



Utilization of Primary Healthcare Services and Stunting Among Children Aged 0–59 Months in Indonesia: A National Cross-Sectional Study

Apriliani

Sekolah Tinggi Ilmu Kesehatan Malahayati Medan

Email Coresspondence: apriliani985@gmail.com

Track Record Article Revised: 22 April 2025 Accepted: 29 June 2025 Published: 30 June 2025 How to cite : Apriliani. (2025). Utilization of Primary Healthcare Services and Stunting Among Children Aged 0–59 Months in Indonesia: A National Cross-Sectional Study. <i>Contagion : Scientific Periodical of Public Health and Coastal Health</i> , 7(1), 404–414.	Abstract <i>Stunting remains a critical public health concern in Indonesia, contributing to elevated morbidity rates and undermining the quality of human capital. While primary healthcare services are central to preventive efforts, their direct association with stunting at the national scale remains inadequately explored. This study investigates the relationship between primary healthcare utilization and stunting incidence among children aged 0–59 months in Indonesia, using data from the 2023 Indonesia Health Survey (SKI). A cross-sectional analytical design was employed, involving 79,141 children after data cleaning. Nutritional status was measured via the height-for-age (H/A) indicator based on WHO Z-scores. Independent variables included child's sex, maternal education level, maternal employment status, residential area, availability of primary healthcare facilities, and health insurance ownership. Statistical analysis encompassed univariate, bivariate (chi-square test), and multivariate (binary logistic regression) methods. Significant associations were found for sex, maternal education, place of residence, and availability of healthcare facilities ($p < 0.05$), while maternal employment and health insurance showed no significant relationship. Multivariate analysis identified maternal education as the dominant determinant ($p = 0.023$; $Exp(B) = 1.040$; 95% CI: 1.006–1.077). Children of mothers with lower educational attainment faced a heightened risk of stunting compared to those whose mothers had higher education. Utilization of primary healthcare services was associated with stunting among children, particularly through maternal education as a key determinant. Findings underscore the importance of strengthening family-based interventions and enhancing maternal health literacy within the framework of primary healthcare to address stunting more effectively</i> Keywords: <i>Stunting, Children, Primary healthcare services, Indonesia</i>
--	---

INTRODUCTION

Malnutrition during early childhood presents a persistent challenge to global health and human capital development. As reported by the World Health Organization (WHO, 2024), approximately 150.2 million children under five (23.2%) were affected by stunting, with 42.8 million experiencing wasting and 35.5 million classified as overweight - revealing a complex triple burden of malnutrition. These overlapping conditions disproportionately affect low- and middle-income countries (LMICs), where rapid nutritional transitions coincide with structural inequalities in access to essential health and social services (WHO, 2024; Purnama et al., 2022; Shekar et al., 2021).

In Indonesia, the 2023 Indonesia Health Survey (SKI) recorded a slight decline in stunting prevalence, from 21.6% in 2022 to 21.5% in 2023 (Kemenkes RI, 2023). However, this modest progress underscores the urgency of achieving the national target of 14% by 2024,

as mandated in the National Medium-Term Development Plan (RPJMN) 2020–2024. Attaining this goal necessitates multisectoral interventions grounded in evidence-based strategies, including the reinforcement of primary health care services as the frontline providers of promotive and preventive care (Kementerian Sekretariat Negara RI Sekretariat Wakil Presiden, 2019).

Stunting is the most prevalent form of chronic childhood malnutrition and is associated with long-term consequences for physical growth, cognitive development, and educational achievement. Beyond its biomedical effects, stunting undermines national productivity by compromising the future capabilities of the population (Zahra et al., 2023). Globally, progress in stunting reduction remains insufficient to meet Sustainable Development Goals (SDGs) Target 2.2 which aims to eliminate all forms of malnutrition by 2030. Current projections suggest the global target, a 40% reduction by 2025, may not be achieved (WHO, 2024).

Healthcare services that promote child health and nutrition are essential yet underutilized determinants in mitigating stunting risk. Therefore, primary health care services must be strengthened, as they play a significant role in improving child health and nutritional outcomes, thereby reducing the risk of early mortality and poor physical development (Yuniastuti et al., 2022).

Primary health care services have been identified as a critical delivery platform to combat stunting through integrated approaches including child growth monitoring, immunization, nutritional counseling, and supplementary feeding (Indrinawati et al., 2022). However, service utilization is often hindered by structural and individual-level barriers, such as maternal education, geographic accessibility, household income, and health insurance coverage. Comparative studies from Bangladesh, Ethiopia, and the Philippines similarly demonstrate the importance of these factors in influencing PHC access and child nutrition outcomes (Amaha et al., 2021).

This study aims to examine the association between primary healthcare services utilization and the incidence of stunting among children aged 0–59 months in Indonesia, drawing on nationally representative data from the 2023 Indonesian Health Survey. In particular, it explores how maternal education, residential context, and health insurance ownership influence the likelihood of service engagement and child nutritional status. The findings aim to inform more equitable and targeted policy responses for stunting prevention in LMIC settings.

METHODS

This study employed a quantitative analytical approach with a cross-sectional design, utilizing secondary data from the 2023 Indonesian Health Survey (SKI), administered by the Ministry of Health of the Republic of Indonesia. The target population comprised all children aged 0-59 months included in the national dataset. From an initial sample of 86,364 children, a total of 79,141 records were retained following a data cleaning process to exclude incomplete records or those with missing values for key study variables.

Nutritional status of children was assessed using the height-for-age indicator (HAZ), converted to Z-scores based on WHO anthropometric standards, and analyzed using WHO Anthro software. Children were classified as stunted if their HAZ scores were below -2 standard deviations (SD), with two subcategories: severely stunted (< -3 SD) and moderately stunted (-3 SD to < -2 SD). Children with Z-scores between ≥ -2 SD and $+3$ SD were considered normal, and those $> +3$ SD were categorized as tall.

The independent variables in this study included various social and environmental characteristics. Child sex was categorized as male or female. Maternal education was grouped into low (no schooling, incomplete primary, completed primary, junior high school) and high (senior high school, diploma, or university level). Maternal employment status was divided into employed (civil servants, private employees, entrepreneurs, farmers, fishermen, laborers, drivers, domestic workers, and others) and unemployed (not working or still in school). Area of residence was classified as urban or rural. Availability of primary healthcare facilities was determined by the presence of community health centers (puskesmas) within or near the district/city; respondents who answered “don’t know” or “none” were categorized as having no access. Health insurance ownership was classified as having insurance (BPJS PBI, BPJS non-PBI, JAMKESDA, private insurance, or combinations thereof) or not having insurance.

Inclusion criteria were all children aged 0–59 months with complete data for nutritional status and all independent variables. Exclusion criteria included children with incomplete data, extreme anthropometric values (Z-score < -6 SD or $> +6$ SD), or those not included in the health module of the 2023 Indonesian Health Survey.

Data analysis was performed using SPSS software. Univariate analysis was used to summarize frequencies and percentages for each variable. Bivariate analysis, employing chi-square test, evaluated associations between independent variables and stunting status. Multivariate analysis was conducted via binary logistic regression to identify dominant predictors of stunting, with results expressed as odds ratios (Exp(B)), 95% confidence intervals

(CI), and p-values. Statistical significance was defined as $p < 0.05$. This study used secondary data from an official government source that had received ethical approval from the Health Research Ethics Committee of the Indonesian Ministry of Health. The dataset was fully anonymized and devoid of any personally identifiable information, ensuring compliance with ethical and data protection standards.

RESULTS

Table 1. Association Between Primary Healthcare Utilization and Stunting Among Children Aged 0–59 Months in Indonesia

Variabel	Stunting Status				Total		p-value	PR (95% CI)
	Stunted		Not Stunted					
	n	%	n	%	n	%		
Sex								
Male	8720	11.0	32.082	40.5	40.802	51.6	0.016*	0.959 (0.927-0.992)
Female	8.465	10.7	29.874	37.7	38.339	48.4		
Total	17.185	21.7	61.956	78.3	79.141	100		
Mother's Education								
Low	7.269	9.2	25.608	32.4	32.877	41.5	0.023*	1.041 (1.005-1.077)
High	9.916	12.5	36.348	45.9	46.264	58.5		
Total	17.185	21.7	61.956	78.3	79.141	100		
Mother's Occupation								
Not Working	9.638	12.2	34.752	43.9	44.390	56.1	0.986	1.000 (0.966-1.034)
Working	7.547	9.5	27.204	34.4	34.751	43.9		
Total	17.185	21.7	61.956	78.3	79.141	100		
Area of Residence								
Urban	8.670	11.0	31.786	40.2	40.456	51.1	0.048*	0.966 (0.934-1.000)
Rural	8.515	10.8	30.170	38.1	38.685	48.9		
Total	17.185	21.7	61.956	78.3	79.141	100		
Availability of Community Health Center								
Available	17.038	21.5	624	0.8	771	1.0	0.073	0.848 (0.708-1.016)
Not Available	147	0.2	61.332	77.5	78.370	99.0		
Total	17.185	21.7	61.956	78.3	79.141	100		
Health Insurance								
Yes	13.815	17.5	50.131	63.3	63.946	80.8	0.123	1.034 (0.991-1.079)
No	3.370	4.3	11.825	14.9	15.195	19.2		
Total	17.185	21.7	61.956	78.3	79.141	100		

Based on Table 1, a statistically significant association was observed child's sex and stunting. Among children identified as stunted, 8,720 (11.0%) were male and 8,465 (10.7%) were female. The chi-square test yielded a p-value of 0.016, confirming a meaningful relationship between sex and stunting status.

Maternal education also demonstrated a significant association with stunting. Of the stunted children, 7,269 (9.2%) had mothers with low education attainment, while 9,916 (12.5%) had mothers with higher education. The chi-square test produced a p-value of 0.023, and the Prevalence

Ratio (PR) was 1.041 (95% CI = 1.005–1.077), indicating that children of less-educated mothers were 1.041 times more likely to experience stunting than those with highly educated mothers. Regarding parental employment status, 9,638 (12.2%) of stunted children had non-working parents, while 7,547 (9.5%) had working parents. However, this variable did not show a statistically significant relationship with stunting (p-value = 0.232).

Residential location was found to have a notable impact. Among stunted children, 8,670 (11.0%) resided in urban areas and 8,515 (10.8%) in rural areas. The association between place of residence and stunting was statistically significant (p-value = 0.048). For availability of primary healthcare facilities, a distinct pattern emerged. In areas with a community health center (puskesmas), 106 children (0.1%) were stunted, compared to 17,009 children (21.6%) in areas lacking such facilities. This difference was statistically significant (p-value = 0.037), with a Prevalence Ratio (PR) of 1.266 (95% CI = 1.014–1.580), suggesting that children in areas lacking puskesmas were 1.266 times more likely to experience stunting than those with access to such facilities. Regarding health insurance coverage, 13,815 (17.5%) of stunted children were covered by health insurance, while 3,370 (4.3%) were not. Nevertheless, the association between health insurance ownership and stunting was not statistically significant (p-value = 0.123).

Table 2. Dominant Factors Influencing the Utilization of Primary Health Care Services and the Incidence of Stunting among Children Aged 0–59 Months in Indonesia

Variable	Sig.	Exp(B)	95% CI	
			Lower	Upper
Education	0.023	1.040	1.006	1.077
Sex	0.016	0.959	0.927	0.992

Based on Table 2, the results of the logistic regression analysis indicate that maternal education level is the only variable significantly associated with stunting among children under five. The variable has a p-value of 0.023, with an odds ratio (Exp(B)) of 1.040 and a 95% confidence interval ranging from 1.006 to 1.077. These results suggest that children of mothers with lower education levels face an increased risk of stunting. This reinforces maternal education as a key determinant in childcare practices, nutritional awareness, and primary healthcare engagement. Educated mothers are generally more capable of comprehending the importance of monitoring child growth, completing immunization schedules, and providing nutritionally balanced diets from an early age.

DISCUSSION

The quality of healthcare services is fundamental to achieving equitable health outcomes, as health is a basic human right. High-quality healthcare aligns with the needs, expectations, and values of the community. As part of Indonesian's commitment to improving

healthcare access, primary healthcare centers have been established nationwide. According to the Regulation of the Minister of Health of the Republic of Indonesia Number 19 of 2024, these primary healthcare centers are public health facilities that provide both community-based and individual-based healthcare services at the first level of care. Generally, they deliver curative, preventive, promotive, and rehabilitative services to improve population health outcomes (Kemenkes, 2024).

Stunting is a multifactorial condition shaped by intersecting determinants such as nutrition, socioeconomic status, sanitation, maternal education, and genetics. Although healthcare access contributes to child nutritional status, it must be complemented by concurrent improvements in service quality and other underlying determinants (Syafrawati et al., 2023). However, while healthcare access is essential, its impact may be insufficient to significantly affect stunting prevalence if other determinants are not addressed simultaneously. Furthermore, access does not inherently ensure the quality of care. The effectiveness and availability of nutrition-specific interventions within healthcare services play a critical role in shaping health and nutritional outcomes (Ryadinency et al., 2022). If healthcare services fail to deliver adequate or high-quality nutritional support, increased access alone may not substantially reduce stunting. Additionally, the positive impact of improved access may only become evident over time, requiring consistent and sustained health and nutrition interventions to produce measurable improvements in child growth and development (Hermawan et al., 2025).

This study reaffirms maternal education as a pivotal determinant of stunting, reflecting broader gaps in health literacy and caregiving practices. Enhancing maternal engagement through targeted health education may serve as a strategic entry point for reducing stunting and promoting more equitable child health outcomes. Integrating educational efforts into primary healthcare settings can bolster family capacity, elevate health behavior, and improve nutritional practices, ultimately contributing to sustainable stunting reduction (Indrinawati et al., 2022; Solikin et al., 2025).

Education directly influences individual attitudes, behaviors, and decision-making serving as one of the key determinants of personal and societal health outcomes. It enhances intellectual maturity, which in turn shapes one's vision, critical thinking, decision making processes, and policy formulation. Higher levels of education are associated with greater health knowledge, improved access to health-related information, and a heightened awareness of the need for healthcare services. Consequently, this leads to increased readiness and willingness to participate in health insurance schemes.

Educational attainment is closely linked to an individual's awareness and understanding, thereby exerting a significant influence on the utilization of healthcare services. Individuals with lower levels of education often exhibit limited awareness and comprehension of the benefits of primary healthcare, which may hinder their access and responsiveness toward available health interventions (Fatimah et al., 2019; Berete et al., 2024; Laksono et al., 2024).

These findings are consistent with the study by Fayola et al., (2025), which demonstrated that low maternal education significantly increases the risk of chronic malnutrition in children due to limited understanding of health-related information. Mothers with lower educational attainment tend to be less effective in utilizing primary health services such as community health posts, primary health centers, and child nutrition programs. This underscores the critical role of health literacy, improved through formal education and community-based interventions, in sustainably reducing the prevalence of stunting (Indrinawati et al., 2022). Low health literacy remains a major barrier to stunting prevention, particularly in developing countries (Framesthi et al., 2024; Amrindono et al., 2023). Health literacy plays a crucial role in empowering communities, as high levels of health literacy enable individuals to effectively use accurate health information to improve or maintain their well-being (Toar, 2020).

This study found that male toddlers are at a higher risk of experiencing stunting compared to females. This finding aligns with previous research indicating that male children tend to have greater physiological vulnerability to nutritional stress and infections (Eliati et al., 2021). Access to primary healthcare services and the availability of health facilities are also associated with stunting. Children living in areas without a community health center are at a higher risk of experiencing stunting (Asarah et al., 2022). Geographical disparities in the availability of healthcare services represent a major barrier to reaching populations vulnerable to stunting, particularly in rural and remote areas. Limited access results in low coverage of interventions such as growth monitoring, micronutrient supplementation, and nutrition counseling (Kemenkes, 2023).

Maternal employment status and health insurance ownership did not show a significant association with stunting incidence. Although health insurance ownership is important in facilitating financial access, its effectiveness is largely influenced by other factors such as service quality, awareness of utilization, and the availability of healthcare personnel (Marliyanti et al., 2021).

No significant association was found between health insurance ownership and stunting incidence (p -value = 0.123), which may be attributed to the high coverage of health insurance

in Indonesia. This finding supports previous studies suggesting that health insurance alone is insufficient to reduce stunting without concurrent improvements in service quality, health literacy, and accessibility (Fatimah et al., 2019). Individuals who possess health insurance tend to utilize healthcare services more frequently than those without coverage, benefiting from government subsidies that finance their medical check-ups. Public health insurance plays a crucial role in facilitating access to healthcare services, as insured individuals are more likely to prioritize their health and seek medical attention due to the reduced financial burden under the insurance scheme (Azahra et al., 2023).

Community Health Centers often encourage mothers of stunted children to pursue further evaluation by pediatric specialists through a structured referral system. However, many caregivers misinterpret such referrals as a sign of severe or untreatable conditions, resulting in resistance or delay in follow-up care. This misconception largely stems from limited maternal knowledge about stunting and its clinical management. Consequently, many caregivers rely solely on basic interventions available at Integrated Health Posts, such as routine growth monitoring and supplementary feeding, without seeking more comprehensive services.

In reality, referrals represent an integral component of the continuum of care, serving as a critical step for comprehensive screening and management of stunting. The services covered by Indonesia's National Health Insurance encompass promotive, preventive, therapeutic, and rehabilitative care. The referral mechanism is structured as a tiered system of individual healthcare delivery, ensuring that patients receive appropriate interventions based on the complexity of their medical needs. Referrals from Primary Healthcare facilities are initiated when cases exceed the facility's capacity and require specialized attention at higher-level health institutions (Indrianingrum et al., 2021).

Enrollment in the National Health Insurance Program offers significant benefits for managing stunting in children, particularly by reducing maternal anxiety when specialized medical care is needed. Through BPJS coverage, referrals to pediatric specialists can be accessed at no additional cost, thereby enabling equitable access to advanced healthcare for vulnerable populations. Nevertheless, field observations reveal that a considerable number of stunted children remain uninsured. A key administrative barrier is the absence of civil registration documents specifically the Family Card and National Identification Number, which are essential for enrollment in the National Health Insurance Program. This issue is particularly prevalent among newborns, resulting in delayed insurance registration and restricted access to essential healthcare services that could otherwise support early intervention and improved child health outcomes (Agustina et al., 2023).

The findings emphasize that addressing stunting requires more than formal access to health services or insurance coverage. Structural barriers such as geographical disparities, service quality, and low maternal health literacy continue to hinder the effective utilization of available resources. To maximize the impact of stunting prevention efforts, future interventions must prioritize equitable distribution of healthcare infrastructure and incorporated sustained, community-based educational strategies that empower mothers as primary caregivers. Strengthening the capacity of frontline health systems, particularly community health center and integrated health posts, to deliver culturally relevant and actionable health education is essential for long-term improvement in child nutritional outcomes.

CONCLUSION

This study identifies maternal education as the most influential factor significantly associated with stunting among children under five in Indonesia. While the availability of primary healthcare services remains crucial, their effectiveness is mediated by maternal capacity to comprehend, access, and utilize these services effectively. These findings underscore the pivotal role of maternal health literacy in shaping caregiving practices and determining child nutritional outcomes. Stunting reduction strategies must extend beyond infrastructural enhancements to include integrated, community-based educational interventions that are contextually grounded and culturally sensitive. These interventions should combine nutritional education, parenting skills, and awareness of growth monitoring, delivered consistently through community health centers (*puskesmas*) and integrated health posts (*posyandu*). Strengthening the role of healthcare providers and community health workers in implementing these programs is essential to ensure effectiveness and sustainability. Furthermore, leveraging localized educational media and fostering collaborative intersectoral efforts can enhance outreach and long-term engagement. Future research should explore socio-cultural factors that influence healthcare service utilization and parental involvement in stunting prevention, particularly across diverse regional contexts in Indonesia.

REFERENCES

- Agustina, R., Weken, M. E., & Anggraeny, D. (2023). Implementasi Penggunaan BPJS Kesehatan dalam Penanganan Balita Stunting di Lokus Stunting. *Amerta Nutrition*, 7(2SP), 7–12. <https://doi.org/10.20473/amnt.v7i2SP.2023.7-12>
- Amaha, N. D., & Woldeamanuel, B. T. (2021). Maternal factors associated with moderate and severe stunting in Ethiopian children: analysis of some environmental factors based on 2016 demographic health survey. *Nutrition Journal*, 20(1), 1–9. <https://doi.org/10.1186/s12937-021-00677-6>

- Amrindono, A., Nurmalinda, S., & Nuraini, I. (2023). Literasi Kesehatan Dalam Mengatasi Stunting Pada Anak Usia Dini. *Smart Kids: Jurnal Pendidikan Islam Anak Usia Dini*, 5(2), 85–94. <https://doi.org/10.30631/smartkids.v5i2.183>
- Asarah, K., Ramadhaniah, Tahara, D. S., & M. Biomed. (2022). Hubungan Akses Pelayanan Kesehatan, BBLR, ASI Eksklusif dan Asupan Protein Dengan Kejadian Stunting Pada Balita Usia > 6-59 Bulan Di Wilayah Kerja Puskesmas Baitussalam Kecamatan Baitussalam Kabupaten Aceh Besar Tahun 2022. *Journal of Health and Medical Science*, 1(1), 171–177. <https://pusdikra-publishing.com/index.php/jkes/article/view/965/835>
- Azahra, I. T., Ningrum, D., & Dolifah, D. (2023). Hubungan Pengetahuan Dengan Kepemilikan Dalam Pemanfaatak BPJS Kesehatan Pada Ibu Balita Stunting. *PREPOTIF : Jurnal Kesehatan Masyarakat*, 7(1), 916–925. <https://doi.org/10.31004/prepotif.v7i1.13858>
- Berete, F., Gisle, L., Demarest, S., Charafeddine, R., Bruyère, O., Van den Broucke, S., & Van der Heyden, J. (2024). Does health literacy mediate the relationship between socioeconomic status and health related outcomes in the Belgian adult population? *BMC Public Health*, 24(1), 1–16. <https://doi.org/10.1186/s12889-024-18676-7>
- Eliati, Handayani, S., Nidia, W., Rohim, Susanti, D., & Rahliadi, R. (2021). Faktor-Faktor yang Berhubungan dengan Kejadian Stunting pada Balita Usia 3-5 Tahun di Kecamatan Badar Kabupaten Aceh Tenggara. *Nasu wakes: Jurnal Ilmiah Kesehatan*, 14(2), 123–135. <http://ejournal.poltekkesaceh.ac.id/index.php/jn>
- Fatimah, S., & Indrawati, F. (2019). Faktor Pemanfaatan Pelayanan Kesehatan di Puskesmas. *Higeia Journal of Public Health Research and Development*, 1(3), 84–94.
- Fayola, D., Reni, Z., Anisa, J., & Iswandi, D. (2025). Hubungan Tingkat Pendidikan Akhir Ibu Terhadap Status Gizi Balita (Bb/Tb). *Jurnal Penelitian Perawat Profesional*, 7(5474), 1333–1336.
- Framesthi, D. B., Supriatna, D., Sudrajat, A., & Wildan, A. S. W. S. (2024). Ibu Dan Literasi Kesehatan: Kunci Pencegahan Stunting di Keluarga (Sebuah Tinjauan Literature). *Jurnal Jagaddhita*, 3(1), 1–10. <https://jurnal.abisatya.org/index.php/JAGADDHITA/article/view/110>
- Hermawan, E. E. M., Sjahrani, T., Rafie, R., & Hermawan, D. (2025). Hubungan Antara Akses Pelayanan Kesehatan Dan Kepatuhan Pengobatan Tb Dengan Stunting Di Bandar Lampung. *Jurnal Medika Malahayati*, 8(4), 793–800. <https://doi.org/10.33024/jmm.v8i4.16171>
- Indrianingrum, I., & Puspitasari, I. (2021). Evaluasi Proses Sistem Rujukan Badan Penyelenggara Jaminan Kesehatan Sosial (BPJS) Kesehatan di Fasilitas Kesehatan Tingkat Pertama (FKTP) Kabupaten Jepara. *Ilmu Keperawatan Dan Kebidanan*, 2(1), 78–80. <https://doi.org/10.26751/jikk.v12i1.930>
- Indrinawati, N. N., & Widayati, K. (2022). Gambaran Pelayanan Kesehatan Primer Pada Kejadian Stunting Di Wilayah Kecamatan Sukawati Kabupaten Gianyar. *Bali Health Published Journal*, 3(2), 37–45. <https://doi.org/10.47859/bhpj.v3i2.21>
- Kemenkes. (2024). *Peraturan Menteri Kesehatan Nomor 19 Tahun 2024 tentang Penyelenggaraan Pusat Kesehatan Masyarakat*. Jakarta : Kementerian Kesehatan Republik Indonesia.
- Kemenkes RI. (2023). *Survei Kesehatan Indonesia (SKI) 2023*. Jakarta : Badan Kebijakan Pembangunan Kesehatan. <https://www.badankebijakan.kemkes.go.id/hasil-ski-2023/>
- Kementerian Sekretariat Negara RI Sekretariat Wakil Presiden. (2019). *Strategi Nasional Percepatan Pencegahan Anak Kerdil Periode 2018-2024*. Jakarta: Sekretariat Wakil Presiden Republik Indonesia. file:///C:/Users/win11/Downloads/Stranas_Percepatan_Pencegahan_Anak_Kerdil.pdf
- Laksono, A. D., Wulandari, R. D., Zuardin, Z., & Rohmah, N. (2024). Education'S Role in

- Primary Healthcare Utilization Among Older People in Indonesia. *Indonesian Journal of Health Administration*, 12(1), 11–24. <https://doi.org/10.20473/JAKI.V12I1.2024.11-24>
- Ryadinency, R., Izhak, Uly, N., Zamli, & Kinanti, R. A. (2022). Hubungan Sanitasi Lingkungan Keluarga dengan Kejadian Stunting pada Balita di Desa Pararra Kecamatan Sabbang Tahun 2021. *Media Publikasi Promosi Kesehatan Indonesia (MPPKI)*, 5(8), 1010–1014. <https://doi.org/10.56338/mppki.v5i8.2684>
- Shekar, M., Condo, J., Pate, M. A., & Nishtar, S. (2021). Maternal and child undernutrition: progress hinges on supporting women and more implementation research. *The Lancet*, 397(10282), 1329–1331. [https://doi.org/10.1016/S0140-6736\(21\)00577-8](https://doi.org/10.1016/S0140-6736(21)00577-8)
- Solikin, A., Setiawan, M. A., & Putra, A. R. B. (2025). Nutrition Counseling and Stunting Prevention in Toddlers: A Systematic Literature Review. *G-Couns: Jurnal Bimbingan Dan Konseling*, 9(2), 1353–1371. <https://doi.org/10.31316/g-couns.v9i2.7115>
- Syafrawati, S., Lipoeto, N. I., Masrul, M., Novianti, N., Gusnedi, G., Susilowati, A., Nurdin, A., Purnakarya, I., Andrafikar, A., & Umar, H. B. (2023). Factors driving and inhibiting stunting reduction acceleration programs at district level: A qualitative study in West Sumatra. *PLoS ONE*, 18(3 MARCH), 1–21. <https://doi.org/10.1371/journal.pone.0283739>
- Toar, J. M. (2020). Faktor yang Mempengaruhi Literasi Kesehatan Pada Penderita Diabetes Melitus Tipe 2 Di Kota Manado. *Jurnal Keperawatan*, 8(2), 1–8. <https://doi.org/10.35790/jkp.v8i2.32327>
- WHO. (2024). *Joint Child Malnutrition Estimates*. World Health Organization. <https://www.who.int/data/gho/data/themes/topics/joint-child-malnutrition-estimates-unicef-who-wb>
- Yuniastuti, N. P. A. K., Adi, I. K., & Paramartha. (2022). Child Nutrition Health Services Centered on Primary Health Care To Reduce Stunting Incidence. *KESMAS UWIGAMA: Jurnal Kesehatan Masyarakat*, 8(1), 24–29. <https://doi.org/10.24903/kujkm.v8i1.1397>
- Zahra, R., Alyakin Dakhi, R., Lina Tarigan, F., & Ester J. Sitorus, M. (2023). Faktor Faktor Yang Mempengaruhi Kejadian Stunting Pada Anak Balita Umur 12-59 Bulan Di Wilayah Kerja Puskesmas Ranto Peureulak Kabupaten Aceh Timur. *Prepotif: Jurnal Kesehatan Masyarakat*, 7(3), 16286–16308. <https://doi.org/10.31004/prepotif.v7i3.20329>