ORIGINAL ARTICLE

Reproductive Health Management Program Evaluation of West Sumatera Disaster

APRIANTI[1], ADIAN KHORIONI[2], DIEN GUSTA ANGGRAINI NURSAL[3]
[12]*Faculty of Health Science, Dian Nuswantoro University, Indonesia*
[3]*Department of Health Reproductive, Faculty of Public Health, Andalas University*
Correspondence to Aprianti email: apranti@dsn.dinus.ac.id and Adian Khoironi email: adian.khoironi@dsn.dinus.ac.id

ABSTRACT

Background: Disaster Reproductive health programs are important because of its adversely affected vulnerable groups, such as pregnant women, infants, toddlers, adolescents, and the elderly, some facts show that they were still neglected.
Aim: To evaluate the reproductive health management program when disasters occur in West Sumatera.
Methodology: The study was conducted by both quantitative and qualitative approaches. Quantitative data was collected through distributing questioner and qualitative data was obtained by in-depthinterviews, Focus Group Discussion, and document review. Data analysis with contents analysis study was held in March until August 2019 in five districts with a high number of disasters in 2018 those were Bukittinggi, Sijunjung, Solok, Solok Selatan, and Padang Pariaman District of West Sumatera. Informants were determined by purposive sampling.
Results: The result shows that 81,4% of women of childbearing age and 80% of young women were not able to access reproductive health services when the disaster occurs. In the input component, there was no policy for reproductive health, human resources have double responsibility and there was not any coordinator for health reproductive programs in primary health care, the fund came from disaster management funds, and used an existing facility and infrastructure only. In the process component, the plan for the reproductive health programs does not exist yet, no team was formed yet, the implementation of reproductive health services in a disaster such as; data collection, assessment of needs, reproductive health care, and monitoring will be done after a disaster. In the output component, the coverage of indicators for women of childbearing age has been well-served, but not for young women.
Conclusion: All of the data revealed that Management of health reproductive programs when disasters have not adequate in terms of inputs, processes, and outputs. Moreover, the recommendation should be given to the West Sumatera Health Office to improve the management of reproductive health programs and increase promotion for reproductive health services when disaster occure.
Keywords: HealthReproductive , Disaster, Management, Indonesia

Commented [MOU1]: Disaster Reproductive health programs are important because of its adversely affected vulnerable groups, such as pregnant women, infants, toddlers, adolescents, and the elderly, some facts show that they were still neglected. The aim of this study was to evaluate reproductive health management program when disasters occur in west sumatera.

INTRODUCTION

Indonesia is a country prone to natural disasters. The confluence of the four tectonic plates, namely the Asian plate, the Australian plate, the Indian Ocean plate, and the Pacific Ocean plate, and there is a volcanic belt that extends from the islands of Sumatra-Java-Nusa Tenggara-Sulawesi in the southern and eastern parts of Indonesia, which is one of the factors that are prone to disasters in terms of geographical. In climatic terms, Indonesia has a tropical climate and has two seasons,summer and rainy season with changes in weather, temperature, and wind direction which are quite extreme, causing disasters such as floods, drought, landslides, and forest fires[1].

Based on the Indonesian Disaster Information Data, during the last three years, the incidence of disasters in Indonesia has increased, in 2015 as many as 1694 disasters increased to 2306 disasters in 2016 and in 2017 increased to 2,862 disasters. West Sumatra Province is included in 10 regions in Indonesia and second place for Sumatra Island which has the highest disaster incidence rate, 302 incidents from 2014 to 2018. In 2017 there were 725 disasters in West Sumatra, with 12 districtsexperiencing affected by displacement. The five districts with the highest number of displacement are Sijunjung Regency, Solok Regency, Padang Pariaman Regency, Bukittinggi City, and Solok Selatan Regency[2].

The disaster has created a health crisis that has resulted in paralyzed health services, casualties, displacement, nutritional problems, lack of clean water, environmental sanitation problems, infectious diseases, and mental health problems, as well as problems with reproductive health services. Reproductive health is a human right that must be fulfilled in any situation, including disaster situations. However, reproductive health services during disasters are often neglected and are not a top priority. There will always be pregnant women, mothers giving birth, newborn babies, and young women who need help such as providing Antenatal Care services and special needs for young women[3].

The impact of the lack of reproductive health services during a disaster is to increase the risk of maternal and newborn deaths, an increase in the number of unwanted pregnancies, an increase in HIV transmission, and an increased risk of sexual violence. Results of a study conducted by Anwar in Pakistan showed that post-earthquake reproductive health events along with economic deprivation, lower family support, and poorer access to health care facilities explain a significant proportion of the differences in clinical experience of depression and anxiety levels. For example, women who lose resources to survive, are separated from their families and experience reproductive health events such as stillbirth, have had an abortion, experience vaginal discharge, or experience

genital ulcers, which is a significant risk of depression and anxiety[4]. Several previous studies related to this. handling of women's reproductive health as a result of natural disasters has been carried out. Swatzyna et.al., 2013 in their research that used data from 128 developing countries showed that there were significant impacts caused by disasters and conflicts on reproductive health risks. Handling by implementing reproductive health program management in each country is highly dependent on the economic conditions of these countries[5]. Furthermore, Sorabizadeh et al., 2016, in their research using the Graneheim approach method to analyze interview transcripts, one of the goals to analyze the effects resulting in post-disaster reproductive health[6]. His research shows that health care that is focused on women can reduce the impact of prolonged pathetic trauma, and can provide a sense of protection until after a disaster. In a different study, Zotti et al., 2013 made a systematic review using a study method by looking at three exposures that occurred in women due to disasters where the result of this exposure showed a decrease in population due to disruption of women's reproductive health as a result of the disaster. The PRAMS (Pregnancy Risk Management Monitoring System) method has been adapted to obtain complete data in the process of assessing and monitoring the impact of disasters on women's reproductive health[7,8].

The World Health Organization states that inan emergency where demands for health services are high and time and resources are limited, reproductive health services are prioritized based on saving lives, optimizing scarce resources, and responding to the needs of the people affected. The Minimum Initial Service Package in Indonesia describes the main reproductive health priorities expected in an emergency to identify organizations and individuals who will be facilitated in coordination and implementation of the minimum initial service package, Preventing and managing the consequences of sexual violence, Reducing HIV transmission, Preventing maternal morbidity and infant mortality, Planning for the provision of comprehensive reproductive devices, health services are integrated into primary health care as soon as possible[9,10]

Based on the results of previous research and strengthened by an initial survey at the Regional Disaster Management Agency of West Sumatra Province regarding reproductive health problems during a disaster, there was no specific policy on reproductive health during a disaster and IDP data was also not available based on the division of community groups such as women of childbearing age, pregnant women, adolescents, and the elderly. Therefore, this study aims to evaluate the management of reproductive health programs during the disaster in West Sumatra in 2019 using a systems approach consisting of input, process, and output components[11].

METHODOLOGY

It was mixed-method research. Quantitative methods are used to describe reproductive health services during a disaster based on the perceptions of women of childbearing age and young women. Furthermore, qualitative research with a case study approach uses a systems approach theory. The research was conducted from March to September 2019. The research was carried out in five districts in West Sumatra, Solok, Bukittinggi, Solok Selatan, Sijunjung, and Padang Pariaman district[12,13].

The population in this study were all women of childbearing age and young women who were affected by disasters in five districts in West Sumatra. The number of samples in this study was 97 consisting of women of childbearing age and young women. The selection of respondents was carried out through proportional random sampling, where each respondent was promoted to each district.

Furthermore, qualitative informants were selected by purposive sampling. Collecting data by using in-depth interviews with main informants and triangulation informants. The main informant in this study was the reproductive health coordinator at the district health office. Triangulation informants are the Head of the Disaster Management Section of the District Social Service, the Head of the Regional Disaster Management Agency Evacuation and Logistics Division, the Head of the Primary Health Care. In addition to source triangulation, method triangulation was also carried out, focus group discussions with eight fertile women with inclusion criteria: Areas affected by disasters, able to communicate well, have physical and spiritual health, and are married. And then a focus group of eight young women was held with inclusion criteria: Areas affected by the disaster, able to communicate well, have physical and spiritual health, and have experienced menstruation. The quantitative data analysis performed was univariate analysis, which was descriptively presented in tabular form. Qualitative data were processed based on the characteristics of this study using thematic content analysis methods.

RESULT

The descriptive analysis of the research is presented in table 1 below

Table 1 Disaster Data in West Sumatra in 2018

Regency	Disaster	No affected (House)	Duration in Shelter
Padang Pariaman	Flood	64	1 Month
Solok	Flash Flood	421	1 weak
Solok Selatan	Flash Flood	2000	1 weak
Sijunjung	Flash Flood	47	1 weak
Bukittinggi	Flood	78	1 weak

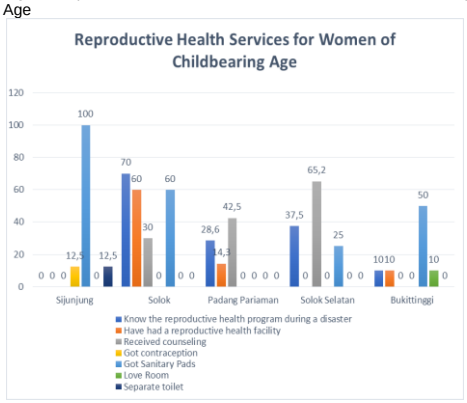
Based on table 1, it is known that in 2018 the natural disasters that were most affected in West Sumatra were floods and flash floods. The most affected regency experiencing damage is Solok Selatan district with 2000 houses affected. Furthermore, the longest duration of refuge is during the flood disaster in Padang Pariaman district, which is for one month.

Commented [MOU4]: Standart pemilihan metode, berikan sedikit referensi

Commented [MOU2]: Tambahkan paragraf berisi gap penelitian dari penelitian sebelumnya

Commented [MOU3]: Reliable data obtained by both quantitave and qualitative methode involved some respondents

Fig. 1: Reproductive Health Services for Women of Childbearing Age



The youngest age of the women of childbearing age is 26 years old and the oldest is 49 years old with the majority of high school education level and the occupation of all respondents is as housewives. Based on table 2. Respondents who knew about the existence of a reproductive health program during a disaster were mostly in Solok Regency was 70%, and those who had received reproductive health facilities were 60%. Meanwhile, in Sijunjung Regency, all respondents were not aware of the existence of reproductive health program services during the disaster and did not receive any information on reproductive health, however, they claimed to have received contraceptives was 12.5% and all respondents received sanitary napkins. Then the respondents in other districts did not get contraceptives. Furthermore, all respondents from five regencies in West Sumatra admitted that there was no love room when they lived in the refugee camps, toilets were not separated between men and women.

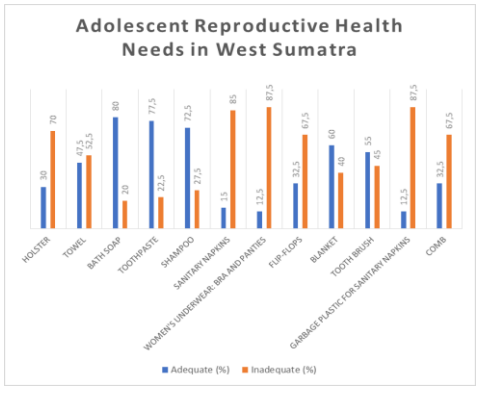


Fig. 2: Adolescent Reproductive Health Needs in West Sumatra

The teenage respondents were 15 years old on average with the youngest age range being 12 years old and the oldest being 19 years old with the majority of high school education levels. Based on table 3, it is known that the reproductive kits that have not been given to young girls are women's underwear (87.5%), plastic waste for sanitary napkins (87.5%), and sanitary napkins (85%).

The quantitative data found were then followed by qualitative data collection to obtain data on the implementation of reproductive health programs during a disaster from a stakeholder perspective. Based on the results of interviews with informants regarding policies on reproductive health programs during disasters at the Health Office, Primary Health Care, Regional Disaster Management Agencies, and Social Services in five districts/cities in West Sumatra, they do not have their policies regarding reproductive health at the time of the disaster. The guidelines that have been used as a reference are guidelines on disasters, namely from Law No. 24 of 2007 on disaster management, MISP guidelines (Minimum Initial Service Package).

The availability of human resources specifically for reproductive health is not yet available in all districts/cities. Meanwhile, information from the Health Office of the District of Padang Pariaman received training related to reproductive health during a disaster, but during the implementation, they did not function as reproductive health officers during the disaster. Furthermore, an informant from the District Health Office of Solok provided information that the special reproductive health officer during the disaster should have been at the Primary Health Care level and numbered two people. Its main task is to coordinate with primary health care, the availability of infrastructure, and logistics.

Regarding funds, there is no special budget for reproductive health at the time of a disaster, however, there is the availability of funds as a whole during a disaster, some are already sufficient, some are not sufficient and all depend on the occurrence of the disaster. However, in Padang Pariaman District, the overall availability of funds during a disaster at the Health Office and Social Services is not sufficient, however at the Regional Disaster Management Agency and Primary Health Care it is sufficient. The budget for disaster management comes from the Health Operational Costs, the State Budget and Expenditure Budget, and the Regency Regional Budget and Revenue.

There is no special planning for reproductive health at the time of disaster. Planning activities in general for disaster events are the preparation of work plans and preparation of budget plans. In Sijunjung District, special planning for reproductive health programs at the time of the disaster was still in the form of socialization and was not in writing yet, and was still included in the general health management planning proposal.

There is no specific organizational structure for reproductive health during a disaster at the Health Office, Primary Health Care, Social Services, and Regional Disaster Management Agencies. Meanwhile, those involved in managing the reproductive health program during a disaster are the holders of the Maternal and Child Health program. Meanwhile, at the time of the disaster,

Commented [MOU5]: Furthermore, to support the quantitative data that has been obtained, qualitative data collection was carried out to obtain information about the implementation of reproductive health programs during a disaster from the stakeholder perspective.

Commented [MOU6]: In the context of providing funds, there is no special budget for reproductive health in the event of a disaster. Funds provided by the government constitute funds for all disasters, the amount of which may not be sufficient for every aspect. In the case in Padang Pariaman, the overall availability of funds at the time of a disaster at the Health Office and Social Services was not sufficient, however the funds at the Regional Disaster Management Agency and Puskesmas were sufficient. Disaster management budget comes from the Health Operational Costs, the State Revenue and Expenditure Budget, and the Regency Regional Revenue and Expenditure Budget

Bukittinggi was the main command responsible for reproductive health issues under the Regional Disaster Management Agency

Implementation is an activity that includes direction, coordination, guidance, mobilization, and supervision. To mobilize and direct human resources in the organization, the role of leadership, staff motivation, cooperation, and communication between staff are things that need the attention of organizational managers

Based on the results of the Focus group discussion conducted with informants, it is known that the informants did not hear or know about the existence of reproductive health services during the disaster but only knew about the existence of health services in general. Meanwhile, based on a Focus Group Discussion conducted with a group of young women, they stated that they had heard about reproductive health from school lesson, but did not know for sure about reproductive health, there were still those who did not know about reproductive health and did not get information when a disaster occurred.

The results of the Focus Group Discussion that had been carried out to the community, women of childbearing age that when a disaster occurred, they were not given special services for reproductive health, only general health examinations in the form of tension checks and also the administration of medicines. Meanwhile, based on the results of a Focus Group Discussion with young women, the reproductive health services they received during a disaster were only in the form of tablets and sanitary napkins.

Based on the Focus Group Discussion conducted by Women of Childbearing Age, it was stated that officers from the Health Office, Primary Health Care, Regional Disaster Management Agency, and Social Services went directly to the field to help victims such through health checks, health posts, rubber boats for the evacuation of victims, rice packs, then logistics in the form of kits containing equipment such as baby diapers and sanitary napkins, but from the results of the Focus Group Discussion conducted most of the residents got baby diapers, canned food and sanitary pads that had expired so they could not be used.

The results of the Focus Group Discussion with women of childbearing age and young women were different from the information provided by stakeholders. The coverage of reproductive health program indicators during a disaster, according to stakeholders, has received good services and their needs have been met. The things that need to be improved are that in planning it must be improved, both in terms of infrastructure and from reporting, as well as more coordination with various sectors involved in disasters.

DISCUSSION

Input: There is no specific policy for reproductive health services during the disaster in West Sumatra Province. The guidelines used are based on Law Number 24 of 2007 concerning disaster management and the Minimum Initial Service Package[14]. Siti Nuruniyah also expressed the same opinion. In 2014, in his research on reproductive health services for refugees, it was stated that the basis for the policy used was based on Law Number 24 of 2007 concerning disaster management and regional regulation. No. 31 of 2010 concerning emergency response, but policies in the form of standard operating procedures do not yet exist[15]. Therefore it is necessary to immediately formulate a special policy on reproductive health during a disaster for the government in West Sumatra because West Sumatra province is a disaster-prone province.

Not all of the human resources involved in the reproductive health program at the time of the disaster had special personnel for reproductive health at the health office-level whose duties were concurrent, the performance of the officers was by following under their competence and educational background, health workers had received health emergency response training and also have known the Minimum Initial Service Package and the kit. Regional Disaster Management Agency and Social Services personnel are involved in the distribution of reproductive health kits during disasters. Meanwhile, there are not all special people at the primary health care level in the five districts, for the implementation of activities carried out by doctors, midwives, and nurses who have tasks and have not received special training on reproductive health management during a disaster. In line with Siti Nuruniyah's research in 2014 which stated that human resources were not specifically available for reproductive health services for refugees, health human resources took care of all health problems as a whole in refugee camps[15]. Based on the results of research conducted by Sanaz Sohrabizadeh in 2018 concerning reproductive health in a disaster in Iran states that health care providers are not trained in dealing with cases of sexual violence in disaster areas so that this person does not know what action to take[6]. According to the Minister of Health Decree No.066 regarding Resource management guidelines Health human in disaster management, that a health human resource is someone who works actively in the health sector, whether they have formal health education or not, which for certain types requires authority in carrying out health efforts. To increase the competence of health human resources in crisis management due to disasters, special training for reproductive health is needed, namely Neonatal Obstetric Services. Basic Emergency and training to combat violence against women and children for doctors, nurses, and midwives[16]. Based on the Minimum Initial Service Package manual, a coordinator of reproductive health services in emergency response situations must be assigned to coordinate cross-program, cross-sectoral, local institutions, and internationally in the implementation of reproductive health to ensure reproductive health is a priority service. A reproductive health coordinator is a person who is responsible for handling reproductive health. The reproductive health coordinators at the provincial and district levels come from the Local Health Office or Maternal and Child Health and know about the Minimum Initial Service Package for reproductive health. In the District Health Office of West Sumatra, no reproductive health coordinator has been established. In Solok Selatan District, the personnel who receive training in emergency response situations are only from the head of the Family Health and Nutrition section. Meanwhile, none of the staff and members received training. For this reason, it is recommended that the Provincial Health Office establish a

reproductive health coordinator in each Regency / City so that when a disaster occurs it will facilitate reproductive health services during a disaster and it is also hoped that all health staff will receive training in emergency response to health crises in disaster situations.

Regarding funds, there is no special budget for reproductive health at the time of a disaster, however, there is the availability of funds as a whole during a disaster, some are already sufficient, some are not sufficient and all depend on the occurrence of the disaster. The budget for disaster management comes from the Health Operational Costs, the State Budget and Expenditure Budget, and the Regency Regional Budget and Revenue. The results of this study are consistent with Sandra Krause's 2013 research on reproductive health services for refugees in Jordan, which states that there are gaps in funding and equipment as obstacles to implementing the Minimum Initial Service Package in Jordan[17]. Based on the Decree of the Minister of Health of the Republic of Indonesia No. 145 of 2007 concerning guidelines for disaster management in the health sector states that the budget for disaster management uses disaster funds or budgets that are allocated respectively by Regency / Province Regional Budget and Revenue. If there is a deficiency, then it can be proposed in stages from the Regency, Provincial and Central levels.

The availability of facilities and infrastructure to support reproductive health during a disaster at the health office and Primary Health Care by utilizing existing facilities and infrastructure at the community health center, however, there is no special infrastructure for reproductive health during a disaster. Meanwhile, the Regional Disaster Management Agency and the Social Service have provided infrastructures such as logistics warehouses, cars, public kitchens, and equipment needed during disaster management in general and there is no special infrastructure for reproductive health. Based on in-depth interviews, the health office, Regional Disaster Management Agency, and social services have made efforts to complement the unavailable facilities by submitting budget proposals at the provincial and national levels. The results of this study are in line with research from Siti Nuruniyah in 2014 which states that reproductive health infrastructure such as sterile delivery kits and emergency maternal neonatal medicines are not yet available in refugee camps and referral cars to limited health service facilities[15]. Chaudary's research results show Health service facilities and infrastructure is a collaborative process in the utilization of all health facilities and infrastructure effectively and efficiently in providing professional services in the field of health services. In reproductive health, facilities and infrastructure should already be at the disaster mitigation stage and need planning in their provision because of their specific nature required when a disaster occurs[18]. Therefore it is necessary to plan for the provision of reproductive health facilities and infrastructure for areas where disasters often occur in West Sumatra so that people affected by the disaster can be immediately helped and served properly.

Process: There is no special planning for reproductive health at the time of disaster. Planning activities in general for disaster events are the preparation of work plans and preparation of budget plans. The results of this study are in line with research conducted by Sanaz Sohrabizadeh in 2018 that there was no pre-disaster planning for reproductive health services at the time of disaster. This can be seen from the lack of coordination between local, regional, and national health systems. Another result of the absence of planning is the lack of equipment and limited human resources faced by health centers in providing reproductive health services in the post-disaster period[6].

There is no specific organizational structure for reproductive health during a disaster at the Health Office, Primary Health Care, Social Services, and Regional Disaster Management Agencies. Meanwhile, those involved in managing the reproductive health program during a disaster are the holders of the Maternal and Child Health program. It is in line with Siti Nuruniyah's research in 2014 that the organizational structure of providing reproductive health services for refugees has not been specifically formed and the person in charge of reproductive health services for refugees is a midwife who manages reproductive health programs.

Implementation is an activity that includes direction, coordination, guidance, mobilization, and supervision. To mobilize and direct human resources in the organization, the role of leadership, staff motivation, cooperation, and communication between staff are things that need the attention of organizational managers. The implementation of reproductive health services at the time of a disaster has been carried out, in coordination with relevant cross-sectors, the tasks are adjusted to their respective fields, however, information or socialization regarding the existence of reproductive health services during the disaster is still lacking, so that reproductive health services provided during the disaster not maximal. Reproductive health services during a disaster are provided for women of reproductive age, such as maternal and child health services for pregnant women, health checks, and administration of medicines. Meanwhile, women of reproductive age who are affected do not receive trauma healing, especially for pregnant women, because during pregnancy their anxiety will increase and will have an impact on the pregnancy and the health of the mother. Affected communities also do not receive education about disaster mitigation and reproductive health services during a disaster. For this reason, it is recommended that the Health Office and Primary Health Care provide trauma healing to communities affected by disasters as well as provide counseling on disaster mitigation and reproductive health services during disasters.

Based on table 2. Respondents who knew about the existence of a reproductive health program during a disaster were mostly in Solok Regency was 70%, and those who had received reproductive health facilities were 60%. Meanwhile, in Sijunjung Regency, all respondents were not aware of the existence of reproductive health program services during the disaster and did not receive any information on reproductive health however, they claimed to have received contraceptives was 12.5% and all respondents received sanitary napkins. Then the respondents in other districts did not get contraceptives. Furthermore, all respondents from five regencies in West Sumatra admitted that there was no love room when they

lived in the refugee camps, toilets were not separated between men and women. Based on table 3, it is known that the reproductive kits that have not been given to young girls are women's underwear (87.5%), plastic waste for sanitary napkins (87.5%), and sanitary napkins (85%).

The results of the Focus Group Discussion that had been carried out to the community, women of childbearing age that when a disaster occurred, they were not given special services for reproductive health, only general health examinations in the form of tension checks and also the administration of medicines. Meanwhile, based on the results of a Focus Group Discussion with young women, the reproductive health services they received during a disaster were only in the form of tablets and sanitary napkins.

Based on the Focus Group Discussion conducted by Fertile Age Women, it was stated that officers from the Health Office, Primary Health Care, Regional Disaster Management Agency, and Social Services went directly to the field to help victims such through health checks, health posts, rubber boats for the evacuation of victims, rice packs, then logistics in the form of kits containing equipment such as baby diapers and sanitary napkins, but from the results of the Focus Group Discussion conducted most of the residents got baby diapers, canned food and sanitary pads that had expired so they could not be used.

The results of this study based on table 2 indicated that there were still many women of reproductive age who did not get reproductive health facilities at the time of the disaster, 81.4%. 97.7% of women of childbearing age did not get contraception at the time of the disaster. All women of childbearing age stated that reproductive health services are very important during a disaster. Meanwhile, young women did not receive reproductive health services at the time of the disaster, but there were already women's special needs such as sanitary napkins. Some of the young women said that the need for sanitary napkins at the time of the disaster was insufficient and some others did not know about the special needs of young women during the disaster. This is because some of the young women do not get information about the needs of young women during the disaster. For this reason, health workers should provide reproductive health services during a disaster to young women such as holding adolescent reproductive health checks, giving Fe tablets, and so on. The results of this study showed that 80% of adolescents never received as many reproductive health services during the disaster.

In the implementation of reproductive health services, what is still lacking is related to providing information to victims if there is a health service for reproductive health. Based on table 2 Women of childbearing age did not know about reproductive health services at the time of the disaster, 69.8%. Sijunjung Regency is a district with all respondents (100%) who did not know reproductive health services during the highest disaster. Besides, 74.4% of respondents also admitted that they did not receive any information on reproductive health during the disaster. Meanwhile, 85% of adolescents never received any information on reproductive health during the disaster. Therefore, it is hoped that health workers in particular will be more active in providing information and counseling to disaster victims regarding reproductive health services during disasters. This is in line with Singh's suggestion to improve access to reproductive health services in times of disaster requiring home visits and peer-led education and counseling, basic health care training, public health workers promoting reproductive health services, integration with HIV services, and discussions on male groups to reduce violence against partners[19].

Supervision for reproductive health programs during a disaster has been carried out regularly every day by a team from the health office and officers from the community health center. Aspects that are monitored include the required health services, the availability of logistics, and the fulfillment of basic needs during a disaster. Supervision in Padang Pariaman and Bukititnggi Districts is carried out directly by visiting the refugee camps for disaster victims by the head of the community health center and the Health Office. This research is different from the results of research conducted by Sanaz Sohrabizadeh in 2018 that the lack of a monitoring system for pregnancy care for women living in disaster areas, especially for women as heads of families, resulted in these women not getting reproductive health services during the disaster[6]. Casey added that program evaluations should be incorporated into more programs to determine how best to serve the reproductive health needs of people affected by natural disasters. Standard program designs should include rigorous program evaluation, and results should be shared. The results of the review show that reproductive health programs can be applied in disaster situaons and that women and men will use reproductive health services if they are of good quality[20].

Based on the Minimum Initial Service Package guidelines, monitoring during emergency response to health crises is carried out periodically after one or two weeks of implementing the MISP for reproductive health. Meanwhile, in the post-crisis stage, monitoring is carried out using existing mechanisms and is used in normal situations, namely the Local Area Monitoring for Maternal and Child Health which is carried out regularly every month. Supervision of reproductive health services at the time of disaster has been carried out but not regularly after the disaster and there is no standard operating procedure for supervision that must be carried out and officers who have the right to carry out supervision[10].

Output: The results of the Focus Group Discussion with women of childbearing age and young women were different from the information provided by stakeholders. The coverage of reproductive health program indicators during a disaster, according to stakeholders, has received good services and their needs have been met. The things that need to be improved are that in planning it must be improved, both in terms of infrastructure and from reporting, as well as more coordination with various sectors involved in disasters.

The coverage of reproductive health program indicators at the time of the disaster had already been implemented for women of reproductive age compared to young women, which were still largely unfulfilled. Besides, reproductive health services provided during a disaster are still not optimal due to a lack of socialization or information regarding the availability of reproductive health services during the disaster. Besides, the reporting flow that is

carried out is from collecting data by officers in the field and then reporting it to the district, from new districts the report is forwarded to the province, but there is no standard time for reporting. In line with the results of Myers' research at the time of the disaster for service delivery in reproductive health programs, weak communication between national and district level stakeholders is inadequate staffing; There are fewer resources and facilities in rural areas[17]. The results of Siti Nuruniyah's research in 2014 stated that the need for reproductive health services in refugee camps, seen from the coverage of Disaster Family service facilities in refugee camps, is available along with health services. The contraceptives that were not yet available in the refugee camp were implants, intrauterine devices, and mini pills. Condoms for the prevention of sexually transmitted infections and HIV / AIDS were distributed at the beginning of the evacuation, but there was no specific distribution record[15]. Meanwhile, the blood transfusion procedure was carried out by following the procedure and a control sheet was in place. In reproductive health during a disaster, supervision is a very important component, so it is hoped that the provincial health offices and related sectors, such as the Provincial Disaster Management Agency, can provide a clear flow regarding the implementation of monitoring of reproductive health programs during a disaster.

CONCLUSION

It is concluded thatIn 2018 the districts that were most affected by the disaster in West Sumatra were Padang Pariaman, Solok, South Solok, Sijunjung and, Bukittinggi districts with disasters that occurred were floods and flash floods.

Judging from the system theory, in the input component there is no specific policy related to reproductive health during a disaster, there is no special reproductive health personnel at the community health center level, while at the district health office-level special officers have concurrent positions.

In the process component, there is no special planning related to reproductive health at the time of the disaster, so that the implementation was limited to providing general health services and distributing logistical assistance. As a result, women of reproductive age and young women who need reproductive health services cannot access these services. The logistics were channeled without going through proper planning so that some residents did not get assistance and some logistics were out of date.

Furthermore, from the output component based on stakeholders, it is sufficient to assist, especially related to reproductive health during a disaster, even though there is no reporting and supervision related to reproductive health service programs during a disaster.

Acknowledgments: The research was supported by faculty of health science Dian Nuswantoro University. The author would like to thank the students of Andalas University for their kind support as well as all informants who dedicated their valuable time to participate in this study.

Conflicting Interests: The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article

REFERENCE

1. Noor D. Pengantar Mitigasi Bencana Geologi. Yogyakarta: Deepublish; 2014.
2. Badan Nasional Penanggulangan Bencana. Data Informasi Bencana Indonesia. Jakarta; 2017.
3. Suryati. Gambaran Kebutuhan Dan Perilaku Remaja Putri Pada waktu Menstruasi dalam situasi darurat bencana di sumatera barat. J Kesehat Masy [Internet]. 2013;7(2):60–5. Available from: http://jurnal.fkm.unand.ac.id/index.php/jkma/articel/view/110
4. Anwar J, Mpofu E, Matthews LR, Shadoul AF, Brock KE. Reproductive health and access to healthcare facilities: Risk factors for depression and anxiety in women with an earthquake experience. BMC Public Health. 2011;11.
5. Swatzyna RJ, Pillai VK. The effects of disaster on women's reproductive health in developing countries. Glob J Health Sci. 2013;5(4):106–13.
6. Sohrabizadeh S, Jahangiri K, Khani Jazani R. Reproductive health in the recent disasters of Iran: A management perspective. BMC Public Health. 2018;18(1):1–8.
7. Zotti ME, Williams AM, Robertson M, Horney J, Hsia J. Post-disaster reproductive health outcomes. Matern Child Health J. 2013;17(5):783–96.
8. Goodman A. In the Aftermath of Disasters: The Impact on Women's Health. Crit Care Obstet Gynecol. 2016;02(06):1–5.
9. WHO. Integrating sexual and reproductive health into health emergency and disaster risk management [Internet]. Geneva; 2012. Available from: https://www.who.int/hac/techguidance/preparedness/SRH_HERM_Policy_brief_A4.pdf
10. Kementerian Kesehatan RI. Pedoman Pelaksanaan Paket Pelayanan Awal Minimum (PPAM). Jakarta: Direktorat Jenderal Bina Gizi dan Kesehatan Ibu dan Anak; 2014.
11. Ghony D. Dasar - Dasar Penelitian Kualitatif. Surabaya: PT. Bina Ilmu; 1997.
12. Sastroasmoro S. Dasar - Dasar Metodologi Penelitian Klinis. Jakarta: Binarupa Aksara; 1995.
13. Saryono. Metodologi Penelitian Kualitatif dan Kuantitatif dalam Bidang Kesehatan. Yogyakarta: Nuha Medika; 2013.
14. Departemen Hukum dan HAM. Undang - Undang Nomor 24 Tahun 2007 Tentang Penanggulangan Bencana. Jakarta; 2007.
15. Nuruniyah S. Evaluasi Pelayanan Kesehatan Reproduksi Bagi Pengungsi Rawan Bencana Erupsi Merapi Evaluation of Health Reproduction for Refugee. Ners dan Kebidanan Indones. 2014;2(2):57–61.
16. Kementerian Kesehatan RI. Keputusan Menteri Kesehatan RI Nomor 066/MENKES/SK/II/2006 tentang Pedoman Manajemen Sumber Daya Manusia (SDM) Kesehatan Dalam Penanggulangan Bencana. Jakarta; 2006.
17. Myers A, Sami S, Onyango MA, Karki H, Anggraini R, Krause S. Facilitators and barriers in implementing the Minimum Initial Services Package (MISP) for reproductive health in Nepal post-earthquake. Confl Health. 2018;12(1):1–9.
18. Chaudhary P, Vallese G, Thapa M, Alvarez VB, Pradhan LM, Bajracharya K, et al. Humanitarian response to reproductive and sexual health needs in a disaster: the Nepal Earthquake 2015 case study. Reprod Health Matters. 2017;25(51):25–39.
19. Singh NS, Aryasinghe S, Smith J, Khosla R, Say L, Blanchet K. A long way to go: A systematic review to assess the utilisation of sexual and reproductive health services during humanitarian crises. BMJ Glob Heal. 2018;3(2):1–19.
20. Casey SE. Evaluations of reproductive health programs in humanitarian settings: A systematic review. Confl Health. 2015;9(1):1–14