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Healthy Family Indicators in North Lombok Regency

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ABSTRACT

Background: There are twelve Healthy Family Indicators (HFI) used to assess family health status. The increase in the HFI is one of the parameters for the success of The Indonesia Health Program with a Family Approach (PIS-PK). These HFI can increase if there is an increase in public awareness of family health and the right policies from the health services or government in the areas related to health. To make an appropriate policy, accurate HFI survey data are needed that can be used as a guideline to make health-related policies and implement health policies in accordance with problems in the community based on the results of the survey of HFI, especially for family members from vulnerable groups in the context of the post disaster/crisis phase. **Objectives:** This study aimed to assess the achievement of HFI in the North Lombok Regency. This study is the first to be conducted with the aim of describing the HFI achievement of families who have family members from vulnerable groups in the post disaster/crisis phase. **Method:** This descriptive study was conducted to assess the health status of families in the North Lombok Regency area. The subjects of the study were families who had family members from vulnerable groups selected by purposive sampling. Data retrieval was conducted by interviewing participants who met the criteria for inclusion and exclusion with the guidance of HFI questionnaires by trained cadres. The data obtained were analyzed using Microsoft Excel and STATA 16 programs. **Results:** There were 292 families in 6 villages who met the criteria for inclusion and exclusion. The results of this study showed that 6.51% of family respondents belonged to the category of unhealthy families, 57.53% were pre-healthy families and 35.96% were healthy families. The highest percentage of healthy families is in Santong village (44.93%, n=69), while the highest percentage of unhealthy families is in Santong Mulia village (19.23%, n=26). The average percentage of healthy families in six villages is 34.02% while the average percentage of unhealthy families is 8.53%. **Conclusion:** Most families in vulnerable groups in the North Lombok Regency are pre-healthy families.

Surveys of Healthy Family Indicators can identify the families who need social supports, especially those with family members who are in vulnerable groups and are recovering from disasters and crises.

Keywords: *healthy family indicator, family, vulnerable groups*

BACKGROUND

Natural disasters in the Lombok region in 2018 provided many lessons, especially regarding post-disaster health management. Various studies on diseases due to natural disasters show that the clinical phase or the phase that has the highest rate of disease spread in a disaster is the post-disaster phase and the disaster recovery phase. In the post-disaster phase, infectious diseases that are easily infected are infectious diseases due to air, water, and food. This condition is related to poor refugee conditions. Meanwhile, in the disaster recovery phase, infectious diseases with long incubation periods begin to manifest with clearly defined clinical symptoms.

According to the Regulation of the Head of the National Disaster Management Agency Number 75 in 2019, there are three phases of disaster management, namely the pre-

crisis phase, the crisis phase and the post-crisis phase. For approximately three years, post-disaster recovery programs are still being conducted in the North Lombok regency, including in terms of health. Improvements to the health care system are ranging from infrastructure to health care systems. So far, the government is still focused on the health facilities side, which plays a role in monitoring public health in its service area but has not touched on increasing the capacity of families in monitoring their health status independently as stated in the healthy family indicators (HFI) survey.

The Indonesia Health Program is one of Nawa Cita's programs, namely improving the Quality of Life of Indonesian People. This program is implemented to improve the degree of health and nutritional status of the

community through health and community empowerment efforts supported by financial protection and equitable health services. Through the Decree of the Ministry of Health of the Republic of Indonesia Number HK.02.02 / Menkes/52/2015, the Indonesia Health Program then became the main program of Health Development achieved through the Strategic Plan of the Ministry of Health in 2015-2019¹.

Efforts to achieve the goals of the Indonesia Health Program are done using the smallest unit of the community, namely the family. The family members consist of father, mother, and son/daughter, who are referred to as the nuclear family. There are also families whose members include grandparents, or other individuals who have blood relations or not (e.g. helpers) who are referred to as extended families. Because the family is the smallest unit of society, the degree of family or household health determines the degree of public health².

In addition, some studies also mention that the family approach is one of the effective efforts to improve health status. Studies in Hong Kong show that family-based interventions have better outcomes for reducing childhood obesity³. One randomized controlled study conducted in the United Kingdom also showed similar findings, where the family approach significantly improved health, physical activity, and confidence⁴.

The Indonesia Health Program with a Family Approach (PIS-PK) that has been implemented by the Indonesian government since 2016 consists of 4 priority programs, including: 1) Reducing maternal mortality; 2) Lowering infant mortality and stunting prevalence; 3) Controlling infectious diseases, especially HIV/AIDS, tuberculosis and malaria; and 4) Controlling non-communicable diseases, especially hypertension, diabetes mellitus, obesity, cancer and mental disorders. From the four priorities above, it was then expanded to 12 main indicators as the main markers of the health status of a family, as follows²:

1. Families join the Family Planning (KB) program
2. Mother gives birth in a health facility
3. The baby gets a complete basic immunization
4. Baby gets exclusive breast milk
5. Toddlers get growth monitoring
6. People with pulmonary tuberculosis get treatment according to standards
7. People with hypertension do regular treatment
8. People with mental disorders get treatment and are not abandoned
9. No family member smokes
10. The family is already a member of the National Health Insurance (JKN)
11. Families have access to clean water facilities
12. Families have access to or use healthy latrines.

The increase or improvement in the HFI criteria assessed from the twelve indicators above is one of the parameters for the success of the PIS-PK. These HFI can improve if there is an increase in public awareness of family health and the right policies from the health service or government

in an area related to health. To make an appropriate policy, accurate HFI survey data are needed that can be used as a guideline to make health-related policies and implement health policies in accordance with problems in the community based on the results of the HFI survey².

North Lombok Regency is one of the districts in the West Nusa Tenggara province that experienced an earthquake in 2018. The region is still trying to recover from the disaster by building infrastructure, including improving the health of its people. These efforts have become more difficult to implement with the challenges faced during the COVID-19 pandemic. Therefore, a strategic approach is needed to improve public health in the North Lombok regency, with an HFI approach in PIS-PK.

According to Law No. 24 in 2007, vulnerable groups to disasters are infants, toddlers, children, pregnant/breastfeeding mothers, people with disabilities and the elderly⁵. The health status of post-disaster families who have members within these vulnerable groups need to be considered more carefully because the quality of life of vulnerable groups, especially the elderly is related to their health status⁶.

This study aimed to assess the achievement of the HFI in North Lombok Regency. From the results of the assessment, it is expected to be the basis for various recommendations and policies to improve the health status of the community in North Lombok regency. This study is the first to be conducted with the aim of describing the health status of post-disaster families who have family members with vulnerable groups.

RESEARCH METHOD

This type of research is a descriptive study to see an overview of the HFI in the North Lombok Region after the earthquake in families who have the representation of vulnerable groups. Families with the representation of these vulnerable groups are families who have family members who are pregnant women, toddlers, and people with disabilities, the elderly, or adolescents. The data collection was conducted using the HFI questionnaire by trained cadres from August to September 2021.

This research procedure began with the sampling process in six villages in the North Lombok regency. Then the selection of subjects with criteria for inclusion and exclusion was done. The selection of subjects was conducted by purposive sampling techniques based on the presence of family members who are in vulnerable groups. After selecting the research subjects, an interview survey was conducted using the HFI questionnaire.

The interview process was conducted by implementing health protocols because it was still in the COVID-19 pandemic. Interviewers and respondents wore masks and kept the required safe distance. After conducting the survey, data were obtained on the characteristics of respondents in families consisting of age, gender, education, and occupation. In addition, data were also obtained on the 12 indicators of HFI scores. The data obtained were then

analyzed using Excel (Microsoft Corp., Redmond, WA) and STATA 16 (Stata Corp., College Station, TX) software.

Univariate data analysis was conducted to examine the characteristics of respondents in families consisting of age, gender, education, and occupation. In addition, univariate data analysis was done at the family level to see the HFI

score. Descriptive statistics were tabulated for analysis.

RESULTS

Characteristics of respondents from North Lombok Regency who participated in this research if sorted by gender, age, marital status, educational status and employment status are listed in Table 1.

Table 1. Characteristics of Respondents in North Lombok Region

No	Characteristics of Respondents	Variables	Number of respondents =292	
			Number	%
1	Sex	Male	253	86.6
		Female	39	13.4
2	Age (years old)	17 – 25	28	9.6
		26 – 35	65	22.3
		36 – 45	73	25.0
		46 – 55	53	18.2
		56 – 65	30	10.3
		>65	41	14.0
3	Marital Status	Not married	5	1.7
		Divorce Live	9	3.1
		Divorce Dead	34	11.6
		Married	244	83.6
4	Education level	Not had formal education	73	25.0
		Not finished elementary school	37	12.7
		Finished elementary school	48	16.4
		Finished junior high school	45	15.4
		Finished senior high school	71	24.3
		Finished diploma I/II/III	8	2.7
		Finished university	10	3.4
5	Occupation	Laborer/ driver	44	15.1
		Sailorman	3	1.0
		Civil srevant / police/ military	4	1.4
		Private	16	5.5
		Retired	0	0.0
		Farmer	146	50.0
		Housewife	36	12.3
		Entrepreneur	42	14.4
		Other	1	0.3

Meanwhile, based on Table 2, the results of this study showed that 6.51% of family respondents belonged to the category of unhealthy families, 57.53% were pre-healthy families and 35.96% were healthy families. The index of healthy families in the North Lombok regency on average is also still in the category of pre-healthy families. Meanwhile, the average healthy family (IKS>80%) is 34.02% with the village with the highest percentage of

healthy family indicators is Santong village (44.93%, n = 69). Meanwhile, the average unhealthy family (IKS<50%) is 8.53% with the village with the highest percentage of unhealthy family indicators is Santong Mulia village (19.23%, n = 26). The following tables and diagrams illustrate the Healthy Families Index (HFI) Score and the classification of healthy families in six villages in the North Lombok Regency.

Table 2. Healthy Family Indicators in North Lombok Regency

Health Family Indicator	North Lombok Regency (village)														Average % / village
	All		Kayangan		Pansor		Salut		Santong		Santong Mulia		Sesait		
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	
Unhealthy family (score index <50%)	19	6.51	3	5.36	5	15.15	3	6.98	2	2.90	5	19.23	1	1.54	8.53
Pre-healthy family (score index 50-79%)	168	57.53	31	55.36	19	57.58	24	55.81	36	52.17	15	57.69	43	66.15	57.46
Healthy family (score index ≥80%)	105	35.96	22	39.29	9	27.27	16	37.21	31	44.93	6	23.08	21	32.31	34.02

Meanwhile, of the 12 main indicators of healthy families in 6 villages in the North Lombok regency, the highest coverage is “families have access to / use clean water facilities” and “childbirth in health care facilities”. Meanwhile, the lowest indicator coverage is “people with severe mental disorders

are treated and not abandoned”. Pulmonary TB sufferers in the last 6 months who received treatment had a percentage of 0% because none of the respondents had TB (Figure 1).

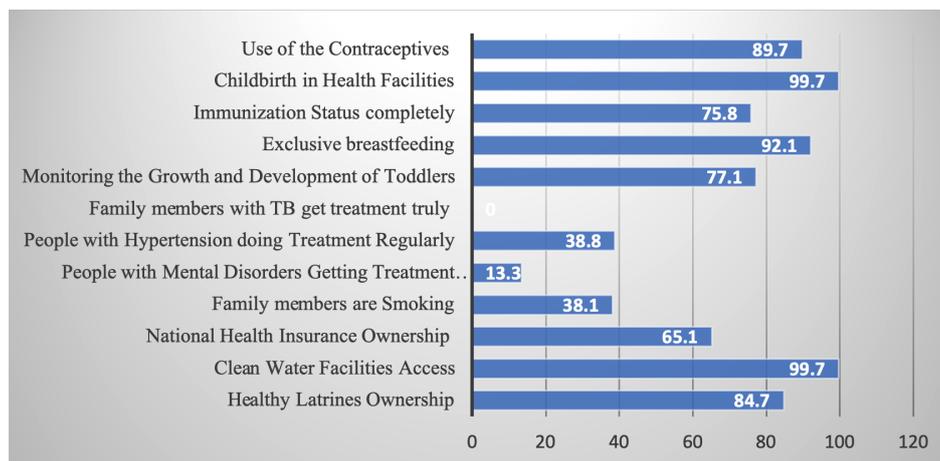


Figure 1. Percentage of Twelve Healthy Family Indicators in North Lombok Regency.

DISCUSSION

The healthy family indicators (HFI) as an index is a calculation to state the health status of a family based on 12 indicators. Meanwhile, the state of each indicator reflects the living and clean behavior conditions of the family. From the results of the study, it was found that respondents in the North Lombok regency were on average in pre-healthy families. The percentage of healthy families in the North Lombok region is 34.02%. In the North Lombok region, Santong village is the village with the highest HFI score and Santong Mulia village is the village with the lowest HFI score.

Meanwhile, based on the coverage of each of the 12 main indicators of healthy families in the North Lombok regency, the highest coverage is “Childbirth in health care facilities”. Meanwhile, the lowest indicator coverage is “people with severe mental disorders are treated and not abandoned”.

Behavior and Environmental Health

Behavior and Environmental Health can be seen from 4 indicators, namely: 1) Families have access to or use healthy latrines, 2) families have access to clean water, 3) no family members smoke, and 4) families become members of JKN / askes⁷.

1. Indicators of Healthy Latrines Ownership

In the North Lombok regency, 86.09% families already have healthy latrines with the highest village being Kayangan village and the lowest village is Pansor village. However, this result is lower than the average in West Nusa Tenggara Province based on a national Basic Health Research study⁸.

In addition, in the North Lombok regency, when asked in more detail about the criteria for the latrine building owned, it is known that there are still many latrines that have not met the criteria of healthy latrines with the most common criteria being the distance of fecal wells and clean water sources <10 meters, there are no lids on latrines holes, and latrines cause unpleasant odors. These poor sanitation conditions show that although most types of latrines owned are already healthy latrines / sanitizers, but the actual completeness in the criteria of building healthy latrines is still lacking.

Furthermore, the results obtained data that showed most of the respondents in North Lombok regency already have the habit of defecating in the right place and washing their hands after defecation. Only a small percentage of the respondents are still commonly defecating in the river and neighboring latrines on the ground where there are no facilities or it is their customs, especially in the village of Santong, and Santong Mulia in North Lombok regency. This is in accordance with studies that explain one of the challenges of the use of healthy latrines is the culture of people who prefer to defecate (BAB) in arbitrary places so as to make people reluctant to make latrines in their respective homes⁹.

2. Clean Water Facilities Access Indicator

Meanwhile, from the indicator of access to clean water in the North Lombok regency where the average has reached 99.69% with almost all villages having 100% access to clean water, while the lowest village with clean access is Santong Mulia village. For domestic drinking purposes in North Lombok regency, the majority use protected spring water and tap water / PDAM. Furthermore, for cooking purposes, personal hygiene and washing in the household, the majority use drill wells / pumps, tap water / PDAM, and protected spring water sources. These results exceed the percentage of households that have access to drinking water considered to be safe for the communities of West Nusa Tenggara⁸.

3. Smoking Indicators

Meanwhile, from the smoking indicator, obtained in the North Lombok regency, the average percentage of the respondents who smoked was 59.3% with the highest village being Pansor village. As for the average cigarette smoked every day, it is as many as 6 cigarettes per day with the highest number is Santong Mulia village which is 7.75 cigarettes per day. In addition, almost all respondents who smoke also are used to smoking in the house / closed space, also causing passive or second-hand smoke exposure for those who participate in inhaling cigarette smoke because they are close together in a closed area.

Smoking has a negative impact on both active and passive smokers. Side effects include increased susceptibility to infectious and non-communicable diseases, such as

chronic obstructive pulmonary disease, bronchitis, lung cancer, hypertension, and diabetes mellitus. One cigarette contains approximately 4,000 types of harmful substances and carcinogenic substances, including nicotine substances that can cause addiction. If someone becomes addicted, it will be difficult to stop, therefore prevention of smoking from an early age is essential. Nicotine can also stimulate the sympathetic nerves so that it triggers faster heart work, so that the blood circulation flows faster and there is a narrowing of blood vessels. Also, there is role of carbon monoxide that can replace oxygen in the blood and force the heart to work harder to meet the body's oxygen needs which can contribute to hypertension¹⁰.

4. *National Health Insurance Ownership Indicator*

From the indicator of ownership of health insurance or National Health Insurance (JKN) in the North Lombok regency, an average of 65.05% have insurance with the highest village being Salut village and the lowest is Santong Mulia village. This percentage is lower than JKN coverage in the West Nusa Tenggara Province⁸.

Of the respondents who have health insurance in the North Lombok regency, most have always taken advantage of it. For respondents who do not have health insurance, the most common reasons are the difficulty of obtaining the referrals for the government-guaranteed insurance and inability to afford to pay the cost of the premiums.

Having JKN insurance or private health insurance is important and beneficial both medically and non-medically. Health insurance (Askes) can provide access to direct treatment when experiencing certain diseases or accidents. Health insurance also have comprehensive benefits, from preventive, promotive, curative, and rehabilitative. In addition, health insurance provides protection from economic problems due to disease¹¹.

Some of the factors that cause low National Health Insurance (JKN) participation in rural areas include low public knowledge, lack of socialization, lack of health promotion media, family heads not knowing the importance of JKN, and low levels of education and economy¹². The same factors also affect the compliance of independent participants in paying JKN dues for non-PBI participants¹³.

Accordingly, efforts that can be made to increase JKN participation include providing education on the importance of having JKN, socializing how to take care of its administration, and also being able to cooperate with BPJS to facilitate managing JKN ownership.

Use of the Contraceptives (KB)

The highest percentage of family members using KB is in Sesait Village and the lowest is in Salut Village. The low participation rate of KB including the lack of Long Period Contraceptives method (MKJP) acceptors can be caused by several factors. The majority of reasons for families to not use contraceptives are fear of side effects and age factors.

In addition, some strategies that can be done to increase birth control acceptors include to bring birth control services closer in the community. These efforts can be done

as outreach programs, including by providing a KB Service Unit Car (MUYAN KB) to reach difficult areas and the areas that do not have competent health workers (BKKBN Head Regulation No. 10 of 2018). Bringing KB services closer can also be done by providing KB services in Posyandu. In this case, Posyandu in both research areas have provided birth control services even though the percentage of access is still minimal when compared to other postal services such as for toddlers. Thus, KB services in Posyandu can be further developed to improve KB acceptors, especially MKJP.

Childbirth in Health Facilities

The majority (99%) of labor in North Lombok regency was accomplished in health facilities and the figure has exceeded the maternity coverage of West Nusa Tenggara province in 2020, which is 96.4%⁸. But there is still labor outside the health facilities, especially in Sesait Village since there are family problems involving family members being left behind and some feeling no need to go to the health facility. Thus, education and assistance in childbirth planning and complication prevention (first-aid) needs to be further intensified in families.

Immunization Status

The type of immunization included as an indicator of a healthy family is a complete basic immunization in children under five. Thus, this study only examined these basic immunizations. The average completeness of toddler immunization in North Lombok regency has reached 79.80%. But this figure is also still much lower than the overall immunization coverage reported in West Nusa Tenggara in 2020, which was 99.1%⁸. The highest percentage of immunization is in Santong Mulia Village and the lowest in Santong Village. The main reason families do not immunize toddlers in their families is not knowing what to immunize, there are immunization delays due to empty vaccines and pandemic constraints and due to business and trust / culture factors.

The factors that cause the low immunization coverage are in accordance with the 2020 Indonesian Ministry of Health Performance Report which includes: 1) The occurrence of the COVID-19 pandemic, where some immunization services in the area have stopped and there is a fear of parents to bring their children to health services for immunization; 2) The lack of availability of the IPV vaccine (injectable polio) since the end of 2019 until the 4th week of September 2020, where the vaccine is one of the vaccines included in the calculation of complete basic immunization indicators; 3) Geographical conditions in some hard-to-reach areas cause immunization services cannot be optimal; 4) The quality of immunization services has not been evenly distributed, where there is still a gap in the competence of officers between one area and another area; 5) The recording and reporting system has not been running optimally, where there is no electronic recording and reporting system implemented nationally; 6) There are still many negative issues about immunization (black campaign) circulating in the community through various media; and last but not least, 7) Law has not been enforced in the regions that do not achieve / perform in accordance

with applicable regulations or to anti-vaccine individuals / communities⁸.

Exclusive breastfeeding

In general, the average exclusive breast milk coverage in North Lombok Regency has exceeded the percentage of provincial coverage. The percentage of exclusive breastfeeding is reaching 90% in North Lombok regency⁸.

Monitoring the Growth and Development of Toddlers

In the North Lombok regency, the average percentage of toddler weighing in the region is still 81%. This figure is higher than the overall regional report in North Lombok, which is still 72.1%. However, the number of measurements of the length / height of toddlers only reached 64.78%. The highest percentage of toddler growth monitoring is in Santong Mulia Village and the lowest in Salut Village. The main reason families do not do toddler weighing in Posyandu / health facilities is that they forget / do not know the schedule and assume the child is too old. As for the measurement of length / height, the majority of respondents stated that forgetting / not knowing the schedule and measuring instruments are not available. Based on the results of the Nutrition Surveillance Survey data in 2020 on growth monitoring activities entered into the e-PPBGM application, West Nusa Tenggara Province is the region with the highest percentage of very short and short stature in toddlers, which is 19.4% and the proportion in toddlers is 37.85%⁸. The high percentage can be related to the low percentage of measurements of the height / length of the baby's body in this region. Thus, more comprehensive baby nutrition monitoring efforts are needed with one of them being to take complete anthropometric measurements in toddlers. Every toddler who has been weighed should also be directly measured length / height considering the weighing coverage that is already high but has not been followed by the coverage of length / height measurements.

Indicators of People with Hypertension Doing Treatment Regularly

People with hypertension who get treatment regularly only amounted to 38.8%. This result is slightly different from the 2018 Riskesdas data, where people with hypertension who get treatment regularly amounted to 19.9%¹⁴. Empowerment of families who have family members with hypertension can be done so that the number of adherence to taking drugs in people with hypertension increases. This can be done by selecting and supervising the family Drug Control (PMO) for people with hypertension in the family.

Indicators of People with Mental Disorders Getting Treatment and Not Abandoned

People with mental disorders who get treatment and are not abandoned only reached 13.3%. This result is slightly different from the results of Riskesdas 2018 where about 32.9% of patients with mental disorders get treatment and are not abandoned. Based on the results of Riskesdas 2018, the West Nusa Tenggara region is ranked 5th and 3rd nationally with the highest number of depressive and schizophrenic disorders. However, there are no health facilities that organize mental health services in this region. This neglectful and negligent situation makes it important

for family and community empowerment programs to overcome the problem of mental disorders in West Nusa Tenggara province¹⁵.

Research Limitations

This study is descriptive research, so it cannot see the complete relationship between factors related to the healthy family indicators such as: demographic factors and health-related knowledge. Further studies are needed to look for relationships between factors that can affect the status of the healthy family indicators especially using the 12 criteria for assessment. The absence of respondents suffering from TB made researchers unable to do a description of these concerns related to the particular indicator.

CONCLUSIONS

Most families in North Lombok regency are included in the pre-healthy family's category based on the healthy family index by assessing the 12 health indicators according to the PIS-PK program.

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RESEARCH ETHICS

In this study there was no specific intervention done to the participants. Intervention given to the participants was only in the form of surveys / direct interviews to participants using questions contained in the questionnaire that were prepared based on HFI guidelines. Participants who were willing to participate in the study were required to sign the informed consent form. Ethical clearance was issued by the Medical and Health Research Ethics Committee of the Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada with the number KE / FK / 1022 / EC / 2021.

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