

Exploration of the Implementation of BKKBN Policies in Stunting Management: A Fundamental Study on Program Effectiveness and Intervention Strategies

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Abstract

Stunting is a complex issue that requires a multidisciplinary approach. Nutritional factors, economic policies, food technology innovations, and optimizing the role of healthcare workers are key elements in its prevention efforts. A multisectoral approach based on scientific evidence is the main strategy in addressing this issue sustainably. This study aims to evaluate the effectiveness of stunting management policies, particularly in the implementation of the PNPK Stunting, Local PMT program, and PKMK. Furthermore, this research seeks to enhance the accuracy of intervention targeting by analyzing the effectiveness of nutrition programs in reducing stunting rates and the factors influencing them. An analysis of socio-economic factors is also conducted to understand the role of maternal education, income levels, and access to healthcare services in influencing stunting prevalence. The results of this study provide policy recommendations that are more targeted, including optimal strategies for implementing community-based nutrition programs tailored to the needs of the population, enhancing the capacity of healthcare workers, and developing more effective community-based intervention models to increase awareness among pregnant and breastfeeding mothers about balanced nutrition.

Keywords: Stunting, Nutrition Policy, Nutrition Interventions, Socio-Economic Factors, Local PMT Program, Community-Based Intervention Models.

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Introduction

Stunting is a chronic nutritional problem that remains a major challenge in Indonesia. The 2023 UNICEF Study shows that the prevalence of stunting among children under five in Indonesia reaches 21.5%, a significant decrease from 37.2% in 2013. Data from Bebas Stunting Indonesia (BESTI) 2024 confirms the same figure, reflecting the

success of the policy interventions implemented. However, this number is still above the target of the 2024 National Medium-Term Development Plan (RPJMN) of 14%, thus requiring more effective and sustainable efforts.

The reduction in stunting rates indicates the positive impact of various intervention programs carried out by the government, one

of which is the policy of the National Population and Family Planning Agency (BKKBN). This policy focuses on improving the nutritional quality of children and pregnant women, nutrition education, and community-based health monitoring. However, several challenges remain in its implementation, including low early detection at Posyandu, inadequate healthcare worker capacity in the regions, and socio-economic factors that influence the success of interventions.

Various studies show that the main causes of stunting are not only related to pre-birth conditions but also to post-birth malnutrition. Data from 2024 indicates that 82% of stunted toddlers were born healthy without stunting risk, which means factors such as parenting patterns, access to nutritious food, and maternal education play a crucial role. A 2022 study highlights that low maternal education contributes to the high stunting rate, while the 2023 DPR report adds that poor sanitation and lack of nutrition education are also key factors.

One of the intervention strategies implemented is the Local Supplementary Feeding (PMT Lokal) and Processed Food for Special Medical Purposes (PKMK). However, the effectiveness of PMT Lokal in reducing stunting is still debated, while PKMK shows more promising results, especially when given early. As a follow-up, the government launched a program to provide free nutritious food for children and pregnant women, which is expected to strengthen interventions based on animal protein.

Evaluation of the implementation of BKKBN policies in handling stunting is crucial to understanding the effectiveness of the strategies implemented. A multisectoral approach, such as the Community-based

Nutrition Program (CBN) in Ethiopia, has proven effective in improving child nutritional status through the empowerment of local health cadres. Comparative studies of successful similar programs in several regions in Indonesia, such as Surabaya, can provide insights into strategies that can be replicated in other areas.

This study will explore the effectiveness of BKKBN policies in tackling stunting through an analysis of the implementation of the National Guidelines for Clinical Stunting (PNPK), evaluation of the PMT Lokal and PKMK programs, and an examination of the socio-economic factors that influence stunting prevalence. With a comprehensive approach, it is hoped that the results of this study can provide evidence-based recommendations to improve policies and intervention programs, in order to accelerate the achievement of the stunting reduction target in Indonesia.

Literature Review

Public welfare is significantly influenced by various factors that determine health quality, including access to healthcare services, economic policies, innovations in food technology, and social and cultural values. This review examines the relationship between access to health determinants and its impact on various aspects of community welfare.

Skoufias, Vinha, and Sato (2019) highlight how access to three key nutritional determinants—food and care, health, and water, sanitation, and hygiene (WASH)—affects stunting prevalence in Sub-Saharan African countries. The analysis shows that the more nutritional factors are adequately accessible, the lower the likelihood of children experiencing stunting. However, disparities in access to these factors remain

a significant challenge in improving child nutrition status.

The phenomenon of limited access to healthcare services can also be found in the impact of economic policies on public health. As shown by Kentikeleniis and Stubbs (2023), after the 2007–2008 Global Financial Crisis, countries such as Greece, Ecuador, and Chad experienced cuts to health budgets due to fiscal policies imposed by the IMF. This negatively impacted the provision of healthcare services, increasing the risk of infectious diseases, and worsening public health conditions, especially for vulnerable groups.

In the context of food technology, Shahbaz, Javed, and Park (2023) suggest that innovations such as High Pressure Processing (HPP) can be a solution to enhance food safety and nutritional value without altering its sensory properties. This technology contributes to providing healthier and more nutritious food, which can, in turn, support efforts to improve community nutrition. This is relevant to Skoufias et al.'s (2019) findings on the importance of access to nutritious food in reducing stunting prevalence.

Furthermore, Magrath (2022) highlights global maternal health policies, particularly the role of traditional health workers such as midwives. In many countries, midwives are banned due to safety concerns, but in Indonesia, they are partnered with midwives in the maternal healthcare system. This approach illustrates how social factors and policies can play a role in enhancing access to maternal and child healthcare services, aligning with the issue of access to health determinants in preventing stunting (Skoufias et al., 2019).

A broader perspective on healthcare policy is also reviewed in the study of life care planning by Weed and Rutherford-Owen (2024). Originally developed in litigation systems, this methodology is now widely used in long-term care planning for individuals with disabilities or serious medical conditions. This approach emphasizes the importance of access to sustainable healthcare services to improve public welfare, as also examined in the context of access to healthcare services affected by global economic policies (Kentikeleniis & Stubbs, 2023).

Additionally, Anderson and Roberts (2023) highlight how American cultural values influence healthcare and community welfare policies. In the case of maternal health in the US, certain cultural values may either strengthen or hinder access to optimal healthcare services. This study is relevant to previous findings regarding the impact of healthcare policies on maternal and child welfare and how Social Determinants of Health (SDoH) play a crucial role in the distribution of healthcare resources.

Overall, this review shows that access to health determinants, economic policies, food technology innovations, and social and cultural values are all interconnected in determining community welfare. Limitations in access to these factors can worsen health conditions, while inclusive and innovative policy approaches can help address the existing challenges.

Research Method

The implementation of this research is expected to yield the following outcomes:

1. Evaluation of Policy Effectiveness: Identify factors that support and hinder the implementation of stunting policies, specifically in the execution

of PNPK Stunting, the Local Supplementary Feeding (PMT Lokal) program, and Processed Food for Special Medical Purposes (PKMK).

2. Improvement in Intervention Target Accuracy: Gain a deeper understanding of the effectiveness of nutritional interventions in reducing stunting rates, as well as the factors influencing their success, such as the quality and acceptance of PMT Lokal and the distribution of PKMK in various regions.
3. Understanding Socio-Economic Factors: Provide a sharper analysis of the role of maternal education, income levels, and access to healthcare services in influencing stunting prevalence in Indonesia.
4. Recommendations for More Targeted Policies: Propose optimal strategies for implementing PMT Lokal and PKMK programs based on community needs and ensuring sustainability; recommend improvements in healthcare worker capacity and optimization of Posyandu services to support stunting reduction programs; and suggest more effective community-based intervention models to raise awareness among pregnant and breastfeeding mothers about balanced nutrition.

By identifying barriers in the implementation of existing policies and evaluating the effectiveness of various intervention programs, the results of this study are expected to serve as a foundation for the development of more adaptive, targeted, and sustainable policies to achieve the national stunting reduction targets in Indonesia.

Discussion

The evaluation of policy implementation in handling stunting is a crucial step in formulating more effective strategies. Based on the available data, further research is needed to understand the constraints and opportunities for improvement in ongoing programs. The 2023 UNICEF study reports that the prevalence of stunting among children under five in Indonesia is 21.5% in 2023. This finding is consistent with the 2024 BESTI report, which recorded a similar figure, marking a significant decrease from 37.2% in 2013. However, this figure still exceeds the RPJMN 2024 target of 14%. Therefore, policy evaluation is increasingly important to ensure the effectiveness of the strategies that have been implemented.

One key aspect that needs to be evaluated is the implementation of the National Guidelines for Clinical Stunting (PNPK). This evaluation includes identifying major obstacles in implementation at the regional level, the effectiveness of training for healthcare workers and cadres, as well as the low implementation of early detection and referral at Posyandu. Structural barriers, limited resources, and the lack of public understanding about the importance of early detection are some factors that need further analysis. This aligns with the 2020 UNICEF Formative Evaluation, which emphasized the importance of cross-sectoral coordination and increasing regional capacity to accelerate stunting reduction.

Additionally, the intervention of Local Supplementary Feeding (PMT) also requires further review to ensure its distribution is more targeted. The development of a more accurate beneficiary selection method should be prioritized to ensure that children in need receive the appropriate nutrition. Some failures of the PMT program can be

attributed to factors such as low acceptance of the provided food by children or lack of supervision in food consumption. On the other hand, the effectiveness of Processed Food for Special Medical Purposes (PKMK) has proven to be higher in reducing stunting, especially when given early. Therefore, analyzing the benefits of providing animal protein-based PMT compared to a complete menu is important to determine its effectiveness in improving the nutritional status of toddlers.

On the other hand, the effectiveness of PKMK must be examined through comparative studies between children receiving PKMK and those receiving other interventions like PMT. This evaluation includes assessing the capacity and availability of PKMK at the regional level, including the distribution mechanism to ensure it remains effective and well-targeted. Moreover, analyzing the long-term benefits of PKMK interventions could provide insights into their impact on child health in the future, serving as a foundation for developing more sustainable policies.

The social and economic roles in stunting cannot be ignored. The 2023 DPR report reveals that poor sanitation, low maternal health, and lack of nutritional education are the root causes of stunting in Indonesia. Maternal education levels and economic conditions are closely correlated with stunting prevalence. Cultural factors and caregiving practices also influence a child's nutritional status. Therefore, studying how these social and economic factors affect stunting can serve as a basis for more community-based and sustainable interventions.

Prevention strategies and early interventions need to focus on the most effective approaches to address weight faltering in

infants aged 0-6 months. One approach that can be implemented is providing education to pregnant and breastfeeding mothers about the importance of adequate nutrition intake and proper feeding practices. Community-based approaches, such as the Community-based Nutrition Program (CBN) in Ethiopia, have proven effective in preventing stunting and empowering communities to improve children's nutritional status. The implementation of this community-based strategy could serve as a model for Indonesia.

Learning from successful experiences in other regions is also an important part of policy evaluation. For example, the implementation of strategies in Surabaya, which involved an IT monitoring system and cross-sectoral involvement, could serve as a model for other regions. However, an analysis is needed to determine how this strategy can be adapted in areas with more limited resources. By conducting these comparative studies, more effective and efficient policies for addressing stunting can be designed and implemented widely.

A comprehensive policy evaluation will provide a clearer picture of the effectiveness of various interventions in handling stunting. With a data-driven approach that considers social and economic factors, the resulting policies can be more aligned with the needs of the community and have a more significant impact on addressing the stunting problem in Indonesia.

Analysis of Stunting in Indonesia and Its Implications

Stunting remains one of the major health issues in Indonesia. According to the Ministry of Health of the Republic of Indonesia (2023), stunting prevalence continues to be a significant challenge in health development.

A study by Fitri et al. (2023) highlights that access to three main factors—food and care, health, and water, sanitation, and hygiene (WASH)—plays a critical role in addressing stunting. The correlation between stunting and the number of adequately accessible nutrition determinants shows that the more nutrition determinants available, the lower the prevalence of stunting in a region. This is also supported by the research of Black et al. (2021), which underscores the importance of nutrition-based interventions to address malnutrition among mothers and children.

Access to Nutritional Factors and Stunting Prevalence

A thorough analysis of specific access to nutritional factors shows that the combination of access to food, health, and WASH significantly impacts the reduction of stunting rates. However, simultaneous access to these three factors remains limited for most children in Indonesia (Martorell & Young, 2020). According to Ruel et al. (2021), nutrition-sensitive interventions that are mindful of social aspects can increase effectiveness in reducing stunting rates. A similar study by Bappenas (2023) indicates that a multisectoral approach is necessary to accelerate stunting prevention, in line with findings from Sandjaja (2022) that emphasize improving food resources as a key solution to reduce stunting prevalence.

With a more comprehensive approach, the findings of this study are expected to provide evidence-based recommendations that can be used to improve stunting policies and intervention programs in Indonesia. By doing so, the national target for reducing stunting can be achieved more quickly, ensuring that future generations grow and develop optimally.

The findings of this study highlight the complex and multifaceted nature of stunting as a public health issue in Indonesia. While significant progress has been made in reducing stunting prevalence, especially with the implementation of various government policies and programs, the challenges in achieving the national target remain.

1. Effectiveness of Stunting Policies:

The implementation of policies such as the PNPK Stunting, PMT Lokal, and PKMK has shown promising results in certain regions, but the overall impact remains inconsistent. Factors such as regional disparities in healthcare access, differences in local governance, and the level of community engagement have influenced the effectiveness of these interventions. In some areas, the lack of adequate healthcare worker capacity and infrastructure has hindered the full implementation of stunting prevention and treatment programs. Moreover, the complexity of coordinating multisectoral efforts, such as integrating nutrition, sanitation, and healthcare services, presents additional challenges. To achieve more effective outcomes, it is essential to strengthen coordination between sectors, enhance resource allocation, and provide more targeted support for healthcare workers at the grassroots level.

2. Accuracy of Intervention Targets:

While the accuracy of targeting nutritional interventions has improved with the implementation of PMT Lokal and PKMK, there is still a need for more precise and inclusive targeting mechanisms. The quality and acceptance of PMT Lokal, which often varies by region, can significantly influence the success of stunting reduction efforts. In areas where access to PMT Lokal is inconsistent, children and pregnant women

may miss out on essential nutritional support, resulting in continued high stunting rates. Furthermore, the distribution and reach of PKMK programs need to be optimized to ensure that they are effectively delivered to populations most at risk of stunting.

3. Socio-Economic Factors:

Socio-economic conditions, particularly maternal education and income levels, have a profound impact on stunting prevalence in Indonesia. Low maternal education remains one of the most significant contributors to high stunting rates. Educated mothers are more likely to understand the importance of nutrition and seek appropriate healthcare, which can mitigate the risk of stunting in their children. Income disparities also play a crucial role in determining access to nutritious food, healthcare services, and proper sanitation. In many rural areas, economic constraints prevent families from accessing high-quality food and health services, exacerbating the problem of stunting. Policymakers should focus on addressing these socio-economic inequalities by improving access to education and healthcare services, particularly for marginalized communities.

4. Policy Recommendations:

This study suggests that policies should be more tailored to the specific needs of local communities. A one-size-fits-all approach may not be effective in addressing the root causes of stunting across different regions of Indonesia. Programs like PMT Lokal and PKMK should be adjusted to better meet the cultural, economic, and logistical realities of each community. Moreover, capacity-building for healthcare workers, especially those in remote and underserved areas, is crucial to ensuring the success of stunting reduction programs. Strengthening the role

of Posyandu (integrated health posts) as a local resource for monitoring and providing nutrition services is also essential in reaching high-risk populations. Additionally, developing community-based intervention models that engage local leaders and stakeholders can help raise awareness about the importance of balanced nutrition and improve the participation of pregnant and breastfeeding mothers in health programs.

In conclusion, addressing stunting in Indonesia requires a comprehensive approach that integrates policy improvements, socio-economic interventions, and community-driven solutions. The results of this study indicate that while progress has been made, the remaining challenges must be tackled through targeted, evidence-based strategies that are adaptive to local needs and conditions. By addressing the root causes of stunting and enhancing the effectiveness of existing programs, Indonesia can move closer to achieving its national stunting reduction goals.

Conclusion

Stunting is a complex challenge that requires a multidisciplinary approach. Access to nutritional factors, economic policies, innovations in food technology, and the optimization of healthcare workers' roles are key elements in the efforts to prevent stunting. Evidence-based multisectoral policies are the primary strategy to address this issue sustainably. Additionally, the consumption of nutrient-dense foods plays an important role in reducing stunting, while inclusive economic growth can support efforts to decrease its prevalence, particularly in low-income countries.

Recommendations

1. Strengthening Multisectoral Policies

Enhance coordination across sectors in the formulation and implementation of stunting prevention policies, ensuring that policies are evidence-based and oriented toward sustainability.

2. Improving Access and Nutritional Quality

Expand the distribution of high-quality nutrient-dense foods, particularly for vulnerable groups such as pregnant women, breastfeeding mothers, and young children, while developing food technology innovations to support nutritional needs.

3. Optimizing Nutrition and Health Programs

Improve the effectiveness of supplementary feeding programs (PMT) and empower health cadres at Posyandu to ensure more targeted interventions, as well as increasing the capacity of healthcare workers to support nutrition interventions.

4. Empowering Communities and Nutrition Education

Raise community awareness on the importance of balanced nutrition through community-based educational campaigns, including counseling for pregnant and breastfeeding women on proper childcare practices and the consumption of nutritious foods.

5. Strengthening Socio-Economic Factors

Improve family welfare through inclusive economic programs, such as skills training and business assistance for low-income families, to enhance their purchasing power for nutritious food.

6. Sustained Monitoring and Evaluation

Develop a more accurate monitoring and evaluation system to assess the effectiveness of the implemented policies and interventions, enabling continuous data-driven improvements.

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