

# THE EFFECTIVENESS OF THE “LAYANAN KESEHATAN CUMA-CUMA DOMPET DHUAFA NUSA TENGGARA TIMUR” FROM “KAWASAN SEHAT” PROGRAM : EFFORTS TO REDUCE STUNTING PREVALENCE IN OEBELO VILLAGE

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## ABSTRACT

*Stunting is a failure of child growth characterized by a lack of height for age Z-score caused by chronic nutritional problems. Stunting has a negative impact on the quality of human resources in the future. Nusa Tenggara Timur (NTT) is the province with the highest stunting cases in Indonesia. LKC Dompot Dhuafa NTT help to accelerate stunting mitigation carried out in Kawasan Sehat Program. The study aimed to determine the effectiveness of stunting interventions through The Kawasan Sehat Program in Oebelo Village. This research is a qualitative and quantitative evaluative research with input-process-output approach. The selection of informants purposive sampling technique with seven informants. Primary data were collected by interviews and observations. Meanwhile, secondary data is carried out by reviewing documents. In the input component, there are still constraints in the adequacy of facilities, infrastructure, and cadre transportation. In the process component, necessary to enhance partnerships and strengthen the commitment of the target groups of the program. In the output component, there has been a decrease in stunting prevalence from 8% to 4%. There are several factors that affect the output such as economic factors, sanitation, and customs. Concluded that the stunting interventions in Kawasan Sehat Oebelo were effective and all components of inputs-processes-outputs were running well.*

**Keywords:** Children Nutrition, Health Services, Kawasan Sehat Program, Stunting

## INTRODUCTION

Stunting is a growth failure in children, as indicated by the lack of body height or length in comparison to children of the same age. Stunting is a multifactorial issue that stems from mother condition during adolescence, pregnancy, toddler diet, family economic status and environment, and access to healthcare (Kementerian Kesehatan RI, 2022). Indonesia is a developing country that focuses on reaching its target of eliminating stunting. The national target by 2024 is to reach a 14% stunting prevalence in order to achieve SDGs 2030 (PERPRES No. 72 Tahun 2021).

The prevalence of stunting in Indonesia will reach 21.6% in 2022 (Kementerian Kesehatan RI, 2023). According to the results of the Indonesian Nutritional Status Survey, Nusa Tenggara Timur (NTT) is the province with the most stunting cases in 2022, with a prevalence of 35.3% (Kementerian

Kesehatan RI, 2023). The number of people living in poverty in NTT in 2022 amounted to 1131.62 thousand people or 20.05%, with an open unemployment rate of 3.54% (BPS, 2022).

The Ministry of Home Affairs annually designates priority villages for stunting as a form of evenly distributed program implementation throughout Indonesia (Kementerian Sekretariat Negara RI, 2021). The Oebelo village has become one of the stunting priority villages in NTT since 2020 with a stunting prevalence of 19%. Oebelo village is at risk of stunting, as there are still families without proper sanitation facilities and occurrences of anemia among pregnant women. The majority of the population works as vegetable farmers and laborers with a lower to middle economic status (Puskesmas Tarus, 2020).

Dealing with stunting cases is important because of the relationship between the potentially

low quality of human resources, which may decrease the economic productivity of a country in the future and negatively impact health status and child mortality (BKKBN, 2021). The ramifications of inadequate nutrition, such as a decrease in the workforce, rising healthcare costs, and reduced productivity, result in Pakistan losing approximately US\$7.6 billion annually, which accounts for 3 percent of its GDP (Mahira A, 2017).

“Layanan Kesehatan Cuma-Cuma” (LKC) Dompot Dhuafa as a Non Governmental Organization (NGO) has contributed by executing several stunting interventions through the “Kawasan Sehat” program. The Kawasan Sehat program aims to develop a healthy lifestyle in a certain area with specific health indicators such as Maternal Health, Elimination Stunting, Non-Communicable Disease, Tuberculosis, Sanitation, Environmental Health, and Mental Health, with its main focus on the prevention of stunting or malnutrition through community empowerment, increasing the competence of human resources, management of local resources, and partnership.

Stunting in NTT is a priority because it has the highest number of cases of stunting nationally. Managing stunting in NTT requires synergy between specific institutions, one of which is LKC as a NGO that plays a role in reaching stunting elimination goals in NTT. LKC Dompot Dhuafa Pusat designed a study to understand the effectiveness of its stunting intervention program in the Kawasan Sehat of LKC Dompot Dhuafa NTT.

## METHODS

This was qualitative and quantitative evaluative research with an input-process-output approach. This study was conducted in Kawasan Sehat Oebelo of the LKC Dompot Dhuafa NTT. The focus of this study was to examine the input, process, output, and effectiveness of the implemented stunting program. The input components were evaluated based on the availability of human resources, funds, methods, facilities, and infrastructure. The process components evaluated the planning, execution, and monitoring. The output components were

evaluated on the basis of the prevalence of stunting. Finally, program effectiveness was evaluated based on the understanding of the program, accuracy, timeliness, achievement of objectives, and real changes (Hasanbasri, 2007).

Data were collected through in-depth interviews, document reviews, and observations. The informants were selected through purposive sampling. Interviews were conducted with seven informants, including the person in charge of the stunting intervention program, facilitators, and two cadres. Other supplementary informants included three mothers of toddlers who had received interventions from the beginning of their pregnancy until birth.

The respondent criteria consist of mothers of toddlers who have received intervention programs from pregnancy until their child’s birth, the staff responsible for stunting intervention who have been involved in the program since 2020, stunting intervention facilitators who have been involved for one year, and cadres residing in Oebelo Village who are responsible for implementing the intervention program since 2020.

The instruments used in this study included interview, observation, and document review guidelines. Phone recorders were used to ensure that all informant answers were recorded. The interviews were conducted individually with each informant so that information given by one informant would not be influenced by others.

Qualitative data analysis was performed in three stages: data reduction, data presentation, and drawing conclusions. The data reduction stage involved the categorization and summarization of the data. After reduction, the data were presented in narrative form to be easily understood by the reader. The next step was to draw conclusions based on the data. The quantitative data are presented as descriptive statistics. This study was approved by the Ethics Committee of the Faculty of Health Sciences, UIN Syarif Hidayatullah Jakarta (letter number Un.01/F.10/KP.01.1/KE.SP/05.08.045/2).

## RESULTS AND DISCUSSION

### Input Components

#### *Human Resources*

The effectiveness of a program is valued not only by the amount of human resources, but also by their abilities and functional tasks (Sugianti, 2020). The LKC Dompot Dhuafa NTT has a limited number of nutritionists for executing stunting interventions.

*'There is only one nutritionist, they're at the sub-health center. Uhh 2, 1 is at the community health center, the other is at the sub-health center. For LKC, I, as a midwife, am the program facilitator' (Program Facilitator).*

Aside from the health workers from the LKC Dompot Dhuafa NTT, cadres play the role of ensuring the continuity of the stunting intervention program. The Kawasan Sehat Oebelo has seven integrated health posts (posyandu), each of which has five cadres, totaling 35 people. However, only two to three cadres per integrated health post were active in practice.

*'Only some were involved, not all. At my place, there were only 3' (Cadre 1).*

*'For this one, there were only 2 people' (Cadre 2).*

The utilization of voluntary health cadres is a useful approach to combat the limited number of health workers, especially in developing countries (Alam, Tasneem, & Oliveras, 2012). Sustainable cadre empowerment may increase cadre's motivation and act as a foundation for their awareness of responsibilities in integrated health post services (Mediani, Nurhidayah, & Lukman, 2020).

### **Funds**

Based on the results, the funds of the stunting intervention program are sourced from RKAT (*Rencana Kerja dan Anggaran Tahunan* or Detailed Annual Activity Budget) of central funds, funds of zakat, infaq, and alms. The available funds are insufficient to cover the provision of supplementary food for all children under five, resulting in the provision of only children under two years of age. Fund allocation was used to purchase supplementary food ingredients and medical devices.

*'The funds are from central RKAT funds, zakat, infaq, and shodaqoh funds. Since there are many stunting cases, especially in the Kawasan Sehat, we minimized it because if we included all children under 5, we'd be going over budget, so we only included children under 2' (Program person-in-charge).*

The cadres complained about the distance of supplementary food distribution. Therefore, some cadres suggested adding an allocation for transportation allowance. A study by Wirapuspita (2013) found a significant relationship between the provision of transportation allowance and cadres' performance, where 76% of cadres who did not receive allowances lacked performance. Therefore, encouragement through incentives provided to cadres should be fulfilled.

### **Methods**

The implementation of a stunting intervention by LKC Dompot Dhuafa is more focused on specific nutritional interventions. Specific nutritional interventions target the initial 1000 days of life and pregnant women. Sensitive nutrition interventions emphasize development beyond the healthcare realm through intersectoral collaboration. Sensitive nutrition interventions make up 70% of interventions, while specific nutrition interventions make up 30% (Kementerian Kesehatan RI, 2022).

Several specific nutritional interventions were performed by the LKC Dompot Dhuafa NTT to eliminate stunting, including the assistance of pregnant women, birthing process, breastfeeding, assistance of children with nutritional problems through home visits, distributing supplementary food, monitoring the growth and development of children, and parental counseling. A sensitive nutritional intervention is performed by providing aid for latrine construction.

*'We monitor the mother since pregnancy, birthing, breastfeeding, and the child. If there are nutrition problems, we handle that by home assistance, home visits, integrated health post assistance, and PM' (Program person-in-charge).*

*'Yes, sometimes we also help through latrine construction. We give them to cement and toilets, and they will build them' (Facilitator Program).*

Intervention methods for children under 2 years of age are more focused on the provision of supplementary food for a duration of 28 days. The 28-day intervention was based on a reference given by the community health center and nutritionist. The objective of the intervention was to change the mothers' child-feeding style through a positive deviance approach by adopting the behaviors of parents with low economic status but with healthy children.

Indicators for the implementation of all programs at Kawasan Sehat are available. The SOP is part of the input component. With an SOP, all program officers can perform their tasks based on existing guidelines (Sugianti, 2020).

### **Facilities and Infrastructure**

Facilities used in stunting intervention programs include scales, microtoises, and measuring tapes for the upper arm circumference. The infrastructure for integrated health posts includes tables and chairs for registration, and a mattress for examining pregnant women. There are seven integrated health posts in Kawasan Sehat, where 5 are held in the homes of community members, and two in their designated buildings.

'There is only one supporting tool that we have, so we have to take turns on our designated schedule. The tools are measuring tapes and scales. We also have educational media that we use to support integrated health posts' (Program person-in-charge).

Readiness of facilities and infrastructure, optimization of utilization, and management may assist in the success of a program (Nur Wulandari et al., 2021). Based on these findings, facilities and infrastructure are available but insufficient, especially spaces for integrated health posts. However, these challenges do not threaten the continuation of the programme.

### **Process Component**

#### ***Planning***

Planning stunting intervention programs in Kawasan Sehat consisted of determining the

areas of intervention and targets, conducting focus group discussions (FGD) and preparing resources for implementation. Targets were determined by stunting data and coordinated through sub-health and community health centers.

*'In determining the area, Oebelo Village, we decided on it because of low sanitation. Since the beginning of the program, we started with sanitation and mother and infant mortality, because we knew that they had high rates'.*

*'To determine the targets, we did it through coordination with community health center nutritionists. They recommended we focus more on children under 2 years' (Program person-in-charge).*

After the intervention targets were settled, the next step was FGD. The FGD was held to disseminate information regarding the provision of supplementary food. Preparing resources for program implementation was performed by training cadres. Training cadres can positively impact their capabilities to screen infants with nutritional deficiencies (Chomawati & Handayani, 2019). All planning activities for the stunting intervention program by the LKC Dompot Dhuafa NTT are based on integrated stunting suppression guidelines divided into three stages: situation analysis, preparation of activity plans, and stunting consultation.

#### ***Implementation***

The interview results showed that the stunting intervention was conducted holistically. The assistance of pregnant women was provided through health checks and supplementary food for pregnant women with chronic energy deficiency. Pregnancy classes with exercise and educational sessions were also conducted. Breastfeeding women were educated on the importance of exclusive breastfeeding during their visits to integrated health posts.

LKC Dompot Dhuafa optimized the stunting intervention by providing supplementary food, which was divided into two categories: supplementary food for counseling and recovery. If there were no changes, the intervention was continued by providing raw ingredients containing animal protein.



For the three years that the stunting intervention program was implemented in the Kawasan Sehat Oebelo, the intervention deemed most effective in decreasing stunting cases was the provision of supplementary food for stunted children under two years of age. This was especially true for supplementary foods for recovery that were provided to overcome nutritional deficiencies in children (Nur & Annisa, 2022).

### **Supervision**

Based on the results of the study, informants stated that supervision of the stunting intervention in the Kawasan Sehat Oebelo was performed by the program person-in-charge and cadres in their respective integrated health posts. Supervision was performed to monitor the provision of supplementary food by parents to their children.

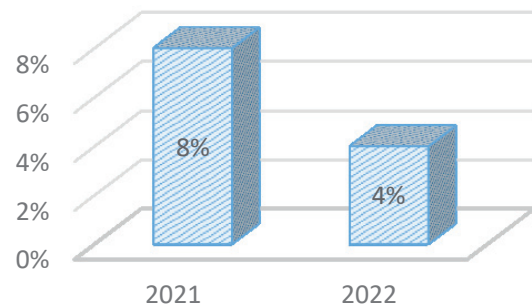
Data recording and reporting were performed after the activities were completed and for new cases. The child growth and development reports were summarized monthly. Data recording and reporting were performed to understand the program achievements and for evaluation.

Monitoring and evaluation were performed upon completion of the program. If the monitoring results of child growth and development show that no changes have occurred since the intervention, the next step is to make efforts to find the root cause and its solution. The results of the problem and efforts to overcome are transformed into plans for the next period's program.

### **Output Component**

Based on the output of the stunting intervention, the program was successful in decreasing stunting cases in the Kawasan Sehat, as proven by a decrease in stunting prevalence throughout 2021 – 2022 (Figure 1).

Based on the output component, the prevalence of stunting will decrease by 4% by 2022, which is less than the 8% decrease by 2021. The decrease in prevalence was supported by the program's assistance of pregnant women, breastfeeding mothers, provision of supplementary food for stunted toddlers, home visits, routine child growth and development monitoring, education, and supplementary food cooking demonstrations.



**Figure 1.** Prevalence of stunted children under 2 years old in Oebelo Villate in 2021 and 2022

The assistance of pregnant women contributed to the decrease in stunting cases; 48 pregnant women who were assisted in 2021 and 2022 did not have stunted children. In addition, 87% of breastfeeding mothers received assistance and exclusively breastfed their children in 2021, and 64% in 2022. These efforts played a role in eliminating the stunting.

Upon intervention, changes in the health status of stunted children under 2 years of age were observed. In 2021, 5 (45%) out of 11 stunted children under 2 years of age were given interventions that improved nutritional status, and 6 (55%) were still stunted. In 2022, the five stunted children under 2 years of age did not experience any changes in nutrition status, even after the intervention. Of the five children who did not experience a change in nutritional status, a continuous 28-day intervention was performed by providing supplementary food twice a day. After the 28-day supplementary food intervention, children who were still stunted received assistance through routine weighing at integrated health posts and nutritional counseling for the parents.

### **Program Effectivity**

Program effectiveness is the correlation between the outputs and objectives. A program is deemed effective if its planned objectives are achieved (Aminah & Riduan, 2022). Effectivity was evaluated based on the understanding of the program, accuracy, timeliness, achievement of program objectives, and real changes.

The community understands that stunting intervention is implemented to improve child nutrition. With continuous socialization by health workers and cadres, the community has

become aware and willing to participate in routine integrated health posts to monitor their children's growth and development.

The accuracy of the targets in several activities was achieved. A large portion of the community felt helped by these intervention programs. People with low economic status and stunted children are helped by the supplementary food provided by LKC Dompot Dhuafa, whether through raw ingredients or cooked food.

The program's timeliness was punctual. Routine integrated health posts and the provision of supplementary food to stunted children were performed continuously until changes in the child's height were observed. The program objectives were achieved effectively, as shown by the decrease in the prevalence of stunting, although insignificant. However, this still shows that the program achieved its main objective of reducing prevalence of stunting.

Real changes in this stunting intervention program included stunted children who had a normal nutritional status after receiving the intervention. Mothers with troubled pregnancies were able to give birth to children with normal weight because of the assistance they received during pregnancy. A program is deemed effective if real changes take place that can impact and benefit the community (Aminah & Riduan, 2022). In this case, the intervention program by LKC Dompot Dhuafa was implemented effectively, as proven by the number of people who felt the changes and benefits of the stunting intervention program.

The limitation of this research is that the respondents, mothers of infants and toddlers, use the local language of NTT, thus requiring the researchers to recruit enumerators proficient in the NTT local language and to conduct language validation by the LKC Dompot Dhuafa NTT team and cadres.

## CONCLUSION

It can be concluded that the stunting intervention in the Kawasan Sehat Oebelo is effective throughout all the input, process, and output components. Based on the input component, there remains a lack of nutritionists involved in stunting interventions. There is a need for a transportation allowance for active cadres and the

addition of facilities in each integrated health post. The methods for specific nutritional interventions have run well. Based on the process component, planning has been done with the help of cadres, and the implementation has run well with holistic intervention activities. Based on the output component, the intervention has decreased stunting by 8% in 2021 and by 4% in 2022.

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## Conflict of Interest declaration

The authors declare that they have no affiliations with or involvement in any organization or entity with any financial interest in the subject matter or materials discussed in this manuscript.

## Author Contributions

S, SSS, and KA contributed to the design and implementation of the research, S to the analysis of the results and to the writing of the manuscript. MTS and DPW conceived the original and supervised the project.

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