

RESEARCH STUDY

English Version

OPEN ACCESS

An Evaluation of *Kawasan Sehat* Program in *Layanan Kesehatan Cuma-Cuma Dompot Dhuafa* of West Nusa Tenggara for Stunting Prevention Management

Evaluasi Program Kawasan Sehat di Wilayah Layanan Kesehatan Cuma-Cuma Dompot Dhuafa Nusa Tenggara Barat dalam Upaya Pencegahan dan Penanganan Stunting

Shafira Salsabila Samara^{1*}, Selawati Selawati¹, Martina Tirta Sari¹, Kurnia Amelia¹, Danan Panggih Wisastra¹, Zulkarnaen Khotibi¹¹LKC Dompot Dhuafa, South Tangerang City, Indonesia**ARTICLE INFO**

Received: 07-09-2023

Accepted: 10-09-2024

Published online: 22-11-2024

***Correspondent:**

Shafira Salsabila Samara

shafirasalsabila407@gmail.com

DOI:

10.20473/amnt.v8i4.2024.537-548

Available online at:[https://e-](https://e-journal.unair.ac.id/AMNT)[journal.unair.ac.id/AMNT](https://e-journal.unair.ac.id/AMNT)**Keywords:***Kawasan Sehat* program, Stunting, NTB**ABSTRACT**

Background: Nutritional issues among children remain a significant health concern, with stunting being a national priority. Data of the Indonesian Nutrition Status Survey shows an increase in the prevalence of stunting in West Nusa Tenggara (NTB) from 31.4% (2021) to 32.7% (2022). Dompot Dhuafa Foundation has a *Kawasan Sehat* program to support the government in promoting healthy lifestyles, particularly stunting prevention.

Objectives: Evaluating the *Kawasan Sehat* program in efforts to prevent and manage stunting in *Layanan Kesehatan Cuma-Cuma* area of NTB.

Methods: This evaluative research used a mixed-methods approach. Data were collected through interviews, observations, and document reviews. Informants were selected using purposive sampling. Qualitative data analysis was conducted in stages of data reduction, presentation, and interpretation. Quantitative data were analyzed descriptively to assess stunting prevalence and the achievement of program indicators.

Results: *Kawasan Sehat* program has contributed to preventing and managing stunting. The input components effectively support its implementation, with adequate human resources and budget acquired from partnerships. The program was carried out systematically, including planning involving stakeholders, execution using a combination of community empowerment and charity, and supervision. Various interventions are implemented, including support for pregnant women, breastfeeding mothers, infants, and toddlers. The success of the output was evidenced by the decrease in stunting prevalence in *Kawasan Sehat* NTB and the achievement of the program indicators.

Conclusions: *Kawasan Sehat* program for stunting intervention has been successful according to input, process, and output. Community empowerment should continuously be strengthened to encourage communities to adopt clean and healthy living behaviors.

INTRODUCTION

Nutritional problems in children remain a concerning health issue in Indonesia as malnutrition and over nutrition among them are still highly prevalent, requiring immediate more attentions¹. One of the national priorities regarding children's health is addressing stunting, a condition where a child experiences prolonged chronic nutritional deficiencies characterized by growth impairment; stunted child or toddler has the body height of below average². The World Health Organization (WHO) recorded that 21% of toddlers worldwide in 2020 experienced stunting; most of them are Asians³. Meanwhile, the results of the Indonesian Nutritional Status Survey indicate that the prevalence of stunting has decreased from 24.4% in 2021

to 21.6% in 2022. However, this figure is still below the stunting prevalence standard set by WHO⁴ and has not met the Indonesian government's target⁵.

Stunting is a complex issue caused by various factors and conditions. The first 1,000 days of life are a crucial period for children. This period needs significant attention, as nutritional intake by fetuses and children until the age of 2 years determines the occurrence of stunting⁶. In general stunting is caused by insufficient nutritional intake⁷. The health of the mother during her pregnancy can also decide the likelihood of stunting in her child. Additionally, although access to healthcare services, sanitation, and clean water are also factors for children's growth⁸, nutrition remains a key determinant for their health, development, and survivability⁹.

Stunting can pose a threat to a child's future¹⁰. Further, it influences the various aspects of a child's life. In the short term, stunting can hinder body and brain growth and development as well as cause cognitive and motoric impairments and cause metabolic disorders. In the long term, stunting can reduce intellectual capacity, increase vulnerability to health problems, and lower reproductive outcomes¹¹. In addition, stunting can also affect Indonesia's economic productivity and its ability to achieve national and international development targets⁹.

There are currently many programs designed to address the issue of stunting; they include both specific and sensitive interventions. The government has also made stunting as its primary focus in tackling health problems by accelerating the efforts of stunting reduction through improvements in the quality and coverage of specific interventions. It has run programs of improving the nutritional intake for female adolescent, pregnant women, and toddlers, enhancing support provision, upgrading the service quality of *posyandu* (a health service event for pregnant women, infants, and toddlers in Indonesia), supplying intervention data, and prioritizing sensitive intervention targets with a focus on areas with high stunting prevalence⁵. Many other institutions and organizations also contribute to stunting reduction acceleration; one of which is the *Layanan Kesehatan Cuma-Cuma (LKC)*, a free health service program held by *Dompot Dhuafa*, an Indonesian charitable organization. LKC Dompot Dhuafa helps address stunting issues by conducting a program called *Kawasan Sehat*. Literally translated into English as Healthy Area, this program aims to promote healthy living in specific areas with certain health indicators with the primary focus of preventing stunting and malnutrition. The program achieves its goals through community empowerment, enhancement in human resource competencies, local resources management, and partnerships creation. One of the efforts is providing intervention support for toddlers and pregnant women across various community health empowerment programs¹².

Kawasan Sehat, literally translated as healthy area, is the name of a program implemented across all LKC locations in Indonesia, including those in Nusa Tenggara Barat, one of Indonesian provinces, abbreviated as NTB. The program has been running in this province for 2 years since it is one of the priority areas for stunting intervention that are still facing nutritional problems. According to the results of Indonesian Nutritional Status Survey, the prevalence of stunting in NTB was 31.4% in 2021 and 32.7% in 2022¹³. These figures indicate that special attention and action are still needed to address nutritional issues, particularly stunting. Therefore, LKC is present and actively assisting the underprivileged communities to prevent and manage stunting. In order to assess the effectiveness of *Kawasan Sehat* in stunting interventions in the province, the Head Office of LKC *Dompot Dhuafa* has designed this evaluative study.

METHODS

This evaluative research applies a mixed-method approach, incorporating both qualitative and

quantitative methods, to evaluate the effectiveness of *Kawasan Sehat* program by LKC Dompot Dhuafa in NTB using the components of input, process, and output. Taking place from March to June 2023, this study was conducted in Gili Gede Indah Village of Sekotong Sub-District in West Lombok Regency, which is the working area of *Kawasan Sehat* program of LKC Dompot Dhuafa NTB. The informants were selected using purposive sampling, where the participants were selected based on specific criteria of adequacy and relevance, resulting in 7 informants. The selected informants were believed to know well about the program and can provide information about it, either as individuals involved in the program or as the program's beneficiaries. The informants are the person in charge (P1) and the facilitator (P2) of the stunting intervention program in the *Kawasan Sehat* of LKC NTB and 2 cadres of community healthcare service (K1 & K2) responsible for implementing the program. In-depth interviews were conducted with program beneficiaries or the targets; they are a mother who has received support since her pregnancy and has a stunted toddler (PM1), a mother who has received support since her pregnancy and does not have stunted toddlers (PM2), and a mother who has a stunted toddler and has received support since then (PM3).

The data was collected primarily through interviews with selected informants, observations, and document reviews. The document reviews focused on data related to the prevalence of stunting for the 2021-2022 period, the changes in the nutritional status of the targets, and the achievements of *Kawasan Sehat* indicators in stunting prevention and management. The data were also obtained from the program's achievement reports, annual reports, and beneficiary reports sourced from LKC *Dompot Dhuafa* NTB staff. The research instruments are interview guidelines, observation guidelines, and document review guidelines. The in-depth interviews were conducted by two selected enumerators separately to ensure that the information given by an informant is not influenced by the responses of other informants. The interview guidelines include a guide for the enumerators to conduct interviews. The questions cover the aspects of input, process, and output that must be asked to each informant. The observation guidelines provide the enumerators with details about what aspects to observe. The document review guidelines outline the secondary data needed for the later descriptive analysis. The data validation was performed using source triangulation and method triangulation. Triangulation is a technique used to verify the accuracy of information from different perspectives. The source triangulation involved collecting data from both primary and secondary sources, while the method triangulation involved gathering data through various methods such as interviews, observations, and document reviews. The qualitative data analysis was conducted in three stages: data reduction, data presentation, and conclusion drawing. Here the data were analyzed descriptively to assess the prevalence of stunting and the achievements of the program indicators. The ethical approval of this study was granted by the Ethics Committee of the Faculty of Health Sciences of UIN Syarif

Hidayatullah Jakarta through a letter numbered Un.01/F.10/KP.01.1/KE.SP/05.08.045/2023.

RESULTS AND DISCUSSIONS

The *Kawasan Sehat* program is one of the initiatives of LKC *Dompét Dhuafa* NTB aimed at creating an area with good health indicators by promoting healthy living. In NTB, the *Kawasan Sehat* is located in Gili Gede Indah Village of Sekotong Sub-District in West Lombok Regency. The village consists of 5 hamlets; they are the intervention areas. This program aims to empower both groups and individuals in the community to address local health issues. The program has seven indicators with different program focuses and intervention methods. The indicators are maternal and child health, good sanitation, tuberculosis patient management, non-communicable diseases management, productive green environment, and mental-spiritual health¹⁴. One of the health issues addressed by LKC NTB is stunting. The organization focused on maternal and child health as the primary area for stunting prevention and management. This study evaluates the program's efforts in stunting prevention and management based on the components of input, process, and output.

Input

Input is the initial component of a program's implementation, serving as the driver or provider of the necessary resources. The evaluation of a program's input can be done by assessing several elements: man, money, method, material, and machine.

Man

Man or Human Resources (HR) is one of the crucial elements in the execution of a program, acting as the implementers. In the *Kawasan Sehat* program at Gili Gede Indah, the key HR involved in program implementation are the head of LKC *Dompét Dhuafa* NTB, Person in Charge (PIC) program, and program facilitator from the LKC NTB team. However, other team members of LKC *Dompét Dhuafa* will also assist in the activities should additional manpower is needed, as noted by several informants.

"The team involved in the stunting management by LKC consists of the head of LKC Dompét Dhuafa NTB, Bang Zul, then the PIC program, Ms. Isti, and I as the activity facilitator." (P2)

The research informants also mentioned that partnership with and assistance from other organizations for the stunting prevention and management in this program are also available. Partnerships are crucial for accelerating the reduction of stunting rates, so they need to be extended to the involvement of other parties¹⁵. The LKC NTB team has established various partnerships to combat stunting, including collaboration with Pelangan Health Center, YARSI Dental Hospital, Kimia Farma, and Audy Dental Care. Further, cadres of community healthcare service and the village government are also actively. Some past studies found that many stunting prevention programs still lack of nutrition experts^{16, 17}. This is different from LKC as the team has been supported

by volunteers with experts in nutrition.

"Up to now, as for partnerships, Puskesmas (Community Health Center) is one of our partners, as well as RSGI from YARSI Dental Hospital Jakarta and Audy Dental Care." (P1)

"Our partners in the stunting intervention activities are Pelangan Community Health Center, Gili Gede village government, and the cadres of community healthcare service." (P2)

"Yes, there is. The team from Dompét Dhuafa, along with midwives, usually directs the health workers to act quickly on stunting issues. Other health teams include those from Pelangan Community Health Center." (K2)

All informants felt that the human resources involved in the program have been adequate. The various forms of assistance and partnerships have been sufficient to address stunting in Gili Gede Indah. However, some communication obstacles were present, and the existing partnerships need to be optimized. Socializations and workshops for the human resources should also be conducted regularly to enhance their understanding of stunting, particularly for the participants who have backgrounds in nutrition or health¹⁸.

Money

Money or funding is a primary necessity for the execution of any program. The funding for the *Kawasan Sehat* program in NTB comes from the operational funds allocated for it. The partners also provide additional funds needed for the activities. Other informants mentioned that there are donors who give money specifically for stunting prevention and management. This finding is consistent with the results of past studies that a program requires financial support to facilitate its implementation¹⁹. Here are the results of the interviews with several informants.

"For now, the entire costs are paid using the funds provided for this program." (P1)

"The support so far has come from funds regularly, as well as additional from other sources such as zakat." (P2)

The available funds were allocated according to the needs of the program. Furthermore, the informants reported that there are no shortages or issues related to the funds. The fund allocation was determined via Focus Group Discussion (FGD) with the representatives of the village government and the Community Health Center. Here any additional funding needs, if any, are discussed. However, based on the interview results, the cadres of community healthcare service are not involved in the fund allocation process. The FGD, especially in determining the fund allocation, is crucial. This process aims to determine which activities should be prioritized and to identify the dominant factors for the stunting cases so that the allocated funds are effectively used to accelerate the stunting elimination efforts²⁰.

Method

The methods used in the *Kawasan Sehat* program for stunting prevention and management implemented

by the LKC NTB team cover both sensitive and specific interventions. Most informants stated that the specific interventions focused more on stunting prevention and management. The specific nutritional interventions were aimed directly at the immediate causes of nutritional issues and are the responsibility of the health sector²¹. Although the Ministry of Health has stated that specific interventions contribute only 30% to stunting elimination²², most informants indicated that the efforts of eliminating stunting carried out through the *Kawasan Sehat* program using specific intervention methods are more effective and show quicker results. Further, the Ministry of Health has also focused its efforts on specific interventions targeted from the prenatal phase and postnatal phase to infants aged 0-24 months²³. Here are the results of the interviews with some of the informants.

"Specific interventions. It is because we directly meet the targeted objects, identify the causes of the malnutrition, and assess the condition of the mothers until the activities are carried out. We also support undernourished infants and toddlers by establishing nutrition centers through which, for example, supplemental food is provided." (P2)

"We have implemented both specific and sensitive interventions as best as we can. It seems that we are more focused on specific interventions." (P1)

"Specific methods. It is because with specific methods we can observe the development." (K1)

The interventions conducted by the LKC NTB team include supports for pregnant women, breastfeeding mothers, monitoring at *posyandu*, providing PMT (Indonesian abbreviation for supplemental food), establishment of nutrition centers, and education. In addition, the LKC NTB team adjusts their activities based on the local environment and the changing situations. The team is currently beginning to use community empowerment to further enhance the efforts for stunting prevention and management. Several past studies also indicated that community empowerment is effective in preventing stunting, creating a nutrition-conscious generation, and increasing knowledge²⁴. Here are the results of the interviews with several informants.

"So, we tend to use methods that absorb the communities' aspiration and assess their capabilities." (P1)

"We determine which methods are more effective for future activities. If one method is considered more effective, it will be used in the next nutrition boosting event. At that time, the method that we used was community empowerment." (P2)

The methods used by the LKC NTB team are based on two approaches: the positive deviance approach and the charity approach. The positive deviance approach is used for intervening the nutritional status of infants and toddlers by empowering local wisdom and leveraging the community's own capabilities. Meanwhile, the charity approach involves the provision of food support to the community. Both approaches have been tried several

times and then adapted by combining them into a single intervention action for stunting tailored to the needs in the field. This aligns with the findings of past research that the positive deviance approach in health education enhances participants' understanding²⁵.

The activities for eliminating stunting in the *Kawasan Sehat* program also have a Standard Operating Procedure (SOP), which serves as a guideline for the program execution. This guideline is also shared with other implementers, such as cadres of community healthcare service. In addition to the SOP, trainings were also held for the cadres of community healthcare service before carrying out the activities, as indicated by the following interview results.

"There are guidelines provided by LKC for implementing the stunting intervention program." (K1)

"There is always books available to be used as a guideline for them to understand the dangers of stunting. They also give trainings for us, cadres of community healthcare service. After the training, we sometimes directly go working with real stunting cases and conduct counseling." (K2)

The availability of guidelines and trainings for program implementers is considered adequate as they have provided sufficient assurance that the implementers understand the program they will carry out. This can further optimize the effectiveness of the stunting elimination activities. This is supported by the findings of past research that the use of pocketbooks by cadres of community healthcare service as *posyandu* implementers positively impacts their knowledge improvement²⁶.

Material and Machine

The facilities and infrastructure needed for the *Kawasan Sehat* program to prevent and manage stunting are provided by various parties, including the village government, the health centers, the LKC NTB team, and other entities. According to the Governor's Regulation, the government through the village authorities is required to provide the necessary facilities and infrastructure for stunting interventions²⁷. According to the SOP, the equipment required for the program includes anthropometric tools, cooking sets for supplemental-food cooking demonstrations, office supplies, health monitoring cards, nutrition reports for infants and toddlers, and posters about the importance of nutrition and the necessity of Clean and Healthy Behavior. Based on the interviews, the equipment available at the *posyandu* is weighing scales, stature meters, and health monitoring cards.

"We have weighing scales and stature meters, and we perform anthropometric measurements. We even have MUAC tapes and our own health monitoring cards." (P1)

The availability of the required equipment, according to the community healthcare service cadres and the program beneficiaries, is considered inadequate in terms of both quantity and quality. Some of the

equipment is outdated and no longer accurate, necessitating the need for new tools. Occasionally, for *posyandu* activities, measurement equipment is borrowed from the local community. Past studies also found that stunting reduction programs sometimes lack of measurement tools¹⁶. The equipment used for measuring the children should be in good condition and accurate, as the acquired data determines the accuracy of the report²⁸.

Meanwhile, regarding the venue for the activities in the *Kawasan Sehat* program, existing facilities within the surrounding village are utilized. According to the documents, the infrastructure available for the stunting intervention activities includes the house of the cadres of community healthcare service and the village polyclinics (Polindes) of Gili Gede Indah. Additionally, an open stage building, commonly known as a *berugak*, is also used as a venue for *posyandu* activities. This confirms the findings of past research that facilities and infrastructure still need to be added and improved to adequately support the stunting eradication programs¹⁷.

"The hamlets have been successful in carrying out the activities, and so have the Posyandu. They use the village's facilities. Sometimes we use the berugak. We also maximize the use of the Poskesdes (village's health posts) and sometimes the houses of the residents, or anyone who allows his house to be used as the activity location." (P2)

"There is only one berugak, which is more than enough, but I think it would be better if sinks and toilets are available." (K2)

The venues for the activities, according to the cadres of community healthcare service and the program beneficiaries, are still considered insufficient. The *berugak* used for *posyandu* activities is deemed inadequate because it is very open, limited in capacity, and located too close to the coastline. Further, most of the informants feel that the existing infrastructure is insufficient, noting the lack of sinks and toilets, particularly at places used for *posyandu*.

Process

The *Kawasan Sehat* program, in its efforts to prevent and manage stunting, has conducted both sensitive and specific interventions, starting with the planning. The planning of stunting interventions in the *Kawasan Sehat* program is carried out by LKC NTB in collaboration with other parties, including Puskesmas, village government, cadres of community healthcare service, and the community. The planning process begins with a Focus Group Discussion (FGD) to analyze the situation, determine the intervention locations, and establish a shared commitment for implementing the stunting interventions. The targets for the intervention are also selected based on the available data and the results of consolidation with Puskesmas and other stakeholders. The planning process conducted by LKC NTB is in line with the guidelines for integrated stunting reduction interventions, which include three stages: program situation analysis, activity planning, and eradication of stunting²⁹. The planning process was

described by the informants as follows.

"Usually, we start with an initial discussion involving mothers suspected for needing intervention or those whom we will assist. Then, of course, there will be discussions with the cadres of community healthcare service as well." (P1)

"We usually hold meetings involving parents or the guardian of the infants and toddlers, the village heads, heads of the neighborhood, heads of the community, and the hamlet chief; all of them are involved." (P2)

"People representing Puskesmas, the village authorities, including the village head participate in the discussion about stunting." (K1)

"Yes, all of the cadres of community healthcare service are involved. For example, there is a team from Dompét Dhuafa, a team from the Puskesmas, and a team from the village government as well." (K2)

The sensitive interventions are focused on the indicators of good sanitation and productive green environments. For the good sanitation indicator, the program aims to achieve behavioral changes in sanitation practices, prevent diseases related to poor sanitation, and reduce the risk factors for stunting in children. The interventions for achieving good sanitation include the creation of family healthy latrine installations through four stages: triggering, provision of incentives, providing support, and conducting monitoring & evaluation. Meanwhile, the productive green environment indicator focuses on encouraging residents to plant productive crops in their home gardens or initiate the creation of nutrition gardens¹⁴, which can serve as a source of food to meet the nutritional needs of the children.

The sensitive interventions aimed at stunting prevention and management are reinforced by specific interventions carried out by the LKC NTB team. They are considered more effective and more focused on stunting prevention and management in NTB. The health indicators for mothers and children include several focuses of reducing Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR), preventing stunting in children, and increasing the coverage of exclusive breastfeeding. The interventions in the maternal and child health indicator include the organization of pregnancy classes, parenting classes, and *posyandu*; the provision of nutrition packages, iron supplementation, monitoring on the nutritional status of infants and toddlers, provision of high animal-protein food boosters for malnourished and stunted children, and provision of supports for malnourished infants and toddlers¹⁴. Based on the two types of interventions carried out by the LKC NTB team, the following evaluation of the process component in various activities aimed at stunting prevention and management is categorized by the target groups: pregnant women, breastfeeding mothers, and infants/toddlers.

Support for Pregnant Women

The pregnant women residing in the program areas receive support provided by LKC NTB in collaboration with local midwives. In their visit the health

workers check the mothers' condition, such as measuring their height, weight, arm circumference, hemoglobin levels, and the height of the uterine fundus. LKC NTB, working together with local midwives, offers both education and consultations to prevent anemia or other health issues that may arise during pregnancy and childbirth. Prenatal classes, such as pregnancy exercises, were also held, and iron tablets are distributed to the pregnant women.

"For pregnant women, we provide monthly support. During the support visits, we primarily measure their height, weight, arm circumference, blood pressure, hemoglobin levels, and uterine fundus height, as required. We collaborate with village midwives for this." (P1)

"For pregnant women, the support involves home visits, during which we provide education and hemoglobin checks." (P2)

"Blood pressure is checked, then hemoglobin levels are checked. They are given iron tablets and asked if they still have their iron tablets. If they still have them from the midwife, no additional tablets will be given. If they report any health problems, they will be given appropriate medication." (PM2)

Support for Breastfeeding Mothers

Supports are also provided for breastfeeding mothers through education on exclusive breastfeeding. The education (Mobile Education Service/MES) is delivered to all targets during the *posyandu*, the supplementary food distribution, and even during the door-to-door visits. Breastfeeding mothers can also consult with the program implementers during these sessions. The facilitators, serving as informants, have indicated that education is considered more effective and plays a crucial role in changing the habits of the community. Past research has also suggested that the most strategic approach for addressing stunting issues is the provision of knowledge via counseling, which serves as a catalyst for changing the habits³⁰.

"The monitoring on the condition of the breastfeeding mothers is usually combined with posyandu activities. The mothers can also consult with us, and then we provide necessary education to all attendees." (P2)

"For breastfeeding mothers, physical examinations are conducted, and we educate them about foods that are beneficial for ensuring excellent breastfeeding." (K1)

Support for Infants and Toddlers

The support for infants and toddlers is usually provided during *posyandu*. However, in certain conditions, the support is provided in a door-to-door basis. The activities conducted at *posyandu* are examining and monitoring the nutritional status of the infants and toddlers. In addition, those who are malnourished or stunted receive intensive support. The *posyandu* are carried out by the cadres of community healthcare service, who are supervised and guided by the LKC NTB team and the Puskesmas. Before serving their roles, the cadres of community healthcare service are

given trainings about stunting. These trainings include education about stunting, about the intervention programs, and about the implementation of the program, such as measurement procedures during *posyandu* monitoring. The trainings are conducted regularly before the intervention to refresh their knowledge about stunting and are in line with the guidelines for implementing integrated stunting reduction interventions. They, who assist the village government in facilitating the implementation of these interventions, are trained before the intervention begins²⁹.

"We usually give them a knowledge refreshment. They are geared with basic information like what stunting is and how to prevent it, and other relevant details. The training is usually conducted annually." (P1)

"Yes. We participate in training and attend counseling sessions as well. If there is a counseling session, we will join." (K1)

The results of the *posyandu* activities are recorded by the cadres of community healthcare service and reported to the LKC NTB and the health center. The records are kept in the hamlet cadres' register books and in the nutrition report prepared by LKC NTB. This is in accordance with the general guidelines for managing *posyandu*, where the cadres of community healthcare service make report right after the activities are completed³¹. Below are excerpts from interviews with several informants.

"As mentioned earlier, we have to keep reports, so all measurement results before, during, and after the activities are recorded in the toddler report cards, which are called as the nutrition report. For the support, we make monthly record for posyandu support. But for the nutrition boosting event, we usually make reports after one cycle is done." (P1)

"We have forms that need to be filled by the cadres of community healthcare service, but they also have their own logbooks that they must fill." (P2)

"When we finish measuring, we submit the posyandu data, which is our posyandu results, directly to LKC." (K1)

"The results of the recording are kept in the registry book. Each cadre has his own log book and activity book, and they also have their own record books for each hamlet." (K2)

Another activity provided to infants and toddlers is Supplemental Food Provision (PMT), which is divided into two types: supplemental food for education and supplemental food for recovery. Supplemental food for education is usually given to all infants and toddlers at *posyandu*. This supplemental food is provided by the cadres of community healthcare service using village funds, although the LKC NTB team also occasionally provides supplemental food for education. Supplemental food for education is provided monthly during *posyandu*. Here animal protein, fruits, vegetables, or processed foods like green bean porridge and provided.

"This is always available. For PMT, we usually

provide eggs and oranges. For the food supply, the cadres of community healthcare service directly handle it." (K2)

"We usually focus on the nutritional triangle. In the triangle, we fulfill the nutritional needs, especially protein, and prioritize the 'four healthy' components. It is rare for use to give more than that as we focus more on the provision of high protein and supplements." (P1)

"We follow the standard as regulated by the Ministry of Health. In the past, it was known as 'four healthy components, five perfect components.' Now, it is called as 'five stars' or 'four stars'—I am not sure. The interventions we did through the nutrition boosting events involved asking participants to contribute whatever they could bring from home, such as rice. This way, they could contribute something, and we would cook together. However, for the monthly events, the ingredients are provided by either the village government or the cadre in each hamlet." (P2)

Meanwhile, supplemental food for recovery is managed by the LKC NTB team through an activity called nutrition boosting. Supplemental food for recovery is focused on infants and toddlers identified as stunted. Various approaches are employed at the nutrition boosting events, where the target group is usually provided with supplemental food for 28 days, three times a day. The provided supplemental food meets the nutritional needs defined by the 'four-star' standard, with a focus on animal protein. Other research also emphasizes the importance of animal and plant protein sources, as well as vitamins and minerals in supplemental food³². Community empowerment is also incorporated in the nutrition boosting events activities, where the target group contributes to preparing supplemental food ingredients, which are then cooked together with the LKC NTB team and cadres of community healthcare service. This approach aims to raise awareness about the importance of children's nutritional intake and to promote good feeding practices. Other studies have also found improvements in nutritional status through PMT, although not significantly, as community awareness remains crucial for the effectiveness of the activities³³. Furthermore, providing supplementary food through empowerment is expected to have a better long-term impact, if done consistently, even though significant changes are difficult to achieve in the short term.

In terms of monitoring, the LKC NTB team supervises the beneficiaries through home visits at specific times to ensure that the supplemental food is being administered correctly. The evaluation is usually conducted twice: midway and at the end of the intervention. The records of the nutrition boosting events are maintained throughout the implementation cycle to track the changes that may happen during the process consisting of multiple stages of anthropometric measurements.

"We usually conduct home visits at certain times, such as during lunch or dinner, to observe the parents' feeding habits." (P1)

"During the activities, if the health center team can join, they become our supervisors for the activities."

(P2)

"Yes, they are always here, providing support during posyandu, and sometimes they visit the homes of the respondents who need additional education." (K1)

"There is always supervision or support because they are always here, providing assistance. They usually come monthly. I cannot even count how often they come; they always have something to do here." (K2)

The implementation of the *Kawasan Sehat* program in NTB is still hampered by several obstacles during its planning, execution, and recording. The challenges during the planning process did not significantly hinder the program's progress. The venue of the program is quite distant, and the travel to reach it is time-consuming; not to mention that it requires the use of boats. In terms of support, the challenges were about the attendance of the targets, as some did not come, making it impossible to provide interventions during the activities. However, the LKC NTB team and the cadres of community healthcare service conduct door-to-door interventions to overcome this obstacle. The results of the interviews with the targets reveal challenges in the provision of supplemental food for the children. In some cases, the mothers were found not to sufficiently give the supplemental food to their children; the supplemental food intended for the child was sometimes consumed by themselves or other family members. The challenges in the recording stage typically about missing or unrecorded data. The LKC NTB team ensures accuracy by contacting each of the cadre to verify the data consistency between the health center's register and the cadre's records. Therefore, the role of the cadres of community healthcare service in record-keeping is crucial, and they require periodic training. Past studies have also found that issues in completing *posyandu* reports are related to the knowledge and age of the community healthcare service cadres³⁴.

Output

The implementation of the *Kawasan Sehat* program by LKC NTB as an effort to prevent and address stunting can be said to have resulted in changes and improvements. This is evident in Chart 1, which shows a decrease in stunting prevalence in *Kawasan Sehat* of Gili Gede Indah Village, from 42% in 2021 to 39% in 2022. This demonstrates the success of the *Kawasan Sehat* program in reducing stunting prevalence. Furthermore, the program's goals and indicators have been achieved, including monitoring the nutritional status of infants and toddlers, improving the nutritional status of accompanied infants and toddlers, and providing interventions through nutrition boosting events (PMT support and PMT recovery) for infants and toddlers with poor nutrition or malnutrition.

"There has been a decrease, but so far when asked whether the program has been successful or not, we might not be able to say "yes" because although the target for reducing stunting has indeed been quite high, but in terms of increasing weight gain, we have met the target." (P1)

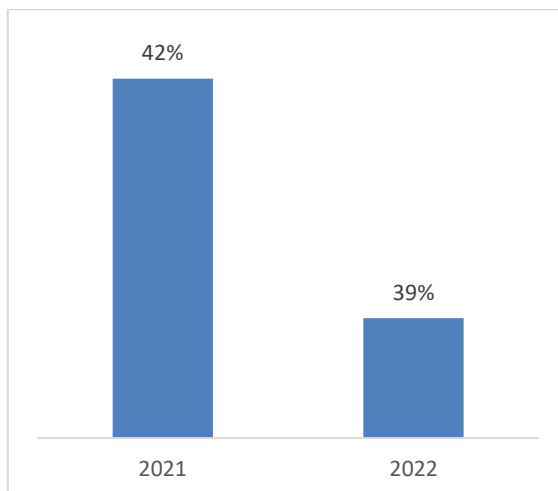


Chart 1. Prevalence of stunting incidents in the *Kawasan Sehat* of Gili Gede Indah, NTB

The interventions provided to pregnant women and breastfeeding mothers have also been successful, in which that the support has been given since the women are pregnant and that 100% of the mothers have provided exclusive breastfeeding to their children in 2021 and 2022. Some of the infants and toddlers who received interventions have also shown improvements; in 2021, 24% of the target group improved from stunted to non-stunted conditions, and in 2022, 5% of the target group

showed improvements. The other achievement indicators in Table 2 show that most of the indicators have nearly reached 100% and have met the target of 80%, with no maternal mortality in the target area. However, the total achievement for the target group of pregnant women who are not experiencing anemia remains low. Nevertheless, most children born to pregnant women who received support from LKC NTB did not suffer from stunting.

Table 1. Achievements of maternal and child health indicators in the LKC NTB *Kawasan Sehat* Program

Indicator	2021		2022	
	Total	Total achievements (%)	Total	Total achievements (%)
Maternal Mortality Rate (MMR) in target area	0	100%	0	100%
Target group pregnant women without anemia	7	25%	10	27%
Monitoring nutritional status of target group pregnant women	23	85%	25	92%
Targeted breastfeeding mothers successfully provided exclusive breastfeeding.	20	100%	27	100%
The nutritional status of the targeted infants and toddlers was monitored.	62	90%	40	87%
Infants and toddlers who received support showed improved nutritional status (with a weight gain of 100-200 grams).	21	84%	10	83%

Although there has been a decrease in the prevalence of stunting and increases in the stunting status after the intervention, these outcomes have not reached the national target. This may be due to various uncontrollable factors influencing the results of the interventions. The informants stated that after the program was implemented, many other factors continued to affect stunting incidence; they are economic conditions, people's behavior, parenting, maternal education levels, environmental and child hygiene, and family support.

"Actually, we need to evaluate several more aspects. First, environmental cleanliness, then the child's living conditions. Then, we also need to consider child hygiene, especially concerning parenting." (P1)

"The behavior of each individual there, in my opinion, remains a factor that influences the situation. Further, there is the sanitation factor due to the scarcity of clean water. The caretakers of the toddlers are still a factor that needs improvement. If I were to summarize, behavior, sanitation, and family support are the key factors." (P2)

"In terms of individual factors, I think it is more about parenting." (K1)

"The factors could be their food, cleanliness, and the inactivity of their parents, which I believe are the influential factors, because the role of parents is very important, and the child's health depends on the parenting style." (K2)

Parental behavior and parenting practices are

seen by most informants as the main factors influencing stunting. Even though interventions have been carried out on the targets, established parenting practices are difficult to change. Therefore, LKC NTB prioritizes providing regular education and implementing community empowerment so that the targets will be more motivated to adopt better parenting practices for their children. Research related to stunting in Indonesia also states that parenting is one of the factors influencing stunting in children. The most influential aspect of parenting is feeding practices, where the habit of delaying feeding and not paying attention to nutritional needs leads to poor food intake, causing stunting in children³⁵. Economic factors are considered one of the root causes of health problems, including stunting. Sanitation remains a concern in stunting cases in the healthy area of NTB, with some informants stating that cleanliness in the healthy area still cannot be considered excellent, worsen by the lack of clean water. Other studies also suggest that water and sanitation factors are related to stunting in toddlers in Indonesia, indicating the need to enhance health promotion efforts and WASH (Water, Sanitation, and Hygiene) program monitoring in addition to specific nutrition interventions³⁶.

Effectiveness

The effectiveness of the program can be assessed from several aspects; they are program understanding, target accuracy, timeliness, goal achievement, and the presence of tangible changes. In the efforts of the program to address and prevent stunting, it is evident that the implementers have a good understanding about the program itself. This is supported by the FGD conducted during the initial planning stage, as well as the training and workshops provided to the implementers. The program beneficiaries and targets also reported that the information provided about stunting interventions was easy to understand and well-received.

"Because from year to year the intervention programs tend to be repetitive, and they could grasp a good understanding about it" (P2)

"Yes, that is right, because we also receive a refreshment session about stunting from LKC." (K1)

The target groups for stunting intervention in the *Kawasan Sehat* are also considered appropriate. The program targets pregnant women, breastfeeding mothers, and toddlers who receive accompaniment. The targeted community, based on the existing data, has also been reached for the intervention, even to the extent of door-to-door assistance. This is supported by the results of the interview with the beneficiaries, who reported being accompanied from pregnancy until their children were born. The implementation timeline was also carried out as planned, with monthly monitoring of *posyandu* and the provision of supplemental food support (nutrition boosting events) conducted 2-3 cycles per year.

"So far, the beneficiaries are well-targeted because, even though the pregnant women live far away, we still visit them for counseling." (K2)

"Alhamdulillah, the time accomplishment of the

program has been within planned the timeline and meets the set deadlines." (P2)

The goals of the *Kawasan Sehat* program of preventing and managing stunting can be considered to have been largely achieved. The interventions in the healthy area of Gili Gede Indah village have contributed to reduction in stunting cases, although the impact has not yet been significant. Meanwhile, there have been many changes among the beneficiaries following the intervention, from pregnant women who initially had health issues but experienced no problems during delivery after receiving support to improvements in the nutritional status of the children as evidenced by increased weight gain and reduced stunting risks. According to the beneficiaries, there have been noticeable improvements in their children's nutrition.

"If you ask whether it has reduced stunting, yes, but the decline is not significant." (P1)

"Alhamdulillah, according to the information, stunting cases have decreased." (K2)

"Alhamdulillah, now those who were initially stunted are no longer stunted." (P1)

"The changes are gradual but visible. For example, in the past many pregnant women were anemic, but after being taught the importance of taking iron tablets, they have a better understanding about the benefits of the tablets and start taking them. The mothers who were reluctant to join the program are now participating in it. We can say that there is a 30-40% of changes." (P2)

"Alhamdulillah, as mentioned earlier, those who were previously unhealthy have become healthier, and those who were underweighted have gained weight." (K2)

The data obtained from the document reviews also show transitions among the infants and toddlers, from stunted to non-stunted, after interventions given through the *Kawasan Sehat* program. Based on the results of the evaluation from the various aspects above, it can be said that the *Kawasan Sehat* program as an effort of preventing and managing stunting has been effective in addressing stunting issues, particularly in Gili Gede Indah village.

CONCLUSIONS

The entire *Kawasan Sehat* program aimed at stunting intervention has been quite effective in terms of input, process, and output. The evaluation results indicate that there is a need for improvement in the availability of adequate facilities and infrastructure in order to achieve more effective intervention activities. In terms of *process*, community empowerment has been included in the effort of fostering better behavior, which must be continuously enhanced to maximize the efforts in stunting prevention and management. In terms of *output*, the *Kawasan Sehat* program has begun to make changes and reduced stunting, although the impact is not yet significant due to several other contributing factors. Therefore, interventions targeting the factors influencing stunting in Gili Gede Indah Village, such as community

behavior, parenting, environmental and child health, and family support, are necessary. Community engagement can also be undertaken to empower potential resources, such as youth, PKK (*Pemberdayaan Kesejahteraan Keluarga*/Family Welfare Empowerment), and TPK (*Tim Pendamping Keluarga*/Family Assistance Team). The target audience for the activities must also be expanded to include other family members involved in child-rearing.

ACKNOWLEDGEMENT

The researcher extends gratitude to those who have contributed to this research, including the LKC *Dompot Dhuafa* NTB team for their support and cooperation in conducting this study, and to the two enumerators who assisted in interviewing research informants. Thanks also go to Dr. Minsarnawati, S.K.M., M.Kes, a public health lecturer, for providing input related to this research.

CONFLICT OF INTEREST AND FUNDING DISCLOSURE

All authors have no conflicts of interest regarding this article. This research was funded by the Head Office of LKC, *Dompot Dhuafa*.

AUTHOR CONTRIBUTIONS

SSS: contributed to conceptualization, methodology development, data analysis, manuscript writing, and revisions; S: contributed to conceptualization, methodology development, and data analysis; MTS: provided supervision and validation; KA: secured funding, reviewed, and edited the manuscript; DPW: ensured data accuracy; ZK: conducted investigations and data collection.

REFERENCES

1. UNICEF Indonesia. Status Anak Dunia 2019. <https://www.unicef.org/indonesia/id/status-anak-dunia-2019> (2019).
2. Kementerian Kesehatan Republik Indonesia. Stunting, Ancaman Generasi Masa Depan Indonesia. *Direktorat P2PTM* <https://p2ptm.kemkes.go.id/kegiatan-p2ptm/subdit-penyakit-diabetes-melitus-dan-gangguan-metabolik/stunting-ancaman-generasi-masa-depan-indonesia> (2018).
3. World Health Organization. Levels and trends in child malnutrition: UNICEF/WHO/The World Bank Group joint child malnutrition estimates: key findings of the 2021 edition. <https://www.who.int/publications-detail-redirect/9789240025257> (2021).
4. Kementerian Kesehatan Republik Indonesia. Prevalensi Stunting di Indonesia Turun ke 21,6% dari 24,4%. <https://www.kemkes.go.id/article/view/23012500002/prevalensi-stunting-di-indonesia-turun-ke-21-6-dari-24-4-.html> (2023).
5. Badan Perencanaan Pembangunan Nasional. Permutakhiran Rencana Kerja Pemerintah Tahun 2023. (2022).
6. Info Kesehatan. Negara dengan Angka Stunting Tertinggi di Dunia. *WeCare.id* <https://blog.wecare.id/2022/12/negara-dengan-angka-stunting-tertinggi-di-dunia/> (2022).
7. Kementerian Kesehatan Republik Indonesia. Mengenal Stunting dan Gizi Buruk. Penyebab, Gejala, Dan Mencegah. *Direktorat Promosi Kesehatan Kementerian Kesehatan RI* <https://promkes.kemkes.go.id> (2018).
8. Kementerian Kesehatan Republik Indonesia. Ini Penyebab Stunting pada Anak. <https://www.kemkes.go.id/article/view/1805280006/ini-penyebab-stunting-pada-anak.html> (2018).
9. United Nations Children's Fund. Situasi Anak di Indonesia – Tren, Peluang, dan Tantangan Dalam Memenuhi Hak-Hak Anak. (2020).
10. Tanoto Foundation. Stunting, Ancaman bagi Masa Depan Anak-anak Indonesia. *Tanoto Foundation* <https://www.tanotofoundation.org/id/news/stunting-ancaman-bagi-masa-depan-anak-anak-indonesia/> (2020).
11. Helmyati. Mengenal Stunting: Deteksi Dini, Dampak, dan Pencegahannya. *PKGM* <https://pkgm.fk.ugm.ac.id/2022/04/05/mengenal-stunting-deteksi-dini-dampak-dan-pencegahannya/> (2022).
12. Dompot Dhuafa. Program Kesehatan - Dompot Dhuafa. <https://www.dompetdhuafa.org/program/kesehatan/> (2021).
13. Kementerian Kesehatan Republik Indonesia. Hasil Survei Status Gizi Indonesia (SSGI) 2022. (2023).
14. LKC Dompot Dhuafa. Program Kawasan Sehat. (2023).

15. Prahastuti, B. S. Kajian Kebijakan: Kemitraan Publik Swasta Penanggulangan Stunting di Indonesia Dalam Kerangka Tujuan Pembangunan Berkelanjutan. *Jurnal Ilmiah Kesehatan* **12**, 55–64 (2020). <https://doi.org/10.37012/jik.v12il.124>
16. Sahila, A. N. Evaluasi Pelaksanaan Intervensi Gizi Spesifik dalam Upaya Pencegahan Stunting. *HIGEIA (Journal of Public Health Research and Development)* **7**, (2023). <https://doi.org/10.15294/higeia.v7iSup.67300>
17. Wahyuningtias, R. & Zainafree, I. Evaluasi Program Gerakan 1000 Hari Pertama Kehidupan (Hpk) Dalam Pencegahan Stunting Di Wilayah Kerja Puskesmas Bangsri II Kabupaten Jepara. *Jurnal Kesehatan Masyarakat* **10**, 172–177 (2022). <https://doi.org/10.14710/jkm.v10i2.32574>
18. Manita, Y. A., Akbar, P. N., Rahman, M. F., Rosanti, P. I. & Rahayu, C. D. Optimalisasi Kader Dashat (Dapur Sehat Stunting) untuk Pengendalian Stunting. *Jurnal Peduli Masyarakat* **4**, 419–426 (2022). <https://doi.org/10.37287/jpm.v4i3.1230>
19. Bardosh, K. et al. Evaluating a community engagement model for malaria elimination in Haiti: lessons from the community health council project (2019–2021). *Malaria Journal* **22**, 47 (2023). <https://doi.org/10.1186/s12936-023-04471-z>
20. Damayanti, D. Implementasi Program Penurunan Stunting Melalui Danadesa (Study Di Desa Gununglurah, Kecamatan Cilongok, Kabupaten Banyumas). *Public Policy and Management Inquiry* **5**, 242–255 (2022). <https://doi.org/10.20884/1.ppmi.2021.5.1.3901>
21. Kementerian Kesehatan Republik Indonesia. Rencana Strategis Kementerian Kesehatan Tahun 2020-2024. <http://hukor.kemkes.go.id/berita/publikasi-ke-luar/rencana-strategis-kementerian-kesehatan-tahun-2020-2024> (2022).
22. Kementerian Kesehatan Republik Indonesia. Upaya Intervensi Spesifik Kementerian Kesehatan untuk Capai Target Prevalensi Stunting 14 Persen Tahun 2024. <https://kesmas.kemkes.go.id/konten/133/0/upaya-intervensi-spesifik-kementerian-kesehatan-untuk-capai-target-prevalensi-stunting-14-persen-tahun-2024> (2022).
23. Humas BKKP. Cegah Stunting, Kemenkes Fokuskan Pada 11 Program Intervensi. *Badan Kebijakan Pembangunan Kesehatan | BKKP Kemenkes* <https://www.badankebijakan.kemkes.go.id/cegah-stunting-kemenkes-fokuskan-pada-11-program-intervensi/> (2023).
24. Hidayah, N. & Marwan, M. Upaya Pemberdayaan Masyarakat Dalam Menciptakan Generasi Milenial Sadar Gizi Yang Bebas Stunting Melalui Kegiatan 1000 HPK. *Journal of Community Engagement in Health* **3**, 86–93 (2020). <https://doi.org/10.30994/jceh.v3i1.41>
25. Butarbutar, A. F., Gultom, Y. T. & Damanik, R. A. Pendidikan Kesehatan dengan Pendekatan Positive Deviance dalam Pencegahan Stunting Bagi Balita Keluarga Miskin di Kecamatan Medan Amplas. *Jurnal Pengabdian Kesehatan (JUPKes)* **3**, 7–14 (2023). <https://doi.org/10.52317/jupkes.v3i1.570>
26. Irmasari, I., Haniarti, H., Umar, F. & Nurlinda, N. Buku Saku Kader terhadap Peningkatan Pengetahuan Kader Posyandu untuk Pencegahan Stunting. *Jurnal Keperawatan Profesional (KEPO)* **4**, 65–73 (2023). <https://doi.org/10.36590/kepo.v4i2.645>
27. Gubernur Nusa Tenggara Barat. Peraturan Gubernur Nusa Tenggara Barat Nomor 68 Tahun 2020 Tentang Aksi Pencegahan Dan Percepatan Penurunan Stunting Terintegrasi. (2020).
28. Pemkab Purworejo. Perlu Data Akurat Untuk Penurunan Stunting. <https://purworejokab.go.id/web/read/2771/perlu-data-akurat-untuk-penurunan-stunting.html> (2023).
29. Bappenas KP. Pedoman Pelaksanaan Intervensi Penurunan Stunting Terintegrasi di Kabupaten/Kota. (2018).
30. Aryastami, N. K. Kajian Kebijakan dan Penanggulangan Masalah Gizi Stunting di

- Indonesia. *BPK* **45**, 233–240 (2017).
<https://doi.org/10.22435/bpk.v45i4.7465.233-240>
31. Kemenkes RI. Pedoman Umum Pengelolaan Posyandu. (2018).
32. Darubekti, N. Pemberian makanan tambahan (PMT) Pemulihan bagi balita gizi buruk. *Prosiding Penelitian Pendidikan dan Pengabdian 2021* **1**, 639–644 (2021).
33. Ichsan, O. A. N., Priyambodo, G. W., Noviana, I., Rahmawati, K. D. & Nurhuda, M. Efektivitas Pendampingan dan Pemberian Makanan Tambahan (PMT) pada Anak Penderita Stunting di Kelurahan Semanggi Provinsi Jawa Tengah. *JMM (Jurnal Masyarakat Mandiri)* **6**, 731–740 (2022).
<https://doi.org/10.31764/jmm.v6i1.6612>
34. Syam, N. S. et al. Peran Serta Kader dalam Pemenuhan Kelengkapan dan Ketepatan Pencatatan Data Posyandu Anyelir 1 Dusun Wonocatur, Banguntapan, Bantul. *J. Pemberdaya. Publ. Has. Pengabd. Kpd. Masy* **4**, 275–278 (2020).
<https://doi.org/10.12928/jp.v4i3.1995>
35. Nugroho, M. R., Sasongko, R. N. & Kristiawan, M. Faktor-faktor yang Mempengaruhi Kejadian Stunting pada Anak Usia Dini di Indonesia. *JO* **5**, 2269–2276 (2021).
<https://doi.org/10.31004/obsesi.v5i2.1169>
36. Olo, A., Mediani, H. & Rakhmawati, W. Hubungan Faktor Air dan Sanitasi dengan Kejadian Stunting pada Balita di Indonesia. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini* **5**, 1113–1126 (2020).
<https://doi.org/10.31004/obsesi.v5i2.788>