Poltekita: Jurnal Ilmu Kesehatan
http://jurnal.poltekkespalu.ac.id/index.php/JIK

Vol.17 No.1 May 2023: Hal. 155-164
p-ISSN: 1907-459X e-ISSN: 2527-7170

Original Article

Determinants of Unmet Need of Married Women in Efforts to Reduce Unmet Need in West Sulawesi

Sukardi[1*], Mardioyono[1], Irma Muslimin[2,3], Nurbaya[2,4]

[1] Population Research Center BRIN, Jakarta, Indonesia
[2] Center for Stunting Studies, Poltekkes Kemenkes Mamuju, Mamuju, Indonesia
[3] Department of Nursing, Poltekkes Kemenkes Mamuju, Mamuju, Indonesia
[4] Department of Nutrition, Poltekkes Kemenkes Mamuju, Mamuju, Indonesia

(Correspondence author's e-mail, suka015@brin.go.id / +62 813-5576-2916)

ABSTRACT

Reducing the number of unplanned pregnancies is one way to improve the standard of family planning programs. Unplanned pregnancies due to an unmet need for family planning are one of the factors contributing to the increase in IMR and MMR rates and an increase in the population. This study aimed to analyze what factors are related to the incidence of unmet need for family planning and strategies to accelerate the decline in unmet need for family planning in West Sulawesi Province using the 2021 Family Data Collection data set. The research method used is quantitative with a cross-sectional design on chi analysis-square and quadrant analysis using the 2021 Family Data Collection data set with a total sample of 185,132 couples of childbearing age in the province of West Sulawesi. The study found that education level, employment status, age, and the number of children born alive to couples of childbearing age were significantly related to the incidence of unmet need in West Sulawesi with a p-Value of 0.000 and two districts which were the top priority in accelerating the reduction of unmet need for family planning are Mamuju and Polewali Mandar Regency according to quadrant analysis. The results of this research can provide recommendations for mapping targets and areas to stakeholders to accelerate the reduction of unmet needs for family planning in West Sulawesi.

Keywords: Strategy, Decline, Unmet Need for Family Planning.
https://doi.org/10.33860/jik.v17i1.2117

INTRODUCTION

Population problems in Indonesia, especially concerning population quantity, are still very high. It is due, in part, to the still high incidence of unmet need by couples of childbearing age. Unmet need KB is one of the leading indicators that BKKBN must achieve in implementing the Family Development, Population, and Family Planning Program[1]. Family planning needs that are unmet threaten the quality and quantity of the population because this couple is of childbearing age. They don't want any more children or want to delay the birth of their child, but they don't use contraceptives, so one day, this couple can get pregnant without planning[2,3,4].

Reducing the number of unplanned pregnancies is one way to raise the standard of family planning programs. Unplanned pregnancies due to unmet needs for family planning contribute to population growth and increased infant and maternal mortality. Suppose a married woman becomes pregnant and has not previously used contraception but does not wish to become pregnant. In that case, it may be considered an "unmet need" situation and an unplanned pregnancy[5].

In Nigeria and other poorer countries, the majority of women do not use a contraceptive method, however, some of them are sexually active, fertile, and want to avoid

pregnancy,[7] Likewise, in Indonesia, many couples of childbearing age still want to delay pregnancy and terminate their pregnancies. Still, the need for contraceptive methods is not fulfilled for various reasons.

Data from the 2017 Indonesian Demographic and Health Survey shows the percentage of unmet needs among married women aged 15-49 years in West Sulawesi Province is 14.2%. 7.4% for delaying births, and 6.9% for limiting births[8]. Meanwhile, data from the 2019 Program Performance and Accountability Survey (SKAP) showed that the incidence of unmet need for family planning among married women continued to increase, which was recorded at 17.2% above the national figure of 12.1%[9].

West Sulawesi Province is still listed as a province with an Unmet Need for Family Planning rate above the national average of 22.10% of the target set at 12.96%[1]. This achievement is undoubtedly very far from the target, which is the benchmark for the success of the Family Development, Population, and Family Planning (Bangga Kencana) program. Therefore the analysis is urgently needed to accelerate the reduction in unmet need for family planning in West Sulawesi.

The impact on the family due to an unplanned pregnancy due to unmet need is many. First, in terms of an inappropriate pregnancy in terms of mental readiness or a mistimed pregnancy (mistimed pregnancy), which can be interpreted as a woman of childbearing age who is not ready in terms of time to get pregnant because she still wants to postpone her pregnancy[10]. High birth rates, unplanned pregnancies, and unsafe abortions are the main effects of unmet family planning needs[2]. Another lousy impact of the high incidence of unmet need for family planning is unwanted pregnancies (unwanted pregnancies). Unwanted pregnancies can increase the death of the mother and baby if not treated immediately[11].

Based on the above data, the high unmet need for family planning is still a benchmark for the success of the proud Kencana program. Therefore it is crucial to analyze what factors are related to the incidence of Unmet Need for Family Planning and strategies to accelerate the reduction of the incidence of Unmet Need for Family Planning in West Sulawesi.

METHODS

The research method was a cross-sectional design to study the correlation between independent and dependent factors with chi-square analysis and quadrant analysis using the 2021 Family Data Collection data with a sample of 185,132 couples of childbearing age in West Sulawesi which is Indonesian family census data collected by nationally and simultaneously through house-to-house visits by trained cadres of assessors from June to September 2021 targeting all Indonesian families.

The independent variables in this analysis were education level, working status, age, and the number of live births on the dependent variable of unmet need for family planning, which will then become the basis for formulating a strategy to accelerate the reduction of unmet need for family planning in West Sulawesi Province in the intervention of mapping priority targets in cultivation.

The education level category was divided into three categories with the details that low education with code 1 is a respondent who has never attended or graduated from elementary school. Secondary education with code 2 are respondents who have completed junior high school and high school education, and higher education with code 3 are respondents who have completed education at the tertiary level starting from diploma one. The working status category is divided into 2, namely respondents with working and non-working status.

The age categories are divided into 7, namely the age group 15-19 with code 1, the age group 20-24 with code 2, the age group 25-29 with code 3, the age group 30-34 with code 4, the age group 35-39 with code 5, age group 40-44 with code 6 and age group 45-49 with code 7.

The number of children born alive is divided into two categories: respondents with the number of children born less than or equal to 2 with code 1 and respondents with the number of children born alive above two children with code 2.

The analysis used is first; univariate to explain or describe the characteristics of each variable studied. Second, Bivariate analysis to see the relationship between one independent variable and the dependent variable. Third,

quadrant analysis is to know the mapping of priority target areas for cultivation to develop a strategy to accelerate the reduction of unmet need for family planning.

Analysis Units

The unit of analysis used in the 2021 Family Data Collection data set for West Sulawesi Province with unit of analysis as shown below:

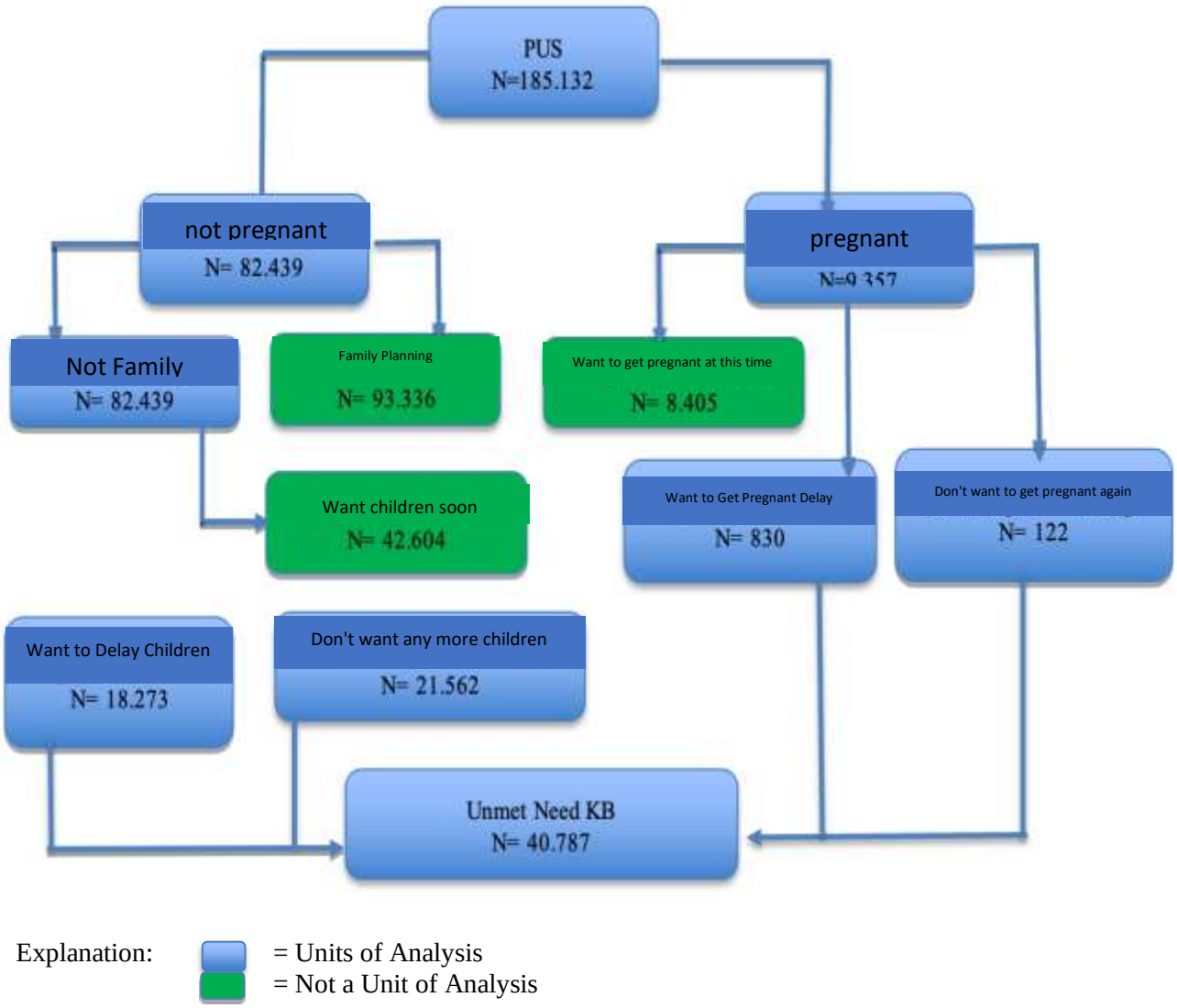


Figure 1. Determinant analysis unit of unmet need KB

RESULTS

Based on the results of the univariate analysis of the characteristics of couples of childbearing age based on their level of education, it shows that 47% of couples of childbearing age have low education, 42% have secondary education, and 11 percent have higher education, as shown in table 1 below:

Table 1. Characteristics of Respondents' Reproductive Age Couples.

Characteristics	n	%
Level of education		
Low	86362	46,6
Middle	77601	41,9
Higher	21169	11,4
Working Status		
Working	42389	22,9
Not working	142743	77,1
Age Group		
15-19	3151	1,7
20-24	18256	9,9
25-29	30154	16,3
30-34	34811	18,8
35-39	36313	19,6
40-44	39696	21,4
45-49	22751	12,3
Number of Children Born Alive		
≤ 2 children	142705	77,1
>2 children	42427	22,9
Unmet Need KB		
Unmet Need KB	40787	22,0
Met Need KB	144345	78,0
Total	185132	100,0

Based on the employment status, the characteristics of couples of reproductive age (PUS) are divided into two categories: working and not working. 23% of PUS working and 77% not working. The characteristics of couples of reproductive age based on age group shows that the largest PUS in the 40-44 year age group is 21%, and the lowest is in the 15-19 year age group with 2%.

PUS with less than or equal to 2 children is 57 percent, and more than 2 children is 43 percent. Couples of childbearing age with unmet need for family planning show that 22 percent of couples of childbearing age fall into the category of unmet need and 78 percent met need for family planning.

The relationship between the demographic characteristics of PUS and the incidence of Unmet Need for KB.

The bivariate analysis results show that the variable level of education has a p-value of 0.000, below the p-value of 0.025, which means a statistically significant relationship exists between education level and the incidence of unmet need for family planning in West Sulawesi Province. The lower the education level of PUS, the higher the incidence of unmet need for family planning as table 2 below:

Table 2. The relationship of the demographic characteristics of PUS to Unmet Need for Family Planning in West Sulawesi.

Variable		Unmet Need KB				p-value 0.025
		Yes	%	No	%	
Level of education	Low	20292	23	66070	77	0.000
	Middle	15745	20	61856	80	
	Higher	4750	22	16419	78	
Working Status	Working	10644	25	31745	75	0.000
	Not Working	30143	21	112600	79	
Age Group	15-19	355	11	2796	89	0.000
	20-24	2228	12	16028	88	
	25-29	4444	15	25710	85	
	30-34	6306	18	28505	82	
	35-39	7886	22	28427	78	
	40-44	11419	29	28277	71	
	45-49	8149	36	14602	64	
Number of Children	≤ 2 Anak	17488	17	88486	83	0.000
	≥ 3 anak	23299	29	55859	71	

Demographic characteristics of working status for unmet need for family planning have a p-value of 0.000, which means that there is a statistically significant relationship between the working status of PUS and the incidence of unmet need for family planning in West Sulawesi Province, meaning that PUS with unemployed characteristics will have more unmet need than with a working group.

The demographic characteristics of the age group with the unmet need for family planning in West Sulawesi have a statistically significant relationship with a p-value of 0.000 which is less than the p-value of 0.025. Older PUS will be more in the unmet need category for family planning than young PUS. From the table above, it can be seen that the 40-44 year-old group has the most unmet need for family planning compared to the 15-19 year age group, the 20-24 year age group, the 25-29 year age group, and the 30-34 year age group.

The characteristics of the number of children born alive to unmet need for family planning in West Sulawesi Province with a P-Value of 0.000 is less than the alpha value of 0.025, so it has a statistically significant relationship. The more children a couple of childbearing age has, the more likely they are to fall into the category of unmet need for family planning.

The level of education in this analysis is significantly related to the incidence of unmet need for family planning in West Sulawesi Province with a P value = 0.000. This result is in line with Hasnawatty's research showing that mother's education has a significant relationship with unmet need[12–14]. However, in contrast to the results of research on the determinants of education on the incidence of unmet need in urban areas conducted by Nanlohy in Panakkukang District, Makassar City, which is included in the urban classification according to the BPS, stated that there is no relationship between education and the incidence of unmet need for family planning[15].

Likewise, with research on the determinants of education on the incidence of unmet need conducted by Katulistiwa in Klabang District, Bondowoso Regency found that the education variable did not have a significant relationship in meeting contraceptive needs.[16]

The working status variable is significantly related to the incidence of unmet need for family planning with a p-value of 0.000. It is the same as research conducted by Lutfi Agus Salim in East Java. Based on the 2015 SUPAS data analysis, he found that unmet need for contraception in East Java Province was related to the mother's age, area of residence, mother's employment status, mother's educational level, number of sons born, number of daughters born[12]. The employment status of couples of childbearing age can affect participation in contraceptive use due to the influence of the work environment that encourages a person to participate in family planning so that it will indirectly affect the fulfillment of their family planning needs.[17]

Age indicates maturity in making decisions, including decisions regarding family planning participation. Decision-making for contraceptive methods usually requires weighing the advantages and disadvantages of various methods, which varies according to individual circumstances, perceptions, and interpretations, depending on the level of education and age[18]. The age group has a statistically significant relationship to the incidence of unmet need for family planning in West Sulawesi Province with a P-value of 0.000. This result is in line with the results of a study conducted by Begum, et. al. (2014) in Jidar in the urban area of Mumbai stated that maternal age is a factor that significantly influences the incidence of unmet need[19]. However, these results are different from the research conducted by Ulsafitri and Fastin in Magfirah Jidar with the title age determinants of the incidence of unmet need in urban areas stating that there is no relationship between the age of the respondent and the incidence of unmet need for family planning[20–22].

Based on the analysis results in this research, it was found that the variable number of live births had a significant relationship with the incidence of unmet need for family planning in West Sulawesi with a P-Value of 0.000. It is consistent with the results of research on the determinants of the number of living children on the incidence of unmet need in urban areas in line with Huda's study (2016) in Jidar in the working area of the Bandarharjo Health Center, North Semarang District, which is an urban area according to BPS classification which shows the result that there is a relationship between the number of children born alive with unmet need for family planning.

While research conducted by Sudha, et.

al. (2017) in Jidar in the urban area of Puducherry is not in line with the results of this study which found that the number of living children did not have a significant effect on the incidence of unmet need for family planning[20].

Strategy to Accelerate the Reduction of Unmet Need KB.

The strategy for reducing unmet need for family planning uses quadrant analysis to inventory target areas with low use of contraceptives and high unmet need for family planning. Districts in quadrant II will be the first priority area in working to accelerate the reduction of unmet need for family planning in West Sulawesi.

The results of the quadrant analysis between modern CPR and unmet need for family planning show that there are two districts that are in quadrant II, namely Polewali Mandar Regency and Mamuju Regency, which means that these two districts need first priority in handling the acceleration of the decline in unmet need for family planning.

While four districts are in quadrant 4, namely Mamasa, Mamuju Tengah, Majene, and Pasangkayu district, even though they are in quadrant 4, three districts namely Pasangkayu, Majene, and Mamuju Tengah can be made the second priority because the unmet need and modern CPR rates are only a few in below the provincial figure.

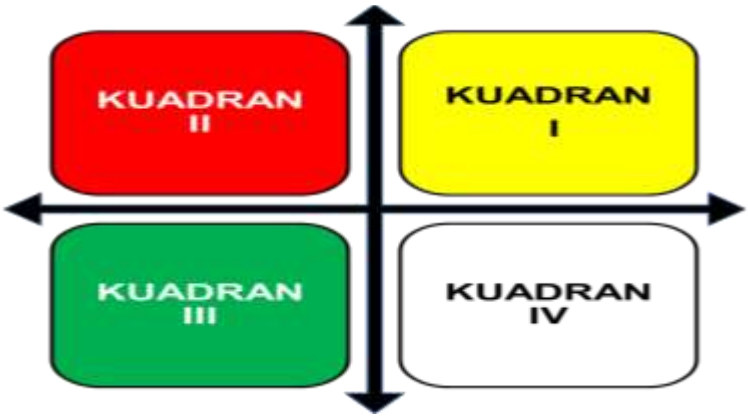
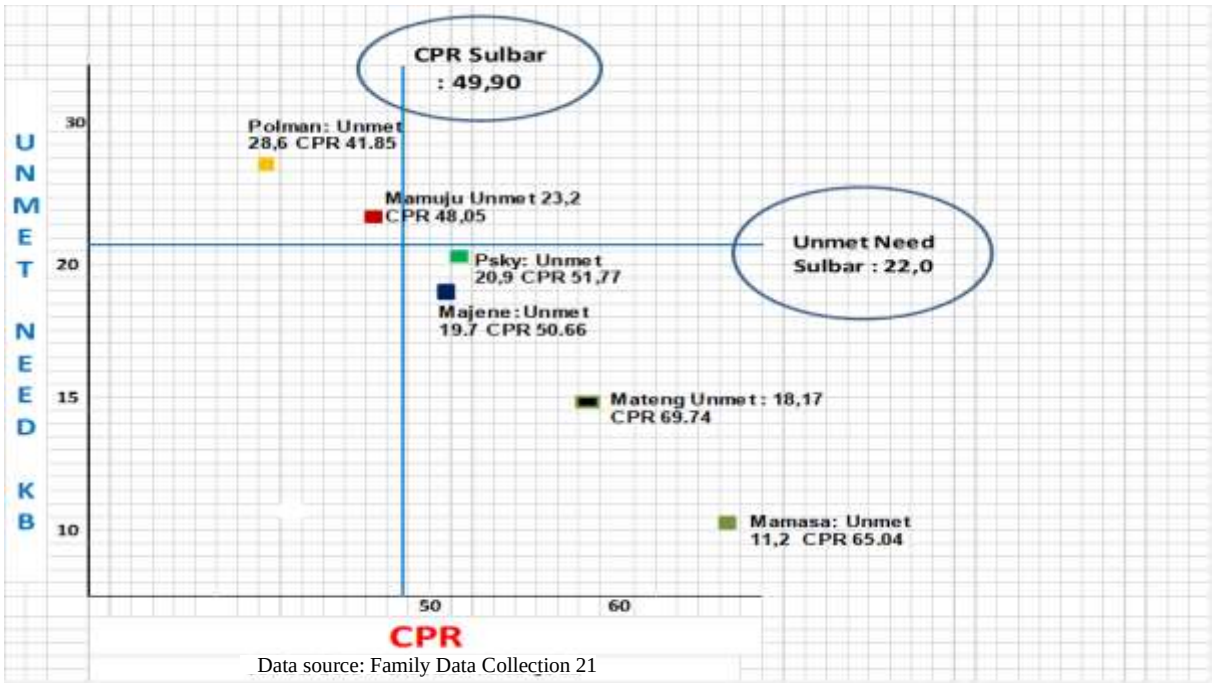


Figure 2. Quadrant mapping of cultivation priority areas.



Data source: *Process the 2021 Family Data Collection data set.*

Figure 3. Quadrant analysis of priority areas between Unmet and CPR Modern West Sulawesi.

Based on univariate, bivariate analysis, and quadrant analysis of unmet need for family planning events in West Sulawesi, an action plan intervention strategy can be formulated to accelerate the reduction of unmet need for family planning events in West Sulawesi Province as shown in the table below:

Table 3. Strategy for Reducing Unmet Need for Family Planning in West Sulawesi.

No.	Intervention	Action Plan
1	Target Area Inventory	a. Conduct quadrant analysis down to the village level to obtain priority areas for cultivation.
2	Inventory of PUS targets	a. Developing targets for PUS based on research results related to the incidence of unmet need for family planning in West Sulawesi Province, such as looking at the level of education, age group, employment status and the number of children born to couples of childbearing age.
		b. The focus of working on EFA is on the age group of 36-39 years, 40-44 years, and 45-49 years because, in this age group, there are pockets of unmet need for family planning in West Sulawesi.
		c. Focus on PUS with the number of live births above 2 children.
3	Strengthening Communication, Information and Education (KIE)	a. Make short Strengthening of Communication, Information, and Education materials following the reasons PUS does not have family planning and high risk of pregnancy for old PUS with high varieties to facilitate PKB/PLKB in providing counseling to PUS.
		b. Utilizing social media to reach out to PUS in providing information regarding reasons for not using family planning
4	Family planning services	a. Bringing access to family planning services closer, especially in areas with access to family planning service facilities that are difficult for PUS to reach.

CONCLUSIONS

The research shows that education level, occupation, age, and number of children born alive to couples of childbearing age are statistically related to the incidence of Unmet Need for Family Planning in West Sulawesi Province. In addition, the target areas for quadrant 2 with the main priority for accelerating the reduction of unmet need for family planning are Polewali Mandar and Mamuju districts. Policy makers can carry out an inventory of regional targets and targets for couples of childbearing age before conducting KIE so that they are more targeted.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

REFERENCES

1. Vale D, Lyra CD, Dantas NM, Andrade ME, Oliveira AG. Dietary and Nutritional Profiles among Brazilian Adolescents. Nutrients. 2022 Oct 11;14(20):4233. https://doi.org/10.3390/nu14112334
2. Nasrul N, Hafid F, Thaha AR, Suriah S. Faktor Risiko Stunting Usia 6-23 Bulan di Kecamatan Bontoramba Kabupaten Jeneponto. Media Kesehatan Masyarakat Indonesia. 2015;11(3):139-46. https://doi.org/http://dx.doi.org/10.30597/mkmi.v11i3
3. Huda TM, Hayes A, El Arifeen S, Dibley MJ. Social determinants of inequalities in child undernutrition in Bangladesh: A decomposition analysis. Maternal & child nutrition. 2018 Jan;14(1):e12440. https://doi.org/10.1111/mcn.12440
4. Aguayo VM, Menon P. Stop stunting: improving child feeding, women's nutrition and household sanitation in South Asia. Maternal & child nutrition. 2016 May;12:3-11.. https://doi.org/10.1111/mcn.12283
5. De Onis M, Branca F. Childhood

stunting: a global perspective. Maternal & child nutrition. 2016 May;12:12-26. https://doi.org/10.1111/mcn.12231

6. Darajat A, Sansuwito T, Amir MD, Hadiyanto H, Abdullah D, Dewi NP, Umar E. Social Behavior Changes Communication Intervention for Stunting Prevention: A Systematic Review. Open Access Macedonian Journal of Medical Sciences. 2022 Jan 3;10(G):209-17. https://doi.org/10.3889/oamjms.2022.7875
7. Muhafidin D. Policy strategies to reduce the social impact of stunting during the COVID-19 pandemic in Indonesia. Journal of Social Studies Education Research. 2022 Jun 27;13(2):320-42. Retrieved from https://jsser.org/index.php/jsser/article/view/4238
8. Gebreayohanes M, Dessie A. Prevalence of stunting and its associated factors among children 6–59 months of age in pastoralist community, Northeast Ethiopia: A community-based cross-sectional study. PloS one. 2022 Feb 3;17(2):e0256722. https://doi.org/10.1371/journal.pone.0256722
9. Gilano G, Hailegebreal S, Sako S, Seboka BT. Stunting and Associated Factors Among 6-23 Months Age Children in Ethiopia: Application of Generalized Linear Latent and Mixed Modeling. Ecology of Food and Nutrition. 2022 Sep 3;61(5):608-23. https://doi.org/10.1080/03670244.2022.2109023
10. Van Beekum M, Berger J, Van Geystelen J, Hondru G, Som SV, Theary C, Laillou A, Poirot E, Bork KA, Wieringa FT, Fortin S. The associations between stunting and wasting at 12 months of age and developmental milestones delays in a cohort of Cambodian children. Scientific Reports. 2022 Oct 25;12(1):17859.. https://doi.org/10.1038/s41598-022-22861-2
11. Woldesenbet B, Tolcha A, Tsegaye B. Water, hygiene and sanitation practices are associated with stunting among children of age 24-59 months in Lemo district, South Ethiopia, in 2021: community based cross sectional study. BMC nutrition. 2023 Jan 23;9(1):17. https://doi.org/10.1186/s40795-023-00677-1
12. Krebs NF, Hambidge KM, Westcott JL, Garcés AL, Figueroa L, Tshefu AK, Lokangaka AL, Goudar SS, Dhaded SM, Saleem S, Ali SA. Birth length is the strongest predictor of linear growth status and stunting in the first 2 years of life after a preconception maternal nutrition intervention: the children of the Women First trial. The American Journal of Clinical Nutrition. 2022 Jul;116(1):86-96. https://doi.org/10.1093/ajcn/nqac051
13. Madinar M, Andina E & Achadi EL. Fulfilment of minimum acceptable diet (MAD), short birth length and family income level are associated with stunting in children aged 6-23 months in Central Jakarta. Malaysian Journal of Nutrition, 2021;27(2), 259–270. https://doi.org/10.31246/mjn-2020-0045
14. Iversen PO, Ngari M, Westerberg AC, Muhoozi G, Atukunda P. Child stunting concurrent with wasting or being overweight: A 6-y follow up of a randomized maternal education trial in Uganda. Nutrition. 2021 Sep 1;89:111281. https://doi.org/10.1016/j.nut.2021.111281
15. Laksono AD, Wulandari RD, Amaliah N, Wisnuwardani RW. Stunting among children under two years in Indonesia: Does maternal education matter?. Plos one. 2022 Jul 25;17(7):e0271509. https://doi.org/10.1371/journal.pone.0271509
16. Nyamasege CK, Kimani-Murage EW, Wanjohi M, Kaindi DW, Wagatsuma Y. Effect of maternal nutritional education and counselling on children's stunting prevalence in urban informal settlements in Nairobi, Kenya. Public health nutrition. 2021 Aug;24(12):3740-52. https://doi.org/10.1017/S1368980020001962
17. Gassara G, Lin Q, Deng J, Zhang Y, Wei J, Chen J. Dietary Diversity,

Household Food Insecurity and Stunting among Children Aged 12 to 59 Months in N'Djamena—Chad. Nutrients. 2023 Jan 21;15(3):573. https://doi.org/10.3390/nu15030573
18. Harper A, Rothberg A, Chirwa E, Sambu W, Mall S. Household Food Insecurity and Demographic Factors, Low Birth Weight and Stunting in Early Childhood: Findings from a Longitudinal Study in South Africa. Maternal and Child Health Journal. 2023 Jan;27(1):59-69. https://doi.org/10.1007/s10995-022-03555-7
19. Yazew T. Risk factors of stunting and wasting among children aged 6–59 months in household food insecurity of Jima Geneti district, western Oromia, Ethiopia: An observational study. Journal of Nutrition and Metabolism. 2022 Jan 13;2022, 1–8. https://doi.org/10.1155/2022/3981417
20. Kwami CS, Godfrey S, Gavilan H, Lakhanpaul M, Parikh P. Water, sanitation, and hygiene: linkages with stunting in rural Ethiopia. International journal of environmental research and public health. 2019 Oct;16(20):3793. https://doi.org/10.3390/ijerph16203793
21. Hossain M, Choudhury N, Abdullah KA, Mondal P, Jackson AA, Walson J, Ahmed T. Evidence-based approaches to childhood stunting in low and middle income countries: a systematic review. Archives of Disease in Childhood. 2017 Oct 1;102(10):903-9. https://doi.org/10.1136/archdischild-2016-311050
22. Abebe Z, Zelalem Anlay D, Biadgo B, Kebede A, Melku T, Enawgaw B, Melku M. High prevalence of undernutrition among children in Gondar town, Northwest Ethiopia: a community-based cross-sectional study. International journal of pediatrics. 2017 Dec 12;2017, 5367070. https://doi.org/10.1155/2017/5367070
23. Ahishakiye J, Bouwman L, Brouwer ID, Matsiko E, Armar-Klemesu M, Koelen M. Challenges and responses to infant and young child feeding in rural Rwanda: a qualitative study. Journal of Health, Population and Nutrition. 2019 Dec;38:1-43. https://doi.org/10.1186/s41043-019-0207-z
24. Hein AK, Hong SA, Puckpinyo A, Tejativaddhana P. Dietary diversity, social support and stunting among children aged 6–59 months in an internally displaced persons camp in Kayin state, Myanmar. Clinical nutrition research. 2019 Oct 28;8(4):307-17. https://doi.org/10.7762/cnr.2019.8.4.307
25. Upadhyay AK, Srivastava S. Effect of pregnancy intention, postnatal depressive symptoms and social support on early childhood stunting: findings from India. BMC pregnancy and childbirth. 2016 Dec;16, 107. https://doi.org/10.1186/s12884-016-0909-9
26. Beal T, Tumilowicz A, Sutrisna A, Izwardy D, Neufeld LM. A review of child stunting determinants in Indonesia. Maternal & child nutrition. 2018 Oct;14(4):e12617. https://doi.org/10.1111/mcn.12617
27. Nasrul N, Maudu R, Hafid F. Trend and prevalence of stunting in children under two years from 2007-2016 in central Sulawesi. Preventif: Jurnal Kesehatan Masyarakat. 2017;8(2):73-8. Retrieved from http://jurnal.untad.ac.id/jurnal/index.php/Preventif
28. Kementerian Kesehatan Republik Indonesia. Buku Saku Hasil Studi Status Gizi Indonesia (SSGI) Tahun 2021. Jakarta: Kementerian Kesehatan Republik Indonesia; 2021.
29. Kementerian Kesehatan Republik Indonesia. Buku Saku Hasil Studi Status Gizi Indonesia (SSGI) Tahun 2022. Jakarta: Badan Kebijakan Pembangunan Kesehatan Kementerian Kesehatan; 2022. Retrieved from https://www.litbang.kemkes.go.id/buku-saku-hasil-studi-status-gizi-indonesia-ssgi-tahun-2021/
30. Scheffler C, Hermanussen M, Soegianto SD, Homalessy AV, Touw SY, Angi SI, Ariyani QS, Suryanto T, Matulessy GK, Fransiskus T, Safira AV. Stunting as a synonym of social

disadvantage and poor parental education. International journal of environmental research and public health. 2021 Feb;18(3):1350. https://doi.org/10.3390/ijerph18031350