International Journal of Sciences: Basic and Applied Research (IJSBAR)

ISSN 2307-4531
(Print & Online)

http://gssrr.org/index.php?journal=JournalOfBasicAndApplied

Factors Connected With Immunization Coverage in Obaa Sub District of Mappi District

Reginald V. Nangoy[a*], Bernard Sandjaja[b], Hasmi[c], A. L. Rantetampang[d]

[a]*Administrative Concentration of Health Policy, Faculty of Public Health, Magister Programs of Public Health, University of Cenderawasih, Jayapura*

[b,c,d]*Faculty of Public Health, Magister Programs of Public Health, University of Cenderawasih, Jayapura*

[a]*Email: mappiedera@gmail.com*

Abstract

Immunization is a government effort to prevent preventable diseases and the achievement of immunization has not been on target still found infants who are not complete immunization. The research objectives were to study the factors related to the completeness of immunization at the Puskesmas Kepi Mappi District. This study is designed as observational with cross sectional study, the population is all mothers with children aged ≥ 1 - 2 years, registered in Keport Kemi Community Health Center as many as 275 babies with a total sample of 170 people. Data were obtained using questionnaire and analyzed using chi square. There are relation of mother age (p-value 0,010), mother education (p-value 0,037), mother's knowledge (p-value = 0,000) and support of health worker (p-value 0,003) to basic immunization completeness at infant at Puskesmas Kepi Kabupaten Mappi. While unrelated variables are mother job (p-value 0,931), number of mother (p-value 0,428), mother attitude (p-value 1,000), mother's family support (p value = 0,135), facility availability (p-value0 , 600), cadre activeness (p-value1,000) and service accessibility (p-value0,780). To the completeness of basic immunization in infants at the Kepi District Health Center Mappi.

Keywords: Basic immunization; infant; mother's knowledge; and preventable diseases.

---

* Corresponding author.

1. Introduction

Babies are children between 0 - 11 months under one year [1]. Infants are vulnerable to various disease problems such as tuberculosis, polio, hepatitis, diphtheria, pertussis, tetanus, measles and others. If this is not addressed it can cause physical, mental and death problems.

Infant mortality rate is an indicator of public health status [2]. Immunization is a government effort to prevent preventable diseases through immunization such as pneumococcus (28%), measles (21%), tetanus (18%), diarrhea virus (16%), hepatitisB (165%). In addition, immunization can reduce 50% of death rate in Indonesia while prevention of disease can be reduced 5% and 5% infant health problems in Indonesia can be prevented through immunization. However, the implementation of immunization has not reached the maximum service standard [2].

According to the Kemenkes RI [3,4] reported complete coverage of basic immunization in infants in Indonesia reached 89.86% of the target staretgis set at 85%. Fourteen provinces unable to achieve the complete and lowest primary immunization target are Papua Province at 55.84%. Another measured indicator for assessing successful immunization is Universal Child Immunization (UCI).

UCI is a description of a village where ≥ 80% of the infants (0-11 months) in the village / kelurahan have received complete basic immunization. UCI's target at Renstra in 2013 is 95%. By 2015 there are 9 provinces with a percentage of UCI villages exceeding the 95% target. While the province of Papua has the lowest achievement of 13.05%. Immunization data in Papua Province in 2013 which reached UCI (universal child immunizaton) is about 21.3% and decreases by 2014 by 20.1% and by 2015 by 13.6%. While DPT immunization coverage in 2015 reached 15% average drop out and 12.3% measles [5,6].

Mappi district targets village coverage to reach UCI (universal child imunizaton) village in Mappi District 2015, ie BCG 90%, DPT / HB3 85%, 85% Polio, 85% measured with infant target, 0.2% of the population. By district, coverage of villages reaching UCI (universal child immunizaton) in Mappi Regency in 2015 amounted to 73.3%. Mappi Regency is one of the districts in the southern part of Papua Province. Mappi Regency has an area of 24,108 km2 located between 060.281-560.41 LS and 1390.21-110.01 BT. Most are lowland areas, with at least about 14 rivers commonly used as means of transportation or inter-district liaison. [6].

The result of riskesdas in 2013 shows that the data of complete basic immunization coverage is only 52.9%, immunized but not complete 32.1% and 6.7% have never been immunized at all [7]. The cause of low achievement of complete basic immunization is low Awareness and knowledge of the community about immunization, benefits, immunization schedule and the symptoms of immunization follow-up.

In addition, the availability of health facilities, family support and support of health workers and socio-economic conditions also affect the low achievement of UCI villages / kelurahan. Realizing that the government is re-established through the RPJMN and Renstra Kemenkes 2010-2014 that the target UCI villages / kelurahan 100% will be achieved in 2014. The problem of factors related to complete basic immunization status in infants is important to examine because one of the obstacles to achieving UCI targets is a complete basic immunization

status in 100% targeted infants. Immunization itself is important as an effort to prevent disease in infants and has been recommended to the community for a long time but in fact until now the achievement of complete basic immunization targets is still not as expected. The purpose of this research is to know the factors related to the completeness of basic immunization at Kepi Community Health Center ".

2. Materials and Methods

This research is an observational research with crossectional study design. Cross sectional study. The design is intended to study the dynamics, and variations of variations contained in the research title "factors related to the completeness of primary immunization in the independent variable are maternal age, maternal education, maternal employment, parity, knowledge, attitude, family support, , Availability of facilities, cadre activeness and accessibility of service place while the dependent variable is the completeness of basic immunization. This research was conducted in Obaa District, ie Kepi Health Center.

Data collection was conducted in November 2016 by collecting primary data. The population in this study were 275 mothers with children aged ≥ 1 - 2 years old, with the number of samples obtained as many as 170 mothers. Data were obtained using questionnaire and analyzed using chi square.

3. Research Result

3.1 Univariate Analysis

Table 1. Age Distribution, Education, Employment, Parity, Knowledge, Attitudes, Family Support, Healthcare Support, Facility Availability, Health Service Accessibility, Kader Activity and Basic Immunization Completeness in Infants at Kepi Community Health Center, 2016.

Based on table 1, it shows that most respondents in adult age (> 25 years) amounted to 100 people (58.8%), high education as many as 86 people (50.6%), did not work as many as 97 people (57.1%), The number of children is low (less than 4 children) as many as 130 people (76.5%).

Maternal awareness of immunization in the category of good 88 people (51.8%), positive attitudes of 167 people (98.2%), family support for 93 people (54.1%), support of health workers supported by 109 people (64.1%), the availability of supporting facilities as many as 109 people (64.1%), active cadre activeness of 94 people (55.3%), access to health services is not difficult as many as 144 people (84.7%). Complete complete basic immunization in infants as many as 117 people (68.8%).

The number of samples targeted to be taken is the total of the registered population registered in the Kepi Community Health Center cohort of 275 mothers, but the implementation of the sampling did not reach the planned targets because not all mothers are willing to be sampled, many mothers are not in place or have moved when visited.

Table 1

No	Variables	Frekuensi (n)	Presentase (%)
1	Agew		
	Adult (> 25 year)	100	58,8
	Early adult (18-25 year)	70	41,2
2	Education		
	High	86	50,6
	Low	84	49,4
3	Occupation		
	Not work	97	57,1
	Work	73	42,9
4	Number of child		
	Low	130	76,5
	High	40	23,5
5	Knowledge		
	Good	88	51,8
	Less	82	48,2
6	Attitude		
	Positive	167	98,2
	Negative	3	1,8
7	Family support		
	Support	93	54,7
	Not support	77	45,3
8	Health staff support		
	Support	109	64,1
	Not support	61	35,9
9	Facilities available		
	Support	109	64,1
	Not support	61	35,9
10	Cadre acitifity		
	Aktive	94	55,3
	Not active	74	44,7
11	Health service accessability		
	Not difficult	144	84,7
	Difficult	26	15,3
12	Basic immunization		
	Complete	117	68,8
	Not complete	53	31,2
Number		170	100

3.2 Bivariate Analysis

a. Age Relation with Basic Baby Immunization Completeness

Table 2 shows that out of 100 adult primary immunizations complete 77 people (77%) and incomplete 23 (23%). Whereas from 70 adults at the beginning of complete basic immunization totaled 40 people (57.1%) and incomplete amounted to 30 people (42.9%). The $=\alpha$result of chi square statistic test on value of significance 95% (0,05) obtained p-value 0,010 or $p < \alpha$ (0,05), this means that there is relation of age with completeness of basic immunization at baby at Kepi Public Health Center Mappi . When viewed from the value of RP = 1.384;

CI95% (1.071 - 1.695) interpreted that adult mothers had an overall baseline immunization opportunity of 1,384 times higher than those of early adult mothers.

Table 2: Age Relation with Basic Immunization Completeness of infants at Puskesmas Kepi

No	Age	Basic immunization completeness on baby				n	%
		Complete		Not complete			
		n	%	n	%		
1	Adult	77	77	23	23	100	100
2	Early adult	40	57,1	30	42,9	70	100
Total		117	68,8	53	31,2	170	100
p-value = 0,010; RP = 1,384; CI95% (1,071 – 1,695)							

b. Educational Relationships with Complete Immunization Basic Baby

Table 3: Relationship of Education with Basic Immunization Completeness of infants at Kepi Community Health Center

No	Education	Basic immunization completeness on baby				n	%
		Complete		Tidak Lengkap			
		n	%	n	%		
1	High	66	76,7	20	23,3	86	100
2	Low	51	60,7	33	39,3	84	100
Total		117	68,8	53	31,2	170	100
p-value = 0,037; RP = 1,264; CI95% (1,027 – 1,556)							

Table 3 shows that out of 86 highly educated people have complete primary immunization in infants totaling 66 people (76.7%) and incomplete number of 20 persons (29.3%). Whereas from 84 low educated people have complete basic immunization amounted to 51 people (60,7%) and incomplete in baby amounted to 33 people (39,3%). The result of chi = 0,05) obtainedαsquare statistic test at significance value of 95% (p-value 0,037 or p <α (0,05), this means that there is relation of education with basic immunization completeness at baby at Kepi Public Health Center Mappi . When viewed from the value of RP = 1.246; CI95% (1,027 - 1,556) interpreted that a highly educated mother had a complete basic immunization opportunity 1,246 times higher than a lowly

educated mother.

c. Employment Relationships with Basic Baby Immunization Complements

Table 4: Employment Relationship with Basic Immunization Completeness of Infants at Kepi Community Health Center

No	Occupation	Basic immunization completeness on baby				n	%
		Complete		Not complete			
		n	%	n	%		
1	Not work	66	68	31	32	97	100
2	Work	51	69,9	22	30,1	73	100
Total		117	68,8	53	31,2	170	100
p-value = 0,931; RP = 0,974; CI95% (0,795 – 1,193)							

Table 4 shows that out of 97 people not working had complete primary immunization totaling 66 people (68%) and incomplete in infants amounted to 31 people (32%). Whereas from 73 people work have complete basic immunization amounted to 51 people (69,9%) and incomplete in baby amounted to 22 people (30,1%). The =αresult of chi square statistic test at significance value of 95% (0,05) obtained p-value 0,931 or p> α (0,05), this means that there is no job relation with basic immunization completeness in infant at Kepi District Health Center Mappi. When viewed from the value of RP = 0.974; CI95% (0.795 - 1.193) where the Lower and Upper values include a value of 1 so it is not meaningful.

d. Relationship of the number of children with basic infant immunization

Table 5 shows that out of 130 people the number of children is low (less than equal to 4 children) with complete basic immunization in infants amounting to 92 people (70.8%) and incomplete number of 38 people (29.5%). Whereas from 40 people with high number of children (more than 4 children) have complete basic immunization amounted to 25 people (62,5%) and incomplete in infant amounted to 15 people (37,5%). = 0,05) obtained p-value 0,428 or pα.

The result of chi square statistic test on significance value 95% (> α (0,05). This means that there is no relation between the number of children with basic immunization completeness in infants at the Kepi District Health Center in Mappi. When viewed from the value of RP = 1.132; CI95% (0.869 - 1.475), where Lower and Upper values include a value of 1 so it is not meaningful.

Table 5: Relationship of Number of Children with Basic Immunization Completeness of Infants at Kepi Community Health Center

No	Number of child	Basic immunization completeness on baby				n	%
		Complete		Not complete			
		n	%	n	%		
1	Low (≤ 4 child)	92	70,8	38	29,2	130	100
2	High (> 4 child)	25	62,5	15	37,5	40	100
Total		117	68,8	53	31,2	170	100
p-value = 0,428; RP = 1,132; CI95% (0,869 – 1,475)							

e. Knowledge Relation with Basic Baby Immunization Completeness

Table 6: Knowledge Relation with Basic Immunization Completeness of Infants at Kepi Community Health Center

No	Knowledge	Basic immunization completeness on baby				n	%
		Complete		Not complete			
		n	%	n	%		
1	Good	73	83	15	17	88	100
2	Less	44	53,7	38	46,3	82	100
Total		117	68,8	53	31,2	170	100
p-value = 0,000; RP = 1,546; CI95% (1,238 – 1,931)							

Table 6 shows that out of 88 well-informed people, 73 (83%) complete complete immunization and 15 infants (17%) were incomplete. Whereas of 82 people with knowledge of lack of complete basic immunization amounted to 44 people (53,7%) and incomplete in infant amounted to 38 people (46,3%). While the result of chi square statistic = 0,05) obtained p-value 0,000 or pαtest on value of significance 95% (<α (0,05), this means that there is relation of knowledge with completeness of basic immunization at baby at Kepi Health Center Mappi District. When viewed from the value of RP = 1.546; CI95% (1,238 - 1,931) interpreted that mothers with good knowledge had a complete immunization chance of 1.546 times higher than those with less knowledgeable mothers.

f. Relationship of Attitudes with Basic Baby Immunization Completeness

Table 7: Relationship of Attitudes with Basic Immunization Completeness of infants at Kepi Community Health Center

No	Attitude	Basic immunization completeness on baby				n	%
		Complete		Not complete			
		n	%	n	%		
1	Positive	115	68,9	52	31,1	167	100
2	Negative	2	66,7	1	33,3	3	100
Total		117	68,8	53	31,2	170	100
p-value = 1,000; RP = 1,033; CI95% (0,461 – 2,314)							

Table 7 shows that out of 3 people with negative attitudes have an incomplete basic immunization in infants amounting to 1 person (33.3%) and complete basic immunization amounted to 2 people (66.7%). Whereas from 167 people being poisitf had an incomplete basic immunization in 52 infants (31.1%) and complete basic immunization was 115 (68.9%). The =αresult of chi square statistic test on value of significance 95% (0,05) obtained p-value 1,000 or p> α (0,05) this means that there is no relation of attitude with completeness of basic immunization at baby at health center Kepi Kabupaten Mappi . When viewed from the value of RP = 1.033; CI95% (0,461 - 2,314) with Lower and Upper value include value 1 so it is not meaningful.

g. Family Support Relationships with Basic Baby Immunization Complements

Table 8: Relationship of Family Support with Basic Immunization Completeness of Infants at Kepi Community Health Center

No	Family support	Basic immunization completeness on baby				n	%
		Complete		Not complete			
		n	%	n	%		
1	Support	69	74,2	24	25,8	93	100
2	Not support	48	62,3	29	37,7	77	100
Total		117	68,8	53	31,2	170	100
p-value = 0,135; RP = 1,190; CI95% (0,964 – 1,470)							

Table 8 shows that out of 93 family support support for complete primary immunization of 69 (74.2%) and 24 (25.8%) infants incomplete. Whereas 77 people with family support did not support complete basic immunization of 48 infants (62.3%) and incomplete number was 29 (37.7%). The =αresult of chi square statistic test at significance value of 95% (0,05) obtained p-value 0,135 or p> α (0,05) this means that there is no significant relation of family support with basic immunization completeness to infant at Kepi Community Health Center Mappi District. When viewed from the value of RP = 1.190; CI95% (0.964 - 1.470) with Lower and Upper values include a value of 1 so that is not meaningful.

h. Relationship of Healthcare Personnel with Basic Baby Immunization Compliance

Table 9: Relationship of Healthcare Support with Basic Immunization of Infants at Kepi Community Health Center

No	Health staff support	Basic immunization completeness on baby				n	%
		Complete		Not complete			
		n	%	n	%		
1	Support	84	77,1	25	22,9	109	100
2	Not support	33	54,1	28	45,9	61	100
Total		117	68,8	53	31,2	170	100
p-value = 0,003; RP = 1,425; CI95% (1,106 – 1,834)							

Table 9 shows that out of 109 people with support from health personnel have complete basic basic immunization in 84 infants (77.1%) and incomplete population of 25 (22.9%). Whereas of 61 people there is no support of health workers have complete basic immunization in infants amounted to 33 people (54.1%) and incomplete amounted to 28 people (45.9%). The =αresult of chi square statistic test at significance value of 95% (0,05) obtained p-value 0,003 or p <α (0,05), this means that there is relation of support of health worker with basic immunization completeness at baby at Kepi Health Center Mappi District. When viewed from the value of RP = 1.425; CI95% (1,106 - 1,834) which means that the support of health workers has the opportunity to complete basic immunization in infants 1.425 times higher than the absence of support of health workers.

i. Relationship of Facility Availability with Basic Baby Immunization Completeness

Table 10 shows that of the 109 persons with availability of supporting facilities had complete primary immunization (73%) and incomplete (36%) of infants (33%). Whereas from 61 people with unfavorable facility availability have incomplete basic immunization to 17 (27,9%) infant and complete basic immunization was 44 (72,1%). The =αresult of chi square statistic test at significance value of 95% (0,05) obtained p-value 0,600 or p> α (0,05), this means that there is no relation of facility availability with basic immunization completeness to infant at Kepi Community Health Center Mappi District. When viewed from RP = 0.928; CI95% (0.757 - 1.139), with Lower and Upper values including 1 so not significant.

Table 10: Relationship of Availability of Facilities with Basic Immunization Completeness of Infants at Kepi Community Health Center

No	Facility availability	Basic immunization completeness on baby				n	%
		Complete		Not complete			
		n	%	n	%		
1	Support	73	67	36	33	109	100
2	Not support	44	72,1	17	27,9	61	100
Total		117	68,8	53	31,2	170	100
p-value = 0,600; RP = 0,928; CI95% (0,757 – 1,139)							

j. Relationship of Kader's Activity to Basic Baby Immunization Complete

Table 11: Relationship Activity of cadres with Basic Immunization Completeness of infant at Kepi Community Health Center

No	Cadre active	Basic immunization completeness on baby				n	%
		Complete		Not complete			
		n	%	n	%		
1	Aktive	65	69,1	29	30,9	94	100
2	Not aktive	52	68,4	24	31,6	76	100
Total		117	68,8	53	31,2	170	100
p-value = 1,000; RP = 1,011; CI95% (0,824 – 1,239)							

Table 11 shows that out of 94 active cadres have complete primary immunization in infants of 65 (69.1%) and incomplete numbers of 29 (30.9%). Whereas of 76 people who stated inactive cadres had incomplete basic immunization of 24 infants (31.6%) and complete basic immunization were 52 (68.4%). The result of chi square statistic test on = 0,05) obtained p-value 1,000 or pαsignificance value of 95% (> α (0,05), this means that there is no relation of kader activity with basic immunization completeness to infant at Kepi Community Health Center Mappi District. When viewed from the value of RP = 1.011; CI95% (0.824 - 1.239) shows Lower and Upper values include a value of 1 so it is not meaningful.

k. Service Accessibility Relationship with Baby Immunization Completeness

Table 12: Relationship Accessibility of services with Basic Immunization Completeness of infants at the Puskesmas Kepi

No	Service Aksesbility	Basic immunization completeness on baby				n	%
		Complete		Not complete			
		n	%	n	%		
1	Not difficult	98	68,1	46	31,9	144	100
2	Difficult	19	73,1	7	26,9	26	100
Total		117	68,8	53	31,2	170	100
p-value = 0,780; RP = 0,931; CI95% (0,719 – 1,206)							

Table 12 shows that out of 144 people, access accessibility is not difficult to have complete basic immunization in infants (98% (68.1%) and incomplete number of 46 people (31.9%). Whereas from 26 people with service accessibility it is difficult to have complete basic immunization in infant amounted to 19 people (73,1%) and incomplete amounted to 7 people (26,9%). The result of chi = 0,05) obtainedαsquare statistic test at significance value of 95% (p-value0,780 or p> α (0,05), it means that there is no relation of service accessibility with basic immunization completeness in infant at Puskesmas Kepi Kabupaten Mappi. When viewed from RP = 0.931; CI95% (0.719 - 1.206), with Lower and Upper values including a value of 1 so it is not meaningful.

Table 13: Recap of Bivariate analysis results, Factors - factors related to when Primary Immunization of infants at Kepi Community Health Center.

NO	Variables	RP	*P*
1	Age	1,384	0,010
2	Education	1,264	0,037
3	Occupation	0,974	0,931
4	Child number	1,132	0,428
5	Knowledge	1,546	0,000
6	Attitude	1,033	1,000
7	Family support	1,190	0,135
8	Health staff support	1,425	0,003
9	Facility availability	0,428	0,600
10	Cadre active	1,011	1,000
11	Health service	0,931	0,780

Table 13 shows that from the analysis of bivariate analysis, the highest prevalence ratio is Knowledge (RP = 1.546), while the lowest is Availability of Facilities (RP = 0,428).

4. Discussion

a. Age Relation with Basic Baby Immunization Completeness

The result showed that there was a relationship between age with basic immunization completeness in infant at Puskesmas Kepi Kabupaten Mappi (obtained p-value0,010). The results of this research study with the research conducted by Yunica (2014) revealed that age is associated with providing complete basic immunization in infants. A study conducted in Ethiopia by Negussie (2016) revealed that young mothers influence immunization. The height of incomplete immunization is due to the relatively young marriage of women and not well established with low education, thus affecting the mother's unreliability in caring for her child. The result of the analysis showed that the mature age of early immunization incomplete was 30 people (42,9%), while the mature mature immunization was incomplete (23%). This suggests a high proportion of early adult mothers with incomplete immunizations. The results of the prevalence ratio test (RP) 1.132; CI95% (0.869 - 1.475), this means that there is a relationship between age with the completeness of immunization at the Puskesmas Kepi and mature mothers have a complete immunization chance 1,384 times higher than early adult mothers.

The existence of the age relationship with complete basic immunization completeness is caused by the increasing mature mother of psychological development, thus affecting the awareness of the problems faced including health problems such as giving immunization to the baby. In addition with increasing age, experience is increasing with the number of children. This is in agreement with Azwar's research, that age affects the utilization of health services that are motivated by other factors such as experience. Young mothers tend to be low in education so they do not understand the benefits of immunization, while older mothers tend to have more experience and information about immunizations and their use for babies [8-10].

Cognitively, rational thinking habits increase in early and middle adulthood

Based on the Notoadmodjo [11,12] states that age will affect the capture and mindset of a person, the more ages the more the ability to catch and the mindset so that knowledge gained better.

b. Relationship of Education with Complete Basic Immunization of Infants

The level of education of mothers used by researchers in the working area of Kepi Public Health Center is adjusted to the average educational level recorded in BPS, namely elementary and junior high school where it is stated high if junior high school or more, and less education if elementary or non school. The result of this research shows that there is a correlation of education to the completeness of basic immunization to infant in Puskesmas Kepi Kabupaten Mappi (p-value0,037). This research is in line with the research conducted by Makamban [13] with the completeness of Health Center status of Antara Kota Makassar Level of education with completeness of immunization status.

The result of the analysis found that the low educated mothers had incomplete basic immunization in 33 children (39,3%), whereas high educated mothers had incomplete basic immunization (29,3%). This suggests a different proportion of mothers with incomplete infant immunization is higher in poorly educated mothers. The results of the prevalence ratio test (RP) 1.264; CI95% (1.027 - 1,556). This means that there is an educational relationship with the completeness of immunization at the Kepi Health Center and a highly educated mother with an opportunity of 1,264 times higher infant immunization compared to a lowly educated mother.

This study is in accordance with income Notoamtodjo [12], generally the higher the education of a person then the better the level of knowledge. Mothers with relatively high education tend to have the ability to use better family resources compared to poorly educated mothers, especially in health for applying in family life, especially in nannies. The existence of the relationship of education is due, because with higher education the mother is more easily accept or absorb information received or obtained through the media information than the low educated mothers [11].

c. Occupational Relationships with Complete Immunization Basic Baby

The result showed that there was no working relationship with basic immunization completeness in infant at Puskesmas Kepi Kabupaten Mappi (p-value 0,931). The results of this study are in line with research conducted Rahmadhani [14] in Magetan District, revealing that the mother's work is not related to complete basic immunization completeness in infants.

The results of the analysis found that working mothers had an incomplete basic immunization in infants amounting to 22 people (30.1%), while unemployed mothers had an incomplete primary immunization in infants (32%). This suggests that there are equal opportunities for working mothers and not working with immunization completeness. The results of the prevalence ratio test (RP) 0.974; CI95% (0.795 - 1,193), which means there is no working relationship with the completeness of immunization at the Kepi Community Health Center.

Nowadays women get the opportunity to work more open. The basic reason for a woman to have a job is not the same with one another. A common reason for this is because of the financial need to enrich personal experience and knowledge, achievement desires [15].

The absence of a working relationship with the completeness of immunization at the Community Health Center of Kepi Kabupaten Mappi is probably caused by the Posyandu where the Immunization service is located where the population is high and has scheduled the date of Posyandunya, generally the unemployed mother resides around the village area and the mother who works as a civil servant and Traders are in a high population dispersal area such as the village of Kepi and Obaa that there are 2-3 Posyandu making it easier for working mothers to provide immunization to their children. Mothers who work as farmers / peramu not all who go foraging. Completeness of immunization in working mothers and not working, has no relationship and possibly influenced by other factors in the variables studied.

d. Relationship of the Number of Children with Basic Immunization Complete

The result of the research shows that there is no significant correlation between the number of children with basic immunization completeness in infants at Puskesmas Kepi Kabupaten Mappi (p-value 0.428). The number of children or parity is the state of a woman related to having a baby born nulliparously, if the mother has never delivered a baby, having one baby (primipara), 2 - 4 babies (multiparas) and> 5 babies (grandemultipara) on high parity category if Have children> 4 and low parity when having children <4 children [7]. The results of the analysis with high number of children (more than 4 children) had an incomplete basic immunization in 15 infants (37.5%), whereas in mothers with low children (less than 4 children) the proportion of primary immunizations was incomplete Low (29.5%). The results of the prevalence ratio test (RP) 1.132; CI95% (0.869 - 1.475), which means there is no relation between the number of children and the completeness of immunization at the Kepi Community Health Center.

e. Knowledge Relation with Basic Baby Immunization Completeness

The result showed that there was a correlation of knowledge with the completeness of basic immunization in infant at Puskesmas Kepi Kabupaten Mappi (p-value = 0,000). The results of this study are in line with the research conducted by Panjaitan (2013) on the factors that affect the completeness of basic immunization in children aged 12-18 months in Harjosari - I subdistrict of Medan- Amplas subdistrict shows that the mother's knowledge is related to the completeness of basic toddler immunization. According to Maryam [16] knowledge is the result of knowing after people do the sensing of a particular object. Sensing takes place through the five senses of the human eye, the sense of smell, the sense of smell and touch. Most human knowledge is influenced from the eyes (sight) and ears (hearing). The results of the analysis revealed that mothers with knowledge of lacking basic immunization were incomplete in infants (46.3%), while well-informed mothers had an incomplete basic immunization in infants (17%). This suggests that a mother with good knowledge tends to give her baby a complete immunization. The results of the prevalence ratio test (RP) 1.546; CI95% (1,238 - 1,931), which means that there is a connection of knowledge with the completeness of immunization at Kepi Health Center and mother with good knowledge has an opportunity of 1,546 times higher complete immunization in infant than the mother with low knowledge.

f. Mother's good knowledge of the benefits of complete immunization for

babies can prevent illness and know that side effects such as fever are common after the baby is given immunization. Good knowledge has an impact on attitudes and behaviors in action. This is in accordance with the opinion of Notoatmodjo (2011), that the actions based on one's knowledge will be easy to accept new and easy to adjust the new things.

g. Relationship Attitude with Baby Basic Immunization Completeness

The result of the research shows that there is no relation of attitude with the completeness of basic immunization in infant at Puskesmas Kepi Kabupaten Mappi (p-value 1,000). The results of this study are in line with Gondowardojo's (2014) research at Bebandem Health Center revealing that the supportive mother's attitude is not related to the basic immunization of infants. The results of the analysis found that negative mothers had an

incomplete basic immunization in infants (33.3%), while positive mothers had an incomplete basic immunization in infants (31.1%). This shows a small proportion of the difference between mothers who are negative and positive towards the completeness of immunization. This is because of the 170 respondents (98.2%) have a positive attitude, while the negative attitude is 1.8%. However, from the test result of the prevalence ratio, the value of RP = 1.033; CI95% (0,461 - 2,314) which means that there is no relation between mother attitude with basic immunization equipment at Kepi Health Center.

Most mothers have a positive attitude, because the mother still provides immunization despite the side effects such as fever that causes fuss in children. In addition, trying to give her child immunization when it comes to late service posyandu. That attitude is a closed reaction, not an open reaction or an open manner. More can be explained again that the attitude is a reaction to objects in a certain environment as an appreciation of the object [10]. It is also found that mothers who have positive attitudes as much as 31.1% of infants are not complete immunization indicating that the positive attitude of mothers is not accompanied by concrete actions that can be caused by other factors such as support of health workers and supporting health facilities. C. Relation of Family Support with Basic Baby Immunization Completeness The result of the study found that there was no relationship of family support with basic immunization completeness in infants at Puskesmas Kepi Kabupaten Mappi (p value = 0,135), where mothers with family support did not support incomplete basic immunization at 37.7% Supportive families have an incomplete basic immunization in infants (25.8%) this indicates a similar opportunity to the completeness of basic immunization in padabayi. The results of the prevalence ratio test (RP) 1.190; CI95% (0.964 - 1.470), which means there is no relation between the number of children and the completeness of immunization at the Kepi Community Health Center.

Family members find that supportive people are always ready to provide help and assistance if necessary [17]. The family is the smallest part of the community consisting of the head of the family and other family members who live in one house because of the relationship of blood and marriage bonds, so there is interaction between family members one with family members, if one of the family members Obtain health problems, it will be able to affect other family members. The lack of family support relationships is due to the percentage of mothers who receive support in providing information, attention, and fulfillment of infant needs found to be incomplete with immunization (25.8%). Similarly, mothers who lacked support and provided complete immunization (62.3%), this indicates that maternal factors play a key role in the completeness of basic immunization in their infants.

h. Relationship of Healthcare Support with Basic Baby Immunization Compliance

The result of the research shows that there is a relation of support of health personnel with basic immunization completeness in infant at Puskesmas Kepi Kabupaten Mappi (p-value 0,003). Health personnel support plays an important role in the completeness of immunization due to health personnel as family educators in providing health education to mothers about the benefits of immunization as well as the implementation schedule of basic immunization in baby diposyandu. Further support of health workers by making a visit home for mothers who do not bring him to posyandu. The result of the analysis was found that the mother who did not get the support of health workers had an incomplete basic immunization of 28 infants (45.9%), while those who received health support had incomplete basic immunization for 25 infants (22.9%). The frequency indicates that the support of

health workers has the highest percentage of completeness of immunization compared to mothers who do not have the support of health workers. Results of the prevalence ratio test (RP) 1.425; CI95% (1,106 - 1,834), which means that there is a family support relationship with the completeness of immunization at the Kepi Community Health Center and the support of primary health professionals with 1,425 times higher than none.Good health care services to mothers are influenced by health professional awareness of work professionalism in achieving immunization. Healthcare services can affect complete basic immunization in toddlers, because they feel satisfied with the services provided by health personnel.

i. Availability of Facility Relationships with Basic Immunization Completeness of Infants

The result of the research shows that there is no relation between the availability of the facility and the completeness of basic immunization in the infant at Kepi Public Health Center of Mappi Regency (p-value0,600). The results of this study are in line with research conducted by Prayogo (2009), that there is no relationship between the availability of health facilities and immunization completeness. Environment and facilities / tools are the supporting factors for carrying out actions or activities. Eligible environments, namely the availability of water that meets the physical, chemical and bacteriological, adequate lighting, adequate ventilation and security amanya.Sedangkan facilities a tool or means to support the implementation of actions / activities, good logistics management and easily obtained as well as complete reporting and reporting And consistent [18,19].

The result of the analysis showed that the availability of facilities did not support the incomplete basic immunization of 17 infants (27.9%) and the mother who stated the availability of supporting facilities had an incomplete basic immunization of 36 infants (33%). Health facilities do not support due to immunization vaccine vaccine, needle syringe, availability of Posyandu facilities and infrastructure that cause disruption in the implementation of immunization services. Analysis of prevalence ratio RP = 0.928; CI95% (0.757 - 1,139). This means that there is no relation between the availability of facilities to the completeness of basic immunization in infants at the Kepi Health Clinic in Mappi Regency.

j. Relationship Activity of cadres with Basic Immunization Complete Baby

The result of the research shows that there is no relation of cadre activeness with basic immunization completeness to infant at Puskesmas Kepi Kabupaten Mappi (p-value1,000). The result of this research is in accordance with the Conscience (2013), that there is no relationship between the activeness of the posyandu cadre staff and the health service staffs to the completeness of the immunization. Kader is a volunteer recruited from and for the community in charge of assisting the smooth delivery of health services. The presence of cadres is often associated with routine services in Posyandu, so that a posyandu cadre must, willing to work voluntarily and willingly, willing and able to carry out posyandu activities, and willing and able to mobilize the community to carry out and follow posyandu activities [20, 21]. The results of the analysis found that mothers who declared inactive cadres had incomplete basic immunization of 24 (31.6%) active cadres who had an incomplete basic immunization in 29 infants (30.9%). Equal opportunity to the completeness of immunization. The results of the prevalence ratio test (RP) 1.011; CI95% (0,824 - 1,239),

which means there is no relation of cadre activeness with the completeness of immunization at Kepi Public Health Center. The importance of cadres as a driver of community participation in the environment

j. Service Accessibility Relation with Basic Baby Immunization Completeness

The result of the research shows that there is no relation of service accessibility with basic immunization completeness to infant in Puskesmas Kepi Kabupaten Mappi (p-value0,780). The results of the analysis found that mothers with access to services were difficult to have an incomplete basic immunization in infants (26.9%) and service accessibility was not difficult to have incomplete basic immunization in infants (31.9%). These results indicate that a difficult and not difficult difficult place is equally likely to immunize infants is not complete. The results of the prevalence ratio test (RP) 0.931; CI95% (0,719 - 1,206), which means there is no relation of health service accessibility with the completeness of immunization at Kepi Public Health Center.The difficulty of maternal service, due to the geographical condition of the Kepi Community Health Center, where the mother home is quite remote, which is not supported by adequate transportation means that the mother can not access the immunization schedule according to the immunization schedule and the high transportation cost for mothers who have A place far away. In addition, the influence of travel time to health facilities to make mothers its own hassles, because it must carry the baby in a journey in a long time. Also for working moms will experience little resistance to go to health care facilities if the latter took a long time. The longer the time and cost of transportation to health facilities is the chance that a child will not be immunized by his or her parents.

Mothers with remote service accessibility and complete basic immunization in their infants are attributed to strong support from families, especially the cost or the need to provide transportation. This is in accordance with the opinion Wibowo (2009) states that found a positive relationship between the distance with the utilization of health services where makinjauh a health facility, the more reluctant the population to come.

5. Conclusion

Based on the results of research and discussion, then the factors related to the completeness of basic immunization in Puskesmas Kepi Kabupaten Mappi can be summarized as follows:

1. There is an age relationship with the completeness of primary immunization in infants at Puskesmas Kepi Kabupaten Mappi (p-value 0,010; RP = 1,384; CI95% = 1,071 - 1,695).

2. There is an educational relationship with the completeness of basic immunization in infants at Puskesmas Kepi Kabupaten Mappi (p-value 0,037; RP = 1,264; CI95% = 1,027 - 1,556).

3. There is no working relationship with the completeness of basic immunization in infants at Puskesmas Kepi Kabupaten Mappi (p-value 0,931; RP = 0,974; CI95% = 0,795 - 1,193).

4. There is no correlation between the number of children with basic immunization completeness in infants at the Puskesmas Kepi Kabupaten Mappi (p-value 0.428; RP = 1.132; CI95% = 0.869 - 1.475).

5. There is a relationship of knowledge to the completeness of basic immunization in infants at the Puskesmas Kepi Kabupaten Mappi (p-value = 0,000; RP = 1.546; CI95% = 1,238 - 1,931).

6. There is no attitude relationship with the completeness of primary immunization in infants at the Puskesmas Kepi Kabupaten Mappi (p-value 1,000; RP = 1.033; CI95% (0.461 - 2,314).

7. There is no family support relationship with the completeness of primary immunization in infants at the Puskesmas Kepi Kabupaten Mappi (p value = 0,135; RP = 1,190; CI95% = 0,964 - 1,470).

8. There is an association of support of health personnel with basic immunization completeness in infants at Puskesmas Kepi Kabupaten Mappi (p-value 0,003; RP = 1,425; CI95% = 1,106 - 1,834).

9. There is no relation between the availability of facilities and basic immunization facilities to infants at the Puskesmas Kepi Kabupaten Mappi (p-value 0.600; RP = 0.928; CI95% = 0.757 - 1.139).

10. There is no relationship of cadre activeness with the completeness of primary immunization in infants at Puskesmas Kepi Kabupaten Mappi (p-value1,000; RP = 1.011; CI95% = 0,824 - 1,239).

References

[1] Soetjiningsih (2012). Tumbuh Kembang Anak. Jakarta : EGC.

[2] RI (2013). Riset Kesehatan Dasar Nasional. www.kemenkesri.go.id. diakses tanggal 10 September 2015.

[3] Kemenkes RI (2015). Introduksion Vaksin Baru Pentabio (DPT-HB-Hib). Profil Kesehatan Indonesia.http://www.kemenkesri.go.id. diakses tanggal 2 Mei 2016.

[4] Kemenkes RI (2015). Introduksion Vaksin Baru Pentabio (DPT-HB-Hib). Profil Kesehatan Indonesia.http://www.kemenkesri.go.id. diakses tanggal 2 Mei 2016.

[5] Dinas Kesehatan Kabupaten Mappi (2015).Profil Kesehatan Kabupaten Mappi. Dinkes Provinsi Papua.

[6] Dinas Kesehatan Provinsi Papua (2015). Profil Kesehatan Papua. Dinkes Provinsi Papua.

[7] Kemenkes RI (2014). Survey Demografi Kesehatan Indonesia. http://www.kemenkesri.go.id. diakses 2 Mei 2016.

[8] Azwar A (2010). Teori Perilaku dan Sikap Manusia. Jakarta : Bina Rupa Aksara

[9] Afriani Tri (2013) Faktor -Faktor yang Berhubungan Dengan Kelengkapan Imunisasi Dasar Pada Anak dan Pengelolaan Vaksin di Puskesmas dan Posyandu Kecamatan X Kota Depok.

[10]_Bina Rupa (2010). Pengantar Ilmu Admnistrasi Kesehatan. Jakarta : Bina Rupa Aksara.

[11] Notoatmodjo S(2011). Ilmu Kesehatan Masyarakat, perilaku dan seni, Jakarta:Rineka Cipta.

[12] Notoatmodjo S(2012). MetodePenelitian Kesehatan, Jakarta:Rineka Cipta.

[13] Makamban (2011) Faktor Yang Berhubungan Dengan Cakupan Imunisasi Dasar Lengkap Pada Bayi di Wilayah Kerja Puskesmas Antara Kota Makassar. http://www.unhas.co.id. diakses 2 Mei 2016.

[14] Rahmawati (2014) Faktor Yang Mempengaruhi Kelengkapan Imunisasi Dasar Di Kelurahan Krembangan Utara. Jurnal Berkala Epidemiologi, Volume 2 Nomor 1, Januari 2014, hlm. 59-70

[15] Prayoto, 2014. Teori, Sikap & Perilaku dalam Kesehatan dilengkapi contoh kuesioner.Yogyakarta: Nuha Medika.

[16] Maryam S (2014). Promosi Kesehatan. EGC, Jakarta.

[17] Nainggolan N (2015) Hubungan Prilaku Ibu Dengan Peran Tenaga kesehatan Dalam Pemberian Imunisasi Di Wilayah Kerja Puskesmas Namorambe Kecamatan Deli Tua Tahun 2012. http://www.usu.co.id. diakses 2 Mei 2016.

[18] Depkes RI, 2009. Pedoman Pemantauan Wilayah Setempat Kesehatan Ibu dan Anak. Jakarta : Depkes RI.

[19] IDAI, 2014. Jadwal Pemberian Imunisasi Pada Anak umur 0 – 18 tahun. http://www.idai.go.id. diakses 2 Mei 2016.

[20] Ismawati, A, 2010. Posyandu dan Desa Siaga. Panduan Untuk Bidan dan Kader, Medcal Book, Jakarta.

[21] Azniah Syam, Muhammad Syafar, Ridwan Amiruddin, Muzakkir, Darwis, Sri Darmawan, Sri Wahyuni and Anwar Mallongi, 2016., Early Breastfeeding Initiation: Impact of Socio-demographic, Knowledge and Social Support Factors. Pak,J.,Nut., 16(4); 207-215, 2017.