

EVALUATION OF THE IMPLEMENTATION OF DENGUE HEMORRHAGIC FEVER (P2DBD) PROGRAM IMPLEMENTATION IN PUSKESMAS PAYUNG SEKAKI PEKANBARU

Rika Mianna¹, Jufenti Ade Fitri², Annisah Adillah Putri³

^{1,2,3}Public Health Program STIKes Al Insyirah Pekanbaru, Indonesia

*Email corresponding : rikamianna@gmail.com

ABSTRACT

The incidence of dengue fever in Indonesia has increased every year. In particular, in Pekanbaru City, there was an increase in dengue case data in 2019, reaching 274 cases with the highest cases of DHF, namely at Payung Sekaki Health Center with 73 cases. The high number of cases of DHF can be caused by problems in planning and implementing the Dengue Hemorrhagic Fever Control Program (P2DBD) which is not optimal due to the factors that influence it. The optimal implementation of the P2DBD program is basically to reduce the number of DHF cases. This study aims to find out about the Evaluation Results (Input, Process and Output) in the P2DBD Program at Puskesmas Payung Sekaki, Pekanbaru City which was conducted in January-July 2020. This type of research is qualitative research by conducting in-depth structured interviews and observations with 6 research informants. The result of this research is that the input variable for human resources is only 1 person and has a double burden. The process variable shows that there is still a lack of community participation in the implementation of the DHF program, namely the PSN Program, Community Participation and Periodic Larva Examination. The output variable is seen from the larva free rate (ABJ) which decreases and does not match the target. The target for ABJ is 95% while ABJ PKM in 2019 is only 77%. So it can be concluded from the results of the input, process, and output variables that are the constraints, namely HR, there is still a lack of community participation in the implementation of the P2DBD program and the decreasing number of ABJ. It is recommended that the Puskesmas provide recommendations for additional surveillance and epidemiology personnel in the process of implementing the P2DBD program, adding additional jumentik kits, and it is hoped that cadres can be more active in the community to support and participate in the implementation of the P2DBD program.

Keywords : P2DBD Program, Evaluation, Implementation

1.INTRODUCTION

One of the infectious diseases which is still a public health problem in Indonesia is Dengue Hemorrhagic Fever (DHF) which is currently a public health problem in Indonesia which tends to increase the number of patients and the wider its spread. Initially, Dengue Hemorrhagic Fever was not considered a dangerous disease for the community. This disease is known as five- day fever (vander-scheer heat). Dengue fever has been known since the XVII century, especially in tropical and subtropical areas. Then after 1954 it seems that the

dengue virus has changed its nature (mutation) to become a malignant. In Indonesia, this disease was first discovered in Surabaya in 1968 following the spread of dengue fever (Nuraini, 2012).

Member countries in the three regions of the WHO (World Health Organization) report the number of cases per year. The number of reported cases rose from 2,2 million in 2010 to more than 3.34 million in 2016. In the year 2016 was marked by major dengue outbreaks worldwide. The Western Pacific Region reported more than 375,000 suspected cases of dengue fever in 2016. Solomon Islands declared an outbreak with more than 7,000 suspects. In the African Region, Burkina Faso reports an outbreak of dengue fever as many as 1061 cases (Saragih et al., 2019).

The incidence of dengue fever in Indonesia men is suffering rise each year. Based on data from Surveillance of Infectious Diseases by the Directorate General of Communicable Disease Eradication and Control (P2PM) of the Ministry of Health, it was stated that in February 2019 dengue cases reached 16,692 cases with a death rate of 169 people. The Ministry of Health of the Republic of Indonesia suppresses the spread of DHF by making a P2DBD Program (Control of Dengue Hemorrhagic Fever) in the presence of the Minister of Health Decree No.581 of 1992 concerning the eradication of DHF and Kepmenkes No. 92. The existence of a policy on Dengue Control Program and as executors (PHC), then that needs to be seen is how the implementation of Program Control of Dengue Hemorrhagic Fever (P2DBD) in Puskesmas. The optimal implementation of the P2DBD program is basically to reduce the number of DHF cases. Activities in the P2DBD program currently carried out include Epidemiological Investigation (PE), Fogging, Jumantik, Periodic Larva Examination, Eradication of Mosquito Nests (PSN), Community Participation and Socialization of Health Education (Magdalena & Barsasella, 2012).

Based on data from the Health Profile of DHF in Riau Province in 2017 there were 1,928 cases of DHF. In 2018 there were 925 dengue cases but this figure when compared to the national standard was still below the average, namely by way of 49 per 100,000 population and the CFR <1 %. Based on data from the P2P field of Pekanbaru City Health Office, in 2017 there were 447 dengue cases in Pekanbaru City, in 2018 there were 201 cases of dengue fever in Pekanbaru City. In 2019, data on the number of dengue cases in 2019 reached 274 cases. Pekanbaru City has 12 Districts and 22 Puskesmas, one of which is Payung Sekaki District which has the highest DHF cases as many as 73 cases.

Based on the initial survey can be seen that the high incidence of dengue in Puskesmas Payung Sekaki in program implementation Control of Dengue Hemorrhagic Fever (P2DBD) is still not optimal views of the factors that affect it, SDM, Funding, Facilities, Infrastructure, Communications, and Environmental Factors in Puskesmas are inadequate so that the P2DBD Program implementation process has not been implemented optimally. The number of health workers in the DHF sector is one person and at the same time the environmental health and

counseling section at the Puskesmas. Additionally obtained awareness and community participation is still low on the program conducted by the Health Center and resulted in a high rate of incidence of dengue Therefore, the researcher conducting research to Know about Evaluation (Input, Proses and Output) in the Control Program Dengue Hemorrhagic Fever (P2DBD) at Payung Sekaki Health Center, Pekanbaru City.

2.METHOD

This research was conducted in the working area of the Pekanbaru City Health Office, which is based on the 2019 Pekanbaru City Health Profile, the highest case finding of Dengue Hemorrhagic Fever (DHF) is at Payung Sekaki Health Center, Pekanbaru City. The type of research used is qualitative research using indepth interviews and observation. Informan is the source of information in this study amounted to 6 comprising d ari Head of Puskesmas Payung Sekaki as main informants, coordinator P2P as key informants, Responsible P2DBD Program all at once as environmental health personnel and three cadres Jumantik that recommended by the person in charge of the P2DBD program. Instrumen study is a guidelines in the form of sheets interview question that is equipped with a tape recorder in the interview. Primary data were obtained from indepth interviews with key informants research includes information about the component input, proses , and output related to the implementation of the program carried out in the region P2DBD Puskesmas Payung Sekaki Pekanbaru City. Secondary data were obtained from a review of documents related to the implementation of P2DBD program activities in the area of Puskesmas Payung Sekaki Pekanbaru City to review the correctness of information obtained from indepth interviews and complete information that was not obtained from the in-depth interview. Data analysis was carried out qualitatively to obtain in- depth information about the implementation of P2DBD program activities using a matrix/table containing summary data of the in-depth interviews from the interview transcripts.

3.RESULTS

3.1 Variable Input

Human Resources, funding, Infrastructure, Method, Communication and Environmental Factors are included in the input variable component The number of human resources involved in implementing the P2DBD program activities in the area of the working father of the Payung Sekaki Health Center is 1 person at the same time having a double burden of being Kesling personnel at the Payung Sekaki Health Center In terms of number and area, the human resources at Payung Sekaki Health Center are insufficient. For Human Resources as the Responsible Disease Control Program Dengue Hemorrhagic Fever is getting the last of Balitbangkes training (Training and Development Agency for Health). The form of training is evaluating, monitoring DHF activities, training PJ DBD, and cadres in the community.

Human Resources in Health Center Payung Sekaki on Disease Control Program DBD is jumantik cadres same with health cadres. Each Posyandu is assigned 1 person to become a

Jumantik Cadre. Cadres receive training on DHF, socialization to the community about DHF prevention and meetings at the Puskesmas. For availability and sources **Funding** received the health center to run the program Control of Dengue Hemorrhagic Fever (P2DBD) derived from the BOK Operational Assistance (Health) and the City Health Department. Jumantik cadres do not have budget funds. **Infrastructures** in Puskesmas Payung Sekaki to program Disease Control Dengue Hemorrhagic Fever (P2DBD) in terms of quantity is sufficient need for that flashlight to support the implementation and the needs of PSN Kit, powder abate for implementation abatisasi, APD, leaflets, posters, needs jumantik, insecticides, and larvicides. And in terms of quality it is still low. For P2DBD program cadre jumantik given flashlights, tools for larvae survey, forms to record inspection results larva, and Card Jumantik given in each house/building dating from the health center. **Methods** or procedures the way in the implementation of programs for Disease Control Dengue Hemorrhagic Fever (P2DBD) was based on SOP (Standard Operating Procedure), and guided by the Strategic Plan of the City Health Office. For **communication** between the Head of the Puskesmas, the P2P Coordinator, the person in charge of P2 DBD, and the Jumantik Cadre, the implementation of the Dengue Hemorrhagic Fever (P2DBD) Control program is smooth and good in reporting cases and others. **Environmental** Factors in the implementation of disease control Dengue Hemorrhagic Fever (P2DBD) for internal already good while for the external is still not good because of the lack of concern society in the implementation of the program P2DBD, bad environment marked by the characteristics of the people who rely on fogging focus on controlling dengue than PSN (Eradication Mosquito Nests) and 3M + (Drain, Bury and Cover).

3.2 Process variables

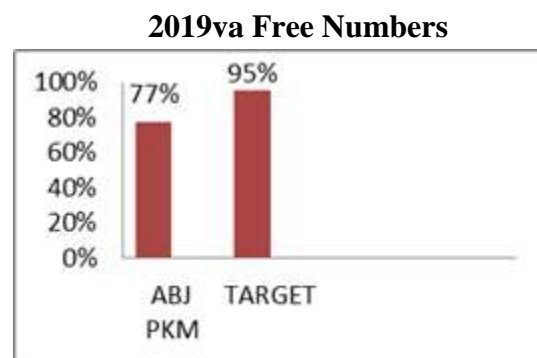
Socialization and Counseling, Epidemiological Investigation (PE), Mosquito Nest Eradication (PSN), Fogging, Community Participation, and Periodic Larva Examination (CHD) are included in the variable component of the process. **Socialization and Guidance** on the Implementation of the Program Control of Dengue Hemorrhagic Fever (P2DBD) in Puskesmas Payung Sekaki socialization and education inside and outside the building through the electronic media or print media. Dissemination and Counseling in the Implementation of the P2DBD Program at the Payung Sekaki Health Center for cadres to conduct socialization and counseling at Posyandu, there are community meetings and at the mosque.

Investigations Epidemiology in Program Implementation Control of Dengue Hemorrhagic Fever (P2DBD) in Puskesmas Payung Sekaki in the Search for the patient and examination mosquito larva dengue the patients home is done directly by the Responsible Program P2DBD, with setting up survey equipment such as sphygmomanometer, flashlights, form PE assisted by Kader, RT and RW. Epidemiological investigations in the implementation of the P2DBD Program at the Payung Sekaki Community Health Center for cadres in DHF cases go directly to the patient's or suspect's house and prepare survey equipment such as flashlights, PE forms and larva examination tools. **The Eradication of Mosquito Nests (PSN)** in the Implementation of the P2DBD Program at the Payung Sekaki Community Health Center is still lacking in inviting the public and across sectors to work together and remind the public for 3M plus which is done

regularly and continuously, sowing abate powder , and fogging. For cadres, cadres do it once a week in the Implementation of PSN. **Fogging (fumigation)** in P2DBD Program Implementation in Puskesmas Payung Sekaki still remain to be done if there is a case and the results of PE, which performs fogging is the Health Department not of Public Health Center. The implementation is carried out in the patient's home and surrounding locations as well as public places. People still rely on fogging in controlling dengue fever. **Community Participation** in the Implementation of the P2DBD Program at Puskesmas Payung Sekaki is still lacking and as a major factor in implementing the P2DBD Program is due to the lack of awareness and concern of the community in the P2DBD program. **Periodic Larva Examination (PJB)** in P2DBD Program Implementation at Payung Sekaki Community Health Center is carried out regularly by health workers and jumantik cadres accompanied by socialization and counseling to the public about dengue disease.

3.3. Output Variables

Based on the results of the output components in the implementation of the P2DBD program, it can be seen from the 2019 Larva Free Rate (ABJ) which has decreased and is not in accordance with the target. The target is 95% and ABJ PKM in 2019 is only 77%. Report of Suspect of DHF Sufferers, Cover Letter of Socialization and Counseling, Minutes of Socialization and Counseling, Documentation of Dengue and Outreach, Monthly DHF Case Report Form, Epidemiological Investigation Form (PE), Epidemiological Investigation (PE) Notification Form, Larva Examination Form in Karu Jumantik, and the Form for Vector Control / Focus Countermeasures) is complete and well-structured.



4.DISCUSSION

4.1 Variable Input

The results of this study indicate that the availability of **Human Resources (HR)** is who is also a health worker at the Payung Sekaki Health Center both in terms of the number and qualifications of human resources education is not in accordance with the provisions. Based on the availability of trained personnel in program management and techniques for dengue eradication, namely receiving training in both DHF control management, dengue prevention and others. This is in accordance with Mufidz's (2016) research conducted at the Tegal District Health Office that the number of personnel in the DHF program, both in terms of numbers and educational

qualifications of human resources, is not in accordance with the provisions.trol/ Focus Countermeasures) is complete and well structured. There are 4 personnel involved in the P2DBD program at the puskesmas, namely the coordinator, surveillance staff, sanitarians, and PE (Epidemiological Investigation) staff. The coordinator is in charge of coordinating program implementation. The surveillance staff is tasked with formulating the results of PE to plan disease control programs. Sanitarians have tasks related to the environment. PE executors are tasked with coordinating with personnel who take part in PE activities.

Facilities and Infrastructures in the process of program implementation Control of Dengue Hemorrhagic Fever (P2DBD). In terms of quantity, the supporting facilities for the P2DBD program at the puskesmas are sufficient, but in terms of quality it is still low, especially in the activities of PSN (Mosquito Breeding Eradication) and fogging. Performance communicable disease control program officer greatly influenced by infrastructure related to providing services and carrying out their duties, officers are directly related would require facilities and infrastructure. Limited facilities and infrastructure for use will result in the services provided not being as expected. Based on the Kepmenkes RI Number 581 / MENKES / SK / VII / 1992 concerning the Eradication of Dengue Hemorrhagic Fever, the facilities and materials used. If the facilities and infrastructure needed by the implementing staff are deficient, then this could obstruct the implementation of the program. Efforts to achieve policy objectives must be supported by the availability of adequate facilities and infrastructure. Without facilities and infrastructure, specific tasks cannot be completed optimally, inadequate facilities and infrastructure will cause obstacles to the implementation process.

Funds and budget sources of funds in the process of program implementation Control of Dengue Hemorrhagic Fever (P2DBD) is from BOK Operational Assistance (Health) Center and the Department of Health. The funds that have been received by the puskesmas are sufficient to meet the various needs of the puskesmas in carrying out the P2DBD program, such as for holding meetings, PSN operational costs, official travel costs, as well as costs for buying fuel and wages for fogging officers. According to Rahim (2013), budgeting is all activities and efforts to formulate the details of determining needs on a certain scale, namely the scale of the currency and the amount of costs by taking into account applicable directions and restrictions.

The method in the process of program implementation Control of Dengue Hemorrhagic Fever (P2DBD) in Puskesmas Payung Sekaki already have a SOP (Standard Operating Procedure). In implementing a program, prior direction is needed from the supervisor and the person in charge of the program for the smoothness and success of implementing a program. Reports from the puskesmas to the village / kelurahan are only verbally through a Pokjandal DBD meeting every 3 or 4 months. As evidence that a program has been implemented, evidence of the implementation of a program in the form of an official report is required. However, implementing officers at Payung Sekaki Health Center only make reports on the results of activities in the form of monitoring results, and In addition there is training provided for jumantik cadres in the village /

kelurahan in the form of providing materials and practices. According to Wibowo (2010), SOP is a standard activity that must be carried out sequentially to complete a job and if it is adhered to it will have consequences, such as smooth coordination, no overlapping or duplication, establishing harmonious working relationships, clarity of authority and responsibility for each employee.

Communication between the Head of Puskesmas, P2M Coordinator, Responsible P2 DBD, Kader Jumantik, Electric Surveillance in the implementation of disease control at the health center DBD Payung Sekaki smooth and excellent. The direct effect of communication on implementation is also evident in Anggraini's (2013) research when analyzing the implementation of the cervical cancer detection program through IVA at the Puskesmas in the city of Surabaya, even his research concluded that communication factors have the greatest influence compared to other factors. Communication must be maintained and enhanced and include all implementing components involved in program implementation.

Factor environment for internal already good. For factor external environment is still unfavorable because of lack of awareness and concern the public on the implementation of the program Control of Dengue Hemorrhagic Fever (P2DBD). Environmental factors have the strongest influence on the implementation of the program Control of Dengue Hemorrhagic Fever (P2DBD) in Puskesmas Payung Sekaki. The environment in the context of implementation is the characteristics of community participants and interest groups (Program Managers, Health Office, Head of Environment, RT, RW, Lurah and Camat). Jumantik cadres are a concrete form of community participation in DHF control according to local conditions and culture so that messages and program implementation are easier to run. This is in line with Chadijah (2011) who examined the role of the community in the implementation of eradicating dengue mosquito nests (PSN-DBD) in two villages in Palu City, Central Sulawesi by finding out the difference between empowering larva surveyors (Jumantik) and the participation of leaders (Head of RT), he found that the most effective community empowerment in controlling the vector of DHF was the larva surveyor (jumantik). The implication of the environmental factors mentioned above is that there is a need to improve strategies to take people's attention with a more persuasive approach so as to generate enthusiasm and an active role in the community in controlling DHF. The public is invited to dialogue and motivated as well as to straighten out the opinions and behavior of people who still rely on fogging. In addition, it is necessary to strengthen partnerships at the sub district, sub district and local environment heads as well as the development of the PSN (Mosquito Nest Eradication) campaign in partnership with the mass media, NGOs (Non Governmental Organizations) or the business world that cares about the welfare of the community.

4.2 Process variables

Socialization and Guidance on the Implementation of the Program Control of Dengue Hemorrhagic Fever (P2DBD) in Puskesmas Payung Sekaki continue to socialize and counseling inside and outside the building through the electronic media or print media. Dissemination and Counseling in the Implementation of the P2DBD Program at the Payung Sekaki Health Center

for cadres to conduct socialization and counseling at Posyandu, there are community meetings and at the mosque. Health socialization and promotion of dengue fever not only distributing leaflets or posters but also towards changing behavior in eradicating mosquito nests according to local conditions. There is counseling and community mobilization in the context of PSN DBD carried out in cross-sectoral cooperation under the coordination of the local regional head. The incomplete extension media available resulted in health promotion about dengue hemorrhagic fever not running optimally. The availability of banners in the extension media has not touched the general public. Therefore, it is necessary to add extension media such as leaflets, flipcharts and posters so that the implementation of the extension can use complete media.

Epidemiological investigations in the Program Implementation Control of Dengue Hemorrhagic Fever (P2DBD) in Puskesmas Payung Sekaki PE activity (investigations Epidemiology) conducted if discovered DHF patients who have tested positive with a certificate issued by the hospital. In the search for other sufferers or suspects as well as examination of mosquito larvae transmitting DHF at the home of the patient or suspect, this is carried out directly by the person in charge of the P2DBD program and prepares survey equipment assisted by cadres, RT and RW. Epidemiological investigations in the implementation of the P2DBD Program at the Payung Sekaki Community Health Center for cadres in DHF cases go directly to the patient's or suspect's house and prepare survey equipment such as flashlights, PE forms and larva examination tools. Factors that support the implementation of PE (Epidemiological Investigation) program activities are valid information from various sources, speed of reporting, alertness of officers who are supported by infrastructure, good relations between health workers and the community, and cross sectoral coordination with villages/subdistricts. This is in line with research conducted by Rahayu (2012) which states that the results of epidemiological investigations and focus fogging have a significant relationship with the incidence of dengue.

Mosquito eradication nest (PSN) in the Program Implementation Control of Dengue Hemorrhagic Fever (P2DBD) in Puskesmas Payung Sekaki invites the public and government sectors for mutual assistance and alert the public to the 3M plus which is done regularly and continuously, sowing powder abate , and fogging . For cadres, cadres do it once a week in the Implementation of PSN. According to a triangulation informant, the number of cadres at Payung Sekaki Health Center is sufficient to carry out PSN (Mosquito Nest Eradication) activities in their area. However, according to key informants, the number of cadres jumantik less active and there are other constraints such as the media used for PSN cadres still relying on health care workers and the low awareness of the community will be important in combating larvae PSN. The results of Setyobudi's research (2011) show that community participation in PSN (Mosquito Nest Eradication) activities is very influential with the presence of *Aedes aegypti* mosquito larvae. Lack of counseling from medical personnel to the public can cause public ignorance about the dangers posed by dengue disease so that people's attitudes and actions remain bad in preventing the occurrence of dengue.

Fogging (fumigation) in the Program Implementation Control of Dengue Hemorrhagic Fever (P2DBD) in Puskesmas Payung Sekaki still remain to be done if there is a case and the results of PE (Research Epidemiology), which performs fogging is the Health Department not Health Center. Health Center people only coordinate with the Health Office. The implementation is carried out in the patient's home and surrounding locations as well as public places. Activity fogging in made where there is clearly a case of dengue fever have been eligible to do fogging. The fogging activity carried out by the puskesmas encountered various obstacles, such as the lack of public knowledge about fogging and its side effects and the delay in implementing fogging due to using a third party so that the implementation schedule follows the third party. The implementation of fogging can be carried out by the presence of supporting factors in the form of the availability of human resources (Human Resources), adequate transportation, facilities and infrastructure, and sufficient funds for the implementation of fogging. According to the results of research by Siti Hidayati (2005), public knowledge about fogging is still lacking and people's perceptions about fogging are not good because fogging is a program that is more preferred than the other PSN (Mosquito Nest Eradication) program on the grounds that it is carried out together and leaves former /there is evidence.

Public Participation in the Program Implementation Control of Dengue Hemorrhagic Fever (P2DBD) in Puskesmas Payung Sekaki still lacking and as a major factor in the implementation of the Program P2DBD her is because there is less public awareness and concern in P2DBD program. The target of community participation consists of families through the role of the PKK, community organizations, school students through school jumantik activities, teacher training, institutional arrangements (offices, public places, places of worship), and jumantik with the contract system environmental sanitation officers as well as society in general, conduct PSN (Eradication of Mosquito Nests) through the 3 M Plus Movement (Drain, Bury, and Close)(Ministry of Health, 2008).

Periodic checks in the Program Implementation Control of Dengue Hemorrhagic Fever (P2DBD) in Puskesmas Payung Sekaki performed regularly by health workers and cadres jumantik 1 times a week along with socialization and education to the public about dengue disease. The obstacles experienced at Payung Sekaki Health Center in implementing PJB (Periodic Larva Inspection) activities are not much different from PSN (Mosquito Nest Eradication) activities, namely low public awareness, funds, and a lack of jumantik personnel. The efforts that have been made by Payung Sekaki Health Center to overcome these obstacles are by holding training for jumantik cadres and coordinating across sectors with villages / wards. The factors that can support the implementation of PJB activities are in terms of personnel, namely jumantik cadres, infrastructure, and funds for fee jumantik cadres. This research in line with the research conducted by Rosidi (2009) is conducted by showing that there is a significant relationship between periodic larva monitoring and larva free rate. The reality in the field is that this PJB (Periodic Larva Examination) activity is very effective in an effort to motivate the

community to always carry out the PSN-DBD movement with 3M plus (Drain, Bury, and Close).

4. CONCLUSION

The results of this study indicate that the components of input, process and output in the P2DBD Program at Payung Sekaki Health Centre is **input variables** in the implementation of the P2DBD program at Payung Sekaki Health Center for Human Resources, Facilities and Infrastructure, Funds, Methods, Communication and Environmental Factors are categorized as good and appropriate. What is not appropriate, namely the human resource is only 1 person and environmental external factors. **Variable Proses** (Socialization and Counseling Program, Epidemiological Investigation (PE), Mosquito Nest Eradication (PSN), Fogging, Community Participation, and Larva/Jumantik Examination) in the Dengue Hemorrhagic Fever (P2DBD) Program at Payung Sekaki Health Center well done, what is still lacking, namely the implementation of the PSN program which also involves the community, periodic larva checks, namely that the community does not fill in the form and jumantik card given by each house / building by the Puskesmas to be checked and monitored and community participation is not carried out with baik. The results of the

output component in implementing the P2DBD program are seen from the 2019 Larva Free Rate (ABJ) which has decreased and is not in accordance with the target. Output variables for files in the implementation of the P2DBD program already exist, are well recorded and compiled. What is still lacking is that the larva inspection forms and jumantik cards given to the community are not filled in and become obstructed in the process of implementing the P2DBD program.

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