

# Factors Related to Stunting Incidence in Toddlers Aged 25-59 Months in Integrated Service Post (POSYANDU) Durian Sub-District Pantai Labu in 2020

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## ABSTRACT

Stunting is one of the problems that hinder human development globally. Currently there are about 162 million children under five years old stunting, Poverty is the root of the problem of malnutrition, especially stunting which is a long-lasting state of malnutrition (chronic), the purpose of research to find out factors related to the incidence of stunting in toddlers aged 25-59 months in Integrated Service Post (Posyandu) Village durian sub-district pumpkin beach in 2020. Methodology of this research using quantitative approach aims to find out the correlation, cross sectional design, Population is all toddlers in Integrated Service Post (Posyandu) Durian Sub-district of Pantai Labu In 2020 as many as 89 toddlers aged 25-59 months. Sample in this study is all toddlers in Integrated Service Post (Posyandu) Durian Sub-District of Pantai Labu as many as 89 toddlers aged 25-59 months. Sampling was done by accidental sampling technique, data analyze used Statistical test in this study, used chi square formula of significance of 5% (0.05), the results of research and discussion of factors related to stunting events in toddlers aged 25-59 months can be drawn conclusions as follows, Birth Weight Factor is significantly related to the incidence of stunting, The history factor of exclusive breastfeeding is related significantly to the incidence of stunting, Factors of parenting patterns of toddlers are significantly related to the incidence of stunting in toddlers aged 25-59 months, infectious disease history factors are significantly related to the incidence of stunting, health care factors are significantly related to the incidence of stunting. It is recommended for

mothers to implement a good diet in accordance with balanced nutrition guidelines and it is expected that mothers spend time in between jobs to take care of their children.

**Keywords:** Stunting, Toddlers, Integrated Service Post

## INTRODUCTION

Stunting is one of the problems that hinder human development globally. Currently there are about 162 million children under the age of five stunting. If this trend continues it is projected that by 2025 there are 127 million children under the age of five will experience stunting. According to the United Nations Children's Emergency Fund (UNICEF), more than half of children live in ASIA and more than a third or 37% live in Africa. Indonesia is still experiencing problems in nutrition and child development problems. UNICEF says about 80% of stunting children are found in 24 developing countries in Asia and Africa. Indonesia is the fifth country to have the highest prevalence of stunting children after India, China, Nigeria and Pakistan. Currently, the prevalence of stunting children under 5 years old in South Asia is about 38%.

Basic Health Research results recorded stunting prevalence in 2007 of 36.8% had dropped to 35.6% in 2010, but increased to 37.2% in 2013. From the prevalence can be seen that the prevalence

stunting in Indonesia actually increased by 1.6% in the period 2010-2013 or 0.4% per year. The percentage of short toddlers in Indonesia is still high and is a health problem that must be addressed. Indonesia is included in the top five countries in the world for the number of stunting in children. Approximately one in three children or 37.2% of children in Indonesia suffer from stunting. That means 9.5 million children under the age of five suffer from malnutrition (WFP, 2014). The direct causes of malnutrition are unbalanced food intake and infectious diseases. As for indirect causes such as insufficient food supplies, inadequate child care patterns, sanitation/basic health services are inadequate. This is due to poverty, income, lack of education, knowledge and skills. While the root cause of malnutrition is economic, political and social crisis (UNICEF, 1998 in Baliwati 2016).

Risikesdas produces a map of health problems and their tendency in babies born to adulthood. Based on the results of Risikesdas (2017), the prevalence of malnutrition in toddlers (BB/U<-2SD), provides a volatile picture of 18.4% (2007) decreased to 17.9% (2016) then increased again to 19.6% (in 2017) consisting of 5.7% malnutrition and 13.9% malnutrition. From the data above the prevalence of malnutrition increased by 0.9% from 2007 to 2017. The prevalence of malnutrition also changed from 5.4% in 2007, 4.9% in 2016, and 5.7% in 2017. Bappenas in its Risikesdas (2017) results report stated that to achieve the MDG's 2015 target of 15.5% the prevalence of malnutrition nationally must be lowered by 4.1% in the period 2017 to 2019.

Public health problems are considered serious when the prevalence of malnutrition is less between 20.0-29.0%, and is considered very high prevalence when  $\geq 30\%$ . In 2017, the prevalence of malnutrition in children under five nationally was 19.6%, which means that severe-less nutrition problems in Indonesia are still a public health problem close to

high prevalence. Among the 33 provinces in Indonesia, 18 provinces have a prevalence of malnutrition-less above the national prevalence rate of between 21,2% to 33,1%. The province with a very high prevalence is NTT 33.1% followed by West Papua at 32%. While Aceh province is the seventh province for malnutrition prevalence of 26.3% (Risikesdas, 2017).

Balanced nutrition for children aged 0-2 years starts from conception until the first two years of birth, this period is a critical period, this period of brain cells has reached more than 80%. Malnutrition in this time of life needs serious attention. A diet with balanced nutrition, the baby will grow and develop optimally, including his intelligence. Lack of attention from parents, especially mothers in this critical period, failure to grow optimal growth will be carried away until adulthood permanently. If the pattern of breastfeeding is incorrect or the Breast Milk Companion Food (MP-ASI) is not sufficient for the needs of the body's nutrients, the baby will experience growth disorders (Nani, 2019).

With age, lower than nutrients intake, as well as high burden of infectious diseases at the beginning of life, most babies in Indonesia continue to experience decreased nutritional status with a peak decrease at the age of approximately 18-24 months. It is in this age group that the prevalence of skinny toddlers (wasting) and short toddlers (stunting) reaches the highest point. After passing the age of 24 months, the nutritional status of toddlers generally improved even though it is not perfect (Hadi, 2015).

Nutritional status can be influenced by internal and external factors. Internal factors are factors that become the basis for meeting the level of nutritional needs of a person including the intake of nutrients and infectious diseases (Almatsier, 2015). External factors that influence the nutritional status are parenting patterns in the form of attitudes and behaviors of mothers or other caregivers in terms of their closeness to the child, feeding, caring,

giving affection, providing time and so on (Soekirman, 2000). Citing Nurlianti's opinion in Arnisam (2016), states that malnourished children will decrease their immune system, making it easily exposed to infectious diseases. Kusriadi research results (2016), obtained results of toddlers infected with a certain disease have a greater risk of stunting events.

Adequate family income will support the growth of children, because parents can provide all the needs of children both primary and secondary. The income level also determines the type of food that will be purchased with additional income. The poor spend mostly on cereals, while the rich spend most of it on dairy products (Andriani & Wirjatmadi, 2012). Poverty is the root cause of malnutrition, especially stunting, which is a long-lasting (chronic) state of malnutrition. Poverty is the state of a family that is unable to care for itself and its family with a standard of life, and also unable to use its energy, mental, or physical to meet its needs. Poor families with children under five cannot meet their growth and development needs, where children experience deviations from normal growth and development (Almatsier, 2015).

The ability of a household to access health services is related to the availability of health care facilities as well as the economic ability to pay the cost of services. Health services are particularly sensitive to changing economic situations. Disruption of the economic situation will interfere with the accessibility of people and families to health services, for example: immunization services, treatments related to growth, morbidity, and child mortality (Martin et.al 2018).

Based on the initial survey conducted by researchers on January 11, 2020 in Durian Hamlet Pantai Labu District 2020 from data obtained the number of toddlers who experienced stunting the last five years is in 2015 toddlers who experienced stunting as many as 10 toddlers aged 1-2 years in 2016 toddlers who experienced stunting 13 people aged 1-4

years, in 2017 toddlers who experienced stunting as many as 18 toddlers with the age of toddlers 1-4 years, in 2018 toddlers who experienced stunting as many as 23 people with coverage aged 1-5 years and in 2019 toddlers who experienced stunting 21 people with coverage aged 1-5 years.

Based on the data above many factors that cause still high incidence of stunting in The Village Durian Pantai Labu district is caused by factors of birth weight, factors of history of exclusive breastfeeding, factors of parenting patterns of children under five, factors of history of infectious diseases, health care factors and family income factors. Based on several factors above, So researching interested to research with the title "Factors Related to Stunting Events In Toddlers Age 25-59 Months In Integrated Service Post (Posyandu) Durian Sub-District Pantai Labu year 2020.

## **METHOD**

Research design is a master plan that contains methods and procedures for collecting and analyzing the required information establishing the sources of information, techniques that will be used to be able to answer research questions (Notoadmojo 2010). This research uses analytical survey research design with cross sectional approach that is the research subject is only observed once at the same time. This study will analyze the factors related to stunting incidence in toddlers aged 25-59 months in integrated service post (POSYANDU) Durian Sub-District Pantai Labu In 2020.

## **RESULTS**

Data Characteristic of Respondents in Posyandu Durian Sub-District Pantai Labu year 2020

Data on distribution of respondent characteristics was taken from 54 respondents covering age, education, and occupation. The full results can be found in the following table 1.

**Table 1: Distribution of Respondent Characteristics Frequency in Posyandu Durian Sub-District Pantai Labu year 2020**

No	Characteristics of Respondents	Amount	
		Frequency	Percentage (%)
1	Age		
	20-30 Year	6	11,1
	31-40 Year	32	59,3
	41-50 Year	16	29,6
	<b>Total</b>	<b>54</b>	<b>100,0</b>
2	Education		
	Elementary School	3	5,6
	Junior High School	13	24,1
	Senior High School	30	55,6
	High Education	8	14,8
	<b>Total</b>	<b>54</b>	<b>100,0</b>
3	Job		
	Civil Servants	6	11,1
	Farmer	3	5,6
	Self-employed	23	42,6
	Labour	17	31,5
	Fisherman	5	9,3
	<b>Total</b>	<b>54</b>	<b>100,0</b>

Based on table above, it is known that the characteristics of respondents based on the age of the majority of respondents aged between 31-40 years as many as 32 respondents (59.3%), with the level of education of the majority of respondents who graduated from high school (SMA) of 30 respondents (55.6%), and most respondents worked as self-employed as many as 23 respondents (42.6%).

### Birth Weight Factor in Toddlers Aged 25-59 Months in Posyandu Dusun Durian Kecamatan Pantai Labu Year 2020

Data on the distribution of weight factors born in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 can be seen in table below:

**Table 2: Frequency Distribution of Birth Weight Factor In Toddlers Age 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020**

No	Birth Weight Factor	Amount	Percentage (%)
1	>2500 gr	30	55,6
2	<2500 gr	24	44,4
	<b>Total</b>	<b>54</b>	<b>100,0</b>

Based on table above, it is known that the Birth Weight Factor in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020 is majority of >2500 grams as much as 30 respondents (55.6%).

### Exclusive Breastfeeding History Factor for Toddlers Aged 25-59 Months in

### Posyandu Durian Sub-District Pantai Labu year 2020

Data on distribution of exclusive breastfeeding history factor in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 can be seen in table 4.3 below:

**Table 3: Distribution of Frequency factor of Exclusive Breastfeeding History in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020**

No	Exclusive Breast feeding History	Amount	Percentage (%)
1	Given	30	55,6
2	Not Given	24	44,4
	<b>Total</b>	<b>54</b>	<b>100,0</b>

Based on table above, it is known that the history factor of exclusive breastfeeding in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 is mostly given as many as 30 respondents (55.6%).

### Child Care Pattern Factor in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

Data on distribution of Child Care Pattern factor in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 can be seen in table below:

**Table 4: Frequency Distribution of Child Care Pattern Factor in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020**

No	Child Care Patterns	Amount	Percentage (%)
1	Good	17	31,5
2	Enough	25	46,3
3	Less	12	22,2
	<b>Total</b>	<b>54</b>	<b>100,0</b>

Based on table above, it is known that the pattern of child care in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 is majority of 25 respondents (46.3%).

### History of Infectious Diseases in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

Data on distribution of infectious disease history factor in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 can be seen in table below:

**Table 5: Distribution of Frequency of Infectious Disease History Factor in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020**

No	History of Infectious Diseases	Amount	Percentage (%)
1	Exist	31	57,4
2	None	23	42,6
	<b>Total</b>	<b>54</b>	<b>100,0</b>

Based on the table above, it is known that the history of infectious diseases in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 has a history of infectious diseases as many as 31 respondents (57.4%).

### Health Service Factor in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

Data on distribution of health care factors in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 can be seen in table below:

**Table 6: Distribution of Frequency of Health Service Factors in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020**

No	Health Service	Amount	Percentage (%)
1	Good	15	27,8
2	Enough	23	42,6
3	Less	16	29,6
	<b>Total</b>	<b>54</b>	<b>100,0</b>

Based on table above, it is known that seen from health care factors in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 the majority get adequate health services as many as 23 respondents (42.6%).

### Family Income Factor with Stunting Incident in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

Data on distribution of family income factor with Stunting Incident in

toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 can be seen in table below:

**Table 7: Distribution of Frequency of Family Income Factor with Stunting Incident in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020**

No	Family Income	Amount	Percentage (%)
1	> Minimum Wage	22	40,7
2	< Minimum Wage	32	59,3
	<b>Total</b>	<b>54</b>	<b>100,0</b>

Based on the table above, it is known that the family income factor with Stunting Incident in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 is low majority (<Minimum Wage) of 32 respondents (59.3%).

### Stunting Incident in Toddlers Aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020

Data distribution of Stunting Incidents in Toddlers Aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 can be seen in the following table:

**Table 8: Distribution of Stunting Frequency in Toddlers Aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020**

No	Stunting Frequency	Amount	Percentage (%)
1	Stunting	25	46,3
2	Not Stunting	29	53,7
	<b>Total</b>	<b>54</b>	<b>100,0</b>

Based on the table above, it is known that the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020, the majority of stunting did not occur as many as 29 toddlers (53.7%), while toddlers who became stunting events as many as 25 toddlers (46.3%).

## Bivariate Analysis

### Birth Weight Factor Related to Stunting Incident in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

**Table 9: Cross Tabulation of Birth Weight Factor Related to Stunting Incident in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020**

No	Birth Weight	Stunting Frequency				Total		X <sup>2</sup> <sub>count</sub>	p-value
		Stunting		Not Stunting					
		f	%	f	%	f	%		
1	>2500 gr	8	14,8	22	40,7	30	55,6	10,461	0,001
2	<2500 gr	17	31,5	7	13,0	24	44,4		
	<b>Total</b>	<b>25</b>	<b>46,3</b>	<b>29</b>	<b>53,7</b>	<b>54</b>	<b>100,0</b>		

Based on the table above it is known that of the 30 toddlers with >2500 gr the majority did not experience stunting as many as 22 toddlers (40.7%) and stunting toddlers as many as 8 toddlers (14.8%). While of the 24 toddlers with <2500 gr the majority experienced stunting as many as 17 toddlers (31.5%) and toddlers who are not stunting as many as 7 toddlers (13.0%)

Chi square statistical test results obtained p value = 0.001 (p<0.05) so that

the Alternative Hypothesis (Ha) was accepted which means the Birth Weight factor is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020. These results showed that toddlers with a birth weight of <2500 gr were at risk of stunting events compared to toddlers with a birth weight of >2500 gr.

### Exclusive Breastfeeding History Factor Related to Stunting Events in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

Table 10: Cross-Tabulation of Exclusive Breastfeeding History Related to Stunting Incidents in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

No	Exclusive Breastfeeding History	Stunting Frequency				Total		X <sup>2</sup> <sub>count</sub>	p-value
		Stunting		Not Stunting		f	%		
		f	%	f	%				
1	Given	7	13,0	23	42,6	30	55,6	14,316	0,000
2	Not Given	18	33,3	6	11,1	24	44,4		
	<b>Total</b>	<b>25</b>	<b>46,3</b>	<b>29</b>	<b>53,7</b>	<b>54</b>	<b>100,0</b>		

Based on the table above it is known that of the 30 toddlers given exclusive breast milk the majority did not experience stunting as many as 23 toddlers (42.6%) and stunting toddlers as many as 7 toddlers (13.0%). While of the 24 toddlers who were not given exclusive breast milk, the majority experienced stunting as many as 18 toddlers (33.3%) and toddlers who are not stunting as many as 6 toddlers (11.1%).

Chi square statistical test results obtained a value of p value = 0.000 (p<0.05)

so that the Alternative Hypothesis (Ha) was accepted which means that the history factor of exclusive breastfeeding is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020. These results showed that toddlers with a history of not being given exclusive breast milk were at risk of stunting compared to toddlers with an exclusive history of breastfeeding.

### Child Care Pattern Factor Related to Stunting Incident in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

Table 11: Cross Tabulation of Child Care Pattern Factor Related to Stunting Incident in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

No	Parenting Patterns for Toddlers	Stunting Frequency				Total		X <sup>2</sup> <sub>count</sub>	p-value
		Stunting		Not Stunting		f	%		
		f	%	f	%				
1	Good	1	1,9	16	29,6	17	31,5	31,430	0,000
2	Enough	13	24,1	12	22,2	25	46,3		
3	Less	11	20,4	1	1,9	12	22,2		
	<b>Total</b>	<b>25</b>	<b>46,3</b>	<b>29</b>	<b>53,7</b>	<b>54</b>	<b>100,0</b>		

Based on the table above it is known that of the 30 toddlers with good parenting patterns the majority did not experience stunting as many as 16 toddlers (29.6%) and stunting toddlers 1 toddler (1.9%). Then of the 25 toddlers with a sufficient parenting

pattern, the majority experienced stunting as many as 13 toddlers (24.1%) and toddlers who did not stunting 12 toddlers (22.2%). While of the 12 toddlers with less foster care, the majority experienced stunting as

many as 11 toddlers (20.4%) and toddlers who are not stunting 1 toddler (1.9%).

Chi square statistical test results obtained a value of p value = 0.000 ( $p < 0.05$ ) so that the Alternative Hypothesis ( $H_a$ ) was accepted which means that the parenting pattern factor of toddlers is significantly

related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020. These results showed that toddlers with less foster care patterns were at risk of stunting than toddlers with good parenting patterns.

### History factor of Infectious Diseases Related to Stunting Incidence in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

Table 12: Cross-Tabulation of Infectious Disease History Factors Related to Stunting Events In Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

No	History of Infectious Diseases	Stunting Frequency				Total		$X^2_{count}$	p-value
		Stunting		Not Stunting		f	%		
		f	%	f	%				
1	Exist	22	40,7	9	16,7	31	57,4	17,818	0,000
2	None	3	5,6	20	37,0	23	42,6		
	<b>Total</b>	<b>25</b>	<b>46,3</b>	<b>29</b>	<b>53,7</b>	<b>54</b>	<b>100,0</b>		

Based on the table above it is known that of the 31 toddlers who have a history of infectious diseases the majority experienced stunting events of 22 toddlers (40.7%) and toddlers who are not stunting as many as 9 toddlers (16.7%). While of the 23 toddlers who had no history of infectious diseases the majority did not experience stunting 20 toddlers (37.0%) and stunting toddlers as many as 3 toddlers (5.6%).

Chi square statistical test results obtained a value of p value = 0.000 ( $p < 0.05$ )

so that the Alternative Hypothesis ( $H_a$ ) was accepted which means the history factor of infectious diseases is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020. These results showed that toddlers with a history of infectious diseases were at risk of stunting compared to toddlers with no history of infectious diseases.

### Health Service Factors Related to Stunting Events in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

Table 13: Cross-Tabulation of Health Service Factors Related to Stunting Events In Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

No	Health Service	Stunting Frequency				Total		$X^2_{count}$	p-value
		Stunting		Not Stunting		f	%		
		f	%	f	%				
1	Good	4	7,4	11	20,4	15	27,8	8,102	0,017
2	Enough	9	16,7	14	25,9	23	42,6		
3	Less	12	22,2	4	7,4	16	29,6		
	<b>Total</b>	<b>25</b>	<b>46,3</b>	<b>29</b>	<b>53,7</b>	<b>54</b>	<b>100,0</b>		

Based on the table above it is known that of the 15 toddlers who get good health services the majority do not experience stunting as many as 11 toddlers (20.4%) and stunting toddlers 4 toddlers (7.4%). Then of the 25 toddlers who received health services, the majority did not experience stunting as many as 14 toddlers (25.9%) and stunting toddlers 9 toddlers (16.7%). While of the 16 toddlers who lacked health

services the majority experienced stunting as many as 12 toddlers (22.2%) and toddlers who are not stunting 4 toddlers (7.4%).

Chi square statistical test results obtained p value = 0.017 ( $p < 0.05$ ) so that the Alternative Hypothesis ( $H_a$ ) was accepted which means that health care factors are significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District

Pantai Labu year 2020. These results show that toddlers who do not get health services are at risk of stunting events compared to toddlers who get good health services.

### Family Income Factors Related to Stunting Events in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

Table 14: Cross-Tabulation of Family Income Factors Related to Stunting Events In Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020

No	Family Income	Stunting Frequency				Total		X <sup>2</sup> <sub>count</sub>	p-value
		Stunting		Not Stunting		f	%		
		f	%	F	%				
1	>Minimum Wage	6	11,1	16	29,6	22	40,7	5,404	0,020
2	< Minimum Wage	19	35,2	13	24,1	32	59,3		
	<b>Total</b>	<b>25</b>	<b>46,3</b>	<b>29</b>	<b>53,7</b>	<b>54</b>	<b>100,0</b>		

Based on the table above, it is known that of the 32 respondents with income <UMK the majority have toddlers with stunting events of 19 toddlers (35.2%) and non-stunting toddlers as many as 13 toddlers (24.1%). While of the 22 respondents with >Minimum Wage the majority have stunting toddlers 16 toddlers (29.6%) and stunting toddlers as many as 6 toddlers (11.1%).

Chi square statistical test results obtained p value = 0.020 (p<0.05) so that the Alternative Hypothesis (Ha) was accepted which means the family income factor is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020. These results showed that respondents with low family incomes were at risk of having a toddler with stunting events compared to respondents with high incomes.

## DISCUSSION

### Birth Weight Factor Related to Stunting Incident in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu Year 2020

Univariate analysis with BBLR factor showed that most toddlers have a history of normal birth weight of 30 people (55.6%). From the results of bivariate analysis between birth weight factors related to stunting events in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 it is known that out of 30 toddlers with >2500 gr the majority did not experience stunting as many as 22

toddlers (40.7%) and stunting toddlers as many as 8 toddlers (14.8%). While of the 24 toddlers with <2500 gr the majority experienced stunting as many as 17 toddlers (31.5%) and toddlers who are not stunting as many as 7 toddlers (13.0%).

Chi square statistical test results obtained p value = 0.001 (p<0.05) so that the Alternative Hypothesis (Ha) was accepted which means the Birth Weight factor is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020. These results showed that toddlers with a birth weight of <2500 gr were at risk of stunting events compared to toddlers with a birth weight of >2500 gr. The results of this study are in accordance with Yusdarif's research (2017), that there is a meaningful relationship between BBLR and stunting events in children aged 24-59 months, so toddlers with BBLR history have a 1.31 times greater chance of stunting. Rahayu's research (2015), showed BBLR is the most dominant risk factor with stunting events.

BBLR reflects a very early malnutrition in a child's life and requires more attention in the coming days. Children suffering from malnutrition with BBLR and stunted when in adolescence and adulthood will experience poor growth problems and last a long time as a cycle of malnutrition (Ranuh, 2013). Babies born with BBLR will experience obstacles to their growth and development and the possibility of deterioration of intellectual function. In addition, babies are more susceptible to



infection and hypothermia. Birth weight is strongly associated with the growth and long-term development of toddlers. Babies born with low birth weight (BBLR) will experience obstacles to their growth and development and the possibility of deterioration of intellectual function. In addition, babies are more susceptible to infection and hypothermia.

### **Exclusive Breastfeeding History Factor Related to Stunting Events In Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu Year 2020**

Based on the results of bivariate data analysis about the history of exclusive breastfeeding related to stunting events in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 it is known that of the 30 toddlers given exclusive breast milk the majority did not experience stunting as many as 23 toddlers (42.6%) and stunting toddlers as many as 7 toddlers (13.0%). While of the 24 toddlers who were not given exclusive breast milk, the majority experienced stunting as many as 18 toddlers (33.3%) and toddlers who are not stunting as many as 6 toddlers (11.1%).

The results of chi square statistical test obtained p value = 0.000 ( $p < 0.05$ ) so that the Alternative Hypothesis ( $H_a$ ) was accepted which means that the history factor of exclusive breastfeeding is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020. The results of this study are in accordance with azriful research, et al (2018), which states that there is a meaningful relationship between exclusive breastfeeding and stunting events ( $p = 0.000$ ) in Rangas Village. In addition to the Hana Sofia research (2012), it is explained that exclusive breastfeeding that is too long (>6 months) can cause children to miss the opportunity to train the ability to receive other foods so that it is difficult to receive any form of food other than liquid. This can lead to growth altering, because the baby has a deficiency of nutrients.

There are still toddlers who get exclusive breast milk but are stunted, due to other factors, namely the economic status of the family. A total of 7 stunting toddlers who get breast milk exclusively, have low economic status (11.1%). Low income causes the expenditure of money to buy food is limited, so that if the toddler gets exclusive breast milk, but after the age of 6 months given MP-breast milk that does not fit the nutritional needs, the child can easily get sick and stunting. Low breastfeeding is a threat to child development that will affect the growth and development of quality human resources in general. Good breastfeeding by the mother will help maintain the child's nutritional balance so that normal child growth is achieved. Breast milk is needed in the growing period of the baby so that his nutritional needs are met. Therefore, the mother must and must give breast milk exclusively to the baby until the age of 6 months and still provide breast milk until the baby is 2 years old to meet the nutritional needs of the baby.

In line with the research conducted Aridiyah (2015) that the incidence of stunting in children under five both in rural and urban areas is influenced by the variables of exclusive breastfeeding. Low exclusive breastfeeding is one of the triggers of stunting in toddlers caused by past events and will have an impact on the future of children under five, otherwise good breastfeeding by mothers will help maintain the nutritional balance of children so as to achieve normal child growth. da et al. (2017) research, that there is a link between birth weight and the incidence of stunting at the age of 0-59 months in the central region of Mozambique. The results of other research by Atikah Rahayu (2015), obtained that BBLR is the most dominant risk factor related to the incidence of clown child stunting in the Karias River Health Center area, Upper North River.

Birth weight is generally strongly associated with fetal, neonatal and postneonatal mortality, infant and child morbidity as well as long-term growth and

development. The impact of babies having low birth weight will last from generation to generation; children with BBLR will have less anthropometric size on their development.

### **Child Care Pattern Factor Related to Stunting Incident in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020**

Based on bivariate data analysis above it is known that of 30 toddlers with good parenting patterns the majority did not experience stunting as many as 16 toddlers (29.6%) and stunting toddlers 1 toddler (1.9%). Then of the 25 toddlers with a sufficient parenting pattern, the majority experienced stunting as many as 13 toddlers (24.1%) and toddlers who did not stunting 12 toddlers (22.2%). While of the 12 toddlers with less foster care, the majority experienced stunting as many as 11 toddlers (20.4%) and toddlers who are not stunting 1 toddler (1.9%). Chi square statistical test results obtained a value of  $p$  value = 0.000 ( $p < 0.05$ ) so that the Alternative Hypothesis ( $H_a$ ) was accepted which means that the parenting pattern factor of toddlers is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020. These results showed that toddlers with less foster care patterns were at risk of stunting than toddlers with good parenting patterns.

According to Rahmayana's research (2014) that the role of families, especially mothers in parenting, will determine the growth of children. The mother's behavior in breastfeeding or feeding, a healthy way of eating, giving nutritious food and controlling the amount of food spent will improve the nutritional status of the child. In addition, children who get more support from the mother in terms of feeding will have a positive effect on the state of her nutritional status. Mother's nutrition foster pattern is good if supported by the mother's knowledge of nutrition is also good, based on information obtained from respondents,

where they do not know how to cope with children who do not want to eat and want only snacks (junkfood) for that with the new government policy that is the movement of 1000 HPK is expected public nutrition education or in its operational language called KIE (Communication, Information and Education) Nutrition. For the general public, Nutrition Education to provide knowledge, foster attitudes and create healthy living behaviors with Balanced Nutrition. In balanced nutrition not only educates about food and balance of nutritional composition and the body's need for nutrients (carbohydrates, proteins, fats, vitamins and minerals, and water), but also balances with a clean lifestyle to prevent food contamination and infection so that it can understand how good nutrition foster patterns are. (Maywita, 2015)

Stunting problem is a very complex problem, because many things can cause this problem, for that is done multivariate analysis. From the results of this analysis, it was found that the most dominant cause of stunting is nutritional foster care patterns in toddlers. Where parenting pattern is one of the factors that play an important role in the nutritional status of toddlers. Nutritional problems are influenced by many factors that affect each other complexly. One of the things that affects her is the mother, the nutritional condition is influenced by the mother's ability to provide adequate food for the child as well as foster care patterns that are influenced by family income factors, education, behavior and the number of siblings. (Maywita, 2015). Healthy feeding, nutritious feeding and regulating the portion spent will improve the nutritional status of the child. Good food for infants and toddlers must meet the requirements of energy adequacy and nutrition according to age, balanced menu patterns with available foodstuffs, children's habits and appetites, the shape and portions of food tailored to the child's condition and pay attention to individual and environmental hygiene (Handayani 2012).

This is in line with a study conducted by Saragih (2014) which mentioned the practice of feeding by mothers in normal groups of children (not stunting) better than in the stunting group of children. The feeding practices include the frequency of feeding, intersing feeding, consideration of type selection, complete feeding, timing and method of feeding. Poor feeding practices result in children not obtaining a balanced nutritional intake and cumulatively resulting in impaired child growth. Several other studies that mention the pattern of foster feeding done by mothers in stunting toddlers are mostly not appropriate where the mother does not pay attention to the nutritional needs of toddlers. Mothers provide food following the family's diet and make use of the groceries available in the household. Feeding toddlers only follows the child's will, without forcing food or not looking for other food variations (Loya, 2017)

From the results of the study, most respondents have a habit of getting adequate health care for their toddlers. Obtained information of mothers of toddlers from poor families are able to provide a pattern of foster care by having a habit of getting good health services due to the availability of affordable health care facilities so as to facilitate access to immunizations, vitamin A routinely, the presence of Posyandu every month and the right and professional medical facilities. In low economic conditions, mothers of poor families can take advantage of health facilities for free supported by health insurance provided by the government.

Fostering good health in the study are toddlers who are not affected by infectious diseases, treatment in health facilities, weighing every month in Posyandu and getting immunizations according to age. Basic immunization is very important for toddlers to overcome immune disorders against infectious diseases due to the decreased production of antibodies resulting in the ease of disease entering the body of toddlers. The end

impact is the failure of optimal growth of children in accordance with age so as to increase the incidence of stunting. (Rahmad, et.al. 2013) Nutritional problems are directly affected by nutrient intake and exacerbated by exposure to infectious diseases in toddlers. The incidence of disease infection in children is closely related to access and utilization of health services. Habits in trying to get health services include how mothers to access children's health services by providing complete immunizations, disease treatment and professional assistance in maintaining children's health. This is very instrumental in improving the nutritional status of children where mothers try to take advantage of existing health services to obtain correct health information. Efforts to increase the utilization of health services are adding health information to mothers with various activities such as nutrition and health counseling and nutrition counseling for mothers with toddlers who have nutritional problems.

#### **History factor of Infectious Diseases Related to Stunting Incidence in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020**

Based on the results of bivariate analysis above, it is known that of the 31 toddlers who have a history of infectious diseases, the majority experienced stunting events of 22 toddlers (40.7%) and toddlers who are not stunting as many as 9 toddlers (16.7%). While of the 23 toddlers who had no history of infectious diseases the majority did not experience stunting 20 toddlers (37.0%) and stunting toddlers as many as 3 toddlers (5.6%).

Chi square statistical test results obtained a value of p value = 0.000 ( $p < 0.05$ ) so that the Alternative Hypothesis ( $H_a$ ) was accepted which means the history factor of infectious diseases is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020. These results showed that toddlers with a history

of infectious diseases were at risk of stunting compared to toddlers with no history of infectious diseases. The above results are in accordance with Wanda's research (2014), stating that infectious diseases (diarrhea and ISPA) are risk factors for the incidence of stunting toddlers. Diarrhea and ISPA is one of the infectious diseases that are often suffered by children and give a negative impact on nutritional status, reduce appetite and absorption of nutrients in the intestine, there is an increase in catabolism so that the reserves of available nutrients are not enough for the formation of body tissues and growth.

Another study by Ermawati (2016), stated that there is a meaningful relationship between the history of infectious diseases (fever, cough, runny nose, asthma and diarrhea) to the incidence of stunting toddlers (68.4%). This condition is because infection can inhibit linear growth through decreased food intake along with absorption of nutrients, loss of nutrients, increased metabolic needs and inhibit the transfer of nutrients to the tissues. Based on the results of this study it was obtained that there is a meaningful relationship between infectious diseases to stunting status. The results of this study are in line with Nabuasa research, et al (2013) which stated that there is a link between infectious diseases and stunting events in children aged 24-59 months in North Biboki District of North Central Timor Province East Nusa Tenggara because of the high number of children suffering from acute respiratory infections (ISPA) caused by sanitation and inappropriate home conditions.

Aridiyah research (2015) states that infectious diseases can decrease food intake, interfere with the absorption of nutrients, cause the loss of nutrients directly, increase metabolic needs. There are alternating interactions between nutritional status and infectious diseases. Malnutrition can increase the risk of infection, while infection can lead to malnutrition that leads to a vicious circle. If this condition occurs for a long time and is not immediately

addressed, it can decrease food intake and interfere with the absorption of nutrients, so as to increase the risk of stunting in children under five.

The results of this study showed that stunting is found in many children who have infectious diseases. On average, children who have this infection also experience a decrease in appetite. In fact, children who are in a state of illness need adequate nutritional intake to speed up the recovery process. From the results of the analysis it is known that the child is sick for at least 7 days and there are children who have been sick 2 times in the last 3 months. If the infection occurs over a long period of time and repeats, it can result in the child's growth being hampered and the child eventually becoming short.

Based on the results of the analysis, it is known that the most common disease suffered by children aged 24-59 months in Posyandu Durian Sub-District Pantai Labu is fever accompanied by cough and flu. This is because children spend more time outdoors to play with their friends. When children play, they often forget about their meal schedules. Irregular eating schedule can also affect children's food intake so that it affects the child's immune system. If the child's immune system is weakened then the child will be easily exposed to infection. While playing, children also directly exposed the bacteria and viruses in their play environment. Moreover, children have a habit of not washing their hands before eating. Making it easier for children to get infections.

### **Health Service Factors Related to Stunting Events in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020**

Based on the results of bivariate analysis above it is known that of the 15 toddlers who get good health services the majority do not experience stunting as many as 11 toddlers (20.4%) and stunting toddlers 4 toddlers (7.4%). Then of the 25 toddlers who received health services, the majority

did not experience stunting as many as 14 toddlers (25.9%) and stunting toddlers 9 toddlers (16.7%). While of the 16 toddlers who lacked health services the majority experienced stunting as many as 12 toddlers (22.2%) and toddlers who are not stunting 4 toddlers (7.4%).

Chi square statistical test results obtained p value = 0.017 ( $p < 0.05$ ) so that the Alternative Hypothesis ( $H_a$ ) was accepted which means that health care factors are significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020. These results show that toddlers who do not get health services are at risk of stunting events compared to toddlers who get good health services.

From posyandu utilization factor obtained by respondents who use posyandu as a means of health services that have toddlers with normal weight of 15 people (27.8%) and have stunting toddlers as many as 4 people (7.4%). While in respondents who do not use Posyandu as a means of health services have toddlers with normal weight as many as 23 people (42.6%) and have stunting toddlers as many as 9 people (16.7%). According to Greenin Notoatmodjo (2012) said that people's behavior related to health services is influenced by several factors, namely predisposition such as knowledge and public attitudes. The possible factor is people's access to posyandu facilities. Access to facilities can support and enable the realization of healthy behaviors. Factor strengthening facilities and infrastructure as well as cadre skills in monitoring child development, attitudes of religious leaders and community leaders as well as the attitude of health workers.

Health services are the access or affordability of children and families to disease prevention and health care efforts such as immunization. Lack of knowledge is an obstacle for the community and families to make good use of available health services that can have an impact on the nutritional status of children (Soetjningsih,

2012). Schroder's research (2001) in Fitri (2012) stated that malnutrition is influenced by lack of food consumption and the presence of infectious diseases and the underlying causes are food, foster care and health services. Soetjningsih (2012) suggested that children's health should get attention from parents by immediately bringing their sick children to the nearest health care place. Toddlers are very susceptible to diseases such as: flu, diarrhea or other infectious diseases. One factor that makes it easier for children under five to get sick is the state of the environment.

### **Family Income Factors Related to Stunting Events in Toddlers Aged 25-59 Months in Posyandu Durian Sub-District Pantai Labu year 2020**

Based on the results of the study, it was found that of the 32 respondents with incomes of <Minimum Wage the majority had toddlers with stunting events of 19 toddlers (35.2%) and non-stunting toddlers as many as 13 toddlers (24.1%). While of the 22 respondents with stunting income >Minimum Wage the majority had stunting toddlers 16 toddlers (29.6%) and stunting toddlers as many as 6 toddlers (11.1%). Chi square statistical test results obtained p value = 0.020 ( $p < 0.05$ ) so that the Alternative Hypothesis ( $H_a$ ) was accepted which means the family income factor is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020. These results showed that respondents with low family incomes were at risk of having a toddler with stunting events compared to respondents with high incomes.

The results of this study are in line with Hamdana's research (2018) showing that most toddler families have economic status above MSEs of 61.2%. The result of analysis of the relationship of family economic status to stunting events using Chi-Square, obtained  $p = 0.007$  ( $p < 0.05$ ), it can be concluded that there is a meaningful relationship between the economic status of

the family and the incidence of stunting in toddlers in Kricak Village. Zilda Oktarina research (2013), stated that toddlers who come from families with low economic status, experience more stunting than toddlers from families with high economic status. Aridiyah research (2015), shows there is a relationship between family income to stunting events in children in rural areas and in urban areas.

The economic status of the household is seen as having a significant impact on the probability of a child being short and thin. In this case, who recommends short nutritional status or stunting as a measuring instrument for low socioeconomic levels and as one of the indicators for monitoring equity in health (Zere and McIntyre, 2003 in Paramitha, 2012). Economic factors that affect nutritional status begin from the level of education that affects the type of work. Then this type of work will have an effect on income. Low income is an obstacle for the family to be able to meet nutritional needs, both in terms of quality and quantity for all family members. Low incomes lead to the expenditure of money to buy limited groceries. This condition causes people to not be able to buy the necessary amounts of groceries.

From the results of the study obtained that there is a relationship between the level of family income and stunting, in accordance with the opinion of Nursalam, 2005 in Putri Anindita, 2012, which said that the growth of babies is influenced by family income. If low income families are able to manage nutritious food with simple and cheap ingredients then the growth of babies will also be good. The results of this study are in line with Aridiyah research (2015) shows there is a significant relationship between family income to stunting events in toddlers both in rural and urban areas. When viewed from the characteristics of family income that the root of the problem of the impact of baby growth and various other nutritional problems, one of which is caused and

derived from the economic crisis. Most children with growth disorders have low economic status.

## CONCLUSION

From the results of research and discussion on factors related to stunting events in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020 can be concluded as follows:

1. Birth Weight Factor is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020, with a value of p value = 0.001 ( $p < < > 0.05$ ).
2. The history factor of exclusive breastfeeding is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020, with a value of p value = 0.000 ( $p < 0.05$ ). These results showed that toddlers with a history of not being given exclusive breast milk were at risk of stunting compared to toddlers with an exclusive history of breastfeeding.
3. The pattern of foster care of toddlers is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020, with a value of p value = 0.000 ( $p < 0.05$ ). These results showed that toddlers with less foster care patterns were at risk of stunting than toddlers with good parenting patterns.
4. The history of infectious diseases is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020, with a value of p value = 0.000 ( $p < 0.05$ ). These results showed that toddlers with a history of infectious diseases were at risk of stunting compared to toddlers with no history of infectious diseases.
5. Health service factors are significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year

2020, with a value of p value = 0.017 ( $p < 0.05$ ). These results show that toddlers who do not get health services are at risk of stunting events compared to toddlers who get good health services.

6. The family income factor is significantly related to the incidence of stunting in toddlers aged 25-59 months in Posyandu Durian Sub-District Pantai Labu year 2020, with a value of p value = 0.020 ( $p < 0.05$ ). These results showed that respondents with low family incomes were at risk of having a toddler with stunting events compared to respondents with high incomes.

## REFERENCES

1. Akombi, Blessing Jaka, Agho Kingsley E, Hall John J, Merom Dafna, Astel- Burt Thomas, and Renzaho Andre M.N. 2017. Stunting and severe stunting among children under-5 years in Nigeria: A multilevel analysis. Nigeria: BMC Pediatric
2. Ali, Zakari, Saaka Mahama, Adams Abdul-Ganiyu, Kamwininaang Stephen K, Abizari Abdul-Razak. 2017. The effect of maternal and child factors on stunting, wasting and underweight among preschool children in Northern Ghana. Ghana: BMC Nutrition
3. Aryastami, Ni Ketut, Shankar Anuraj, Kusumawardani Nunik, Besral Besral, Jahari Abas Basuni, Achadi Endang. 2017. Low birth weight was the most dominant predictor associated with stunting among children aged 12–23 months in Indonesia. Indonesia: BMC Nutrition
4. Anisa, Paramitha. 2012. Faktor-Faktor Yang Berhubungan Dengan Kejadian Stunting Pada Balita Usia 25-60 Bulan Di Kelurahan Kalibiru Depok Tahun 2012. Jakarta: Universitas Indonesia.
5. Arifin, D.Z., Irdasari, S.Y., Sukandar,H. 2012. Analisis sebaran dan faktor resiko stunting pada balita di Kabupaten Purwakarta. Epidemiologi Komunitas FKUP Bandung
6. Candra A., Puruhita N., Susanto J.C., 2011. Risk Factors of Stunting among 1-2 Years Old Children in Semarang City. M Med Indones, 45(3): 206-12.
7. Dinas Kesehatan DIY. 2016. Profil Kesehatan DIY Tahun 2016. Yogyakarta: Dinkes DIY
8. Dinas Kesehatan Kabupaten Gunungkidul. 2016. Profil Kesehatan Kabupaten Gunungkidul Tahun 2016. Yogyakarta: Dinkes Kabupaten Gunungkidul
9. Gibson, R. S. 2005. Principles of Nutritional Assessment. Second Edition. Oxford University Press Inc, New York
10. Senbanjo, I., et al. 2011. Prevalence of and Risk factors for Stunting among School Children and Adolescents in Abeokuta, Southwest Nigeria. Journal of Health Population and Nutrition. 29(4): 364-370
11. Supariasa. 2001. Penilaian Status Gizi. Buku Kedokteran EGC. Jakarta. Kementrian Kesehatan RI. 2007.
12. Riset Kesehatan Dasar Tahun 2007. Jakarta: Kemenkes RI. Diunduh tanggal 10 April 2017 dari [www.depkes.go.id](http://www.depkes.go.id)
13. UNICEF. 2016. A Fair Chance For Every Child. New York. USA [www.unicef.org/publications](http://www.unicef.org/publications). Accessed on April, 11th 2020
14. Kementrian Kesehatan RI. 2016. Pusat Data dan Informasi 2015. Jakarta: Kemenkes RI. Accessed on April, 12th 2020 dari <http://www.depkes.go.id>
15. Kementrian Kesehatan RI. 2013. Riset Kesehatan Dasar Tahun 2013. Jakarta: Kemenkes RI. Accessed on April, 10th 2020 dari [www.depkes.go.id](http://www.depkes.go.id)
16. Kementerian Kesehatan RI. 2015. Infodatin Pusat Data dan Informasi Kementerian Kesehatan Republik Indonesia. Jakarta: Kemenkes RI. Accessed on April, 12th 2020 from <http://www.pusdatin.kemkes.go.id>
17. UNICEF. 2007. Women and Children The Double Dividend of Gender Equality New York. USA [www.unicef.org/publications](http://www.unicef.org/publications). Accessed on April, 12th 2020
18. Tiwari, Rina, Ausman Lynne M, Agho Kingsley Emwinyore. 2014. Determinants of stunting and severe stunting among under-fives: evidence from the 2011 Nepal Demographic and Health Survey. Nepal: BMC Pediatrics

19. UNICEF. 2009. Tracking Progress on Child and Maternal Nutrition a Survival and Development Priority. New York. USA [www.unicef.org/publications](http://www.unicef.org/publications). Accessed on April, 12th 2020
  20. UNICEF. 2014. The State of the World's Children 2014 in Numbers. Everychild Counts: Revealing Disparities, Advancing Children's Rights. New York. USA [www.unicef.org/publications](http://www.unicef.org/publications). Accessed on April, 12th 2020
  21. Word Health Organization. 2013. Childhood Stunting: Challenges and Opportunities. Switzerland: Department of Nutrition for Health and Development. [www.who.int](http://www.who.int). Accessed on April, 12th 2020
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