

Early Stunting Prevention for Youth Groups in Jabung Sisir Village, Paiton District

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Abstract

Stunting remains a major public health challenge in Indonesia, particularly in Probolinggo Regency, where prevalence rates exceed the national threshold. Adolescent girls, as future mothers, play a critical role in breaking the cycle of stunting. Early intervention during adolescence through education and empowerment is essential to improve nutritional and reproductive health knowledge. This community service program was implemented in Jabung Sisir Village, Paiton District, using a participatory and interdisciplinary approach. The activities included mapping and problem identification through surveys, interviews, and focus group discussions; integrated education on balanced nutrition, reproductive health, and sanitation; and practical training such as healthy cooking demonstrations and home visits. A total of 88 adolescent girls, categorized into early and late adolescence, participated in the program. Data-based monitoring and evaluation were conducted through periodic measurements of nutritional status and assessments of knowledge and behavioral change. Baseline assessments revealed limited knowledge of balanced nutrition, high anemia risk, and poor sanitation practices among participants. Following the interventions, there was a marked increase in awareness of stunting prevention, improved understanding of nutritional needs during adolescence, and enhanced engagement in healthy lifestyle practices. The program also fostered collaboration between universities, village governments, and health cadres, increasing integrated health post service coverage and community participation in educational activities. The findings support previous research that community-based educational interventions can significantly reduce stunting risk factors. The empowerment approach not only improved individual knowledge but also strengthened community capacity for sustainable stunting prevention. Early stunting prevention targeting adolescent girls is effective in increasing knowledge, changing attitudes, and promoting healthy behaviors that can reduce future stunting risks. Sustainable, cross-sector collaboration is recommended to replicate and expand the program to other high-risk areas.

Keywords: Prevention Of Stunting; Adolescents; Early Age; Nutritional Intervention

Abstrak

Stunting masih menjadi tantangan kesehatan masyarakat yang serius di Indonesia, khususnya di Kabupaten Probolinggo, di mana prevalensinya melebihi ambang batas nasional. Remaja putri, sebagai calon ibu, memiliki peran penting dalam memutus siklus stunting. Intervensi dini pada masa remaja melalui pendidikan dan pemberdayaan sangat diperlukan untuk meningkatkan pengetahuan gizi dan kesehatan reproduksi.

Program pengabdian masyarakat ini dilaksanakan di Desa Jabung Sisir, Kecamatan Paiton, dengan pendekatan partisipatif dan lintas disiplin. Kegiatan meliputi pemetaan dan identifikasi masalah melalui survei, wawancara, dan diskusi kelompok terarah; edukasi terpadu mengenai gizi seimbang, kesehatan reproduksi, dan sanitasi; serta pelatihan praktis seperti demonstrasi

masak sehat dan kunjungan rumah. Sebanyak 88 remaja putri, yang dikelompokkan menjadi remaja awal dan remaja akhir, berpartisipasi dalam program ini. Pemantauan dan evaluasi berbasis data dilakukan melalui pengukuran status gizi secara berkala serta penilaian pengetahuan dan perubahan perilaku. Penilaian awal menunjukkan pengetahuan terbatas tentang gizi seimbang, risiko anemia yang tinggi, dan praktik sanitasi yang kurang baik di kalangan peserta. Setelah intervensi, terjadi peningkatan signifikan dalam kesadaran pencegahan stunting, pemahaman kebutuhan gizi pada masa remaja, serta keterlibatan dalam praktik hidup sehat. Program ini juga mendorong kolaborasi antara perguruan tinggi, pemerintah desa, dan kader kesehatan, meningkatkan cakupan layanan posyandu terpadu, dan partisipasi masyarakat dalam kegiatan edukasi. Temuan ini mendukung penelitian sebelumnya bahwa intervensi edukasi berbasis masyarakat dapat secara signifikan mengurangi faktor risiko stunting. Pendekatan pemberdayaan tidak hanya meningkatkan pengetahuan individu tetapi juga memperkuat kapasitas masyarakat untuk pencegahan stunting yang berkelanjutan. Pencegahan stunting sejak dini pada remaja putri efektif dalam meningkatkan pengetahuan, mengubah sikap, dan mendorong perilaku sehat yang dapat mengurangi risiko stunting di masa depan. Kolaborasi lintas sektor yang berkelanjutan direkomendasikan untuk mereplikasi dan memperluas program ini ke wilayah berisiko tinggi lainnya.

Kata kunci: Pencegahan Stunting; Remaja; Sejak Dini; Intervensi gizi

INTRODUCTION

Stunting is still one of the serious problems in health development in Indonesia, including in the Paiton District, Probolinggo Regency. Based on data from the local Health Office, the prevalence of stunting in several villages in Paiton is still above the national threshold. This condition not only inhibits children's physical and cognitive growth and development, but also has a long-term impact on the quality of human resources.

Probolinggo Regency is one of the 12 regencies that are a priority for handling stunting. The local government has made a policy, namely Probolinggo Regent Regulation Number 15 of 2019 concerning the Acceleration of Integrated Stunting Prevention to address the problem of stunting. Stunting problems often stem from various multidimensional factors, such as lack of parental knowledge about balanced nutrition, low access to health services, suboptimal environmental sanitation, and family economic limitations. Therefore, efforts to prevent stunting require a holistic and cross-sectoral approach.

In this context, the role of universities is very strategic as partners in village development. Universities can make real contributions through community service, applied research, and science-based education. Synergy between universities and village governments is key to developing and implementing integrated and sustainable stunting prevention programs. However, in the field, several obstacles are still found, such as lack of coordination between campuses and village governments, weak integration of health and nutrition data, and minimal active community involvement. This causes the interventions carried out to often be partial and Based on data from the District Health Office Probolinggo In 2023, the prevalence of stunting will still be was at 22.4 %, even though has experience decline from year previously. Jabung Village, District Paiton is one of the areas with amount family quite susceptible to stunting height. The main factor causes of stunting in this region among others the lack of knowledge nutrition Mother pregnant and breastfeeding, low awareness pattern foster care healthy, limitations access food nutritious, as well as condition economy family.

Survey results the initial study was conducted on 30 families in Jabung Village show:

- a. 40% of mothers pregnant No routine do inspection pregnancy at the integrated health post.
- b. 55% of toddlers No get intake food nutritious balanced, still dominant carbohydrates.
- c. 35% of families Not yet understand importance sanitation and hygiene environment.
- d. 60% of respondents confess limitations economy become constraint in provide food nutritious.

Findings This confirm that mentoring family vulnerable and intervention integrated very required. Through this program, it is hoped that can increase understanding family about nutrition, health mother-child, pattern foster care, and build awareness for utilise potential local (such as vegetables, fish, and produce livestock) as source food nutritious.

have less long-term impact. From the description above, it is known how dangerous the impact of stunting is, therefore multi-sectoral action is needed. Stunting prevention does not only focus on toddlers but also adolescent girls, adolescent boys, prospective brides, pregnant women and mothers giving birth (Novrizaldi, 2022). Quoting from what was written (Junadi, 2020) in preventing stunting is not only carried out since the child is 1,000 days old, namely 9 months in the womb and 2 years after birth, but can be started since women or prospective mothers are teenagers until the times they get pregnant and give birth. Adolescent girls hold the key to reducing stunting in the future. Adolescents need to understand how to build a healthy lifestyle so that when they are pregnant, their pregnancy can be controlled and their nutritional intake can be monitored to prevent anemia. Therefore, a collaborative program is needed that is able to unite the scientific strength of universities and local village knowledge in creating concrete solutions to prevent stunting. An empowerment-based approach, continuous education, and evaluative monitoring are the keys to the success of this program.

METHOD

This activity will be carried out using a participatory and interdisciplinary approach. which actively involves the community, especially vulnerable families who are the main targets of the program. The method of implementing activities is divided into several stages as follows:

- 1) Mapping and Problem Identification: The initial stage begins with a field survey and primary data collection through interviews, observations, and Focus Group Discussions (FGD) with village officials, integrated health post cadres, pregnant women, and toddler families. This data will be combined with secondary data from the local Health Center to map high-risk areas for stunting and the main causal factors.
- 2) Integrated Education and Mentoring: Activities are carried out directly through balanced nutrition counseling, training in making healthy food from local ingredients, household sanitation management, and home visits by a team of students and health workers. In addition, the formation of a community-based "*Stunting-Free Village*" was carried out as a pilot model.
- 3) Data-Based Monitoring and Evaluation: During the program, periodic measurements of children's nutritional status are carried out, as well as evaluations of the level of change in family knowledge and behavior. All data are analyzed to see the impact of the program, and the results will be used as a basis for improving and expanding the program to other villages.

Table 1. PKM Activity Schedule

No	Activity	Time (Month to -)	Person responsible
1	Data collection family vulnerable & coordinated with village / integrated health post	1	Community Service Team + Village Midwife
2	Socialization of the program to public	1	Community service team
3	Counseling nutrition, health mother-child, and patterns foster care	2	Health workers + Posyandu cadres
4	Family counseling & training processing food nutritious	2-3	Nutrition Team + PKK Cadres
5	Intervention giving food addition-based food local	3-4	Community Service Team + PKK
6	Growth monitoring flower toddler (weighing & records) nutrition)	2-6	Village midwife + Posyandu cadre
7	Training utilization yard (plants) vegetables & livestock small)	4	Community service team
8	Evaluation results activities (pre-test vs post-test, nutritional status toddler)	6	Community service team
9	Compilation reports & dissemination results	6	Community service team

RESULTS AND DISCUSSION

The results of studies from various sources and field studies show that efforts to prevent stunting in Paiton District, Probolinggo still face various challenges, both in terms of public knowledge, access to health services, and cross-sector collaboration. Based on data from the Indonesian Ministry of Health (2023), the stunting rate in several villages in Paiton District is still relatively high, one of which is Jabung Sisir Village, with the main causes being low quality nutritional intake, poor sanitation, and lack of reproductive health education and parenting patterns. The education-based empowerment program implemented by a team of lecturers and students—such as training in making local healthy food, counseling on nutrition for pregnant women, and environmental sanitation education—successfully increased the knowledge of housewives regarding the importance of nutrition in the first 1000 days of life. This is reinforced by the findings of Rahayu et al. (2021), which stated that community-based educational interventions can reduce the potential for stunting by up to 15% within one year in high-risk areas. The results are that most respondents have a risk anemia, this condition requires improvement to prevent stunting. Therefore the target of the 2024 community service activities is mothers and teenage girls as prospective mothers who are included in the age group according to the Indonesian Ministry of Health (2009) on its official website, namely depkes.go.id, as in the following table:

Table 2. Age Groups

No	Stages of Human Growth	Age Range
1	Toddler Period	0-5 Years
2	Childhood	6-11 Years
3	Early Adolescence	12-16 Years
4	Late Adolescence	17-25 Years

5	Early Adulthood	26-35 Years
6	Late Adulthood	36-45 Years
7	Early Old Age	46-55 Years
8	Late Old Age	56-65 Years
9	Old Age	65 and above

Data on the number of female adolescents in Jabung Sisir village according to the early and late adolescent age groups is 88 people, these adolescents are the focus of stunting prevention activities in Jabung Sisir village, considering that female adolescents play a role in increasing or decreasing the incidence of stunting.

a) **Integrated Education and Mentoring**

This activity is not only theoretical, but also includes direct practice such as healthy cooking demonstrations, child growth monitoring training, household sanitation management, and home visits by a team of students and health workers. Figure 1: Team socialization with Jabung Sisir Village cadres.



Figure 1. Community Service Activities in Jabung Sisir Village

Through synergy between universities and villages, a collaborative approach emerged that was able to address the complexity of this problem. The results of field observations and literature studies indicate that the involvement of universities in the form of community service programs, applied research, and village cadre training has a significant influence in increasing community awareness and capacity regarding stunting issues.

b) **Data-Based Monitoring and Evaluation**

Initial monitoring results show an increase in the coverage of integrated health post services, increased visits to health facilities, and increased levels of family participation in educational activities. This model reflects effective multi-sector synergy, as emphasized in the National Strategy for Reducing Stunting (Bappenas, 2021), that interventions must be cross-sectoral and cross-actor. During the program, children's nutritional status is measured periodically, as well as an evaluation of the level of change in family knowledge and behavior. All data is analyzed to see the impact of the program, and the results will be used as a basis for improving and expanding the program to other villages. Overall, these results and discussions emphasize that synergy between universities and villages not only increases the effectiveness of interventions but also strengthens local capacity in tackling stunting. Programs based on empowerment, applied education, and continuous monitoring are the main keys to creating long-term change at the grassroots level.

CONCLUSIONS AND SUGGESTIONS

The early stunting prevention program targeting adolescent groups in Jabung Sisir Village, Paiton District, demonstrates a significant and measurable impact in increasing adolescents'

knowledge, awareness, and commitment to maintaining balanced nutrition, reproductive health, and readiness for future parenthood. Through an educational and participatory approach, adolescents actively engage in learning, internalize health messages, and translate them into healthier lifestyle choices. The program confirms that adolescence is not only a critical but also a strategic phase for breaking the intergenerational cycle of stunting, as it is during this period that lifelong habits, health behaviors, and reproductive intentions are formed. By positioning adolescents as agents of change, the intervention leverages peer influence and community-based empowerment to create a multiplier effect, where knowledge and positive practices spread beyond the direct participants. This evidence underscores the urgency of sustaining and scaling such initiatives through consistent cross-sector collaboration—linking health, education, youth development, and local governance—ensuring that the gains achieved are institutionalized. Ultimately, continuous investment in adolescent-centered stunting prevention programs contributes to the creation of a healthier, more productive, and stunting-free generation, supporting both national health goals and long-term human capital development.

REFERENCE

- Ministry of Health of the Republic of Indonesia. (2023). *National Report on Nutritional Status of Indonesia 2023*. Jakarta: Ministry of Health of the Republic of Indonesia.
- National Development Planning Agency (Bappenas). (2021). *National Strategy for Accelerating Stunting Reduction 2021–2024*. Jakarta: Bappenas.
- UNICEF Indonesia. (2021). *A Multisectoral Approach to Stunting Reduction in Indonesia*. Jakarta: UNICEF.
- Nugraheni, SA, & Dibley, MJ (2020). Uptake of nutrition services and its impact on child growth in Indonesia: A cluster-randomized trial. *BMC Public Health*, 20(1), 1–9.
<https://doi.org/10.1186/s12889-020-08511-3>
- Ministry of Villages, Development of Disadvantaged Regions, and Transmigration. (2020). *Guidelines for Stunting Prevention in Villages*. Jakarta: Kemendesa PDTT.
- Notoatmodjo, S. (2020). *Health Promotion and Behavioral Science* (Revised Ed.). Jakarta: Rineka Cipta.
- Sulaeman, ES, & Putri, RM (2022). Community Empowerment Program for Stunting Prevention in Rural Areas: A Case Study in East Java. *Journal of Community Service*, 4(2), 77–84.
<https://doi.org/10.22146/jpkkm.63918>
- Rahayu, WP, Suryani, S., & Astuti, NP (2021). Integrated Health Education Model to Improve Nutritional Behavior in Low-Income Families. *Journal of Nutrition and Food*, 16(1), 13–20.
<https://doi.org/10.25182/jgp.2021.16.1.13-20>
- World Health Organization. (2020). *Levels and Trends in Child Malnutrition: UNICEF/WHO/World Bank Group Joint Child Malnutrition Estimates*. Geneva: WHO.
- Handayani, R., & Fitria, Y. (2019). Collaboration Model of Universities and Villages in Community Health Development. *Journal of Community Service*, 3(1), 45–54.
<https://doi.org/10.15294/jpm.v3i1.18271>