

# Factors Influencing The Stunting Incidence Of Children Aged 6 – 2 Years At The Tanah Merah Health Center, Boven Digoel District Papua Province Period 13 April – 13 May 2023

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## Abstract.

Short term stunting can affect mental abilities and unoptimally learning, low academic achievement, developmental delays, decreased immune function, decreased cognitive function, and disorders of the burning system. Various ways are carried out so that long-term effects can be prevented and handled appropriately. Based on the foregoing then researchers are interested in conducting research with the title Factors related to Stunting Incidents in children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023. Knowing what factors are related to the incident Stunting in children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023. The type of research used is descriptive analytic research carried out using cross sectional methods with univariate and bivariate data analysis with the help of the computer program SPSS version 20. Statistical test results obtained p value = 0.464, it can be concluded that there is no relationship between the incidence of stunting in children aged 6-2 years with the age of the mother and the OR 2.500 results which can be concluded that the age of the mother is 2.5 times influencing the incidence of stunting in children aged 6- 2 years. statistical test results obtained p value = 0.151, it can be concluded that there is no relation between the incidence of stunting in children aged 6-2 years and the mother's education. Statistical test results obtained p value = 0.431, it can be concluded that there is no relationship between the incidence of stunting in children aged 6-2 years with exclusive breastfeeding and the OR results of 0.556 which can be concluded that exclusive breastfeeding 0.5 times affects the incidence of stunting in children aged 6- 2 years. Statistical test results obtained p value = 0, Expected factors that affect events Stunting in children aged 6-2 years can be used as a guideline in preventing stunting in the future.

**Keywords :** Stunting; Exclusive breastfeeding; Child disease; mother's age and mother's education.

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## I. INTRODUCTION

Stunting is one of the challenges and global nutritional problems that are being faced by people in the world. The World Health Organization (WHO) has determined five subregions of stunting prevalence, including Indonesia which is in the Southeast Asia region (36.4%) (United Nation, 2018) (UNICEF, Levels and Trends in child malnutrition - UNICEF WHO The World Bank Join Child Malnutrition Estimates, 2019). Prevalence data in 2017 is 22.2% or around 150.8 million toddlers in the world are stunted. However, this figure has decreased if compared to the stunting rate in the year two thousand, namely: 32.6%. More than half of the stunted toddlers in the world came from Asia (55%) in 2017 while more than a third (39%) live in Africa. Of the 83.6 million toddlers *Stunting in Asia, Southeast Asia is in second place, which is 14.9%*. (Ministry of Health RI, 2018). Indonesia's status is still in fourth place in the world and second in Southeast Asia regarding cases of stunting under five. Based on the results of the 2021 Indonesian Nutrition Status Study (SSGI), Indonesia's stunting prevalence rate is 24.4 percent. However, this figure is still higher than the maximum tolerance for stunting set by the World Health Organization (WHO), which is less than 20 percent. "This means that 1 out of 4 children is stunted (Ministry of Health, 2023). In Papua the prevalence is recorded at 29.5 percent in 2021, the Government is targeting a reduction in stunting to 14 percent in 2024. To make this happen, it requires the joint work of many parties to achieve the targets outlined (Nerius Auparay, 2021).

Short-term stunting, among others can affect mental abilities and learning is not optimal, poor learning achievement, developmental delays, decreased immune function, decreased cognitive function, and disorders of the combustion system. Long-term effects caused by stunting and other conditions associated with malnutrition, often considered as a risk factor for diabetes, hypertension, obesity and death from infection (Ministry of Health, 2018). One of the causes of stunting is a lack of nutrition in children. There are

still many obstacles encountered in the community, one of which is MPASI which is given to children and there is still a lot of inappropriate food and there are still many mistakes in MPASI (dr. Damayanti, 2022). Research to prevent stunting shows that protein consumption greatly affects the height and weight gain of children over 6 months. So it can be said that preventing stunting can certainly be done by meeting the appropriate nutritional needs, especially animal protein. For this reason, complementary feeding must pay attention to certain nutrients and ingredients. By providing the right MPASI menu, the risk of stunting in children can be reduced (Dr. Damayanti, 2022).

## II. METHODS

This type of research is descriptive analytic, namely research that aims to get an overview of the relationship between two or more research variables and uses a cross-sectional research design, namely a study where the variables including effects observed

## III. RESULT AND DISCUSSION

### A. Univariate analysis

**Table 5.1. Distribution of the frequency of stunting in children aged 6-2 years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023.**

No	Stunting in Children Aged 6 – 2 Years	Frequency	Percentage (%)
1	Very Short < - 3 SD	16	53,3
2	Short – 3 SD sd < - 2 SD	14	46,7
	Total	30	100

Source: Primary Data, 2023

Based on table 5.1 above, it can be seen stunting children aged 6 – 2 years with the Very Short category < - 3 SD totaling 16 people (53.3%) and the category Short – 3 SD sd < - 2 SD amounted to Based on the description and data above, we can see that stunting can cause various health problems. So it requires prevention and handling as early as possible so that this does not happen. At the age of the first 1,000 days of life starting from the fetus until the child is 2 years old, good nutrition is highly recommended for pregnant women. Not only to meet his nutritional needs, good nutrition is also needed by the baby in his womb (Ministry of Health, 2018). Studies preliminary conducted by researchers at the research site, it turns out that there is data in 2021 recorded stunting of 13 children (3.5%) and in 2022 there were stunting of 19 children (5.7%), this means that there is an increase in the number of stunting from 2021 k in 2022 as many as 6 children (2.2%). Therefore researchers are interested in conducting research with the title Factors related to Stunting Incidents in children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023. simultaneously at the same time (Notoatmodjo, 2018). Which aims to obtain the factors associated with the incidence of stunting in children aged 0-2 years at the Puskesmas Tanah Merah, Boven Digoel Regency, Papua Province. 14 people (46.7%) of the respondents mother who has Stunted children aged 6-2 years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023.

**Table 5.2. Distribution of the frequency of stunting in children aged 6-2 years based on mother's Age at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023.**

No	Mother's Age	Frequency	Percentage (%)
1	Aged 20 – 35 Years	27	90
2	Ageds < 20 or > 35 years	3	10
	Total	30	100

Source: Primary Data, 2023

Based on Table 5.2, the result is that stunting in children aged 6-2 years occurs in mothers with age 20 – 35 years amounted to 27 people (90%) and mothers age < 20 or > 35 year totaling 3 people

**Table 5.3. Distribution of the Frequency of Stunting in Children Aged 6-2 Years based on mother's education at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023.**

No	Mother's Education	Frequency	Percentage (%)
0.	Uneducated	5	16,7
1.	Low educated: (elementary School)	10	33,3
2.	Meddle Educated: High School	11	36,7
3.	High Educated: University/ Collage	4	13,3
	Total	30 orang	100

Source: Primary Data, 2023

Based on Table 5.3, it was found that from 30 respondents the result was that Stunting of children aged 6 – 2 years occurs in mothers who do not go to school, totaling 5 people (16.7%), mothers with low level education: SD - SLTP totaling 10 people (33.3%), mothers with medium level education:

**Table 5.4. Distribution of the Frequency of Stunting Incidents in Children Aged 6 – 2 Years Based on Exclusive Breastfeeding at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13 – May 13, 2023.**

No	Exclusive breastfeeding	Frequency	Percentage (%)
1	Complete (0 – 6 months)	17	56,7
2	Incomplete (0 - < 6 months)	13	43,3
	Total	30	100

Source: Primary Data, 2023

(11%) from mother respondents who had shunting children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province for the period April 13 - May 13, 2023. high school totaling 11 people (36.7%) and mothers with higher levels of education: PT totaling 4 people (13.3%) of the respondents mothers who have shunting children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13 - 13 May 2023. Based on Table 5.4, it is obtained that Stunting in children aged 6-2 years occurs in children who are exclusively breastfed complete (0 – 6 months) totaling 17 people (56.7%) and no exclusive breastfeeding complete (0 – < 6 months) amounted

#### B. Bivariate Analysis

**Table 5.5 Distribution of the Frequency of Stunting Incidents in Children Aged 6-2 Years Based on Illness at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023.**

No	Illness	Frequency	Percentage (%)
1	Available	7	23,3
2	Unavailable	23	76,7
	Total	30	100

Source: Primary Data, 2023

Based on Table 5.5, it is found that stunting in children aged 6-2 years occurs in children who have the disease totaling 7 people (23.3%) and children There isn't any disease numbered 23 people

**Table 5.6 Correlation between Age to Stunting in Children Aged 6-2 Years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13-May 13, 2023.**

Mother's Age	Stunting in Children Aged 6 – 2 Years				Total	OR (95% CI)	P Value
	Very Short < -3 SD		Short – 3 SD sd < - 2 SD				
	n	%	n	%			
Aged 20 – 35 Years	15	50	12	40	27	90	2,500 (0,202-30,998) 0,464
Aged < 20 or > 35 years	1	3,3	2	6,7	3	10	
<b>Total</b>	<b>16</b>	<b>53,3</b>	<b>14</b>	<b>46,7</b>	<b>30</b>	<b>100</b>	

Source: Primary Data, 2023

Based on Table 5.6 it can be seen that from 30 respondents the results obtained with 27 respondents (90%) occurred in mothers aged 20-35 years with very short shunting categories (< -3 SD) as many as 15 respondents (50%) and short categories (-3 SD sd < - 2 SD) years as many as 12 respondents (40%). Where from 3 respondents (10%) in mother aged 20-35 years in the very short shunting category (<-3 SD) there was 1 respondent (3,3%) and the short category (-3 SD to < - 2 SD) as many as 2 to 13 people (43.3%) from respondents who have shunting children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023.(76.7%) of female respondents who have shunting children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023.respondents (6.7%). The results of statistical tests obtained p value = 0.464, so it can be concluded that there is no relationship between the incidence of shunting in children aged 6-2 years and the age of the mother. The results of OR 2,500 were also obtained which could be concluded that the age of the mother 2.5 times affected the incidence of shunting in children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province for the period April 13 - May 13, 2023.

**Table 5.7 Correlation between mother's education to stunting in children aged 6-2 years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13-May 13, 2023.**

Mother's Education	Stunting in Children Aged 6 – 2 Years				Total	P Value	
	Very Short < -3 SD		Short – 3 SD sd < - 2 SD				
	n	%	n	%			N
Uneducated	3	10	2	6,7	5	16,7	0,151
Low educated: (elementary School)	5	16,6	5	16,6	10	33,3	
Meddle Educated: High School	6	20	5	16,6	11	36,7	
High Educated: University/ Collage	2	6,7	2	6,7	4	13,3	
<b>Total</b>	<b>16</b>	<b>53,3</b>	<b>14</b>	<b>46,6</b>	<b>30</b>	<b>100</b>	

Source: Primary Data, 2023

Based on Table 5.7, it can be seen that out of 30 respondents, the results of 5 respondents (16.7%) occurred in mothers with non-school education, very short shunting categories (< -3 SD), 3 respondents (10%) and short categories (-3 SD sd < - 2 SD) as many as 2 respondents (6.7%). From 10 respondents

(33.3%) in mothers with low level education: (SD - SLTP) very short shunting category ( $< -3$  SD) as many as 5 respondents (16.6%) and short category ( $- 3$  SD  $< - 2$  SD) as many as 5 respondents (16.6%). Of the 11 respondents (36.7%) in mothers with medium level education: high school very short shunting category ( $< -3$  SD)

**Table 5.8 Correlation between Exclusive Breastfeeding and Stunting in Children Aged 6-2 Years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023.**

Exclusive breastfeeding	Stunting in Children Aged 6 – 2 Years				Total	OR (95% CI)	P Value
	Very Short $< -3$ SD		Short $- 3$ SD $< - 2$ SD				
	n	%	n	%			
Complete (0 – 6 months)	8	26,7	9	30,0	17	56,7	
Incomplete (0 - $< 6$ months)	8	26,7	5	16,7	13	43,3	0,556 (2.412 - 0, .128)
<b>Total</b>	<b>16</b>	<b>53,3</b>	<b>14</b>	<b>46,7</b>	<b>30</b>	<b>100</b>	

Source: Primary Data, 2023

Based on Table 5.8 it can be seen that of the 30 respondents with the results of 17 respondents (56.7%) with complete exclusive breastfeeding (0 - 6 months) the incidence of stunting in children 6 – 2 as many as 6 respondents (20%) and the short category ( $- 3$  SD  $< - 2$  SD) as many as 5 respondents (16.6%). And from 4 respondents (13.3%) in mothers with a high level of education: PT very short shunting category ( $< -3$  SD) as many as 2 respondents (6.7%) and short category ( $- 3$  SD  $< - 2$  SD) as many as 2 respondents (6.7%). The results of the statistical test obtained a value of  $p = 0.151$ , so it can be concluded that there is no relationship between the incidence of shunting in children aged 6-2 years and the mother's education at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 20, 2023. years very short category  $< -3$  SD totaling 8 respondents (26.7%) and the Short category  $- 3$  SD to  $< - 2$  SD totaling 9 respondents (30.0%). While 13 respondents (43.3%) with incomplete exclusive breastfeeding (0 -  $< 6$  months) the incidence of stunting in children 6 - 2 years in the very short category  $< -3$  SD totaled 8 respondents (26.7%) and in the Short category  $- 3$  SD  $< - 2$  SD amounted to 5 respondents (16.7%). The statistical test results obtained  $p$  value = 0.431, it can be concluded that there is no relationship between the incidence of shunting in children aged 6-2 years and Exclusive.

**Table 5.9 Correlation between Illness to Stunting in Children Aged 6-2 Years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023.**

Illness	Stunting in Children Aged 6 – 2 Years				Total	OR (95% CI)	P Value
	Very Short $< -3$ SD		Short $- 3$ SD $< - 2$ SD				
	n	%	n	%			
Available	6	20,0	1	3,3	7	23,3	
Unavailable	10	33,3	13	43,4	23	76,7	7,800 (0,804 – 75,640)
<b>Total</b>	<b>16</b>	<b>53,3</b>	<b>14</b>	<b>46,7</b>	<b>30</b>	<b>100</b>	

Based on Table 5.9 it can be seen that of the 30 respondents with the results of 7 respondents (23.3%) with children who have stunting disease in children 6 - 2 years very short category  $< -3$  SD totaling 6 respondents (20%) and Short category  $-3$  SD  $\leq -2$  SD amounted to 1 respondent (3.3%). While 23 respondents (76.7%) with children who have a disease with the incidence of stunting in children 6-2 years in the very short category  $< -3$  SD totaling 10 respondents (33.3%) and the Short category  $-3$  SD  $\leq -2$  SD totaling 13 respondents (43.3%).

### **Discussion**

#### **1. Univariate analysis**

##### **a. Frequency Distribution incident sTunting in children aged 6-2 years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13-May 13, 2023.**

From the research results obtained results stunting children aged 6 – 2 years with the Very Short category  $< -3$  SD totaling 16 people (53.3%) and the category Short  $-3$  SD  $\leq -2$  SD totaling 14 people (46.7%) from mother respondents who had shunting breastfeeding. Also obtained OR 0.556 results which the period April 13 - May 13, 2023. Stunting (dwarf) can be concluded that exclusive breastfeeding 0.5 times affects the incidence of shunting in children aged 6-2 years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province for the period 13 April - 13 May 2023 The statistical test results obtained a value of  $p = 0.050$ , so it can be concluded that there is also a relationship between the incidence of shunting in children aged 6-2 years and disease. OR 7.800 results were also obtained which could be concluded that the disease suffered by children 7.8 times affected the incidence of shunting in children aged 6-2 years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province for the period 13 April - 13 May 2023. children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province for is a condition in which toddlers have a long or less height, compared to age. This condition is measured by length or height  $> -2$  standard deviations of the WHO child growth standard median.

##### **b. Distribution frequency of events Stunting in children aged 6-2 years based on mother's age at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13-May 13, 2023.**

From the research results obtained results that's Tunting in children aged 6-2 years occurs in mothers with age 20 – 35 years amounted to 27 people (90%) and mothers age  $< 20$  or  $> 35$  years totaling 3 people (11%) from mother respondents who had shunting children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province for the period April 13 - May 13, 2023. Mother's age is too young or too old can also cause children to experience stunting (Muchlisin Riadi, 2019).

##### **c. Distribution of Event Frequency Stunting in Children Aged 6 – 2 Years based on mother's education at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province period April 13-May 13 in 2023.**

From the research results obtained results that of the 30 respondents obtained the result that's Stunting of children aged 6 – 2 years occurs in mothers who do not go to school, totaling 5 people (16.7%), mothers with low level education: SD - SLTP totaling 10 people (33.3%), mothers with medium level education: high school totaling 11 people (36.7%) and mothers with a high level of education: PT totaling 4 people (13.3%) from the respondents of mothers who have shunting children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023. Low mother's education can affect parenting and child care. In addition, it also influences the selection and presentation of food that will be consumed by their children. Provision of appropriate food ingredients and menus for toddlers in an effort to improve nutritional status will be realized if the mother has a good level of nutritional knowledge. Mothers with low education, among others, will find it difficult to absorb nutritional information so that children can be at risk of stunting (Muchlisin Riadi, 2019).

**d. Distribution Frequency of Events Stunting in Children Aged 6 – 2 Years Based on Exclusive Breastfeeding at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13-May 13, 2023.**

From the research results obtained results of 30 respondents that Stunting in children aged 6-2 years occurs in children who are exclusively breastfed complete (0 – 6 months) totaling 17 people (56.7%) and no exclusive breastfeeding complete (0 – < 6 months) totaling 13 people (43.3%) of the mother respondents who had shunting children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province for the period April 13 - May 13, 2023. Giving Exclusive breastfeeding in the first 6 months it is indeed one of the movements that all mothers need to do. This relates to the nutrition that children get from their mothers. One of the causes of this stunting indicator is not getting exclusive breastfeeding, which should not be underestimated. The content in breast milk can prevent disease and infection that will approach the child's body. By not getting enough breast milk and nutrition, this will cause children to be stunted or experience slow growth (Gifari Zakawali, 2023).

**e. Distribution Frequency of Events Stunting in Children Aged 6 – 2 Years Based on Disease at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13-May 13, 2023.**

From the research results obtained results of 30 respondents that stunting in children aged 6-2 years occurs in children who have the disease totaling 7 people (23.3%) and children There isn't any disease numbered 23 people (76.7%) from mother respondents who had shunting children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province for the period April 13 - May 13, 2023. Infectious disease is one of the direct causes of stunting. Children under five with malnutrition will be more susceptible to infectious diseases. Infectious disease

**2. Bivariate analysis**

**a. Connection Age With Occurrence Stunting in Children Aged 6 - 2 Years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13-May 13, 2023.**

From the research results it can be seen that from 30 respondents the results obtained with 27 respondents (90%) occurred in mothers aged 20-35 years with very short shunting categories (< -3 SD) as many as 15 respondents (50%) and short categories (- 3 related to the quality status of basic health services, especially Upper Respiratory Tract Infection (ARI), which is often suffered by toddlers such as intestinal worms, diarrhea and other infections, is very closely related to immunization, environmental quality and healthy behavior (Muchlisin Riadi, 2019). SD sd < - 2 SD) years as many as 12 respondents (40%). Meanwhile, from 3 respondents (10%) in mothers aged 20-35 years in the very short shunting category (< -3 SD) there were 1 respondent (3.3%) and in the short category (- 3 SD to < - 2 SD) as many as 2 respondents (6.7%).

According to Muchlisin Riadi in 2019, the mother's age is too young or too old can also cause children to experience stunting. Healthy and safe reproductive age is 20-35 years old. In pregnancy at the age of < 20 years, physically and psychologically it is still lacking, for example in paying attention to meeting the needs of nutrients during pregnancy. Whereas at the age of > 35 years it is associated with decline and decreased endurance as well as various diseases that often afflict at this age. The results of the statistical test obtained a value of  $p = 0.464$ , so it can be concluded that there is no relationship between the incidence of shunting in children aged 6-2 years and the age of the mother. Papua Province April 13 – May 13 2023. The author also got an OR of 2.500 which can be concluded that the age of the mother is 2.5 times the influence on the incidence of shunting in children aged 6-2 years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province for the period 13 April - 13 May 2023.

**b. Connection Mother's Education With Genesis Stunting in Children Aged 6 – 2 Years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13-May 13, 2023.**

From the research results it can be seen that out of 30 respondents the results of 5 respondents (16.7%) occurred in mothers with non-school education in the very short shunting category (< -3 SD) as many as 3 respondents (10%) and the short category (- 3 SD to < - 2 SD) as many as 2 respondents (6.7%).

From 10 respondents (33.3%) in mothers with low level education: (SD - SLTP) very short shunting category ( $< -3$  SD) as many as 5 respondents (16.6%) and short category ( $-3$  SD  $< -2$  SD) as many as 5 respondents (16.6%). Of the 11 respondents (36.7%) in mothers with medium level education: High School very short shunting category ( $< -3$  SD) as many as 6 respondents (20%) and short category ( $-3$  SD to  $< -2$  SD) as many as 5 respondents (16.6%). And from 4 respondents (13.3%) in mothers with a high level of education: PT very short shunting category ( $< -3$  SD) as many as 1 respondent (25%) and short category ( $-3$  SD to  $< -2$  SD) as many as 3 respondents (75%). In addition, it also influences the selection and presentation of food that will be consumed by their children. Provision of appropriate food ingredients and menus for toddlers in an effort to improve nutritional status will be realized if the mother has a good level of nutritional knowledge. Mothers with low education, among others, will find it difficult to absorb nutritional information so that children can be at risk of stunting (Muchlisin Riadi, 2019). The results of the statistical test obtained a value of  $p = 0.151$ , so the authors can conclude that there is no relationship between the incidence of stunting in children aged 6-2 years and the mother's education. Papua Province for the period April 13 – May 13, 2023.

**c. Connection Exclusive Breastfeeding With S. Incidence Tunting in Children Aged 6 – 2 Years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13-May 13, 2023.**

From the research results it can be seen that from 30 respondents with the results 17 respondents (56.7%) with complete exclusive breastfeeding (0 - 6 months) the incidence of stunting in children 6 - 2 years very short category  $< -3$  SD totaling 8 respondents (26.7%) and short category  $-3$  SD  $< -2$  SD totaling 9 respondents (30.0%). While 13 respondents (43.3%) with incomplete exclusive breastfeeding (0 -  $< 6$  months) the incidence of stunting in children 6 - 2 years in the very short category  $< -3$  SD totaled 8 respondents (26.7%) and in the Short category  $-3$  SD  $< -2$  SD totaling 5 respondents (16.7%). In research conducted by Akita Dhianty, 2019, conclude that Exclusive breastfeeding for stunted children found that 7 children (87.5%) were given, 1 child (12.5%) was not given. In children who were not stunted, there were 14 children (87.5%) who were not given 2 children or (12.5%). It was concluded that there was no relationship between exclusive breastfeeding and stunting. aged 6 – 60 months in Posyandu, Tallo District, Makassar City.

Giving exclusive breastfeeding in the first 6 months it is indeed one of the movements that all mothers need to do. This relates to the nutrition that children get from their mothers. One of the causes of this stunting indicator is not getting exclusive breastfeeding, which should not be underestimated. The content in breast milk can prevent disease and infection that will approach the child's body. By not getting enough breast milk and nutrition, this will cause children to be stunted or experience slow growth (Gifari Zakawali, 2023). The statistical test results obtained  $p$  value = 0.431, so the authors can conclude that there is no relationship between the incidence of stunting in children aged 6-2 years and exclusive breastfeeding, because the average mother already knows that exclusive breastfeeding has many benefits for children's health at the Tanah Merah Health Center Boven Digoel Regency, Papua Province, April 13 – May 13, 2023. This is in line with research conducted by Akita Dhianty in 2019. The author also obtained an OR of 0.556 which can be concluded that exclusive breastfeeding 0.5 times affects the incidence of stunting in children aged 6-2 years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province for the period 13 April - 13 May 2023.

**d. Connection Diseases With Incidence Stunting in Children Aged 6 – 2 Years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province, April 13-May 13, 2023.**

From the research results it can be seen that out of 30 respondents with the results 7 respondents (23.3%) with children who have stunting disease in children 6 – 2 years very short category  $< -3$  SD totaling 6 respondents (20%) and Short category  $-3$  SD  $< -2$  SD totaling 1 respondent (3.3%). While 23 respondents (76.7%) with children who have a disease with the incidence of stunting in children 6-2 years in the very short category  $< -3$  SD totaling 10 respondents (33.3%) and the Short category  $-3$  SD  $< -2$  SD totaling 13 respondents (43.3%). In research conducted by Akita Dhianty in 2019, conclude that Chronic disease in children Stunting found 1 child or (12.5%) who had chronic disease, which was not as many as 7



children or (87.5%). In children who were not stunted, 14 (87.5%) were found, while those who were not were 14 (100%). Infectious disease is one of the direct causes of stunting. Children under five with malnutrition will be more susceptible to infectious diseases. Infectious diseases that are often suffered by toddlers such as intestinal worms, Upper Respiratory Tract Infection (ARI), diarrhea and other infections are very closely related to the quality status of basic health services, especially immunization, quality of the environment and healthy behavior (Muchlisin Riadi, 2019).

If a child has a chronic illness or health problem, this is one indicator of stunting. Infectious disease is one of the direct causes of stunting. Children under five with malnutrition will be more susceptible to infectious diseases. Infectious diseases that are often suffered by toddlers such as intestinal worms, Upper Respiratory Tract Infection (ARI), diarrhea and other infections are very closely related to the quality status of basic health services, especially immunization, quality of the environment and healthy behavior (Muchlisin Riadi, 2019). The results of the statistical test obtained a value of  $p = 0.050$ , so the authors can conclude that there is a relationship between the incidence of stunting in children aged 6-2 years and the diseases that children are currently suffering from at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023. The author concludes that the research conducted is in accordance with the theory but not in line with the research conducted by Akita Dhianty in 2019. The author also obtained an OR of 7.800 which can be concluded that the disease suffered by children is 7.8 times influencing the incidence of stunting in children aged 6-2 years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province for the period April 13 - May 13, 2023.

#### IV. CONCLUSION

##### 1. Univariate analysis

- From the research results it can be concluded stunting children aged 6 – 2 years with the category Very Short  $< - 3$  SD totaling 16 people (53.3%) and the category Short – 3 SD to  $< - 2$  SD totaling 14 people (46.7%) from mother respondents who had shunting children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province for the period April 13 - May 13, 2023.
- Stunting in children aged 6-2 years is most common in mothers with age 20 – 35 years amounted to 27 people (90%) and mothers age  $< 20$  or  $> 35$  years totaling 3 people (11%) from mother respondents who had shunting children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023.
- Stunting in children aged 6-2 years occurs most often in mothers with medium level of education: 11 people from high school (36.7%), mothers with low education: 10 people from elementary - junior high school (33.3%), for mothers who did not go to school, there were 5 (16.7%) and at least mothers with higher education: PT, there were 4 people (13.3%) of the respondents who had shunting children aged 6-2 years at the Tanah Merah Health Center Boven Digoel Regency, Papua Province, April 13 – May 13, 2023.
- Genesis Stunting of children aged 6-2 years is most common in children who are exclusively breastfed complete (0 – 6 months) amounted to 17 people (56.7%) and exclusive breastfeeding was not complete (0 –  $< 6$  months) totaling 13 people (43.3%) of the mother respondents who had shunting children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province for the period April 13 - May 13, 2023.
- Stunting in children aged 6-2 years is most common in healthy children 23 people (76.7%) had disease and 7 children (23.3%) had disease from respondents who had shunting children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, period 13 April – May 13, 2023.

##### 2. Bivariate Analysis

- Relation Age with occurrence of Stunting in children aged 6 - 2 years with statistical test results obtained  $p$  value = 0.464, it can be concluded that there is no relationship between the incidence of stunting in children aged 6-2 years and the age of the mother. And the OR results of 2,500 which can be concluded that the age of the mother 2.5 times influences the incidence of stunting in children aged 6-2 years at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023.

- b. Connection education with the occurrence of Stunting in children aged 6 - 2 years with statistical test results obtained p value = 0.151, it can be concluded that there is no relationship between the incidence of stunting in children aged 6-2 years and the mother's education at the Tanah Merah Health Center, Boven Digoel Regency, Papua Province, April 13 - May 13, 2023.
- c. Connection Exclusive breastfeeding with the incidence of STunting there are children aged 6-2 years with statistical test results obtained p value = 0.431, it can be concluded that there is no
- d. Connection diseases suffered by children with incident STunting there are children aged 6-2 years with statistical test results obtained p value = 0.050, it can be concluded that it can be said that there is also a relationship between the incidence of stunting in children aged 6-2 years and the diseases that children suffer. And the results of OR 7.800 which can be concluded that the disease suffered by children 7.8 times affects the incidence of stunting in children aged 6-2 years at the Tanah Merah Community Health Center, Boven Digoel Regency, Papua Province for the period 13 April - 13 May 2023.

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