

# Variable Effect Analysis of Household Characteristics, Family Aware of Nutrition (Kadarzi) and Environmental Sanitation as Risk Factors for Stunting Events (Comparative Study of Agricultural and Non-Agricultural Family in the Regency of South Lampung Regency, 2022)

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## Abstract

*This study aims to analyze the effect of household characteristics, Kadarzi and environmental sanitation as risk factors for stunting in a comparative study of agricultural and non-agricultural families in South Lampung district. This study uses primary data obtained from questionnaires, that are data of family characteristics, Kadarzi and environmental sanitation from 198 household samples and secondary data, that are data of stunting toddlers and agricultural and non-agricultural areas in South Lampung district in 2022. To achieve the purpose of research, the research method used is observational analytic with a cross sectional approach. The research was conducted from July 2022 to September 2022. The results showed that on the household characteristics variable, variables that had a significant effect were family occupation and family income, while variables that had no significant effect were parents' education, nutritional knowledge, and gender of children. On the Kadarzi variable, variables that had a significant effect were the behavioral variables of Kadarzi and exclusive breastfeeding, while variables that had no significant effect were variables of weight measurement, various foods, iodized salt and nutritional supplements. On the environmental sanitation variable, the variables that have a significant effect are family latrines, sewerage and agricultural and non-agricultural zones, while variables that have no significant effect are variables of clean water sources and trash bins.*

## Keywords

Stunting; household characteristics; levels of environmental sanitation



## I. Introduction

Incident toddler short or normal called Stunting is problem nutrition experienced by toddlers in the world today this. In 2017, more from half stunting toddlers in the world come from from Asia (55%). Prevalence data toddler stunting data collected by the World Health Organization (WHO), Indonesia includes to in a third country with prevalence highest in the Southeast Asia region (South-East Asia Regional). The average prevalence of stunting in Indonesia in 2017 was 36.4%. (Ministry of Health, 2018)

The definition of stunting according to the Minister of Health number 1995/Menkes/XII/2010 is: condition fail grow in children under five years old (toddler)

due to deficiency nutrition chronic and infectious repeated especially in the period of the First 1,000 Days Life (HPK), namely from fetus until child 23 months old. Children belong to stunting when long or tall her body is under minus two standard deviation long or tall child his age. (Ministry of National Development Planning Agency, 2019). Stunting is also a nutritional status based on the index body length according to age (PB/U) or height according to age (TB/U) in standard nutritional status assessment child, with results measurement that is at the value of standard or Z-score  $< -2$  SD to with  $-3$  SD for short (stunted) and  $< -3$  SD for very short (severely stunted) (Ministry of Health, 2018).

Stunting be one focus from Sustainable Development Goals (SDGS) that is end all form malnutrition including stunting in 2030. In the SDGs there are 17 indicators and one of them is on indicator second with destination for remove hunger, reach endurance good food and nutrition, and increase agriculture sustainable. in line with these global priorities, one of the priority development health in Term Development Plan National Intermediate (RPJMN) the year 2020-2024 is repair nutrition specifically lower prevalence stunting (Ministry of Health RI, 2020).

Based on profile data health Lampung Province in 2019, that trend prevalence toddler stunting experience drop in 2019 was 27.28%, with rank first Regency Waykanan as much as 36.07%, rating to two West Lampung Regency as much as 32.96%, and the rank of to three Regency Bone Onion as much as 32, 49, while South Lampung Regency is ranked fifth of 15 districts / cities \_ as much as 29.08%. The prevalence of stunting in South Lampung Regency decreased by 29.08 %. Meanwhile, in 2019 the stunting rate in South Lampung Regency was 5.54 % and in 2020 it had fallen to 3.61 %. (South Lampung District Health Office, 2020).

Kadarzi (family aware nutrition) is a government program implemented get to the level health center that aims to make families capable identify problem nutrition, which can be completed by family from every member family, start from recognize problem, until resolve problem nutrition that happens in family. Something family could said Kadarzi (family aware nutrition) if apply indicator behavior nutrition among them weigh weight with routine, give breast milk just on child until age 6 month (breast milk exclusive), consume food various variety, use salt iodized and consume supplement nutrition in accordance recommendation. Still many families that is not optimal in apply behavior Kadarzi (family aware nutrition) so that problem nutrition in toddlers still many happened (Ministry of Health RI, 2014).

Sanitation environment is health status something environment with scope criteria that include criteria house healthy, available means sanitation base for example means latrines, clean water facilities, places trash and place waste water disposal house ladder as well as behavior residents (Wiyono et al., 2018). Research (Octaviana, 2016) explains that there is connection stunting with behavior hygiene and sanitation. Low family access to various disease on the basis of the environment and facilities sanitation which is reason Dead major problem in infants and toddlers in Indonesia, which is a contributor more than 80% disease like disease infection, disorder channel indigestion and disturbance lust eat where make child 's weight could decrease and when happen in long time can result in happening stunting (Kemenkes RI, 2018).

Amount The population in South Lampung Regency in 2020 is 1,019,789 people more many if compared with four Regency with prevalence stunting highest from districts other if based on quantity data population case stunting in South Lampung Regency is categorized higher. South Lampung Regency, the village that experienced susceptible vulnerable food in 2019-2020 as many as 103 villages or 39.6% of the total 260 villages (BPS Kabupaten Lampung Selatan, 2021).

Study this aim for analyze influence characteristics house stairs, analyze influence characteristics family aware nutrition, and analyze influence sanitation environment As a Risk Factor Incident Stunting (Comparative Studies in Families Agriculture and Non-Farm South Lampung Regency).

## II. Research Method

Study will hold in the month July 2022 to by September 2022, in the work area of the South Lampung District Health Office. Tools used in study this is microtoise, scales body weight, iodine test, tool writing, camera, laptop and others that support in study this. Material on research this are KMS under five and a questionnaire (question list). Respondent sign prior informed consent conducted research design study this is observational analytics that use method survey research in something population. On research this researcher looks for connection between variable with analysis to the data collected. Study quantitative with design cross sectional used by researchers for learn correlation Among factor risks and effects. Correlation this cover variable measured free and bound in one time (Notoatmodjo, 2012). Respondent in study this that is toddlers in South Lampung Regency. Respondent chosen with purposive random sampling that is shared Becomes house ladder agricultural and non- agricultural based on income house stairs, appropriate criteria researcher and carried out inspection physique with guide questionnaire. Population in study this is whole house stairs that have toddler 0-59 months in South Lampung district. There are 17 sub -districts in South Lampung district. composed of the 11 sub-districts which are majority family agriculture and 6 sub -districts which are majority non- farm family at random randomly from selected.

## III. Result and Discussion

### 3.1 Descriptive Analysis

**Table 1.** Frequency Table Stunting Incidents in Toddlers

Characteristics	N	%
<b>Stunting Incident</b>		
<i>No Stunting</i>	63	32
<i>Stunting</i>	135	68
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table above the incident data *stunting* in South Lampung district occurred in 135 toddlers with percentage by 68% while only 63 children under five who are not stunted in South Lampung district , namely as many as 63 toddlers with percentage by 32% of the total 198 toddler with percentage 100%.

Variable reason incident *stunting* based on characteristics house ladder cover level father's education, knowledge mother, father's occupation, income Family and types sex child toddler. From result study obtained frequency characteristics house ladder as following

### 3.2 Distribution Frequency Characteristics Family

**Table 2.** Distribution Table Father's Education Frequency

Characteristics	N	%
<b>Father's education</b>		
Basic education ( no graduated from elementary school/ equivalent )	31	16

school education ( graduated from junior high school/ equivalent )	52	26
High school education ( high school graduation / equivalent )	90	45
Higher education (Diploma/S1/S2/S3)	25	13
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics house ladder based on father's education is dominated by education School Senior High School (SMA) father of toddler obtained as many as 90 people with percentage 45%, then obtained 31 people with percentage 16%, education School Intermediate First (junior high) father of a toddler obtained as many as 52 people with percentage 26%, whereas education Toddler dad college obtained by 25 people with percentage 13% of the total 198 fathers toddler with percentage 100%.

**Table 3.** Distribution Table Frequency Mother's Knowledge

<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Knowledge mother</b>		
Not good yet	137	69
Well	61	31
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics house ladder based on knowledge mother toddler to Kadarzi obtained mother toddler with knowledge the levels that have been good only as many as 61 mothers with percentage 31%, while mother toddler with knowledge the unfinished \_ good obtained 137 mothers with percentage 69% of the total 198 mothers toddler with percentage 100%.

**Table 4.** Distribution Table Frequency Father's Job

<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Work</b>		
Laborer	56	28
Trader	32	16
farmer	85	43
civil servant	11	6
Self-employed	13	7
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics house ladder based on toddler dad's job is dominated by bailta's dad work as farmer obtained as many as 85 people with percentage of 43%, while toddler dad job work laborer obtained 56 people with percentage 28%, work of father of toddler trader as many as 32 people with percentage 16%, father of toddler 's occupation as entrepreneur as many as 13 people with percentage 7%, while toddler dad job as civil servants as many as 11 people with percentage 6% of the total 198 fathers of children under five with percentage 100%.

**Table 5.** Distribution Table Frequency Income Family

<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Income Family (UMK Lamsel )</b>		
< Rp 2.651.000,-	65	33
> IDR 2,651,000,-	133	67

<b>Total</b>	<b>198</b>	<b>100</b>
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Based on table on incident *stunting* in the family with characteristics house ladder based on income family toddler is dominated by family with income above the minimum wage , namely as many as 133 people with percentage 67%, while income family not enough from UMK obtained as many as 65 people with percentage of 33%, out of a total of 198 families toddler with percentage 100%.

**Table 6.** Distribution Table Frequency of Toddler Gender

<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Gender _ toddler</b>		
boy _	93	47
Woman	105	53
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics house ladder based on type sex toddler dominated by type toddler with type sex woman that is obtained as many as 105 toddlers with percentage 53%, while type sex toddler boy \_ \_ obtained 93 toddlers with percentage of 47% of the total 198 toddlers with percentage 100%.

### 3.3 Distribution Frequency Nutrition Aware Family (Kadarzi)

Variable reason incident *stunting* based on characteristics family aware nutrition (Kadarzi) includes behavior Kadarzi family, measurement toddler 's weight at Posyandu, exclusive breastfeeding, consumption food various variety, use iodized salt, and consume supplement nutrition. From result study obtained frequency characteristics family aware nutrition (Kadarzi) as following:

**Table 7.** Distribution Table frequency behavior Kadarzi

<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Behavior Kadarzi</b>		
Not yet Kadarzi	117	59
Kadarzi	81	41
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics family aware nutrition ( Karazi ) is dominated by the family toddler who hasn't apply behavior Kadarzi that is of 117 people with percentage by 59%. Whereas family toddler who has apply behavior Kadarzi by 81 people with percentage by 41% of the total 198 families with percentage 100%.

**Table 8.** Distribution Table Frequency Toddler Weight Measurement at Posyandu

<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Toddler Weight Measurement</b>		
Not good	85	43
Well	113	57
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics family aware nutrition ( Karazi ) is dominated by toddlers who do measurement weight by \_ routine at

Posyandu or in characteristics good that is as many as 113 toddlers with presentation by 57%. while amount toddler who hasn't To do measurement weight at posyandu by routine or in characteristics not enough good as many as 85 toddlers with percentage by 43% of the total 198 toddlers with percentage 100%.

**Table 9.** Distribution Table Frequency Exclusive Breastfeeding \_

<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Exclusive Breastfeeding</b>		
Not Good yet	140	71
Well	58	29
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics family aware nutrition ( Kadarzi ) is dominated by toddlers with exclusive breastfeeding that has not good that is 140 toddlers with percentage 71%. Whereas toddler with good exclusive breastfeeding only as many as 58 toddlers with presentation by 29% of the total 198 toddlers with percentage 100%.

**Table 10.** Distribution Table Frequency Consumption Food Miscellaneous \_

<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Food</b>		
Not Good yet	107	54
Well	91	46
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics family aware nutrition ( Karazi ) is dominated by the amount of toddler who hasn't consume food various variety as many as 107 toddlers with percentage 57%. Whereas amount toddlers who consume food various variety only as many as 91 toddlers with percentage 46% of the total 198 toddlers with percentage 100%.

**Table 11.** Distribution Table Frequency Use of Iodized Salt

<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Iodine Salt</b>		
Not Good yet	12	6
Well	186	94
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics family aware lots of nutrition ( Kadarzi ) happened to families who had use iodized salt in Cook a day 186 families \_ with percentage by 94%, while amount family who haven't use iodized salt 12 families \_ with percentage by 6% of the total 198 families with percentage 100%.

**Table 12.** Distribution Table Frequency Consumption Nutritional Supplements

<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Iodine Salt</b>		
Not Good yet	123	62
Well	75	38
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics family aware nutrition ( Karazi ) the most happens to toddlers with level consumption supplement low nutrition \_ that is as many as 123 toddlers with percentage by 62%. Whereas toddler with level consumption supplement good nutrition \_ as many as 75 toddlers with percentage by 38% of the total 198 toddlers with percentage 100%.

### 3.4 Distribution Frequency Sanitation Environment

Variable reason incident *stunting* based on Sanitation Environment cover clean water facilities, latrines family, place trash, and channels water discharge. From result study obtained frequency characteristics family aware nutrition (Kadarzi) as following:

**Table 13.** Distribution Table Frequency of Clean Water Facilities

Characteristics	N	%
<b>Clean Water Facilities</b>		
There isn't any	74	37
There is	124	63
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics sanitation most environment happened to families who had have clean water facilities that is 124 families with percentage by 63%. Whereas family who haven't have clean water facilities as many as 74 families with percentage by 37% of the total 198 families with percentage 100%.

**Table 14.** Distribution Table Frequency Toilet Family

Characteristics	N	%
<b>Toilet Family</b>		
There isn't any	60	30
There is	138	70
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics sanitation most environment happened to families who had have toilet family that is 138 families \_ with percentage by 70%. Whereas family who haven't have toilet family as many as 60 families with percentage by 30% total 198 families toddler with percentage 100%.

**Table 15.** Distribution Table Frequency the Place Rubbish

Characteristics	N	%
<b>The place Rubbish</b>		
There isn't any	76	39
There is	122	61
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics sanitation most environment \_ happened to families who had have the place rubbish 122 families \_ with percentage by 61%. Whereas amount family who haven't have the place rubbish as many as 76 families with percentage 39% of the total 198 families with percentage 100%.



**Table 16.** Distribution Table Frequency Channel Wastewater Disposal ( SPAL )

Characteristics	N	%
<b>SPAL</b>		
There isn't any	80	40
There is	118	60
<b>Total</b>	<b>198</b>	<b>100</b>

Based on table on incident *stunting* in the family with characteristics sanitation most environment happened to families who had have channel waste water disposal as many as 118 families with percentage 60%. Whereas amount family who haven't have channel waste water disposal as many as 80 families with percentage 40% of the total 198 families with percentage 100%.

Test by Simultaneously predictive model incident *stunting* in South Lampung Regency using *likelihood ratio-test* with help device Minitab 16 software obtained score the G test statistic is 129,622 and the value of *Pvalue* = 0.000 more small of = 0.05, then could taken conclusion that testing by concurrent event model *stunting* with regression ordinal logistics with three variable predictions significant at the level of 95% confidence or in other words reject H. This thing means that there is at least one significant parameter, so that conducted testing by Partial using Wald's test.

From the Wald Test, it looks that variable significant prediction affects incident *stunting* in South Lampung Regency with level trust by 95% is parent 's job toddlers, parents' income, behavior Kadarzi, exclusive breastfeeding, ownership toilet family and sewerage because have score *Pvalue* smaller of = 0.05.

Based on Wald's test can is known that variable parental education on research consist from elementary education with score *Pvalue* of 0, 147 and *Odds Ratio* by 0.22, then middle school education with score *Pvalue* of 0.896 and *Odds Ratio* of 1.12, high school education with score *Pvalue* of 0.64 and *Odds Ratio* of 0.12 and PT education with score *Pvalue* of 0.977 and *Odds Ratio* of 0.10. Finding this give meaning that , if other variables are fixed , then parent education from elementary , middle, high school level with college tall have have *Odds* ( risk ) of *stunting* are 0.22, 1.12, 0.64 and 0.10 times more tall compared to parents who do not go to school . However , opportunity increase the no different real as indicated by each *P value* which is above = 0.05. It means parent education no take effect real to incident *stunting* in toddlers . Study this in accordance with study Rufaida et al. (2020) that father's education with *stunting* is not there is significant relationship because ( *Pvalue* = 0.128). Education is resource main possible girls and boys for give nurturing right child related with health , giving eat children and education child . According to Rufaida et al. (2020) more tall level father's education, then the more tall daddy 's chance house because there is will for produce more income for needs family.

Knowledge someone can too affected by level education. Usually, in fulfillment of good nutritional status like choose food with wise and handle problem health with right, can influenced by level knowledge individuals (Setiawan, Machmud and Masrul, 2018). The theory supported with research conducted by Sari and Ratnawati, (2018) which states that there is connection Among knowledge mother about pattern gift eat on nutritional status child. Other research conducted by Susilowati and Himawati, (2017) also supports theory the with state that Among knowledge mother about nutrition toddler take effect by significant on nutritional status toddler. This thing caused because mother is a person who has linkages with the child more than member other families and mothers are also the most understanding person about needs child.



The role of parents especially mother is very important in fulfillment nutrition child because child need parental care and support in face very rapid growth and development. For get good nutrition required knowledge good nutrition from parents in order to provides a balanced menu of choices. 9 levels of knowledge nutrition somebody take effect to attitude and behavior in election food A mother who has knowledge and attitude poor nutrition will be very influential on nutritional status son and will hard for choose nutritious food for children and their families.

Knowledge is results know and happen after somebody to do sensing to something object certain. Sensing occurs through five sense man that is sight, hearing, smell, taste, and touch. Knowledge could obtain among others through education good curricular, non-curricular and extracurricular. Knowledge can also be obtained from knowledge of others, such as: hearing, seeing direct and through tool communication like television, radio, books and others.

Knowledge is very close relationship with education, where could assumed that with higher education then that person will the wider knowledge. Low education no ensures a mother no have sufficient knowledge about nutrition his family. There is a desire know high \_ could influence mother in get information about right food for child. Enhancement knowledge no absolute obtained from formal education only, will but could obtained through non-formal education. Knowledge somebody about something object contain two aspect that is aspect aspect positive and aspect negative. Second aspect this will be determine attitude someone, more many aspects positive and dan known object, then will cause attitude more positive to object certain. (Edwin Dani Olsa, et al 2017)

Based on results research , can is known that variable parents work on research consist from profession as Farmer with score *Pvalue* of 0.93 and *Odds Ratio* of 0.931, then profession as laborer with score *Pvalue* of 0.043 and *Odds Ratio* of 0.20, work as trader with score *Pvalue* of -0.10 and *Odds Ratio* of 0.921, jobs as entrepreneur with score *Pvalue* of 0.339 and *Odds Ratio* of 0.25 and work as ASN with score *Pvalue* of 0.127 and *Odds Ratio* of 0.12. of several type parents work on research this can be seen only there is one influential work real to incident *stunting* , that is profession as laborer with *P value* of 0.043 or below = 0.05 . That is , the parent 's job as laborer have real influence to incident *stunting* in toddlers . Finding this give meaning that , if other variables are fixed , then parent 's job as laborer farmer have have *Odd* ( risk ) of *stunting* is 0.20 times more tall compared parent 's job from non-labor .

Then for parents who have profession farmer , trader entrepreneurs and civil servants have *Odds* ( risk ) of *stunting* are 0.931, 0.932, 0.25 and 0.12 times more tall compared to parents who do not work . However , opportunity increase the no different real as indicated by each *P value* which is above = 0.05. It means parent 's job as farmer , trader entrepreneurs and civil servants are not take effect real to incident *stunting* in toddlers . Study this Study this in accordance with study Sohardjo (2002) which states that profession is factor important in determine quality and quantity food , because work relate with income . Income low family \_ is factor risk incident *stunting* in children ages 6-24 months . report factor risk *stunting* in children under five in Maluku is a socio economy lowly family . \_ This thing in line with research conducted in Nepal (Paudel et al., 2012) mothers who do not work will risk 3.11 times for have *stunted* child.

Based on results study could is known that variable parent 's income have score significance as big as *P-value* 0.028. That is , the income of parents have real influence to incident *stunting* in toddlers . Research results show that variable parent 's income marked positive with *Odds ratio* = 0.47. Finding this give meaning that , if other variables are fixed , then The income of parents who are below the minimum wage in South Lampung

district is of Rp. 2.651.000,- has have *Odd* ( risk ) of *stunting* is 0.47 times more tall compared parental income above the minimum wage . Study this in accordance with research by Ramli (2009) Children with income low family have risk occur *stunting* by 8.5 times compared with income family high . Studies conducted in Maluku. Besides according to the opinion of Sari et al . (2020), which states that income low family will difficult for provide food in accordance with needs nutrition toddler, compared with income middle and high family. The family who owns income low, also tend consume food in side quantity , quality as well as less variety so that food served no Fulfill needs necessary nutrients ( Mirna et al ., 2019).

Sujianti and Pranowo (2021) explain that possibility *stunting is* dominated by toddlers manifold sex woman because there is discrimination social and cultural between genders, meaning a number of family more notice nutrition child boy compared with girl, so Thing this could give potency failure growth and problems health other in baby female.

Based on results study could is known that variable behavior Kadarzi have score significance as big as *P value* 0.000. That is , behavior Kadarzi have real influence to incident *stunting* in toddlers . Research results show that variable Kadarzi marked positive with *Odds ratio* = 7.77. Finding this give meaning that , if other variables are fixed , then family who haven't doing behavior Kadarzi have *Odd* ( risk ) of *stunting* is 7.77 times more tall compared family who have doing behavior Kadarzi .

Based on results study could is known that variable Exclusive breastfeeding have score significance as big as *P-value* 0.001. That is, exclusive breastfeeding have real influence to incident *stunting* in toddlers. Research results show that exclusive breastfeeding variable marked positive with *Odds ratio* = 9.16. Finding this give meaning that , if other variables are fixed , then exclusive breastfeeding that has not good have *Odd* ( risk ) of *stunting* is 9.16 times more tall compared exclusive breastfeeding that has been good . Study this in accordance with research by Candra and Nugraheni, 2015 regarding *Stunting* could prevented through activity mother pregnant or class mother pregnant inside later there is activity Initiation Early Breastfeeding (IMD). Activity this is very important and necessary Support family especially husband. So that later after give birth to mother could give breast milk to the baby with good.

Low income will influence quality nor quantity ingredient food consumed by the family. Low level income and weakness power buy allow for resolve habit eat with ways certain blocking repair effective nutrition especially for children them. Food obtained usually will not enough varied and few amount especially on materials that work for growth child source of protein, vitamins and minerals, so increase risk not enough nutrition. Limitations they will increase risk member family experiencing stunting (Hapsari et al, 2018).

Substance nutrition is very important for growth. Growth is enhancement size and mass constituent body which is one results of metabolic processes. intake substance nutrition that becomes factor risk the occurrence of stunting can categorized as be 2 that is intake substance nutrition macro or macronutrients and intake substance nutrition micro or micronutrients (Candra and Nugraheni, 2015). Based on a number of research, intake substance nutrition most influential macro the occurrence of stunting is protein intake, while intake substance nutrition the most influential micro the incidence of stunting is intake of Vitamin A and zinc (Aritonang et al., 2020).

Based on the results of the study , it can be is known that variable source of clean water in research originated from well dig with score *Pvalue* of 0, 293 and *Odds Ratio* by 2.26, then originated from well drill with score *Pvalue* of 0.276 and *Odds Ratio* is 2.44, and comes from from mountain spring with score *Pvalue* of 0.91 and *Odds Ratio* of 0.83.

Finding this give meaning that , if other variables are fixed , then source of clean water from from well dig , well infiltration and mountain springs have have *Odds* ( risk ) of *stunting* are 2.26, 2.44, and 0.83 times more tall compared sources of clean water that are not originated from places that. However, opportunity increase the no different real as indicated by each *P value* which is above = 0.05. It means clean water source no take effect real to incident *stunting* in toddlers.

#### IV. Conclusion

Based on results research and discussion About Influence Analysis Characteristics of Households, Family Aware of Nutrition (Kardzi) and Sanitation Environment as a Risk Factor Stunting Incidence (Comparative Study Family Agriculture and Non - Agriculture in South Lampung Regency in 2022 can be drawn conclusion as following:

1. On Variable characteristics house ladder, the variable which has score Pvalue under = 0.05 which means variable the take effect real in the event stunting in South Lampung district is variable profession family and income family, while variable that has score Pvalue above = 0.05 which means variable the no take effect real in the event stunting in South Lampung district is variable parent education, knowledge nutrition, and types sex toddler.
2. On Variable family aware nutrition (Karazi), a variable that has score Pvalue under = 0.05 which means variable the take effect real in the event stunting in South Lampung district is variable Behavior levels and exclusive breastfeeding, while variable that has score Pvalue above = 0.05 which means variable the no take effect real in the event stunting in South Lampung district is variable measurement weight, giving food various variety, iodized salt and giving supplement nutrition.
3. On Variable sanitation environment, the variable which has score Pvalue under = 0.05 which means variable the take effect real in the event stunting in South Lampung district is variable toilet family, channel waste water disposal and agricultural and non - agricultural zones, while variable that has score Pvalue above = 0.05 which means variable the no take effect real in the event stunting in South Lampung district is variable source of clean water and place trash.

For the Health Office/ Puskesmas to be able to develop programs with approach family involved all member living family together, so that the problem stunting could prevented through family and raise role Integrated Healthcare Center as the place service closest health with family. More promote again counseling about Kadarzi and stunting in the village through consultation edit and self-sufficient nutrition or Integrated Healthcare Center teenager. For activity health environment need back in the gala full sanitation community (STBM).

For researchers next expected could to do study advanced from study this with analyze characteristics subject more research vary and do study deeper about difference eye livelihood agricultural and non- agricultural to incident stunting in Indonesia.

#### References

- Aritonang , J. et al. (2020) ' Upgrade Understanding Health in Pregnant Women in COVID-19 Prevention Efforts ' , SOLMA Journal , 9(2), pp. 261–269. doi : 10.22236/solma.v9i2.5522.
- Candra, A., and Nugraheni . 2015. Relationship intake Micronutrients With Appetite and Toddler Height. Journal of Nutrition and Health . 3(2).

- Ellis, A., McClintic, EE, Awino, E., Caruso, BA, Arriola, KRJ, Ventura, SG, et al. 2020. Practices and perspectives on latrine use, child feces disposal, and clean play environments in western kenya . *Am J Trop Med Hyg* . 102(5) : 1094-1103.
- Mirna Kawulusan , Rivolta G. M Walalangi 1 Jufri Sineke1, Regita C. Mokodompit ,2019. Parenting and income \_ family with incidence of stunting in children 2-5 years old in the work area Public health center bohobak . *Journal GIZIDO Volume 11 No. 2 November 2019. Poltekkes Kemenkes Manado* .
- Ministry of Health. (2018). *Bulletin of Health Data and Information Window : Situation of Stunting Toddlers in Indonesia ( 1st ed .)*. Jakarta: Data and information center Indonesian Ministry of Health.
- Ministry of Health of the Republic of Indonesia, 2018. *Bulletin of the Window of Health Data and Information “ The Situation of Short Toddlers (Stunting) in Indonesia. Center for Data and Information , Ministry of Health RI. Jakarta.*
- Notoadmodjo , S. (2012). *Methodology Health Research* . Jakarta: Rineka Cipta.
- Notoatmodjo . (2012). *Health Promotion and Health Behavior* . Jakarta: PT Rineka Cipta.
- Nugraheni , Ratna. 2012. Infection Nosocomial at RSUD Setjonegoro Regency Wonosobo . *Indonesian Public Health Media*. 11: 94-100.
- Octaviana .(2016). The Relationship between Nutrition Knowledge and Sanitary Hygiene Behavior on Stunting Incidents in Toddlers . *The Indonesian Journal Of Nutrition*. 10 (1): 78-91 .
- Olsa, ED, Sulastrri, D., & Anas, E. (2017). Connection Mother's Attitude and Knowledge Against Incidents of New Children Entering Elementary School in the Sub -district Nanggalo . *Andalas Health Journal* , 6(3), 523–529.
- Paudel, R., Pradhan, B., Wagle, RR, Pahari, DP (2012). Risk factors for stunting among children: A community based case control study in Nepal. *Khathmandu University Medical Journal*, 10(3).
- Rufaida , FD, Raharjo, AM and Handoko, A. 2020. Relationships factor family and home ladder with the incidence of stunting in children under five in three working area villages Public health center Sumberbaru Jember. *Journal of Agromed and Med Sci*. 6(1).
- Sari, MRN and Ratnawati, LY 2018. " Relationship Mother 's Knowledge of Feeding Patterns with Toddler Nutritional Status in the Work Area Public health center Gate Regency Sumenep ". *Amerta Nutrition*, 2(2), pp. 182–188. doi : 10.20473/amnt.v2.i2.2018.182-188.
- Sari, RM, Oktarina , M. and Seftriani , J. 2020. Relationships income family with the incidence of stunting in toddlers in the puskesmas area this way districts bengkulu south . *Chmk Midwifery Sci Journal* . 3(2).
- Setiawan, E., Machmud, R. and Masrul 2018 , “ Related Factors with Stunting Incidence in Children aged 24-59 Months in the Work Area Padang Timur Health Center , Padang City in 2018, ” *Journal Faculty Andalas University Medicine* , 7(2).
- Sugiyono . (2012). *Research Method Quantitative , Qualitative, and R&D*. Bandung: Alfabeta .
- Sujianti. and Pranowo. 2021. Analysis of related factors with stunting at toddler age. *IJNHS*. 6(2).
- Susilowati, E and Alin Himawati, 2017. The Relationship of Mother's Knowledge Level About Toddler Nutrition with Toddler Nutritional Status In The Work Area Elephant Health Center 1 Demak. *Journal Midwifery Vol.6. No.13*.
- Titaley, CR, Ariawan, I., Hapsari, D., Muasyaroh , A. and Dibley, MJ 2019. Determinants of the stunting of children under two years old in Indonesia: A multilevel analysis of the 2013 Indonesia basic health survey. *Nutrients*. 11(5).
- Zahrawani, TF, Nurhayati , E. and Fadillah , Y. 2022. Relationship condition toilet with stunting at the Puskesmas Cicalengka year 2020. *JKS*. 4(1).