

PROCESSING AND PACKAGING HEALTHY FOOD FOR PREGNANT WOMEN, NEWBORNS AND TODDLERS AT THE NORTH CIMAHI COMMUNITY HEALTH CENTER

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ABSTRACT

Nutrition problems in Indonesia are currently emerging as complex problems. Causing health issues to pregnant women, toddlers are at risk of giving birth to babies with low birth weight and stunting. Chronic malnutrition conditions such as stunting are one of them. Health services should empower cadres in health promotion to prevent stunting by processing food menus and packaging according to local wisdom which is easily available in the area. Akademi Pariwisata NHI Bandung, in this case a university in the field of hospitality and tourism, is a partner of the Cipageran Community Health Center, North Cimahi district. The situation analysis in this community partnership program focuses on education on healthy food processing and at the same time packaging food for pregnant women, children and Toddlers. This community service proposal is proposed with the theme processing and packaging of healthy food for members of family welfare and empowerment organization in collaboration with the Cipangeran North Cimahi community health center. It is hoped that it can increase the knowledge and skills of mothers of toddlers in processing local food ingredients to participate in preserving local culture and gastronomy.

Keywords: nutrition; healthy; people

INTRODUCTION

Nutrition problems in Indonesia are currently emerging as complex problems. Chronic malnutrition conditions such as stunting are one of them. According to WHO (2015) in Susanti (2022), *stunting* is a disruption in the growth and development of children due to chronic malnutrition and recurrent infections, which is

characterized by their body length or height being below standard (WHO,

2015). Furthermore, according to WHO (2020) in Susanti (2022) *stunting* is short or very short based on length / height according to age which is less than -2 standard deviation (SD) on the WHO growth curve which occurs due to irreversible conditions resulting from inadequate nutritional intake and/or recurrent/chronic infections that occur within 1000 First Day of Life. Stunting is a description of chronic malnutrition status during growth and

development since early life (Ni`mah Khoirun & Nadhiroh, 2015)

Concern for *stunting cases* has recently become a priority for the government. Of course, this is not only the government's responsibility. Tackling stunting nationally must involve multi-stakeholders. For stunting prevention programs to be successful, the government, health workers and the community must collaborate (Utari, 2023).

As in Presidential Regulation Number 72 of 2021 concerning the acceleration of stunting reduction, as a legal basis for work for ministries and institutions including the National Research and Innovation Agency. Handling stunting needs to involve related parties in efforts to reduce stunting which are carried out holistically, interactively and with quality in accordance with what was conveyed by the Head of the National Research and Innovation Agency Health Research Organization Indi Dharmayanti (Brin, 2023).

Stunting reduction is carried out by improving good nutritional status. According to Bayu Prabowo (2023), good nutritional status is one of the determining factors for the success

of human resource development. Nutritionally vulnerable groups in Indonesia are pregnant women, and toddlers. This group needs more attention. Pregnant women with malnutrition will certainly affect the growth and development process of the fetus and are at risk of giving birth to babies with low birth weight and stunting. Toddlers are a group that is in the golden period of growth and development and is prone to malnutrition.

Community health centers have a role in preventing stunting. According to Utari et al (2023), efforts to prevent stunting have been implemented in Indonesia, such as giving exclusive breast milk, giving complementary foods to breast milk, weighing and measuring babies, examining pregnant women, giving blood supplement tablets, and providing food. Additional for pregnant women who suffer from special diseases.

To increase the coverage of health services, the Cimahi City Health Service has built a Community Health Center (Puskesmas), namely the Cipageran Community Health Center. The Cipageran Health Center is in the

Cipageran sub-district, North Cimahi District, Cimahi City. Apart from these health centers, health center has also been built in Central Cimahi and South Cimahi. Cipageran Community Health Center has been active in alleviating stunting in accordance with government efforts and programs.

Empowering Member of family welfare and empowerment organization is one of them. Empowering these members has a crucial role in the stunting program. Member of family welfare and empowerment organization are given education about stunting and stunting management programs. The program that runs regularly is providing additional food for pregnant women, and toddlers. Collaborate with nutritionists from the Health Office and Community Health Center in determining the provision of additional food. Determination of menus and nutritional needs according to nutritional requirements for pregnant women, and toddlers has been encouraged. However, the lack of knowledge regarding processing to presentation and packaging is an obstacle for the Health Office, Community Health Center and member

of family welfare and empowerment organization.

Based on this situation analysis, Akademi Pariwisata NHI Bandung, in this case a university in the field of hospitality and tourism, is a partner of the Cipageran Community Health Center to educate about healthy food processing and at the same time packaging food for pregnant women, and toddlers. Through this community service, it is hoped that it can increase the knowledge and skills of mothers of toddlers in processing local food ingredients. Local food in Indonesia is abundant, starting from protein sources such as chicken, fish-based ingredients, vegetables and fruit as an effort to prevent stunting. Apart from that, health services should empower cadres in health promotion to prevent stunting by processing food menus and packaging according to local wisdom which is easily available in the area (Yorita et al, 2023).

Food processing is an important part of nutrition. Through cooking, there will be a loss of nutrients from natural food ingredients. The function of processing good food is how to minimize the loss of nutrients from food ingredients so that not too many

nutrients are lost. According to Atmoko and Krestanto (2017), the correct food processing procedure starts preparing and selecting the best ingredients, processing these ingredients with the correct techniques and cooking methods, processing various foods, and presenting them with an attractive appearance, so that the food that will be processed, processed and produced really has good food quality. Cooking methods include cooking with water convection (boiling, simmering, poaching, blanching, braising, stewing, pressure cooking, steam). Meanwhile, cooking with oil conduction and convection can also be done (frying, sauteing, stir frying, deep frying, pan frying). Cooking with dry heat (baking, grilling and roasting) (Atmoko and Krestanto, 2017).

Packaging is one of the marketing mixes in marketing management science. In the marketing mix there are 4 Ps which may not include packaging, but many marketing activities that may appear not to be included in the marketing mix fall into one of the four Ps. The question is not whether there should be 4, 6, or 10 Ps, but rather the framework. What work is

most helpful in designing an integrated marketing program is packaging and marketing experts agree that packaging is an important part of the marketing mix.

According to Kotler, Bowen and Baloglu (2022), consumers today consider product design, use and packaging to be important.

The situation analysis in this community partnership program focuses on processing and packaging healthy food for member of family welfare and empowerment organization at the Cipageran Community Health Center, North Cimahi district. Akademi Pariwisata NHI Bandung's role as a partner is to educate cadres in processing and packaging and make the government's program for preventing stunting success. For this reason, this community partnership service proposal is proposed with a theme "Processing and Packaging Healthy Food for Pregnant Women, Children and Toddlers in North Cimahi" in collaboration with the Cipageran Health Center, North Cimahi.

IMPLEMENTATION METHOD

The stages or steps in implementing the solution offered to overcome the problem are as follows:

1. Coordinate with the Cipageran Community Health Center

Coordination was carried out with the PIC from the Cipageran Community Health Center as well as submitting a request for resource persons. Interviews were conducted to explore potential and analyze the partner's situation to be used as material and solutions in this community service program.

2. Internal coordination

Coordination is carried out with related departments for the running of this community service program. Coordination is carried out with all teams related to this community service program through focus group discussions. The next coordination stage is to write an official letter and submit an activity proposal.

3. Determine priorities and event schedule for each solution offered.

Determining the priorities and schedule for each solution is

carried out by holding meetings with all or representatives of parties related to the community service program. The results of the meeting are in the form of priorities for the solutions offered.

4. Implementation of each activity according to priority

Implementation of each activity is based on a priority scale. The implementation method is as follows:

Table 1. Activity Solutions

No	Activity Solutions	Method
1	Providing knowledge of healthy food processing	Explanation and questions and answers
2	Demonstration of healthy food processing	Presentation, question and answer, practice and demonstration
3	Providing knowledge of presentation and packaging of processed products	Practice and demonstration. Practice product presentation, garnish and attractive packaging selection

5. Activity Evaluation

Evaluation is carried out after all partnership solutions have been implemented. Evaluation steps are carried out together with the Cipageran Community Health Center by:

- a. Hold a meeting with the Community Health Center

- b. Feedback and input from Cipageran Community Health Center regarding the partnership program
- c. Sustainability plan

RESULT AND DISCUSSION

The results achieved in the Community Services activity "Processing and Packaging of Healthy Food for Pregnant Women, Children and Toddlers" in collaboration with the Cipageran Cimahi Utara Community Health Center overall went well. The achievement results have reached 100% of the overall program plan. The stages that have been carried out include:

- 1. Strengthening the concept between Akademi Pariwisata NHI and community health centers.**
- 2. Coordination with the Cipageran Community Health Center, North Cimahi.**

Coordination was carried out through online meetings with the Cipageran Health Center, North Cimahi. The results of the coordination are regarding activities and product plans to be made as well as good packaging techniques so that the packaging, apart from being healthy and safe,

can also promote the product to make it attractive. In this initial coordination, the focus is more on the role of each party in the activity. The Cipageran Cimahi Utara Community Health Center is the host which in carrying out activities has certain targets and requires collaboration with parties who are competent in their field in supporting safe and healthy product processing. Akademi Pariwisata NHI Bandung's support and participation is by being part of the product processing and packaging activities. The Cipageran Community Health Center, North Cimahi provides support in the form of:

- a. The product demo venue measures 8 m²
- b. Sound System
- c. Tables and chairs for processors and participants
- d. MC
- e. Product raw materials and packaging

Meanwhile, Akademi Pariwisata NHI Bandung expertly plans and organizes according to the capacity and needs of partners.

3. Internal Coordination

This stage analyzes the situation and conditions of the target along with its potential so that solutions to problems can be found. The number of participants involved was approximately 50 participants, so this became a promotional target for Akademi Pariwisata NHI Bandung, in addition to visitors to existing health centers.

4. Implementation of the Food Processing Program

Food is a basic need that is needed and must be fulfilled by everyone, especially pregnant women, and toddlers. Apart from staple food, currently providing additional food for pregnant women, and toddlers is developing and innovating rapidly in accordance with government programs to prevent stunting. The culinary business is developing from both modern culinary and local culinary. Local food, food and drinks, including snacks and mixed ingredients or ingredients used traditionally or modernly, have long developed specifically in the region and are prepared from recipes known to the local community with local sources of ingredients and have flavors that are

relatively in line with the community's tastes. locally, however these processing recipes are still far from being healthy and safe if they are linked to the government's stunting prevention program, therefore it is necessary to make food that is commonly known by the community with nutrition that is adapted, especially for pregnant women, toddlers and toddlers.

One of the local culinary delights that is commonly consumed by the public and is easy to make and suitable for the PMT (supplementary feeding) program is the Tofu Chicken Dory Fish Rolade menu plus *Potato Wedges* as the main dish and Cheese Heaven Mud Cake as a dessert or healthy snack for pregnant women, clowns and toddlers. This food is very easy to make with cheap ingredients available on the market. There are indeed many types of food, and they are growing everywhere, but there are still many that have not been properly processed, especially in their packaging so that they are safe to consume for pregnant women, and toddlers, especially in the choice of nutrition and ingredient.



Figure 1. Menu for Kue Lumpur Surga Keju and Tofu Chicken Dory Fish Roulade

Education is carried out to further introduce and instill *awareness* of the stunting prevention program with PMT (Supplemental Food Provision) in the minds of consumers, especially for pregnant women, toddlers and toddlers who have *an interest* in this type of food. This is being done to further popularize this food so that its existence and acceptance increases.

According to Singapurwa, Semariyani, and Candra (2022), in the current era food has undergone improvements and developmental changes, namely by providing rice, cassava, corn and other supporting ingredients to support the taste, texture, aroma and shape, so the food can be said to be nutritious.

Food business actors like this need to evaluate better marketing strategies so that their products can reach a wider

market. Carry out guidance and collaboration with related parties so that this business continues to receive attention in increasing production (Mulyati et al, 2020).

5. Implementation of healthy packaging activities as well as promotion

Packaging aims to prevent spoilage, facilitate transportation, storage, quality control, and make the product more attractive. Packaging is also used to separate food from its surroundings to delay the spoilage process for a certain period. Apart from protecting, packaging also functions as a promotional tool. We can notice around us; every brand is trying to provide an appearance or packaging design that attracts the attention of potential consumers. This is because consumers tend to consider the color, size and overall appearance of the product before making a purchase

a. Packaging of Rolade and Potato Wedges

One type of packaging that is suitable for packaging this product is polyethylene plastic. Polyethylene is a plastic that is widely used in industry because of its

properties of being easy to shape, resistant to various chemicals, clear in appearance and easy to use for lamination. Rolade or Potato Wedges can be packaged using this plastic and then vacuumed. The vacuum tool used is an automatic vacuum sealer tool.



Figure 2. Vacuum equipment, plastic and packaging results for Roulade

Packaging utilizes vacuum technology to remove the air in the packaging. This vacuum technology can prevent spoilage in food products because oxygen in the packaging is eliminated. The main purpose of vacuum packaging is to remove oxygen from the packaging, with the hope that the expiration time will be longer. So, it can extend the product display time.



Figure 3. Packaging results for Potato Wedges

b. Cheese Heaven Mud Cake Packaging Aluminum Foil is a type of metal which, after going through several processes, is arranged into a thin sheet with a thickness of less than 0.2 mm, in America 8 mils. Aluminum sheet with a thickness of less than 150 microns are called foil. Aluminum foil is a layer of "alloy" that contains 99.4% aluminum.



Figure 4. Packaging of Kue Lumpur Surga Keju

Aluminum foil is made in various forms depending on the use or result. Aluminum foil is brittle and is sometimes laminated to plastic or paper to make it more useful. Some of the special properties of aluminum foil include pliable, flexible, easy to shape according to packaging function, attracting the attention of buyers, air, water and fat tight, clean (hygiene), non-toxic, does not affect taste and smell, and has the property of enveloping objects or products. Aluminum foil is also a good conductor of heat.

c. Brand Image on packaging as promotion

Product packaging requires special attention and is part of the promotional process because product packaging also functions as *a company and brand image*. Through product packaging that has distinctive characteristics, appearance, packaging shape and color, consumers can more easily recognize it as a product from our brand.



Figure 4. Sample Product

Packaging as a brand image
According to Kotler (2002), image is a set of beliefs, ideas and impressions that a person has about an object. On the other hand, consider brand image as a set of perceptions about a brand in the user's memory.

5. Monitoring and Evaluation

After the activities are completed, Community Services implementers monitor and evaluate all activities that have been carried out. Each activity will be evaluated using a combination of the attendance list, pre and posttests or an observation form for the target participant's activity. The attendance list can show the enthusiasm of the target participants, while the pre-posttest can assess increased knowledge. The observation form is used to assess target skill improvement. As well as carrying out an overall evaluation of activities down

to details of the funds that have been used.

6. Preparation of Final Report

The final report is prepared by the Community Services implementer with the aim of detailing all the activities that have been carried out and detailing the funds that have been used during the activities.

7. Publishing Mass Media Publications

Community Services implementers publish community services articles which are published in the community services journal.

CONCLUSION

Community Services activities for processing and packaging healthy food for pregnant women, toddlers and toddlers can be concluded in several ways, namely: (1) Educational activities are important to carry out so that public knowledge regarding the provision of additional food for pregnant women, toddlers and toddlers does not always come in the form of special biscuits from the government, but we can take it from various culinary delights in general by rearranging the raw ingredients for recipes, processing methods and healthy packaging,

thereby encouraging the sustainability of government programs related to stunting prevention. (2) There is a need for a promotional strategy in marketing culinary delights that can be used as PMT (supplementary feeding) for pregnant women, toddlers and toddlers through a brand image. (3) Collaboration between partners and Akademi Pariwisata NHI Bandung is important in the running of this government program. From the partner side, it was helped by making Akademi Pariwisata NHI Bandung part of and *supporting* the event, while Akademi Pariwisata NHI Bandung received media as a forum for lecturers in carrying out one of the Tri dharma of higher education.

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