

Mitigating Stunting in Semarang City, Indonesia: A Comprehensive Approach to Better Health and Well-Being

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ABSTRACT

Background: Among the 29 districts and 6 cities in Central Java, Semarang City stands out as the urban area with the most substantial reduction in stunting prevalence over a year (2021-2022), from 21,3% to 10.4%, while numerous regions continue to grapple with challenges in lowering rates of stunting. **Aims:** This study aims to investigate Semarang City's comprehensive strategy for mitigating stunting. **Methods:** This study used a qualitative case study approach. Utilizing focus group discussions (FGD) and document analysis, representatives from 16 diverse sectors, including health, education, religion, social services, food security, and more, engaged in discussions aimed at synchronizing activities and policies to achieve the common goal of stunting reduction. Simultaneously, a comprehensive document analysis was conducted, reviewing relevant documents, reports, and policies across 16 districts in Semarang City. Data analysis employed Miles et al.'s interactive model, involving data condensation, display, and conclusion drawing/verification. **Results:** The success of stunting reduction in Semarang City is highlighted by relevant regulations, an updated and accurate statistical database, intensive cross-sector coordination, and a synchronized effort across diverse sectors. Furthermore, the city's prudent financial planning is evident through sufficient and on-target budget allocations dedicated to stunting reduction programs. **Conclusion:** The research concludes by stressing the importance of ongoing commitment, adaptability, and collaborative efforts to achieve the ambitious goal of zero stunting by 2024 in Semarang City, suggesting future studies focus on program effectiveness and long-term sustainability.

Keywords: cross-sector, database, financial planning, regulation, stunting

INTRODUCTION

Malnutrition can be linked to inadequate nutrition or frequent and severe infections, particularly in underprivileged communities. Among the three types of malnutrition (stunting, wasting, and overweight), stunting is the most prevalent nutritional issue faced by toddlers on a global scale (Yani et al., 2023). Stunting is defined as a child's inability to achieve normal growth and development during the critical first 1000 days of life (*1000 Hari Pertama Kelahiran* - HPK), primarily attributed to chronic malnutrition (Arifin et al., 2023). Stunting mitigation refers to efforts and interventions aimed at preventing or reducing stunting in children under 5 years, addressing the critical period of

early childhood development (Siswati et al., 2022; Zaidi et al., 2020).

According to the Levels and Trends in Child Malnutrition Report of UNICEF (2023), the 2023 Joint Child Malnutrition Estimates (JME) indicate that the progress toward achieving the global nutrition targets set by the 2025 World Health Assembly (WHA) and SDG target 2.2 has been inadequate. Approximately one-third of all nations are making sufficient progress to meet the goal of reducing the number of children suffering from stunting by half by 2030, while around a quarter of countries lack sufficient data to assess their progress up to this point. Additionally, the report highlights that stunting impacted approximately 22.3 percent or 148.1 million children under the age of 5 worldwide in 2022. The vast

majority of these affected children resided in Asia, making up 52% of the global total, and in Africa, comprising 43% of the global total.

As the largest archipelagic nation in the world, Indonesia grapples with the challenge of addressing stunting across diverse regions, each with its unique socioeconomic and cultural characteristics. Stunting in Indonesia is a multifaceted problem with complex implications that extend beyond individual health, reaching into the very fabric of the nation's socioeconomic development. Concerns also exist regarding the precision of data pertaining to stunting prevalence in Indonesia. The results of the Indonesian Nutrition Status Survey (SSGI) revealed that the prevalence of stunting in Indonesia had decreased from 24.4% in 2021 to 21.6% in 2022 (Kemenkes, 2023). However, UNICEF (2023) noted that the prevalence of stunting in Indonesia was 31.0% in the very high category. Such substantial disparities in data can result in varying perspectives and subsequent approaches to addressing the issue of stunting in Indonesia. Hence, it is imperative for each region to enhance its stunting-related database to acquire more precise data, enabling the formulation of policies tailored to the unique circumstances of each city or district.

According to the 2022 Indonesian National Health Survey (Kemenkes, 2023), East Nusa Tenggara Province continues to have the highest stunting rate among the country's 34 provinces, standing at 35.3%. This is followed closely by West Sulawesi with a rate of 35% and Papua at 34.6%. The stark disparities in development across this vast archipelagic nation may account for why these three provinces exhibit the highest stunting rates, as they are located outside Java, the central hub of government. Nonetheless, it is worth noting that stunting remains a significant concern even within Java itself. In fact, Central Java Province, located on the island of Java, reports a high stunting rate of 20.8%. Among the 29 districts and dix cities in Central Java, Semarang City stands out as the urban area with the most substantial reduction in stunting prevalence over a year (2021-2022), from 21.3% to 10.4%.

Semarang City offers a unique case study for addressing stunting. Located in

Central Java, this bustling city is home to a diverse population and a rich cultural heritage. Yet, despite its many strengths, Semarang City faces a critical challenge: nearly one in every three children under five in the city is affected by stunting, which has profound and lasting effects on their physical and cognitive development. The consequences of stunting reach far beyond childhood, impacting individuals' ability to thrive, contribute to their communities, and participate in the workforce as adults. In response to this crisis, various stakeholders have joined hands to implement comprehensive and evidence-based strategies aimed at reducing stunting in Semarang. This article explores the multifaceted approach to stunting management in the Semarang city. It focuses on understanding how Semarang City manages stunting by looking at its comprehensive strategy involving nutrition, healthcare, education, and community engagement. This study aims to provide insights that align with Semarang's goal of creating a practical model for effective stunting management. The ultimate aim is to offer findings that can be applied in other regions of Indonesia and beyond, contributing to a broader effort to address the issue of stunting.

METHODS

This research adopts a qualitative approach, employing a case study methodology to investigate stunting management in Semarang City. Data collection involved two primary methods: focus group discussion (FGD) and document analysis. The FGD was conducted by inviting representatives of 16 related institutions to discuss the synchronization of activities and policies undertaken by each agency with the aim of achieving a common goal—specifically, the reduction of stunting. The participants invited to engage in this FGD included: (1) the representative of relevant departments: Department of Health, Department of Education, Department of Religion, Department of Social Service, Department of Food Security, Department of Information and Communication, Department of Fisheries, Department of Women's Empowerment and Child Protection, Department of

Housing and Settlement, Department of Population Control, Department of Agriculture, and Department of Environmental Services; (2) public institutions: public hospital representatives; (3) educational institutions: university professors; (4) local government representatives: representatives from sub-district administrations and village heads; (5) and social and family welfare representatives: women representatives from family welfare empowerment institutions (PKK).

During the FGD, a total of 33 participants representing the previously mentioned institutions, actively engaged in the deliberations. The FGD participants were organized into three distinct groups, as follows:

(1) Group 1 (10 members): Integrated Policy and Planning

This group delved into discussions related to Integrated Policy and Planning. Its members included representatives from various departments: the Department of Health, the Department of Education, the Department of Agriculture, the Department of Women's Empowerment and Child Protection, the Department of Social Service, and the Department of Information and Communication.

(2) Group 2 (12 members): Community Engagement and Implementation

The second group focused on Community Engagement and Implementation. It comprised representatives from diverse backgrounds, including Public Hospital representatives, a university professor, Local Government representatives (Sub-district Administration), Department of Environmental Services representatives, and Department of Housing and Settlement representatives.

(3) Group 3 (11 members): Cultural and Social Dynamics

The third group addressed topics related to Cultural and Social Dynamics. Its members included a representative from the Department of Religion, the Department of Fisheries representatives, and women representatives from Social and Family Welfare (PKK).

This diverse group of participants brought a wealth of knowledge and perspectives to the FGD, contributing to a comprehensive understanding of stunting management in Semarang City. Informant

selection, conducted through purposive sampling, was meticulously guided by their roles, expertise, and active engagement in pertinent domains, aligning with the recommendations of each department head.

Simultaneously, document analysis comprised a comprehensive review of pertinent documents, reports, and policies pertaining to stunting management within 16 districts in Semarang City. The data collected included: (1) data related to the prevalence of stunted toddlers in Semarang City including information on the stunting rate and stunting distribution from the Department of Health; (2) regulations supporting the acceleration of stunting reduction in Semarang City from Bappeda; (3) other data pertinent to the acceleration program for reducing stunting in Semarang City from relevant departments. The data analysis occupied the interactive model by Miles et al. (2018) which includes three concurrent flows of activity: (1) data condensation, (2) data display, and (3) conclusion drawing/verification.

RESULTS AND DISCUSSION

Semarang City, encompassing an area of 372.3 square kilometers, is organized into 16 sub-districts, further comprising 177 sub-districts. The geographical landscape of Semarang City is characterized by 1% coastal plains, 33% lowlands, and 66% hilly plains. In terms of population, the city currently houses approximately 1.81 million residents. To address the issue of stunting, Semarang City is home to 88,319 children under the age of five, with additional demographic details indicating 81,342 young women, 9,861 brides and grooms, and 23,503 pregnant women. The city's healthcare infrastructure is robust, featuring 37 community health centers, 32 hospitals, 1,631 integrated service centers, and 942 first-level health facilities (Dinas Kesehatan Kota Semarang, 2023). These facilities collectively contribute to the well-being of Semarang City's residents, offering a comprehensive network of healthcare services and resources.

Over a period of five years, Semarang City experienced a notable and highly significant reduction in the prevalence of stunting. However, there

were fluctuations in the numbers, with varying prevalence rates among districts and a substantial increase during the COVID-19 pandemic. The fluctuations in

stunting cases within Semarang City are visually elucidated in Figure 1.

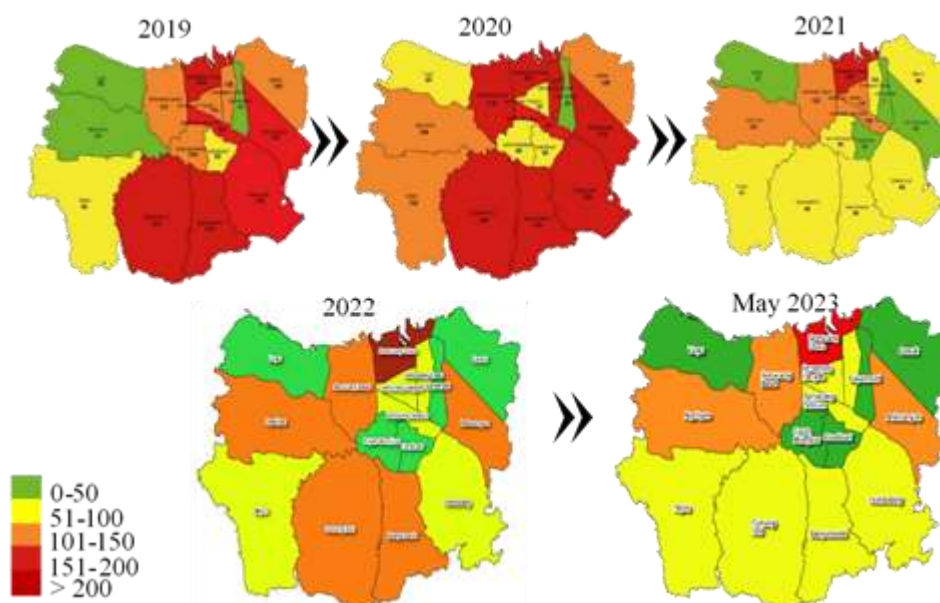


Figure 1. The distribution of stunting cases in Semarang City (2019- May 2023)
Source: (Dinas Kesehatan Kota Semarang, 2023)

Based on the results of observations, FGDs, document analysis, and source triangulation conducted during the research period, it can be identified that the success of reducing stunting in Semarang City can be attributed to several factors, namely: (1) relevant regulations; (2) updated and accurate statistical database; (3) intensive cross-sector coordination; and (4) sufficient and on-target budget allocation.

Establishing and Enforcing Relevant Regulations

Before the issuance of Presidential Decree No. 72 of 2021 focusing on stunting reduction in Indonesia, the Central Java provincial government prioritized stunting in its development agenda due to the 2019 Indonesian Nutrition Status Survey indicating a prevalence of 27.68%—above the UNESCO standard. In response, Governor's Regulation Number 34 of 2019 was

enacted to accelerate stunting prevention. In Semarang City, with a 2019 prevalence of 26.6%, a stunting discussion in October 2019 led to a consensus on priority targets, a five-year development plan, and increased funding. The onset of COVID-19 in 2020 disrupted these efforts, resulting in a spike in the stunting rate to 31%. This increased figure was obtained from data from the Semarang City Health Service, because, in 2020, SSGI did not conduct a survey due to the pandemic. Renewed coordination in September 2020 led to a commitment statement and subsequent Mayor's Decree No. 050/365/V/2021, establishing a Stunting Reduction Coordination Team (TPPS). This team operationalized Presidential Decree No. 72 of 2021, contributing to a remarkable reduction in stunting from 26.6% in 2020 to 10.4% in 2022. The process of formulating regulations and coordination efforts are depicted in Figure 2.

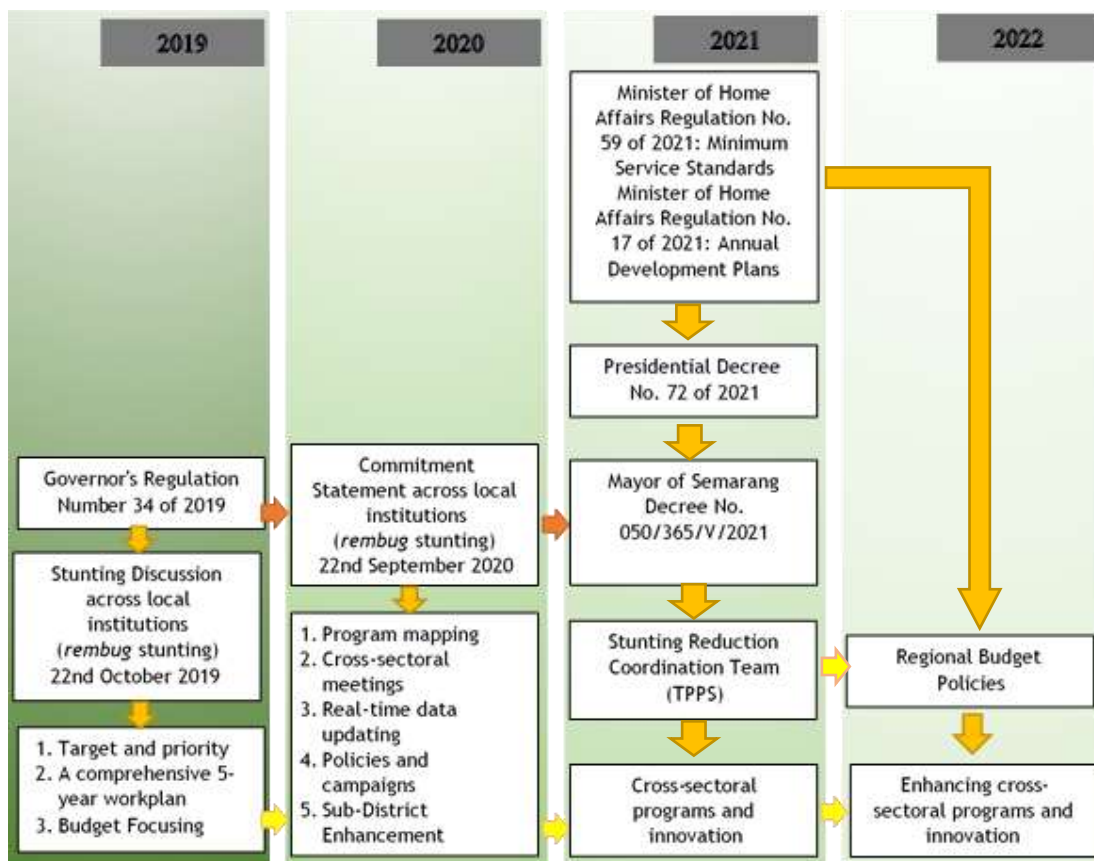


Figure 2. The Formulation of Regulations for the Management of Stunting in Semarang City

Motivations for collaboration vary across personal and organizational levels, as well as intrinsic and extrinsic factors, as noted by Brown *et al.* (2019) These motivations encompass innovation acceleration, efficiency, and sharing resources (Klus *et al.*, 2019), knowledge transfer (Nsanzumuhire & Groot, 2020), enhancing visibility or legitimacy (Zeimers *et al.*, 2019), and developing personal relationships while gaining mutual respect (Berendsen *et al.*, 2007). Before committing to collaboration, assessing the motivation and dedication of fellow collaborators is imperative. The protracted process of formulating and establishing commitment for sound regulations and policies plays a crucial role in governance, serving various purposes. This extensive process allows for public consultation and input, essential in democratic societies to involve citizens, businesses, and stakeholders in decision-making. Inclusivity ensures diverse perspectives are considered, potential unintended consequences are identified, and resulting regulations garner widespread support. He *et al.* (2022) recommend advocating for

the involvement of multiple subjects in crafting legal norms, altering the paradigm preceding legal regulation, and utilizing local legal norms to define the extent and standard of government data disclosure.

The legitimacy of governance, as highlighted by Christensen and Læg Reid (2020), extends beyond effectiveness to include processes of creating meaning, encouraging participation, and fostering trust. Before engaging in collaboration, it is crucial to consider the perceived legitimacy of the collaborating group. Contrary to a common misconception that policies are inherently sound, challenges often surface during their implementation (Nisa *et al.*, 2021). The extended commitment-forming process provides an opportunity for negotiation and consensus-building among different interest groups. Policies emerging from collaborative efforts tend to be more resilient and adaptable, reflecting a balance between diverse needs and priorities. While a deliberative approach may seem time-consuming, it contributes to the creation of regulations that

withstand the test of time and serve the best interests of society as a whole.

Updated and Accurate Statistical Database

Many aspects of the analysis hinge on the proxy data available rather than direct measurements of constructs (Bhutta *et al.*, 2020). Numerous studies addressing stunting highlight a common challenge: the difficulty in obtaining pertinent data related to stunting (Hartotok *et al.*, 2021; Raffalli & Villalobos, 2021; Vaivada *et al.*, 2020). This limitation leads to the implementation of policies to address stunting that may be less aligned with the actual conditions observed in the field. Hence, strategies aimed at reducing stunting in the city of Semarang prioritize the accuracy and accessibility of data. The TPPS team consistently coordinates and performs monthly performance evaluations using data provided by the health service and population control service. In addition to monthly coordination, TPPS also engages in quarterly coordination for data collection with more intricate institutions. Every six months, updates on stunting prevalence data are reported to the Ministry of Home Affairs and the National Family Planning Coordinating Board (BKKBN). The database is systematically managed online by each sub-district, with real-time updates. The data for each sub-district encompasses 29 essential services items related to the health of young women, prospective brides, pregnant women, babies, toddlers, and families in general and 22 supply services items associated with family quality of life (Dinas Kesehatan Kota Semarang, 2023). Subsequently, these data serve as the foundation for policy formulation, ensuring that resulting regulations are both relevant and effective.

Maintaining an updated and accurate statistical database is essential for identifying high-risk populations and understanding the specific causes of stunting in different regions. This data enables policymakers to tailor interventions to address the unique challenges faced by communities (Bhutta *et al.*, 2020). Accurate data help in targeting resources efficiently, ensuring

that interventions are directed toward the areas and demographics most in need. This precision is crucial for optimizing the impact of limited resources and maximizing the effectiveness of stunting management strategies.

Intensive Cross-sector Coordination

According to Agranoff and McGuire (2003), collaborative public management involves coordinating within multi-organizational setups to address challenging issues beyond the scope of individual organizations. This collaborative approach, emphasizing reciprocity and public participation, goes beyond organizational boundaries and involves various sectors and stakeholders. Public administrators in collaborative efforts find themselves orchestrating multi-organizational partnerships to resolve inherently complex issues. O'Leary and Vij (2012) highlight the complexity of collaboration in public management, emphasizing the absence of a universal formula for success. Drawing on 14 case studies in nine countries, key influencing factors in collaborative endeavors are explored.

Several studies, including those Brown *et al.* (2019), Mäkinen *et al.* (2020) and Newman *et al.* (2019) emphasize the crucial role of a clearly defined and mutually agreed-upon mission or purpose as a key success factor in collaboration. Given the complexity of stunting, influenced by various determinants such as health, nutrition, sanitation, education, and socioeconomic factors, achieving intensive cross-sector coordination is paramount. Coordinated efforts across health, education, agriculture, and social welfare sectors enable a comprehensive approach addressing the root causes of stunting, as highlighted by Hartotok *et al.* (2021) and Surbakti and Ismail (2023). For instance, collaboration between the health and agriculture sectors can promote the production and consumption of nutrient-rich foods. Drawing from information obtained in the FGD, Table 1 summarizes the coordinated actions executed by 16 regional apparatus organizations and affiliated institutions in the primary sectors within the city of Semarang.

Table 1. Collaborative Actions Addressing Stunting by Regional Government Organizations and Related Institutions in Semarang City

No.	Organization/Institution	Factors	Program/Action
1	Department of Health	health	Specific interventions
2	Public Hospital	health	Pediatric assessment for nutritional problems
3	Department of Food Security	nutrition	ANAK HEBAT (Great Kid) Program to provide information on nutrient-rich foods tailored to children's growth and developmental stages
4	Department of Agriculture	nutrition	Social campaigning and optimizing the utilization of garden land as nutrition gardens
5	Department of Fisheries	nutrition	Supplying supplementary nutrition through fish-based food products
6	Department of Environmental Services	socioeconomic	Regulating food waste and food loss to redirect resources for meeting the nutritional requirements of stunted children.
7	Department of Social Service	socioeconomic	Providing essential food for vulnerable families: pregnant women and stunted children
8	Department of Population Control	socioeconomic	Establishing a family support team for approximately 53,000 at-risk families, implementing DASHAT program (the program of healthy kitchens to overcome stunting) with a budget of IDR 2 billion, and allocating IDR 600 million for stunting prevention initiatives.
9	Department of Women's Empowerment and Child Protection	socioeconomic	Educating Families on Parenting and Reinforcing the Family Integrated Service Centers (<i>Posyandu</i>)
10	Department of Religion	socioeconomic	Implementing health-centric madrasah activity programs, promoting wellness in Islamic boarding schools, and executing the <i>Tugumuda</i> Program (Fit Productive Bride and Groom Towards Dream Family).
11	Sub-district administrations and village heads	socioeconomic	Engaging in stunting discussion initiatives and coordinating activities for stunting management
12	Department of Education	education	Implementing healthy school activity programs, conducting balanced nutrition literacy studies, and promoting early childhood education
13	University	education	conducting cadre training, data validation, and doing intensive scientific studies
14	Family Welfare Empowerment Institution (PKK)	education	Enhancing community education in preventive and promotive endeavors
15	Department of Information and Communication	education	Publications on stunting and information available on stunting via the website
16	Department of Housing and Settlement	sanitation	Implementing the construction of a local domestic wastewater treatment system

Source: Primary Data (2023)

The Semarang City Health Department has implemented specific interventions, such as the restructuring of the nutrition house into Rumah Pelangi Nusantara (*Pelayanan Gizi dan Penyuluhan Kesehatan Anak serta Remaja*) or Nutrition Services and Child Health Counseling for Adolescents in 2019. This initiative represents a holistic approach to addressing community nutrition issues in Semarang City. This program targets a diverse range of

beneficiaries, including pregnant and breastfeeding mothers, infants, toddlers, families with young children, early childhood participants, elementary school students, middle school students, and teenagers. The Pelangi Nusantara service program comprises:

- 1) Health Services for Toddlers with Stunting and Poor Nutrition at Rumah Pelangi Nusantara, consists of: (a) preventive and promotive efforts: nutritional education tour, nutrition

- ambassador program, nutrition garden initiatives, menu preparation for toddlers and pregnant women, (b) support services, encompassing the provision of community nutritionists, nutrition houses, and health promotion vehicles; and (c) curative services involve comprehensive health services for malnourished and stunted toddlers, including the stages of tracking malnourished toddlers, coordination, laboratory examinations, healing techniques, and ongoing monitoring and evaluation.
- 2) Since 2021, the Tanjungmas village in North Semarang, Semarang City, has served as a pilot project for integrating community empowerment and movements to address stunting. Chosen due to factors like susceptibility to flooding, high poverty rates, prevalent stunting, and reliance on fishing, the interventions include providing additional meals and snacks for stunted toddlers and pregnant women for three months, along with zinc syrup, pregnant milk, baby milk, and oil. Cadres strategically placed at five locations facilitate food distribution, with weekly reports ensuring thorough monitoring by health officials. By June 2023, 14 out of 79 stunted children in Tanjungmas achieved normal growth, and the number of pregnant women affected by anemia and chronic energy deficiency decreased by 50%.
 - 3) In 2022, an intervention program for providing additional food for 1367 stunted toddlers in 161 sub-districts of Semarang City was implemented by providing additional food three times per day by the Semarang City Department of Health and providing four cartons of powdered milk monthly by the Semarang City Department of Food Security. This program receives full support from the Semarang City government, with a funding allocation of 3 billion from the Department of Health and 3.4 billion from the Department of Food Security in the Regional Revenue and Expenditure Budget. Program monitoring is conducted by a team of 137 food monitoring cadres, a family support team, and 57 health workers. The 36.14% reduction in the number of stunted children through this program over a period of three months is illustrated in Figure 3.

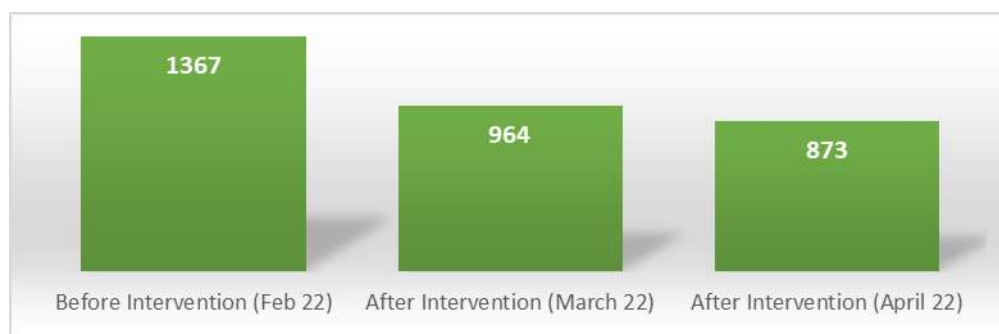


Figure 1. The Decreasing Number of Stunted Children in 2022

- 4) Implementation of Sibening (*Semua Ikut Bergerak Menangani Stunting* - Collective Efforts in Addressing Stunting) in Tanjungmas. The primary objective of this program is to encourage external partners to collaborate in various activities for stunting management. These activities include providing additional food, implementing the stunting clown foster father program, conducting catfish cultivation programs, and organizing outreach programs. Several entities that have actively participated in these efforts include PT Angkasa Pura, PT Indonesia Power, PT Pertamina, PT Phapros, and various universities in Semarang City.
- 5) The culminating initiative at Pelangi Nusantara involves collaborating with educational institutions and professional organizations to disseminate the latest research findings and innovations aimed at addressing stunting. The Pelangi Nusantara program, characterized by its intensive and comprehensive

approach and involving various agencies and stakeholders, successfully decreased the stunting prevalence rate in the city of Semarang from 21.3% in 2021 to 10.4% in 2022 and, according to the latest data, 1.54% in June 2023. Subsequently, the Semarang City Government has set a target of attaining zero stunting by the year 2024.

Sufficient and on-target budget allocation

A well-structured budget is essential for the successful implementation of the Pelangi Nusantara service program, which encompasses various activities to address stunting and poor nutrition. This financial commitment reflects a dedication to community health, ensuring the program's success and positive outcomes. In the context of governance, accountability, as defined by

Bovens and Schillemans (2014), involves individuals or entities willingly providing details and justifications for their actions, with potential repercussions in the given context. Throughout the governance process, roles in accountability shift, fostering a collective sense of responsibility among participants (Læg Reid & Rykkja, 2022).

Collaborative efforts, addressing policy issues across boundaries, involve multiple stakeholders, such as national, regional, and local government entities, nonprofit organizations, and the private sector (O'Leary & Vij, 2012). Therefore, when considering participation in a collaborative arrangement, it is crucial to ascertain how the collaborative group will be held accountable to citizens and public officials. Table 2 delineates the Regional Policy and Budget support for each regional apparatus organization in the city of Semarang in 2023.

Table 2. Budget Allocation for Stunting Reduction Program in Semarang City

No.	Organization/Institution	Budget Allocation (IDR)
1	Semarang City Regional Development Planning Agency	61,227,999,256
2	Department of Population Control	15,014,939,875
3	Department of Health	3,895,710,080
4	Department of Women's Empowerment and Child Protection	146,895,300
5	Inspectorate	7,875,000
6	Department of Education	32,220,375,000
7	Department of Housing and Settlement	9,603,381,000
8	Department of Food Security	150,000,000
9	Department of Fisheries	275,863,130
10	Department of Agriculture	1,199,100,418
11	Department of Information and Communication	125,000,000
12	Department of Social Service	50,000,000
Total Budget		123,917,139,059

Source: Primary Data (2023)

The budget policy is integral to state financial regulation, serving as a vital tool for implementing economic policies, especially during institutional transformations. Efficient management of the budget for stunting reduction within the fiscal framework requires robust oversight and control mechanisms. This involves continuously developing a tailored control system to address stunting-related challenges, emphasizing specific target directions for regulating budgetary funds dedicated to stunting reduction initiatives (Chugunov & Titarchuk, 2020). The central focus is on the main priorities of budget policy, ensuring strategic allocation and responsible utilization of resources to

support overall economic goals (Shakhina & Kizi, 2023). In terms of stunting budget policies, the main priorities within the stunting budget policy are to facilitate the implementation of impactful interventions and interventions that are culturally and contextually relevant, contributing to the overall goal of reducing stunting prevalence rates in the target population.

It is crucial to acknowledge certain limitations within the study. One notable constraint is the limitation of data sources, particularly in relation to the newest programs and their effectiveness. This underscores the importance of continuous efforts to enhance data collection and analysis methodologies to

ensure a more comprehensive understanding of program outcomes. Future studies could delve deeper into the effectiveness of the newest programs, exploring their impact on stunting reduction. Additionally, a more in-depth investigation into the long-term sustainability and scalability of these strategies would contribute valuable insights for continued improvement in addressing stunting within the community.

CONCLUSION

Semarang City's multifaceted strategies to mitigate stunting have demonstrated a comprehensive and proactive approach. The establishment and enforcement of relevant regulations, coupled with an emphasis on maintaining an updated and accurate statistical database, reflect the city's commitment to informed decision-making. The success of these initiatives is further underscored by intensive cross-sector coordination, ensuring a cohesive and synchronized effort across various domains. Moreover, the city's prudent financial planning is evident in the sufficient and on-target budget allocation for stunting reduction programs. This financial commitment has played a pivotal role in the success of interventions and has contributed significantly to the noteworthy reduction in stunting prevalence rates. Overall, the ongoing commitment to research, adaptability, and collaborative efforts will be instrumental in achieving the ambitious goal of zero stunting by 2024 in Semarang City.

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