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A Demographic Analysis of Stunting Issues in Relation to The Individuals Antenatal Care Services

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A B S T R A C T

Quality prenatal examinations can aid in the early detection of nutritional issues and provide necessary interventions. The standard for Antenatal Care (ANC) in Indonesia has been established to include a minimum of six visits throughout pregnancy, with a focus on monitoring maternal and fetal health. This study analyzes the demographic factors of maternal age, parity, gestational age, and occupation in relation to the individuals' ANC services and the incidence of stunting. The design of this study is a case-control study (1:1) with a total sample size of 212. The results indicated that maternal age, parity, gestational age, and occupation correlated with the individuals' ANC services. Maternal age during pregnancy exhibited a significant relationship with individuals' ANC service ($p = 0.001$; OR = 4.71), parity ($p = 0.001$; OR = 6.11), maternal gestational age ($p = 0.002$; OR = 3.80), maternal occupation ($p = 0.001$; OR = 4.25), and individuals' ANC services ($p = 0.001$) concerning the occurrence of stunting. It is recommended to prioritize the enhancement of ANC services according to established standards, including routine examinations, monitoring of fetal growth, provision of appropriate health Education during pregnancy, and support from skilled healthcare professionals, to prevent complications and stunting.

Introduction

Stunting is a condition characterized by growth failure in children, resulting from prolonged and chronic nutritional deficiencies during the critical period for physical and neurological development, specifically the First 1000 Days of Life (HPK), which encompasses the duration of pregnancy until the child reaches the age of two years (0-59 months) (Irab et al., 2022; Vaivada et al., 2020). This period is referred to as the golden phase of growth (Hijrawati et al., 2021). Nutritional deficiencies in children often originate from inadequate nutritional intake during pregnancy, which leads to diminished cognitive abilities, an increased risk of stunting, and, in adulthood, a heightened susceptibility to chronic diseases (Simbolon et al., 2022). This will Influence the quality of a nation's human resources, as it is reflected in the magnitude of the stunting issue, given that stunting has severe repercussions that are detrimental both in the short and long term (Nugraheni et al., 2023). Recent studies have revealed a strong correlation between stunting and an increase in morbidity, mortality, and a decline in quality of life (Montenegro et al., 2022).

The Indonesian government continues to endeavor to reduce the prevalence of stunting, with South Kalimantan, North Kalimantan, and South Sumatra emerging as the three provinces that have achieved the most significant reductions in stunting rates. (Health of Ministry, 2022). In Indonesia, the prevalence of stunting remains a grave issue that demands particular attention, especially in comparison to other ASEAN countries, particularly in remote areas (Gebrie & Benti, 2020). The prevalence of stunting in Indonesia remains higher when compared to Vietnam (22.3%), Malaysia (20.9%), Thailand (12.3%), and Singapore (2,8%) (UNICEF, 2020). The Indonesian Nutrition Status Survey (SSGI) 2022 reveals that, despite a decrease in the stunting rate from 24.4% in 2021 to 21.6% in 2022, certain regions have experienced an increase in stunting rates. Five provinces have shown a rising trend in prevalence: Papua (5.1%), West Papua (3.8%), West Sumatra (1.9%), West Nusa Tenggara (1.3%), West Sulawesi (1.2%), and East Kalimantan (1,1%) (Health of Ministry, 2022; Nugraheni et al., 2023). Furthermore, provinces such as Papua and West Papua, experiencing an increase in stunting prevalence, underscore the necessity for a more focused and adaptive approach that caters to local needs.

Two factors can Influence the stunting condition in toddlers: direct and indirect factors. Direct factors include infectious diseases and nutritional intake, while indirect factors encompass the nutritional status of pregnant women, healthcare services, hygiene, sanitation, and demographic location (Adebisi et al., 2019; Irab et al., 2022). One of the key indicators of an effectively functioning healthcare system is the equitable access to health services (Adebisi et al., 2019). The quality of antenatal care (ANC) or pregnancy examinations should not be assessed merely by coverage and service provision; it is crucial to monitor the quality of ANC provided during pregnancy. The standard for ANC services must encompass at least 10 essential components, with a minimum of six visits throughout the pregnancy. The World Health Organization (WHO) recommended in 2021 that a minimum of eight ANC visits be made during pregnancy. Currently, Indonesia stipulates a minimum of six visits: two during the first trimester, one in the second trimester, and three in the third trimester. (Magasida & Erawati, 2022; Otundo Richard, 2019).

In recent years, numerous studies have been conducted to understand the factors contributing to stunting, including sociodemographic factors. Research by (Wahyuni et al., 2021) Indicates that good access to antenatal care (ANC) can significantly reduce the risk of stunting; mothers with non-standard ANC visits face a 2.1-fold higher risk of stunting compared to those without stunting. These authors are interested in analyzing the sociodemographic factors associated with cases of stunting and the utilization of ANC services among individuals.

Method

The type of research conducted is an observational study designed as a case-control study. The research was conducted at community health centers in Sorong City, distributed across six districts: Sorong Health Center, West Sorong Health Center, Tanjung Kasuari Health Center, Remu Health Center, Malawei Health Center, and Klasaman Health Center, from July to October 2024. The sample ratio for cases to controls is 1:1 (106 mothers with stunted toddlers to 106 mothers without stunted

toddlers), resulting in a total sample size of 212. This study aims to identify the relationship between sociodemographics, particularly maternal age, parity, gestational age, and occupation, to inform the individuals' ANC services and formulate more effective intervention strategies to mitigate stunting. The cases in this study comprise all mothers with children experiencing stunting whos taken ANC at the community health centers in Sorong City, selected through purposive sampling from the six districts based on the number of observed cases until the requisite sample size was achieved, which is Sorong (20), West Sorong (25), Tj Kasuari (20), Remu (16), Malawei (10), and Klasaman (15), also for the control group was taken at the same number in each places. The instruments data collection involved a questionnaire assessing the individual standards of ANC services, consisting of 14 yes/no questions, with a benchmark for standardized ANC set at over 85% affirmative responses. The questionnaire yielded a Cronbach's alpha value of 0.709. This research has been approved by the Research Ethics Committee at Poltekkes Kemenkes Bengkulu, with the approval number KEPK.BKL/238/05/2024.

Results

Table 1. Distribution of Characteristics Among the Case and Control Groups in Relation to Individuals' ANC Services

Characteristics of respondents	Non-standardized ANC				Standardized ANC				Total (n=212)	%
	Cases (n=66)	%	Controls (n=31)	%	Cases (n=40)	%	Controls (n=75)	%		
Maternal Age										
21-35 years	33	63.5	24	30.8	19	36.5	54	69.2	130	61.4
<20 or >36 years	33	61.1	7	25.0	21	38.9	21	75.0	82	38.6
Parity										
Primi/multiparous (≤2)	45	63.4	15	22.1	26	36.6	53	77.9	139	65.6
Grandmultiparous (≥3)	21	60.0	16	42.1	14	40.0	22	57.9	73	34.4
Gestational age										
Preterm	36	58.1	12	26.7	26	41.9	33	73.3	107	50.5
Term	30	68.2	14	31.1	14	31.8	31	68.9	89	41.9
Postterm	0	0.0	5	31.3	0	0.0	11	68.8	16	7.6
Maternal working status										
Not working	57	64.0	18	29.5	9	52.9	13	28.9	150	70.7
Working	9	52.9	13	28.9	8	47.1	32	71.1	62	29.3

The majority of mothers ages 21 to 35 years, 130 (61.4%), among the group of mothers with stunted children, 33 (63.5%), did not receive standardized individual ANC. In the age of mothers younger than 20 or older than 36, out of 82 mothers (38.6%), it was noted that 33 (61.1%) from the case group also did not have access to standardized individual ANC. Additionally, the majority are either primiparous or multiparous, comprising 139 individuals (65.6%). It was found that 45 (63.4%) of the primi/multiparous mothers belong to the case group lacking standardized ANC. Furthermore, among the grandmultiparous mothers, a total of 73 mothers (34.4%) were identified, of whom 21 (60%) from the case group did not receive standardized individual ANC. Next, the majority of gestasional ages mothers, totaling 107 (50.5%), have given birth to preterm, 26 mothers (58.1%) did not receive standardized ANC, the mothers who delivered at term, 30 (68.2%) belong to the case group and similarly did not have access to standardized ANC, and 11 mothers (68.8%) who have delivered post-term, they are from the control group and have received standardized individual ANC services. Regarding the employment characteristics of mothers, the predominant group consists of homemakers, totaling 150

(70.7%). In the case group, 57 mothers (64%) did not receive ANC that met the established standards, while only 9 (52.9%) employed mothers received non-standardized ANC from a total of 62 (29.3%) individuals.

Table 2. The Relationship Between Demographic Characteristics and the Quality Standards of ANC

Variables	Total		
	p-value	Odds Ratio	95% CI
Maternal Age	<.001*	4.71	1.708-13.01
Parity	<.001*	6.11	2.890-12.93
Gestational age	0.002**	3.80	1.658-8.743
Maternal working status	<.001*	4.25	2.113-8.570

**Uji pearson chi-square and **Fisher's exact test*

Furthermore, the results of the bivariate statistical analysis indicate that the respondents' characteristics—maternal age, parity, gestational age, and employment—are correlated with the quality standards of antenatal care (ANC). Maternal age during pregnancy (for both the case and control groups) shows a significant association with the quality of standardized ANC services (p-value < .001), OR = 4.71, and a 95% confidence interval (CI): 1.708 – 13.01. Similarly, the characteristic of parity is statistically significant (p-value < .001); OR = 6.11; 95% CI. Additionally, maternal gestational age is statistically associated with the quality standards of ANC services (p-value = 0.002); OR = 3.80; 95% CI: 1.658–8.743. Maternal employment status also correlates with the quality of ANC services in the case study group, as statistically tested (p-value < .001); OR = 4.25; 95% CI: 2.113–8.570.

The outcomes of the analysis comparing the case group—mothers with children suffering from stunting—with the control group are presented in Table 3 below.

Table 3. The Relationship Between Mothers Who Have Children with Stunting and the Individuals ANC Services for Individuals.

Variables	Individuals ANC services				Total		
	Standardized	%	Non-standardized	%	p-value	OR	95% CI
Cases (Mothers who have children with stunting)	66	68.0	40	34.8			
Controls (Mothers whose children are not stunting)	31	32.0	75	65.2	<.001	3.992	2.249±7.086
Total	97	100	115	100			

The results indicate a significant correlation between the quality of both standard and non-standard ANC services (p-value < 0.001; OR = 3.992; 95% CI: 2.249–7.086). Among a total of 212 participants (cases and controls), it was noted that 97 mothers received ANC services that met the standards, while 115 mothers did not receive standardized ANC. Among these, 40 (34.8%) mothers had children experiencing stunting, while 75 (65.2%) were from the group whose children were not stunted. A particularly noteworthy finding from this study is that among the 97 mothers who received standardized ANC services, 66 (68.0%) had children who were affected by stunting, whereas 31 (32.0%) had children who were not stunted.

Discussion

In this study, individuals aged between 21 and 35 years are often considered optimal for pregnancy, as mothers tend to be more physically and emotionally mature. However, it is noteworthy that among the mothers whose children experienced stunting, 33 individuals (63.5%) did not receive

individual standardized ANC services. This underscores a significant correlation between maternal age and access to adequate healthcare services, which is crucial for ensuring the health of both mothers and their children. Research by Fatkhiyah et al. (2020), indicates that the majority of pregnant mothers in the 20-35 year age range regularly make a minimum of four ANC visits throughout their pregnancy. This finding is attributed to the fact that these mothers fall within a healthy reproductive age; thus, women in this age bracket exhibit a pronounced curiosity and concern for their pregnancies, accompanied by a heightened awareness of the importance of regular ANC visits. A similar study conducted by Laksono et al. (2020) identified age groups as predictors of antenatal care (ANC) utilization, noting that the youngest age group exhibited a lower probability of attending more than four ANC visits. This may be attributed to a lack of experience, resulting in diminished knowledge regarding health risks (Laksono et al., 2020). Additionally, this reproductive age marks a period during which women tend to become more attentive and critical of the situations they encounter, particularly when receiving pregnancy care services that adhere to established standards.

An excessively young age is often associated with higher health risks for both the mother and the child. A study conducted in India explored the relationship between child marriage and the utilization of health services, concluding that numerous challenges exist; greater efforts are required to ensure that child marriage positively impacts the already minimal utilization of maternal health services (Paul & Chouhan, 2019). Young mothers may lack the knowledge and skills necessary to adequately care for themselves and their children, which can contribute to the incidence of stunting (Mehta et al., 2022; Wahyuni et al., 2021). Conversely, older mothers may face distinct health challenges, such as chronic health issues, that can also affect the quality of care they receive. In the context of maternal and child health, maternal age emerges as a critical factor influencing the quality of ANC services and the occurrence of stunting in children. Research indicates that mothers aged between 21 and 35 tend to have better access to healthcare services and the necessary information for maintaining their health during pregnancy (Suprapti et al., 2022; Wahyuni et al., 2021). This starkly contrasts with mothers under 20, who are often still in stages of personal development and may be less physically and mentally prepared for motherhood.

The individual standardized ANC encompasses a series of examinations and interventions designed to monitor the health of both mother and fetus, including physical assessments, laboratory tests, and counseling on nutrition and health (Hamidiyah & Hidayati, 2018; Suprapti et al., 2022). The inability or powerlessness to access these services can stem from various factors, including a lack of knowledge, geographical limitations, or economic issues. Previous research suggests that mothers residing in remote areas may face challenges in accessing adequate healthcare facilities, which can reduce their likelihood of receiving ANC services (Mehta et al., 2024). The relationship between parity and the individual standards of ANC in relation to the incidence of stunting represents a crucial topic within the realm of maternal and child health. Parity, defined as the number of children a mother has given birth to, can significantly Influence access to and the quality of healthcare services received during pregnancy. Research by Nainggolan & Harista (2021) suggests that higher parity correlates with an

increased likelihood of inadequate ANC services. The findings reveal a statistically significant relationship between parity and ANC quality, with a p-value of less than 0.001 and an Odds Ratio (OR) of 6.11. This indicates that mothers with high parity are six times more likely to lack access to standardized ANC services compared to those with lower parity. This underscores the urgent need for more targeted interventions for mothers with high parity to facilitate access to the necessary healthcare services to prevent health issues in children, such as stunting.

The results of this study reveal that the relationship between gestational age and the individual standards of ANC services is starkly evident in the context of stunting incidence. Mothers who do not receive standardized ANC are likely to face a higher risk of delivering preterm infants or failing to obtain the essential care required postpartum, which can lead to growth issues such as stunting (Fatkhiyah et al., 2020). Preterm infants are at an increased risk for long-term health complications, including stunting (Vaivada et al., 2020). Comparable research indicates that stunting is a condition where a child experiences impaired growth due to chronic nutritional deficiencies, often rooted in issues that arise during pregnancy (Siramaneerat et al., 2023). This underscores that inadequate access to proper healthcare during pregnancy can contribute to the risk of preterm birth (Mehta et al., 2024). Therefore, healthcare systems must ensure that all mothers have adequate access to ANC services to mitigate the risk of preterm births and support healthy growth for their children. Such initiatives will not only enhance the health of mothers and children but also contribute to improving the quality of future generations (Handayani, 2023).

The data indicate that the maternal working status significantly impacts the individual of ANC services they receive, which, in turn, can Influence the incidence of stunting in children. A homemaker may struggle to schedule visits to healthcare facilities due to her responsibilities at home, such as caring for children or managing household tasks. This inability can result in delays in identifying potential health issues that may arise during pregnancy, which is crucial for preventing complications that could affect the child's development. Furthermore, working mothers, despite making up a smaller percentage (29.3%), tend to possess a greater understanding of the importance of ANC and nutrition during pregnancy. Only 52.9% of employed mothers received non-standardized ANC, indicating that they are more likely to seek out better information and healthcare services. Similar research suggests that a mother employed in the healthcare or Education sector may be more aware of the significance of regular check-ups during pregnancy and how such measures can prevent stunting in children (Kustanto et al., 2025). Mothers who do not receive adequate ANC may lack sufficient information on the importance of balanced nutrition for their children's growth (Simbolon et al., 2022). Such knowledge is often acquired through formal Education or workplace training, which provides them with access to relevant and current information regarding maternal and child health.

In the realm of maternal and child health, ANC services play an unequivocally vital role in safeguarding the health and well-being of both mothers and their newborns. The quality of ANC services rendered can directly influence various health outcomes, including the incidence of stunting in children (Simbolon et al., 2022). The conducted research reveals a significant correlation between individuals

who receive standardized ANC services and the occurrence of stunting in children. This indicates that mothers who receive standardized ANC services are considerably more likely to have children who do not experience stunting. Standardized ANC typically encompasses a range of essential components, including routine health check-ups, fetal growth monitoring, nutritional counseling, and Education on child care (Wahyuni et al., 2021). Through standardized ANC, pregnant mothers are informed about the importance of balanced nutritional intake during pregnancy, which contributes to healthy fetal development. Further analysis indicates that the quality of ANC services is intertwined not only with medical aspects but also with social and economic factors (Kustanto et al., 2025). Mothers from better economic backgrounds tend to have greater access to healthcare services, including ANC (Fitriani et al., 2024), are equipped with accurate information, maintain adequate nutritional intake during pregnancy, and receive necessary medical care. Conversely, mothers from economically disadvantaged backgrounds may confront various obstacles, such as high healthcare costs, lack of transportation, or even difficulty comprehending the health information provided.

The relationship between individuals' ANC services and the incidence of stunting in children is a complex and multidimensional issue. This study has its limitations and is expected to be further developed with a focus on nutritional education, healthcare accessibility, and support for pregnant mothers from diverse socioeconomic backgrounds.

Conclusions

The research findings conclude that the demographic analysis of stunting issues—encompassing maternal age, parity, gestational age, and employment—correlates with the individuals ANC services. Moreover, these quality standards can directly impact various health aspects, including the occurrence of stunting.

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References

Adebisi, Y. A., Ibrahim, K., Lucero-Prisno, D. E., Ekpenyong, A., Micheal, A. I., Chinemelum, I. G., & Sina-Odunsi, A. B. (2019). Prevalence and Socio-economic Impacts of Malnutrition Among Children in Uganda. *Nutrition and Metabolic Insights*, *12*. https://doi.org/10.1177/1178638819887398

Fatkhiyah, N., Rejeki, S. T., & Atmoko, D. (2020). Kepatuhan Kunjungan Antenatal Care Berdasarkan Faktor Maternal. *Jurnal SMART Kebidanan*, *7*(1), 29. https://doi.org/10.34310/sjkb.v7i1.339

Fitriani, F. D., Sunarsih, T., & Yulaikhah, L. (2024). The Association of Occupation and Income with The Incidence of Stunting. *EMBRIO: Jurnal Kebidanan, 16(*2), 147-154. https://doi.org/10.36456/embrio.v16i2.9296.

Gebrie, M., & Benti, A. (2020). Stunted Toddler in Eastern Indonesia. *Academicjournals.Org*, *13*(1), 1–15. https://www.researchsquare.com/article/rs-104902/latest.pdf

Hamidiyah, A., & Hidayati, N. (2018). KUALITAS ANTENATAL CARE DENGAN KEPUASAN IBU HAMIL. *Oksitosin : Jurnal Ilmiah Kebidanan*, *5*(2), 119–125. https://doi.org/10.35316/oksitosin.v5i2.353.

Handayani, S. (2023). Selamatkan Generasi Bangsa Dari Bahaya Stunting. *Journal of Midwifery Science and Women's Health*, *3*(2), 87–92. https://doi.org/10.36082/jmswh.v3i2.1082

Health of Ministry. (2022). Angka stunting SSGI 2021 dan 2022 setiap provinsi. In *Buku Saku Hasil Studi Status Gizi Indonesia Tahun 2021* (p. 30).

Hijrawati, Usman, A. N., Syarif, S., Hadju, V., As'ad, S., & Baso, Y. S. (2021). Use of technology for monitoring the development of nutritional status 1000 hpk in stunting prevention in Indonesia. *Gaceta Sanitaria*, *35*. https://doi.org/10.1016/j.gaceta.2021.10.028

Irab, S. P., Hasmi, Bouway, D. Y., Makaba, S., Rachmat, M., Medyati, N., & Ishak, H. (2022). Changes In The Prevalence Of Stunting Among Toddlers In Papua, West Papua, And Maluku Provinces In Indonesia. *Journal of Pharmaceutical Negative Results*, *13*(9), 6235–6242. https://doi.org/10.47750/pnr.2022.13.S09.743

Kustanto, A., Rachmat, O., & Setyadi, S. (2024). The Prevalence of Stunting in Indonesia: An Examination of the Health, Socioeconomic Status, and Environmental Determinants. *Journal of Iranian Medical Council*, *8*(1), 67–79. https://doi.org/10.18502/jimc.v8i1.17062

Laksono, A. D., Rukmini, R., & Wulandari, R. D. (2020). Regional disparities in antenatal care utilization in Indonesia. *PLoS ONE*, *15*(2), 1–13. https://doi.org/10.1371/journal.pone.0224006

Magasida, D., & Erawati, E. (2022). Hubungan antenatal care terhadap kejadian stunting pada balita usia 24-59 bulan. *Midwife's Research*, *11*(1), 1–27.

Mehta, K., Mukherjee, S. G., Bhattacharjee, I., Fate, K., Kachwaha, S., Kant, A., Banerjee, M., & Shet, A. (2022). Systems strengthening approach during antenatal care improves maternal nutrition and reduces childhood stunting in West Bengal, India. *MedRxiv*, 2022.10.14.22281107. http://medrxiv.org/content/early/2022/10/17/2022.10.14.22281107.abstract

Mehta, K., Mukherjee, S. G., Bhattacharjee, I., Fate, K., Kachwaha, S., Rajeev, T., Kant, A., Banerjee, M., & Shet, A. (2024). Functional integration of services during the antenatal period can potentially improve childhood growth parameters beyond infancy: findings from a post-interventional follow-up study in West Bengal, India. *BMC Nutrition*, *10*(1), 1–9. https://doi.org/10.1186/s40795-024-00918-x

Montenegro, C. R., Gomez, G., Hincapie, O., Dvoretskiy, S., DeWitt, T., Gracia, D., & Misas, J. D. (2022). The pediatric global burden of stunting: Focus on Latin America. In *Lifestyle Medicine* (Vol. 3, Issue 3). https://doi.org/10.1002/lim2.67

Nainggolan, S. S., & Harista, J. (2021). Faktor Yang Berhubungan Dengan Antenatal Care Pada Ibu Hamil : Literature Review. *Jurnal 'Aisyiyah Medika*, *6*(2). https://doi.org/10.36729/jam.v6i2.654

Nugraheni, W. P., Mahmudiono, T., Faisal, D. R., Purwatiningsih, Y., Lestyoningrum, S. D., Yulianti, A., Nainggolan, O., & Abihail, C. T. (2023). Poor and Uneducated Parents Increased the Risk of Stunting among Children Living in Non-Remote Areas of Indonesia. *Research Square*, 1–12. https://doi.org/10.21203/rs.3.rs-2537611/v1

Otundo Richard, M. (2019). WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience in Kenya. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3449460

Paul, P., & Chouhan, P. (2019). Association between child marriage and utilization of maternal health care services in India: Evidence from a nationally representative cross-sectional survey. *Midwifery*, *75*, 66–71. https://doi.org/10.1016/j.midw.2019.04.007

Simbolon, D., Soi, B., Ludji, I. D. R., & Bakoil, M. B. (2022). Pendampingan Gizi Spesifik dan Perilaku Ibu dalam Pola Asuh Anak Stunting Usia 6-24 Bulan. *Jurnal Promosi Kesehatan Indonesia*, *17*(1), 13–24. https://doi.org/10.14710/jpki.17.1.13-24

Simbolon, D., Yuliantini, E. ., Yusmidiarti, Batbual, B., Ludji, I. D. R. ., & Eliana. (2022). PENINGKATAN PERILAKU IBU DENGAN ANAK STUNTING USIA 0-24 BULAN MELALUI PENDAMPINGAN OLEH KADER KESEHATAN MENUJU KAMPUNG KB

BEBAS STUNTING . *Panrita Abdi - Jurnal Pengabdian Pada Masyarakat*, *6*(4), 915–926. https://doi.org/10.20956/pa.v6i4.13422

Siramaneerat, I., Astutik, E., Agushybana, F., Bhumkittipich, P., & Lamprom, W. (2023). *Breaking the Cycle of Stunted Growth: Identifying Key Factors in Indonesian Children Using Indonesia Family Survey (IFLS) 2007 and 2014 Data*. 1–18.

Suprapti, S., Handajani, D. O., Rokani, R., & Sari, N. (2022). Faktor – Faktor Yang Berhubungan Dengan Rutinitas Kunjungan Ulang Ibu Hamil Dalam Pemeriksaan Antenatal Care (Anc) Pada Masa Pandemi Covid-19. *Jurnal Keperawatan Suaka Insan (Jksi)*, *7*(2), 157–162. https://doi.org/10.51143/jksi.v7i2.365

UNICEF. (2020). Levels and trends child malnutrition: UNICEF/WHO/World Bank Group Joint Child Malnutrition Estimates. *Geneva: WHO*, *24*(2).

Vaivada, T., Akseer, N., Akseer, S., Somaskandan, A., Stefopulos, M., & Bhutta, Z. A. (2020). Stunting in childhood: An overview of global burden, trends, determinants, and drivers of decline. *American Journal of Clinical Nutrition*, *112*, 777S-791S. https://doi.org/10.1093/ajcn/nqaa159

Wahyuni, E., Erye Frety, E., & Atika. (2021). Relationship of Quality of Antenatal Care (ANC) To Stunting Events in Children Age 24-59 Months in Indonesia Using Literature Review Method. *MIKIA: Mimbar Ilmiah Kesehatan Ibu Dan Anak (Maternal and Neonatal Health Journal)*, *0825*, 65–75. https://doi.org/10.36696/mikia.v5i1.61