Randwick International of Social Sciences (RISS) Journal
Vol. 4, No.2, April 2023 | Page: 385-394
ISSN Online: 2722-5674 - ISSN Print: 2722-5666
https://www.randwickresearch.com/index.php/rissj

Community Participation Factors in Implementing Dengue Fever Symptoms Prevention Program

DOI: https://doi.org/10.47175/rissj.v4i2.679

| **Rosari Inriani S**[1] | **Juanita**[2] | **Lita Sri Andayani**[3] |

[1,2,3] *Department of Health Policy Administration, Public Health Faculty, Universitas Sumatera Utara*

**rosari.inriani @gmail.com*

ABSTRACT

Dengue Hemorrhagic Fever is one of the most common health problems in society that causes various health problems. This disease is caused by the bite of the Aedes Aegypti mosquito which transmits the dengue virus. Deli Serdang Regency is the district with the highest Dengue Haemoragic Fever (DHF) coverage with a coverage of 1,336 cases. The highest coverage was in Tanjung Morawa sub-district with 154 cases, as well as making Tanjung Morawa Health Center the highest DHF coverage with 92 cases. This think about points to decide the factors that influence community participation in the implementation of the Dengue Fever prevention program at Tanjung Morawa Community Health Center, Deli Serdang Regency. This investigate may be a quantitative explanatory overview investigate with a cross sectional design. The sample used was 270 people with the sampling technique using Proportional Random Sampling. Data analysis used univariate and bivariate analysis. The results showed that the related variable was a source of information (p=0.027) with community participation in the implementation of DHF prevention. While knowledge (p=0.705), attitude (p=0.057), role of stakeholders (p=0.787) are variables that are not related to community participation in the implementation of DHF prevention. Suggestions for this research are that health workers at Tanjung Morawa Health Center can increase the positive reaction of the community to prevent DHF, by conducting home visits to provide clear education about DHF prevention programs, providing periodic larvae inspection visits and inviting every household to have One JUMANTIK every household to prevent and eradicate both mosquito breeding sites and the presence of Aedes aegypti mosquitoes, provide information to the public in the form of counseling about 3Mplus, and how to prevent DHF, and urge the public to participate and report if any neighbors or families are infected with DHF.

KEYWORDS

prevention of DHF; participation; community

INTRODUCTION

Dengue Hemorrhagic Fever or DHF is one of the foremost common health problems in society that causes various health problems (Rahmawan, A., & Ma'ruf, F, 2020).. This disease is caused by the bite of the Aedes Aegypti mosquito which transmits the dengue virus. This event can occur every year and can affect all age groups. The primary DHF case in Indonesia was detailed in Surabaya in 1968. Since it was to begin with found, DHF cases

have continued to increase every year. Therefore, the provision of PSN[1] (Mosquito Nest Eradication) related health education needs to be socialized to the community so that it reduces the occurrence of dengue fever (Kementerian Kesehatan RI, 2021).

The World Health Organization (WHO) states that the number of reported cases of dengue fever has increased more than 8-fold over the last 4 years, from 505,000 cases increasing to 4.2 million in 2019. The number of reported deaths has also increased from 960 to 4032 during 2015. Not as it were is the number of cases expanding as the illness spreads to unused locales counting Asia, but dangerous episodes are moreover happening. The risk of conceivable dengue fever flare-ups presently exists in Asia (WHO, 2019).

The Ministry of Health noted that in 2021 there were 73,518 cases of DHF with a add up to of 705 passings (Kementerian Kesehatan RI, 2021). While the latest data for 2022 the total number of DHF cases in Indonesia up to the 22nd week was detailed at 45,387 cases, with the number of passings from DHF coming to 432 cases. DHF cases have been detailed in 499 regencies/cities spread over 34 areas with passings spread over 162 districts/cities in 31 territories.

Based on the health profile of North Sumatra from 2016-2019 the coverage of DHF cases continues to increase. In 2019 there were 7,854 cases of DHF with a death rate of 37 people. The three districts with the highest coverage of dengue cases are Deli Serdang Regency, Medan City, and Simalungun Regency (Dinas Kesehatan Sumatera Utara, 2016). Meanwhile in 2020 there were 3,191 cases with 12 deaths. In 2021, 2,922 cases of dengue were found, with 14 deaths (Dinas Kesehatan Kabupaten Deli Serdang, 2020).

Deli Serdang Regency is the district with the highest DHF coverage with a coverage of 1,336 cases. Based on the health profile of Deli Serdang Regency in 2019, 1,326 cases of DHF were recorded. The highest coverage was in Tanjung Morawa sub-district with 154 cases, which made Tanjung Morawa Health Center the highest DHF coverage with 92 cases (Dinas Kesehatan Kabupaten Deli Serdang, 2019). In 2020 the number of dengue cases at Tanjung Morawa Health Center was 84 cases, and in 2021 it will increase to 95 cases. While in 2022 until June there were 62 cases and it is expected to increase until the end of the year.

The characteristics and behavior of the Aedes mosquito shape the premise of endeavors to control DHF through natural intercessions and person and community behavior. In the face of an increase in dengue cases, efforts to prevent dengue are being carried out through the 3M Plus PSN campaign, namely by draining, closing, and reusing used goods with economic value. (Kementerian Kesehatan RI, 2021).

Through a circular letter from the Director General of Disease Prevention and Control in 2019 to the Heads of Provincial Health Services throughout Indonesia to support and mobilize the implementation of 3M Plus PSN efforts in their respective areas and to optimize all available resources for anticipatory and mitigating efforts (Harmani, N and Hamal, DK., 2013). DHF outbreak. In addition to the above, the Ministry of Health also made socialization efforts to the community to carry out PSN 3M Plus activities through Jumantik[2] 1 House 1 Movement (Kementerian Kesehatan RI, 2019).

Regulation of the Regent of Deli Serdang no 27 of 2021, concerning the Community Movement for Healthy Living, one of which is manifested through improving environmental quality, as well as increasing healthy living behavior, in which the community is expected to be able to increase knowledge, awareness, will, and ability to live healthy to improve health status (Dinas Kesehatan Kabupaten Deli Serdang, 2011).

[1] PSN is an abbreviation of the Indonesia term "Pemberantasan Sarang Nyamuk".
[2] Jumantik (Indonesia term) is a person who inspects, monitors and eradicates mosquito larvae, especially Aedes Aegypti and Aedes albopictus.

In an effort to support the government in preventing Dengue Fever, the Deli Serdang Health Office through the Community Movement urges the public to do 3MPlus, drain and brush, close water reservoirs, use/recycle used goods, and prevent mosquito bites and breeding.

The role of community participation is not spared from the government in the prevention of Dengue Fever (Kamal, N.N., Dharmadi, M, 2017). Society as a direct subject of course must have a share in reducing DHF cases. Armed with the knowledge and ability to eradicate mosquito nests, it is hoped that the community can carry out mosquito eradication efforts independently (Kusumawardani E, 2012). However, in reality community participation is still low in eradicating mosquito nests which is caused by several factors, namely, the low knowledge of the community regarding dengue prevention programs, and the low ability to monitor larvae at home.

Another factor that influences the incidence of DHF is the role of health cadres such as the role of Jumantik (Juru Larvae Monitor). The role of jumantik in the DHF early warning system is very important in DHF prevention activities because it functions to monitor the presence and inhibit the early development of DHF transmitting vectors.

Another environmental factor that influences DHF is waste management. Improper household waste management actions can become mosquito nests. The method of treating waste by burning it, landfilling it and throwing it into the river is not the right way. It is customary for the community to burn garbage waiting for the garbage to accumulate and enough to be burned. The waiting time interval is by letting the garbage be placed in the open and exposed to rain, these conditions can be used as mosquitoes to incubate their eggs, and if up to 12 days are not processed, the mosquito eggs will turn into adult mosquitoes and increase the mosquito population.

Tanjung Morawa Health Center has 60 cadres/health workers in its working area consisting of 1 male and 59 female. Cadres/health workers are less active in providing information on prevention of DHF and rarely make home visits because this has already been done before. Health cadres play a more active role in informing about KIA or Child Identity Card[3] and posyandu[4] or integrated service post services, there is one surveillance officer according to need. According to the statement of the health worker, the increase in DHF was caused by high rainfall and for days on end so that there were lots of standing water in the surrounding area, apart from that there were several houses that had been abandoned for a long time which resulted in many trees growing wild and becoming mosquito nests. The behavior of the people themselves who are less active in eradicating mosquito nests is also considered to play a role in increasing dengue cases, the community also does not take the opportunity to participate in counseling activities carried out by the health center, as well as each distribution of abate powder by cadres to the community, not a few people do not sprinkle the abate into a well or bathtub that is difficult to drain, for fear that the water will no longer be used.

Based on the foundation that has been depicted, it is essential to conduct inquire about on the variables that influence community participation in the implementation of DHF prevention at Tanjung Morawa Health Center, Deli Serdang Regency.

RESEARCH METHODS

This investigate could be a quantitative consider with a Cross Sectional Consider plan. The population in this study were all people in the working area of the health center with ages ≥

[3] KIA or Child Identity Card is an abbreviation of Indonesia term " Kartu Identitas Anak"
[4] Posyandu is an abbreviation of Indonesia term "Pos Pelayanan Terpadu"

15 years. The total population in Tanjung Morawa sub-district is 137,718. The sample size in this study was 270 people. Primary data is data that is directly obtained from the source and given to researchers (Sugiyono, 2016).

Primary information collection is carried out employing a survey containing questions and answers that have been provided. Secondary data is data obtained to support research results. Secondary data was obtained from Tanjung Morawa Community Health Center, Deli Serdang Regency. All inquire about factors were conducted to induce an diagram of the Inclining Factors (Knowledge, Attitudes), Supporting Factors (Information Sources), Pushing Factors (Stakeholder Roles) and Community Participation in DHF prevention at Tanjung Morawa Health Center, Deli Serdang Regency. Bivariate analysis is useful to see the relationship between independent variables Predisposing Factors (Knowledge, Attitudes), Supporting Factors (Information Sources), Pushing Factors (Stakeholder Roles) Community participation in DHF prevention at Tanjung Morawa Health Center, Deli Serdang Regency. The sort of information is categorical with the investigation method utilized is chi square. In case the p esteem <0.05 implies there's a critical relationship between the two factors.

RESULT AND DISCUSSION

Univariate Analysis Results

Frequency Distribution of variables Predisposing Factors (Knowledge and Attitudes), Supporting Factors (Information Sources), Pushing Factors (Stakeholder Roles and Community participation) in DHF prevention at Tanjung Morawa Health Center, Deli Serdang Regency.

Table 1. Univariate Analysis of Variables Predisposing Factors, Supporting Factors, Pushing Factors in DHF prevention at Tanjung Morawa Health Center

Variable	n=270	Percentage (%)
knowledge		
Well	106	39,3
Less	164	60,7
Attitude		
Well	102	37,8
Less	168	62,2
Information Source		
Well	74	27,4
Less	196	72,6
Stakeholder Role		
Well	49	18,1
Less	221	81,9
Society Participation		
Well	101	37,4
Less	169	62,6

In the Knowledge variable, the results of respondents with less knowledge category were 164 people (60.7%) and good knowledge category were 106 people (39.3%). Based on the attitude variable, there were 168 people (62.2%) in the less category and 102 people (37.8%) in the good category. Based on the source of information variable, there were 196 people (72.6%) in the less category, while in the good category there were 74 people (27.4%). Based on the stakeholder role variable, it was obtained that the Less variable was 221 people

(81.9%) while the good category was 49 people (18.1%). Based on the community participation variable in the prevention of DHF, 169 people (62.2%) were found in the Poor category, while in the good category there were 101 people (37.4%).

Bivariate Analysis

Relationship between Predisposing Factors (Knowledge, Attitudes), Supporting Factors (Information Sources), Pushing Factors (Stakeholder Roles) with Community Participation in DHF Prevention at Tanjung Morawa Health Center, Deli Serdang Regency.

Table 2. Bivariate Analysis of Variables Predisposing Factors, Supporting Factors, Pushing Factors in DHF prevention at Tanjung Morawa Health Center

Variable	Community Participation in DHF Prevention						*p. value*
	Less		Well		Total		
	n	%	n	%	n	%	
Knowledge							
less	104	38,5	59	21,9	163	100	0,705
Well	65	24,1	42	15,6	107	100	
Attitude							
Less	113	41,9	55	20,4	168	100	0,057
Well	56	20,7	46	17	102	100	
Source Information							
Less	131	48,5	65	24,1	196	100	0,027
Well	38	14,1	36	13,3	74	100	
Stakeholder Role							
Less	137	50,7	84	31,1	221	100	0,787
Well	32	11,9	17	6,3	49	100	

The results of the chi-square test showed that of the 4 independent variables, there was 1 (one) variable that had a significant relationship with community participation in DHF prevention, namely information sources (p-value = 0.027). This is indicated by the sig-p value of the information source, which has a p.value of less than 0.05. While the other 3 (three) variables, namely knowledge (p-value = 0.705), attitude (p-value = 0.057) and the role of stakeholders (p-value = 0.787) which are not significantly related to community participation in DHF prevention because the p.value greater than 0.05.

Relationship between Knowledge and Community Participation in the Implementation of DHF Prevention Programs

Information is one of the inherent components that impact inspiration. Information is the result of knowing, and this happens after individuals sense a certain question (Notoatmodjo 2013). Based on the comes about of bivariate investigation utilizing the chi-square test around the relationship between information and community cooperation within the usage of the DHF anticipation program within the working zone of Tanjung Morawa Wellbeing Center, a p-value of 0.705 > α = 0.05 implies that Ha is rejected and Ho is accepted. In this way, it can be concluded that there's no critical relationship between information and community interest within the execution of the DHF avoidance program within the working range of Tanjung Morawa Wellbeing Center.

This is in line with the research of which stated that the results of the relationship test using Chi Square showed a value = 0.227, meaning that there was no relationship between knowledge and practice of DHF prevention. Contrary to research conducted by Santhi et al (2012), there is a relationship between the level of knowledge and PSN activity (p value =

0.00). Respondents who have a good level of knowledge will carry out PSN activities well, and vice versa (Selvarajoo, S., Liew, J. W. K., Tan, W., et al, 2020).

The comes about of the consider appeared that out of 270 respondents with great information of the DHF anticipation program, there were 42 respondents (15.6%). Information is the result of knowing, and this happens after somebody faculties a certain protest. Detecting happens through the human faculties, specifically the faculties of locate, hearing, scent, taste and touch. Most of human information is gotten through the eyes and ears (Notoatmodjo, 2013). Information or cognitive could be a exceptionally imperative space in forming one's activities (over behavior). Without information a individual has no premise for making choices and taking activity on the issues at hand (Green, LW, 1991). Knowledge is a cognitive process of a person or individual to give meaning to the environment, so that each individual gives its own meaning to the environment, so that each individual gives its own meaning to the stimuli received even though the stimuli are the same (Notoatmodjo, 2013). Respondents who know that eradicating mosquito nests is necessary to break the chain of transmission of dengue fever will have good behavior in implementing the DHF PSN (Wuryaningsih, 2008).

This is often in line with investigate conducted by Trisnaniyanti, I., et al (2015) which expressed that the comes about of the examination of the relationship between information and PSN activities gotten a noteworthiness esteem (p) of 0.030. The centrality esteem of the comes about of the investigation of the relationship between information and PSN activities is <0.05, so it can be concluded that there's a noteworthy relationship between information and PSN activities. The comes about of the examination of the relationship between information and PSN actions gotten an chances proportion (OR) esteem of 2.332, which suggests that individuals who have great information have 2.332 times the chance to require PSN activities compared to individuals who have less information. Research from Handayani and Cholik (2019) regarding knowledge, the act of draining the water reservoir and hanging clothes with the incidence of DHF shows that knowledge plays a role in the occurrence of DHF.

The Relationship between Attitudes and Community Participation in the Implementation of DHF Prevention Programs

According to Newcomb (1989) in Notoatmodjo (2013), a social clinician states that demeanor could be a readiness or eagerness to act, and isn't an execution of a specific rationale. State of mind isn't an activity, but an inclination to take after behavior. Attitude is a closed response, not a response to open behavior and can involve opinions or emotional factors to agree or disagree with a particular behavior.

Based on the comes about of bivariate investigation utilizing the chi-square test with respect to the relationship between states of mind and community participation in the implementation of the DHF prevention program in the working area of Tanjung Morawa Health Center, a p-value of 0.057 > α = 0.05 is obtained, which implies that Ha is acknowledged and Ho is rejected. Hence, it can be concluded that there's no significant relationship between states of mind and community interest within the usage of the DHF anticipation program within the working zone of Tanjung Morawa Wellbeing Center.

This is often not in line with investigate conducted by Trisnaniyanti, I., et al (2015) which expressed that comes about of the investigation of the relationship between states of mind and PSN activities gotten a centrality esteem (p) of 0.000. The noteworthiness esteem of comes about of the investigation of the relationship between states of mind and PSN activities is <0.05, so it can be concluded that there's a critical relationship between demeanors and PSN activities. The comes about of the investigation of the relationship

between demeanors and PSN actions gotten an chances proportion (OR) esteem of 15.750, which suggests that individuals who have a great demeanor have 15.750 times the chance to require PSN activities compared to individuals who have a less state of mind. Backed by investigate Aztari (2007) conducted inquire about on the level of information, states of mind and community activities with respect to the avoidance of dengue hemorrhagic fever in Aur Kuning Bukit Tinggi Town. It comes about appeared that there was a critical relationship between demeanor and DHF avoidance.

The results of this study stated that 55 respondents (20.4%) had a good attitude towards community participation in the implementation of the DHF prevention program. The tendency to take action is to find that you like and anticipate certain objects, while in a negative demeanor there's a propensity to remain absent, maintain a strategic distance from, despise and be distinctive from enjoying certain objects. A few variables impact the arrangement of demeanors, counting individual encounter, other individuals who are considered vital, and social impacts. In the event that the person is really free from all weights or deterrents that can meddled with the expression of his demeanor, at that point it is anticipated that his behavior can appear as a real form of expression.

Relationship between Information Sources and Community Participation in the Implementation of DHF Prevention Programs

Sources of data are everything that gets to be mediator in passing on data, data media for mass communication. Sources of data can be gotten through print media (daily papers, magazines), electronic media (tv, radio, web), and through wellbeing specialist exercises such as preparing held (Notoatmodjo, 2013). Data gotten from different sources will influence the level of one's information. Somebody gets a part of data, so he tends to have broad information. The more regularly individuals studied, information will be way better than fair hearing or seeing (Notoatmodjo, 2013).

Based on the comes about of bivariate examination utilizing the chi-square test with respect to the relationship between sources of data and community interest within the usage of the DHF avoidance program within the working range of Tanjung Morawa Wellbeing Center, a p-value of $0.027 < \alpha = 0.05$ is gotten, which suggests that Ha is accepted and Ho is rejected. Hence, it can be concluded that there's a relationship between the accessibility of data sources and community support within the DHF avoidance program within the working region of Tanjung Morawa Wellbeing Center.

However, this is in contrast to the research who said the results of the statistical tests of this study showed that there was no significant relationship between sources of information and information media obtained by DHF PSN Cadres and the perceptions of DHF PSN Cadres in preventing DHF. Further stated that the comes about of the relationship examination appeared a p esteem of 0.136, at that point it can be concluded that there's no relationship between the accessibility of data offices and the respondents' hones in DHF avoidance.

The results of this study revealed that as many as 131 respondents (48.5%) still had insufficient sources of information because counseling activities (providing information) related to DHF prevention were only carried out if there were people who were infected with DHF, in this case the activities were not carried out routinely. While the availability of information facilities is important, this is due to the existence of information, knowledge will increase and will have an impact on supportive attitudes so that a change in one's behavior will occur. There is a significant relationship between the availability of information and the behavior of eradicating mosquito nests, meaning that by increasing the availability of information about eradicating mosquito nests, there will also be a greater

opportunity for the behavior of eradicating mosquito nests. The results of the logistic regression test were obtained where the availability of information available in eradicating mosquito nests, then it is 5.2 times likely that respondents will carry out the behavior of eradicating mosquito nests with dengue hemorrhagic fever.

Stakeholder Role Relations with Community Participation in the Implementation of DHF Prevention Programs

The stakeholders referred to here are the cooperation of Lurah/ Village Head/ KEPLING/ KADUS and Health Officers/Health Cadres. Based on the results of bivariate analysis using the chi-square test on the relationship between the role of stakeholders and community participation in the implementation of the DHF prevention program in the working area of Tanjung Morawa Health Center, a p-value of 0.787 > α = 0.05 is obtained, which means that Ha is accepted and Ho is rejected. . Thus, it can be concluded that there is no relationship between the role of stakeholders and community participation in the DHF prevention program in the working area of Tanjung Morawa Health Center.

The results of this study were in contrast to research conducted which stated that respondents whose role as health workers was active in eradicating good mosquito nests was 72.3% and the behavior in eradicating mosquito nests was less by 27.7%. The existence of external stimuli (the role of health workers) will affect changes in a person's behavior. Counseling provided by health workers in eradicating mosquito nests in Karangjati Village, Blora District, Blora Regency is assisted by village health cadres and community leaders who will influence changes in community behavior in eradicating dengue fever mosquito nests. This counseling can be in the form of mobile broadcasts about PSN, demonstrations of how to drain and how to give to abate which will influence a person's knowledge and attitude and then become good mosquito nest eradication behavior. The part of wellbeing laborers may be a figure that reinforces or debilitates behavior alter. Counseling given by wellbeing specialists to the community will influence good knowledge and a strong state of mind which is able inevitably result in great behavior to annihilate dengue fever mosquito homes. It comes about of factual investigation appeared a noteworthy relationship (p = 0.0001 / p <0.05) the part of wellbeing specialists with the behavior of killing mosquito homes. Counseling that's regularly given to somebody will influence a person's knowledge the superior and will frame a demeanor. With cases of dengue fever that each year there's continuously somebody to be watchful of dengue fever. In arrange to maintain a strategic distance from dengue fever, somebody will carry out a development to annihilate mosquito homes. The comes about of the calculated relapse test found that the part of wellbeing laborers who were dynamic in killing mosquito homes was 5.3 times more likely to act well in killing mosquito homes when compared to the part of wellbeing laborers who were less dynamic.

The results of this study revealed that 137 respondents (50.7%) said that there was still a lack of the role of stakeholders in encouraging community participation in the implementation of the DHF program in the working area of Tanjung Morawa Health Center. This can be seen from the lack of invitations/appeals from the Lurah (village officials) for the community to participate in DHF prevention, as well as the lack of education by health workers/cadres to the community about DHF prevention. According to research results (Cristandy, M., 2018) that there is a relationship between community leaders, village government and prevention of dengue fever by health workers at Tanah Tinggi Health Center. The village government, in this case, has a big influence on the prevention of dengue fever. Collaboration and partnerships with relevant cross-sectors need to use methods that

have the power to change people's behavior in preventing dengue fever (Diyah Safitri Y, Dwinda Intaningtyas E, Choirunnisa N, Harwiyanti NT, 2022).

CONCLUSIONS

1. Community participation in the implementation of the DHF prevention program is less, namely 62.6%.
2. On the predisposing factor, there is no relationship between knowledge and community participation in the DHF prevention program at Tanjung Morawa health center, where the value is p=0.705, and there is no relationship between attitudes and community participation in implementing the DHF prevention program at Tanjung Morawa health center, p=0.057.
3. There is a relationship between support for the availability of information sources in community participation in the implementation of the DHF prevention program at Tanjung Morawa Health Center, where the value of p = 0.027.
4. There is no relationship between the role of stakeholders in community participation in the implementation of the DHF prevention program at Tanjung Morawa Health Center, where the value of p = 0.787.

Suggestion

1. Tanjung Morawa Community Health Center health workers can increase the positive reaction of the community to prevent DHF, by conducting home visits to provide clear education about the DHF prevention program, providing periodic larva inspection visits and inviting each household to have one Jumantik per household to prevent and eradicate both mosquito breeding sites and the presence of Aedes aegypti mosquitoes, provide information to the public in the form of counseling about 3Mplus, and ways to prevent DHF, and urge the public to participate and report if any neighbors or families are infected with DHF.
2. It is hoped that the Stakeholders will work together well in meetings to always encourage the community to take precautions against DHF, and actively invite the community to carry out mutual cooperation activities to clean up the surrounding environment, if necessary hold environmental cleanliness competitions so that the community is motivated to maintain the cleanliness of the surrounding environment .

REFERENCES

Cristandy, Muhammad & Simanjorang, Asyiah.(2018). Faktor yang Memengaruhi Tenaga Kesehatan Dalam Upaya Pencegahan Demam Berdarah Dengue (DBD) di Wilayah Kerja Puskesmas Tanah Tinggi Binjai. *Jurnal Kesehatan Global, 1*(1), 1-13. DOI:10.33085/jkg.v1i1.3965

Dinas Kesehatan Kabupate Deli Serdang.(2011). Profil Kesehatan Kabupaten Deli Serdang.

Dinas Kesehatan Kabupate Deli Serdang.(2019). Profil Kesehatan Kabupaten Deli Serdang.

Dinas Kesehatan Kabupaten Deli Serdang.(2020). Profil Kesehatan Kabupaten Deli Serdang.

Dinas Kesehatan Sumatera Utara (2016). Profil Kesehatan Provinsi Sumatera Utara Tahun 2016.

Diyah Safitri Y, Dwinda Intaningtyas E, Choirunnisa N, Harwiyanti NT. (2022). Pembuatan Lotion Anti Nyamuk dari Batang Serai sebagai Upaya Pencegahan Demam Berdarah oleh Masyarakat Desa Bendiljati Wetan Tulungagung. Bubungan Tinggi: *Jurnal Pengabdian Masyaraka, 4*(2), 714-729. DOI: https://doi.org/10.20527/btjpm.v4i2

Green, LW,(1991).Health Promotion Planning An Educational and Environment Approach. Second Edition. London: Mayfield Publishing Company Mountain View Toronto.

Harmani N dan Hamal DK. (2013). Hubungan antara Karakteristik Ibu dengan Perilaku Pencegahan Demam Berdarah Dengue di Kecamatan Karang Tengah Kabupaten Cianjur Provinsi Jawa Barat Tahun 2013. UHAMKA.

Kamal, N.N., and Dharmadi, M. (2017) Pengaruh partisipasi masyarakat dalam pencegahan Demam Berdarah Dengue (DBD) terhadap peningkatan kejadian DBD di Wilayah kerja Puskesmas Tegallalang I, Bali. Intisari Sains Medis.

Kementerian Kesehatan RI. (2015). Profil Kesehatan Indonesia Tahun 2015. Pusat Data dan Informasi. Jakarta.

Kementerian Kesehatan RI. (2021). Petunjuk Teknis Implementasi PSN 3M-Plus Dengan Gerakan 1 Rumah 1 Jumantik. Jakarta.

Kementerian Kesehatan RI. (2021). Pedoman pengendalian demam berdarah dengue. Jakarta: Direktorat Jenderal Pengendalian Penyakit Dan Penyehatan Lingkungan, Kementerian Kesehatan RI; 2017.

Kusumawardani, Erika, et al. (2012). Penyuluhan Kesehatan Terhadap Tingkat Pengetahuan, Sikap Dan Praktik Ibu Dalam Pencegahan Demam Berdarah Dengue Pada Anak. *Jurnal Kedokteran Diponegoro*, 1(1), 1-15. http://ejournal-s1.undip.ac.id/index.php/medico/article/view/1692

Notoatmodjo, S. (2013).Promosi kesehatan global. Jakarta: Rineka Cipta.

Rahmawan, A., & Ma'ruf, F. (2020). Pencegahan Demam Berdarah Pada Masyarakat Dusun Mongkrong Gunung Kidul. SPEKTA; *Jurnal Pengabdian Kepada Masyarakat: Teknologi Dan Aplikasi, 1*(1), 35–38. https://doi.org/10.12928/spekta.v1i1.2696

Selvarajoo, S., Liew, J. W. K., Tan, W., et al. (2020). Knowledge, attitude and practice on dengue prevention and dengue seroprevalence in a dengue hotspot in Malaysia: A cross-sectional study. *Scientific reports, 10*(1), 95-34. https://doi.org/10.1038/s41598-020-66212-5

Trisnaniyanti, I., Prabandari, YS, Citraningsih, Y.(2010). Perception and Activities of DHF PSN Cadres Against Prevention and Eradication of Dengue Hemorrhagic Fever, Community Medical News , 26 (3), pp. 132–137.

World Health Organisation. (2019). Dengue and severe dengue 2020. WHO Fact Sheet.

Wuryaningsih, T. (2008). Hubungan Antara Pengetahuan Dan Persepsi Dengan Perilaku Masyarakat Dalam Pemberantasan Sarang Nyamuk Demam Berdarah Dengue (PSN DBD) Di Kota Kediri. (Tesis), Surakarta: Program Pasca Sarjana Universitas Sebelas Maret.