



## Community Service Report

# Title Stunting Prevention Efforts in Paccinongang Village Through Germas Panting (Paccinongang Community Movement to Overcome Stunting)

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### ARTICLE INFO

#### *Keywords:*

Stunting, Moringa Leaf Pudding, Demonstration

#### *History:*

Submitted : 5 July 2025

Reviewed : 8 July 2025

Accepted : 11 July 2025

#### *Competing Interests:*

The authors declare no conflicts of interest related to this work.

### ABSTRACT

Nutrition remains a major public health issue in Indonesia, significantly affecting the quality of human resources. One persistent nutritional problem is stunting, which continues to impact many communities, including Paccinongang Hamlet, where data showed a stunting prevalence of 11.1%. The program included problem identification, development of a problem-solving framework, and implementation through a series of activities: pre-test, health education, post-test, and practical training. One key intervention was a demonstration of preparing complementary food using local ingredients—specifically, Moringa leaves processed into nutritious pudding. Moringa was chosen due to its high protein content and availability in the village. To evaluate the effectiveness of the intervention, pre- and post-tests were conducted to assess participants' knowledge on stunting, exclusive breastfeeding, and the benefits of Moringa. Data were analyzed using the Wilcoxon test. The results showed a significant increase in participants' understanding, with a p-value < 0.05, indicating a meaningful difference in knowledge before and after the counseling sessions. Additionally, the demonstration session successfully empowered participants to prepare and serve Moringa pudding following the given recipe. This initiative not only increased awareness of stunting prevention but also provided a practical solution using affordable and accessible local resources. In conclusion, the health education and training activities were effective in enhancing community knowledge and skills related to child nutrition and stunting prevention. This community-based approach highlights the importance of local resource utilization and participatory education in improving public health outcomes.

## 1. Introduction

Globally, stunting is one of the focus from Sustainable Development Goals (SDGs). Indonesia, as a country with potential big , committed For reach objective development sustainable this , especially in SDGs 2, which includes handling stunting problem . One of the the target you want achieved is reduce prevalence of stunting by 2025. Goal This in line with the SDGs which aim For ensure healthy life and improve welfare for everyone in everything age ( Navis et al., 2023).

Problem nutrition Still become problems in Indonesia, which have impact significant to quality source Power human beings . Stunting is one of the problem nutrition that is still Lots happened in Indonesia. The problem growth and development in children is known as stunting is caused by infection recurring and deficient nutrition chronic . Stunting is characterized by with stature or short height from children his age , especially not enough from -2 standard deviation body length according to age (PB/U) or TB/U ( Panigoro et al., 2023).

The 2014 Global Nutrition Report shows that Indonesia is included in 17 countries, among 117 countries, that have three problem nutrition namely stunting, wasting and overweight in toddlers . According to WHO, in term short , stunting can cause improvement incident pain and death , no optimal development cognitive or intelligence, motor skills, and verbal skills, as well as improvement cost health . Impact term long from stunting , namely posture body that is not optimal at the moment adults , improvement risk obesity and disease degenerative others , decreasing health reproduction , no optimal capacity learning and performance during school time , and not the maximum productivity and capacity work (Navis et al., 2023)

Stunting is disturbance marked growth and development with height or the child's body length is below average and is caused by infection recurring and deficient nutrition chronic . In Indonesia, the stunting rate is quite high. High . The frequency of stunting in Indonesia was 24.4% in 2021 , down 6.4% from 30.8% in 2018 , according to Basic Health Research ( Riskesdas ) data . prevalence of 31.8 % in 2022 , Indonesia is ranked second the highest in Southeast Asia for child toddlers experiencing stunting , according to the Asian Development Bank. Intake inadequate nutrition balance , lack of skill health and nutrition mother , service health that is not adequate , deficient food congested continuous nutrition , as well as lack of access to clean water and facilities sanitation is a number of contributing factors against stunting ( Panigoro et al., 2023). One of the determining elements optimal child growth is nutrition . Inadequate nutrition moment This can cause a number of problem , one of them is stunting, or inability child For grow with normal height ( Azhari , 2024)

Indonesia needs effort For addressing and preventing stunting. One of the efforts made is with invite all over element public For addressing stunting in Indonesia, both through counseling or do related activities with stunting prevention in Indonesia. Participation all over aspect Indonesian society is really needed in effort government For stunting prevention . Some problem behavior public can become factor causes of stunting, such as lack of level sanitation and efforts guard cleanliness , lack of knowledge Mother about health and nutrition mother and toddler , parents ' busyness , and other factors economy ( Azhari , 2024)

Various effort done For overcome problem nutrition , one of them with do giving food complementary feeding (MPASI) ( Budiani et al., 2020). MPASI is provided from utilization material food local , so that toddler get intake proper nutrition with age (Susilowati1 et al., 2021)

Paccinongang Hamlet , Village Pallantikang , District Rumbia , Regency Jeneponto is The village is located next to north Village Bontocini , east of Kassi Village , south of Kassi Village Lembang Manai , West of the Village Bontomanai . Data collection results from PBL 1 ( Experience) Study Field ) there is there are 11.1% experiencing stunting in the hamlet Paccinongang . This is become problems and of course become our attention as Public Health students to overcome problem the with create a work program on PBL 2 ( Experience Study Field ) 2024 in Paccinongang Hamlet .

Germas Pating ( Paccinongang Community Movement to Overcome Stunting) is movement community that is carried out in a way together and continuously in frame For increase awareness public in effort prevention at a time overcome stunting problem with target all over public specifically cadre , mother pregnant and mother toddlers , as well as group potential that can integrate all over interventions ( specific and sensitive ) (Susilowati1 et al., 2021). In addition that , students as an agent of change also plays a role important in overcome stunting problem in Indonesia. We as Public Health students of UIN Alauddin Makassar helped Paccinongang Hamlet community in overcome stunting problem in Indonesia. Optimization Natural Resources (SDA) Pacciongang Hamlet is one of the solution in overcoming stunting in Pacciongang Hamlet . There is various Natural Resources (SDA) found in the hamlet Paccinongang , one of them is leaf Moringa .

Moringa oleifera is one of the many plants found in Indonesia. Plants This own potential as food economical and affordable breast milk supplement obtained with easy . Moringa oleifera or known with leaf moringa Already Lots Actually Already Lots consumed by some Indonesian society but Not yet many also understand mark benefit from plant This is Moringa oleifera leaf moringa trusted can increase index mass body (Ahmad Syamsul Arifin, 2024).

Moringa (Moringa oleifera L) is one of the material foods containing substance nutrition micro and macro . The nutritional value contained in plant This can utilized For fulfil need nutrition toddler during the growth period . Moringa leaves can beneficial in increase breast milk production . This due to leaf moringa contain element substance nutrition micro like betacarotene , thiamine (B1), riboflavin (B2), niacin (B3) , calcium , iron , phosphorus , magnesium, zinc , vitamin C needed by the mother breast-feed . (Navis et al., 2023)

Objective from Activity Germas Pating This is For increase knowledge public Paccinongang especially cadres and mothers toddler about stunting and increase skills cadres and mothers toddler in optimization making MPASI through utilization leaf moringa in accordance with age children . And empowering public For plant tree moringa so that can used in fulfillment nutrition life daily

## 2. Method

Based on results data collection and surveys conducted during PBL 1 , identified problems that is lack of knowledge mother and family regarding stunting, exclusive breastfeeding , utilization source Power nature in the area said , the lack of skills cadres and mothers toddler in making MPASI from raw materials base material local area , as well as lack of variations of MPASI for toddlers .

Framework the solution proposed and agreed upon by the Paccinongang Hamlet community through discussion group focused group discussion (FGD) covers two points main namely , 1) Lack of knowledge mother and family about stunting, exclusive breastfeeding , and utilization source Power natural like leaf Moringa in Paccinongang Hamlet . For overcome problem this , the proposed solution is give education health about the dangers of stunting through lectures supported by leaflet media. Indicators Success will measured with improvement knowledge cadres and mothers toddler about stunting, which will evaluated use questionnaires in the pre-test and post-test. 2) Lack of skills among cadres and mothers toddler in make food complementary breast milk (MPASI) made from local . The solutions offered is training making and serving MPASI according to age children , such as manufacturing pudding Moringa . Indicator success from training This is ability all over the people of Paccinongang Hamlet , especially cadres and mothers toddlers , for making and serving MPASI in the form of pudding leaf moringa from material local .

Conducting pre-test and post-test for test knowledge cadre , mother toddler as well as public general regarding stunting, exclusive breastfeeding , and methods manufacturing pudding leaf moringa as effort stunting prevention .

Pre-test and post-test results data are presented in form presentation amount results , whereas For know improvement knowledge Mother toddlers and cadres regarding stunting, exclusive breastfeeding and utilization leaf moringa as effort Stunting prevention is done by conducting a difference test pre-test and post-test average with using the Wilcoxon test.

### 3. Results & Discussion

**Table 1. Respondent Characteristics**

Gender	Frequency (N=35)	Percentage (%)
Man	6	17.1
Woman	29	82.9

Based on Tabel 1 show that the gender distribution of respondents in the Germas Panting ( Paccinongang Community Movement to Overcome Stunting ) program with outreach and demonstration activities, there were 35 respondents. Female respondents were 82.9% (29 respondents), while male respondents were 17.1% (6 respondents).

**Table 2. Distribution of Respondents Based on Occupation**

Work	Frequency (N=35)	Percentage (%)
Stone Laborer	1	2.9
Recitation Teacher	1	2.9
Housewife	7	20.0
Trader	3	8.6
Farmers/Gardeners	17	48.6
Doesn't work	3	8.6
Self-employed	3	8.6

Stunting Counseling program, there were 35 respondents. The most common occupation was as a farmer/planter, at 48.6% (17 respondents), and the least common occupation was as a stonecutter and a Quran teacher, at 2.9% each (1 respondent) (Table 2).

**Table 3. Pretest and Posttest Results of Stunting Counseling ( N = 35 )**

Question	Pretest				Posttest			
	Correct		Wrong		Correct		Wrong	
	n	%	n	%	n	%	n	%
Understanding stunting	7	20	28	80	33	94	2	6
Influence stunting to economy family	8	23	27	77	31	89	4	11
Impact term long stunting	8	23	27	77	35	100	0	0
Prevention methods stunting	6	17	29	83	34	97	1	3
Material food in prevention stunting	15	43	20	57	35	100	0	0

To measure the difference in participants' knowledge before and after the counseling, a pretest and posttest were conducted in the form of true-false questions. The number of questions was 5. Table 3 shows that questions about stunting in numbers 3 and 5 were the most questions answered correctly by the Paccinongangg hamlet community in the posttest (100%). The most questions answered incorrectly were for the pretest questions about stunting in numbers 1 to 4, there are still many Paccinongangg hamlet residents who do not know what Stunting is . If seen from the table above , it can be concluded that there is an increase in the knowledge of the Paccinongangg hamlet community regarding Stunting after the counseling.

**Table 4. Distribution of Pretest and Posttest Results of Stunting Counseling ( N = 35 )**

Knowledge	N	Min	Max	Mean	Standard Deviation
Before Counseling ( Pre - test )	35	0	3	1.26	0.852
After Counseling ( Post-test )	35	3	5	4.80	0.473

Based on Tabel 4 show that the results of the pretest and posttest of Stunting counseling , it shows that there is an influence of counseling on the level of community knowledge about Stunting in Paccinongangg Hamlet , Pallantikang Village using lecture, discussion, and question and answer methods as well as demonstrations of making Moringa leaf pudding as a stunting prevention using leaflet media . The average value before counseling ( pretest ) is 1.26 with a standard deviation of 0.852 and after counseling ( posttest ) is 4.80 with a standard deviation of 0.473. This shows that there is an increase in community knowledge before and after receiving Stunting counseling. Normality test , it shows that the data obtained are not normally distributed . This is because the significance value is less than <0.05, so it can be concluded that the pretest and posttest scores are different. is not normally distributed . Therefore, the data analysis in this study used a 2- Tailed Test. Wilcoxon .



**Table 5. Distribution 2- Tailed Test Results Wilcoxon**

Knowledge	n	Mean	Standard Deviation	Sig. (2-Tailed)
Pre-test	35	1.26	0.852	0.000
Post-test	35	4.80	0.473	

Based on Table 5 show that the results of the 2- tailed test Wilcoxon test results show that the significance value is smaller than the set value ( $0.000 < 0.005$ ), so the results of the analysis can be concluded that there is a difference in the increase in community knowledge before and after counseling regarding stunting . Another meaning is that education using lecture, discussion, and question and answer methods has an impact on the community respondents.

Activity implementation Devotion To Health Study Program Community UIN Alauddin community Makassar , in hamlet Paccinongang , Pallantikang Village , District Rumbia , Regency Jeneponto , implemented by doing counseling or socialization about stunting . Activities This lifted with title " Prevention" And Countermeasures Stunting in hamlet Paccinongang through Germas ( Movement) Public Paccinongang Overcome Stunting )" which was carried out on the day Wednesday , October 9 , 2024 at page House head hamlet Paccinongang . Activities This attended by 35 participants consisting of from Mother toddler , mother cadre integrated health service post hamlet Paccinongang as well as public general .

Problem set based on results data collection or survey direct with public hamlet Paccinongang . From results said , it was obtained problems that can be make it priority problem , namely related lack of knowledge Mother And family about stunting And utilization source natural resources that exist in area the Wrong the only one is leaf Moringa , Exclusive Breastfeeding , lack of skills cadre integrated health service post And Mother toddler in making MPASI from raw materials base local area .

For that reason it is implemented program Germas Panting ( Movement) Public Paccinongang Overcome Stunting ) as receptacle counseling public hamlet Paccinongang so that always face problem Nutrition , wrong the only one is stunting in Indonesia . Movement This No only do counseling or socialization , but also provide solution problem stunting in hamlet Paccinongang with utilise material local hamlet This as source nutrition additional (MPASI) for toddlers For prevention stunting .

first agenda that was carried out is share pre-test For know ability beginning participant socialization related material presented . Pre - test distributed to participant contains 5 statements with choice answer true / false . Then allow participant For answer statement the in accordance his knowledge .

Second agenda is give education or socialization about stunting , the importance of exclusive breastfeeding for babies , and utilization material local that exists in hamlet Paccinongang that is leaf moringa as effort prevention stunting with media leaflet . Delivery socialization done with system two direction , namely from the speaker's explanation, then sharing or a question and answer session is carried out.



**Figure 1. Division Pre-test to participation**

The participants' interest and enthusiasm were evident from the moment they arrived and they were actively involved throughout the event. They listened attentively and thoughtfully to and understood the lecture on stunting .



**Figure 2. Counseling related to stunting**

Third agenda that is do post- test work , after delivery socialization related stunting . The post-test was conducted by giving a questionnaire containing 5 statements with true/false options, then inviting participants to answer the questionnaire according to their knowledge.

Paccinongang Hamlet is rich in natural resources , including the moringa plant. Moringa leaves can be used to address stunting . Innovation in moringa plant utilization requires proper processing. Therefore, we utilize moringa leaves by processing them into pudding. According to research by Khiliah



Navis, pudding can be consumed by children aged 9 months and older. Furthermore, the pudding has a soft texture, making it easy for toddlers to consume (Navis et al., 2023).



**Figure 3. Post-test filling after counseling**

Moringa leaves or which have the Latin name *Moringa Moringa oleifera* is a plant rich in vitamins and can be used to address nutritional issues in children. Moringa leaves contain vitamins C, A, calcium, potassium, and iron, which are of a much higher quality than the vitamins and minerals found in oranges, carrots, spinach, and milk. Furthermore, Moringa leaves have been shown to boost immunity. Furthermore, Moringa leaves contain arginine and histidine , essential proteins that babies can consume for their growth (Syiddatul et al., 2022).

Based on research conducted by Mandasari, the administration of moringa leaf extract combined with royal jelly has an effect on increasing the weight and length of newborns (Mandasari, 2022) which will reduce the risk of stunting . The occurrence of stunting in toddlers is at risk of impaired growth and motoric, mental, productivity and intellectual development and an increased risk of infectious diseases, so that stunting conditions need to be prevented and addressed immediately to create a healthy and strong future generation of the nation. Providing various kinds of moringa leaf preparations such as pudding, ice cream, has been proven to improve nutritional status in children due to their antioxidant, vitamin and mineral content. Consuming processed moringa leaves as a complementary food for breast milk for children is an alternative effort to manage protein and calorie deficiencies in children so that children do not experience stunting. (Mandasari, 2021) . According to World Health The World Health Organization (WHO) states that for all babies over 6 months it is good to consume 10 – 15 grams of moringa leaf powder added to 100 grams of breast milk or formula milk to strengthen and increase the nutritional value of the milk.

The next activity was a demonstration of making moringa pudding as a source of protein for complementary feeding (MPASI) for stunted toddlers. To strengthen participants' understanding of the use of local ingredients for complementary feeding (MPASI), we taught and invited two participants, the Paccinongang hamlet's integrated health post (Posyandu) cadres , to demonstrate making moringa pudding as a source of protein for complementary feeding (MPASI) for stunted toddlers .

#### 4. Conclusion

Based on results activity village counseling Pallantikang , can concluded that There is difference improvement knowledge public local as well as cadre integrated health service post before and after counseling related to stunting. So this the can concluded there is influence from stunting counseling and demonstration making leaf pudding Moringa , knowledge public local more increase in a way significant after activity counseling . Activities carried out the get positive feedback from inhabitant village Very enthusiastic Paccinongangg welcome counseling and demonstrations carried out with interesting like include public in manufacturing pudding leaf Moringa , and provides appreciation like give present to the community that participated as well as in making leaf pudding Moringa .

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