases in Padang City certainly influenced by the Bundo Peduli Jentik Program.

The Head of the Padang City Health Service (2020) explained that the Bundo Peduli Jentik Program was carried out optimally by the health center in Padang City, so that the dengue cases could be reduced by a third from the previous year. This proves that the Bundo Peduli Jentik Program in controlling DHF is quite effective in suppressing the number of dengue cases.

Lubuk Kilangan Sub-district in the last 5 years has the number of DHF cases that continues to decline, it can be proven by the following table:

**Table 3**

<b>DHF Case Data in Lubuk Kilangan Sub-District</b>					
<b>DATA</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Case Number	93	40	29	30	15
The Number of Death	1	2	-	-	-

Source: Health Center of Lubuk Kilangan, 2019

Lubuk Kilangan sub-district experienced a significant decrease in cases from 2015 to 2019. The decrease in the number of cases also continues to occur from year to year, this is certainly inseparable from the implementation of the Bundo Peduli Jentik program, which is considered effective in controlling DHF in Lubuk Kilangan District. The number of death cases has not even existed since 2017 and this is the best achievement of this program.

The Lubuk Kilangan Sub-district community felt that the Bundo Peduli Jentik Program had a great influence in the control of DHF in Lubuk Kilangan Sub-district because of the presence of the cadres, who actively gave warnings to all levels of society to prevent the emergence of dengue vectors in the community. This was conveyed by people living in Tarantang village when authors did the interviews.

#### **d. Program Monitoring**

Program monitoring which is activities carried out after the program is implemented, as a form of attention to program participants (Budiani, 2007). There are two approaches in monitoring method, which are direct and indirect approaches. A direct approach is taken if the monitoring party conducts its activities at the location of the program being implemented. Techniques that are often used in this approach are interviews and observation. Both of these techniques are used to monitor the activities, events, components, processes, results and effects of the programs implemented.

An indirect approach is used if the monitoring party does not go directly to the field, but by reviewing periodic

reports submitted by the program organizers, or by periodically sending questionnaires to the organizers or program implementers.

The Bundo Peduli Jentik program is monitored by the development of the Lubuk Kilangan sub-district health officer. Through the author's interview with the community, officers from the health center accompanied by mothers from Bundo Peduli Jentik cadres always inspect each house to check the existence of mosquito larvae, and the implementation of DHF control activities carried out by the community.

A direct monitoring of the program implementation continues to be done regularly by the health workers, both from the health center or the Padang City Health Office. According to the author's interview with the head of the Lubuk Kilangan Health Center (2020) related to monitoring the implementation of the program, there is always an examination related to the presence of mosquito larvae every 3 months by the health center, to find out the success of the Bundo Peduli Jentik cadres task in controlling DHF. This continuous monitoring effort has become one of the factors of successful implementation of Bundo Peduli Jentik Program.

#### **Supporting and Inhibiting Factors**

The Bundo Peduli Jentik Program in controlling dengue fever is certainly inseparable from the factors, that support and hinder the implementation of the program. The authors conclude several supporting factors that affect the effectiveness of this program:

##### **1. Human Resources**

Mothers and the health workers, as the main actors of this program, have played active roles in carrying out the program according to the local government regulations. The results of the author's interview with the head of the Lubuk Kilangan Health Center (2020), they support this program through sending their best health workers to train the mothers of Bundo Peduli Jentik program, so they know how to control the DHF cases. This high-qualified-individuals made the government can suppress the high number of DHF cases in Padang City.

##### **2. Adequate facilities**

A program can be implemented well if it has adequate supporting facilities. The facility will support the implementation of a program so that the objectives of the intended program can be achieved. The Bundo Peduli Jentik Program requires facilities related to controlling DHF so that this program has succeeded in reducing the number of dengue cases.

According to the interview with one of the cadres, the Government of Padang City has completed all facilities that support DHF control. If there are DHF case occurs, the Padang City Government swiftly through the Lubuk Kilangan Health Center conducts fogging. Fogging is a method of eradicating insects by spraying pure pesticides directed by an

air pump. The fogging tool is a support facility for controlling DHF so that the case does not happen again.

### **3. Full Government Support for Cadre Innovation**

The Padang Government created community empowerment program, Bundo Peduli Jentik, that effectively useful for suppressing dengue cases. The cadres are also creative to make some innovations regarding this program, such as a varied and attractive socialization, the implementation of DHF prevention using an interesting “3M” program, and other innovations related to DHF control.

The evidence is gathered from the author's interview with the health promotion program holder of the Lubuk Kilangan Health Center (2020), that Bundo Peduli Jentik cadres in Lubuk Kilangan Sub-district were very creative in conducting socialization related to DHF control in the community environment in Lubuk Kilangan Sub-district. The cadres invited the community in ways that made the community interested and willing to control the DHF. Government support for cadres is very influential in controlling DHF.

In addition to the supporting factors above, the Bundo Peduli Jentik Program also encounters several obstacles, namely:

#### **1. Community Response and Participation**

As mentioned earlier that 82% of the community in Padang City have jobs and half of them are working full time. From the author's interview with Bundo Peduli Jentik cadres, who stated that the socialization had been carried out, several events were held to increase community response to DHF control, but the community tended to respond less to matters relating to DHF control. Only a few people who did not have a busy schedule that gave a positive response to the existing DHF controlling program. There are still many people who do not participate in the socialization activities. It means that there are still people who do not understand about DHF control.

#### **2. Environmental condition**

Some of the community in Lubuk Kilangan District still do not understand the dangers of infectious DHF and its relation to the environmental conditions. One of the factors of the spread of dengue virus is caused by environmental conditions that are not clean. From the authors field observation, there are several points in the Lubuk Kilangan Sub-district community environment, which can create the development of mosquitoes, such as puddle and garbage heaps.

Another damaged roads and gutters that do not flow cause the emergence of puddle that can become triggers the proliferation of mosquitoes that cause DHF. Piles of garbage in certain places near community settlements can also become one of triggers the proliferation of the dengue vector. This certainly becomes an obstacle for DHF control, so Bundo Peduli Jentik cadres have to put more attention, so that the

community and government can pay more attention to their environmental condition.

### **Efforts Made to Improve the Effectiveness of Bundo Peduli Jentik Program**

Every obstacle there will definitely be efforts made to overcome obstacles. The Government of Padang City in particular Lubuk Kilangan Sub-district provides several efforts to improve the effectiveness of the larvae care program as follows:

#### **1. Active Role of Bundo Peduli Jentik cadres**

Bundo Peduli Jentik cadres have made various efforts to prevent and tackle the number of dengue cases. The author conducted an interview with the cadres to find out the efforts made in controlling the dengue. They explained that they have already carry out their duties and functions in accordance with the Technical Guidelines Document issued by the Lubuk Kilangan Health Center.

The cadres have made various efforts in tackling the increase in the number of dengue cases that have been set out in the technical guidelines for the larvae of the larvae care program including:

- a. Disseminating information about the danger of dengue fever and how to overcome it.
- b. Urge people to do the “3M” plus movement every two weeks.
- c. Conducting vector checks on the development of mosquito larvae in places where puddles are clean, both at the community's home and around the environment.
- d. Reporting the results of larvae examination to the Lubuk Kilangan Health Center as a benchmark for controlling DHF.
- e. Conducting meetings and evaluations with the Bundo Peduli Jentik cadres and the Lubuk Kilangan Health Center.
- f. Reporting to the Lubuk Kilangan Health Center if a DHF case is found to be further carried out fogging.

#### **2. Carry out regular socialization**

Given the relatively large number of residents in Lubuk Kilangan Sub-district, the number of socialization and the number of participants is still very small. With this, the Lubuk Kilangan Community Health Center carries out more frequent outreach activities and is a routine activity.

According to the author's interview with Bundo Peduli Jentik cadres, the existence of mothers is more likely to be heard by the community because of the matrilineal system (according to the maternal lineage) in West Sumatra, so that the ongoing socialization activities carried out by Bundo Peduli Jentik can affect many communities which later can be an effort in controlling DHF.

#### **3. Increase public awareness**

Public awareness that is still lacking on the existence of the environment has caused Bundo Peduli Jentik cadre to be impeded in conducting socialization regarding DHF control. The busyness of the community towards their work causes the



environment to be less attention. Increasing community awareness needs to be done so that people are aware of the importance of environmental cleanliness so that dengue cases can be suppressed.

Efforts made by the Lubuk Kilangan Sub-district government in raising public awareness include conducting activities that can cause the community to participate in the existence of their environment. In carrying out this effort, not only Bundo Peduli Jentik cadres work fully but all levels of the community as well as all members of the sub-district government, both from Sub-District Employees, Community Health Center Staff, and other related elements such as Lurah, RT / RW, NGOs and other elements. Increased public awareness is needed so that the community understands the importance of maintaining the existence of the environment to reduce the occurrence of dengue cases and the community is no longer anxious by cases that can lead to death.

#### IV. CONCLUSION

The Bundo Peduli Jentik program in controlling DHF in Lubuk Kilangan Sub-district, Padang City can be categorized as effective because it meets the effectiveness criteria stated by Budiani, and it achieved the target goals that DHF cases in Padang City can be reduced each year.

The supporting factors that affect the implementation of this program are high qualified human resources as the member of Bundo Peduli Jentik Program, adequate facilities, and full support from the government for the member's program innovation. On the other hand, the obstacles of this program are the participation of the community needs more improvement, and the cleanliness of environment, which needs more attention from the community.

The efforts made by the sub-district government to increase the effectiveness of the Bundo Peduli Jentik Program are as follows: the implementation of Bundo Peduli Jentik cadre tasks in accordance with the decree issued by the Padang City Health Office. The government also carry out regular outreach so that the whole community gets information related to good and correct DHF control, and increasing public awareness of the environment cleanliness.

#### VI. REFERENCES

- Danim, Sudarwan. 2004. *Motivasi Kepemimpinan dan Efektivitas Kelompok*. Jakarta: PT Rineka Cipta
- Mahmudin. 2005. *Manajemen Kinerja Sektor Publik*. Yogyakarta: Unit Penerbit dan Percetakan Akademi Manajemen Perusahaan YKPN.
- Moleong, Lexy J. 2009. *Metode Penelitian Kualitatif*. Bandung : PT. Remaja Rosdakarya.
- Lubuk Kilangan Public Health Center. 2019. Profile of Puskesmas Lubuk Kilangan. Padang: Lubuk Kilangan Public Health Center
- Lubuk Kilangan Public Health Center. 2019. The Accountability Report for the Lubuk Kilangan Community Health Center Program. Padang: Puskesmas Lubuk Kilangan.
- Sedarmayanti. 2009. *Sumber Daya Manusia dan Produktivitas Kerja*. Bandung: CV Mandar Maju.
- Sukmadinata, Nana. 2005. *Metode Penelitian Pendidikan*. Bandung: Remaja Rosda Karya.
- Budiani, Ni Wayan. 2007. *Efektifitas Program Penanggulangan Pengangguran Karang Taruna "Eka Taruna Bhakti"*. Denpasar: Jurnal Ekonomi dan Sosial Input. Volume 2 No.1.
- West Sumatra Provincial Health Office. 2017. Health Profile of West Sumatra Province. Padang: West Sumatra Provincial Health Office.
- The Health Department of Padang City. 2017. *Padang City Health Profile*. Padang: The Health Department of Padang City
- The Health Department of Padang City. 2019. *Padang City Health Profile*. Padang: The Health Department of Padang City
- Kementerian Kesehatan Indonesia. 2011. *Modul Pengendalian Demam Berdarah Dengue*. Law Number 04 of 1984 concerning Infectious Disease Outbreaks
- Law Number 36 of 2009 concerning Health
- Law Number 23 of 2014 concerning Regional Government
- Minister of Health Regulation 560 / MENKES / PER / VIII / 1989
- The Health Department Regulation No. 374 of 2010 concerning vector control.
- The Minister of Health Regulation No 28 Year 2014
- Minister of Health Circular Letter 5 October 2015 concerning Preparedness for Increased DHF Cases to Governors throughout Indonesia
- Padang Mayor Regulation No.26 Year 2017 on Dengue Hemorrhagic Fever Control
- Central Bureau of Statistic. 2020. <https://sumbar.bps.go.id/dynamictable/2019/06/20/328/jumlah-penduduk-menurut-kabupaten-kota-dan-jenis-kelamin-di-provinsi-sumatera-barat-2000-2018.html> / on July 24, 2020.
- Prioritas Pemerintah di Bidang Kesehatan. retrieved from <https://www.kemenkeu.go.id/publikasi/berita/ini-4-prioritas-pemerintah-di-bidang-kesehatan/> on October 07, 2019
- WHO, 2011, *Situation of Dengue Haemorrhagic Fever In the South-East Asia Region*. Center of Data and Information The Health Department of Indonesia, 2018, *Situation of Dengue Haemorrhagic Fever In Indonesia*



<https://pusdatin.kemkes.go.id/article/view/1901040002/situasi-demam-berdarah-dengue-di-indonesia.html>

Central Statistics Agency of Padang City. 2017. The number of workers in the city of padang