

## Relationship between Family Income and Stunting Incidence in Kebun Kelapa Village, Secanggang District

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### ABSTRACT

WHO states that stunting is a condition of failure to grow and develop in children which can be seen from the height that is not in accordance with their age. Growth failure that occurs in stunted children is caused by several factors such as poverty, lack of awareness of health, malnutrition and poor parenting styles. The consequences of stunting are a decrease in the level of intelligence and children will easily contract a disease. This type of research is descriptive analysis with a cross sectional research design to determine the relationship between family income and the incidence of stunting in Kebun Kelapa Village. The subjects of this study were 26 families with stunting children aged 0-59 months. The results showed that there was a relationship between family income and the incidence of stunting in Kebun Kelapa Village, Secanggang District.

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### 1. Introduction

Stunting or short stature is a condition in which a child's height (TB) is not appropriate for age, the determination of which is done by calculating the Z-score of the height-for-age (TB/U) index. A person is said to be stunted if his TB/U Z-index score is below -2 SD (standard deviation). The habit of not measuring the height or length of children under five in the community is estimated to be the cause of stunting being late to be realized so that it becomes one of the focus targets in improving nutrition in the world until 2025. Globally stunting has a role of 15-17% of all causes of death in children. Even though those who survived, experienced a decline or lacked achievement in school, they became less productive as adults (Rosarita, 2019).

The prevalence of stunting in Indonesia is ranked fifth in the world (TNPPK 2017). In the Southeast Asia/South-East Asia Regional (SEAR) region, Indonesia is ranked as the third country with a high prevalence of stunting with an average prevalence of stunting under five in 2005-2017 is 36.4% (Pusdatin, 2018).

Based on the results of the Basic Health Research (Riskesdas) in 2018, it was explained that North Sumatra Province had a stunting prevalence of 32.3%, while for the Langkat area it reached 23.28% stunting. Langkat Regency is included in the determination of 100 regencies/cities with intervention villages, namely Sematar Village, Perlis, North Securai, Paluh Manis, Pematang Serai, Secanggang, Padang Tualang, Coconut Garden, South Securai, and Sei Merah. Previously, the 10 villages had carried out data collection and measurement of nutritional status by the Langkat Health Service (Pusdatin, 2018).

Based on the initial survey conducted in the Sungai Kepala Village, 26 stunting toddlers were found in families with economic limitations. This chronic nutritional status arises as a result of long-standing conditions such as poverty, frequent repeated illnesses, poor hygiene and sanitation and inappropriate parenting. Based on the results of a literature study that family income has a significant relationship with the incidence of stunting in children (Rahmad AHAI, 2016). Children in families with low economic status tend to consume less nutritious food due to weak choice and purchasing power. In addition, inadequate family income results in a lack of family ability to provide children's primary and secondary needs and low access to health services when children are sick (Hadi, et al 2019).

This study was conducted to determine the relationship between family income and the incidence of stunting in the village of Kepala Sungai, Langkat Regency.

## 2. Method

This type of research is descriptive analytic research with a cross-sectional research design. Data collection was carried out only once to analyze the relationship between family income and the incidence of stunting in the Village of Sungai Chief, Secanggang District, Langkat Regency. The population in this study were families who had children aged 0-59 months with stunting conditions who were domiciled in the village of Kepala Sungai, Secanggang District, Langkat Regency as many as 26 people and all of them were used as samples (total sampling). Research analysis was carried out by univariate and bivariate. Univariate analysis was carried out to see the description of the frequency distribution on the independent variable, namely family income and the dependent variable, namely the incidence of stunting. Bivariate analysis was conducted to explain the relationship between the independent variable and the dependent variable with the Chi-Square Test. The results of the data analysis will then be presented in the form of narratives and frequency distribution tables.

## 3. Results and Discussion

TABLE 1  
FREQUENCY DISTRIBUTION OF FAMILY INCOME IN THE SUNGAI KEPALA VILLAGE

Family Income	N	%
< Rp. 1.500.00,-	12	46.2
Rp. 1.500.000,- - Rp. 2.500.000,-	11	42.3
>Rp. 2.500.000,-	3	11.5
<b>Total</b>	<b>26</b>	<b>100.0</b>

Based on Table 1 above, it is known that the income of families who have children under five who experience stunting in the Sungai Kepala Village, Langkat Regency, mostly have an average income of < Rp. 1,500,000.

TABLE 2  
FREQUENCY DISTRIBUTION OF STUNTING INCIDENCE RATES IN THE SUNGAI KEPALA VILLAGE

Family Income	N	%
Very short	14	53.8
Short	12	46.2
<b>Total</b>	<b>26</b>	<b>100.0</b>

Based on Table 2 above, it is known that the incidence of stunting in the Sungai Kepala Village, Langkat Regency is mostly very short, namely as many as 14 people (53.8%).

TABLE 3  
FREQUENCY DISTRIBUTION OF FAMILY INCOME IN THE SUNGAI KEPALA VILLAGE

Family Income	Number Incident Stunting				Amount		P-value
	VeryShort		Short		N	%	
	N	%	N	%			
< Rp. 1.500.00,-	8	30.8	4	15.4	12	46.2	0.010
Rp. 1.500.000,- - Rp. 2.500.000,-	2	7.7	9	34.6	11	42.3	
>Rp. 2.500.000,-	2	7.7	1	3.8	3	11.5	
<b>Total</b>	<b>12</b>	<b>46.2</b>	<b>14</b>	<b>53.8</b>	<b>26</b>	<b>100.0</b>	

Based on Table 3 above, it is known that the majority of family incomes <Rp.1,500,000,- have stunting toddlers, in this case 8 people who are very short toddlers (30.8%). From the results of the statistical analysis of the Chi-Square test, a p-value of 0.010 was obtained, which means that it states that there is a relationship between family income and the incidence of stunting in the Village of Chief of the River, Secanggang District, Langkat Regency.

### 3.1 Discussion

Stunting is a long-term manifestation condition due to inadequate food consumption factors in

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terms of quantity and low quality and increased exposure to the environment that increases disease susceptibility (Hadi et al., 2019).

Improvement and improvement of nutrition requires economic, social and other improvements. The state of the Covid-19 pandemic has greatly affected people's purchasing power due to large-scale social restrictions and a reduction in the workforce which has led to a decrease in family income. Low family income can increase the incidence of stunting. This is in line with Nasikah's research (2012) which states that the incidence of stunting which is influenced by family income has a 7 times greater risk. With many family members living in one house, it will affect the availability of food. People with low incomes tend to prefer foods that contain more carbohydrates than foods that contain protein. because carbohydrates are cheaper and in large quantities (Trisnawati, et al, 2016). Good economic status in a family also affects the acquisition of public services such as education, health services so that it will affect the nutritional status of children. Families with good nutritional status will increase family access to food and access to health service outcomes. This is in line with Agustin's research (2021) that family income is very influential on the nutritional status of toddlers, especially stunting toddlers. The reduction in stunting will be faster if all sectors are involved, such as empowering the small business sector for housewives which can later help increase family income sources and improve health status through meeting food needs in the household.

## 4. Conclusion

There is a relationship between family income and the incidence of stunting in the Village of Kepala Sungai, District of Secanggang. The incidence of stunting can be reduced by empowering the small business sector for housewives to increase sources of income for the family. So that it can improve the nutritional quality of food and improve the health status of the family.

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