

STUDY OF READINESS FOR IMPLEMENTATION OF INTEGRATED STUNTING REDUCTION INTERVENTIONS IN KLOJEN DISTRICT, MALANG CITY

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ABSTRACT

Stunting prevention acceleration program is a national policy that must be implemented by all policymakers. One of the strategic issues in accelerating stunting reduction in Indonesia is strengthening and increasing institutional capacity in reducing stunting. It is necessary to maintain regulations to ensure the implementation of stunting prevention and control efforts in the regions, and increase knowledge, and community participation. This study aims to determine the readiness to implement an integrated stunting reduction intervention through the DESA EMAS program at the stunting locus in Klojen District. This study uses a descriptive study method which was carried out in September – October 2022. The target of the study is regional apparatus organizations at the sub-district level at three stunting in Klojen District. Data collecting in the form of interviews with guided questions related to commitment, supporting factors, inhibiting factors, and sub-district programs. Data analysis was done descriptively in the form of textual. The readiness to implement an integrated stunting reduction intervention through Desa Emas Program can be seen from the commitment of the three loci to stunting handling, cross-sectoral collaboration, and the availability of human resources capable of making three program (DASHAT, Budikdamber and urban farming). Commitment to human resources through the involvement of sub-district officials, sub-district health workers, assistant staff for stunting activities, health development cadres, POSYANDU cadres, and PAUD teachers. The three sub-districts in Klojen District have made efforts to implement stunting management commitments through available resources and limited funding.

Keywords: *stunting, commitment, Klojen District, Malang City*

INTRODUCTION

The prevalence of stunting in children under 5 years old in the world in 2016 was 22.9% or 154.8 million people (UNICEF 2020). The prevalence of stunting toddlers in Indonesia has decreased from 37.2% in 2013 to 30.8% in 2018. The prevalence of stunting toddlers in Indonesia has decreased from 37.2% in 2013 to 30.8% in 2018. Although the stunting trend has decreased, the percentage of stunting in Indonesia as a whole is still relatively high and should receive serious attention because it is still under WHO recommendations which provide a limit on stunting prevalence of less than 20%. The prevalence of stunting in Malang city according to data from the Indonesian Nutritional Status Survey (SSGI) in 2021 was 25.7%, higher than the stunting rate in East Java Province which was 23.6%. Therefore, the challenge of accelerating

stunting reduction is still quite large. In addition, the worrying thing is the increase in the proportion of low birth weight, birth length less than 48 cm, and the proportion of children who are not immunized (Kemenkes RI 2018, 2021; WHO 2018).

Stunting is a condition of growth failure in children under five (infants under 5 years old) due to chronic malnutrition. Based on Peraturan Menteri Kesehatan (Permenkes) No. 2 of 2020, toddlers are categorized as stunting if the results of anthropometric measurements of length / height according to age are less than -2 standard deviations based on WHO *Child Growth Standards* for children aged 0-5 years. Stunting mainly occurs in the First 1000 Days of Life (HPK) after conception and is related to multifactors, namely socioeconomic status, food intake, infection, maternal nutritional status, infectious diseases,

micronutrient deficiencies and the environment (Beal et al. 2018; WHO 2018).

Stunting has long-term negative effects on individuals and society, including decreased cognitive and physical development, decreased productivity and health, as well as an increased risk of degenerative diseases such as heart disease, stroke, hypertension and diabetes mellitus. The World Bank estimates that 1% of adult height loss due to childhood stunting is associated with a 1.4% decrease in productivity. It is estimated that adults who are stunted in childhood earn 20% less than non-stunted individuals (Adji, Asmanto, and Tuhiman 2019; WHO 2018).

The World Health Organization projects that if current trends continue, as many as 127 million children under the age of 5 will be stunted by 2025. Investment and interventions in stunting management are needed to achieve WHO's target of reducing the number of stunted children to 100 million by 2025. In 2018 the government has launched a national strategy to accelerate stunting reduction in 2018-2024 through increasing the effectiveness of the 5 pillars of stunting management which was launched first in 2017. One of the five pillars is the convergence, coordination, and consolidation of central, regional, and village programs. One strategy is to strengthen coordination across sectors and between levels of government to villages; to ensure the alignment of the provision and implementation of the program. In addition, another pillar is the commitment and vision of leadership with one of its strategies through the leadership of the Village Government for stunting prevention; by creating a supportive policy environment for the implementation of stunting prevention convergently at the village level (Vice President of Indonesia 2018; WHO 2018).

Convergence is an intervention approach that is carried out in a coordinated, integrated, and joint manner to target geographic areas and priority households to prevent stunting. Stunting prevention will be successful if priority target groups get the services simultaneously. Therefore, convergence needs to be carried out immediately to accelerate stunting prevention efforts. The effectiveness of the convergence of stunting prevention in villages is determined by the capacity, active role and

pattern of cooperation built between actors at the village level and between villages, both individuals and institutions, according to their functions and authorities (Ministry of Villages, Development of Disadvantaged Regions and Transmigration 2018).

Based on the description above, researchers will evaluate the readiness of villages in the program to accelerate stunting reduction. Researchers are members of the EMAS village program (stunting elimination) which is a stunting reduction program in East Java. This program involves 20 cities and regencies in East Java including Malang City. Based on the results of routine weighing, Malang City has 9 main location stunting spread across several sub-districts. Researchers took 3 stunting main location in Malang city, namely Samaan, Bareng, and Kidul Dalem Villages located in Klojen District, Malang City. The purpose is to determine the readiness of the implementation of integrated stunting reduction interventions through the EMAS (stunting elimination) village program (desa emas program) in the stunting locus (focus location) of Malang City.

METHODS

This research used a descriptive study method which was carried out in September – October 2022 in Bareng, Samaan, and Kidul Dalem Villages, Klojen District, Malang City, East Java Province. The target of the study was the organization of regional apparatus within the scope of the local government of Malang City, especially in Klojen District, which was involved in integrated stunting reduction action activities. Data collection techniques through interviews with question guide related to village commitments, supporting factors, inhibiting factors, and village programs that have been implemented to reduce stunting and follow-up plans. Data analysis was carried out descriptively in the form of textuality for data or information related to policies and percentage figures for indicator coverage data. The data collection involved 9 students of University Airlangga Surabaya and University of Muhammadiyah Malang who were members of the *Merdeka Belajar Kelas Merdeka Desa Emas* (Stunting Elimination) Program.

RESULT AND DISCUSSION

Village Commitments Related to Funding for Accelerated Stunting Reduction

Handling stunting is a national development priority through the National Action Plan for Nutrition and Food Security. In accordance with the Law on Villages, efforts to deal with stunting which have become a national priority are very possible for villages to compile relevant and village-scale activities through APBDDes. In the Regulation of the Minister of Villages, Development of Disadvantaged Regions and Transmigration No. 7 of 2021 concerning the Priority of Using Village Funds, it is explained that the priority of using village funds in 2022 The use of Village Funds for national priority programs according to village authority is prioritized for stunting prevention to realize healthy villages.

Based on the results of interviews on the *Focus Group Discussion* (Table 1) activity held in October 2022 in Bareng, Samaan and Kidul Dalem Villages to village OPD (village officials, village health workers/midwives and nurses, village assistants for stunting, health development cadres (KPM), posyandu cadres, and paid (TK) teachers, so far have not issued a special funding policy related to the commitment to prevention and handling stunting. This is because the village government considers many factors and many other activity programs that also require funds in allocating them. Sub-district Bareng, Samaan and Kidul Dalem, Klojen District, Malang City, in their commitment to integrated stunting reduction efforts, have not compiled relevant programs and activities funded by the APBDDes in village planning and budgeting documents.

Table 1. Village Commitments Related to Funding for Accelerated Stunting Reduction

Indicators	Sub-district		
	Bareng	Samaan	Kiduldalem
Village government commitment	Sub-district is committed to overcoming the problem of stunting. In collaboration with puskesmas (public health centre). Chairman of RW and Cadre Activities : • DASHAT program (Healthy Kitchen) (PMT local food-based counseling processed by cadres) • Conducting outreach to the community	Sub-district is committed to reducing stunting rates. In collaboration with health workers. Activities • Klenting (donation program to help orphans, underprivileged families who have difficulty seeking treatment/, affected by disasters) (since September 2021). • DASHAT (Healthy Kitchen) program for children at risk of stunting	Sub-district is committed to reducing stunting rates. In collaboration with health workers. Activities - DASHAT program (Healthy Kitchen)
Sources of stunting reduction costs	Incentives for Posyandu cadres come from the Malang City Budget and the number is limited. Posyandu cadres work voluntarily. Posyandu administrators who are included in the decree are only 10 people	PMT Counseling assistance for stunting families in posyandu activities received assistance from community leaders and PKK	Kitchen financing DAHSAT is a donation from the local non-governmental organization) (carried out 10 days every month at a cost of Rp. 7000 / portion of food and given as much as 2x a day
Integration of programs and activities in village planning and budgeting documents.	The stunting reduction program has not yet entered the village budgeting planning document due to constraints related to budget (funding)		
Village fund allocation for specific and sensitive interventions (percentage) and allocation of funds.	In 2022, there is no allocation from the Village fund. Healthy feeding activities for toddlers at risk of stunting and counseling using funds from non-governmental organizations		

In adopting government policies in handling stunting, namely Presidential Regulation No. 72 of 2021 and Permenkeu 61 / PMK.07 / 2019 which are the basis for villages to carry out efforts to prevent stunting, Sub-district Bareng, Samaan and Kidul Dalem utilize funds from the community (NGOs, community leaders, lurah personal funds) to manage the DASHAT program. The three villages attract budgets derived from the Malang City budget through the Klojen District in an effort to prevent stunting during the Malang City Musrenbang activities. One of the activities funded by the Malang City APBD is the provision of incentives for posyandu cadres (Indonesian Government 2021).

The obstacle related to funding in Bareng, Samaan and Kidul Dalem Villages is the implementation of good practices in stunting reduction activities, namely the DASHAT program still relies on non-governmental organizations and has not been integrated in the Village revenue and expenditure budget called *Anggaran Pendapatan dan Belanja Daerah Desa* (APBDes) Budget plan, so the activities carried out are also still limited. The Urban Farming, fish farming in a bucket called Budikdamber program and Cadre Incentives programs also still depend on the Malang City Budget. If it is related to the reference to the Regulation of the Minister of Villages, Development of Disadvantaged Regions and Transmigration No. 7 of 2021 concerning the Priority of Using Village Funds set by the Ministry of Villages, the 3 main focus location in Klojen District in implementing activity programs related to rural stunting prevention interventions have not been supported by utilizing village funds (Indonesian Government 2021).

According to a study in Cirebon Regency, one form of readiness for integrated stunting

reduction interventions requires the creation of an integrated stunting reduction regional action plan and budget convergence. Another thing that is of note is the need to establish a mayor's regulation on the allocation of village funds related to health and explicitly reduce stunting (Sulistiyono and Jaenuddin 2021).

Village Commitments Related to Human Resources Accelerate Stunting Reduction.

The declaration of commitment of regional leaders and all heads of regional apparatus work units (SKPD) is needed for the readiness of inputs for integrated stunting reduction interventions. In addition, it is necessary to increase synergy between SKPD through scheduling stunting activities, integrating the implementation of health development cadres in urban villages and structuring data circulation for integrative activities (Sulistiyono and Jaenuddin 2021). The results of the literature review show that the community-based interventions chosen to be implemented in most studies have been shown to be able to reduce stunting rates in toddlers with various types of strategies used. It requires strong involvement and commitment from all elements in the community including health workers, the community, and actors in the community in implementing community-based intervention strategies in overcoming stunting problems (Rahmatika and Mulyono 2021).

Efforts to reduce stunting in villages involve cross-sectoral cooperation, namely village officials, village health workers/ midwives and nurses, village assistants for stunting, health development cadres (KPM), posyandu cadres, and paid (TK) teachers.

Table 2. Village Commitments Related to Human Resources Accelerate Stunting Reduction.

Indicators	Sub-district		
	Bareng	Samaan	Kidul Dalem
Village Officials	Village government officials coordinate with public health center called <i>puskesmas</i> , Regional Midwives and Regional Nurses in providing briefings and socialization related to accelerating stunting reduction and identifying toddlers at risk of new stunting.		
Health workers (Midwives and Regional Nurses)	Providing training and counseling related to stunting, catin data collection, bumil, toddlers and baduta.		
Involvement of village assistants for stunting	Conducting promotional and preventive activities independently to RT (neighborhood association). Create schedules and activities of DASHAT and gymnastics programs in each RT and RW (citizens Association). The formation of a family assistance team		Perform data collection, socialization of Family Planning and as a bridge for posyandu cadres related to stunting cases.

Indicators	Sub-district		
	Bareng	Samaan	Kidul Dalem
Involvement of health development cadres (KPM) <i>Posyandu</i> (Integrated Health Center Care) Cadres	Make home visits in cases of malnourished toddlers/ at risk of stunting, Weighing and measuring TB/PB toddlers once a month at posyandu, and providing complementary food to toddlers		Socializing health programs, home visits for toddlers at risk of stunting, weighing and measuring TB / PB toddlers. The DASHAT program assists in the food processing and food distribution process.

The results of *Focus Group Discussion* on Human Resources in 3 main location of Sub-district Desa Emas, Klojen District, Malang City (Table 2) show that human resource is committed to accelerating the decline of stunting cases and preventing the emergence of new stunting risk cases. This commitment is evidenced by the involvement of all human resources both in line with the main function and working together across sectors. Efforts that have been made as an effort to reduce stunting cases in Klojen District are the formation of family assistance teams in each sub-district and are ratified by a Decree of the Village Head. The Family Assistance Team (TPK) consists of TP PKK Sub-district, health workers, family planning officers and posyandu cadres. TPK is tasked with assisting families who have toddlers at risk of stunting, educating brides-to-be (*catin*) about the importance of nutrition, and mentoring pregnant women to maintain nutrition during their pregnancy. Sub-district also collaborates with Puskesmas in increasing the capacity of Posyandu cadres in weighing and measuring toddlers in Posyandu according to standards. Posyandu cadres are also equipped with screening for malnourished or malnourished toddlers who are at risk of becoming stunting toddlers. TP PKK sub-district also conducts socialization to families about the causes, impacts and prevention of stunting. Human

resources in OPD sub-district who are involved in stunting reduction acceleration activities are PAUD/TK teachers. They were involved in the anthropometric measurement of weight and height for PAUD students who were not recorded in posyandu and provided education about nutritious food to both students and parents.

The involvement of community resources is a manifestation of the implementation of Law Number 6 of 2014 concerning Villages article 68 paragraph 2 that the community is obliged to participate in various activities in the Village. Success in overcoming the problem of stunting is largely determined by the level of community participation, including the village government as the spearhead. The community needs to increase its capacity in stunting prevention and prevention activities in the village. From the reference set by the Ministry of Villages, it is clear that the program of activities related to rural stunting prevention interventions can be supported by empowering village communities. Various other resource opportunities can certainly also be empowered to support the prevention and handling of stunting. To ensure that the intervention program to accelerate stunting reduction can be implemented effectively, it is necessary to have a strategy that is used as a reference starting from planning, implementing and monitoring (Vice President of Indonesia 2014).

Stunting Handling Practices

Table 3. Stunting Handling Practices

Indicators	Sub-district		
	Bareng	Samaan	Kidul Dalem
Good practices already carried out by the village (DASHAT, etc.)	DASHAT Kitchen Budikdamber (vegetable and fish farming in buckets) the results of the cultivation will be given to people in risk groups including pregnant women, lactating mothers, and toddlers. Urban Farming		

Indicators	Sub-district		
	Bareng	Samaan	Kidul Dalem
Obstacles in stunting handling practices	DASHAT activities are not yet known to the public, only a few residents so they need socialization assistance using social media so that they reach all levels of society. Funding comes from non-governmental organizations		DASHAT activities, limited funding from non-governmental organizations. Implemented only 10 days in 1 month, there are people who refuse to accept food from the menu prepared by the kitchen (children do not like the menu)

Good practices that have been carried out in the 3 focus location of *Desa Emas* in Klojen district are the DASHAT (Dapus Sehat) and *Budikdamber* (Fish farming in bucket) programs through the development of the *Urban Farming* program to utilize narrow land to meet the daily needs of fresh vegetables and fruits (Table 3). *Budikdamber* is a maintenance system by spreading fish and vegetables in a maintenance container together. *Budikdamber* is one of the Urban Farming programs, as one of the solutions in meeting family nutritional needs so as to increase family food security (Sunny et al. 2019; Wirza and Nazir 2021). The obstacles to the practice of handling stunting in the three stunting loci of Klojen District, Malang City are still financed by non-governmental organizations so that they are still carried out in limited quantities.

Supporting Factors for Handling Stunting

Human resources from the three main focus location include cooperative and classified as technologically literate, making it easier to disseminate information, knowledge about the causes, handling and impacts caused by stunting. There are posyandu cadres and family assistance teams who work voluntarily in assisting families with toddlers who are at risk of stunting. In addition, there is a group of peasant women engaged in managing the budikdamber business to meet the protein needs of the surrounding residents.

The results of a study in Penggaron Lor Village, Semarang City, show that the role of cadres has proven to be helpful in optimizing the process of reducing the risk of stunting. Health cadres concerned about stunting have a great contribution to reducing stunting risk after going through a training process to increase knowledge and skills in providing assistance to prevent

stunting risks starting from the pre-conception, antenatal, to Baduta period (Sari et al. 2021).

The natural resources of the three main location of *Desa Emas* Program are located in urban areas that have narrow land. However, the village government is able to take advantage of these limitations to be used in the form of vegetable and fish farming with the *budikdamber* method. The environment of the three focus location of *Desa Emas* Program is in the middle of the city which is far from factory pollution with people who still maintain local wisdom and work together in overcoming the problem of stunting.

An environment that is far from factory pollution is one of the important supporting factors in stunting prevention efforts. On a national scale, it is estimated that air pollution levels in 2017 caused more than 24.500 babies to be born weighing below 10 percentiles for babies of the same gestational age, a prenatal determinant for stunting in children. Disturbances and delays in physical and cognitive development in children due to air pollution will have a long-term influence on the life of an individual (Herlina and Kautsar 2021).

Inhibiting Factors for Handling Stunting

The obstacle experienced related to the field of human resources is the lack of posyandu cadres compared to the tasks carried out. Posyandu cadres also act as Family Assistance Teams and carry out family planning programs (sub-district Bareng and Samaan). Kidul Dalem Village faces obstacles at the age of posyandu cadres who are over 45 years old and are unfamiliar with the development of digital technology and the difficulty of finding new cadres who are young. To overcome this obstacle, the village government always coordinates with Health Officers (Puskesmas) and PLKB to increase the capacity of the Posyandu cadres. In addition,

massive socialization of stunting to the community and its impact on the future of the nation is also carried out.

The barriers to handling in the three stunting loci of Klojen District from natural resource factors are that the community is in an urban area so that the community is limited to land use. In terms of facilities (facilities and infrastructure) there are people living in watersheds so that they still defecate in the river. This is due to the lack of common toilet and integrated septitanks in densely populated neighborhoods.

The toilets that do not meet the standards will trigger the onset of infectious diseases such as helminthiasis and diarrhea due to poor hygiene and sanitation and can interfere with the absorption of nutrients. An unhealthy toilet will easily transmit the disease infection through fecal-oral from various direct media, such as soil, water or vectors that carry feces. Impaired absorption of nutrients can cause weight loss. Therefore, it is important to pay attention to the availability of latrines in every home and latrine that meets health requirements (Kurniawati et al. 2021).

The obstacle to handling stunting from socio-cultural is that there are recorded early marriages. Early marriage leads to early pregnancy which is associated with an increased risk of premature babies, low birth weight, and inhibition of intrauterine growth, infant mortality, and child malnutrition. The results showed that there is a relationship of behavioral, social, and biological factors. Early marriage causes young mothers who breastfeed for a shorter duration than mothers who are old enough because of the psychological immaturity of young mothers. Young mothers who come from early marriage most have lower middle socioeconomic conditions and low levels of education as a result of dropping out of school. Pregnancy less than the age of 18 years causes the intake of fetal nutrients to be insufficient because the mother is still in the growth phase. As a result, the nutritional needs of the fetus will compete with the mother's need for growth. Thus, it will increase the risk of children experiencing stunting higher (Efevbera et al. 2017; Purwandari, Estiningtyas Sakilah Adnani, and Yuli Astutik 2021).

Another socio-cultural obstacle is that many mothers work, so childcare is left to other families (grandmothers). Parenting, especially related to infant and toddler feeding, correlates with the level of energy and protein adequacy in children and has an impact on the incidence of stunting in children aged 6-9 years. One of the efforts to eradicate stunting is to improve children's diet through the important role of parental care. Counseling related to feeding children to mothers and grandmothers as daily caregivers is very necessary to prevent stunting (Afiatna and Maryanto 2021).

The barriers to handling in the three stunting main location of Klojen District from natural resource factors are that the community is in an urban area so that the community is limited to land use. In terms of facilities (facilities and infrastructure) there are people living in watersheds so that they still defecate in the river. This is due to the lack of common latrines and integrated septitanks in densely populated neighborhoods.

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The obstacle to the funding factor is that there is no written policy from the City government so that a special budget at the village level for handling stunting does not yet exist. The government has set stunting reduction as a national priority which is implemented across sectors at various levels up to the village level. Based on Law Number 6 of 2014 concerning Villages, villages are obliged to support development activities that are national priority programs. Therefore, the village government is expected to compile activities relevant to reducing stunting, especially on a village scale through the use of its Village Fund (Vice President of Indonesia 2014).

CONCLUSION AND RECOMENDATION

Sub-district Bareng, Samaan, and Kidul Dalem, which are the three loci of stunting in Malang, have made efforts to implement their commitment to handling stunting through limited funding and available resources. The three loci have made efforts to deal with stunting such as outreach and education about stunting, and training for Posyandu cadres and family support teams. The good practice that has been implemented is the 'DASHAT' program which is funded by non-governmental organizations. One of the obstacles faced by the three stunting loci is the availability of village funds that have not been allocated specifically for stunting reduction activities.

Reducing stunting is a national policy priority that must be implemented by all policy stakeholders. Those sub-district needs to proactively coordinate with the Malang Government regarding

the issuance of policies, especially funding for implementing stunting reduction in the village government environment. Facilitation is needed between policy stakeholders and implementers at the sub-district level so that it is expected to be able to accelerate the reduction of stunting.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported

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