

Overview of Stunting Data and Special Nutrition Interventions In Bungo Regency, Jambi Province

Rini Maya Sari¹, Elvi Sunarsih², Mufazoh³, Nise Liveona⁴

¹ Program Study of Environmental Science Doctoral, Universitas Sriwijaya, Palembang, Indonesia

² Faculty of Public Health, Universitas Sriwijaya, Jalan Raya Palembang, Indonesia

^{3,4} Department of Public Health, Bungo District Health Office, Jambi, Indonesia

E-mail : 20013682328017@student.ac.id¹ , elvisunarsih@fkm.unsri.ac.id²

Abstract

The problem of stunting in children under five is a major concern in global public health. Stunting, which is caused by chronic malnutrition, is a serious problem with nearly 200 million children under the age of five experiencing it worldwide. This condition not only affects children's physical growth, but also impacts their cognitive development and long-term health. This report uses descriptive analytical research methods to assess the situation of stunting, specifically in Bungo District. The results of the situation analysis in Bungo District show that there are 25 villages that are the locus of stunting with high prevalence rates of stunted children under five. This shows that the problem of stunting in this region really needs special attention and more intensive handling. Interventions that have been carried out in Bungo District include various efforts, such as providing nutritious supplementary food, increasing access to health services, and educating pregnant and lactating mothers about the i The conclusions from this study emphasize the importance of focusing on specific areas to address stunting in Bungo District. To reduce stunting rates, innovative specific intervention efforts in nutrition are needed. These could include programs that support improving children's nutritional intake, improving the quality of water and sanitation, and monitoring children's growth regularly. With an integrated approach and focus on the specific needs of each region, it is hoped that the stunting rate in Bungo District can be significantly reduced, so that children can grow and develop optimally. mportance of balanced nutrition.

Keywords: Toddlers, Stunting Prevalence, Nutrition Interventions

1. Introduction

Worldwide, nearly 200 million children under the age of 5 suffer from stunting, childhood malnutrition continues to be a major and most common public health problem, where it is necessary attention of the global community (J. Castro-Bedriñana at al: 2021) . Stunting is a condition of failure in the growth and development of children under five, mostly referring to malnutrition, namely reduced physical growth and cognitive impairment according to age. which occurs when the baby is in the womb and at the beginning of the child's first life, as well cannot be repaired (K. Oginawati at al: 2023). These include poorer childhood survival, developmental delays, and lower educational attainment The relationship between stunting in children and disease in adults is very complex (A.J. Prendergast & J.H. Humphrey: 2024). The main determining factors for malnutrition in childhood are poverty, premature birth or small gestational age, recurrent infections and fSocio-cultural actors also have an important role, as well Boys have a higher risk of stunting and severe stunting than girls (A. Ndagijimana: 2024) . The prevalence of stunting and wasting has decreased along with increasing per capita income and access to improved nutrition, sanitation and health services as well as efforts to address the direct causes of malnutrition in fetuses and children (B. Haile and D. Headey: 2023). It is important for government and health authority recommendations to promote nutrition-related and culturally appropriate interventions, and households must be educated about improving diverse diets, adequate intake by consuming animal protein and take worm medicine (F. Danso and M. A. Appiah: 2023) . The wasting and stunting perspective was designed and funded so that the nutrition community can better understand, prevent and treat child malnutrition, as well as the importance of compliance with health measures for the success of the CCT program (*Conditional Cash Transfers*) in

poor children. In rural areas, there is a need to integrate forest conservation as a source of local food in the surrounding environment (E. M. Corrêa et.al, 2022).

Recent evidence shows that there are causes of stunting other than nutrition-related factors such as psychological stimulation (D. A. Fufa, 2022). In other cases, the results of anthropometric measurements for determining stunting may be carried out by professionals who are not qualified or not properly trained and/or with inadequate equipment or without maintenance so that the results obtained are invalid (E. M. Corrêa et.al, 2022). On the other hand, the combination of unimproved latrines and untreated drinking water is associated with an increased likelihood of stunting[26]. In Bungo District's own efforts to reduce stunting are by carrying out specific interventions through nutritional innovations. This study aimed to report the incidence of stunting among toddlers in Bungo Regency, Jambi Province. The results will provide an opportunity to provide input for policy design, implementation and specific interventions in efforts to reduce the incidence of stunting in Bungo Regency, Jambi Province.

2. Methods

1. Research sites

The location of this research is Bungo Regency, one of the districts in Jambi Province which is geographically very strategically located between 101' 27' to 102' 30' East Longitude and between 01' 55' South Latitude. So Bungo district is nicknamed "City of Crosses" which is a lowland area at an altitude of 0-25 meters above sea level.



Figure 1. Research Sites
Source: Data Processing

2. Types of Research

This type of research is an analytical descriptive which explores how a phenomenon occurs to analyze stunting cases in Bungo Regency (R. H. Hariri et al, 2019). The design of this research is a cross sectional design, which means data collection is carried out at a certain time (A. A. Bjertnaes, et.al, 2020). The sample consisted of 355 toddlers. Based on the data used to search for literature, selection was based on the criteria for stunting children. Next, apply a literature review related to stunting, growth and outcomes using indicators of malnutrition with a z-score <-2 SD (E. M. Corrêa et.al, 2022).

3. Data Source

This study was conducted using secondary data from the Bungo District Health Service.

a. Data Analysis

Data Analysis in this research uses survey data, electronic application data, and situation analysis, this research can provide relevant information to formulate policies and intervention programs that are more effective in reducing the incidence of stunting in Bungo Regency.

Data analysis in this study uses survey data from the Indonesian Nutrition Status Study (SSGI) to see the reduction in stunting rates from 2019 to 2022 in Bungo Regency. In addition, data from the Bungo Regency Community-Based Nutrition Reporting and Recording Electronic Application (e-PPGBM) was used to analyze fluctuations in stunting

cases from 2021 to 2023. This data provides an important picture of stunting trends and changes in stunting cases over time in that region.

Apart from that, a situation analysis in Bungo Regency was also carried out to identify 25 stunting locus villages with high prevalence rates of stunted toddlers. This data helps in focusing on areas that require special attention in efforts to overcome stunting.

4. Results and Discussion

1.Results

a. Data from the Indonesian Nutritional Status Study (SSGI) in Bungo Regency

Based on SSGI data in Bungo Regency, there has been a decrease in stunting cases every year from 2019 – 2022. The highest stunting data in 2019 was the highest (27.4%) and in 2022 the lowest (15.4%).

Table 1
Bungo Regency Stunting Data (SSGI).

Year	Stunting (%)
2019	27.4%
2021	22.9%
2022	15.4%

Source: Data Processing

b. Data electronic Application – Community - Based Nutrition Recording And Reporting (e-PPGBM) Bungo Regency Stunting 2021-2023

Based on e-PPGBM data in Bungo Regency, there was a fluctuation in stunting cases from 2021 - 2023. There was no significant increase or decrease. Stunting data in February 2022 was the highest (363 cases) and in August 2021 the lowest (300 cases).

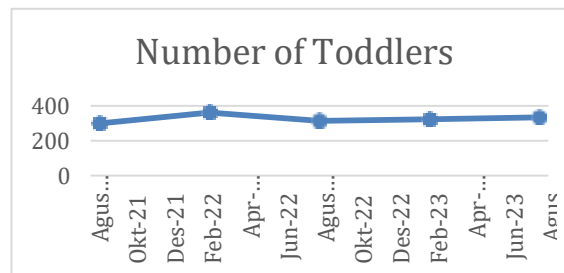


Chart 1. Bungo Regency E-PPGBM Stunting Application Data

Source: Data Processing

c. Number of Stunting Toddlers According to (e-PPGBM August 2023) in 19 Community Health Centers in Bungo Regency

Based on data in e-PPGBM in August 2023, the highest number of stunted toddlers in 2023 was the Rantau Kelayang health center with 45 cases, Rantau Pandan with 38 cases and Tanjung Agung with 23 cases.

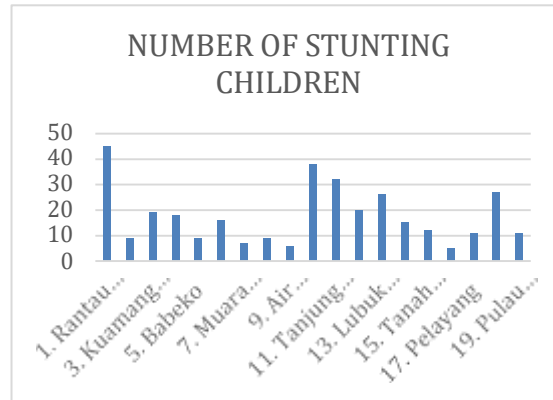


Chart 2. Stunting Toddlers According to (e-PPGBM August 2023) in 19 Bungo Regency Community Health Centers
Source: Data Processing

d. Locus of Stunting in Bungo Regency

Based on data in Bungo Regency, the results of the situation analysis with the main indicators of the prevalence of stunting toddlers and families at highest risk of stunting as well as 29 activity program achievement indicators determined 25 stunting locus villages for 2024.

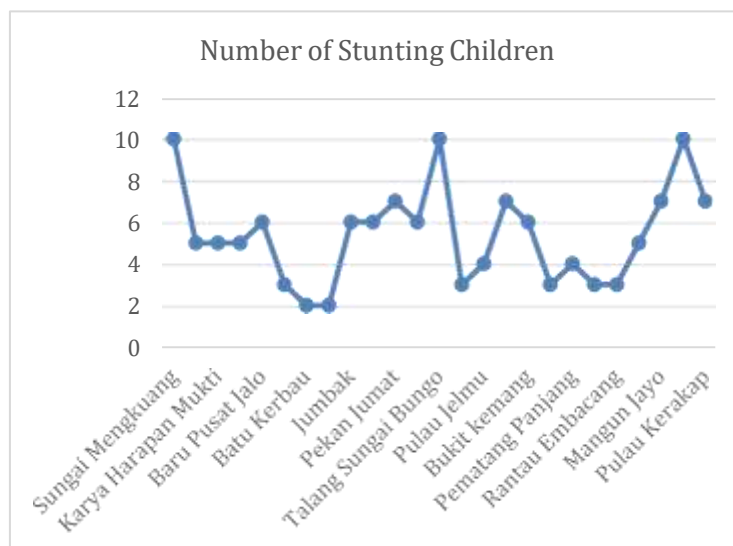


Chart 3. Stunting Locus Village
Source: Data Processing

2. Discussion

SSGI survey data shows a decrease in stunting rates from 2019 to 2022 in Bungo Regency. The results of this research are in line with the results of research in Aceh, the Aceh Government succeeded in reducing the prevalence of stunting from 41.5% in 2013 to 37.3% in 2018, saving around 18 thousand toddlers from stunting.

Apart from that, data regarding e-PPGBM shows there (F. Andika, 2020) was a fluctuation in stunting cases from 2021 – 2023. There was no significant increase or decrease. The e-PPGBM data at 19 Community Health Centers in August 2023 can also be used as a reference in handling stunting. This shows the need for efforts to address the problem of malnutrition among toddlers in the region. Risk factors for stunting in developing countries include parental factors, child factors and environmental factors. It is important to understand these factors in designing effective intervention programs. Key nutrition interventions for stunting (KIPS) have strong evidence of effectiveness and are expected to

result in an approximately 40% reduction in the number of stunted children in low and middle income countries by 2025 (M. Shekar, 2017).

Analysis of the situation in Bungo Regency shows that there are 25 stunting locus villages with a high prevalence rate of stunted toddlers. This shows the importance of focusing on certain areas to handle the stunting problem.

Efforts to accelerate nutritional improvements are a global effort, carried out not only in Indonesia, but also in all countries that have stunting problems. This effort was initiated by the World Health Organization. WHO's target is to reduce the prevalence of stunting by 40% by 2025 (S. H. Quamme and P. O. Iversen, 2022). Risk factors for stunting in developing countries can be divided into three categories: (1) Parental factors (neonatal factors and maternal nutritional status in the first 1000 days of birth), social differences, maternal education level, parental occupation, and height of mother or relatives. parents who are short, (2) child factors (nutrition, child infections, weaning process in 6 months or more, child's gender, and child's age), and (3) environmental factors (water source, shared toilets, and environmental influences on fetal life) (T. Huriah and N. Nurjannah, 2020). The targets set are to reduce the prevalence of stunting, including: reducing the prevalence of stunting, preventing overweight in children under five, reducing the prevalence of anemia in productive mothers, reducing the prevalence of low birth weight (LBW), and increasing coverage of exclusive breastfeeding. As a member of the United Nations with the prevalence of stunting. High levels, our country participates and is committed to accelerating nutritional improvements through improving nutrition in society.

1. Policies Related to Stunting in Bungo Regency

Law No. 17 of 2007 concerning the National Long Term Development Plan (RPJPN) for 2005-2025 states that food development and nutritional improvements are carried out across sectors including production, processing, distribution, and consumption with adequate, balanced and safe nutrition.

Several policies implemented in Efforts to Handle Stunting in Bungo Regency include:

- a. Bungo Regent Regulation Number 25 of 2021 concerning the Acceleration of Integrated Stunting Prevention and Control in Bungo Regency;
- b. Bungo Regent's Decree Number 66/Bappeda of 2022 concerning the Formation of a Team for the Acceleration of Stunting Reduction in Bungo Regency;
- c. Bungo Regent's Decree Number 67/Bappeda of 2022 concerning Determining the Names of Priority Villages/Hamlets for Handling Stunting in Bungo Regency for 2022 - 2023;
- d. Bungo Regent's Decree Number 68/Bappeda of 2022 concerning the Establishment of a Technical Team for Recording and Reporting Convergence Actions to Reduce Stunting;
- e. Bungo Regent Regulation Number 22 of 2023 concerning Acceleration of Integrated Stunting Prevention and Management in Bungo Regency;
- f. Bungo Regent's Decree Number 252/Bappeda of 2023 concerning Determining the Names of Priority Villages/Hamlets for Handling Stunting in Bungo Regency in 2024;
- g. Bungo Regent's Decree Number 292/Dinkes of 2023 concerning the Determination of Bungo Regency Stunting Foster Fathers;
- h. Bungo Regent's Decree Number 293/Dinkes of 2023 concerning Determination of Bungo Regency Stunting Care Facilities/Clinics;

2. Activities to Handle Stunting Specific Interventions in Bungo District:

- a. ABG (Nutrition Action)

Nutrition Action Campaign in Schools with an agenda of joint physical activity, breakfast, health education and giving adolescent girls blood supplement tablets as well as strengthening the role of peers in efforts to comply with adolescent girls taking supplement tablets implemented in all health centers.



Figure 2. Nutritious Action
Source: Data Processing

- b. SISI MEDIKA (Medical Dispensation Medical Information System)
Memorandum of Understanding (MOU) between the Health Service and the Religious Courts regarding the Issuance of Child Health Recommendations in Registration of Marriage Dispensation Cases through the Medical Side implemented in all health centers.
- c. CORONG STUNTING.
Campaign to Prevent Stunting via Radio with specialist doctors and other health workers by the Bungo District Public Health Promotion implemented in all health centers.
- d. GEPRAKES (Premarital Youth Movement towards Health).
Prospective brides and grooms before marriage are given consultations, health education, health checks, immunizations, iron tablets for 3 months implemented in all health centers.
- e. TERALIS PUSKEMAS (Specialist Doctor at Puskesmas).
Examination and treatment of pregnant women and toddlers by obstetricians and pediatricians at the Community Health Center implemented in all health centers .
- f. COOKIES CENTING (Biscuits Prevent Stunting).
Dharma Wanita (DWP) Health Service collaborates with Nutrition Experts from the Bungo Branch Management Board of the Indonesian Nutrition Association (DPC PERSAGI) and Micro, Small and Medium Enterprises (MSMEs) in making additional food supplies implemented in all health centers.
- g. Local Supplementary Feeding Innovation (PMT).
Providing local food which is the result of collaboration between the Community Health Center and Family Welfare Empowerment (PKK) at the village level. The targets for providing local food are pregnant women with Chronic Energy Deficiency (KEK) and malnourished toddlers sourced from the Non-Physical Health Special Allocation Fund (DAK) implemented in all health centers.
- h. Gebyar Stunting
Innovation in handling stunting in Bungo district with an agenda carried out at the health department, as follows :
 - 1) Launching of the Rougut Ketukis (Ketuyung Pakis) Local Supplementary Feeding Innovation.
 - 2) Launching of the HALO DOK LIDIA innovation (Stunting Care, Doctor Consultation and Intervention and Treatment Services for Stunting Children with Dr. Lidia Halim, Sp.A).
 - 3) Inauguration of the Bungo Regency Nutrition Ambassador.
 - 4) Handing over Healthy Bungo Cards (KBS) to stunted children.
 - 5) Handing over aid packages for stunted children and high protein food to stunted children.
 - 6) Local Supplementary Feeding Innovation competition.
 - 7) Presentation of creative and Local Supplementary Feeding Innovation prizes and certificates
- i. MOU Evaluation of Pregnancy Feasibility Screening, Integrated Ante Natal Care (ANC) and Stunting

Coordination meeting to establish an MOU between District/City Health Services, Community Health Centers, Cross Sectors, Private Networks, Private Health Facilities, Professional Organizations, Company Clinics, Independent Practicing Doctors, in conducting Pregnancy Screening for prospective brides, ANC, and efforts to reduce stunting.

- j. Referral of toddlers to the Stunting Foster Clinic and the Decree of the Regent of the Foster Father and the Stunting Foster Clinic. As a follow-up to the inauguration of Stunting Foster Fathers and Mothers, they provide free services and consultations to stunted toddlers to get examinations and treatment from pediatricians, namely Dr. Lidia Halim, Sp.A (Ped) at the Mecca Medica Clinic and for pregnant women and brides-to-be at risk at the obstetrician, Dr. Edwin, Sp. OG (K) at RSIA Moelia applied to all health centre .

- k. Growth and Development Training for Posyandu Cadres and early childhood education programs (PAUD) Teachers Stimulation, Detection, Early Intervention of Growth and Development (SDIDTK).

Carrying out training for posyandu and PAUD cadres so that cadres can become an extension of health workers in assisting in assessing the growth and development of toddlers in posyandu and PAUD as an effort to detect early stunting. Trained cadres and teachers are expected to be able to carry out simple growth and development screening of toddlers using the KIA book and make referrals to health workers if a toddler is found to have problems based on the screening. This activity was carried out in 19 Community Health Centers with 720 trained PAUD cadres and teachers. implemented in all health centers.



Figure 3. Growth Monitoring
Source: Data Processing

- l. National health insurance (JKN) Card for Stunting Toddlers

135 stunted toddlers from underprivileged families have been submitted to be registered in the JKN Indonesian Health card (KIS). Currently, 35 stunted toddlers have received JKN/KIS cards and the rest are still in the process. This year the target is for all stunted toddlers to have Social Security Administrator (BPJS) cards. Implemented in stunting locus villages.



Figure.4 Providing JKN
Source: Data Processing

m. Food assistance in collaboration with the Food Security Service

Providing fish and egg food assistance by the Bungo District Food Security Service to 135 underprivileged stunted toddlers and rice and egg assistance to 90 stunted children by the Jambi Provincial Health Service. Implemented in stunting locus villages.

5. Conclusion

Efforts to reduce the incidence of stunting among toddlers in Bungo Regency, Jambi Province have been carried out through various specific interventions and nutritional innovations. This research can be the basis for increasing efforts to prevent stunting and improve the health of future generations. Next, a more sophisticated prediction model can be developed to identify stunting cases in the Bungo Regency area based on social, economic and agri-food determinants. Increased collaboration with various related parties, such as the Health Service and Food Security Service, to develop more holistic and coordinated stunting prevention programs.

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