

# The Cost Analysis of Human Resources Development Stunting Prevention

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## Abstract

**Background:** The basic health research report in 2018 stated that stunting in children in Indonesia had reached 30.8%, some public health centre have not got a particular allocation of funds for the development of maternal and child health workers to prevent stunting. It can slow down the program to accelerate the reduction in stunting rates that has been promoted by the government. analyzing direct and indirect costs of developing human resources for stunting prevention in Enrekang District, Indonesia. Material and Methods: The research method used is qualitative research with an analytic survey approach. The data used in this study are secondary data and primary data obtained from interviews with related parties. Results: This type of qualitative research was collected using in-depth interview techniques. The results show that the direct cost selection and recruitment is IDR. 10,484,000, indirect cost is IDR. 1,800,000 and Total cost IDR. 12,284,000; the direct cost for one-time training and human resource development is IDR. 9,500,000 and the indirect cost is IDR. 33,600,000. Conclusion: Reaching the Human Resources Development (HRD) budget of IDR. 304,086,533 can only effectively reduce stunting by 3.1% so that achieving the 2023 target of 15% is difficult to meet. The government concerned is expected to increase the HRD Fund to achieve the 2023 target.

**Keywords:** Prevention, Cost, Human Resources, Development, Stunting, Community based

## Introduction

WHO defines stunting in children due to poor nutrition, repeated infections, and lack of psychosocial stimulation as stunting. Stunting has a longterm effect that bring about non communicable diseases causing economic burden. The prevalence of stunting in Indonesia has increased. Interventions that can be used to tackle stunting in toddlers are prenatal and postnatal interventions through the nutrition improvement movement by focusing on the first 1000 days of life known as the SUN (Scaling Up Nutrition) strategy or in Indonesian known as the National Nutrition Movement.

Awareness raising. In practice, this program focuses more on pregnancy. South Sulawesi Province in its work program in the Community Health Effort Improvement Program targets the prevalence of stunting for toddlers at 33.86%, and up to the fourth quarter the realization has reached 35.7%.<sup>[1],[2],[3],[4],[5]</sup>

The development target of the Millennium Development Goals includes reducing poverty and famine as well as child mortality. The first for implementing the development agenda; Sustainable Development Goals is 2016. One of the SDGs formulas is poverty and famine eradication by reducing malnutrition in children. The problem of nutritional status that still occurs in Indonesia is stunting. The results of Basic Health Research 2018 showed that the stunting rate in children in Indonesia reached 30.8%. Previously in 2017 it was 29.6%. WHO sets the stunting rate at 20% which means that in the 2016-2017 and 2017-2018 periods,

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the stunting rate in Indonesia. The stunting rate in South Sulawesi reached 35.7% of total children under five in 2018, and this case was higher than the national average. South Sulawesi ranks the 4th with a high prevalence of stunting in Indonesia, after NTT, NTB, and Southeast Sulawesi. [6],[7],[8],[9]

The Province of South Sulawesi annually targets from 32.4% in 2019 to 29.2% in 2020 so that by 2023, the reduction in stunting rates will be 19.5%. Eleven regencies/cities in South Sulawesi that suffer from malnutrition or stunting are Enrekang, Bone, Pinrang, Gowa, Pangkep, Tana Toraja, Sinjai, Jeneponto, North Toraja, Takalar, and Selayar Islands. Enrekang and Bone are in the high stunting category. Based on the data from the South Sulawesi Health Office, the potential for stunting in Enrekang District is 45.8 %, and Bone is 40.1 %. [10]

Based on the results of the Nutrition Status Monitoring of Enrekang Regency, the prevalence of stunting in 2015 was 29.5% (5.75% very short and 23.75% short), which means that it increased in 2016 to 29.38% (12.15% very short and 17.23% short). The results of PSG data show that of the 13 sub-districts in Enrekang Regency, it is known that the sub-district that had the highest stunting prevalence in 2016 was Baraka Regency at 41.06% (short) of 1,437 children under five. In February 2017, it showed the prevalence of stunting of 39.1% (10.9% very short and 28.2% short) of 1,537 children under five. This shows that the prevalence of stunting in Baraka Regency has decreased from 41.06% to 39.1%. However, in 2016 a very short prevalence of children under five years old was not found, while in 2017 it was found that the very short prevalence of children under five was 10.9%. [11]

The Government of the Republic of Indonesia nationally budgeted a stunting prevention program of IDR. 94,350,930,373. South Sulawesi Province in the Work Program for the 2019 Public Health Effort Improvement Program in Combating Stunting in Enrekang and Bone spent IDR 5 Billion in 2019. [12] Based on this explanation, in this study the authors made a research title design “The Cost Analysis of Human Resource Development in Stunting Prevention in Enrekang Regency in 2020”.

## Material and Method

This study uses a qualitative method and techniques of data collection are observation and interviews. 8 informants were involved in this research, and they were Enrekang District Stunting Prevention Program Holders as the Key Informant, the head of Enrekang District Health Office, the head of Barakka Health Center, Barakka and Maiwa Cadres and as the Informants as well.

## Results and Discussion

Sources of Funding for Human Resources Development (HRD) Activities for Stunting Management in Enrekang District were revealed from the results of interviews with the following sources (F, 54), “Funding for stunting activities is allocated in the form of a Special Allocation Fund and Special Allocation Fund for stunting, including Physical and Non-Physical Special Allocation Fund, consisting of Provincial and Health Operational Costs (HOC)Public Health Center (PHC), District Stunting, “(F, 54 Years)

Based on the results of interviews with informants (F, 54 years old), it can be seen that the source of funding for Stunting Prevention Activities comes from the stunting Special Allocation Fund which includes (1) Physical and Non-Physical consisting of Provincial health, District Stunting Boxes, and PHC HOC. The source of funding for HR development activities comes from HOC funds, as disclosed by an informant (I, 48 years old). “The funding for human resource development for stunting reduction based on the RKA for health services collected in 2019 was 750 million rupiah, and all of them came from the health operational costs funds Enrekang regency and PHC HOC” (I, 48 years)

The amount of the budget for stunting reduction in 2019 was IDR 750 million. [13] The budget was included in the Budget Work Plan which was taken from the Enrekang District HOC funds and the PHCHOC. The use of special health operational costs funds is used for service expenditures as disclosed by the following informant’s statement (I, 48 years old): “Stunting health operational **costs funds might not be used to finance capital expenditure** activities, maintenance of buildings, vehicles, facilities and infrastructure, curative and rehabilitative activities, procurement of drugs, vaccines,

and medical devices “(I, 48 years old)

The use of the HOC Stunting Fund cannot be used to finance capital expenditure activities, maintenance of buildings, vehicles, facilities and infrastructure, curative and rehabilitative activities, procurement of drugs, vaccines and medical devices. Health operational costs Fund is only intended for service spending, this is confirmed by the explanation of the informant (I, 48 years old) as follows: “HOC funds were used to pay fees, local transportation costs, consumption, stunting reduction activities in Enrekang regency” (I, 48 years old). Health operational costs funds are used for service expenditures: the payment of fees, local transportation costs, and consumption for stunting reduction activities in Enrekang Regency.

The Selection and HRD for Stunting Response in the Regency of Enrekang

The selection and recruitment mechanism for stunting prevention Human Resources (HR) in Enrekang Regency is in accordance with the guidelines for Minister of Health Regulation Number 3 of 2019 concerning Technical Guidelines for the Use of Special Non-Physical Allocation Funds, namely the procurement of human resources who will be assigned to each Public health center.

Selection and recruitment are mechanisms for procuring human resources for stunting prevention in Enrekang District, where the two activities are carried out simultaneously with the same technical guidelines and line items. There are 5 contract workers who are placed in the prevention of stunting in Enrekang Regency, namely: “The process of accepting one Community Based National Sanitation (CBNS) facilitator is carried out by the Health Office of Enrekang Regency, with a work agreement signed by the Head of the Health Office and related staff” and “Health promotion personnel, sanitarians, nutritionists, other health workers, and financial management assistants at Public health center, are set to be 4 people in each public health center in Enrekang Regency” (S, 54 Years)

Based on information (F, 54 years old), information was obtained that the recruitment and selection of contract workers for stunting prevention was carried out by the Health Office as many as 1 CBNS and 4 assistant

contract workers, each of which was a health promotion worker, sanitarian, nutritionist, other public health worker, and assistant financial manager at public health center. Contract binding is carried out in accordance with the Non-Physical Special Allocation Fund budget as recorded in the interview results as follows: “There are several contract work contracts between health promotion officers, sanitarians, nutrition workers, which are valid for one fiscal year, and are extended again in the following year if deemed relevant” (IDS, 47 Years)

Based on this information, it is found that contract workers are still valid with a one-fiscal year work agreement, and will be extended or re-recruited if deemed necessary. Procurement of human resources (contract workers) is also carried out by the Provincial Office as revealed from the following interview results: “South Sulawesi Provincial Health Office sent 30 nutrition assistants and 18 extension workers. The program is called the Gammaranna program”

The budget for the Stunting Prevention Selection and Recruitment System in Enrekang District is sourced from the health operational costs Fund which was revealed from the following interview. “The selection and recruitment costs are borne by the HOC Stunting budget” (S, 54 years old). Based on informant S (54 years old), it can be seen that the cost of procuring human resources for Stunting Prevention in Enrekang District comes from health operational costs Stunting funds, Recruitment and Selection Operational Costs were revealed from the following interviews with Informant I (age 48 years): “ There are several types of costs incurred, namely consumption costs, commission fees, consumables costs, etc. “” Salaries and income for recruited workers are paid from the HOC Stunting fund budget according to regional minimum wage standards in Enrekang Regency”, “Fees will follow the General Cost Standar (GCS) issued by the Minister of Finance”

Based on data analysis, information on Stunting Reduction Activity Funding comes from the HOC Fund with a total budget for 2019 of IDR 750,000,000. Human resource development funds consisting of selection and recruitment costs as well as training and development costs are borne by the HOC Stunting budget. Several types of costs arise, namely consumption costs, committee fees, consumables costs, etc. Salaries and income for

recruited personnel are financed from the HOC Stunting fund budget according to the standard minimum wage of Enrekang Regency

The health operational costs of Stunting Management activities in Enrekang District includes the following budget items: preparation of stunting regulations, preparation of regional action plans, coordination of LP/PS convergence, strengthening of movement and implementation of specific and sensitive interventions at regional loci, monitoring and evaluation across program areas and multi-sectors, evaluation of records of intervention reports, and activity results through nutritional surveillance, strategic orientation of communication on changes behaviour, overcoming malnutrition, CBNS, and community mobilization for health of mother and child, as well as other activities according to the needs of the Nutrition Service Center area and smart mothers community for stunting prevention

Based on the results of the interview, information was obtained about several types of expenditures that had been made in the recruitment and selection process, including meeting costs, committee fees, Makassar city official travel costs, and committee regional transportation costs. The amount of the health operational costs Fund financing unit follows the Cost Standard according to PMK 78 of 2019 Standard Input Costs for the 2019 Budget Year.<sup>[12]</sup>

The total cost of selection and recruitment costs for human resource development to reduce stunting in Enrekang District is Rp. 12,284,000. Based on this, the estimated Unit Cost for Recruitment and Selection of HR Stunting Reduction in Enrekang Regency is Unit Cost = Rp. 219.000/person. The problem of stunting is a very urgent problem to be handled seriously because it involves the quality of Indonesia's human resources in the future which will greatly affect the existence of

the country. At the policy level, the government has issued many policies and programs related to efforts to accelerate stunting reduction accompanied by a sizeable budget. However, on the one hand, the benefits of accelerating stunting prevention efforts have not yet reached the community level.<sup>[1], [14]</sup>

#### Human Resources Training for Stunting Management in Enrekang District

The budget for Stunting Training in Enrekang District to fund several activities was stated by the following informant (I, 48 years old): "There are several trainings carried out for assistants and cadres, which include Pregnancy Assistance Cadre Training, Health Cadre Training for Early Detection of Stunting in Toddlers, Intervention Training on Strengthening Nutrition Packages for pregnant women and toddlers, training Monitoring the nutritional status of toddlers, meeting for updating nutritional surveillance data, forming and training post-nutrition cadres and training for smart mothers to prevent stunting, establishing and training for health care post cadres".

Based on the informant (I, 48 years old), it can be seen that the training and orientation activities for the 2019 fiscal year consisted of eight training and orientation activities, namely; Pregnancy Assistance Cadre Training, Early Health Cadre Training and Stunting Detection in Toddlers, Training on strengthening nutrition package interventions for pregnant women and toddlers, training on monitoring the nutritional status of children under five, coaching and training for cadre nutritionists, and training for smart mothers to prevent stunting, Establishment and Training of Occupational Health Business Post Cadres. Based on the research results, it was found that the training information and training budget came from HOC Stunting as disclosed by the following informant (I, 48 years old):

**Table 1 Activity Budget Items and Special Fund Allocation for Stunting Handling in Enrekang**

Budgeting	Special Allocation Fund
Formulation of stunting rules,	Rp. 31.298.828
Formulation of regional plans,	Rp32.396.800
LP/LS convergence coordination	Rp117.283.386
Strengthening the scale and implementation of specific and sensitive interventions in the area	Rp160.486.609
Cross-program and multi-sector monitoring and evaluation	Rp61.100.564
Evaluation of the recording of intervention reports and activity results through nutritional surveillance,	Rp132.563.393
Communication strategic orientation for PMBA behavior change, overcoming malnutrition, CBNS, and community mobilization for health of mother and child.	Rp143.599.924
Other activities according to regional needs	Rp70.948.496
Total	Rp750.000.000

The program to accelerate stunting prevention has been designated as a priority program and is made a commitment at both the national and regional levels. Since 2018, the government has allocated a budget through the Special Allocation Fund including non-physical for stunting as support, especially for convergence, coordination, and strengthening of stunting programs in districts. In 2019, 160 districts/cities have been designated as the locus for accelerating Stunting Prevention. The use of HOC funds to finance various convergence, coordination and consolidation activities for the acceleration of stunting.<sup>[15]</sup>

Stunting HOC funds may not be used to finance capital expenditure activities, maintenance of buildings, vehicles, facilities and infrastructure, curative and rehabilitative activities, procurement of drugs, vaccines, and medical devices. The informant (I, 48 years) disclosed the type of expenditure incurred for training costs "Costs incurred for training include the cost for speaker consumption and stationery". "The average expenditure of 1,500,000 on stationery is used to make

banners, stationery paper, certificates, etc." "There is a participant's honorarium, usually we are given 300 thousand, there is also 50 thousand for transportation, so the total we receive is around 350 thousand (I, 48 years old)

Based on this information, it can be seen that the types of costs incurred include honorarium costs (committee, presenters and participants), stationery costs and consumption costs. The training is carried out in a day with an average number of participants of 100 people in one day. Participants came from representatives of public health centers, cadres and members of the Empowerment of Family Welfare. The cost of training and human resource development in the HOC stunting fund consists of two budget items, namely (1) Strengthening the mobilization and implementation of specific and sensitive interventions in the locus area, (2) Strategic orientation of PMBA behavior change communication, Management of Malnutrition, CBNS and Community Mobilization for Health of Mother and Child.



**Table 2 Activity Budget and Special Fund Allocation for the Training and Development of Human Resource for Stunting Management in Enrekang District**

Budgeting	Special Allocation Fund
Strengthening the scale and implementation of specific and sensitive interventions in the area	Rp160.486.609
Communication strategic orientation for PMBA behavior change, overcoming malnutrition, CBNS, and community mobilization for health of mother and child.	Rp143.599.924
<b>Total</b>	<b>Rp304.086.533</b>

There are two Objectives for the Activity Budget and Special Fund Allocation for Stunting Management Training and Human Resource Development in Enrekang 2019 with a total budget of Rp. 304,086,533. Of the total health operational cost budget of 750,000,000, the total budget for HR development for training reached 40.54% of the total budget. A budget of Rp. 304,086,533 were used to fund some training and HRD. Based on the amount of available budget and the number of activities, the average costs incurred for training costs.

**Table 3. The amount of direct cost of the training and development of the Human Resources for Stunting Prevention**

Cost	Unit	Quantity	Total
Committee fee	Rp1.800.000	1	Rp1.800.000
Speaker fee	Rp900.000	2	Rp .800.000
Participant fee	Rp300.000	100	Rp30.000.000
Total Indirect Costs			Rp33.600.000

### Promotion of Human Resources for Combating Stunting in Enrekang Regency

Promotion in the concept of HR is a move from one position to another that has a higher status and responsibility. Promotion is considered to have value because it is another proof of recognition of one's work performance. A person who is promoted is generally considered to be a good performer, and there are also several other supporting considerations. In preventing stunting there is no special promotion as informed by the following statement: "Contract workers will not be given promotions because the program has an annual cycle, while contract workers every year and are paid according to the existing annual budget."

Based on this information, it can be seen that promotion does not exist in Stunting HR development because contract workers career development only lasts for a year. Promotion is part of an employee's career ladder. A career path in a government agency is different from that in a private company. Career paths in government agencies are regulated in accordance with the mandate of Law Number 5 of 2014 Article 71 and Government Regulation No.11 of 2017 Article 188 which states, to ensure the alignment of the potential of civil servants with the implementation of government and development tasks, it is necessary to develop a civil servant career pattern. integrated national. (2) The career pattern of Civil Servants as referred to in paragraph (1) is a basic pattern regarding the sequence of placement and / or mutation of Civil Servants between positions in each type of position on an on-going basis. Career

Planning (Promotion) patterns for contract workers have not been regulated in the labour law. <sup>[16]</sup>

### Effectiveness of HRD Budget

According to Bayangkara (2008: 14) the effectiveness of the HRD Budget is the level of success in spending costs to achieve predetermined goals and objectives. HR training and development budget is IDR. 304,086,533, with an average training cost per unit of activity of IDR 43,440,933 and a unit cost of IDR 434,409 per participant. The total budget for stunting prevention HR training in Enrekang Regency when compared to the stunting rate in Enrekang Regency of 45.8%, in 2018 and 2019 amounted to 42.7 percent, which means that the HR development budget is Rp. 304,086,533 can only be effective in reducing stunting by 3.1%. If it is assumed that the target is consistent at 3.1 percent per year, then in 2023 it can only reach the target of 9.3% ( $3.1 \times 3 = 9.3$ ) with a total of 33 achievements, 4% ( $42.7\% - 9, 3\% = 33.4$ ), while the target of 15% in 2023 or 18.4, deviates from the expected target

The size of the training budget affects the performance of human resources in Stunting Prevention in Enrekang District. Research conducted by Agung et al (2013) on the effectiveness of training on the performance of surveillance officers shows that training carried out for surveillance officers can improve apparatus performance, especially in data processing and data analysis, among others. This result is in accordance with Mardiana's (2011) research on the skills of posyandu cadres before and after training which shows that there are differences in the skills of posyandu cadres in previous anthropometric measurements and after training. <sup>[17]</sup>

Based on the in-depth interviews of the proposer team with the Head of the Nutrition and health of mother and child Office of the Enrekang District Health Office, it was found that every PHC has a Nutrition Corner. However, in its operations there are several obstacles, including the lack of nutrition handling personnel, which only amounts to one person, both from nutrition implementers and assigned midwives.

### Conclusion

Reaching the HR development budget of IDR.

304,086,533 can only effectively reduce stunting by 3.1% so that achieving the 2023 target of 15% is difficult to meet. The government concerned is expected to increase the Human Resource Development Fund to achieve the 2023 Target.

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