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Integration of Regional Policies and Collaborative Governance in Acceleration of Stunting Reduction

Case Study of Bekasi City

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Abstract: This study analyzes the success of collaborative governance implementation in handling stunting in Bekasi City, where the stunting rate has decreased significantly from 18.18% (2018) to 2.33% (2023), far exceeding the national target of 14% for 2024. By using a qualitative case study approach, this study examines how multi-stakeholder collaboration contributed to this success. Based on the Dodeca-Helix model involving 12 stakeholder dimensions, the study revealed that effective collaborative governance is achieved through strong facilitative leadership, inclusive institutional design, and high stakeholder commitment. The collaborative framework integrates government at all levels, private sector entities, academics, and community organizations in a structured approach to stunting reduction. Data collected through in-depth interviews with key stakeholders, field observations, and document analysis show that integrating local policies with the national framework, complemented by bottom-up community participation, creates a sustainable system for stunting interventions. The experience of Bekasi City offers valuable insights for other regions developing stunting reduction programs, emphasizing the importance of multi-level policy integration, cross-sector coordination, and active community involvement. This study contributes to the theoretical understanding of collaborative governance in public health interventions and practical applications for implementing successful stunting reduction programs at the local government level.

Keywords: Stunting Reduction; Collaborative Governance; Regional Policy Integration; Public Health; Bekasi City.

1. Introduction

Stunting is a critical public health challenge in Indonesia. According to Thomas (2021), with significant implications for human resource development and socio-economic progress. As the fourth most populous country in the world with 280 million people in 2023 (Beal et al., 2018), Indonesia faces serious challenges in addressing the problem of stunting, which is ranked the fifth highest (UNICEF et al., 2023). The complexity of stunting as a public health problem requires a multi-sector approach and collaboration between various stakeholders in handling it (Bhutta et al., 2013).

Stunting has become a major focus of the Indonesian government as reflected in the Sustainable Development Goals (SDGs) 2.2 which aims to end all forms of malnutrition (UNICEF, 2023). The Indonesian government has issued various policies to address stunting, including Presidential Regulation Number 72 of 2021 concerning the Acceleration of Stunting Reduction (Susilawati & Pratama, 2023). Bekasi City is one of the most densely populated areas in Indonesia with a population of 2.53 million people in 2024, facing unique challenges in handling stunting, including high poverty rates, limited access to health services, and lack of public awareness of good nutrition, in addition to infrastructure challenges and limited mobility can hinder public access to the necessary health and nutrition services.

Previous research on handling stunting tends to focus on health and nutrition aspects (Cusick & Georgieff, 2016; Widyaningsih et al., 2022), with limited in-depth studies on collaborative governance in program implementation. Existing studies use more quantitative approaches and will provide an in-depth analysis of the collaboration process and program success factors (Arieffiani et al., 2024). This gap opens up opportunities for more comprehensive research on collaborative governance models in handling stunting (Black et al., 2017). This study adopts the theoretical framework of collaborative governance from Ansell and Gash (2007) and Emerson et al. (2012) which emphasizes the importance of multi-stakeholder collaboration in handling complex public problems. This framework is reinforced by the theory of policy implementation (Hill & Hupe, 2021) and the concept of multi-level governance (Hooghe & Marks, 2020) to analyze policy integration in handling stunting.

In this study, stunting management aims to analyze the integration of regional policies and collaborative governance in accelerating stunting reduction in Bekasi City, with a focus on evaluating the process of integrating regional policies in implementing stunting programs, analyzing the effectiveness of the collaborative governance model applied, identifying key factors for program success, and documenting learning that can be replicated by other regions.

The significance of this study is in line with the global agenda for handling stunting (WHO, 2023) and Indonesia's national priorities in human resource development. Bekasi City can make an important contribution to the development of a collaborative governance model in handling stunting in Indonesia. The urgency of this study is increasingly relevant considering the national target of reducing stunting which must be achieved by 2024. Learning from the success of Bekasi City can provide valuable insights for other regions in developing and implementing effective stunting reduction programs.

2. Methods

This research uses a qualitative approach with a post-positivism paradigm (Creswell & Poth, 2016). The case study method was chosen to analyze in depth the

implementation of collaborative governance in handling stunting in Bekasi City (Hollweck, 2023). The case study approach allows for an in-depth understanding of phenomena in a real context (Barela, 2007).

The research was conducted in Bekasi City. The selection of the research location must take into account the uniqueness and significance of the case (Miles et al., 2014). Informants include key stakeholders from various sectors, government, private sector, academics, and community organizations. Data collection techniques use in-depth interviews, field observations, and document analysis with detailed exploration and experiences of informants (Ginn & Munn, 2019). Data analysis using data reduction, data presentation, and drawing conclusions (Maxwell, 2012).
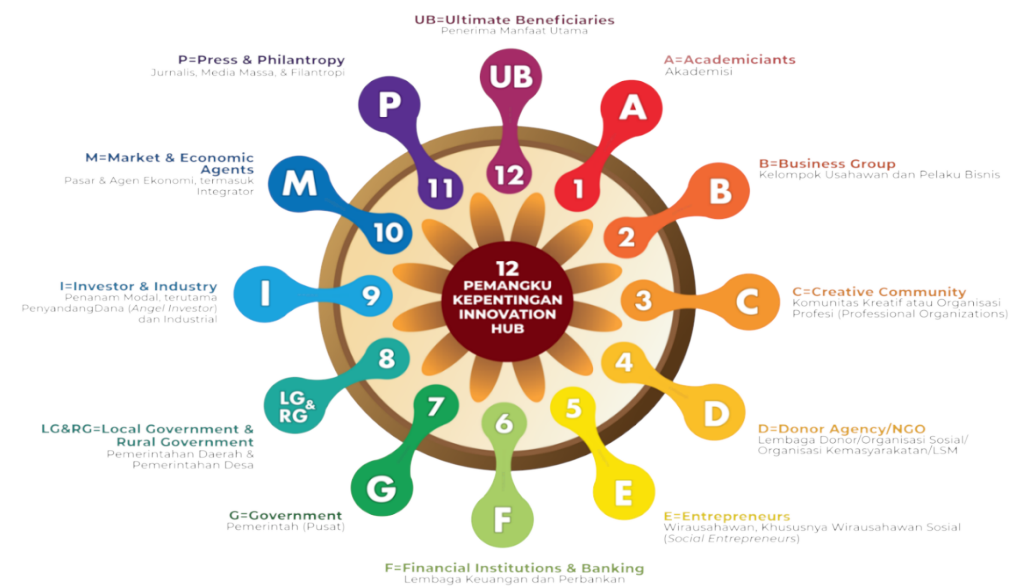
3. Results and Discussion

Figure 1. Collaborators in Regional Innovation Governance (Innovation Hub)

Analysis of collaborative governance in handling stunting in Bekasi City shows the implementation of a comprehensive multi-stakeholder approach. Based on the Dodeca-Helix model (12 dimensions of stakeholders) (Saksono, 2020), collaboration in handling stunting in Bekasi City has involved various stakeholders in a systematic structure. This collaborative approach is in line with the concept of collaborative governance put forward by Ansell and Gash (2007), which emphasizes the importance of the involvement of various actors in handling complex public problems. The combinations of stakeholders from various aspects can be seen in Table 1.

Table 1. Stakeholder Collaboration (Dodeca-Helix)

No.	Stakeholders	Source of Funding	Factual Contribution	Description
1	(A = Academicians)	-	Health Education for Pregnant Women, Toddlers, Nutrition and Healthy Food	Universitas Islam 45, Universitas Bhayangkara
2	(B = Business Group)	Business Fund Donation	Providing PMT for Toddlers	Harapan Medika Clinic, Social Health Insurance (BPJS)
3	(C = Creative Community)	Food Aid	Providing education, distributing aid, recording data on stunted toddlers and monitoring toddler development	Integrated Service Post, DASHAT, Kampung KB

No.	Stakeholders	Source of Funding	Factual Contribution	Description
4	(D = Donor Agency/NGO)	Assistance from the City Government (Regional Budget of Bekasi City)	Provision of PMT for Toddlers, Pregnant and Breastfeeding Mothers	Indonesian Red Cross (PMI)
5	(E = Entrepreneurs)	Society	Processing community waste to be used as funds for providing food and nutritional assistance for stunted toddlers and managing urban farming.	Waste Bank
6	(F = Financial Institutions & Banking)	-	Provision of Food Aid	Pawnshop
7	(G = Government)	-	Food Aid	The National Alms Agency (BAZNas)
8	(LG & RG = Local Government & Rural Government)	Regional Budget of West Java Province	Food Aid	West Java Provincial Government
		Regional Budget	Provision of PMT, Medicines, Vitamins, Socialization and Education, Formation of Stunting Reduction Acceleration Team, Formation of Expert Team, Food Assistance	Bekasi City Regional Government
9	(I = Investor & Industry)	TJSL (CSR) Company	Provision of Internet Package Assistance for integrated service post cadres in order to facilitate the input of integrated service post data every month.	PT. XL
		TJSL (CSR) Company	Provision of PMT, Vitamins and Milk	PT. Logos, PT. Prakarsa Alam Segar, PT. Bumi Alam Segar, PT. Widya Sakti Kusuma
10	(M = Market & Economic Agents)	Society	Cultivation is carried out to raise catfish which will later be given as additional food for stunted toddlers and families at risk of stunting.	Urban Farming (Maggot and Catfish Cultivation)
11	(P = Press & Philanthropy)	Society	Provision of Nutrition Packages, Mentoring and Education to the Community	Dompet Dhuafa Foundation (Philanthropy)
12	(UB = Ultimate Beneficiaries)	-	Receive food aid, PMT, milk, vitamins and other aid	351 Main Beneficiaries (Mothers, Babies, and families at risk of stunting)

Source: Research Results. Adopted from Saksono (2020).

*) TJSL = Social and Environmental Responsibility as regulated in the Provisions of Article 2 of Government Regulation (PP) Number 47 of 2012 concerning Social and Environmental Responsibility of Limited Liability Companies.

Table 1 shows the various sources involved in supporting the stunting reduction program. This collaborative program has reached 351 main beneficiaries consisting of mothers, babies, and families at risk of stunting in Bekasi City. Various forms of assistance have been distributed, including PMT, vitamins, milk, medicines, internet packages for integrated service post cadres, health education, and mentoring. The success of this program illustrates how the integration of regional policies and collaborative governance can be an effective model in accelerating stunting reduction, by involving various stakeholders who contribute according to their respective capacities and resources.

The central government is one of the main supporters of the stunting management program, an important foundation for program implementation (Bhutta et al., 2020), that the availability of an adequate budget is a prerequisite for the success of the stunting intervention program. Local Government & Rural Government, both at the West Java Provincial and Bekasi City levels contribute through the APBD and APBDes, forming a supporting structure for program

implementation at the local level. This multi-level budget integration reflects an effective policy implementation model as stated by Hill and Hupe (2021).
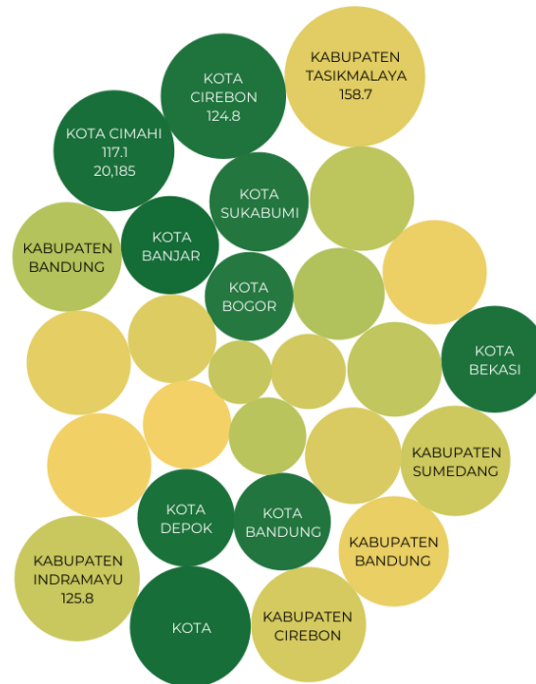
The collaboration also involves the private sector, especially Investors and industry with philanthropic fund contributions involving two major investors. This private sector involvement strengthens (Selsky & Parker, 2005) Private sector participation increases the sustainability of development programs. Financial Institutions & Banking contribute through Social and Environmental Responsibility (TJSL) funds as stipulated in Government Regulation Number 47 of 2012, demonstrating regulatory integration in supporting program funding. Another important aspect is the involvement of the ultimate beneficiaries, which includes 351 beneficiaries, including mothers infants, and families at risk of stunting. The active participation of beneficiaries in the program demonstrates an effective bottom-up approach, in line with the findings (Framke et al., 2019) that community-based programs show higher effectiveness in handling stunting. Direct involvement of beneficiaries also strengthens the legitimacy of the program that legitimacy is an important factor in collaborative governance (Emerson & Ahn, 2021).

The Dodeca-Helix model implemented in Bekasi City also involves academics, business groups, creative communities/professional organizations, donor agencies/ NGOs, entrepreneurs, market & economic agents, and press & philanthropy. This comprehensive collaboration framework creates a strong supporting ecosystem for the success of the stunting program. The success of Bekasi City in reducing stunting rates from 18.8% (2018) to 2.33% (2023) cannot be separated from the implementation of this collaborative model. The collaboration structure involving 12 stakeholder dimensions creates a sustainable support system, enabling effective and efficient program implementation. This is in line with Doberstein (2016) that effective collaborative governance can be a catalyst for the success of development programs.

Analysis of the Dodeca-Helix model in handling stunting in Bekasi City shows that the integration of various stakeholders in a structured collaborative framework is a key factor in the success of the program. This model offers a framework that can be adapted by other regions in developing stunting handling programs. However, the challenge ahead is to maintain the sustainability of collaboration and strengthen the contribution of stakeholders that are not optimal yet (Bryson et al., 2015), that the sustainability of cross-sector collaboration is a major challenge in the multi-stakeholder governance model.

Based on data on the Percentage of Stunting Toddlers in Bekasi City for 2018-2023, there is a significant and consistent decline from 18.18% in 2018 to 2.33% in 2023, which is presented using Tableau Charts, in Figure 2.

The data shows a drastic decline in the early period (2018-2019) of 7.49%, followed by a period of relative stagnation (2019-2020) with a decline of only 0.34%, then declining significantly again in the following years. This pattern reflects the implementation of the Collaborative Governance model which is applied gradually, with increasingly optimal results over time. The drastic decline in stunting rates in Bekasi City is strongly correlated with the implementation of the Dodeca-Helix model which involves 12 stakeholder dimensions. Bekasi City managed to achieve a stunting rate of 2.33% in 2023, far below the national target of 14% for 2024. The 2021-2023 period showed a significant acceleration in the decline (from 7.87% to 2.33%) (Open Data Jabar, 2024). This dramatic decline exceeds the national average and reflects the success of the implementation of a comprehensive stunting intervention policy (Ministry of Health of the Republic of Indonesia, 2021). The

Figure 2. Percentage of Stunting Toddlers in Bekasi City 2018-2023

Source: Open Data Jabar, 2023. Data processed. 2024.

largest decline occurred in the early period of program implementation, namely from 2018 to 2019 with a reduction of 7.49 percentage points (from 18.18% to 10.69%), this achievement can provide an early implementation of intensive stunting programs can produce significant declines in a short period of time. The 2019-2020 period showed a slowdown in the rate of decline with a difference of only 0.34 percentage points, which was likely influenced by the COVID-19 pandemic situation which caused various obstacles in the implementation of the program (Akseer et al., 2020). This phenomenon of stagnation was also confirmed by Headey et al. (2020) who identified the impact of the pandemic on child nutrition programs in developing countries.

This achievement makes Bekasi City the area with the lowest stunting prevalence rate in West Java and has succeeded in achieving the national target before the deadline set in 2024 (World Bank Group, 2018). This success cannot be separated from the collaborative governance approach implemented, involving the integration of regional policies and the active participation of various stakeholders (Kumala Dewi & Dartanto, 2019).

Despite the challenges of the pandemic, the downward trend strengthened again in the following period with the stunting rate falling to 7.87% in 2021, 3.44% in 2022, and finally reaching 2.33% in 2023. This post-pandemic acceleration in decline is consistent with the pattern identified by Victora et al. (2021) about the resilience of nutrition programs that have a strong collaborative foundation. The success of Bekasi City in reducing stunting rates to below 3% within five years shows the effectiveness of the program and the high commitment of all stakeholders (Beal et al., 2018), where the involvement of various actors from the government, private and community sectors synergize in overcoming the problem of stunting (Essa et al., 2021). This achievement places Bekasi City as the area with the lowest percentage of stunting in West Java, and at the same time becomes a model for the successful implementation of the stunting management program at the national level.

4. Conclusion and Recommendations

This study shows the success of the implementation of collaborative governance in handling stunting in Bekasi City, as indicated by a significant decrease in stunting rates from 18.18% (2018) to 2.33% (2023), far exceeding the national target of 14% for 2024. The Dodeca-Helix model with 12 stakeholder dimensions is an effective framework for integrating various actors ranging from central and regional governments, the private sector, to the community supported by multi-level policy integration, community-based program innovations such as Dapur Sehat Overcoming Stunting and "Bekasi New Zero Stunting", as well as strong facilitative leadership and trust building between stakeholders. Based on the success of Bekasi City, it is recommended for the central government to adopt the Dodeca-Helix model as a national framework for handling stunting with contextual adjustments and develop an incentive system for regions that successfully implement it for local governments to strengthen cross-sector coordination, develop an integrated data management digital platform, and increase human resource capacity at the sub-district and integrated health post levels and for the private sector to integrate CSR programs with stunting handling priorities and develop long-term partnerships with local governments. Attention also needs to be given to the development of sustainable funding mechanisms, integrated information systems for monitoring and evaluation, and integration of stunting programs with long-term development agendas to ensure the sustainability of achievement.

References

Akseer, N., Kandru, G., Keats, E. C., & Bhutta, Z. A. (2020). COVID-19 Pandemic and Mitigation Strategies: Implications for Maternal and Child Health and Nutrition. *The American Journal of Clinical Nutrition, 112*(2), 251–256. https://doi.org/10.1093/ajcn/nqaa171

Ansell, C., & Gash, A. (2007). Collaborative Governance in Theory and Practice. *Journal of Public Administration Research and Theory, 18*(4), 543–571. https://doi.org/10.1093/jopart/mum032

Arieffiani, D., Roro, M., Ekowanti, L., & Praja, J. B. (2024). Evaluating Local Government Policy Innovations: A Case Study of Surabaya's Efforts in Combating Stunting and Enhancing Public Health Services Quality. *Jurnal Bina Praja, 16*(1), 1–20. https://doi.org/10.21787/jbp.16.2024.1-20

Barela, E. (2007). Book Review: Multiple Case Study Analysis, by Robert E. Stake. New York: Guilford Press, 2006. *American Journal of Evaluation, 28*(4), 570–572. https://doi.org/10.1177/1098214007307454

Beal, T., Tumilowicz, A., Sutrisna, A., Izwardy, D., & Neufeld, L. M. (2018). A Review of Child Stunting Determinants in Indonesia. *Maternal & Child Nutrition, 14*(4), e12617. https://doi.org/10.1111/mcn.12617

Bhutta, Z. A., Akseer, N., Keats, E. C., Vaivada, T., Baker, S., Horton, S. E., Katz, J., Menon, P., Piwoz, E., Shekar, M., Victora, C., & Black, R. (2020). How Countries Can Reduce Child Stunting at Scale: Lessons From Exemplar Countries. *The American Journal of Clinical Nutrition, 112*, 894S-904S. https://doi.org/10.1093/ajcn/nqaa153

Bhutta, Z. A., Das, J. K., Rizvi, A., Gaffey, M. F., Walker, N., Horton, S., Webb, P., Lartey, A., & Black, R. E. (2013). Evidence-Based Interventions for Improvement of Maternal and Child Nutrition: What Can Be Done and at What Cost? *The Lancet, 382*(9890), 452–477. https://doi.org/10.1016/S0140-6736(13)60996-4

Black, M. M., Walker, S. P., Fernald, L. C. H., Andersen, C. T., DiGirolamo, A. M., Lu, C., McCoy, D. C., Fink, G., Shawar, Y. R., Shiffman, J., Devercelli, A. E., Wodon, Q. T., Vargas-Barón, E., & Grantham-McGregor, S.

(2017). Early Childhood Development Coming of Age: Science Through the Life Course. *The Lancet, 389*(10064), 77–90. https://doi.org/10.1016/S0140-6736(16)31389-7

Bryson, J. M., Crosby, B. C., & Stone, M. M. (2015). Designing and Implementing Cross-Sector Collaborations: Needed and Challenging. *Public Administration Review, 75*(5), 647–663. https://doi.org/10.1111/puar.12432

Creswell, J. W., & Poth, C. N. (2016). *Qualitative Inquiry & Research Design: Choosing Among Five Approaches* (C. N. Poth, Ed.). SAGE Publications.

Cusick, S. E., & Georgieff, M. K. (2016). The Role of Nutrition in Brain Development: The Golden Opportunity of the "First 1000 Days." *The Journal of Pediatrics, 175*, 16–21. https://doi.org/10.1016/j.jpeds.2016.05.013

Doberstein, C. (2016). Designing Collaborative Governance Decision-Making in Search of a 'Collaborative Advantage.' *Public Management Review, 18*(6), 819–841. https://doi.org/10.1080/14719037.2015.1045019

Emerson, K., & Ahn, M. W. (2021). Collaborative Governance Regimes: Informing Practice Through Research. In D. P. Gitterman & N. Britto (Eds.), *The Intersector: How the Public, Nonprofit, and Private Sectors Can Address America's Challenges* (pp. 62–81). Brookings Institution Press. https://www.jstor.org/stable/10.7864/j.ctv13xpqm9.11

Emerson, K., Nabatchi, T., & Balogh, S. (2012). An Integrative Framework for Collaborative Governance. *Journal of Public Administration Research and Theory, 22*(1), 1–29. https://doi.org/10.1093/jopart/mur011

Essa, W. Y., Nurfindarti, E., & Ruhyana, N. F. (2021). Strategies for Handling Stunting in Bandung City. *Jurnal Bina Praja, 13*(1), 15–28. https://doi.org/10.21787/jbp.13.2021.15-28

Framke, E., Sørensen, O. H., Pedersen, J., Clausen, T., Borg, V., & Rugulies, R. (2019). Effect of a Participatory Organizational Workplace Intervention on Workplace Social Capital: Post-hoc Results From a Cluster Randomized Controlled Trial. *BMC Public Health, 19*(1), 1–10. https://doi.org/10.1186/s12889-019-6903-1

Ginn, G. M., & Munn, S. L. (2019). Interviews: Learning the Craft of Qualitative Research Interviewing, Third Edition, by Svend Brinkmann and Steinar Kvale. Thousand Oaks, CA: Sage, 2015. 405 pages, $60.00 (paperback). *New Horizons in Adult Education and Human Resource Development, 31*(2), 67–69. https://doi.org/10.1002/nha3.20251

Headey, D., Heidkamp, R., Osendarp, S., Ruel, M., Scott, N., Black, R., Shekar, M., Bouis, H., Flory, A., Haddad, L., & Walker, N. (2020). Impacts of COVID-19 on Childhood Malnutrition and Nutrition-Related Mortality. *The Lancet, 396*(10250), 519–521. https://doi.org/10.1016/S0140-6736(20)31647-0

Hill, M., & Hupe, P. (2021). *Implementing Public Policy*. SAGE Publications Ltd.

Hollweck, T. (2023). Robert K. Yin. (2014). Case Study Research Design and Methods (5th ed.). *The Canadian Journal of Program Evaluation, 30*(1), 108–110. https://doi.org/10.3138/cjpe.30.1.108

Hooghe, L., & Marks, G. (2020). A Postfunctionalist Theory of Multilevel Governance. *The British Journal of Politics and International Relations, 22*(4), 820–826. https://doi.org/10.1177/1369148120935303

Kumala Dewi, L. P. R., & Dartanto, T. (2019). Natural Disasters and Girls Vulnerability: Is Child Marriage a Coping Strategy of Economic Shocks in Indonesia? *Vulnerable Children and Youth Studies, 14*(1), 24–35. https://doi.org/10.1080/17450128.2018.1546025

Maxwell, J. A. (2012). *Qualitative Research Design: An Interactive Approach*. SAGE Publications.

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook*. SAGE.

Ministry of Health of the Republic of Indonesia. (2021). *Buku Saku: Hasil Studi Status Gizi Indonesia (SSGI) Tingkat Nasional, Provinsi, dan Kabupaten/Kota Tahun 2021*. Ministry of Health of the Republic of Indonesia.

Saksono, H. (2020). Innovation Hub: Media Kolaborasi Menuju Pemerintahan Daerah Inovatif. *Nakhoda: Jurnal Ilmu Pemerintahan, 19*(1), 1–16. https://doi.org/10.35967/JIPN.V19I1.7854

Selsky, J. W., & Parker, B. (2005). Cross-Sector Partnerships to Address Social Issues: Challenges to Theory and Practice. *Journal of Management, 31*(6), 849–873. https://doi.org/10.1177/0149206305279601

Susilawati, & Pratama, N. H. (2023). Literature Review: Analisis Implementasi Kebijakan Penurunan Stunting di Wilayah Pesisir Medan Belawan. *Miracle Journal, 3*(2), 33–37. https://doi.org/10.51771/mj.v3i2.604

Thomas, W. (2021). *What's At Stake? The Implications of Nonstate Actor Violence. In The New Dogs of War: Nonstate Actor Violence in International Politics* (pp. 170–184). Cornell University Press. https://doi.org/10.7591/cornell/9781501758898.003.0006

UNICEF. (2023, May). *Malnutrition in Children*. UNICEF DATA. https://data.unicef.org/topic/nutrition/malnutrition/

UNICEF, WHO, & World Bank Group. (2023). *Levels and Trends in Child Malnutrition: UNICEF/WHO/World Bank Group Joint Child Malnutrition Estimates: Key Findings of the 2023 Edition*. https://www.who.int/publications/i/item/9789240073791

Victora, C. G., Christian, P., Vidaletti, L. P., Gatica-Domínguez, G., Menon, P., & Black, R. E. (2021). Revisiting Maternal and Child Undernutrition in Low-Income and Middle-Income Countries: Variable Progress Towards an Unfinished Agenda. *The Lancet, 397*(10282), 1388–1399. https://doi.org/10.1016/S0140-6736(21)00394-9

Widyaningsih, V., Mulyaningsih, T., Rahmawati, F. N., & Adhitya, D. (2022). Determinants of Socioeconomic and Rural–Urban Disparities in Stunting: Evidence From Indonesia. *Rural and Remote Health, 22*(1), 1–9. https://doi.org/10.22605/RRH7082

World Bank Group. (2018). *Aiming High: Indonesia's Ambition to Reduce Stunting*. World Bank Group.