

# COOKING DEMO OF BALANCED NUTRITIONAL MEALS FROM LOCAL FOOD INGREDIENTS IN INCREASING COMMUNITY KNOWLEDGE AND SKILLS THROUGH ASSISTANCE METHODS IN STUNTING LOCUS, MUARA ENIM DISTRICT

Susyani <sup>1</sup>, Sartono <sup>2</sup>, Ahmad Sadiq <sup>3</sup>, Imelda Telisa <sup>4</sup>, Terati <sup>5</sup>, Devi Kartika Sary <sup>6</sup>, Tri Friantini <sup>7</sup>, Hamzah Hasyim <sup>8</sup>

1,2,3,4,5,6,7 Poltekkes Kemenkes Palembang

<sup>8</sup> Fakultas Kesehatan Masyarakat, Universitas Sriwijaya, Indonesia

E-mail: <sup>1</sup> susyani@poltekkespalembang.ac.id, <sup>2</sup> sartonogz@gmail.com, <sup>3</sup> sadiq@poltekkespalembang.ac.id, <sup>4</sup> imeldatelisa@poltekkespalembang.ac.id, <sup>5</sup> terati\_idris@yahoo.co.id, <sup>6</sup> devyks@yahoo.com, <sup>7</sup> trifriantini77@gmail.com, <sup>8</sup> hamzah@fkm.unsri.ac.id

## Abstract

Muara Enim Regency is one of 17 districts in South Sumatra which is included in the category of high prevalence of stunting. The 2018 Riskesdas showed that the prevalence of stunting in Muara Enim was 34.4% higher than in South Sumatra (32%) and the National (30.8%). The same thing comes from the results of the 2021 national under-five nutritional status study, Muara Enim's stunting prevalence rate of 29.7% is included in the 3rd highest district in South Sumatra (24.8%). Research conducted by Susyani, et al (2022) in the stunting locus area of Muara Enim Regency showed that 26 (9.6%) children under five were very short and 64 (23.5%) were short. The service aims to increase the knowledge and skills of mothers under five, women of childbearing age, and pregnant women in making balanced nutritious food by utilizing existing local food ingredients. The implementation method is carried out through nutrition education in the form of counseling and cooking demonstrations regarding nutritious and balanced food according to the contents of "my plate". There was an increase in knowledge about balanced nutritious food before and after being given counseling with an increase of 19.09 points. Demonstrations on cooking balanced nutritious food for toddler mothers, women of childbearing age, and pregnant women by utilizing existing local food ingredients can provide knowledge and skills of the target community in making various nutritious and balanced food menus to meet the nutritional needs of their families.

**Keywords**: Cooking demonstrations, balanced nutrition, local food, skills knowledge, stunting

## **INTRODUCTION**

Indonesia is a country with the fifth-largest prevalence of stunting in the world. Based on Basic Health Research (*Riskesdas*) data for 2013 and 2018, although the national stunting rate has decreased from 37.2% to 30.8%, this figure is still above the maximum limit (20%) of the criteria for public health problems set by the World Health Organization (WHO). In the

National Medium-Term Development Plan (*RPJMN*) for 2020-2024, the government has determined efforts to improve community nutrition as one of the priority programs with an achievement target indicator of reducing the prevalence of stunting to 14%.

The problem of stunting has an impact on disrupting the growth and development of children so it will reduce human resources. Therefore stunting must be handled appropriately and effectively. Improvement efforts that have been made to tackle stunting include efforts to prevent and reduce direct disturbances (specific nutrition interventions) and efforts to prevent and improve factors that indirectly affect stunting (sensitive nutrition interventions). Specific nutrition interventions are generally carried out in the health sector, but only contribute 30%, while 70% is the contribution of sensitive nutrition interventions involving various sectors other than health.

According to The Lancet (2021) prevention of stunting through specific nutrition interventions in the first thousand days of life ( $1000 \ HPK$ ) is proven to be effective in preventing stunting if the coverage reaches at least 90%. Specific nutritional interventions for  $1,000 \ HPK$  include supplementation of micronutrients for pregnant women, provision of supplementary food for pregnant women with nutritional problems, counseling and promotion of IACF (Infant and Child Feeding), supplementation of micronutrients for toddlers, treatment of children with nutritional problems acute (malnutrition), and growth monitoring (Keats et al., 2021).

Stunting is one of the nutritional problems experienced by toddlers not only in countries in the world and Indonesia but also in South Sumatra Province. Data from several studies show that the prevalence of stunting in South Sumatra Province is still high, namely above 20%, which is the threshold for health problems in society according to WHO. Nationally, the government's target for stunting prevalence in 2024 is 14%. The results of studies conducted show that the prevalence of stunting in Indonesia seems to fluctuate. The results of the 2018 Riskesdas nationally showed that the prevalence of stunting in toddlers was 30.8%, this prevalence decreased when compared to the 2019 SGGI results of 27.7%. The latest SGGI study results for 2021 are 29.7%.

Muara Enim Regency as one of 17 regencies in South Sumatra is a district that is included in the category of high stunting prevalence. The results of the 2018 *Riskesdas* showed that the prevalence of stunting in Muara Enim was 34.4% higher than in South Sumatra (32%) and the National (30.8%). The same thing comes from the results of the 2021 national under-five nutritional status study, Muara Enim's stunting prevalence rate of 29.7% is included in the 3rd highest district in South Sumatra (24.8%).

The results of research conducted by Susyani, et al (2022) regarding the role of tertiary institutions in preventing and accelerating the reduction of stunting through the Caring for Stunting (important) student assistance method for families at risk of stunting and integrated services post cadres at the stunting locus in the Muara Enim Regency area show that out of 272 children under five there are 26 (9.6%) very short and 64 (23.5%) short.

The results of this research are used as the basis for carrying out community service activities in the form of nutrition education in the form of counseling on balanced nutritious food to the target community as well as demonstrations on cooking balanced nutritious food by utilizing local food to increase the knowledge and skills of the target community through mentoring methods in preventing and accelerating the decline stunting at the stunting locus in Muara Enim Regency

The objectives of this community service activity include:

- 1. Nutrition education in the form of counseling on balanced nutritious food for mothers who have toddlers, women of childbearing age, and pregnant women
- 2. Carry out a demonstration of cooking balanced nutritious food by utilizing local food ingredients.

# METHOD

Service activities begin with the preparatory stage, such as preparing teaching materials and media (laptops, projectors) and preparing the tools/instruments used (leaflets, food models, for the implementation of counseling. For demonstrations of cooking balanced nutritious food, what is done is preparing food ingredients used based on local food ingredients that are often found in stunting focus locations.

Implementation of community service assisted by lecturers who accompany Important Students (Stunting Care) Students from the Undergraduate Program in Applied Nutrition and Dietetics from the Health Polytechnic of the Ministry of Health Palembang in the mentoring process. The implementation was carried out for 3 days in each village, which are spread across 4 villages where the stunting focus (Locus) is located, Muara Enim Regency namely Sugih Waras Barat, Pagar Agung, Kencana Mulya and Marga Mulya with a total target of 182 people, with 3 stages of activity:

- a. The first day, nutrition education activities are carried out in the form of counseling with nutritionally balanced food for children under five, women of childbearing age, and pregnant women, before carrying out nutrition education a pre-test is carried out first to see how far the target knowledge is regarding nutritionally balanced food. The material presented included: the meaning of balanced nutrition, food for infants and toddlers, breast milk companion, food for pregnant women, and food for breastfeeding mothers. Tools/instruments used in the implementation of this activity: laptops, projectors, food models, and educational materials that have been printed in the form of leaflets.
- b. On the second day, a balanced nutritional cooking demonstration was carried out, which was carried out by preparing food ingredients that were used based on local food ingredients which were found in many focus locations (Locus), namely cassava, catfish, as well as cassava leaves and other food ingredients.
- c. On the third day, reflection was carried out regarding the activities that had been carried out in terms of nutrition education and demonstrations on cooking balanced nutritious food as well as a post-test to see how far the knowledge and skills of the target community had increased in making nutritionally balanced food to meet the nutritional needs of their families.

#### **RESULTS AND DISCUSSION**

Community service activities have been carried out with 2 main activities, namely 1) Nutrition Education in the form of counseling on balanced nutritious food for mothers who have toddlers, women of childbearing age, and pregnant women. 2) Carry out a demonstration of cooking balanced nutritious food by utilizing local food ingredients.

The number of participants who took part in this activity was 182 target community groups spread across 4 villages where the stunting focus (Locus) was located, Muara Enim namely Sugih Waras Barat (63 people), Pagar Agung (41 people), Kencana Mulya (42 people) and Marga Mulya (36 people). The distribution of the target community can be described as follows:

No	Village	Number of Target Communities	
1	Sugih Waras Barat	63	
2	Kencana Mulya	42	
3	Marga Mulya	36	
4	Pagar Agung	41	
	Total	182	

Table 1. Distribution of Target Communities in 4 Stunting Locus Villages in MuaraEnim District

1. Nutrition education in the form of counseling on balanced nutritious food to mothers who have toddlers, women of childbearing age, and pregnant women. Before this activity, the target community is given a pre-test and post-test to find out their level of knowledge and understanding of the material provided.

Table 2. Distribution of Pre-test and Post-test Scores Level of Knowledge aboutBalanced Nutrition Target Communities in 4Locus Stunting Villages in Kab. MuaraEnim

No	Village	Average Pretest Score	Average Posttest Score	The difference between the pre and posttest average values		
1	Sugih waras Barat	71.75	90,40	18.65		
2	Kencana Mulya	70.95	90,12	19.17		
3	Marga Mulya	71,11	90,14	19.03		
4	Pagar Agung	70,49	90.00	19.51		
	Total	71.08	90,17	19.09		

Based on table 2 above, the post-test showed an increase in the target community's knowledge of 19.09 points. Exposure to information is an external factor that can increase knowledge. Increased knowledge will provide awareness that leads to behavior change. Behavior-based on knowledge will be more lasting than behavior that is not based on knowledge. Providing counseling or counseling to increase one's knowledge (Notoatmodjo, 2010).



Figure 1. Nutrition Education Activities in the form of Counseling on balanced nutritious food in 4 villages Locus of Stunting in Muara Enim

The expected result is that the target population has knowledge of balanced nutritious food by "my plate" contents guidelines and can apply the food menu that has been given to the arrangement of dishes in meeting the nutritional needs of families based on existing local food ingredients.

2. Demonstration of cooking a balanced nutritious meal by utilizing local food

The cooking demonstration activities that have been carried out are the toddler food menu, breast milk companion, food for pregnant women, and food for nursing mothers, by utilizing existing local food such as cassava, catfish, as well as cassava leaves and other food ingredients that are widely available in 4 villages locus of stunting.

The food that was demonstrated and how it was made were food for toddlers, namely carrot fish meatballs, breast milk companion, namely shredded catfish team porridge, food for pregnant women, namely cassava leaf cakes and food for nursing mothers in the form of green bean Nagasari. It is hoped that the experience and knowledge provided in training on making complementary foods from fish can stimulate the target community and integrated services post cadres to practice exclusive breastfeeding and provide appropriate complementary feeding to reduce the risk of stunting (Reinsma et al., 2016).

In making this balanced nutritious food, apart from being made from local ingredients, the process of making it is very easy and practical using simple cooking utensils that can be found in almost all the homes of the target community.



Figure 2. Demonstration of cooking balanced nutritious food for toddlers, pregnant women and nursing mothers in 4 villages Locus of Stunting in Muara Enim

3. Community Service activities on the third day were to reflect on the activities that had been carried out from nutrition education (counseling) as well as demonstrations on cooking balanced nutritious food, a post-test was also carried out with the results obtained. Increased knowledge of the target community by 19.09 points. These results illustrate an increase in knowledge, and with increased knowledge it is hoped that it will further improve the skills of the target community in making nutritionally balanced food to meet the nutritional needs of their families.

## CONCLUSION

There was an increase in knowledge of 19.9 points after the posttest was carried out. In addition, the implementation of community service activities is expected to increase the knowledge and skills of the target community in providing nutritionally balanced food to meet the nutritional needs of their families to prevent and accelerate the reduction of stunting.

# REFERENCES

Susyani, et al, 2022. The Role of Higher Education in Preventing and Accelerating the Reduction of Stunting through Important Student Assistance Methods for Families at Risk of Stunting and Posyandu Cadres at the Stunting Locus in Muara Enim Regency

Ministry of Health of the Republic of Indonesia, 2018, Basic Health Research

https://muaraenimkab.bps.go.id/indicator/153/31/1/width-area.html

SSGI Report, 2021, Research and Development of the Indonesian Ministry of Health

Reinsma, K., Nkuoh, G., & Nshom, E. (2016). The Potential Effectiveness of The Nutrition Improvement Program on Infant and Young Child Feeding and Nutritional Status in The Northwest and Southwest Regions of Cameroon, Central Africa. BMC Health Serv Res, 16(1), 654. https://doi.org/https://doi.org/10.1186/s12913-017-2109-3