

**ANALYSIS OF HOUSEHOLD ENVIRONMENT WITH EVENTS ISPA IN
CHILDREN IN PUSKESMAS WORKING AREA UTEUN PULO KECAMATAN
SEUNAGAN TIMUR NAGAN RAYA DISTRICT**

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ABSTRACT

Acute Respiratory Infection is an infectious disease that attacks one part or more of the airways. Acute respiratory infections often occur in children, because the child's immune system is still low. In 2016, there were 139 children affected by ARI in the Uteun Pulo Health Center area of East Seunagan District, Nagan Raya District. The purpose of this study was to determine the relationship of ventilation, occupancy density, ceilings / roofs and floors with the incidence of ARI in infants in the Uteun Pulo Community Health Center in Seunagan Timur District, Nagan Raya Regency.

Analytical research methods with cross sectional approach. The population in this study as many as 1,377 mothers who have toddlers with a total sample of 93 mothers of toddlers, the study was conducted on 15 November - 14 December 2017. Data collection using a questionnaire was analyzed using the Chi Square test.

From the results of the study note that there is a relationship between ventilation P.Value = 0.016 (OR = 4.3) occupancy density P.Value = 0.001 (OR = 8.2), Ceiling P.Value = 0.04 (OR = 6.3) and P.Value floor = 0.008 (OR = 4.4) with ARI occurrence in children under five years old in the Work Area of Uteun Pulo Health Center, East Seunagan District, Nagan Raya Regency.

It is expected that mothers who have toddlers to have good habits in the household, especially avoiding risk factors for ARI and to reduce the density of occupancy in one house so that toddlers avoid ARI.

Keywords: Ventilation, Occupancy Density, Ceiling, Floor and ARI

Introduction

The healthy Indonesia target of 2025 is expected to be a conducive environment for the realization of a healthy physical, spiritual and social condition, namely an environment free from social and cultural vulnerability and pollution, the availability of drinking water and adequate environmental sanitation facilities, healthy housing and settlements, area planning with a health perspective, and the realization of community life that has social solidarity by maintaining national cultural values. (RI Ministry of Health, 2016).

Household environmental sanitation is closely related to the incidence of infectious diseases, especially ARI some things that can affect the incidence of ARI in infants are the physical condition of the house, the density of occupants and air pollution in the house but also the factor of occupant density. Ventilation also causes an increase in room humidity due to the process of evaporation of fluids from the skin, a house whose ventilation area does not meet health requirements will affect the health of the occupants of the house, this is because the process of exchanging air flow from outside into the house is not smooth, so the bacteria that cause ARI in the house can not get out. Ventilation also causes an increase in room humidity due to the process of evaporation of liquid, therefore high humidity will be a good medium for the breeding of bacteria that cause ARI. (Notoatmodjo, 2013).

WHO (World Health Organization) estimates the incidence of acute respiratory infections (ARI) in developing countries with under-five mortality rates reaching 15% - 20% per year. WHO states ARI is the cause of death for about 1.2 million children every year worldwide. More than 50% of cases or 680,000 ARI in Southeast Asia and Africa and also reported that 3/4 cases of ARI in toddlers around the world are in 15 countries. More than 13 million children under five in the world die every year and most of these deaths occur in developing countries and ARI is one of the main causes of death by killing ± 4 million children under five every year (WHO, 2015).

Based on data obtained from the Nagan Raya District Health Office in 2016 the number of ARI sufferers in infants every year has increased where in 2012 there were 1,234 infants and in 2013 were 1,089 infants and in 2014 there were 1452 infants for the period from January to October 2015 the number of ARI cases in infants in Nagan

Raya increased to 3,585 toddlers and in 2016 from January to September there were 3,970 ARI sufferers of 3,970 children. This is caused by household environmental conditions that do not meet health requirements or air pollution factors. (Nagan Raya District Health Office, 2016)

Based on data obtained from Puskesmas Uteun Pulo, ISPA is the highest type of disease, in 2014 the number of children under five affected by ARI was 122 people, in 2015 the number of children under five affected by ARI was 130 people while in 2016 the number of children under five affected by ARI as many as 139 people, therefore the authors conducted research at the Puskesmas Uteun Pulo to detect or see what environmental factors are associated with ARI events so that ARI is the highest disease occurrence (Puskesmas Uteun Pulo, 2016).

Based on preliminary results or initial surveys conducted on housing in the working area of the Puskesmas Uteun Pulo, where houses in the area still have physical sanitation that does not meet the requirements, from the survey results on 7 houses there are houses that are not well ventilated, floors does not meet the requirements, the number of residents is too dense or not in accordance with the area of the house, and the roof of the house that does not have a plapon or ceiling, so that dust can easily enter and infect a toddler.

Research Methods

The design or research design can be interpreted as a process of analysis and collection of research data. This type of research is quantitative with a cross-sectional approach, namely research that uses numerical / numerical data analysis (Hendryadi and Suryani, 2015). This study aims to determine the Household Environment with the incidence of ARI in infants in the Work Area of the Uteun Pulo Health Center, East Seunagan District, Nagan Raya Regency.

This research was conducted in the Work Area of the Uteun Pulo Health Center, East Sunagan District, Nagan Raya Regency on 15 November to 14 December 2017. The population is the whole object of the study or object under study (Notoatmodjo, 2012). The population in this study were all mothers of children under five in the working area of Uteun Pulo Health Center, East Sunagan District, Nagan

Raya Regency, as many as 1,377 people. The sample is part of the population to be examined or a part of the total number of characteristics possessed by the population (Hidayat, 2007). The number of samples of this study was determined by the Slovin formula (Setiadi, 2013)

Results

Univariate Analysis

Table 1.1 Distribution of Respondent Frequencies by Ventilation in the Work Area of the Puskesmas Uteun Pulo, Seunagan Timur District Nagan Raya District

No	Ventilasi	Frekuensi	(%)
1	Baik	36	38,7
2	Kurang Baik	57	61.3
	Total	93	100

Table 1.1 shows that of the 93 respondents studied in the Work Area of the Uteun Pulo Puskesmas in Seunagan Timur District, Nagan Raya Regency, 57 respondents (61.3%) had poor home ventilation and respondents who had good home ventilation were 36 respondents (38.7%).

Table 1.2 Distribution of Respondent Frequencies by Occupancy Density in the Work Area of Uteun Pulo Health Center, Seunagan Timur District, Nagan Raya Regency

No	Kepadatan Hunian	Frekuensi	(%)
1	Baik	45	48,4
2	Kurang Baik	48	51.6
	Total	93	100

Table 1.2 shows that from 93 respondents who were studied in the Uteun Pulo Puskesmas Work Area in East Seunagan District, Nagan Raya Regency, there were respondents who had poor Residential Density of 48 respondents (51.6%) and respondents who had good residential densities of 45 respondents (48.4%).

Table 1.3 Frequency Distribution of Respondents by Ceiling / Roof in the Work Area of the Uteun Pulo Health Center, Seunagan Timur District, Nagan Raya District

<i>No</i>	<i>Plafon</i>	<i>Frekuensi</i>	<i>(%)</i>
1	Baik	38	40,9
2	Kurang Baik	55	59.1
Total		93	100

Table 1.3 shows that from 93 respondents who were studied in the Work Area of the Uteun Pulo Health Center in East Seunagan District, Nagan Raya Regency, it was obtained that respondents who had an unfavorable house ceiling were 55 respondents (59.1%) and respondents who had good ceilings / roofs as many as 38 respondents (40.9%).

Table 1.4 Distribution of Frequency of Respondents by House Floor in the Work Area of the Uteun Pulo Health Center, Seunagan Timur District, Nagan Raya District

<i>No</i>	<i>Lantai</i>	<i>Frekuensi</i>	<i>(%)</i>
1	Baik	33	35,5
2	Kurang Baik	60	64.5
Total		93	100

Table 1.4 shows that of the 93 respondents studied in the Work Area of the Uteun Pulo Puskesmas, Seunagan Timur District, Nagan Raya Regency, 60 respondents (64.5%) had poor home floors and respondents who had good ceilings / roofs as many as 33 respondents (35.5%).

Table 1.5 Distribution of Frequency of Respondents by Occurrence of ARI Disease in Toddlers in the Work Area of Uteun Pulo Health Center, Seunagan Timur District, Nagan Raya Regency

<i>No</i>	<i>Kejadian ISPA</i>	<i>Frekuensi</i>	<i>(%)</i>
1	ISPA	52	55,9
2	Tidak ISPA	41	44.1
Total		93	100

Table 1.5 shows that out of the 93 respondents studied in the Work Area of the Uteun Pulo Puskesmas in Seunagan Timur District, Nagan Raya Regency, 52 respondents (55.9%) of respondents who have children under five suffer from ARI and those who have under five suffer no ARI from 41 respondents (44.1%).

Bivariate Analysis

Table 2.1 Distribution of Frequency of Respondents by Ventilation with ARI Occurrence in Toddlers in the Work Area of Uteun Pulo Health Center, East Seunagan District, Nagan Raya Regency

Ventilasi	Kejadian ISPA				Jumlah		P.Value	OR (95%CI)
	ISPA		Tidak ISPA					
	n	%	n	%	f	%		
Baik	14	38,9	22	61,1	36	100	0.016	4,3
Kurang Baik	38	66,7	19	33,3	57	100		

Based on table 2.1 shows the distribution of cross tables between ventilation and the incidence of ARI in toddlers in the Work Area of Uteun Pulo Health Center, East Seunagan District, Nagan Raya District, that of the 57 respondents who were stated to have poor ventilation with the majority having toddlers suffering from ARI of 38 respondents (66 respondents , 7%) and respondents who have toddlers who do not suffer from ARI, as many as 19 respondents (33.3%). On the contrary, of the 36 respondents who were stated to be well ventilated, the majority of them had toddlers who did not suffer from ARI, as many as 22 respondents (61.1%) and respondents who had children who did not suffer from ARI, namely as many as 14 respondents (38.9%). This shows the existence of a ventilation relationship with the incidence of ARI in infants in the Work Area Uteun Pulo Health Center, East Seunagan District, Nagan Raya Regency.

This result is in accordance with the chi square statistical test obtained Pvalue value = 0.016 and this is smaller than $\alpha = 0.05$ (Pvalue = 0.016 < $\alpha = 0.05$) so that there is a relationship between ventilation and the incidence of Ispa in toddlers in the Work Area of Uteun Pulo Health Center Seunagan Timur District, Nagan Raya Regency.

Obtained OR = 4.3 means that ventilation is a risk factor for ARI in which respondents who have poor ventilation risk 4.3 times for ARI in their toddlers compared to respondents who have good ventilation.

Table 2.2 Frequency Distribution of Respondents by Occupancy Density with ARI Occurrence in Toddlers in the Work Area of Uteun Pulo Health Center, East Seunagan District, Nagan Raya Regency

Kepadatan Hunian	Kejadian ISPA				Jumlah		P.Value	OR (95%CI)
	ISPA		Tidak ISPA					
	n	%	n	%	f	%		
Baik	17	37,8	28	62,2	45	100	0.001	8,2
Kurang Baik	35	72,9	13	27,1	48	100		

Based on table 2.2 shows the distribution of cross tables between the density of occupancy and the incidence of ARI in toddlers in the Work Area of Uteun Pulo Puskesmas, Seunagan Timur District, Nagan Raya Regency, that of the 48 respondents who were stated to have poor residential density with the majority having toddlers suffering from ARI, as many as 35 respondents (72.9%) and respondents who had toddlers who were not suffering from ARI were 13 respondents (27.1%). On the contrary, of the 45 respondents who were stated to have good occupancy density with the majority having toddlers who did not suffer from ARI, there were 28 respondents (62.2%). This shows that there is a relationship between the density of occupancy and the incidence of ARI in children under five years old in the Work Area of Uteun Pulo Health Center, East Seunagan District, Nagan Raya Regency.

This result is in accordance with the chi square statistical test obtained value of Pvalue = 0.001 and this is smaller than $\alpha = 0.05$ (Pvalue = 0.001 < $\alpha = 0.05$) so that there is a relationship between the density of occupancy and the incidence of Ispa in toddlers in Uteun Health Center Work Area Pulo, Seunagan Timur District, Nagan Raya Regency. Obtained OR = 8.2 means that the occupancy density is a risk factor for ARI

wherein respondents who have poor or overcrowded density will have 8.2 times the risk of developing ARI in their toddlers compared to respondents who have good or not too much residential density. solid.

Table 2.3 Frequency Distribution of Respondents by Ceiling with ISPA Occurrence in Toddlers in the Work Area of the Uteun Pulo Health Center in East Seunagan District, Nagan Raya Regency

Plafon	Kejadian ISPA				Jumlah		P.Value	OR (95%CI)
	ISPA		Tidak ISPA					
	n	%	n	%	f	%		
Baik	16	42,1	22	57,9	38	100	0.04	6,3
Kurang Baik	36	65,5	19	34,5	55	100		

Based on table 2.3 shows the distribution of cross tables between the ceiling and the incidence of ARI in toddlers in the Work Area of Uteun Pulo Health Center, East Seunagan District, Nagan Raya Regency, that of the 55 respondents who were stated to have poor ceilings with the majority having toddlers suffering from ARI of 36 respondents (65 , 5%) and respondents who have toddlers who do not suffer from ARI, as many as 19 respondents (34.5%). conversely, of the 38 respondents who were stated to have good ventilation, the majority had toddlers who did not suffer from ARI, as many as 22 respondents (57.9%) and respondents who had toddlers who did not suffer from ARI were 16 respondents (42.1%). This shows that there is a ceiling relationship with the incidence of ARI in infants in the Work Area of the Uteun Pulo Health Center, East Seunagan District, Nagan Raya Regency.

These results are in accordance with the chi square statistical test obtained value of Pvalue = 0.04 and this is smaller than $\alpha = 0.05$ (Pvalue = 0.04 < $\alpha = 0.05$) so that there is a relationship between the ceiling with the incidence of ARI in infants in the region The work of the Uteun Pulo Health Center in East Seunagan District, Nagan Raya Regency. Obtained OR = 6.3 means that the ceiling is a risk factor for ARI in which respondents who have a poor ceiling and do not meet the requirements will be 6.3 times more risk of developing ARI in their children than those who have a good ceiling and meet the requirements.

Table 2.4 Respondent Frequency Distribution Based on Ventilation with ARI Occurrence in Toddlers in the Work Area of Uteun Pulo Health Center, East Seunagan District, Nagan Raya Regency

<i>Lantai</i>	<i>Kejadian ISPA</i>				<i>Jumlah</i>		<i>P.Value</i>	<i>OR (95%CI)</i>
	<i>ISPA</i>		<i>Tidak ISPA</i>		<i>F</i>	<i>%</i>		
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>				
<i>Baik</i>	14	42,4	19	57,6	33	100	0.008	4,4
<i>Kurang Baik</i>	38	63,3	22	36,7	60	100		

Based on table 2.4 shows the distribution of cross tables between floors with the incidence of ARI in toddlers in the Uteun Pulo Puskesmas working area, Seunagan Timur District, Nagan Raya District, that of the 60 respondents who were declared to have poor flooring with the majority having toddlers suffering from ARI of 38 respondents (63,3%) and respondents who have children under five do not suffer from ARI, as many as 22 respondents (36.7%). On the contrary, of the 33 respondents who had a good floor with the majority having toddlers who did not suffer from ARI, 19 respondents (57.6%) of respondents who had toddlers did not suffer from ARI, as many as 14 respondents (42.4%). This shows that there is a relationship between the floor and the incidence of ARI in infants in the Uteun Pulo Puskesmas Work Area in East Seunagan District, Nagan Raya Regency.

These results are in accordance with the chi square statistical test obtained value of $Pvalue = 0.008$ and this is smaller than $\alpha = 0.05$ ($Pvalue = 0.008 < \alpha = 0.05$) so that there is a relationship between the floor with the incidence of Ispa in children under five in the Working Area of Uteun Pulo Health Center Seunagan Timur District, Nagan Raya Regency. Obtained $OR = 4.4$ means that the floor is a risk factor for ARI disease where respondents who have poor flooring will be 4.4 times more likely to experience ARI on their toddlers than respondents who have a good floor.

Discussion

Relationship between Ventilation and ARI Occurrence in Toddlers in the Work Area of Uteun Pulo Health Center, East Seunagan District, Nagan Raya District

Statistical test results obtained Pvalue = 0.016 and this is smaller than $\alpha = 0.05$ (Pvalue = 0.000 < $\alpha = 0.05$) so that there is a correlation between ventilation and ARI in toddlers in the Uteun Pulo Puskesmas Work Area, East Seunagan District, Nagan Raya Regency. From the analysis of the Odd Ratio (OR), the value of OR = 4.3 means that respondents who have poor ventilation have a 4.3 times risk of suffering from ARI in infants compared with respondents who have good ventilation.

Based on the results of the researchers' assumptions and observations in the field, the majority of the ventilation of community houses in the working area of the Uteun Pulo Community Health Center does not meet health requirements, this makes air circulation not enter the house. House ventilation that does not meet the specified health requirements will affect the health of the occupants because if the process of exchanging air from outside into the house is not smooth, the bacteria that causes ISPA can not get out and will continue to multiply in the house and infect the occupants, especially infants. With good ventilation, air can easily enter the house so that the ARI will decrease. whereas if ventilation is not good it can cause high humidity and endanger health so that the incidence of ARI will increase.

Ventilation has a function that is to keep the air flow in the house fresh, so that the balance of O₂ needed by residents of the house is maintained. Lack of ventilation will cause a lack of O₂ in the house, which means levels of CO₂ that are toxic to the inhabitants to be increased and how to calculate by long times the width of the ventilation. Keeping the air in the room of the house always remains in optimum humidity. Air humidity in the room rises due to the process of evaporation of liquids from the skin and absorption. This humidity will be a good medium for pathogenic bacteria that cause disease (Behrman, 2013).

The results of this study are in line with research conducted by Suryani (2015) with the title research on the Relationship between Physical Environment and Population Actions with ARI Events in Toddlers in the Work Area of Lubuk Buaya Health Center. Based on the Chi Square test results obtained $p = 0,000$ because the

value of $p < 0.05$ means there is a relationship between ARI in infants with poor ventilation and not meeting the requirements in the working area of the Lubuk Buaya Public Health Center in Padang Based on the value of coefficient continuity (C_c) = 0.03 there is a very close relationship between ventilation of the house and the incidence of ARI in infants in the Lubuk Buaya Work Area of Padang City.

This study is in accordance with research conducted by Winardi (2014) with the title of the study *Relationship Between Relationship Between Home Environmental Conditions and the Occurrence of ARI Disease in Toddlers in the Sario Health Center Work Area, Sario District, Manado City*. Based on the Chi Square Test, a P-Value value of $0.001 < 0.05$ means that there is a relationship between ventilation and ARI in toddlers. Judging from the value of the OR (Odds Ratio) shows that poor ventilation has a risk of 6.8 times the incidence of ARI in infants compared with good ventilation.

Relationship between Occupancy Density and Occurrence of ARI in Toddlers in the Work Area of Uteun Pulo Health Center, Seunagan Timur District, Nagan Raya Regency

Statistical test results obtained $P\text{value} = 0.001$ and this is smaller than $\alpha = 0.05$ ($P\text{value} = 0.000 < \alpha = 0.05$) so that there is a relationship of occupancy density with ARI incidence in infants in Uteun Pulo Puskesmas Work Area, East Seunagan District, Nagan Raya District . From the analysis of Odd Ratio (OR), the value of $OR = 8.2$ means that respondents with poor occupancy density have 8.2 times the risk of suffering from ARI in infants compared to respondents with good occupancy density.

Based on the results of the researchers' assumptions and observations in the field, the researchers found that respondents who had an inadequate and dense occupancy density. Most people in one house are inhabited by more than 2 people / $< 8\text{m}^2$, this is because the number of members is crowded and the area of the house is narrow so that the community has a very high risk of developing the disease, especially infants whose immunity is still very weak so it is easy to occur ARI disease. The solution to this problem is to provide counseling to home members regarding the conditions of a good house with adequate house area and the number of occupant members and provide counseling about ARI.

Occupancy density is a disease transmission process. The more congested, the transfer of diseases, especially infectious diseases through the air will be easier and faster, especially if there are family members who suffer from ARI. Dwelling density at the residence of Ispa sufferers in toddlers is at most a low density level. The temperature in the room is closely related to the density of housing and ventilation of the house.

This study is in line with research conducted by Suryani (2015) related to the relationship of residential density with ARI events in infants in the Lubuk Buaya Public Health Center in Padang. Based on the Chi Square test results obtained $p = 0,000$ because the p value < 0.05 means there is a significant relationship between the density of Dwelling with the incidence of ARI in infants, in other words, houses that are overcrowded and are risk factors for ARI in toddlers.

Relationship between the ceiling / roof of the house and the incidence of ARI in toddlers in the Work Area of Uteun Pulo Health Center, Seunagan Timur District, Nagan Raya Regency

Statistical test results obtained P value = 0,000 ($< \alpha = 0.05$) so that there is a ceiling relationship with the incidence of Ispa in toddlers in the Work Area of Uteun Pulo Health Center, East Seunagan District, Nagan Raya District. From the analysis of the Odd Ratio (OR), the value of OR = 6.3 means that the ceiling / respondent of the house is not good enough to have 6.3 times the risk of suffering from ARD in infants compared with respondents whose ceiling is good.

Based on the results of the assumptions and observations in the ceiling of the house can affect the incidence of ARI in toddlers where the ceiling can hold dust so it does not directly enter the house and other factors that affect the lack of cleanliness of the ceiling where in the working area of the Puskesmas Uteun Pulo lack in maintaining the cleanliness of the sky ceiling of the house. The roofs of public houses generally use zinc and most do not use ceilings. The roof or ceiling must be strong, clean, light-colored with a minimum height of 3 m from the floor. One function of the roof of the house is to protect the entry of dust in the house. The roof should be given a ceiling or ceiling, so that dust does not go directly into the house.

The roof also functions as an entry point for natural light using glass tiles. Glass tile can also be made simply, by punching holes in the tile, usually done at the time of manufacture, then the hole in the tile is covered with broken glass. (Suryanto, 2013).

The results of this study are relevant to research conducted by Afandi (2012) about the relationship of the physical condition of the house with the incidence of respiratory infections acute (ARI) in children under five in Wonosobo Regency, Central Java Province concluded that there is a relationship between the ceiling with the incidence of ARI in infants. With a value of $P = 0.0003$ and $OR = 1.54$. Means that the ceiling is less good risk of causing ARI in children under five 1.54 times greater than the physical condition of a good home.

This study is also in accordance with research conducted by Maita (2013) with the title research on the Relationship between Physical Home and ARI Occurrence in Toddlers in the vicinity of the Brick Making Business in Tanjung Mulia Village, Pagar Merbau District, Deli Serdang Regency. Based on the Chi Square Test, the P-Value value of $0.006 < 0.05$ means that there is a relationship between the ceiling and the incidence of ARI in infants in Tanjung Mulia Village, Pagar Merbau District, Deli Serdang Regency, with a contingency coefficient value = 0.432.

Floor Relationship with ARI Occurrence in Toddlers in the Work Area of Uteun Pulo Health Center, East Seunagan District, Nagan Raya Regency

Statistical test results obtained $Pvalue = 0.008$ and this is smaller than $\alpha = 0.05$ ($Pvalue = 0,000 < \alpha = 0.05$) so that there is a relationship between Floor and ARI incidence in children under five in the Uteun Pulo Puskesmas Work Area in East Seunagan District. From the analysis of the Odd Ratio (OR), the value of $OR = 4.4$ means that respondents who are not good home floor have a risk of 4.4 times to suffer from ARI in infants compared with respondents whose home floor is good.

Based on the results of the researchers' assumptions and observations in the field that the floor of the house greatly influences the occurrence of ARI in infants because the floor is dirty and does not meet standards is a good medium for bacterial breeding or cause of ARI. Respondents in the working area of the Uteun Pulo Health Center in East Seunagan District, Nagan Raya Regency, on average, have a lot of floors made of

cement and are not plastered and there are also respondents who still use the ground floor in their kitchen, so that during the dry season or rain the floor will produce dust and moisture.

The floor is a surface cover in the room and around the house that serves as a foothold so as to provide comfort and provide aesthetic value. A good type of flooring is a type of floor that meets health requirements, which is made of strong material, waterproof, flat surface, not slippery and clean. A good floor must be waterproof, not moist, the floor material is easy to clean and dry and does not produce dust. Floors that do not meet the standards are a good medium for the breeding causes of ARI. (DG PPM and PL, 2012)

The results of this study are in line with research conducted by Tasirah (2015) with the title research Physical Condition of Houses with ARI Occurrence in Toddlers in Indramayu, the results obtained $P\text{-Value} = 0.009 < \alpha = 0.005$ shows statistically there is a relationship between the condition of the floor with the incidence of ARI in toddlers in Indramayu with $RR = 2,454$,: $CI = 95\%$ which means that the condition of the house floor that is not good will be at risk for ARI in infants that is 2.2 times.

The results of this study are in line with research conducted by Suryani (2015) with the title research on the Relationship between Physical Environment and Population Actions with ARI Events in Toddlers in the Work Area of Lubuk Buaya Health Center. Based on the Chi Square Test, a $P\text{-Value}$ value of $0,000 < 0.05$ means that there is a relationship between the floor and the incidence of ARI in infants in the Lubuk Buaya Public Health Center with a contingency coefficient value of 0,324.

Clonsucion

1. *There is a relationship between Ventilation and ARI Occurrence in Toddlers in the Work Area of Uteun Pulo Health Center, East Seunagan District, Nagan Raya District (P value $0,16 < 0,05$)*
2. *There is a relationship between Occupancy Density and Occurrence of ARI in Toddlers in the Work Area of Uteun Pulo Health Center, Seunagan Timur District, Nagan Raya Regency (P Value $0,01 < 0,05$)*
3. *There is a relationship between the ceiling / roof of the house and the incidence of ARI in toddlers in the Work Area of Uteun Pulo Health Center, Seunagan Timur District, Nagan Raya Regency (P Value $0,000 < 0,05$)*
4. *There is a relationship between Floor with ARI Occurrence in Toddlers in the Work Area of Uteun Pulo Health Center, East Seunagan District, Nagan Raya Regency (P Value $0,008 < 0,05$)*

Suggestion

1. *It is hoped that parents or people who have toddlers can pay attention to the condition of the air in the traditional house to stay clean and healthy. In order to keep the air healthy, the house must have clean air ventilation, space, roof and floor conditions.*
2. *To Uteun Pulo Health Center, in order to increase public knowledge about the prevention of ARI in toddlers through health promotion activities.*

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