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The Role of Villages in Stunting Prevention

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ABSTRACT

The number of designated stunting-priority locations in Manggarai Regency has increased each year, according to local government determinations. Data show that out of 188 villages/sub-districts in Manggarai Regency, 97 have achieved stunting-free status. This study aimed to explore the role of villages in addressing stunting in Manggarai Regency. This research employed a qualitative analytical design using a phenomenological approach. The informants included village heads, parents of stunted toddlers, and village midwives. A purposive sampling technique was used. Data were collected through non-participant observation and in-depth interviews. The role of villages in stunting prevention involves policy regulations established at the central, provincial, and district levels. The allocated budget is sourced from village funds in accordance with government policies. However, healthcare resources remain limited. The availability of transparent data enables evidence-based interventions. Policies, budget allocations, human resources, and data serve as the main foundation for stunting reduction efforts.

Keywords: Prevention, Stunting, Village

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INTRODUCTION

The next generation of a quality nation comprises individuals who are intelligent, productive, and healthy in all aspects—physically, mentally, and socially. Being healthy includes being free from all health problems, particularly those related to malnutrition, such as stunting. Stunting is a growth and developmental disorder in children caused by chronic malnutrition and recurrent infections. It is characterized by a child's length or height being below the standard set by the Ministry of Health (1).

The consequences of stunting, both immediate and long-term, include increased morbidity and mortality, impaired child development and learning capacity, higher susceptibility to infections and non-communicable diseases, abnormal fat accumulation, decreased fat oxidation, lower energy expenditure, and insulin resistance. These factors increase the risks of diabetes, hypertension, dyslipidemia, reduced work capacity, and adverse maternal reproductive outcomes in adulthood. Additionally, stunted children who gain weight rapidly after the age of two are at increased risk of becoming overweight or obese later in life (2). In fact, stunting and other forms of malnutrition are estimated to cause a 2–3% loss in Gross Domestic Product (GDP) annually.

In 2000, the global stunting rate among children under five years old was approximately 33.1%, which decreased

to 22%, or about 149.2 million children, by 2020. The highest stunting rates were found in Asia (53%), followed by Africa (around 41%), especially in poor and developing countries. In Indonesia, the stunting prevalence was 24.4% in 2021, down from 27.7% in 2019. However, this rate is still higher than that of several other Southeast Asian countries, such as Vietnam, Malaysia, Thailand, and Singapore (3).

In Indonesia, 20 out of 34 provinces have stunting rates that are high or above the national average. The five provinces with the highest stunting prevalence are East Nusa Tenggara (37.8%), West Sulawesi (33.0%), Aceh (33.2%), West Nusa Tenggara (31.4%), and South Kalimantan (30.0%). According to the 2021 Indonesian Nutrition Status Study (SSGI), all districts in East Nusa Tenggara were categorized in the red zone. In Manggarai Regency, the stunting rate ranked 13th at 18%, down from 23.5% in the previous year, but slightly increased to 20.1% by early February 2022 (4).

To develop competent human resources and achieve sustainable development goals—including the national target of reducing stunting to 14% by 2024—efforts to accelerate stunting reduction are being implemented. These efforts are conducted holistically, integratively, and with high quality through coordination, synergy, and synchronization among ministries/agencies, provincial and district/city governments, stakeholders, and village administrations (5).

The village government, consisting of the village head and staff, plays a critical role in implementing the national development agenda, including stunting prevention, as mandated by the Village Law. Villages are the frontline in collecting target data for stunting intervention. Moreover, they are responsible for conducting specific and sensitive interventions aimed at stunted children or families at risk. Specific interventions address the direct causes of stunting (6).

Specific interventions include services for pregnant women with Chronic Energy Deficiency (CED), provision of at least 90 iron supplement tablets during pregnancy, iron supplements for adolescent girls, promotion of exclusive breastfeeding, complementary feeding for infants aged 6–23 months, management of malnourished toddlers, monitoring of toddler growth and development, additional nutrition for undernourished toddlers, and complete immunization coverage for toddlers (7).

Sensitive interventions include postpartum family planning services, prevention of unwanted pregnancies, premarital health checks for couples of reproductive age, access to clean drinking water and sanitation in priority areas, National Health Insurance Contribution Assistance (PBI), conditional cash transfers for poor and vulnerable families, public education on stunting, social food assistance, and efforts to eliminate open defecation (Open Defecation Free or ODF status) in villages or sub-districts (8).

Referring to the National Strategy for Stunting Reduction, the village government is a key actor in monitoring and evaluating intervention efforts. Monitoring involves observing progress in implementation, identifying emerging problems, and addressing them promptly. Evaluation involves assessing the gap between targets and actual outcomes.

The national strategy consists of five pillars: (1) strengthening leadership and

commitment across government levels, (2) enhancing communication and community empowerment, (3) increasing convergence of specific and sensitive interventions, (4) improving food and nutrition security at individual, family, and community levels, and (5) strengthening systems, data, research, and innovation (9). The strategy targets teenagers, prospective brides, pregnant women, breastfeeding mothers, and children aged 0–59 months.

The Manggarai Regency Government issued a series of Regent's Regulations from 2020 to 2022 to designate specific villages and sub-districts as priority areas for stunting prevention. The number of designated locations increased annually—from 82 in 2020, to 87 in 2021, and to 91 in 2022. As of 2022, 97 out of 188 villages/sub-districts in Manggarai were considered stunting-free (10,11,12).

In 2020, the villages with the highest stunting rates included Cireng (96%), Ceka Luju (95.77%), Borik (90.67%), and others. Similar trends continued in 2021 and 2022, with high prevalence in villages such as Bea Kakor (68.85%) and Golo Wua (59.09%). Notably, stunting data was primarily recorded at the village level rather than sub-district level, suggesting a lack of significant improvement despite ongoing interventions. These included livestock aid, cash transfers, and support for at-risk families. Villages are also expected to establish Village Stunting Reduction Teams composed of healthcare workers, village officials, and community members; however, many villages have not yet formed such teams (13,14).

This study aims to identify the factors influencing the role of villages in stunting reduction efforts in Manggarai Regency. The key aspects examined include village-level policies, budget allocations, available resources, stunting-related data, effectiveness of stunting task forces, and programs or activities implemented. The findings are expected to contribute to strengthening national-to-local policy implementation related to stunting prevention.

METHODS

This study employed a qualitative analytical design using a phenomenological approach to explore information regarding stunting control in villages across Manggarai Regency. The research was conducted from August to September 2023 in villages with high and increasing stunting rates.

A purposive sampling technique was used to select informants who were considered relevant and capable of providing rich, accurate, and reliable data. The key informant was the village head, the primary informants were parents of stunted toddlers, and the supporting informants were village midwives.

Data collection methods included non-participant observation and in-depth interviews. Tools used for data collection consisted of interview guides, stationery, laptops, notebooks, voice recorders, and cameras for documentation. The data were analyzed using a qualitative analysis process involving data collection, data reduction, data presentation (in the form of tables, figures, matrices, narratives, etc.), and finally drawing conclusions and verification (15).

RESULTS AND DISCUSSION

Policy refers to a series of concepts and principles that serve as guidelines and a foundation for implementing tasks, leadership, and actions. At the village level, there are no specific policies on

stunting; instead, the villages follow regulations from higher authorities.

"*The laws or regulations come from above; we just follow them because the rules made above are clear*." (R2)

"*We only make general rules in the village; as for stunting, everything is based on higher-level regulations. The regent's regulations apply*." (R2, R3)

"*We make simple threats—if parents of stunted children don't take them to the integrated health post, or if the children don't attend, we withhold aid. The health post is essential for monitoring their growth.*" (R1, R4)

Policies on stunting began with Presidential Regulation No. 42 of 2013 on the National Movement for the Acceleration of Nutrition Improvement, focusing on the first 1,000 days of life and addressing stunting, wasting, and overweight. The targets included communities—especially adolescents, pregnant and breastfeeding women, children under two years, community cadres, universities, professional organizations, media, and others. However, this movement was later deemed ineffective as a foundation for current stunting reduction efforts (16).

In 2021, Presidential Regulation No. 71 was issued, focusing exclusively on stunting reduction. The targets included adolescents, prospective brides, pregnant and breastfeeding women, and children aged 0 to 59 months. The strategy involved specific interventions led by the Ministry of Health and sensitive interventions involving other sectors (5).

In response, the East Nusa Tenggara (NTT) Provincial Government issued Governor's Decree No. 220/KEP/HK/2021, establishing a technical team to reduce stunting, maternal, and infant mortality from 2020 to 2023 (17). This was followed by Manggarai Regency's Regent Decree No. 368 of 2021, which formed a coordination team and working groups to accelerate stunting reduction from 2022 to 2024 (18).

Although there are no village-level regulations specifically addressing stunting, villages are included under the regent's policies. They can initiate local programs or budget allocations aligned with national priorities. Khasanah et al. (2023) confirmed that village governments have the initiative to implement the stunting convergence approach as part of anti-poverty efforts (19).

Manangsang et al. (2024) noted that policy implementation, supported by educational campaigns, faces cultural challenges (20). Village governments may support these efforts through community counseling, providing support for stunted children, and leveraging policies and community engagement.

A budget is a financial plan estimating income and expenditure for a future period. Budgeting for stunting includes preventive and responsive measures.

"*Village funds are indeed allocated for children and families. We provide food and fix their homes*." (R4)

"*We prepared IDR 50 million from village funds, as advised by the regent—for eggs, vegetables, and supplementary food.*" (R5)

"*30% of our village funds go to families affected by stunting—for example, to build toilets and other aid*." (R5, R6)

"*We don't give money directly, ma'am. We only distribute milk, eggs, or nuts*." (R6)

"*Stunting aid also comes from non-health government sectors—for example, agriculture provides vegetable seeds,*

and fisheries provide chicken and fish seeds." (R6, R7)

In 2021, the Ministry of Human Development and Culture allocated IDR 35 trillion for stunting reduction—down from IDR 39 trillion in 2019 and IDR 24 trillion in 2018. In 2022, the budget decreased further to IDR 25 trillion. Additionally, the Ministry of Villages disbursed IDR 11.3 trillion in village funds for stunting mitigation.

According to the Head of Public Health in Manggarai, no specific local funds were allocated for stunting. Since 2018, the Health Office received around IDR 300 million for general nutrition issues, which increased to IDR 700 million in 2021, sourced from the national budget (APBN). The Regent also instructed village heads to allocate 30% of village funds for nutrition problems. Wicaksono et al. (2022) found that community-based initiatives using village funds significantly contributed to reducing stunting prevalence (21).

Village funds have a critical role in stunting reduction. Effective and targeted use of these funds can improve community welfare and child nutrition (22). With adequate budget support, villages can provide focused interventions, which is key to decreasing stunting.

"*To prevent stunting, we have working groups—village midwives, cadres, and officials all involved*." (R6)

"*At the village level, we rely on midwives and cadres. We also have two PAUD centers where children are monitored."* (R7)

"*Everyone's involved, ma'am. The parish, PKK mothers, midwives, and cadres all participate in raising awareness. For nutrition, we rely on midwives*." (R8)

"*We've formed a village-level task force for stunting, involving health workers, religious leaders, and the community.*" (R8, R9)

"*At the health center, we have nutrition staff, but not enough. Sometimes there's a doctor, sometimes not. If we can't treat the child here, we refer them to Ruteng*." (R11)

Manggarai Regency has 23 health centers, 61 auxiliary posts, 23 maternity huts, 577 integrated health posts, 1 polyclinic, and 2 hospitals. These facilities are served by 2,014 health workers: 75 doctors, 899 nurses, 870 midwives, 93 pharmacists, and 77 nutritionists (23).

WHO recommends a ratio of 1 doctor per 2,500 residents. With a population of 321,950, Manggarai needs 128 doctors, yet only has 75. Conversely, midwives and nurses exceed ideal ratios (needed: 320 and 376, respectively). However, there is a significant shortage of nutritionists, who are essential for stunting prevention through dietary education.

Environmental health data is not yet included in NTT statistics, despite its importance. The imbalance in health worker ratios delays stunting reduction. Recruitment is needed but may burden the regional budget. Midwives and nurses can be optimized through targeted training in stunting measurement and prevention.

Bukit et al. (2021) found that support from skilled health workers affects stunting prevalence. The focus should not only be on quantity, but also the quality of health workers (24).

"*All the data is with the village midwife, and it's complete. You can check it, ma'am*." (R9)

"*If a child is measured by the midwife, cadre, and PKK, the data is then sent to the health center and village.*" (R10)

"*We initially got data from the health center, then rechecked with the midwife*." (R9, R10)

"*Accurate data ensures targeted aid. So far, the data has been appropriate*." (R11)

Stunting data is accessible via official websites, the Health Office, and the BKKBN. In early 2022, the Ruteng sub-district had the highest stunting rate: 1,045 cases (30.1%) among children aged 0–59 months. This increased from 31.8% in 2019 to 34.9% in 2020. Ten villages with high stunting rates include Meler, Compang Dalo, Bea Kakor, Lentang, Bangka Kenda, Wae Mulu, Golo Watu, Wae Ri'i, Golo Cador, and Riung.

Despite interventions, coverage in these villages remains low. Areas below the district average include: iron tablet coverage for undernourished pregnant women, K4 checkups, adolescent iron tablet programs, sanitation, parenting classes, PAUD enrollment, JKN participation, MPASI counseling, and treatment for malnourished toddlers. Improved access to reliable data raises community awareness and allows precise targeting of interventions to effectively reduce stunting.

RESEARCH ETHIC

This research received ethical approval from the Institute for Research and Community Service of the Catholic University of Indonesia Santu Paulus Ruteng, with approval number 15a/USP/L02/K/01/2023.

CONCLUSION

The role of the village in policymaking remains under the authority of central and district regulations. However, village governments can formulate specific programs and budget allocations that align with national policies. Funding for stunting reduction programs is not solely the responsibility of the village, but also involves cross-sectoral collaboration. The substantial budget allocated for stunting enables villages to implement targeted interventions. Human resources should be evaluated not only in terms of quantity but also quality, particularly highlighting the need to increase the number of nutritionists and relevant experts.

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