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## **INCREASE THE ROLE OF THE FAMILY OF NUTRITION NEEDS TO IMPROVE IMMUNITY FOR THE PANDEMIC COVID-19 IN BULUAMPAL BENDO PARE KEDIRI**

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### **ABSTRACT**

**Introduction:** Covid-19 is a virus that attacks the human immune system. The severity is influenced by endurance, age and pre-existing disease (comorbid). Treatment is given to relieve symptoms and increase endurance. Individual conditions require immunity or immunity to fight the virus. Immunity can be formed through nutritional intake or balanced nutrition during the Covid-19 pandemic. The general objective of this community service activity is that health workers and students are able to increase community and family awareness to prevent Covid-19 transmission through increasing immunity by meeting nutritional needs.

**Methods:** Activities in community service programs by conducting education or counseling as well as demonstrations of correct food processing and selection of food ingredients and samples that are easy to find and obtain in the environment in Buluampal Hamlet, Bendo Village, Pare District.

**Results:** Families who participate in educational or outreach and demonstration activities can understand food that can be consumed during the pandemic, correct food processing, understanding of the content or composition of balanced nutrition and traditional food ingredients that can be used as an immune booster during a pandemic. The post-test results on family and community knowledge show that most of the families 77.78% understand about meeting nutritional needs during a pandemic including food / balanced nutrition for family members.

**Conclusion:** Community service activities can increase understanding and knowledge of balanced nutrition to increase immunity during a pandemic and know how to process food ingredients and use home yards for herbal plants that can increase immunity.

### **KEYWORDS**

nutrition; immunity; covid-19

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## **1. INTRODUCTION**

Pandemic is the presence of an infectious disease in a population within a certain area. A pandemic is an increase in the number of disease cases, occurring suddenly, above normal and predictable in a population in an area that has spread to several countries and continents with a massive number of

infections (McCloskey & Heymann, 2020). Coronaviruses are a large family of viruses that cause mild to severe illness, such as the common cold and serious illnesses such as MERS and SARS. Transmission from animals to humans (zoonosis) and from humans to humans. Clinical manifestations usually appear within 2 days to 14 days after

exposure. Common signs and symptoms include symptoms of acute respiratory distress such as fever, cough and shortness of breath. In severe cases it can cause pneumonia, acute respiratory syndrome, kidney failure, and even death. The severity is influenced by the body's resistance, age and pre-existing disease (comorbid), such as hypertension, Diabetes Mellitus, Asthma. The Corona virus is transmitted through splashes when sneezing or coughing. Until now, a vaccine or cure for 2019-nCoV has not been found. Treatment is given to relieve symptoms and increase endurance (Kemenkes RI, 2020).

Individual conditions require immunity or immunity to fight the virus. Immunity can be formed through nutritional intake or balanced nutrition during the Covid-19 pandemic. How to protect yourself from corona virus transmission by increasing endurance through balanced nutrition so that the body's immunity will remain good (Dhian Probhoyekti, 2020). Nutrition is an element needed for body processes and functions. Energy needs are obtained from various nutrients, such as carbohydrates, protein, fat, water, vitamins and minerals (Potter & Perry, 2010). The nutrients used in increasing immunity include staple foods that are sourced from carbohydrates, fats, proteins, minerals and vitamins which function as antioxidants and body immunity (Kemenkes RI, 2020). Associate Researcher in the Field of Food and Nutrition Expertise at the Indonesian Institute of Sciences (LIPI) Research Center for Appropriate Technology (P2TTG), Dr. Ainia Herminati MSi, said that the economic impact of the Covid-19 pandemic in society greatly affects the fulfillment of basic needs. Nutritional problems are one of the risks of socio-economic impacts in Indonesia which exacerbate the Covid-19 pandemic (Unicef, 2020).

The condition of the Covid-19 pandemic, the issue of nutritional adequacy in Indonesia is a concern. Indonesia is still facing challenges with nutrition

problems, especially the prevalence of the 2019 nutrition status survey results showing that 27.67% in Indonesia still experience nutritional problems. Nutritional problems are one of the risks of socio-economic impacts during the Covid-19 pandemic (Unicef, 2020). The results of research on eating habits during the Covid-19 pandemic stated that out of 200 respondents, the community experienced a change in eating habits by 62.5%, usually breakfasting 63%, experiencing an increase in the diversity of food consumption by 59%. People have the habit of consuming *empon-empon* (spices) for use as a drink, which increased by 76% during the Covid-19 pandemic. The types of spices that are most commonly used are ginger 44%, orange / lemon 25.5%, turmeric 10% and others 20.5%. Respondents who experienced an increase in the frequency of eating by 54.5% and the amount of food consumption that increased by 51%. Respondents experienced an increase in body weight 54.5%. Respondents who were not worried about food shortages were 54.5% and who were worried about food shortages by 44.5% (Saragih, Bernatal, and Frederic Morado Saragih, 2020). Symptom treatment and monitoring of Covid-19 in patients with mild disease do not require hospital intervention, but isolation is needed to prevent wider transmission of the virus. Isolation conditions at home require good immunity to increase resistance against viruses. Immunity or natural immunity acts as the body's defense system to fight all germs / viruses that enter the body. Adaptive immunity is a more specific body defense system that appears due to stimulation of certain pathogens such as flu, pneumonia and others (Dedi W & Umi A, 2020).

The influence of the environment and the habits of the family and society are factors that affect the fulfillment of nutrition / nutrition. The state of nutritional status includes the process of supplying and using nutrients for growth, development, maintenance and activity. Nutritional fulfillment factors include food consumption, family income

level, number of family members, maternal education level and health and culture services, food abstinence such as myths and nutritional parenting (Vanda Ningrum, 2019). Nutritional needs can be affected by food shortages (Supariasa, Bakri and Fajar, 2012). Food production and procurement, such as in a state of crisis (natural disasters, war, social chaos, economic crisis) raises food security problems at the household level, namely the household's ability to obtain food for all its members. Nutrition or nutrition problems are not only health problems but problems of poverty, equity, and problems due to the pandemic.

## 2. MATERIAL AND METHODS

Community Service Activities were carried out on December 1-5 2020 in the RT 002 RW 008 Dusun Buluampal, Bendo Village, Pare District, Kediri Regency. The method used by the implementer is conducting surveys, interviews, education and health counseling related to the Covid-19 pandemic. The survey includes the provision of nutritious food at home that supports increased family immunity. Interviews were conducted regarding food ingredients commonly consumed during a pandemic. Health education to improve health literacy. Health Literacy level 1, namely increasing knowledge about health, health risks and health services as well as the ability to comply with prescribed actions for health. The educational method used is lecture and talks, namely providing knowledge with interactive communication. The media used were leaflets, props, and questionnaires. The survey was carried out door to door by applying health protocols. The survey and interviews covering the consumption of ingredients and types of food that can increase immunity were obtained by 27 people (in one family, 1 person interviewed). Measurement of knowledge about nutrition that can increase immunity using a pre and post-test through a questionnaire. Before and after education.

Activities during the survey, interviews and education were carried out using attendance sheets and leaflets as an effort to monitor and evaluate activities. Monitoring of the continuation of the action in collaboration with the regional task force for the adequacy of foodstuffs and if there are people who must be independently isolated. Evaluation is carried out by looking at the results of public knowledge and understanding through posttest on preventive efforts besides carrying out health protocols, namely the provision of easy and affordable foodstuffs to help increase immunity. Utilization of land to fulfill foodstuffs (herbs) as a form of evaluation of actions on activities.

## 3. RESULTS

Community Service Activities which were held for 5 days, received 27 participants including the head of the family or family members who took part in making decisions in the family. Activities carried out by visiting the family home by implementing health protocols. The results of activities that include surveys, interviews and education about the fulfillment of nutrition by families during the pandemic period in increasing immunity are as follows:

Table 1. Surveys and interviews about the fulfillment of ingredients and types of food consumed daily in increasing immunity in RT 002 RW 008 Buluampal Bendo Pare Kediri

Fulfilment of Materials and Types of Food	Result	
	n	%
Fulfilled	15	55.56
Enough fulfilled	9	33.33
Less fulfilled	3	11.11

Table 2. Frequency distribution of the level of knowledge of the education participants about nutrition during a pandemic that can increase immunity in RT 002 RW 008 Buluampal Bendo Pare Kediri

Knowledge level	Result			
	Pre-test		Post-test	
	n	%	n	%
Good	10	37.05	21	77.78
Enough	12	44.44	6	22.22
Less	5	18.51	0	0

#### 4. DISCUSSION

Community service activities through surveys, interviews and education or health counseling at RT 002 RW 008 Dsn Buluampal Ds Bendo Ds Bendo Kec pare Kab Kediri can be carried out well and smoothly on 1-5 December 2020. Community Service Activities are aimed at all communities currently affected by the pandemic. Most of the people are directly affected physically, psychologically, economically and socially.

Community service in the form of delivery of health materials regarding the fulfillment of community nutrition during a pandemic in increasing immunity. The activity is carried out by visiting the community to their house because it prevents the community from gathering in one place. The implementation stage is through a survey of the consumption of materials and types of food during a pandemic. Then continued with interviews on how to meet nutritional needs during the pandemic. Delivery techniques that provide solutions and hopes through communicative counseling and provide alternative conveniences for health behavior are part of the health education methods provided.

Health counseling is an educational activity carried out by spreading messages, instilling confidence, so that people are not only aware, know and understand, but also want and can carry out a recommendation that is related to health. According to Wood in Effendy (2012) Health education or health education is an experience that affects habits, attitudes and knowledge related to health. Activities are carried out in order to facilitate the acceptance of behavior that enhances or maintains health.

Material about nutrition, which includes understanding, the purpose of fulfilling nutrition during a pandemic, efforts to prevent transmission through increasing immunity, ingredients and types of food, examples of food materials and types, ways of providing and utilizing land for herbal plants, for example ginger, turmeric and other natural herbal ingredients As an alternative material used for food

supplements, the extension agent clearly communicates it to the participants or the community.

Pandemic conditions require individuals to always maintain immunity by meeting their nutritional needs. Lack of nutrition causes a decrease in the immune system. Insufficient intake of macro nutrients (energy, protein, fat) and micronutrients (vitamins and minerals) can be caused by unbalanced food consumption. Macro and micro nutrients needed for immune function, especially essential amino acids, essential fatty acids, vitamin A, folic acid, vitamin B6, vitamin B12, vitamin C, vitamin D, vitamin E, zinc (zinc), copper (copper) , iron (iron), and selenium. These nutrients can be obtained from the consumption of diverse and balanced foods as needed. Fulfillment of nutrition using guidelines on balanced nutrition by meeting all nutritional needs can form good immunity (Kemenkes RI, 2014).

The impact of the Covid-19 pandemic, an estimated 24 million people are at a higher risk of experiencing malnutrition. The community is quite vulnerable to access to food due to economic constraints during the pandemic. The risk of death increases higher due to the factor of body resistance, immunity, one of which is influenced by nutritional intake. Covid-19 can make it difficult to identify and provide care and services for the community, especially nutrition issues (WHO, 2020).

Efforts to get immunity or good immunity through nutrition in order to increase immunity for the prevention of Covid-19 transmission is that people must consume nutritious foods and contain balanced nutrition. Four healthy foods are five perfect and add other intake, such as vitamins, minerals and herbal ingredients that exist in nature (Kemenkes RI, 2014). Nutrient-rich essential commodities are needed to meet nutritional needs. Joint efforts and solutions from all parties to collaborate with each other to support the availability of access to nutritious products for the community (Agus S, Dian F, and Utari

A, 2014). All parties took the initiative to provide access to nutrition for those in need. Strengthening food is important in helping reduce nutritional problems for each family in the midst of a pandemic.

Based on monitoring and evaluation during the implementation of surveys, interviews and health education and counseling, several factors can be found that support the implementation of this service activity. Community factors that have a high willingness to prevent and stop transmission and protect their families, provide support for the implementation of this activity. The task force and village officials who provide time for discussions to help people who need food are very helpful in carrying out community service activities. The enthusiasm of the family when conducting surveys and interviews as well as providing education as well as solutions in dealing with a pandemic related to meeting food needs, made this activity useful and received very good and positive appreciation from the community.

## 5. CONCLUSION

Communities who received health education or counseling about fulfilling nutrition during the pandemic to increase immunity have increased knowledge and from the results of monitoring and evaluation there are several people who have started to use their yards as an alternative solution. Increased knowledge about the benefits, ingredients, types of food is known from the posttest questionnaire results.

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