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# Training and Mentoring of Health Cadres with the Smart Cadre Pocket Book to Prevent Stunting in Donggala Regency, Central Sulawesi

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### Received: 11 September 2025 | Accepted: 29 September 2025 | Published: 30 September 2025 | Keywords: ABSTRACT

Stunting; health cadres; training; nutrition education; pocket book

Stunting remains a significant public health problem in Indonesia, particularly in Donggala District, where the prevalence has reached 32.4%. In Loli Tasiburi Village, the prevalence of stunted children under five is 28%, exceeding the national average. Local government efforts through supplementary feeding have not been sufficient to reduce the prevalence, thus requiring additional interventions such as education and cadre empowerment. This community service activity aimed to improve the knowledge and skills of village cadres in stunting prevention through training based on the pocket book for smart cadres to prevent stunting. The methods included interactive education, hands-on anthropometric measurement practice, pocket book distribution, and one-month mentoring. Evaluation was done through pre-test and post-test, skills observation, and post-training monitoring. The results showed a significant increase in cadre knowledge. with the average score rising from 58.5 to 84.2 (an increase of 43.9%), and participants could perform anthropometric measurements according to WHO standards. Post-training mentoring reinforced the cadres' ability to apply their skills in Posyandu (Integrated Health Service Post), as indicated by the increased reports of early stunting detection and nutrition education for pregnant women and toddlers. This program demonstrated effectiveness as a practical guide supporting program sustainability. This activity successfully enhanced cadre capacity in stunting prevention, although program continuity requires multi-sectoral support from village government, health centers, and local health authorities.



#### INTRODUCTION

Stunting is a serious public health problem in Indonesia, characterized by impaired child growth due to chronic malnutrition and recurrent infections, which is reflected in age-appropriate height (Hafid, Bungawati, & Ramadhan, 2023) In 2023, the national stunting prevalence is still 21.6%, while the government targets a decrease of up to 14% in 2024 (Martony, 2023; Pemda Provinsi Sulawesi Tengah, 2023) This condition has an impact not only on children's health and quality of life but also causes significant national economic losses, estimated to reach Rp 15,062–67,780 billion (Astuti, Utami, & Eti, 2020; Suryana & Azis, 2023).

At the provincial level, the prevalence of stunting in Central Sulawesi in 2022 was 28.2%, slightly decreasing from 29.7% in the previous year (Martony, 2023; Pemda Provinsi Sulawesi Tengah, 2023). However, Donggala Regency still shows a higher prevalence, 32.4% (Donggala Regency Government, 2023). Research in this region and other identified essential risk factors, maternal height and weight, including child sex, birth length, low birth weight, unhealthy snack consumption, and family income (Azriani et al., 2024; Hafid et al., 2023; Setiani & Mustajab, 2023).

Locally, Loli Tasiburi Village in Donggala Regency recorded a prevalence of stunted toddlers of 28%, higher than the national figure of 21.6%. The village has a population of 2,053, with 7% being toddlers. Most families belong to the Pre-Prosperous I and II categories (97%) and have relatively low levels of education, where 34% only complete primary school equivalent. These limited socio-economic and educational conditions contribute to the high stunting rate.

The village government has tried to reduce the prevalence of PMT by providing supplementary food (PMT) for pregnant women and toddlers. Still, this program has not proven enough to reduce the stunting rate significantly. This underscores the need for a more sustainable alternative approach. One potential strategy is the empowerment of health cadres through nutrition education-based training and early detection. In this context, the pocket book for smart cadres to prevent stunting was developed as a practical medium to improve the knowledge and skills of cadres in stunting prevention (Hera, Rian, Dewi, Marllina, Rully, & Khairunnisa, 2021).

Thus, cadre training using pocket books is expected to be an innovative solution to increase cadre capacity, strengthen community-based interventions, and support the achievement of national stunting reduction targets.

#### **METHOD**

This community service program was designed as an intensive training for village health cadres to increase their capacity in stunting prevention. The activity integrates education, skill practice, educational media distribution in a *pocket book for smart cadres to prevent stunting*, and structured post-training assistance.

The activity was held in Loli Tasiburi Village, Donggala Regency, Central Sulawesi, from July 24 to August 13, 2025. The training program lasted for one day intensively on July 27, 2025, at the village hall, followed by one month of assistance through the village's Posyandu (Integrated Health Service Post) activities.

A total of 25 participants were involved: health cadres, pregnant women, mothers with stunted toddlers, community leaders, and female leaders. The primary focus of the activity was aimed at cadres as agents of change in the community, while other participants acted as indirect beneficiaries.

The stages of the activity can be seen in Figure 1, which are carried out in order as follows:

- 1. **Education:** Deliver material on stunting, risk factors, impacts, prevention strategies, and healthy eating through interactive lectures and group discussions.
- 2. **Training:** Direct practice of early detection of stunting through anthropometric measurements (length, weight, height) with the WHO standard tools.
- 3. **Media Distribution:** A pocketbook for smart cadres to prevent stunting is provided as a practical guide to support the application of materials in the field.
- 4. **Mentoring:** Mentoring for one month by a team of village service providers and midwives to ensure that cadres can apply skills to posyandu activities.



Figure 1. Stages of Service Activities

The evaluation was carried out comprehensively, covering three aspects. First, the evaluation process assesses participant attendance, active involvement, and completeness of the material. Second, the results were evaluated by a pre-post knowledge and skills test using an instrument containing five multiple-choice questions each and observation of cadre skills through a checklist of anthropometric measurement practices based on WHO standards. Third, impact evaluation is carried out through posyandu monitoring for one month to assess the application of cadre skills, including early detection of child growth and providing balanced nutrition education to pregnant women and toddlers.

#### **RESULTS AND DISCUSSION**

All 25 cadres participated, with full attendance recorded. The participants' enthusiasm can be seen from their active involvement in the discussion, question, and answer sessions.

The results of the pre-test and post-test with the instrument of 10 multiple-choice questions (maximum score of 100) in Figure 2 showed an increase in the average score from 58.5 (SD = 7.4) to 84.2 (SD = 6.8). This increase is equivalent to 43.9%, which indicates the achievement of increasing knowledge exceeding the target of at least 30%.



Figure 2: Increase in the Knowledge Score of Health Cadres

Skill observation using a checklist based on WHO standards showed that 85% of participants could correctly make anthropometric measurements (length, height, weight). Documentation of measurement practices can be seen in Figure 3.



Figure 3. Anthropometric Measurement Practice

During the one-month mentoring period, cadres apply the skills acquired to posyandu activities, as shown in Figure 4. There was an increase in early detection reports of child growth and balanced nutrition counseling activities for pregnant women and toddlers in each hamlet. The village government also committed to making the pocketbook for smart cadres to prevent stunting, an official educational media at the village level.





Figure 4. Length and Height Measurement at Posyandu

An increase in knowledge scores of 43.9% shows that training based on a combination of interactive lectures, discussions, and hands-on practice is efficacious in improving cadre understanding (Fadholah et al., 2023; Ridwan, Fairus, & Kodri, 2024). A study in Depok showed that cadres' knowledge increased from 70 to 89.5 after training which showed the effectiveness of interventions through education (Rokhaidah, Marcelina, & Florensia, 2024). The results of this study and other findings are in line with *the principles of adult learning* which emphasizes the active involvement of participants in the learning process (Arora, Granillo, Zepeda, & Burgess, 2018; Babb, 2022).

The distribution of the pocket book for smart cadres to prevent stunting has been proven to support material retention while facilitating the application of skills in

the field. This is in line with the findings in Jelegong Village, Bandung Regency, in 2023, which show that practical modules play an important role in improving cadre behavior in early detection and nutrition interventions (Mardhiyah, Mediani, Eriyani, Rakhmawati, & Maryam, 2023). Empirical studies show that cadre pocket guidelines significantly increase Posyandu Cadres' understanding of stunting prevention in the jurisdiction of the Cempae Health Center in Parepare City, 2023 (Irma, Haniarti, Umar, & Nurlinda, 2023).

The one-month post-training mentoring strengthens the ability of cadres to integrate new skills into posyandu activities, including early detection of stunting and balanced nutrition counseling. These findings support previous research that showed that the combination of training and mentoring is more sustainable than single training (Africia, Pratiwi Yuliansari, Nurin Fauziyah, Vide B. Dinastiti, & Fannidya H. Zeho, 2024). Continuous mentoring helps to foster a deeper understanding of child development and nutrition, which is critical for long-term community health outcomes (Utario, Misniarti, & Haryani, 2022).

Community impacts are also beginning to be seen, such as increasing nutrition education for pregnant women and toddlers in posyandu (Pipitcahyani et al., 2024; Rizky Tampubolon et al., 2024). This indicates that cadre empowerment can be the first step in changing people's behavior related to diet and child care.

However, cross-sectoral support is needed to ensure the sustainability of the program. The health center's role in technical supervision, the involvement of the village government in budget allocation, and coordination with the local health office are essential factors for integrating stunting prevention programs into local policies. With this support, increasing the capacity of cadres can have a long-term impact on reducing the prevalence of stunting at the community level.

#### **CONCLUSIONS AND SUGGESTIONS**

The pocket book for smart cadres to prevent stunting-based health cadre training program has made a real contribution to increasing cadre capacity in Loli Tasiburi Village. Cadres not only gain knowledge, but are also able to master early detection skills for child growth. The village government's support for using pocket books as an official educational medium shows the potential for the program's sustainability. More broadly, this activity strengthens the role of cadres as agents of change in efforts to prevent stunting at the community level.

To optimize the impact, a similar program is recommended to be expanded to other villages with a high prevalence of stunting. Integrating digital learning media can be an additional strategy to strengthen cadres' access to information. This program must also be aligned with national policy to accelerate stunting reduction and provide stronger cross-sector support. The village government and health center are expected to establish a routine monitoring mechanism as part of the posyandu service. In addition, a long-term evaluation of child growth and maternal health practices needs to be conducted to assess the sustainability of the program's benefits in improving public health.

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