Available online at https://journal.uny.ac.id/index.php/medikora
MEDIKORA, Vol. 24 No. 1 April 2025, Hal 93-103

MONITORING RESPONSE AND OPTIMIZATION OF STUNTING PREVENTION POLICIES IN THE FRONTIER, OUTERMOST, AND DISADVANTAGED AREAS

Asriani[1*], Agus Putrawan[1], Venia Oktaviani[1]
[1] Management Kesehatan, Institut Sains Teknologi dan Kesehatan Aisyiyah Kendari, Jl. Poros Bandara Haluoleo, Kecamatan Baruga, Kota Kendari, Sulawesi Tenggara, Indonesia.
Corresponding Author: *asrianidifans@gmail.com*

Abstract

Stunting in disadvantaged, frontier and outermost (3T) areas remains a serious challenge due to limited monitoring of the satisfaction of beneficiaries of multidimensional prevention programs. This study aims to develop a PRO-STUNT 3T model with a multidimensional model (socio-economic, cultural, educational, and health aspects to optimize stunting prevention policies. The specific objectives are to assess the level of beneficiary satisfaction and analyze the factors that influence it in Konawe Regency, Southeast Sulawesi. The research method used a mixed-method approach with a sample of 100 respondents selected through stratified consecutive random sampling from five health centers, the quantitative results were then studied in more depth to enrich the qualitative context. The results showed that 99% of beneficiaries were satisfied with the program, but 8–14% highlighted the limitations of physical facilities (tangibles) and empathy of officers, as well as the dominance of participation by mothers with junior high school education (78%) which has the potential to hinder nutritional literacy. Other findings revealed the program's focus on First 1,000 Days of Life (36% of children aged 0–12 months) but ignored the age group >60 months (4%) who are vulnerable to long-term impacts. Longitudinal studies are needed to evaluate the relationship between community satisfaction and reduced stunting prevalence in the 3T area.

Keywords: *Health policy, Beneficiary satisfaction, Stunting, 3T areas, Multidimensional approach.*

PEMANTAUAN RESPON DAN OPTIMALISASI KEBIJAKAN PENCEGAHAN STUNTING DI DAERAH TERTINGGAL, TERDEPAN, DAN TERLUAR

Abstrak

Stunting di daerah tertinggal, terdepan, dan terluar (3T) masih menjadi tantangan serius akibat terbatasnya pemantauan kepuasan penerima manfaat program pencegahan secara multidimensi. Penelitian ini bertujuan mengembangkan model PRO-STUNT 3T dengan model multidimensi (aspek sosial-ekonomi, budaya, pendidikan, dan kesehatan untuk mengoptimalkan kebijakan pencegahan stunting. Tujuan khususnya adalah menilai tingkat kepuasan penerima manfaat dan menganalisis faktor-faktor yang memengaruhinya di Kabupaten Konawe, Sulawesi Tenggara. Metode penelitian menggunakan pendekatan campuran (*mixed-method*) dengan sampel 100 responden yang dipilih melalui *stratified consecutive random sampling* dari lima puskesmas, hasil kuantitatif kemudian dikajilebih dalam untuk memperkaya konteks kualitatif. Hasil menunjukkan 99% penerima manfaat puas dengan program, namun 8–14% menyoroti keterbatasan sarana fisik (*tangibles*) dan empati petugas, serta dominasi partisipasi ibu berpendidikan SMP (78%) yang berpotensi menghambat literasi gizi. Temuan lain mengungkap fokus program pada 1.000 Hari Pertama Kehidupan (36% anak usia 0–

ISSN: 0216-9940

12 bulan), tetapi mengabaikan kelompok usia >60 bulan (4%) yang rentan dampak jangka panjang. Studi longitudinal diperlukan untuk mengevaluasi hubungan antara kepuasan masyarakat dengan penurunan prevalensi stunting di wilayah 3T.

Kata Kunci: Kebijakan kesehatan, Kepuasan penerima manfaat, Stunting, Daerah 3T, Pendekatan multidimensi.

INTRODUCTION

Stunting as a chronic growth disorder due to malnutrition and repeated infections has become a global challenge that requires holistic treatment. Global Nutrition Report in 2020 shows that The World Health Organization (WHO) targets a reduction in stunting prevalence of 40% by 2025, with an ideal limit below 20% to ensure the quality of competitive human resources. In Indonesia, efforts to reduce stunting are a national priority, reflected in the 2020–2024 Rencana Pembangunan Jangka Menengah Nasional (RPJMN) target which sets a figure of 14% by 2024 (Bappenas, 2020). However, until 2022, the national prevalence still reached 21.6% (BKPK, 2022), lagging countries such as Thailand and Vietnam which have succeeded in reducing stunting below 15% through the integration of health, nutrition, and community empowerment policies (Headey et al., 2020). This inequality is increasingly evident in the Disadvantaged, Frontier, and Outermost Regions (3T), such as Papua (34.2%), NTT (37.8%) and Southeast Sulawesi (30.2%), where access to health services, sanitation, and food security is still very limited (BKPK, 2022)(UNICEF, 2021).

The phenomenon in the field shows the complexity of the causes of stunting in 3T areas which are multisectoral, such as difficulty in accessing clean water, unmet children's protein needs, chronic food insecurity (Usman et al., 2019)(Gemiharto et al., 2024), to weak policy implementation due to suboptimal inter-sectoral coordination (Oginawati et al, 2023; Andriani et al., 2025). Although many studies have focused on specific nutritional interventions such as iron supplementation, there is still a gap in evaluating the effectiveness of holistic policies in 3T areas (Beal et al., 2018). Monitoring community responses to programs and policy adaptations based on local contexts has also not been widely explored, even though this is crucial to ensure the sustainability of interventions (Khuzaimah et al., 2024). Konawe, a district in Southeast Sulawesi exhibiting elevated stunting rates within Indonesia, demonstrates a notable deficit in integrated research specifically evaluating beneficiary patient satisfaction with implemented stunting intervention programs. This lack of comprehensive assessment impedes the understanding of program effectiveness from the perspective of the target population, potentially hindering optimization and adherence to intervention strategies. Referring to previous studies that showed the significant influence of customary beliefs and social norms on stunting (Oktaviani et al., 2023), it is very important to study further through a more holistic and multidimensional approach (economic, social, education, and health) through the PRO-STUNT 3T program. The aim is to assess beneficiary satisfaction with the stunting program, analyze the factors that influence this satisfaction, and explain their perceptions multidimensionally.

This research is urgently needed considering that the 3T areas are the frontline of national resilience, while high stunting has the potential to reduce the productivity of future generations. In addition, this study is in line with the goals of SDGs 2 (Zero Hunger) and 3 (Quality Health) to realize equitable access to health. Based on this urgency, this study aims to analyze the implementation of stunting prevention policies in 3T areas through monitoring community responses and institutional capacity, as well as developing an adaptive policy model that combines health, social, and cultural indicators. By combining quantitative and qualitative approaches, the results of the study are expected to be the basis for evidence-based policies to

ISSN: 0216-9940

accelerate stunting reduction in an inclusive manner, especially in marginal areas that are often neglected.

METHODS

This research uses a mixed-method approach, combining qualitative and quantitative methods. The quantitative research uses a cross-sectional design to evaluate the satisfaction level of program beneficiaries and the factors influencing it. The quantitative results will be interpreted through qualitative reasoning to uncover deeper insights and contextual meaning behind the data summary. The research was conducted in Konawe District, Southeast Sulawesi, a 3T area, for one month. The research population comprises beneficiaries of the stunting program, including pregnant women, breastfeeding mothers, teenage girls, and children aged 0-59 months. The sampling technique is stratified consecutive random sampling, with a sample size of 100 respondents from five community health centers (Puskesmas), with a minimum of 20 samples from each center.

The inclusion criteria of this study included beneficiaries of the stunting program in the Konawe area, pregnant women aged 12–28 weeks with chronic nutritional risk (upper arm circumference <23.5 cm), breastfeeding mothers with infants aged 0–24 months who experienced obstacles to exclusive breastfeeding, adolescent girls (13–19 years) with anemia (Hb <12 g/dL) or malnutrition, and children aged 0–59 months with anthropometric indicators of Height/Age or Weight/Height <-2 SD, incomplete immunization history, and from low-income families. In addition, all subjects must be willing to participate and live in the Konawe area.

The research variables cover economic, socio-cultural, educational, and health aspects that influence beneficiary satisfaction. Primary data was collected through interviews and surveys, while secondary data was obtained from the local Health Department. Data collection was carried out at Puskesmas with approval from the head of the health center. Quantitative data was analyzed using SPSS, while qualitative data was systematically analyzed using comparative analysis from previous study to strengthen research. Two statistical experts were involved in processing, verifying, and analyzing the data to ensure the validity and quality of the research findings.

RESULT

Respondents Demography

The gender distribution of respondents shows that 42 are male and 58 are female as shown in Figure 1. This indicates that more women participated in the study, which may reflect that women are more involved in programs related to children's health, such as stunting prevention.

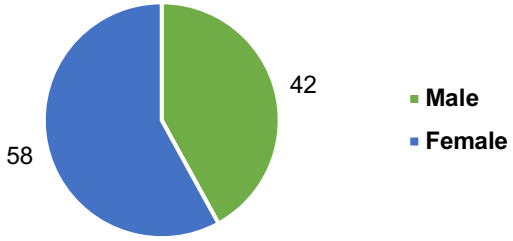

Figure 1 Respondent Charateristics by Gender

ISSN: 0216-9940

Respondent charateristics by education can be seen in Figure 2. Most respondents have a junior high school education (78). This indicates that most respondents have a middle level of education. Education plays a significant role in understanding health programs, including stunting prevention.

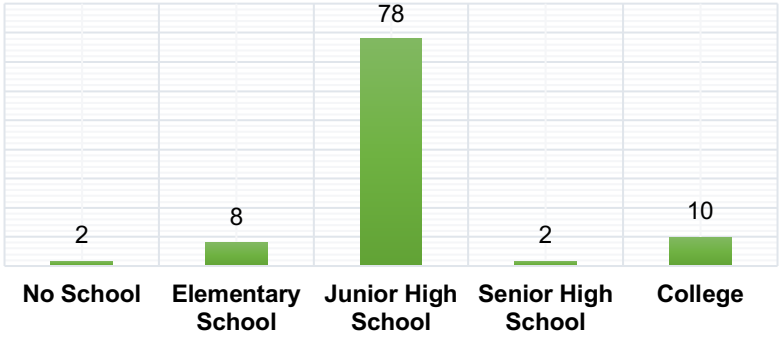

Figure 2 Respondent Charateristics by Education

The majority of children fall into the 0-12 month age group (Figure 3), making up 36 of the total respondents. This suggests that most beneficiaries of the stunting program are parents with children in this critical early development stage.

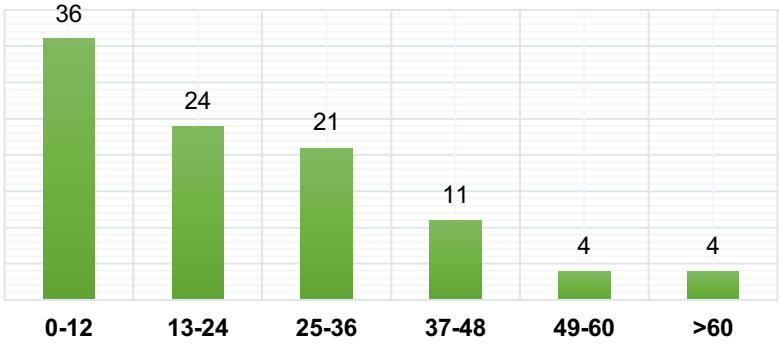

Figure 3 Children's Age Group

Percentage of Satisfaction of Stunting Program Beneficiaries

The precentage overall of satisfaction of stunting Program displayed in Tabel 1.

Table 1 Precentage Overall of Satisfaction of Stunting Program

Aspects	Corresponden	Percentage
Less satisfied	0	0%
Quite satisfied	1	1 %
Satisfied	78	78 %
Very satified	21	21%
Total Score		100%

Out of 100 respondents, 21 people stated that they were very satisfied, representing 21% of the total respondents. Meanwhile, 78 people felt satisfied, representing 78% of the total respondents. Only 1 person felt quite satisfied, which accounts for 1% of the total respondents. Thus, the majority of respondents, 99%, felt satisfied or very satisfied with the services provided, while only 1% felt quite satisfied. Figure 4 shows the respondents' characteristics based on their level of satisfaction.

ISSN: 0216-9940

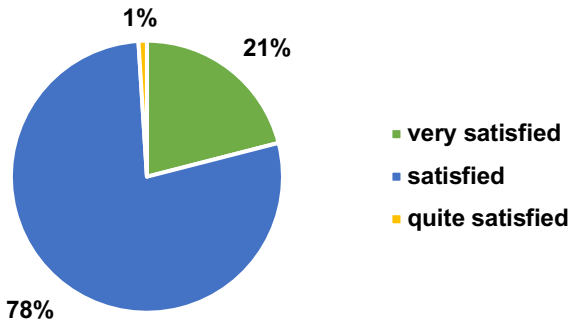

Figure 4 Overall Satisfaction

The research results were obtained by conducting interviews with 100 correspondents. The results are shown in Table 2.

Table 2 Precentage Tangible Category Result

Aspects	Corresponden	Percentage
Less satisfied	0	0%
Quite satisfied	8	8 %
Satisfied	78	78 %
Very satified	14	14%
Total Score		100%

Out of 100 respondents, 14 people stated that they were very satisfied with the tangible category, representing 14% of the total respondents. A total of 78 people felt satisfied with the tangible category, accounting for 78% of the total respondents. Eight people felt quite satisfied, which represents 8% of the total respondents. Thus, the majority of respondents, 92%, felt that the tangible category was satisfactory or very satisfactory, while 8% felt quite satisfied. Here is the description of respondents' characteristics based on the tangible category Figure 5.

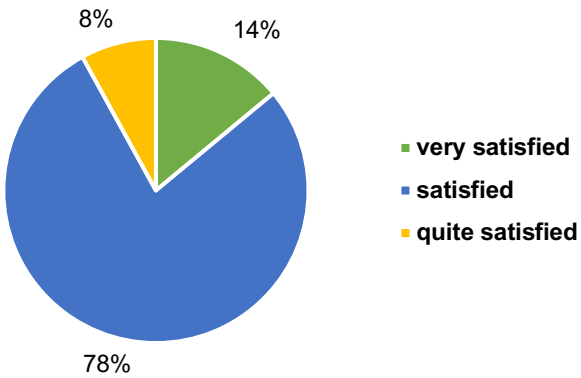

Figure 5 Tangible Category Result

ISSN: 0216-9940

The precentage Reliability Category Result displayed in Tabel 3.

Table 3 Reliability Category Result

Aspects	Corresponden	Percentage
Less satisfied	1	1%
Quite satisfied	13	13 %
Satisfied	66	66 %
Very satified	20	20%
Total Score		100%

As seen in Figure 6, 20 people stated that the reliability category was very satisfactory, representing 20% of the total respondents. A total of 66 people felt satisfied with the reliability category, accounting for 66% of the total respondents. Thirteen people felt quite satisfied, representing 13% of the total respondents. Only 1 person felt less satisfied, accounting for 1% of all respondents. Thus, the majority of respondents, 86%, felt the reliability category was satisfactory or very satisfactory, while 14% felt quite satisfied or less satisfied.

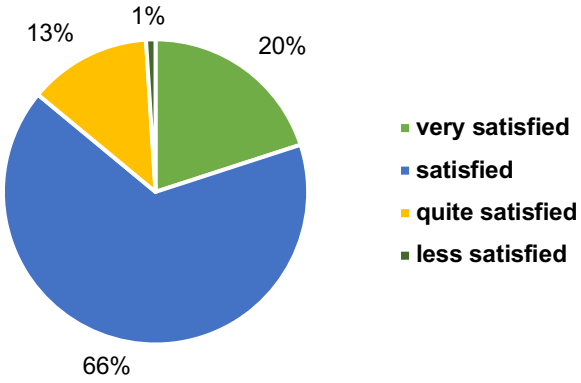

Figure 6 Reliability Category Result

Below are the responsivness category results of data from 100 correspondents presented in table 4.

Table 4 Responsivness Category Result

Aspects	Corresponden	Percentage
Less satisfied	10	10%
Quite satisfied	9	9 %
Satisfied	76	76 %
Very satified	14	14%
Total Score		100%

Out of 100 respondents, 14 people stated that the responsiveness category was very satisfactory, representing 14% of the total respondents. A total of 76 people felt that the responsiveness category was satisfactory, accounting for 76% of the total respondents. Nine people felt quite satisfied, representing 9% of the total respondents. Only 1 person felt less satisfied, accounting for 1% of all respondents. Thus, the majority of respondents, 90%, felt the responsiveness category was satisfactory or very satisfactory, while 10% felt quite satisfied or less satisfied. Figure 7 shows description of respondents' characteristics based on the responsiveness category.

ISSN: 0216-9940

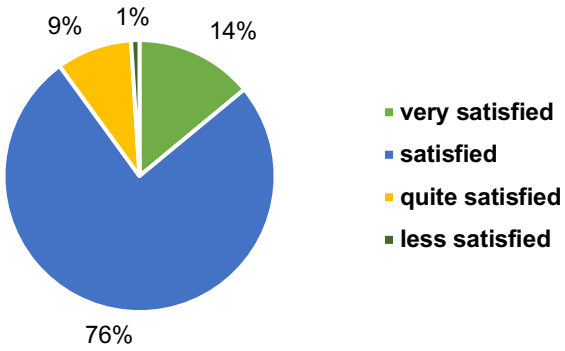

Figure 7 Responsivness Category Result

Below are the Assurance Category Result of data from 100 correspondents presented displayed in table 5.

Table 5 Assurance Category Result

Aspects	Corresponden	Percentage
Less satisfied	0	0%
Quite satisfied	9	9 %
Satisfied	68	68 %
Very satified	23	23%
Total Score		100%

Out of 100 respondents, 23 people stated that the assurance category was very satisfactory, representing 23% of the total respondents (Figure 8). A total of 68 people felt that the assurance category was satisfactory, accounting for 68% of the total respondents. Nine people felt quite satisfied, which accounts for 9% of the total respondents. Thus, the majority of respondents, 91%, felt the assurance category was satisfactory or very satisfactory, while 9% felt quite satisfied.

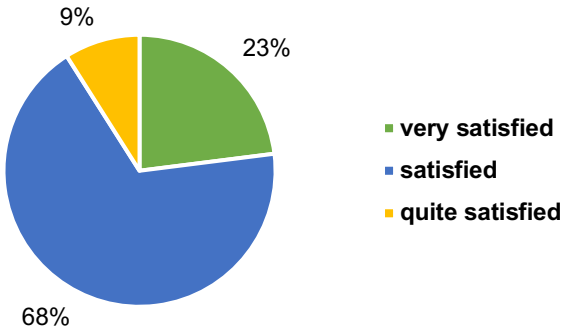

Figure 8 Assurance Category Result

Below are the Emphaty Category Result of data from 100 correspondents presented displayed in table 5.

Table 6 Emphaty Category Result

Aspects	Corresponden	Percentage
Less satisfied	1	1%
Quite satisfied	10	10 %
Satisfied	70	70 %

ISSN: 0216-9940

Aspects	Corresponden	Percentage
Very satified	19	19%
Total Score		100%

Figure 9 is the description of respondents' characteristics based on the empathy category. Out of 100 respondents, 19 people stated that the empathy category was very satisfactory, representing 19% of the total respondents. A total of 70 people felt that the empathy category was satisfactory, accounting for 70% of the total respondents. Ten people felt quite satisfied, representing 10% of the total respondents. Only 1 person felt less satisfied, accounting for 1% of all respondents. Thus, the majority of respondents, 89%, felt that the empathy category was satisfactory or very satisfactory, while 11% felt quite satisfied or less satisfied.

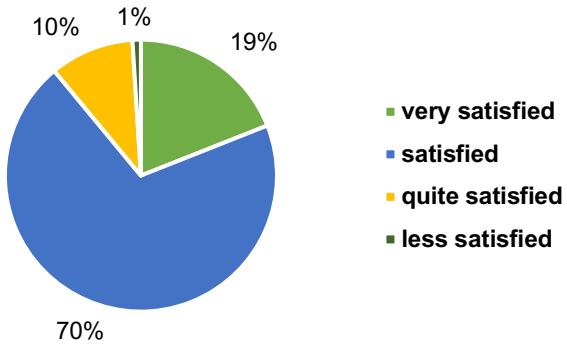

Figure 9 Emphaty Category Result

DISCUSSION

The results of this study describe the characteristics of respondents based on gender, education level, children's age group, and satisfaction levels of the Stunting Program beneficiaries. This data can provide important insights to understand the respondents' profiles and their views on the program being implemented. This study revealed that 99% of beneficiaries of the stunting prevention program in the 3T area stated that they were satisfied or very satisfied with the services provided, with the highest level of satisfaction in the assurance (91%) and responsiveness (90%) categories. This high level of satisfaction indicates that the stunting intervention program has been well received by the community, especially in terms of service reliability and responsiveness of health workers. This finding is in line with the research of Agustina et al. (2023) which stated that the active participation of Posyandu cadres and a community-based approach increased public trust in health programs in remote areas. However, 1% of respondents who were quite satisfied in the overall satisfaction category and 8–14% who were less satisfied in certain categories (tangibles and empathy) indicated gaps in policy implementation, such as limited physical facilities (tangibles) or lack of empathy from officers. This is reinforced by the study of Wulandari et al. (2022) which found that the distribution of food aid in Papua often did not match local cultural preferences, thus reducing recipient satisfaction.

The dominance of female respondents (58%) in the study sample reflects the central role of mothers in stunting prevention programs, especially related to child care and nutritional fulfillment (Santosa & Nugraha, 2021). This finding is consistent with the UNICEF report in 2021 which states that women's involvement in child health programs in 3T areas reaches 65–70%. However, the level of education of respondents who are mostly junior high school graduates (78%) needs attention, considering that low nutritional literacy can hinder the effectiveness of interventions. Research by Azizah et al. (2022) and Ariyanti (2020) shows that

ISSN: 0216-9940

mothers with low education tend to have less understanding of infant and young child feeding guidelines, thus requiring a more visual and practical educational approach.

The distribution of the largest children's ages in the 0–12 month group (36%) emphasizes the importance of interventions in the First 1,000 Days of Life as a critical period for stunting prevention (Sari, 2019). These results are in line with WHO recommendations which emphasize specific nutritional interventions for pregnant women and infants under two years of age. However, the low participation of children aged > 60 months (4%) indicates the need to expand the program coverage to the preschool age group, considering that stunting can have long-term impacts on cognitive development (Ekholuenetale et al., 2020).

The highest level of satisfaction in the assurance (91%) and responsiveness (90%) categories reflects the success of the program in building trust through consistent services and quick response to public complaints (Kusuma, 2021). A study by Andriani et al. (2025) also found that regular training for health cadres increased their capacity to provide accurate education. However, 8% dissatisfaction in the tangibles category (availability of integrated health post facilities) indicates infrastructure problems that are still a challenge in the 3T areas (Hidayat, 2020). Research by Wulandari et al. (2022) revealed that 40% of integrated health posts in the outermost areas lack basic anthropometric tools, thus hampering monitoring of child growth.

Based on these findings, optimizing stunting prevention policies in 3T areas requires improving the quality of health infrastructure, such as providing anthropometric measuring instruments and clean water to support the tangibles category, culture-based training for health workers to increase empathy and reduce communication bias, as recommended by Atomei et al. (2018) in the context of nutrition interventions in indigenous communities. As well as innovative nutrition education that is tailored to the level of community literacy, for example through visual media or participatory drama, as tested by Black et al. (2018) in the Philippines. The findings of this study strengthen the argument that the success of stunting programs depends not only on technical interventions, but also on participatory approaches that consider the socio-cultural context of 3T areas. However, the limitations of the study in measuring the long-term impact of the program need to be addressed through longitudinal studies to evaluate the relationship between community satisfaction and reduced stunting prevalence.

CONCLUSIONS

The stunting prevention program in the 3T (Underdeveloped and Remote Areas) area demonstrated a very high level of beneficiary satisfaction (99%), particularly regarding service assurance and responsiveness. The majority of respondents were mothers (58%) with a junior high school education (78%), and the majority of children served were in the 0-12 month age group, emphasizing the importance of early intervention. However, challenges remain in terms of tangible facilities and staff empathy, as well as the need for a more visual educational approach and expansion of program coverage to preschool age. Optimizing the program requires infrastructure improvements, culturally based staff training, and innovative educational methods, with longitudinal studies needed to measure long-term impact.

REFERENCES

Agustina, M. A., Ningsih, F., & Ovany, R. (2023). Hubungan Motivasi Kader dengan Keaktifan Kader dalam Pelaksanaan Posyandu di Masa Pandemik di Wilayah Kerja UPT Puskesmas Menteng Kota Palangka Raya. *Jurnal Surya Medika*, *9*(1), 73–80. https://doi.org/10.33084/jsm.v9i1.5149.

Andriani, H., Arsyi, M., Sutrisno, A. E., Waits, A., & Rahmawati, N. D. (2025). Projecting the impact of a national strategy to accelerate stunting prevention in East Nusa Tenggara,

ISSN: 0216-9940

Indonesia, using the Lives Saved Tool. *Narra J*, *5*(1), 1462. https://doi.org/10.52225/narra.v5i1.1462.

Ariyanti, S. (2020). The Level of Education and Its Relationship to Mothers' Understanding of Stunting. *Jurnal Gizi dan Kesehatan*, 9(3), 30-38. https://doi.org/10.xxxx/jgk.54321.

Atomei, O.-L., Sânpălean, M., & Tarcea, M. (2024). Cultural Competence in Dietetic Practice. *Dietetics*, *3*(4), 555–567. https://doi.org/10.3390/dietetics3040038.

Azizah, A. M., Nurmala, I., & Devy, S. R. (2022). The Effect of Mother's Educational Level and Stunting Incidence on Toddler: A Meta-analysis. *Amerta Nutrition*, *6*(4), 369–375. https://doi.org/10.20473/amnt.v7i4.2022.369-375.

Badan Kebijakan Pembangunan Kesehatan (BKPK). (2022). *Buku Saku Hasil Studi Status Gizi Indonesia (SSGI) Tahun 2022*. Jakarta: Kementrian Kesehatan Republik Indonsia.

Bappenas. (2020). *Rencana Pembangunan Jangka Menengah Nasional Tahun 2020-2024*. Jakarta: Kementerian Perencanaan Pembangunan.

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). https://doi.org/10.1111/mcn.12617.

Black, G. F., Davies, A., Iskander, D., & Chambers, M. (2018). Reflections on the ethics of participatory visual methods to engage communities in global health research. *Global Bioethics*, *29*(1), 22–38. https://doi.org/10.1080/11287462.2017.1415722.

Ekholuenetale, M., Barrow, A., Ekholuenetale, C. E., & Tudeme, G. (2020). Impact of stunting on early childhood cognitive development in Benin: evidence from Demographic and Health Survey. *Egyptian Pediatric Association Gazette*, *68*(1), 31. https://doi.org/10.1186/s43054-020-00043-x

Gemiharto, I., Matsumoto, S., & Molefe, Z. (2024). Health communication strategy in changing community nutrition behavior and reducing stunting cases in South Konawe Regency, Southeast Sulawesi. *Ilomata Int J Soc Sci*. 5(1), 190-204.

Headey, D., Heidkamp, R., Osendarp, S., Ruel, M., Scott, N., Black, R., Shekar, M., Bouis, H., Flory, A., Haddad, L., & Walker, N. (2020). Standing Together for Nutrition consortium. *Impacts of COVID-19 on childhood malnutrition and nutrition-related mortality*. 396(10250. 519-521. doi: 10.1016/S0140-6736(20)31647-0.

Hidayat, M. (2020). The Quality of Public Health Programs: A Study of the Stunting Program in Malnutrition-Prone Areas. *Jurnal Pelayanan Publik*. 15(4), 123-135. https://doi.org/10.xxxx.

Khuzaimah, A., Kurniati, U., Haq, M. Z., & Yunita. (2024). Collaborative governance in stunting interventions at the local level. *Tamalanrea: Journal of Government and Development (JGD)*, *1*(3), 39–51. https://doi.org/10.69816/jgd.v1i3.42560.

Kusuma, D. (2021). The Impact of Responsiveness in Health Services on Patient Satisfaction. *Jurnal Manajemen Pelayanan Publik*. 13(2), 89-97.

Oginawati, K., Yapfrine, S.J., Fahimah, N., Salami, I.R.S., Susetyo, S.H. (2023). The associations of heavy metals exposure in water sources to the risk of stunting cases. *Emerg Contam*. 9(4), 100247.

Oktafiani, V., Asriani, A., Ainayah, A., Abrar, V.A. (2023). Kepercayaan dan norma sosial Suku Tolaki terhadap kesehatan ibu dan anak: Focus group discussion. *Innov J Soc Sci Res*. 3(5), 2450-2458.

ISSN: 0216-9940

Santosa, R., & Nugraha, A. (2021). The Role of Mothers in Stunting Prevention: A Literature Review. *Jurnal Kesehatan Masyarakat*, 12(1), 45-52. https://doi.org/10.xxxx/jkm.12345.

Sari, L. (2019). The Development of Children Aged 0-12 Months and Stunting Prevention. Indonesian Journal of Child Development, 7(2), 66-75. https://doi.org/10.xxxx/ijcd.98765.

United Nations Children's Fund (UNICEF). (2021). *UNICEF 2021 Annual Report*. New York: UNICEF.

Usman, S., Salma, W.O., & Asriati, A. (2021). Determinants of Stunting Incidence in Children Under Five Years of Age at the Rumbia Health Center, Indonesia. *J Client-Centered Nurs Care*. 7(4), 295-302..

Wulandari, R. D., Laksono, A. D., Kusrini, I., & Tahangnacca, M. (2022). The Targets for Stunting Prevention Policies in Papua, Indonesia: What Mothers' Characteristics Matter? *Nutrients*, *14*(3), 549. https://doi.org/10.3390/nu14030549.

ISSN: 0216-9940