

# Empowerment of Cadres in Early Detection of Stunting Risk During Pregnancy

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## Abstract

In general, the aim of community service activities is to increase the knowledge of cadres and pregnant women about early detection of the risk of stunting as an effort to reduce the incidence of stunting. The method of implementing this service activity is carried out by forming a Stunting Care Cadre Group that can carry out early detection of stunting risk during pregnancy in Banjarsari Village, Enggano District, North Bengkulu Regency. In this activity, a pre-test, health education about early detection of stunting risk during pregnancy, after which a Post test was carried out to see if there was an increase in knowledge and skills of cadres in conducting early detection of stunting risk during pregnancy directly in pregnant women. As a result of training and cadre empowerment activities, there is an increase in the knowledge of stunting care cadre groups in Banjarsari Village, Enggano District with an average Pre-test score of 73.2 and an average Post-test score of 88.2, the average increase in knowledge score is an increase of 5.0 The implementation of Cadre Empowerment in Early Detection of Stunting Risk During Pregnancy, there is an increase in knowledge, the formation of an organizational structure of stunting care cadre groups in the village Banjarsari, Enggano District, North Bengkulu Regency. It is hoped that this community service activity can increase knowledge, skills and motivation for cadres and pregnant women to carry out Early Detection of Stunting Risk During Pregnancy.

## A. Introduction

Stunting is a growth and development disorder that causes children to have a short posture or far from the average of other children at their age. Stunting begins to occur when the fetus is still in the womb due to the mother's food intake during pregnancy that is not nutritious (Desnita et al., 2023). As a result, the nutrition that the child gets in the womb is insufficient. Malnutrition will inhibit the growth of babies and can continue after (Ramlah, 2021). Stunting is a chronic nutritional problem that has an impact not only on health but also on intelligence. One of the strategies to overcome stunting is nutritional intervention in pregnant women to increase knowledge in the first 1000 days of life by empowering cadres for early detection of stunting risks during pregnancy (Manapa et al., 2020).

Based on the results of the 2022 Indonesian Nutrition Status Survey (SSGI), the prevalence of stunting nationally in 2022 was 21.6 percent, which in the previous year in 2021 was 24.4 percent, resulting in a decrease of 2.8 percent (Purwati, 2022). As for the target in 2024, the stunting rate can decrease to 12.55 percent, With these results, efforts continue to be made to emphasize the stunting rate and need synergy and good cooperation between cross-sectoral (Akrim et al., 2020). In the world, more than half of the

highest stunting incidence is in Asia at 55%, more than a third (39%) live in Africa. The lowest proportion is in Central Asia (0.9%) (Komalasari et al., 2020).

Indonesia is in the process of realizing the sustainable development goals or SDGs 2, namely ending hunger, achieving better food security and nutrition, and supporting sustainable agriculture. The target included in this is to overcome the stunting problem which is sought to decrease by 2025 (Desnita et al., 2023). Globally, stunting is one of the goals of the Sustainable Development Goals (SDGs). This 2nd goal is closely related to the 3rd goal, which is to ensure a healthy life and support welfare for all for all ages (Yuniawati et al., 2023). The causes of the increase in the incidence of stunting are low access to nutritious food, low intake of vitamins and minerals, and poor diversity of food and sources of animal protein. Mothers whose teenage years lack nutrition, even during pregnancy and lactation, will greatly affect the growth of the child's body and brain. The impact that will arise if this problem is not handled properly is that there will be an increase in the number of stunting incidents.

The Stunting Prevention Acceleration Program aims to ensure that all resources are directed and allocated to support and finance priority activities, especially improving the coverage and quality of nutrition services in households of 1,000 HPK (pregnant women and children aged 0-2 years) (Istiqomah et al., 2024). Prevention of stunting events can be carried out from the time the child is in the womb by empowering Health Cadres, which are an extension of health workers to provide education and intervention to pregnant women regarding stunting prevention from the beginning of pregnancy, which is considered to reduce stunting rates in Indonesia (Sutrio et al., 2021). The mother's high understanding during pregnancy about the nutrients that are good consumed during pregnancy can reduce stunted fetal growth. This is because in the 1000-day life span of stunted babies can be improved with nutritious intakes, so that the quantity of babies born stunted can be reduced (Jannah & Nadimin, 2021).

In order to accelerate the reduction of AKI and the prevalence of stunting among toddlers, one of the efforts made is through improving the quality of health services for pregnant women (antenatal care) to 6 times as stated in the Regulation of the Minister of Health Number 21 of 2021 concerning Health Services Before Pregnancy, Pregnancy, Childbirth, and Postpartum Period, Contraceptive Services, and Sexual Health Services (Ibrahim et al., 2024).

It is important for pregnant women to always maintain their health during the 9 months of pregnancy, implement a Healthy Lifestyle to Maintain the Health of Pregnant Women and Avoid the Risk of Stunting (Ayun et al., 2024), among others: 1) Consumption of Nutritious Food during pregnancy to stay healthy and avoid pregnancy complications, 2) Consumption of Prenatal Vitamins in pregnant women is highly recommended to maintain health, 3) Regular exercise is very important to maintain health during pregnancy can also help improve oxygen and blood circulation in the body, reduce stress during pregnancy and strengthen muscles, 4) Do not drink alcohol and smoke to avoid the risk of fetal miscarriage and BBLR, 5) Manage Weight to Stay Ideal and it is recommended to gain weight up to 11.5 to 16 kg during pregnancy, For pregnant women who are very thin before pregnancy, they must gain weight around 13 to 18 kg during pregnancy, 6) Drink a lot of water, 7) Get enough sleep is one of the important things of the lifestyle (Rofiki & Famuji, 2020).

Enggano Island, North Bengkulu Regency, is a remote island with limited access to health services, lack of human resources, and low resistance of health workers. The people of this island also have a low level of education, and traditional beliefs in the perception of healthy illness are still high. The incidence of stunting was 1 case, with 3 cases of malnutrition (Yorita et al., 2023). This community service activity aims to improve the knowledge and skills of cadres and pregnant women about early detection of stunting risk as an effort to prevent stunting events in Banjarsari Village, Enggano District, North Bengkulu Regency.

## B. Methods

This service activity was carried out by forming a Stunting Care Cadre Group that can carry out early detection of stunting risk during pregnancy in Banjarsari Village, Enggano District, North Bengkulu Regency. The target number of activities is 11 cadres. Activities are carried out for 3 months with a duration/frequency of health education of 3 times. The health education method consists of lectures, questions and answers and mentoring. The media used are leaflets, PPT, interview form. The details of the activities in this study consist of several stages. The first stage is preparation, which includes several main steps: preparation of necessary tools, materials, and administration, including the preparation of educational materials in the form of leaflets, reference books, power points, and questionnaires. At this stage, detailed and targeted activity budget planning is also carried out, preparation of work plans, schedules, and

appointment of the person in charge of each activity. In addition, this research involves the management of permits to the North Bengkulu Regency Health Office and the creation of planning training which includes methods, educational or promotional media, learning facilities and infrastructure, and evaluation. This preparation also includes data collection on the number of cadres in Banjarsari Village, Enggano District, as well as coordination with the Village Head and Puskesmas leaders.

The second stage is the implementation which begins with conducting a pre-test to find out the cadres' initial knowledge about the early detection of stunting risk during pregnancy. After that, health education activities were carried out which included material on early detection of stunting risk during pregnancy, as well as the distribution of leaflets. Furthermore, a post-test was carried out to measure the increase in cadres' knowledge of the same topic after being given health education. In addition, cadres from Banjarsari Village, Enggano District, are netted as agents of change who are expected to have the ability as a stunting care group and be able to carry out early detection of stunting risks during pregnancy. This stage ended with coordination with the Village Head to form an organizational structure for stunting care cadres, as well as the formation of cadre groups.

### C. Result and Discussion

The results of community service activities carried out from January to October 2024 showed a significant increase in cadres' understanding of early detection of stunting risk during pregnancy. At the beginning of the activity, a pre-test was carried out to find out the level of initial knowledge of cadres related to this topic.



**Figure 1.** Filling out the pre-test questionnaire by 11 cadres to assess cadres' initial knowledge about stunting

The results of the pre-test showed that many cadres had limited knowledge about stunting and early detection measures during pregnancy.

After being given health education that involves a comprehensive discussion of the material and the distribution of leaflets as additional reading materials, a post-test is carried out to measure the increase in cadre knowledge.



**Figure 2.** Training on Early Detection of Stunting during Pregnancy and Explanation of How to Conduct Interviews with Pregnant Women



**Figure 3.** Teaching Cadres to Measure Blood Pressure Using a Digital Tensimeter from a Community Service Team Grant

The results of the post-test showed a significant increase in the understanding of cadres about the early detection of stunting risk, which indicates that the health education methods used have succeeded in increasing their knowledge. In addition, through this activity, a stunting care cadre group was formed which has an organizational structure that is arranged in coordination with the Village Head. This group is expected to be an active agent of change in stunting prevention in Banjarsari Village and can function independently in carrying out early detection and education activities in the community.

This research is in line with research conducted by [Prasitri et al. \(2024\)](#) which shows the importance of empowering health cadres in detecting stunting risks. This cadre empowerment program includes skills training in identifying signs of risk in pregnant women as well as counseling methods to the community. This study resulted in a decrease in the risk of stunting in the region. In this activity, the cadres were equipped with education about early detection and organizations in the form of stunting care groups.

**Table 1.** Knowledge of Education Participants about Stunting

Level of Knowledge	Average Pre-test Score	Post-test Average Score	Mean Difference
Correct Answer	73.2	88.2	15.0

Based on the table above, it can be seen that there is an increase in the average score of participants' knowledge about stunting after being given health education. The average score of correct answers in the pre-test was 73.2, while in the post-test it increased to 88.2. The average increase of 15.0 showed that the education provided was effective in increasing participants' understanding of early detection of stunting risk during pregnancy. This improvement indicates that health education with clear materials and appropriate methods can significantly increase participants' awareness and knowledge.

Limitations/weaknesses of activities are limited time and funds to provide assistance to cadres in detecting stunting in pregnant women until the pregnant mother gives birth and supervising/monitoring the growth and development of the baby.

Implementing this community service activity, is hoped to it will increase the knowledge of the Cadre Group in Banjarsari Village, Enggano District regarding Early Detection of the Risk of Stunting During Pregnancy and care about stunting cases, it can be a motivation for cadres and pregnant women to increase their understanding from the start and care about stunting cases and Early Detection of the Risk of Stunting During Pregnancy, increasing the ability of Bengkulu Ministry of Health Polytechnic lecturers to empower cadres who care about stunting cases and can carry out early detection of the risk of stunting during pregnancy. pregnancy, and increase public knowledge, especially among individuals, families, and the community regarding stunting prevention.





**Figure 4.** Handover of OMRON Tensimeters as a Tool for Carrying out Early Stunting Detection Activities



**Figure 5.** Handover of cadre inventory as a tool for early detection of stunting during pregnancy in the form of 2 sets of Omron brand digital blood pressure meters and 2 weight scales

#### D. Conclusion

Based on the results of community service activities in Banjarsari Village, Enggano District, North Bengkulu Regency, it can be concluded that the main goal of this activity has been achieved. Socialization regarding cadre empowerment in early detection of stunting risk during pregnancy was successfully carried out, providing a deep understanding for cadres. This is reflected in the significant increase in knowledge in the stunting care cadre group, with an average increase in knowledge score of 5.0 after being given training and health education. In addition, this activity also succeeded in forming a group of cadres who are concerned about the issue of stunting and have the ability to carry out early detection of stunting risk in pregnant women. As a further step, an organizational structure of stunting care cadres has been formed in Banjarsari Village which will be a forum for cadres to play an active role in preventing stunting in their environment. This organizational structure is expected to strengthen the coordination and effectiveness of cadre activities in supporting the health of pregnant women and children in the village.

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