

# Stunting Treatment Program at Sukomulyo Health Center, Gresik District, East Java

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**Abstract:** *The problem of stunting is a priority for solving public health problems. This social service aims to help overcome stunting in the work area of the Sukomulyo Manyar Gresik Health Center. This community service is carried out by validating stunting toddler data, focus group discussions (FGD), catfish-based noodle supplements, family support, and surveys to monitor and evaluate activities. The purpose of this activity is to provide a solution to the incidence of stunting. Based on the survey conducted, the characteristics of the babies found were: 63% premature, 30% very poor nutrition, 22% with a history of low birth weight babies, 37% mothers found. >35 years at birth, 11% with three pregnancies, 11% were married <20 years at birth, and 74% of mothers with children under 5 years of age attended high school and college. The innovation of catfish-based noodles as a supplement is very popular with all target toddlers. Additional food innovations as stunting intervention efforts are needed in order to immediately solve stunting problems effectively and efficiently.*

**Keywords:** Stunting intervention, history of premature, catfish noodles, family support

## 1. Introduction

Stunting is defined as the inability of children under 5 years of age to grow due to chronic malnutrition, especially in the first 1,000 days of life (HPK) and early life. Underdeveloped and severely underdeveloped infants are infants with height (PB/U) or height (TB/U) for their age compared to the 2006 WHO-MGRS (Multicenter Growth Reference Study) criteria. We define children under the age of 1.5 years old with a z-score of less than -2 SD/standard deviation (underdeveloped) and less than -3 SD (severely underdeveloped). Stunting causes stunting, impaired cognitive and motor development, suboptimal stature and metabolic disturbances that lead to decreased intellectual ability. It is a permanent disorder of nerve and brain cell structure and function that causes a decline in the ability to attend school-age classes and affects productivity as an adult. Malnutrition also causes stunting (short and/or lean) and increases the risk of non-communicable diseases such as diabetes mellitus, hypertension, coronary artery disease and stroke. A stunted child goes through a cycle of stunting, a stunted child grows up to be a malnourished young woman, gets pregnant with CEC/malnourishment and gives birth to an LBW baby. Under-5 stunting is responsible for 1.5 million (15%) of her children under 5 worldwide, with 55 million disability-adjusted life expectancy (DALYs) of healthy life expectancy lost each year. The problem of slowing growth has a serious impact on the quality of human resources (HR). A nation's developmental success is measured by the quality of its human resources, which is reflected in the magnitude of its stunting problem. The economic damage caused by this situation is enormous. It is estimated that he loses 2-3% of gross domestic product (GDP) each year due to inhibition and various nutritional

problems. The World Bank calculates that potential loss from stunting reach 260-360 trillion annually.

Riskesdas 2018 recorded a stunting rate of 32.8% for infants aged 0-59 months in East Java. According to his Susenas results in March 2019, the prevalence of stunting in Indonesia was 27.7% of her. The Central Bureau of Statistics recorded the prevalence of stunting in East Java in 2019 as 26.86, with a standard error of 0.63 and a relative standard error of 2.36. The prevalence of stunting in the Gresik district was 25.53 with a standard error of 3.30 and a relative standard error of 12.91. The management of stunting is a priority of the United Nations (UN) through its Sustainable Development Goals (SDG) agenda, and stunting rates are a key indicator of achievement of his second goal of his SDGs. The Indonesian government has identified addressing stunting as a work priority to be completed, with a target of reducing stunting by 3% per year, or 14% by 2024. Stunting reduction focuses on addressing the direct and indirect root causes of children's nutritional problems. The most common direct causes are transmission through inadequate breastfeeding practices, nutritional deficiencies, suboptimal parenting practices, inadequate maternal and maternal nutrition and care, and unclean living conditions and access to services. High incidence of disease, inadequate health. Indirect causes of stunting are influenced by a variety of factors, including income and economic inequality, trade, urbanization, globalization, food systems, social security, health systems, agricultural development and women's empowerment. A study by Dubois et al. From 2012, it was shown that heredity has only a small effect on height at birth (4-7% in women), whereas conversely, environmental factors at birth have a much greater effect (4-7% in women). 74-87%). A supportive environment promotes growth and development in children. A study

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conducted by Agung Dwi Laksono and Hario Megatsasi in 2017 identified several variables as determinants of stunting in East Java. Specifically, place of residence, age of the infant, age of the mother of the infant, socioeconomic level of the mother of the infant, and level of education. The Indonesian government's efforts to reduce stunting are made through his two interventions: specific dietary interventions to address direct causes and sensitive dietary interventions to address indirect causes. increase. The National Strategy for Stunting Management and Prevention uses her five-pillar approach: 1) Commitment and leadership vision. 2) national campaigns and behavior change communications; 3) convergence, coordination and integration of central, regional and village programs; 4) nutrition and food security; 5) Monitoring and evaluation.

In the August 2017 National Action Plan for Stunting Management, the President stated that stunting management should prioritize intervention activities for specific and sensitive nutrition from age 6 to the first 1,000 days of age. Emphasized convergence activities at national, regional and village levels. This activity has been prioritized in 100 counties/ cities. Regarding the fourth pillar, nutrition and food security, Indonesia, her third most populous country in the world, is in dire need of food to meet the consumption needs of its people. Susena's March 2019 BPS data on average monthly per capita spending share by food group and region of residence shows that the food group that the general public consumes the most is his indicates that there are five. , tobacco and tobacco (12.32 percent), grains (11.35 percent), fish/ shrimp/ squid/ scallops (7.91 percent), vegetables (6.62 percent). and beverages, accounting for 39.42%. Tobacco and Tobacco came second with 11.06%, followed by Cereals with 9.31%. In rural areas, on the other hand, processed foods and beverages continue to dominate, but not as high as in urban areas at 28.07%, followed by cereals at 14.70% and cigarettes at 14.40%.

The above facts show that eating cooked meals has become a lifestyle for Indonesians. Due to the development of technology in Indonesia, various foods have evolved as a basic need. One of them is instant noodles as a substitute for rice, a very popular carbohydrate-rich meal in Indonesia. Indonesia is the second largest consumer of instant noodles in the world after China. According to the World Instant Noodles Association (WINA), in 2018 the consumption of instant noodles in Indonesia reached 12.52 billion packs (servings). Noodles are the most popular food eaten by Indonesians. Ease of eating, variety of flavors and low price are some of the reasons why Indonesian consumers eat instant noodles. Unfortunately, this is not achieved through proper balanced nutritional value and quality. Even so, food innovation must be implemented to continue to meet the dietary needs of communities. A fairly cheap source of animal protein is fish, but the consumption of fish in Indonesia is still very low. In addition to Indonesia's abundant marine wealth, freshwater fish farming is also very developed and It is very affordable compared to fish, so it has great potential to meet people's food needs. Catfish is one of the easiest, cheapest, and most nutritious farmed fish in Indonesia. Catfish are said to be highly nutritious and very suitable for consumption. The Ministry of Maritime Affairs and Fisheries (DKP) has identified catfish as one of the most

prolific and major freshwater fish farming commodities in Indonesia.

According to Pillar 4 of the National Stunting Strategy, it is very important to treat stunting given the above facts. To prevent an increase in cases and to implement effective interventions by meeting the quality nutrition needs of young children to meet the nutritional needs of people with stunted growth, additional measures to meet the nutritional needs of people with growth retardation are needed. Food must be provided. can match. Stunting can be overcome through detection, testing and intervention, and local wisdom can be used to meet infant nutrition, according to Teravan, former Minister of Health of the Republic of Indonesia. Of course, this also has to do with the sustainability of stunting patient management programs, and local wisdom suggests that stunting programs continue even after program support ends. Recommended supplements should be foods that your child likes, meet their normal dietary needs, are rich in ingredients, are inexpensive, and readily available. This community service will combine specific sensitive nutrition interventions.

Gresik district is located northwest of Surabaya city and covers an area of 1,191.25 km<sup>2</sup>. Geographically, the region of the Gresik Regency lies between 1120° and 1130° east longitude and 70° and 80° south latitude, and is low-lying between 2 and 12 meters above sea level. 25 meters above sea level. Part of Gresik district is a coastal area with 140 km of coastline consisting of 69 km of mainland Java extending from the districts of Kebomas, Gresik, Manyar, Bunga, Sidayu, Ujungpangkah and Panceng. In the districts of Sangkapura and Tambak on the Bawean Islands. Administratively, Gresik County is divided into 18 districts of 330 villages and 26 villages. In the fisheries sector, the production of Gresik County's fisheries sector in 2015 was 98,367.87 tons, while in 2014 it was 97,222.79 tons, which also increased by 406 units. In 2015, the cultivated area was 31,838.02 hectares. These data show that the Gresik district has extraordinary fishing potential, hence the fact that the number of her underdeveloped children under the age of 5 in Gresik is still very high, at 25.53. is ironic. In 2021, Gresik will be one of the places to deal with stunting in East Java, with healthcare services as a major sector. According to data from the Gresik Health Department, his under-five stunting cases in 2020 compared to 2019 increased from 11.02% of his total under-five population in Gresik to 11.04% Increased has. The Gresik Health Department has 32 puskesmas stunting management services, including the puskesmas of Sukomulyo, Manyar Subdistrict. Based on the Annual Plan (PTP) of Sukomulyo Community Health Center in 2020, the results of the nutrition monitoring activity in 2019 are that two out of the eight indicators of the nutrition monitoring activity are the weight of children under 5 years old. It indicates that the target of was not achieved. (D/S) 78% of the 80 children under 5 goal is 29% short, higher than her Puskesmas goal of <25.2%. This figure is higher than her 2019 stunting prevalence rate of 27.7% in Indonesia and far from the 14% target of reducing stunting in 2024. Achieving the goals of an infant stunting management program requires a great deal of effort. Special programs to address stunting issues for children under 5 years of age are not implemented in their

workplaces, as stunting is not a priority program due to limited resources available at Sukomuryo Health Centre. . Multiple factors, both direct and indirect, were determined to be responsible, based on the Puskesmas nutritionist's findings of difficulties in dealing with stunting. These causes include poor infant nutritional intake, infant illness, poor maternal knowledge of infant nutrition, and inadequate upbringing, leading to abnormal growth and development in underdeveloped infants. Verification of target data is also an issue, as Posyandu's activities were halted during the pandemic due to various efforts to address the Covid-19 issue. This non-profit service is designed to help partners solve local stunting problems through a variety of approaches

## 2. Conclusions

This community service program has contributed to the stunting management program in partners' work areas, both in the form of analysis of data on the causes of stunting, recommendations for follow-up activities and additional food innovations in the form of catfish-based noodles which turned out to be in great demand by the target stunting toddlers. Further studies are needed on the effectiveness and efficiency of the product in increasing the body weight and length of stunted toddlers who are intervened as a result of catfish-based noodle interventions.

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