



Risk factors for stunting in toddlers from a family perspective: A qualitative study in at-risk urban areas

Faktor risiko stunting balita dari perspektif keluarga: Studi kualitatif di wilayah perkotaan berisiko

Uun Kunaepah¹, Priyo Sulistiyono^{2*}, Rahmani Azzahra³, Eva Dwi Alviani⁴

¹ Department of Nutrition, Tasikmalaya Ministry of Health Polytechnic, Indonesia.

E-mail: uun.gizicrb@gmail.com

² Department of Nutrition, Tasikmalaya Ministry of Health Polytechnic, Indonesia.

E-mail: priyos32@gmail.com

³ Department of Nutrition, Tasikmalaya Ministry of Health Polytechnic, Indonesia.

E-mail: rahmani2@gmail.com

⁴ Department of Nutrition, Tasikmalaya Ministry of Health Polytechnic, Indonesia

E-mail: evadwialviani@yahoo.com

*Correspondence Author:

Nutrition Study Program, Department of Nutrition, Tasikmalaya Ministry of Health Polytechnic, Jl. Ks Tubun 58 Cirebon, West Java Province, Indonesia

E-mail: priyos32@gmail.com

Article History:

Received: December 20, 2025; Revised: December 25, 2025; Accepted: February 02, 2026; Published: March 05, 2026.

Publisher:



Politeknik Kesehatan Aceh
Kementerian Kesehatan RI

© The Author(s). 2026 **Open Access**

This article has been distributed under the terms of the *License Internasional Creative Commons Attribution 4.0*



Abstract

Childhood stunting remains a major public health problem, and previous quantitative studies have not adequately captured family level experiences and risk dynamics. This study aimed to explore the risk factors for stunting in children under five years of age from the family perspective using an exploratory qualitative approach in the working area of Argasunya Primary Health Center in August 2025. Nine families with stunted children aged 0–59 months were purposively selected based on low socioeconomic status, low birth weight, and limited access to health services. Data were collected through in-depth interviews and home observations, validated by triangulation, and analyzed using inductive thematic analysis. The analysis generated key themes: mothers had adequate knowledge about stunting but did not fully translate it into optimal feeding and breastfeeding practices; families depended on unstable informal income; nutrition decisions were influenced by other family members; and children experienced recurrent infections in poor sanitation settings. The central conceptual finding, “know but can’t afford,” reflected the gap between what families knew and what they could do. The study concluded that vulnerability to stunting resulted from the interaction of internal and external family factors and highlighted the need for integrated, family centered prevention through social protection, improved sanitation and hygiene, and contextual family nutrition counseling.

Keywords: stunting, toddlers, family experiences, social determinants of health, qualitative studies .

Abstrak

Stunting pada balita tetap menjadi masalah kesehatan masyarakat, sementara studi sebelumnya yang didominasi pendekatan kuantitatif belum banyak mengungkap pengalaman dan dinamika risiko di tingkat keluarga. Penelitian ini bertujuan mengeksplorasi faktor risiko stunting pada balita dari perspektif keluarga melalui pendekatan kualitatif eksploratif di wilayah kerja Puskesmas Argasunya pada Agustus 2025. Sebanyak sembilan keluarga dengan balita stunting usia 0–59 bulan dipilih secara purposive berdasarkan sosial ekonomi rendah, riwayat berat lahir, dan keterbatasan akses pelayanan kesehatan. Data diperoleh melalui wawancara mendalam dan observasi rumah, divalidasi dengan triangulasi, lalu dianalisis menggunakan analisis tematik induktif. Analisis menghasilkan tema utama: pengetahuan ibu yang cukup baik namun belum terwujud dalam praktik pengasuhan gizi dan ASI yang optimal; ketergantungan pada pendapatan informal yang tidak tetap; pengambilan keputusan gizi yang dipengaruhi figur keluarga lain; paparan infeksi berulang dalam konteks sanitasi buruk; serta budaya “tahu tetapi belum mampu” (know but can’t afford) yang mencerminkan kesenjangan antara pengetahuan dan kapasitas bertindak. Disimpulkan bahwa kerentanan stunting merupakan hasil interaksi faktor internal dan eksternal keluarga. Implikasi kebijakan menegaskan perlunya intervensi pencegahan stunting berbasis keluarga yang terintegrasi melalui penguatan

perlindungan sosial, perbaikan sanitasi dan PHBS, serta pendampingan gizi keluarga yang kontekstual dan berkelanjutan.

Kata Kunci: stunting, balita, pengalaman keluarga, determinan sosial kesehatan, studi kualitatif.

Introduction

Stunting in toddlers remains a major nutritional problem in Indonesia because it affects physical growth, cognitive development, and productivity in adulthood (Rahman et al., 2023). This condition is a manifestation of chronic malnutrition that primarily occurs during the first 1000 Days of Life, a critical phase that determines a child's linear growth and brain development (Fahrepi et al., 2025). Operationally, stunting is defined as height-for-age below minus two standard deviations from the median standard growth curve for children and is used as an indicator of chronic nutritional status and a proxy for the socioeconomic vulnerability of the population (Maigoda et al., 2023; (Rasidah et al., 2025).

The 2022 Indonesian Nutrition Status Survey (SSGI) showed that the national prevalence of stunting decreased from 24.4% in 2021 to 21.6% in 2022 (Kemenkes.RI,2022). Although this shows progress, the figure is still above the target of 14% and indicates that approximately one in five Indonesian toddlers experience stunted growth. The city of Cirebon is one of the areas receiving attention in the accelerated stunting reduction program, with a stunting prevalence of 19.9% (2023), decreasing to 14.9% (2024), with a downward trend over the past two years. This situation underscores the need for a deeper understanding at the subdistrict and village levels to explain why some families still have stunted infants despite the program's implementation (Herawati et al., 2025).

Argasunya Village in Harjamukti District, Cirebon City, is one of the areas with relatively high challenges in sanitation, environmental hygiene, and stunting prevalence compared to other villages. Several areas in Cirebon City, including Argasunya, have low sanitation coverage and a stunting prevalence of 14.9% by 2024. This reflects a combination of physical environmental risk factors, poverty, and limited access to basic services. The local government has made various efforts, such as socializing stunting prevention, strengthening posyandu services, and distributing nutritious food for

stunted toddlers, making Argasunya a focus area for intervention and a relevant location for this study.

Various studies have shown that stunting occurs more frequently in families with low socioeconomic status, limited access to health services, and living environments that are not conducive to good nutrition and child health practices. Within the framework of social and ecological determinants of health, stunting is understood as the result of complex interactions between factors at the individual, household, community, and policy levels, including income, education, parenting practices, feeding practices, sanitation, and the quality of primary health care (Nurcahyani & Chandra, 2023). However, most studies on stunting in Indonesia are still dominated by quantitative approaches that focus on measuring the relationships between variables and the risk factors. Thus, they have not been able to capture in depth how urban poor families interpret, respond to, and navigate structural limitations in practices related to child nutrition and health in the Philippines. There have not been many qualitative studies exploring the experiences of urban poor families in relation to stunting.

Therefore, qualitative research is needed to explore the life experiences, perceptions, and social dynamics of urban poor families in the context of stunting, particularly in densely populated areas, to gain a more comprehensive and relevant contextual understanding for the formulation of interventions that are sensitive to local conditions.

At the family level, chronic nutritional problems underlying stunting are influenced by the quantity and quality of food intake, parental education, pregnancy and delivery history (including low birth weight), parenting patterns, feeding practices, and environmental sanitation and hygiene (Bayu Prabowo, 2023; GFikawati S, 2018; Sagita & N. Siregar, 2022) . However, these studies generally use a quantitative approach, thus focusing more on describing the statistical relationships between variables rather than on the social processes, values, and meanings behind

families' decisions in caring for and feeding stunted toddlers.

Therefore, this study used an exploratory qualitative approach to examine the perspectives of families with stunted toddlers in Argasunya Village, Harjamukti District, Cirebon City. Through in-depth interviews, this study aims to identify the risk factors for stunting from the family's perspective, including behavioral dynamics, cultural values, and social contexts that influence decision-making related to childcare and toddler nutrition. This study is expected to produce a conceptual contribution in the form of the "know but can't afford" concept, which can enrich the family based stunting intervention framework while also providing concrete policy implications for the development of contextual and effective integrated family assistance programs in densely populated urban areas.

Methods

Research design

This study used an exploratory qualitative approach through in-depth interviews and household observations to explore family experiences and practices related to stunting risk factors. An exploratory design was chosen because the complexity of stunting determinants (social, cultural, and economic) cannot be fully explained by a quantitative approach. Within an interpretive/constructivist paradigm, parenting behaviors and family nutrition decisions are constructed through the interaction of cultural values, family norms, and household economic contexts, which can only be understood through an in-depth qualitative approach to research.

Location, time, and participants

The study was conducted in the Argasunya Community Health Center area of Cirebon City (high prevalence of stunting, socioeconomic diversity). Data were collected in August 2025 from nine families with stunted toddlers aged 0–59 months, selected purposively with the following inclusion criteria: low socioeconomic status, history of low birth weight, and limited access to health services. The exclusion criteria were intensive nutritional intervention and communication disorders.

Mothers served as primary informants (decision-makers regarding daily care/nutrition), whereas fathers/grandmothers

served as supporting informants (family role dynamics). Data saturation was achieved after the ninth interview (no new significant themes emerged after the seventh interview, as confirmed by two additional interviews).

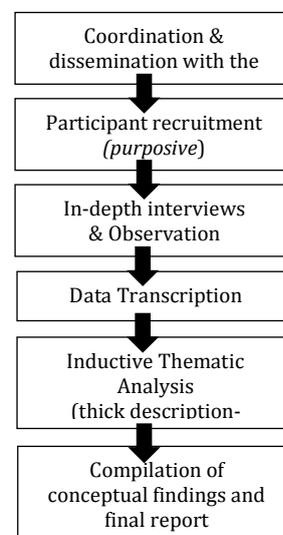


Figure 1. Research stages

The research stages follow a systematic flow: (1) coordination with community health centers to identify at-risk families; (2) purposive recruitment of participants based on inclusion criteria; (3) collection of primary data through in-depth interviews and participant observation; (4) verbatim transcription of audio data; (5) inductive thematic analysis with the stages of initial coding → categorization → theme development (Braun & Clarke, 2006); and (6) compilation of conceptual findings and research reports.

Data collection

Data were collected through in-depth interviews using semi-structured interview guides and direct observation of the home environment to identify external factors such as sanitation and physical conditions of the dwelling. The interview process was recorded using a voice recorder after the respondents received an explanation and signed a written consent form, which was witnessed by cadres or health workers during home visits. The researcher, who also served as the research instrument, was critically aware of their position, values, and potential biases, so that during the interviews, they gave the respondents ample opportunity to express their feelings and

experiences. This study was granted ethical exemption from KEPK Poltekkes Tasikmalaya No. DP.04.03 /F.XVIII.20/KEPK/891/2025.

Data analysis and validity

Interview recordings were transcribed verbatim and then analyzed using Inductive Thematic Analysis, a data-driven method in which themes develop directly from the data without being influenced by prior theory. The analysis stages included in-depth description, semantic coding, categorization, and identification of the main themes related to stunting risk factors. The analysis was conducted manually by a team of three researchers and two transcribers through periodic coding discussion sessions to agree on the initial codes and theme development.

Data validity was ensured through: (1) triangulation of sources and methods (interviews, observations, health documents); (2) peer debriefing among external researchers to verify theme interpretations; (3) member checking by sharing summary findings with participants for confirmation; and (4) researchers' reflective journals to document the analytical decision-making process. This strategy ensures credibility (consistency with the participant's reality), transferability (rich context), dependability (audit trail), and confirmability (minimal researcher bias).

Result and Discussion

Characteristics of families with stunted toddlers

The characteristics of the respondents show that most mothers are of reproductive age (20–35 years old), have a primary to secondary education, and are not formally employed, while fathers generally have a low level of education and work in the informal sector with irregular income. These conditions describe households with limited economic capacity and educational capital, which potentially affect the quality of childcare and infant nutrition practices (Indira, 2017; Ulfah & Nugroho, 2020).

Most children have normal birth weight and length, but many are between 12 and 35 months of age, which is the critical period for stunting when exposure to nutritional deficiencies and infections begins to accumulate (Siswati, 2018). Most families have health

insurance, and some receive government assistance, indicating that they have been identified as vulnerable groups, although there are still gaps in coverage for families who are not yet protected by these social programs (Sahara et al., 2024; Widana et al., 2025) (Table 1).

Table 1. Respondent characteristics (n=9)

Characteristics	n	%
Mother's Age (Years)		
<20	2	22.2
20-35	3	33.3
>35	4	44.4
Father's Age (Years)		
20-35	3	33.3
>35	6	66.7
Mother's education		
No schooling	2	22.2
Elementary	2	22.2
Junior High School/Equivalent	2	22.2
High School/Equivalent	3	33.3
Father's education		
Elementary	4	44.4
Junior High School/Equivalent	4	44.4
High School/Equivalent	1	11.1
Mother's occupation		
Not working (housewife)	7	77.8
Selling (small scale)	2	22
Father's occupation		
Laborer/Construction/Scavenger/Motorcycle Taxi Driver	8	88.9
Contract Employee	1	11
Child No.		
1	2	22.2
2	3	33.3
3	1	11.1
4	1	11.1
≥5	2	22.2
Child's Age (Months)		
0-11	2	22.2
12-23	3	33.3
24-35	4	44.5
Birth Weight		
Normal (≥2.5 kg)	5	55.6
Low birth weight (<2.5 kg)	4	44.4
Birth Length		
Normal (>48cm)	3	33.3
Short (≤48 cm)	6	66.7
Number of Children		
1	1	11.1
2	3	33.3
3	2	22.2
4	1	11.1

≥5	2	22.2
Number of family members (persons)		
≤4	3	33.3
>4	6	66.7
Health Insurance Coverage		
Yes	7	77.8
No	2	22.2
Government assistance		
Yes, available	1	11.1
No	6	66.7
Ever received	2	22.2

In accordance with the data analysis method, this study used thematic analysis with an inductive approach, as proposed by Braun and Clarke. The analysis was conducted in stages through a process of data familiarization, initial coding, grouping codes into potential themes, reviewing and consolidating themes, and naming the final themes based on the recurring patterns of meaning in the data. Through this process, the main themes were constructed in a data-driven manner from the experiences of urban poor families in dealing with stunting in toddlers. The presentation of the themes, subthemes, and respondent quotes below reflects the results of the analysis and shows how family dynamics and structural conditions shape stunting vulnerability in densely populated urban settlements.

Theme 1. "Knowledge Exists, Capabilities Are Limited"

Subtheme	Illustration of Respondent Quotes
Knowing about nutritious foods but unable to afford them	"I know children should eat nutritious side dishes, vegetables, and fruit, but if there is no money, then we just make do with what we have." (R3, mother of a toddler)
Awareness of child health care	"When a child is sick, they should see a doctor, but it's often delayed because of concerns about costs and other needs." (R6, mother of a toddler)
Knowledge does not always translate into practice	"The health center has often informed us, but it is difficult to practice because of household conditions." (R1, mother of a toddler)

Theme 2. "Parenting is Influenced by Family Dynamics and Daily Economics"

Sub-theme	Illustration of Respondent Quotes
Unstable daily income	"My husband does odd jobs, so if he earns money, we eat well, but if not, we eat simply." (R4, mother of a toddler)
Household burdens and number of family members	"There are many children, so food has to be shared; we can't focus on just one child." (R7, mother of a toddler)
Father's role and smoking habits	"Money for cigarettes sometimes comes before buying side dishes." (R2, mother of a toddler)

Theme 3. "Stunting as a Manifestation of Structural Family Powerlessness"

Sub-theme	Illustration of Respondent Quotes
Poor environment and sanitation	"Clean water is hard to come by, the ditch near the house is dirty, and the children are often sick." (R5, mother of a toddler)
Recurrent infections and caregiver fatigue	"My child often has diarrhea and a long-lasting cough; I'm tired of taking them to the doctor, but they only get better for a short time." (R8, mother of a toddler)
Feelings of resignation and dependence on assistance	"We can only hope for government assistance, because our own efforts have reached their limit." (R9, mother of a toddler)

Knowledge without Capacity as the Root of Stunting Vulnerability

The finding that families have basic knowledge about nutrition and child health care but are unable to apply it consistently confirms that maternal knowledge is not the sole determinant of stunted growth. National and international literature shows that improving nutritional knowledge often does not lead to improvements in children's nutritional status when families are living in poverty, food insecurity, and limited access to basic services (Black et al., 2015;

Martony, 2023; Rahmandiani et al., 2019). Global studies have also confirmed that nutrition education interventions have a limited impact on reducing stunting if not combined with nutrition-sensitive interventions, such as social protection, sanitation improvements, and strengthening household food security (Bhutta et al., 2020; Ruel & Alderman, 2015; Smith et al., 2015). The findings of this study enrich the literature by showing that the condition of "knowing but not being able" is the lived experience of urban poor families, thereby strengthening the argument that an educational approach alone is insufficient without sustainable structural support.

Parenting as a Product of Economic Dynamics and Family Relationships

The finding that parenting practices are influenced by daily economic dynamics, family relationships, and job instability confirms that child-rearing does not take place in an individual space but is shaped by the socioeconomic context of the household. International literature shows that economic pressure, informal employment, and income uncertainty limit families' ability to provide nutritious food and consistent parenting (Engle et al., 2019; Smith et al., 2015). Cross-country studies also show that household economic pressures influence feeding practices, childcare time allocation, and family responses to childhood illness, which ultimately impact child growth and development (Grantham-McGregor et al., 2017). Thus, the findings of this study reinforce the argument that nutritional interventions need to consider family dynamics and economic structures, rather than solely targeting behavioral changes in mothers as primary caregivers (Mulyaningsih et al., 2021; Al Rahmad & Annisa, 2025).

Stunting as Structural Powerlessness and Policy Implications

The interpretation of stunting as a manifestation of structural family powerlessness is in line with the social determinants of health approach that has been developed in the international literature. Various global studies have shown that stunting is closely related to structural poverty, an inadequate physical environment, limited access to clean water and sanitation, and weak social protection (Marmot et al., 2016; UNICEF et al., 2023; World Health Organization, 2025). Empirical evidence also shows that exposure to

poor sanitation and recurrent infections contributes significantly to children's linear growth failure, even when nutritional intake is relatively adequate (Cumming & Cairncross, 2016; Smith et al., 2015; Spears, 2015). The findings of this study reinforce the literature by showing how structural vulnerability is experienced in real terms by urban poor families, thus confirming that reducing stunting requires a multisectoral policy response that targets the structural roots of vulnerability rather than just specific nutritional interventions.

Conclusion

This qualitative study shows that the vulnerability to stunting in toddlers in poor urban families is the result of the interaction of internal family factors—such as low education and economic status, suboptimal parenting, and breastfeeding practices—and external factors such as recurrent infections, poor environmental sanitation, and economic instability. These findings confirm stunting as an expression of structural family vulnerability that leads to a condition of "knowing but not being able" to implement child nutrition and health practices, particularly in families with toddlers aged 0–59 months in densely populated residential areas.

Based on these findings, local governments and community health centers need to integrate social assistance with family nutrition counseling for urban poor families, accompanied by improvements in sanitation and access to clean water through cross-sectoral collaboration. Regular counseling by primary health workers and cadres who are sensitive to the local context must be strengthened. Further research is recommended using longitudinal studies or program evaluations to assess the effectiveness of integrated interventions in reducing the prevalence of stunting.

Acknowledgments

We would like to express our gratitude to the various parties who contributed to the implementation of this research. We would like to thank the Director of Poltekkes Tasikmalaya for providing the research funding. We would also like to thank the Head of the Sitopeng Community Health Center and Argasunya Village posyandu

cadres, as well as the students who helped in the implementation of this research.

References

- Al Rahmad, A. H., & Annisa, S. F. (2025). Video animasi sebagai media penyuluhan dapat meningkatkan pengetahuan dan sikap remaja tentang bahaya fast food. *Media Penelitian Dan Pengembangan Kesehatan*, 35(1), 11–18. <https://doi.org/10.34011/jmp2k.v35i1.2054>
- Bayu Prabowo, Y. P. (2023). Risk factors for stunting in toddlers in Indonesia. *Journal of Telenursing (JOTING)*, 5(2), 2275–2283. <https://doi.org/10.31539/joting.v5i2.5928>
- Bhutta, Z. A., Akseer, N., Keats, E. C., Vaivada, T., Baker, S., Horton, S., Katz, J., Menon, P., Piwoz, E., Shekar, M., Victora, C., & Black, R. E. (2020). How countries can reduce child stunting at scale: Lessons from exemplar countries. *The American Journal of Clinical Nutrition*, 112(Suppl 2), 894S–904S. <https://doi.org/10.1093/ajcn/nqaa153>
- Black, R. E., Victora, C. G., Walker, S. P., Bhutta, Z. A., Christian, P., de Onis, M., Ezzati, M., Grantham-McGregor, S., Katz, J., Martorell, R., & Uauy, R. (2013). Maternal and child undernutrition and overweight in low-income and middle-income countries. *The Lancet*, 382(9890), 427–451. [https://doi.org/10.1016/S0140-6736\(13\)60937-X](https://doi.org/10.1016/S0140-6736(13)60937-X)
- Cumming, O., & Cairncross, S. (2016). Can water, sanitation and hygiene help eliminate stunting? Current evidence and policy implications. *Maternal & Child Nutrition*, 12(Suppl 1), 91–105. <https://doi.org/10.1111/mcn.12258>
- Engle, P. L., Menon, P., & Haddad, L. (1999). Care and nutrition: Concepts and measurement. *World Development*, 27(8), 1309–1337. [https://doi.org/10.1016/S0305-750X\(99\)00059-5](https://doi.org/10.1016/S0305-750X(99)00059-5)
- Fahrepi, R., Hamalding, H., & Nurhayati, N. (2025). *The first 1000 days of life: Policy strategies for stunting prevention from conception to toddlerhood*. PT Sonpedia Publishing Indonesia.
- Fikawati, S. (2018). Analysis of risk factors for stunting in toddlers (0–59 months) in developing countries and Southeast Asia. *Media Penelitian dan Pengembangan Kesehatan*, 28(4), 247–256.
- Grantham-McGregor, S., Cheung, Y. B., Cueto, S., Glewwe, P., Richter, L., & Strupp, B. (2007). Developmental potential in the first 5 years for children in developing countries. *The Lancet*, 369(9555), 60–70. [https://doi.org/10.1016/S0140-6736\(07\)60032-4](https://doi.org/10.1016/S0140-6736(07)60032-4)
- Herawati, J., Setiawan, A., & Yamardi. (2025). Community empowerment by Posyandu in stunting prevention in Cibeber Village. *Praxis Idealist: Journal of Government Science Students*, 2(1). <https://doi.org/10.36859/jp.v2i1.4558>
- Indira, P. M. (2017). Parental care capacity and enabling factors in urban poor families. *Indigenous: Jurnal Ilmiah Psikologi*, 2(1). <https://doi.org/10.23917/indigenous.v2i1.4433>
- Maigoda, T. C., Simbolon, D., & Al Rahmad, A. H. (2023). *Recognize stunting early*. NEM Publisher.
- Marmot, M., Allen, J., Bell, R., Bloomer, E., & Goldblatt, P. (2012). WHO European review of social determinants of health and the health divide. *The Lancet*, 380(9846), 1011–1029. [https://doi.org/10.1016/S0140-6736\(12\)61228-8](https://doi.org/10.1016/S0140-6736(12)61228-8)
- Martony, O. (2023). Stunting in Indonesia: Challenges and solutions in the modern era. *Journal of Telenursing*, 5, 1734–1745.
- Ministry of Health of the Republic of Indonesia. (2022). *Pocket book of the 2022 Indonesian nutrition status survey (SSGI) results*.
- Mulyaningsih, T., Mohanty, I., Widyaningsih, V., Gebremedhin, T. A., Miranti, R., & Wiyono, V. H. (2021). Beyond personal factors: Multilevel determinants of childhood stunting in Indonesia. *PLOS ONE*, 16(11), e0260265. <https://doi.org/10.1371/journal.pone.0260265>
- Nurchayani, M., & Chandra, A. (2023). Analysis of the causes of stunting in early childhood. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 7(3), 3840–3849. <https://doi.org/10.31004/obsesi.v7i3.4717>
- Rahman, H. N., Nugrahani, C. I., Ferdina, C. S., Christiana, E., Sari, A. P., Iszakayah, N., Amin,

- E. S., & Rahman, T. (2023). *Preventing stunting as an effort to create a golden generation*. NEM Publisher.
- Rahmandiani, R. D., Astuti, S., & Susanti, A. I. (2019). The relationship between toddler mothers' knowledge of stunting and mother characteristics and information sources in Hegarmanah Village, Jatinangor District, Sumedang Regency. *Journal of Health Systems*, 5(2), 74–80. <https://doi.org/10.24198/jsk.v5i2.25661>
- Rasidah, R., Nuraskin, C. A., Al Rahmad, A. H., Reza, R., Salfiyadi, T., Mardiah, A., & Usrina, N. (2025). Pencegahan stunting melalui edukasi gizi seimbang dan pemanfaatan pekarangan untuk kebun gizi dan toga di Desa Bayu, Kecamatan Darul Imarah, Aceh Besar. *Jurnal PADE: Pengabdian & Edukasi*, 7(2), 81–86. <https://doi.org/10.30867/pade.v7i2.272>
- Ruel, M. T., & Alderman, H. (2013). Nutrition-sensitive interventions and programmes: How can they help to accelerate progress in improving maternal and child nutrition? *The Lancet*, 382(9891), 536–551. [https://doi.org/10.1016/S0140-6736\(13\)60843-0](https://doi.org/10.1016/S0140-6736(13)60843-0)
- Sagita, S., & Siregar, K. N. (2022). Faktor-faktor Risiko Stunting pada Balita di Indonesia: Suatu Scoping Review. *Media Publikasi Promosi Kesehatan Indonesia*, 5(6), 654–661. <https://doi.org/10.56338/mppki.v5i6.2289>
- Sahara, N. M., Handayani, D., & Santoso, M. (2024). The impact of social assistance programs as nutrition-sensitive interventions on stunting status in toddlers. *Indonesian Health Economics Journal*, 9(1). <https://doi.org/10.7454/eki.v9i1.1034>
- Siswati, T. (2018). *Stunting*. Husada Mandiri.
- Smith, L. C., Ruel, M. T., & Ndiaye, A. (2005). Why is child malnutrition lower in urban than rural areas? Evidence from 36 developing countries. *World Development*, 33(8), 1285–1305.
- Spears, D. (2013). *How much international variation in child height can sanitation explain?* (Policy Research Working Paper No. 6351). World Bank. <https://documents1.worldbank.org/curated/en/449651468191643600/pdf/wps6351.pdf>
- Ulfah, I. F., & Nugroho, A. B. (2020). Examining health development challenges in Indonesia: Factors causing stunting in Jember Regency. *Jurnal Sosial Politik*, 6(2), 201–213. <https://doi.org/10.22219/sospol.v6i2.12899>
- UNICEF, World Health Organization, & World Bank Group. (2023). *Levels and trends in child malnutrition: UNICEF/WHO/World Bank Group joint child malnutrition estimates (2023 edition)*. <https://data.unicef.org/wp-content/uploads/2023/05/JME-2023-Levels-and-trends-in-child-malnutrition.pdf>
- UNICEF, World Health Organization, & World Bank Group. (2025). *Levels and trends in child malnutrition: UNICEF/WHO/World Bank Group joint child malnutrition estimates (2025 edition)*. <https://data.unicef.org/resources/jme/>
- Widana, A. R., Syukur, M., & Srifridayanti. (2025). Implementation of sensitive intervention policies in efforts to reduce stunting rates in Donggala Regency. *Journal of Social Sciences and Education*, 5(6). <https://doi.org/10.36418/syntaximperatif.v5i6.630>