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Analysis of the Determinants of Families at Risk of Stunting in Ogan Komering Ilir and Lahat Regencies in Sriwijaya

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Abstract: The prevalence of stunting among children under five in South Sumatra Province decreased from 24.8% in 2021 to 20.3% in 2023. Lahat Regency showed the most significant decline, while Ogan Komering Ilir Regency had the highest prevalence of stunting. This study analyzes determinants of stunting risk in families (KRS) in these regencies. Using secondary data from Perwakilan BKKBN Provinsi Sumatera Selatan, we examined families at risk of stunting in Ogan Komering Ilir (96,266 households) and Lahat (70,922 households). Univariate and bivariate analyses revealed significant determinants of stunting risk, including: presence of reproductive-age couples, use of unsafe water sources, inadequate sanitation, families classified as 4T (too young, too old, too many, too close), and non-use of modern contraception. These findings highlight key factors that contribute to the risk of stunting in these regencies.
Keywords: determinants, family, stunting risk

1. Introduction

Effective regional governance requires strengthening central-regional and inter-regional relationships, while considering regional potential, diversity, and global competition challenges within a unified system [1]. Stunting in children under five, characterized by chronic malnutrition and growth failure, can lead to reduced intelligence, increased disease susceptibility, and decreased productivity, ultimately hindering economic growth and exacerbating poverty [2]. The Ministry of National Development Planning (Bappenas) classifies the causes of stunting into two categories: direct causes related to nutrition and health status, and indirect causes related to factors such as food security, social environment, health environment, and residential environment. [3]. The presence of children under two and under five in a family is a significant factor influencing stunting risk, as this period is crucial for growth and vulnerable to nutritional deficiencies and diseases. According to the 2018 Basic Health Research, Indonesia ranks third in stunting prevalence in Southeast Asia, with a rate of 36.4%, exceeding the WHO target of below 20%, indicating a significant public health issue [4].

Couples of reproductive age (PUS) are a key focus in stunting prevention, particularly those at risk due to factors like young or advanced maternal age, close birth spacing, or high parity, which can increase health risks for mothers and babies. Pregnant women, particularly those not using modern family planning, are a priority for nutritional interventions, while environmental factors like clean water and sanitation, and family welfare, also play crucial roles in reducing stunting risk [5]. According to Presidential Regulation No. 72/2021, local governments are responsible for addressing stunting, but they face challenges in providing healthcare facilities and services, particularly at the village level, hindering efforts to improve community welfare [6]. The prevalence of stunting in South Sumatra Province decreased from 24.8% in 2021 to 20.3% in 2023, with significant disparities between regencies, such as Lahat's notable decline and Ogan Komering Ilir's substantial increase, highlighting the need for targeted nutritional interventions [7]. Poor environmental sanitation, including water sources, toilet ownership, and wastewater disposal, is linked to stunting in toddlers, as it increases the risk of infectious diseases that can impair nutrient absorption [8]. The regencies of Lahat and Ogan Komering Ilir implement a three-pronged approach to reduce stunting, involving integrated nutrition interventions, multisectoral collaboration, and a family-risk-based approach, with a focus on high-risk families and prioritizing pregnant women and children under two years old [9].

Determinant analysis is a statistical approach used to identify factors influencing the relationship between independent and dependent variables in quantitative research [10]. Determinant analysis is a technique used to identify causal factors influencing a phenomenon by assessing the impact of independent variables on dependent variables [11]. Determinant analysis is a process to identify independent variables that significantly influence dependent variables, explaining variation through their relationships [12]. Determinant

analysis is used in bivariate or multivariate contexts to examine the relationship between multiple independent variables and one or more dependent variables, identifying key determinants of a phenomenon [13].

Stunting is defined as a height-for-age below minus 2 standard deviations (-2 SD) from the median, indicating short or very short stature [14]. Stunting is a significant health issue that requires attention, as it can lead to various adverse effects on a child's development, including impaired cognitive and physical growth, decreased immunity, and increased risk of chronic diseases [15]. Stunting can have short-term impacts, including increased risk of mortality, morbidity, and impaired cognitive and motor development in children [16]. Stunting can have long-term consequences, including impaired brain development, reduced learning capacity, decreased productivity, increased risk of chronic diseases, and diminished quality of life [17]. A family is at risk of stunting if they have factors like poverty, poor sanitation, or young children that increase vulnerability [18]. Many pregnant women lack adequate iron supplements, and access to quality early childhood education is limited [19]. The "4 Too" risks are too young, too old, too close birth spacing, and too many children [20]. Sociodemographic factors, such as age, education, and occupation, impact stunting rates in South Sumatra Province [21].

Based on the description above, there are various problems and phenomena regarding stunting in South Sumatra that can be further studied, so researchers are interested in conducting research entitled "Analysis of Determinants of Stunting Risk Family (KRS) Incidence in Ogan Komering Ilir Regency and Lahat Regency in 2023."

2. Materials and Methods

2.1. Materials

This study focuses on analyzing the determinants of stunting risk in families in Ogan Komering Ilir and Lahat regencies in 2023. This study employed a quantitative approach with an observational analytic design using a cross-sectional study to examine the relationship between family welfare and stunting incidence.

2.2. Methods

2.2.1. Population and Sample

Population refers to the entire group of objects or subjects with specific qualities and characteristics that researchers study and draw conclusions [11]. The population in this study consists of all household heads in Ogan Komering Ilir Regency (96,266 households) and Lahat Regency (70,922 households).

A sample is a part of the population that possesses certain characteristics [11]. This study uses total sampling, where the entire population is used as the sample. The sample consists of 96,266 household heads in Ogan Komering Ilir Regency and 70,922 household heads in Lahat Regency.

2.3. Data Types and Data Sources

Quantitative data refers to numerical data that can be measured, counted, and analyzed statistically, often obtained through surveys, experiments, or observations [22]. In this study, the quantitative data are secondary data obtained from Perwakilan BKKBN Provinsi Sumatera Selatan, specifically data on Stunting Risk Families (KRS) in Ogan Komering Ilir and Lahat regencies for the year 2023.

The data source for this research is secondary data, specifically valid documents containing research data from Perwakilan BKKBN Provinsi Sumatera Selatan, related to the incidence of Stunting Risk Families (KRS) in Ogan Komering Ilir and Lahat regencies in 2023.

2.4. Operational Definition

A concept is operationalized by transforming it into measurable variables for empirical research. The variables are Stunting Risk Factor Screening, defined as identifying families at risk of having stunted children, with indicators including Families with toddlers, Presence of PUS (Women of Reproductive Age) in the family, Pregnant PUS, Unclean water source, Unproper latrine, PUS too young, PUS too old, PUS too close birth spacing, PUS too many children, PUS with 4T (Too young, Too old, Too close, Too many), PUS not using modern family planning, and Family welfare ranking. And Stunting Risk, defined as a nutritional issue in toddlers characterized by growth failure due to chronic malnutrition, influenced by poor maternal care since pregnancy, especially during the first 1000 days of life, resulting in children being too short for their age, with the indicator being stunting incidence.

2.5. Data Analysis

Univariate analysis was conducted to describe the frequency distribution and variation of the variables studied, specifically the incidence of Stunting Risk Families (KRS) in Ogan Komering Ilir and Lahat regencies in 2023. The results of the univariate analysis are presented in frequency tables and narratives.

Bivariate analysis was performed to analyze the determinants of KRS incidence by linking the independent variable (family welfare level) and the dependent variable (stunting incidence) using the Chi-Square statistical test. The Chi-Square test was used to determine the significance of the relationship with a 95% confidence level ($\alpha = 0.05$). Statistical data processing was done using SPSS software to obtain the p-value, which was compared to the α value. The determination of the relationship was based on the significance value:

- If p-value > 0.05, there is no significant relationship.
- If p-value < 0.05, there is a significant relationship.

3. Results and Discussion

This research was conducted in two regencies, namely Ogan Komering Ilir Regency with 96,266 households, and Lahat Regency with 70,922 households. The data analyzed was secondary data obtained from Kemendukbangga/BKKBN Perwakilan BKKBN Provinsi Sumatera Selatan, specifically data on Stunting Risk Families (SRF) in Ogan Komering Ilir and Lahat regencies for the year 2023. Based on the analysis and data processing adjusted to the research objectives, the following results were obtained:

3.1. Univariate Analysis

Univariate analysis was conducted to understand the distribution and frequency of each variable studied. The results of the analysis are presented in tables that can be interpreted as follows:

3.1.1. Ogan Komering Ilir Regency

1. Families with toddlers (baduta)
   The distribution of data on families with toddlers that have been analyzed can be interpreted as follows:

Table 2. Data Distribution of Families with toddlers (baduta)

Families with toddlers (baduta)	Frequency	%
Yes	4,496	4.7
No	91,770	95.3
Total	96,266	100

Source: Processed Data, 2025

Based on Table 2 above, it can be seen that out of a total of 96,266 families that were respondents, the majority of families do not have toddlers (children under two years old), with 91,770 families (95.3%), and 4,496 families (4.7%) have toddlers.

2. Families with under-five children (balita)
   The distribution of data on families with preschoolers (under-five children) that has been analyzed can be interpreted as follows:

Table 3. Data Distribution of Families with under-five children (toddlers)

Families with under-five children (balita)	Frequency	%
Yes	20,110	20.9
No	76,156	79.1
Total	96,266	100

Source: Processed Data, 2025

Based on Table 3 above, it can be seen that out of a total of 96,266 families that were respondents, the majority of families do not have preschoolers (children under five years old), with 76,156 families (79.1%), and 20,110 families (20.9%) have preschoolers.

3. Presence of couples of childbearing age (PUS) in the family
   The distribution of data on families with childbearing-age couples (PUS) that has been analyzed can be interpreted as follows:

Table 4. Data Distribution of Presence of couples of childbearing age (PUS) in the family

Presence of a couple of childbearing age (PUS) in the family	Frequency	%
Yes	95,778	99.5
No	488	0.5
Total	96,266	100

Source: Processed Data, 2025

Based on Table 4 above, it can be seen that out of a total of 96,266 families that were respondents, the majority, 95,778 families (99.5%), have childbearing-age couples (PUS), while 488 families (0.5%) do not have PUS.

4. Pregnant couples of childbearing age (PUS)
   The distribution of data on families with pregnant childbearing-age couples (PUS) that has been analyzed can be interpreted as follows:

Table 5. Data Distribution of Pregnsant couples of childbearing age (PUS)

Pregnant couples of childbearing age (PUS)	Frequency	%
Yes	2,330	2.4
No	93,936	97.6
Total	96,266	100

Source: Processed Data, 2025

Based on Table 5 above, it can be seen that out of a total of 96,266 families that were respondents, the majority, 93,936 families (97.6%), do not have pregnant childbearing-age couples (PUS), and 2,330 families (2.4%) have pregnant PUS.

5. Unavailability of proper water sources
   The distribution of data on families with unfit water sources that have been analyzed can be interpreted as follows:

Table 6. Data Distribution of Unavailability of proper water sources

Unavailability of proper water sources	Frequency	%
Yes	7,068	7.3
No	89,198	92.7
Total	96.266	100

Source: Processed Data, 2025

Based on Table 6 above, it can be seen that out of a total of 96,266 families that were respondents, the majority, 89,198 families (92.7%), do not have unfit water sources, and 7,068 families (7.3%) have unfit water sources.

6. Unavailability of proper toilets
   The distribution of data on families with unfit latrines that has been analyzed can be interpreted as

follows:

Table 7. Data Distribution of Unavailability of Proper Toilets

Unavailability of proper toilets	Frequency	%
Yes	19,408	20.2
No	76,858	79.8
Total	96,266	100

Source: Processed Data, 2025

Based on Table 7 above, it can be seen that out of a total of 96,266 families that were respondents, the majority, 76,858 families (79.8%), do not have unfit latrines, and 19,408 families (20.2%) have unfit latrines.

7. Couples of childbearing age (PUS) are too young
   The distribution of data on families with childbearing-age couples (PUS) who are too young has been analyzed and can be interpreted as follows:

Table 8. Data Distribution of Couples of childbearing age (PUS) too young

Couples of childbearing age (PUS) are too young	Frequency	%
Yes	317	0.3
No	95,461	99.2
Not Applicable	488	0.5
Total	96,266	100

Source: Processed Data, 2025

Based on Table 8 above, it can be seen that out of a total of 96,266 families that were respondents, the majority, 95,461 families (99.2%), do not have PUS who are too young, while 488 families (0.5%) are not applicable for having PUS who are too young, and 317 families (0.3%) have PUS who are too young.

8. Couples of childbearing age (PUS) are too old
   The distribution of data on families with childbearing-age couples (PUS) who are too old has been analyzed and can be interpreted as follows:

Table 9. Data Distribution of Couples of childbearing age (PUS) too old

Couples of childbearing age (PUS) are too old	Frequency	%
Yes	24,962	25.9
No	70,816	73.6
Not Applicable	488	0.5
Total	96,266	100

Source: Processed Data, 2025

Based on Table 9 above, it can be seen that out of a total of 96,266 families that were respondents, the majority, 70,816 families (73.6%), do not have childbearing-age couples (PUS) who are too old, while 24,962 families (25.9%) have PUS who are too old, and 488 families (0.5%) are not applicable for having PUS who are too old.

9. Couples of childbearing age (PUS) with too short a birth spacing
   The distribution of data on families with childbearing-age couples (PUS) who have too short a birth interval that has been analyzed can be interpreted as follows:

Table 10. Data Distribution of Couples of childbearing age (PUS) with too short a birth spacing

Couples of childbearing age (PUS) with too short a birth spacing	Frequency	%
Yes	409	0.4
No	95,369	99.1
Not Applicable	488	0.5
Total	96,266	100

Source: Processed Data, 2025

Based on Table 10 above, it can be seen that out of a total of 96,266 families that were respondents, the majority, 95,369 families (99.1%), do not have PUS with too short a birth interval, while 488 families (0.5%) are not applicable for having PUS with too short a birth interval, and 409 families (0.4%) have PUS with too short a birth interval.

10. Couples of childbearing age (PUS) with too many children
    The distribution of data on families with childbearing-age couples (PUS) who have too many children that has been analyzed can be interpreted as follows:

Table 11. Data Distribution of Couples of childbearing age (PUS) with too many children

Couples of childbearing age (PUS) with too many children	Frequency	%
Yes	27,057	28.1
No	68,721	71.4
Not Applicable	488	0.5
Total	96,266	100

Source: Processed Data, 2025

Based on Table 11 above, it can be seen that out of a total of 96,266 families that were respondents, the majority, 68,721 families (71.4%), do not have PUS with too many children, while 27,057 families (28.1%) have PUS with too many children, and 488 families (0.5%) are not applicable for having PUS with too many children.

11. Couples of childbearing age (PUS) with 4T (too young, too old, too close, too many)
    The distribution of data on families with 4 or more high-risk childbearing-age couples (PUS) that have been analyzed can be interpreted as follows:

Table 12 Data Distribution of Couples of childbearing age (PUS) with 4T (too young, too old, too close, too many)

Couples of childbearing age (PUS) with 4T (too young, too old, too close, too many)	Frequency	%
PUS 4T	52,007	54.0
Not PUS 4T	44,259	46.0
Total	96,266	100

Source: Processed Data, 2025

Based on Table 12 above, it can be seen that out of a total of 96,266 families that were respondents, 52,007 families (54.0%), have 4 or more high-risk PUS, whereas 44,259 families (46.0%) do not have 4 or more high-risk PUS.

12. Non-use of modern family planning (KB Modern) by couples of childbearing age (PUS)
    The distribution of data on families with childbearing-age couples (PUS) who are not users of modern family planning (KB) that has been analyzed can be interpreted as follows:

Table 13. Data Distribution of Non-use of modern family planning (KB Modern) by couples of childbearing age (PUS)

Non-use of modern family planning (KB Modern) by couples of childbearing age (PUS)	Frequency	%
Yes	22,864	23.8
No	72,914	75.7
Not Applicable	488	0.5
Total	96,266	100

Source: Processed Data, 2025

Based on Table 13 above, it can be seen that out of a total of 96,266 families that were respondents, the majority, 72,914 families (75.7%), do not have PUS who are not users of modern family planning, while 22,864 families (23.8%) have PUS who are not users of modern family planning, and 488 families (0.5%) are not applicable for having PUS who are not users of modern family planning.

13. Families at Risk of Stunting
    The distribution of data on families at risk of stunting that has been analyzed can be interpreted as follows:

Table 14. Data Distribution of Families at Risk of Stunting

Families at Risk of Stunting	Frequency	%
Yes	29,110	30.2
No	67,156	69.8
Total	96,266	100

Source: Processed Data, 2025

Based on Table 14 above, it can be seen that out of a total of 96,266 families that were respondents, the majority, 67,156 families (69.8%), are not at risk of stunting, and 29,110 families (30.2%) are at risk of stunting.

14. Family Welfare Level
    The distribution of data on family welfare levels that has been analyzed can be interpreted as follows:

Table 15. Data Distribution of Family Welfare Level

Family Welfare Level	Frequency	%
Priority > 4	44,335	46.1
Priority 1	13,079	13.6
Priority 2	11,866	12.3
Priority 3	13,382	13.9
Priority 4	12,457	12.9
Unidentified Welfare Level	1,147	1.2
Total	96,266	100

Source: Processed Data, 2025

Based on Table 15 above, it can be seen that out of a total of 96,266 families that were respondents, the majority of families come from the Priority Family Welfare Level > 4 group, which is 44,335 families (46.1%), 13,382 families (13.9%) come from priority group 3, 13,079 families (13.6%) come from priority group 1, 12,457 families (12.9%) come from priority group 4, 11,866 families (12.3%) come from priority group 2, and 1,147 families (1.2%) have an unidentified welfare level.

3.1.2 Lahat Regency

1. Families with toddlers
   The distribution of data on families with toddlers that have been analyzed can be interpreted as follows:

Table 16. Data Distribution of Families with toddlers

Families with toddlers	Frequency	%
Yes	6,674	9.4
No	64,248	90.6
Total	70,922	100

Source: Processed Data, 2025

Based on Table 16 above, it can be seen that out of a total of 70,922 families that were respondents, the majority of families do not have toddlers (children under two years old), with 64,248 families (90.6%), and 6,674 families (9.4%) have toddlers.

2. Families with under-five-year-old children
   The distribution of data on families with preschoolers (under-five children) that has been analyzed can be interpreted as follows:

Table 17. Data Distribution of Families with under-five children (toddlers)

Families with under-five children (toddlers)	Frequency	%
Yes	17,252	24.3
No	53,670	75.7
Total	70,922	100

Source: Processed Data, 2025

Based on Table 17 above, it can be seen that out of a total of 70,922 families that were respondents, the majority of families do not have preschoolers (children under five years old), with 53,670 families (75.7%), and 17,252 families (24.3%) have preschoolers.

3. Presence of a couple of childbearing age (PUS) in the family

The distribution of data on families with childbearing-age couples (PUS) that has been analyzed can be interpreted as follows:

Table 18. Data Distribution of Presence of couples of childbearing age (PUS) in the family

Presence of a couple of childbearing age (PUS) in the family	Frequency	%
Yes	70,280	99.1
No	642	0.9
Total	70,922	100

Source: Processed Data, 2025

Based on Table 18 above, it can be seen that out of a total of 70,922 families that were respondents, the majority, 70,280 families (99.1%), have childbearing-age couples (PUS), while 642 families (0.9%) do not have PUS.

4. Pregnant couples of childbearing age (PUS)

The distribution of data on families with pregnant childbearing-age couples (PUS) that has been analyzed can be interpreted as follows:

Table 19. Data Distribution of Pregnant couples of childbearing age (PUS)

Pregnant couples of childbearing age (PUS)	Frequency	%
Yes	2,374	3.3
No	68,548	96.7
Total	70,922	100

Source: Processed Data, 2025

Based on Table 19 above, it can be seen that out of a total of 70,922 families that were respondents, the majority, 68,548 families (96.7%), do not have pregnant childbearing-age couples (PUS), and 2,374 families (3.3%) have pregnant PUS.

5. Unavailability of proper water sources

The distribution of data on families with unfit water sources that have been analyzed can be interpreted as follows:

Table 20. Data Distribution of Unavailability of proper water sources

Unavailability of proper water sources	Frequency	%
Yes	6,312	8.9
No	64,610	91.1
Total	70,922	100

Source: Processed Data, 2025

Based on Table 20 above, it can be seen that out of a total of 70,922 families that were respondents, the majority, 64,610 families (91.1%), do not have unfit water sources, and 6,312 families (8.9%) have unfit water sources.

6. Unavailability of proper toilets

The distribution of data on families with unfit latrines that has been analyzed can be interpreted as follows:

Table 21. Data Distribution of Unavailability of Proper Toilets

Unavailability of proper toilets	Frequency	%
Yes	13,449	19.0
No	57,473	81.0
Total	70,922	100

Source: Processed Data, 2025

Based on Table 21 above, it can be seen that out of a total of 70,922 families that were respondents, the majority, 57,473 families (81%), do not have unfit latrines, and 13,449 families (19%) have unfit latrines.

7. Couples of childbearing age (PUS) are too young

The distribution of data on families with childbearing-age couples (PUS) who are too young has been analyzed and can be interpreted as follows:

Table 22. Data Distribution of Couples of childbearing age (PUS) too young

Couples of childbearing age (PUS) are too young	Frequency	%
Yes	587	0.8
No	69,693	98.3
Not Applicable	642	0.9
Total	70,922	100

Source: Processed Data, 2025

Based on Table 22 above, it can be seen that out of a total of 70,922 families that were respondents, the majority, 69,693 families (98.3%), do not have PUS who are too young, while 642 families (0.9%) are not applicable for having PUS who are too young, and 587 families (0.8%) have PUS who are too young.

8. Couples of childbearing age (PUS) are too old

The distribution of data on families with childbearing-age couples (PUS) who are too old has been analyzed and can be interpreted as follows:

Table 23. Data Distribution of Couples of childbearing age (PUS) too old

Couples of childbearing age (PUS) are too old	Frequency	%
Yes	18,193	25.7
No	52,087	73.4
Not Applicable	642	0.9
Total	70,922	100

Source: Processed Data, 2025

Based on Table 23 above, it can be seen that out of a total of 70,922 families that were respondents, the majority, 52,087 families (73.4%), do not have childbearing-age couples (PUS) who are too old, while 18,193 families (25.7%) have PUS who are too old, and 642 families (0.9%) are not applicable for having PUS who are too old.

9. Couples of childbearing age (PUS) with too short birth spacing
   The distribution of data on families with childbearing-age couples (PUS) who have too short a birth interval that has been analyzed can be interpreted as follows:

Table 24. Data Distribution of Couples of childbearing age (PUS) with too short birth spacing

Couples of childbearing age (PUS) with too short a birth spacing	Frequency	%
Yes	451	0.6
No	69,829	98.5
Not Applicable	642	0.9
Total	70,922	100

Source: Processed Data, 2025

Based on Table 24 above, it can be seen that out of a total of 70,922 families that were respondents, the majority, 69,829 families (98.5%), do not have PUS with too short a birth interval, while 642 families (0.9%) are not applicable for having PUS with too short a birth interval, and 451 families (0.6%) have PUS with too short a birth interval.

10. Couples of childbearing age (PUS) with too many children
    The distribution of data on families with childbearing-age couples (PUS) who have too many children that has been analyzed can be interpreted as follows:

Table 25. Data Distribution of Couples of childbearing age (PUS) with too many children

Couples of childbearing age (PUS) with too many children	Frequency	%
Yes	19,895	28.1
No	50,385	71.0
Not Applicable	642	0.9
Total	70,922	100

Source: Processed Data, 2025

Based on Table 25 above, it can be seen that out of a total of 70,922 families that were respondents, the majority, 50,385 families (71%), do not have PUS with too many children, while 19,895 families (28.1%) have PUS with too many children, and 642 families (0.9%) are not applicable for having PUS with too many children.

11. Couples of childbearing age (PUS) with 4T (too young, too old, too close, too many)
    The distribution of data on families with 4 or more high-risk childbearing-age couples (PUS) that have been analyzed can be interpreted as follows:

Table 26. Data Distribution of Couples of childbearing age (PUS) with 4T (too young, too old, too close, too many)

Couples of childbearing age (PUS) with 4T (too young, too old, too close, too many)	Frequency	%
PUS 4T	37,815	53.3
Not PUS 4T	33,107	46.7
Total	70,922	100

Source: Processed Data, 2025

Based on Table 12 above, it can be seen that out of a total of 70,922 families that were respondents, 37,815 families (53.3%) have 4 or more high-risk PUS, whereas 33,107 families (46.7%) do not have 4 or more high-risk PUS.

12. Non-use of modern family planning (KB Modern) by couples of childbearing age (PUS)
    The distribution of data on families with childbearing-age couples (PUS) who are not users of modern family planning (KB) that has been analyzed can be interpreted as follows:

Table 27. Data Distribution of Non-use of modern family planning (KB Modern) by couples of childbearing age (PUS)

Non-use of modern family planning (KB Modern) by couples of childbearing age (PUS)	Frequency	%
Yes	15,606	22.0
No	54,674	77.1
Not Applicable	642	0.9
Total	70,922	100

Source: Processed Data, 2025

Based on Table 27 above, it can be seen that out of a total of 70,922 families that were respondents, the majority, 54,674 families (77.1%), do not have PUS who are not users of modern family planning, while 15,606 families (22%) have PUS who are not users of modern family planning, and 642 families (0.9%) are not applicable for having PUS who are not users of modern family planning.

13. Families at Risk of Stunting
    The distribution of data on families at risk of stunting that has been analyzed can be interpreted

as follows:

Table 28. Data Distribution of Families at Risk of Stunting

Families at Risk of Stunting	Frequency	%
Yes	21,527	30.4
No	49,395	69.6
Total	70,922	100

Source: Processed Data, 2025

Based on Table 28 above, it can be seen that out of a total of 70,922 families that were respondents, the majority, 49,395 families (69.6%), are not at risk of stunting, and 21,527 families (30.4%) are at risk of stunting.

14. Family Welfare Level

The distribution of data on family welfare levels that has been analyzed can be interpreted as follows:

Table 29. Data Distribution of Family Welfare Level

Family Welfare Level	Frequency	%
Priority > 4	15,052	21.2
Priority 1	13,465	19.0
Priority 2	9,645	13.6
Priority 3	8,230	11.6
Priority 4	20,710	29.2
Unidentified Welfare Level	3,820	5.4
Total	70,922	100

Source: Processed Data, 2025

Based on Table 29 above, it can be seen that out of a total of 70,922 families that were respondents, the majority of families come from the Priority Family Welfare Level > 4 group, which is 20,710 families (29.2%), 15,052 families (21.2%) come from priority group 1, 13,465 families (19%) come from priority group 2, 9,645 families (13.6%) come from priority group 3, 8,230 families (11.6%) come from priority group 4, and 3,820 families (5.4%) have an unidentified welfare level.

3.2. Bivariate Analysis

A bivariate analysis was performed using cross-tabulation between the independent and dependent variables to examine the relationship between them. The results are presented in the following tables for interpretation:

1. Association between Families with toddlers (baduta) and the Risk of Stunting

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	208.129[a]	1	.000		
Continuity Correction[b]	207.725	1	.000		
Likelihood Ratio	218.851	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	208.126	1	.000		
N of Valid Cases	70922				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 2025.76.
b. Computed only for a 2x2 table

Risk Estimate

	Value	95% Confidence Interval Lower	Upper
Odds Ratio for Families with Toddlers (Yes/No)	.646	.609	.686
For cohort Stunting Risk Family = Yes	.726	.694	.760
For cohort Stunting Risk Family = No	1.124	1.108	1.140
N of Valid Cases	70922		

Both Ogan Komering Ilir and Lahat Regencies exhibited a significant association between having toddlers and stunting risk, with prevalence ratios of 0.722 and 0.726, respectively, indicating a lower risk of stunting among families with toddlers compared to those without. These results align with the research, which found a significant link between having baduta and stunting risk, with 28.5% of such families being at risk [23].

2. Association between Families with under-five children (balita) and the Risk of Stunting

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	717.809[a]	1	.000		
Continuity Correction[b]	717.299	1	.000		
Likelihood Ratio	748.392	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	717.799	1	.000		
N of Valid Cases	70922				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5236.51.
b. Computed only for a 2x2 table

Risk Estimate

	Value	95% Confidence Interval Lower	Upper
Odds Ratio for Families with under-five children (Yes/No)	.580	.557	.604
For cohort Stunting Risk Family = Yes	.673	.653	.694
For cohort Stunting Risk Family = No	1.161	1.149	1.172
N of Valid Cases	70922		

A significant association was found between having under-five children and stunting risk in both Ogan Komering Ilir and Lahat Regencies, with prevalence ratios of 0.883 and 0.673, respectively, indicating a lower risk of stunting among families with under-five children compared to those without. These results align with the research, which found a significant link between having children under 5 and stunting risk, with 31.9% of such families being at risk [24].

3. Association between Presence of couples of childbearing age (PUS) in the family and the Risk of Stunting

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	33.245[a]	1	.000		
Continuity Correction[b]	32.750	1	.000		
Likelihood Ratio	35.976	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	33.245	1	.000		
N of Valid Cases	70922				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 194.87.
b. Computed only for a 2x2 table

Risk Estimate

	Value	95% Confidence Interval Lower	Upper
Odds Ratio for Families with PUS (Yes/No)	1.758	1.448	2.135
For cohort Stunting Risk Family = Yes	1.527	1.307	1.784
For cohort Stunting Risk Family = No	.869	.836	.903
N of Valid Cases	70922		

A significant association was found between having couples of childbearing age (PUS) and stunting risk in both Ogan Komering Ilir and Lahat Regencies, with prevalence ratios of 1.263 and 1.527, respectively, indicating a higher risk of stunting among families with PUS compared to those without. These results align with the research, which found a significant link between having Women of Reproductive Age (PUS) and stunting risk, with 33.4% of such families being at risk [25].

4. Association between Pregnant couples of childbearing age (PUS) and the Risk of Stunting

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	73.316[a]	1	.000		
Continuity Correction[b]	72.928	1	.000		
Likelihood Ratio	77.514	1	.000		
Fisher's Exact Test				.000	
Linear-by-Linear Association	73.315	1	.000		
N of Valid Cases	70922				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 720.58.
b. Computed only for a 2x2 table

Risk Estimate

	Value	95% Confidence Interval Lower	Upper
Odds Ratio for Families with Pregnant PUS (Yes/No)	.654	.593	.721
For cohort Stunting Risk Family = Yes	.732	.678	.789
For cohort Stunting Risk Family = No	1.118	1.094	1.144
N of Valid Cases	70922		

A significant association was found between having pregnant couples of childbearing age (PUS) and stunting risk in both Ogan Komering Ilir and Lahat Regencies, with prevalence ratios of 0.876 and 0.732, respectively, indicating a lower risk of stunting among families with pregnant PUS compared to those without. These results align with the research, which found a significant link between having pregnant women and stunting risk, with 24.5% of such families being at risk [26].

5. Association between Unavailability of proper water sources and the Risk of Stunting

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	15768.266[a]	1	.000		
Continuity Correction[b]	15764.665	1	.000		
Likelihood Ratio	16246.765	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	15768.044	1	.000		
N of Valid Cases	70922				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 1915.89.
b. Computed only for a 2x2 table

Risk Estimate

	Value	95% Confidence Interval Lower	Upper
Odds Ratio for Families with Unavailability of proper water sources (Yes/No)	1133.427	713.382	1800.799
For cohort Stunting Risk Family = Yes	4.229	4.171	4.289
For cohort Stunting Risk Family = No	.004	.002	.006
N of Valid Cases	70922		

A significant association was found between having unfit water sources and stunting risk in both Ogan Komering Ilir and Lahat Regencies, with prevalence ratios of 4.032 and 4.229, respectively, indicating a substantially higher risk of stunting among families with unfit water sources compared to those with fit water sources. These results align with the research, which found a significant link between unimproved water sources and stunting risk, with all (100%) such families being at risk [27].

6. Association between Unavailability of proper toilets and the Risk of Stunting

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	38080.845[a]	1	.000		
Continuity Correction[b]	38076.780	1	.000		
Likelihood Ratio	40403.396	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	38080.308	1	.000		
N of Valid Cases	70922				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 4082.18.
b. Computed only for a 2x2 table

Risk Estimate

	Value	95% Confidence Interval Lower	Upper
For cohort Stunting Risk Family = Yes	7.115	6.972	7.260
N of Valid Cases	70922		

A significant association was found between having unfit toilets and stunting risk in both Ogan Komering Ilir and Lahat Regencies, with prevalence ratios of 7.922 and 7.115, respectively, indicating a substantially higher risk of stunting among families with unfit toilets compared to those with fit toilets. These results align with the research, which found a significant link between unimproved latrines and stunting risk, with all (100%) such families being at risk [8].

7. Association between Couples of childbearing age (PUS) too young and the Risk of Stunting

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	too_young			83.221	2	.000			
	too_young (1)	-1.154	.129	79.899	1	.000	.315	.245	.406
	too_young (2)	-.559	.099	31.768	1	.000	.572	.471	.695
	Constant	1.390	.099	198.056	1	.000	4.016		

a. Variable(s) entered on step 1: too_young

A significant association was found between having very young couples of childbearing age

(PUS) and stunting risk in both Ogan Komering Ilir and Lahat Regencies, with prevalence ratios of 0.298 and 0.315, respectively, indicating a lower risk of stunting among families with very young PUS compared to those without. These results align with the research, which found a significant link between having adolescent mothers (PUS too young) and stunting risk, with 49.8% of such families being at risk [28].

8. Association between Couples of childbearing age (PUS) too old and the Risk of Stunting

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	too_old			865.436	2	.000			
	too_old (1)	-.941	.100	88.726	1	.000	.390	.321	.474
	too_old (2)	-.419	.099	17.854	1	.000	.657	.541	.799
	Constant	1.390	.099	198.056	1	.000	4.016		

a. Variable(s) entered on step 1: too_old

A significant association was found between having older couples of childbearing age (PUS) and stunting risk in both Ogan Komering Ilir and Lahat Regencies, with prevalence ratios of 0.541 and 0.390, respectively, indicating a lower risk of stunting among families with older PUS compared to those without. These results align with the research, which found a significant link between having older mothers (PUS too old) and stunting risk, with 42.1% of such families being at risk [28].

9. Association between Couples of childbearing age (PUS) with too short birth spacing and the Risk of Stunting

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	too_short birth spacing			46.877	2	.000			
	too_short birth spacing (1)	-.135	.150	.801	1	.371	.874	.651	1.174
	too_short birth spacing (2)	-.567	.099	32.682	1	.000	.567	.467	.689
	Constant	1.390	.099	198.056	1	.000	4.016		

a. Variable(s) entered on step 1: too_short birth

A significant association was found between having closely spaced childbearing age (PUS) and stunting risk in Ogan Komering Ilir Regency (PR 0.742), but not in Lahat Regency, where the association was not statistically significant. These results align with the research, which found a significant link between closely spaced pregnancies and stunting risk, with 27.4% of such families being at risk [19].

10. Association between Couples of childbearing age (PUS) with too many children and the Risk of Stunting

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	too_many			517.624	2	.000			
	too_many (1)	-.838	.100	70.484	1	.000	.432	.355	.526
	too_many (2)	-.448	.099	20.337	1	.000	.639	.526	.776
	Constant	1.390	.099	198.056	1	.000	4.016		

a. Variable(s) entered on step 1: too_many

A significant association was found between having too many childbearing age couples (PUS) and stunting risk in both Ogan Komering Ilir and Lahat Regencies, with prevalence ratios of 0.529 and 0.432, respectively, indicating a lower risk of stunting among families with too many PUS compared to those without. These results align with the research, which found a significant link between high parity (too many children) and stunting risk, with 35.1% of such families being at risk [28].

11. Association between Couples of childbearing age (PUS) with 4T (too young, too old, too close, too many) and the Risk of Stunting

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2054.669[a]	1	.000		
Continuity Correction[b]	2053.927	1	.000		
Likelihood Ratio	2058.684	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	2054.640	1	.000		
N of Valid Cases	70922				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10048.99.
b. Computed only for a 2x2 table

Risk Estimate

	Value	95% Confidence Interval Lower	Upper
Odds Ratio for Families with 4T (Not PUS 4T/PUS 4T)	.474	.458	.489
For cohort Stunting Risk Family = Yes	.595	.581	.609
For cohort Stunting Risk Family = No	1.256	1.243	1.269
N of Valid Cases	70922		

A significant association was found between having high-risk childbearing age couples (PUS 4T) and stunting risk in both Ogan Komering Ilir and Lahat Regencies, with prevalence ratios of 0.634 and 0.595, respectively, indicating a lower risk of stunting among families with high-risk PUS 4T compared to those without. These results align with the research, which found a significant link between 4T (unfavorable reproductive conditions) and stunting risk, with 35.0% of such families being at risk [25].

12. Association between Non-use of modern family planning (KB Modern) by couples of childbearing age (PUS) and the Risk of Stunting

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Non-use of KB modern			3813.913	2	.000			
	Non-use of KB modern (1)	-1.428	.100	203.662	1	.000	.240	.197	.292
	Non-use of KB modern (2)	-.270	.099	7.394	1	.007	.763	.628	.927
	Constant	1.390	.099	198.056	1	.000	4.016		

a. Variable(s) entered on step 1: Non-use of KB modern

A significant association was found between having childbearing age couples (PUS) not using modern contraception and stunting risk in both Ogan Komering Ilir and Lahat Regencies, with prevalence ratios of 0.267 and 0.240, respectively, indicating a lower risk of stunting among families with PUS not using modern contraception compared to those with PUS using modern contraception. These results align with the research, which found a significant link between not using modern contraception and stunting risk, with 62.7% of such families being at risk [21].

13. Association between Family Welfare Level and the Risk of Stunting

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	welfare_priority			2344.009	5	.000			
	welfare_priority (1)	.020	.042	.223	1	.637	1.020	.939	1.108
	welfare_priority (2)	-1.022	.042	593.923	1	.000	.360	.331	.391
	welfare_priority (3)	-.490	.043	131.442	1	.000	.612	.563	.666
	welfare_priority (4)	-.367	.045	67.841	1	.000	.693	.635	.756
	welfare_priority (5)	-.097	.046	4.384	1	.036	.908	.829	.994
	Constant	1.224	.039	1005.006	1	.000	3.401		

a. Variable(s) entered on step 1: welfare_priority

A significant relationship existed between family welfare ranking and stunting risk in Ogan Komering Ilir Regency ($p < 0.05$), but not in Lahat Regency ($p > 0.05$), indicating differing patterns of association between the two regencies. These results align with the research by Ridwan & Burhan (2022), which found a significant link between family welfare level and stunting risk, with 47.5% of level 2 and 51.3% of level 1 families being at risk [29], [30].

Based on the analysis of determinants of Stunting Risk Families in Ogan Komering Ilir and Lahat regencies in 2023, the following comparisons can be observed:

Table 30. Comparison of Determinants of Stunting Risk Families in Ogan Komering Ilir and Lahat Regencies in 2023

No.	Risk Screening Factors
1	Families with toddlers (under-two year old children) Ogan Komering Ilir Regencies: 22.1% Lahat Regencies: 22.6%
2	Families with under-five year old children (toddlers) Ogan Komering Ilir Regencies: 27.4% Lahat Regencies: 22.2%
3	Presence of a couple of childbearing age (PUS) in the family Ogan Komering Ilir Regencies: 30.3% Lahat Regencies: 30.4%
4	Pregnant couples of childbearing age (PUS) Ogan Komering Ilir Regencies: 26.6% Lahat Regencies: 22.4%
5	Unavailability of proper water sources Ogan Komering Ilir Regencies: 99.7% Lahat Regencies: 99.7%
6	Unavailability of proper toilets Ogan Komering Ilir Regencies: 100% Lahat Regencies: 100%
7	Couples of childbearing age (PUS) are too young Ogan Komering Ilir Regencies: 51.4% Lahat Regencies: 44.1%
8	Couples of childbearing age (PUS) are too old Ogan Komering Ilir Regencies: 36.8% Lahat Regencies: 39%
9	Couples of childbearing age (PUS) with too short a birth spacing Ogan Komering Ilir Regencies: 29.8% Lahat Regencies: 22.2%
10	Couples of childbearing age (PUS) with too many children Ogan Komering Ilir Regencies: 37.3% Lahat Regencies: 36.5%
11	Couples of childbearing age (PUS) with 4T (too young, too old, too close, too many) Ogan Komering Ilir Regencies: 37.7% Lahat Regencies: 38.7%
12	Non-use of modern family planning (KB Modern) by couples of childbearing age (PUS) Ogan Komering Ilir Regencies: 54.2% Lahat Regencies: 50.9%
13	Family welfare ranking: • Welfare ranking priority < 4 Ogan Komering Ilir Regencies: 25.9% Lahat Regencies: 22.4% • Welfare ranking priority 1 (Very Vulnerable) Ogan Komering Ilir Regencies: 41.5% Lahat Regencies: 45% • Welfare ranking priority 2 (Vulnerable) Ogan Komering Ilir Regencies: 35.1% Lahat Regencies: 32.4% • Welfare ranking priority 3 (Less Vulnerable) Ogan Komering Ilir Regencies: 30.6% Lahat Regencies: 29.8% • Welfare ranking priority 4 (Stable) Ogan Komering Ilir Regencies: 29.8% Lahat Regencies: 24.5% • Welfare ranking priority not yet identified. Ogan Komering Ilir Regencies: 16.8% Lahat Regencies: 22.7%
	Average Value Ogan Komering Ilir Regencies: 40.72% Lahat Regencies: 39.19%

Source: Processed Data, 2025

The comparison reveals that Ogan Komering Ilir Regency has a slightly higher cumulative percentage of determinant factors for stunting risk families (40.72%) compared to Lahat Regency (39.19%).

The analysis reveals that having toddlers (baduta) is a significant risk factor for stunting in both Ogan Komering Ilir and Lahat regencies, with Lahat having a slightly higher percentage of at-risk families (22.6% vs 22.1%).

The analysis shows that Ogan Komering Ilir Regency has a higher percentage of families with under-five children at risk of stunting (27.4%) compared to Lahat Regency (22.2%), with a significant relationship found between having under-five children and stunting risk in both regencies.

Both Ogan Komering Ilir and Lahat regencies have a similarly high percentage of families with couples of childbearing age (PUS) at risk of stunting, with 30.3% and 30.4% respectively, and a significant relationship exists between having PUS and stunting risk in both regencies.

Ogan Komering Ilir Regency has a higher percentage of families with pregnant couples of childbearing age (PUS) at risk of stunting (26.6%) compared to Lahat Regency (22.4%), with a significant relationship existing between having pregnant PUS and stunting risk in both regencies.

Both Ogan Komering Ilir and Lahat regencies have an alarmingly high percentage of families with unfit water sources at risk of stunting, with 99.7% in both regencies, and a significant relationship exists between having unfit water sources and stunting risk in both areas.

Both Ogan Komering Ilir and Lahat regencies have a 100% correlation between families with unfit latrines and stunting risk, indicating a significant relationship between poor sanitation and stunting in both areas.

Ogan Komering Ilir Regency has a higher percentage of families with couples of childbearing age who are too young (51.4%) at risk of stunting compared to Lahat Regency (44.1%), with a significant relationship existing between having young couples and stunting risk in both regencies.

Lahat Regency has a higher percentage of families with couples of childbearing age who are too old (39.0%) at risk of stunting compared to Ogan Komering Ilir Regency (36.8%), with a significant relationship existing between having older couples and stunting risk in both regencies.

Ogan Komering Ilir Regency has a higher percentage of families with couples of childbearing age having pregnancies too close together (29.8%) at risk of stunting compared to Lahat Regency (22.2%), with a significant relationship existing between having close pregnancies and stunting risk in Ogan Komering Ilir but not in Lahat.

Ogan Komering Ilir Regency has a slightly higher percentage of families with too many children (37.3%) at risk of stunting compared to Lahat Regency (36.5%), with a significant relationship existing between having many children and stunting risk in both regencies.

Lahat Regency has a slightly higher percentage of families with unmet need for family planning (PUS 4T) at risk of stunting (38.7%) compared to Ogan Komering Ilir Regency (37.7%), with a significant relationship existing between having PUS 4T and stunting risk in both regencies.

Ogan Komering Ilir Regency has a higher percentage of families with couples of childbearing age who are not using modern contraception (54.2%) at risk of stunting compared to Lahat Regency (50.9%), with a significant relationship existing between not using modern contraception and stunting risk in both regencies.

In Ogan Komering Ilir Regency, there is a significant relationship between family welfare level and stunting risk, whereas in Lahat Regency, the relationship is not significant, with varying percentages of families at risk of stunting across different welfare levels in both regencies.

Policy Recommendations for Ogan Komering Ilir Regency are:

1. Improving the Quality and Access to Clean Water and Proper Sanitation. Given that almost all families at risk of stunting have unfit water sources and latrines, the government should accelerate programs for providing clean water and proper sanitation. This includes educating the community on proper well-digging distances from latrines, water treatment processes, and socializing policies against using river latrines and disposing of waste in rivers.
2. Strengthening Modern Family Planning (KB) Programs and Regulating Pregnancy Spacing. The government should focus on increasing awareness and participation in family planning, especially among young and old couples, and those with many children. Family planning programs should be equipped with education on the importance of regulating pregnancy spacing to reduce stunting risk.
3. Assistance for Families with Toddlers and Infants. The government should provide nutritional interventions for families with toddlers and infants at risk of stunting. Programs for providing supplementary food and monitoring child development should be enhanced through community health centers and posyandu.
4. Improving the Welfare of Low-Priority Families. Families with low welfare levels show a high risk of stunting. Programs to improve family economic welfare through skills training, social assistance, and strengthening access to nutritious food should be intensified.
5. Health Reproductive Campaigns and Education. Education for families about the risks of early and late childbearing is essential to reduce stunting risk by regulating the ideal pregnancy age.

Policy Recommendations for Lahat Regency are:

1. Improving the Quality and Access to Clean Water and Proper Sanitation. Given that almost all families at risk of stunting have unfit water sources and latrines, the government should accelerate programs for providing clean water and proper sanitation. This includes educating the community on proper well-digging distances from latrines, water treatment processes, and socializing policies against using river latrines and disposing of waste in rivers.
2. Strengthening Family Planning (KB) Programs and Education on Regulating Pregnancy Spacing. The government should focus on increasing awareness and participation in family planning, especially among young and old couples, and those with many children. Family planning programs should be equipped with education on the importance of regulating pregnancy spacing to reduce stunting risk.
3. Nutritional Intervention Program for Toddlers and Infants. The government should increase monitoring of nutrition and provide supplementary food for families with toddlers and infants at risk of stunting, with active involvement from health workers in the field.
4. Multisectoral Approach to Addressing Stunting. Since family welfare is not significantly related to stunting risk in Lahat, there is a need to strengthen cross-sectoral collaboration, such as health, education, and environment, to increase knowledge of parenting and healthy environments.
5. Awareness Campaign on Ideal Childbearing Age. The government should conduct

awareness campaigns on the importance of ideal childbearing age and avoiding early or late pregnancy to reduce stunting risk.

4. Conclusion

Based on the analysis and discussion, it can be concluded that the determinant factors that have a significant relationship with stunting risk in Ogan Komering Ilir and Lahat regencies are families with toddlers, families with infants, presence of childbearing-age couples (PUS) in the family, families with pregnant PUS, unfit water sources, unfit latrines, young PUS, old PUS, many children, unmet need for family planning (PUS 4T), and not using modern contraception. These significant results prove that the determinants of stunting risk in Ogan Komering Ilir and Lahat regencies in 2023 are not coincidental but statistically proven, indicating that increased stunting risk can be caused by these factors.

Different results were shown by the factors of close pregnancy spacing and family welfare level, which only showed a significant relationship with stunting risk in Ogan Komering Ilir Regency, while in Lahat Regency, they were not significant. This means that the increased stunting risk in Ogan Komering Ilir Regency can also be caused by these two factors, but in Lahat Regency, these factors do not have a significant impact on stunting risk, indicating that Lahat Regency's policies on these factors are better than Ogan Komering Ilir Regency's.

Based on the conclusions outlined above, several recommendations can be proposed as follows:

1. Accelerate Clean Water and Sanitation Programs. The local government needs to accelerate programs for providing clean water and proper sanitation, as well as educate the community on basic knowledge of utilizing water sources and healthy latrine systems. Building clean water and sanitation facilities should be a top priority to prevent environmental factors that exacerbate stunting risk.
2. Strengthen Family Planning Programs and Education. The government should provide education and strengthen family planning programs to plan pregnancy spacing, reducing the high number of pregnant women and unmet need for family planning (PUS 4T). This will enable families to better care for their children's nutritional needs, especially toddlers and infants who are vulnerable to stunting risk. For families with low welfare levels (priority 1 and 2) who show high stunting risk, programs to improve family economic welfare through skills training, social assistance, and strengthening access to nutritious food should be intensified.

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