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RESEARCH ARTICLE

DETERMINANTS OF IMPLEMENTATION OF THE SYSTEM EARLY ELERTNESS DENGUE HEMORRHAGIC FEVER (DHF) AT THE WORK AREA HEALTH OFFICE OF DUMAI CITY IN 2018

[1,*]Dwie Novitaroza, [2]Zulfendri and [3]Nurmaini

[1]Alumni of Master Program in Public Health, Faculty of Public Health, Universitas Sumatera Utara, Medan, Indonesia
[2,3]Lecturer, Faculty of Public Health, Universitas Sumatera Utara, Medan, Indonesia

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***Corresponding author:* Dwie Novitaroza**

ABSTRACT

Background: preparedness faces an illness that will impact Extraordinary Events along with the elements as the cause by applying an epidemiological surveillance technology used in strengthening responsiveness to alertness, prevention efforts and outbreak control activities that are fast and precise. ***Aims:*** Implementation of Early Dengue Disease System in the work area of Dumai City Health Office. ***Methods:*** this study used a qualitative approach method with descriptive. Thirteen informants who voluntered to participate in this study. Data collection used the method of in-depth interviews. Data analysis used the following stages: data reduction, data presentation, evaluation, withdrawal conclusion. ***Results:*** the implementation of the DHF Early alertness System in the prevention and control of dengue disease found: data usage; periodic larvae check; disease daily census; monitoring or sanitation inspection; annual case monitoring. ***Conclusion:*** The implementation of the Early Alert System will be used as the basis for determining the policy of monitoring the local area which has the risk of dengue outbreak by carrying out epidemiological investigations and fogging.

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INTRODUCTION

Alertness system of extraordinary events as a form of early alertness to the potential for extraordinary events has several activities that can be operationalized such as increasing the availability and preparedness of health facilities and communities, warning of early alertness of extraordinary events, vulnerability to extraordinary conditions, continuous epidemiological analysis and programmed related to diseases that have the chance of extraordinary events. Dengue Fever in Indonesia has become a major health case. Dissemination of this disease spreads in all countries as a cause of pain and loss of life. Within a year found 250,000 - 500,000 cases of dengue fever worldwide (Gibbons, 2002 in info Ristek, 2006). In 2006, WHO estimated that there were at least 100 endemic countries with dengue hemorrhagic fever and about 40% of the world's population or 2.5 million people at risk were tropical and subtropical. According to Kemenkes RI (2013), DHF is a high fever between 2-7. DHF has signs with symptoms of vomiting, nosebleeds, red spots on the skin, bleeding gums, enlargement of the liver and can arise shock. Cases in 2008 in Southeast Asia and the Western Pacific were over 1.2 million cases and in 2010 increased to over 2.3 million cases. In developed countries such as America also received an outbreak of 2.35 million cases where 37,687 cases were recorded as severe DHF (WHO, 2014).

In 2015, DHF cases in Riau Province reached 3,261 people and the death rate was around 20 people. In 2015 this also happened when compared to cases of dengue fever in 2014 with a total of 13.17 per 100,000 population. While cases of loss of life were obtained in the year CFR 2105 (0.061%) while in 2014 (1.44%) it means that the mortality rate in 2015 decreased when compared to 2014 (Dinkes Riau, 2015). Dumai City is an endemic area of DHF with a high number of cases. In 2016 the city of Dumai recorded dengue cases as many as 290 cases or IR (Incident Rate) = 91.58 per 100,000 people with a loss of life totaling 2 cases or CFR = 0.69. There was a decrease when seen from the number of dengue cases in 2015 with cases numbering 367 or IR = 115.89 per 100,000 population with cases of loss of life amounting to 2 people or CFR = 0.54. From the target indicator set by Dumai City, which is 51 / 100,000 inhabitants, it can be concluded that the success of the program made by Dumai City is still far from expected, therefore it is hoped that more serious work and handling will be achieved to achieve this target in 2017 (Dinkes Dumai, 2016). Factors that can result in the addition of Aedes sp mosquitoes in the form of behavior of the people who carry out storage in meeting their daily needs. This shelter can be sourced from rain water, well water and the minimum habits of the community to clean water reservoirs. Strict monitoring in early reporting on vector density is the main key in preventing dengue disease because it can accelerate action in locations affected by the outbreak (Pratamawati, 2012).

MATERIALS AND METHODS

This study used a qualitative approach method with descriptive analysis method from February to May2018.Thirteen informant who voluntered to participate in this study were selected by purposive sampling. Data collection used the method of in-depth interviews guided by interview guides that have been prepared in advance. Data obtained from the results of this study were in the form of qualitative data. For qualitative data the data analysis used the following stages: data reduction, data presentation, evaluation, withdrawal conclusion.

RESULTS AND DISCUSSION

The results of the study through interviews about the implementation of the DHF Early alertness System in the prevention and control of dengue disease found: data usage; periodic larvae check; disease daily census; monitoring or sanitation inspection; annual case monitoring.

Data usage:

"If I am in the hospital if there is a case I report to the Health Office, maybe they will carry out surveillance ... I don't understand because indeed we are in the hospital only as curative and rehabilitative parties while promotive and preventive are a part of the health department. "(Informant 13).

From the data above, information is obtained that is able to meet the needs of DHF data in case of a case, but for monthly reports the informant does not collect data to the Dumai City Health Office. DHF data is collected if there are cases in the hospital. In line with the research conducted by Natalia (2011) mentioning that reports of dengue cases in hospitals must be immediately reported to the District / City Health Service so prevention and countermeasures can be carried out as soon as possible, which is reported as 1 x 24 hours after diagnosis. The most important indicator that shows the optimal quality of active DHF surveillance is through reporting data completeness and the timeliness of report submission. The results of Retanto's study, et al (2012) state that the timeliness of reporting greatly determines the validity of a data. Early DHF Awareness System is strongly influenced by a fast and precise reporting system in analyzing dengue disease that has the potential for outbreaks. The conclusion that can be drawn from the discussion above is that the DHF program coordinator in the hospital immediately reports to the Health Office if there are dengue cases in the hospital. Hospitals do not submit reports every month but only record and report cases to the Health Office.

Periodic larvae check

"There is ... Jumantik, then we help and sometimes also from elementary school students in grades three and five also help. That is the larvasidation program. Later they report each week to the UKS teacher. But this program is not optimal if I judge it because no official has monitored this program. I want it to be a special team formed to oversee this program every month and not just give it to the school. "(Informant 3). "There is ..Jumantik and we also participated because sometimes when we got off the field, the officers also did that" (Informant 4).

From the statement from the ten informants above, only two informants who stated that trained personnel to eradicate DHF vectors were jumantik and assisted by the DHF coordinator in the public health center and assisted by elementary students. Jumantik activities / tasks in monitoring their territory are checking water reservoirs and places that can be flooded with clean water whether there are larvae and whether they are closed tightly. For places that are difficult to drain, they are given larvicidal powder such as abate with a dose of 10 grams of powder for 1 liter of water. The time to spread the powder in water can be done twice a day, in the morning and evening. Eradicate the existence of cloth / clothes hanging inside the house, examine the swimming pool and fish pond to be free of mosquito larvae, and visit empty / uninhabited houses to check larvae. If a mosquito larva is found, the jumantik officer has the right to warn the occupants / owners of the house to clean / drain it clean from the larva. Then the jumantik records and reports to the Public Health Center.

According to Kusumawati (2008), the DHF vector eradication program emphasizes the cleaning of mosquito larvae, this requires the involvement of all levels of society so that eradication of mosquitoes can be longer and more sustainable. This model of awareness in the community can be more effective if done by health cadres or community leaders such as RT heads, religious leaders, youth leaders and so on because these role models are directly involved in community activities and closer to the community.

Disease daily census: The results of interviews with 11 DHF program coordinators in the working area of Dumai City Health Office about recording / calculating DHF patients obtained information as follows: that all coordinators stated that the calculation or recording of DHF patients was carried out by the coordinator of each community health center and coordinator in Dumai hospital. According to the research of Anuari and Setyowati (2015) in the recording system if done manually can be at risk of errors and incorrect data and delays in the process of recording and reporting, and therefore need an information system that can correct errors that might occur.

Monitoring or sanitation inspection: *"Sometimes it is rather difficult to get mutual cooperation, the reason they are working is because public awareness is still lacking in terms of preventive measures for the incidence of dengue, and sometimes sometimes some government instruments do not support it. If we people go down to the Public Health Center for Eradication of Mosquito Nests, how many people are present and that cannot be done in the time that is always scheduled "(Informant 9).*

From the statement to nine informants that some people already care about environmental cleanliness to prevent the breeding of dengue mosquitoes. This is indicated by the participation of the people who want to carry out the Eradication of Mosquito Nests. But there are still people who do not want to play an active role in the Eradication of Mosquito Nest movements, for various reasons. Sanitation monitoring or inspection is an activity of conducting surveillance and checking related to environmental health and health in general. Supervised sanitation monitoring activities such as physical, biological, social and economic environments that can affect human health where useful environments are increased and reproduced while the harmful ones are repaired or eliminated. According to Apriyani's research (2016) risk

factors related to environmental sanitation include the management of solid waste water storage quality, frequency of landfill drainage and the presence of place breeding outside the home affects the incidence of dengue fever.

Annual case monitoring: The results of interviews with ten DHF program coordinators in the public health center in the working area of the Dumai City Health Office regarding the implementation of annual case monitoring were obtained as follows: that all coordinators stated that annual case monitoring was carried out by the Dumai City Health Office. The annual monitoring of dengue cases has been carried out by the Dumai City Health Office. Dumai City Health Office collaborates with the Riau Provincial Health Office in managing dengue by implementing the Early Alert System and the prevention of outbreaks, vector eradication, fogging, and periodic larvae checks, larvasidation, cross-sectoral and cross-program collaboration.

Conclusion

Availability of DHF surveillance data is obtained from data or routine reports from hospitals, public health center and conducting epidemiological and fogging investigations. Human resource surveillance is still lacking and competency mismatches, because so far it is still concurrent in implementing programs / activities in the public health center and educational backgrounds that are not in accordance with the work carried out. The DHF program coordinator has never received any special training on DHF control. Some facilities and infrastructure have been sufficient but to support the course of the program in the dissemination of information still use personal communication tools. The amount of available fund allocation for DHF control is still considered to be lacking and the process of disbursing funds is not long enough for the time needed.

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