



## Determinants Of Basic Immunization Completeness In The Work Area Of Enrekang City Community Health Center

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### ABSTRACT

**Background:** According to the World Health Organization (WHO) Complete immunization is a condition where a child has received complete routine immunization starting from IDL at the age of 0-11 months. The coverage of basic immunization in Indonesia still has not reached the target of the Ministry of Health's Strategic Plan for 2020. Basic immunization for infants in South Sulawesi Province is 54.2%, this also has not reached the target of the Strategic Plan for 2020. This study aims to look at the determinants of the completeness of basic immunization in work areas Health Center in Enrekang Regency City in 2022. **Methods:** The type of research used is quantitative with a cross sectional study design. The population in this study were all mothers who had babies who had reached the age of 12 months who lived around the work area of the City Health Center in Enrekang Regency with a total sample of 168 mothers. The sampling technique used is simple random sampling. **Results:** this study indicate that there is a relationship between mother's trust/belief, affordability of health facilities and the role of health workers on the determinants of basic immunization completeness in the work area of the Public Health Center in Enrekang City with a P value <0.05. Meanwhile, the variable mother's knowledge and mother's attitude did not have a significant relationship with the completeness of basic immunization, namely the p value > 0.05 using bivariate analysis chi-square test. **Conclusion:** Immunization coverage can be increased through counseling related to post-immunization follow-up events (KIPI) for parents and vaccine halalness and the need for updating the immunization coverage program at the Enrekang District Health Office.

**Keywords:** Determinants, Completeness, Basic Immunization.

### ABSTRAK

**Latar Belakang:** Menurut Organisasi Kesehatan Dunia (WHO) Imunisasi lengkap merupakan keadaan seorang anak telah memperoleh imunisasi rutin secara lengkap mulai dari IDL pada usia 0-11 bulan. Cakupan imunisasi dasar di Indonesia masih belum mencapai target Renstra kementerian kesehatan tahun 2020. Imunisasi dasar pada bayi di Provinsi Sulawesi Selatan sebesar 54,2% hal ini juga masih belum mencapai target Renstra 2020. Penelitian ini bertujuan untuk melihat determinan kelengkapan imunisasi dasar di wilayah kerja Puskesmas Kota Kabupaten Enrekang Tahun 2022. **Metode:** Jenis penelitian yang digunakan adalah kuantitatif dengan desain cross sectional study. Populasi dalam penelitian ini adalah semua ibu yang memiliki bayi telah mencapai umur 12 bulan yang tinggal di sekitar wilayah kerja Puskesmas Kota Kabupaten Enrekang dengan jumlah sampel sebanyak 168 ibu. Teknik sampling yang digunakan yaitu simple random sampling. **Hasil penelitian** ini menunjukkan bahwa terdapat hubungan antara Kepercayaan/keyakinan ibu, Keterjangkauan Fasilitas kesehatan dan peran petugas kesehatan terhadap determinan kelengkapan imunisasi dasar di wilayah kerja Puskesmas Kota Kabupaten Enrekang dengan nilai P value <0.05. Sedangkan pada variabel pengetahuan ibu dan sikap ibu tidak memiliki hubungan yang signifikan dengan kelengkapan imunisasi dasar yaitu nilai p value >0.05 menggunakan analisis bivariat Uji chi-square. **Kesimpulan:** Cakupan imunisasi dapat ditingkatkan melalui penyuluhan terkait kejadian ikutan pasca imunisasi (KIPI) pada orang tua dan kehalalan vaksin serta perlunya pembaharuan dalam program cakupan imunisasi di Dinas Kesehatan Kabupaten Enrekang.

**Kata Kunci:** Determinan, Kelengkapan, Imunisasi Dasar.

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## **INTRODUCTION**

Complete immunization is a condition if a child receives complete routine immunization starting from complete basic immunization at the age of 0-11 months, continued immunization in the form of DPT-HB-Hib and Measles Rubella at the age of 18 months. Health Law Number 36 of 2009 states that every child has the right to obtain basic immunization in accordance with the provisions. The government requires every infant and child to receive complete immunization to prevent disease (Ministry of Health, 2019).

According to WHO, around 1.5 million children die each year due to diseases that can be prevented by immunization. There are approximately 20 million children who are not fully immunized and there are even children who are not immunized at all. Indonesia is one of the countries with a large number of children who are not fully immunized. This situation has resulted in the emergence of outbreaks of immunization-preventable diseases (PD3I) such as diphtheria, measles, and polio (Indonesian Ministry of Health, 2019).

Complete basic immunization coverage in Indonesia has not met the Ministry of Health's Strategic Plan (Renstra) target. In 2020, the national coverage of basic immunization was 83.3%. This figure has not met the 2020 Strategic Plan target of 92.9%. Complete basic immunization coverage in 2020 is the lowest complete basic immunization coverage in the 2011-2020 period as a result of the COVID-19 pandemic (Indonesian Ministry of Health, 2020).

Complete basic immunization coverage in South Sulawesi has not yet reached the target of 75.0% while the 2020 Strategic Plan target is 92.9%. Provinces with the highest complete basic immunization coverage are Bali (99.4%), West Nusa Tenggara (99.1%), and Central Java (98.8%). Meanwhile, the province with the lowest achievement was Aceh (41.8%) (Indonesian Ministry of Health, 2020).

Based on data from the South Sulawesi Health Office, the data shows that the lowest complete basic immunization coverage is Enrekang District (73.0%), in second place is Bone District (79.3%), and Selayar District (81.9%) (South Sulawesi Provincial Health Office 2021). Meanwhile, based on data from the Enrekang District Health Office, the lowest complete basic immunization coverage is the Kota Health Center (42.6%), second is the Baroko Health Center (45.8%), and Kotu Health Center (67.4%) (Enrekang District Health Office 2021).

Based on the results of research conducted by Wulansari and Nadjib, 2019 in (Kharin et al., 2021), it is suggested that the level of maternal knowledge is influenced by differences in education levels. This can trigger differences in maternal responses in responding to a problem. Likewise with Attitude. can encourage someone to behave in a positive direction in getting health services. Individuals who have a positive attitude will show good behavior. Mothers who have a poor attitude are also influenced by low education. Mothers who have low education have low knowledge that affects mothers in showing attitudes.

Based on the results of research conducted (Kharin et al., 2021) stated that the role of mothers in the immunization program is very important, so a proper understanding of immunization is needed. The lack of socialization from health workers causes the problem of low maternal understanding and compliance in carrying out the immunization program. Due to this, an intervention is needed that aims to improve the knowledge, education level, and attitude of mothers towards providing complete basic immunization for infants in Cipambuan Village, Bogor Regency.

From the description of the data that has been assembled into the background, the author feels the need to conduct a study entitled "Determinants of Basic Immunization Completeness in the Working Area of the City Health Center of Enrekang Regency in 2022".

## **METHODS**

The type of research used is quantitative with a cross sectional study design. The population in this study were all mothers who had babies who had reached the age of 12 months who lived around the working area of the Enrekang Regency City Health Center with a sample size of 168 mothers. The sampling technique used was simple random sampling.

Primary data and secondary data were the two types of data collected. Primary data was collected by filling out a questionnaire, which before being distributed to respondents, a validity test and reliability test were carried out on the questionnaire, while secondary data was obtained by visiting the Enrekang Regency City Health Center to obtain data related to the completeness of basic immunization in the working area of the Enrekang Regency City Health Center in 2022. Data processing was carried out using the Statistical Package For Social Science (SPSS) application program to test the validity of each variable. The data analysis process was carried out in two stages, namely data analysis with univariate tests and bivariate tests.

**RESULTS**

Tabel 1

*Distribusi Frekuensi Karakteristik Responden*

Variables	f	%
<b>Mother's Age Group (Years)</b>		
< 20	2	1,6
21 - 30	47	36,4
31 - 40	68	52,7
>40	12	9,3
Total	129	100,0
<b>Mother's Education</b>		
Elementary school	14	10,8
Junior high school	30	23,3
High school/vocational	37	28,7
D3	9	7,0
S1	39	30,2
Total	129	100,0
<b>Mother's Occupation</b>		
Housewife	48	37,2
Civil servants	20	15,5
Honoror	12	9,3
Farmer	35	27,1
Self-employed	14	10,9
Total	129	100,0

Based on table 1, it is known that most respondents whose age is at the age of (31-40) years are more with 68 (52.7%) respondents than at the age of <20 years as many as 2 (1.6%) respondents. In terms of education, respondents with S1 graduates were more numerous with 39 (30.2%) respondents, while the least number of respondents with D3 graduates were only 9 (7.0%) respondents. For work, more respondents worked as housewives with a total of 48 (37.2%).

Tabel 2

*Hubungan Pengetahuan Ibu dengan Determinan Kelengkapan Imunisasi Dasar*

Respondent Knowledge	Immunization Completeness				Total		P Value
	Complete		Complete		N	%	
	n	%	n	%			
Less	3	2.3	8	6.2	11	8.5	<b>0,238</b>
Simply	54	41.9	64	49.6	118	91.5	
Total	57	44.2	72	55.8	129	100	

Based on Table 2 shows that out of 129 respondents who have poor knowledge, there are 3 respondents (2.3%) with complete basic immunization and 8 respondents (6.2%) with incomplete basic immunization. While 118 respondents (91.5%) who have sufficient knowledge, there are 54 respondents (41.9%) with complete basic immunization and there are 64 respondents (49.6%) with incomplete immunization.

Table 3

*Hubungan Sikap Ibu dengan Determinan Kelengkapan Imunisasi Dasar*

Attitude Respondents	Immunization Completeness				Total		P Value
	Complete		Complete		N	%	
	n	%	n	%			
Negative	0	0.0	4	3.1	4	3.1	0,071
Positive	57	44.2	68	52.7	125	96.9	
Total	57	44.2	72	55.8	129	100	

Based on Table 3, it can be seen that out of 129 respondents who had a negative attitude, there were 0 respondents (0%) with complete basic immunization and 4 respondents (3.1%) with incomplete basic immunization. While 125 respondents (96.9%) had a positive attitude, where there were 57 respondents (44.2%) with complete basic immunization and there were 68 respondents (52.7%) with incomplete basic immunization.

Table 4

*Hubungan Keyakinan/Kepercayaan Ibu dengan Determinan Kelengkapan Imunisasi Dasar*

Respondents' Beliefs	Immunization Completeness				Total		P Value
	Complete		Complete		N	%	
	n	%	n	%			
Disbelief	2	1.6	19	14.7	21	16.3	0,000
Trust	55	42.6	53	41.1	108	83.7	
Total	57	44.2	72	55.8	129	100	

Based on Table 4, it can be seen that out of 129 respondents who have confidence in the category of disbelief, there are 2 respondents (1.6%) with complete basic immunization and 19 respondents (14.7%) with incomplete basic immunization. While 108 respondents (83.7%) who have beliefs in the category of belief, there are 55 respondents (42.6%) with complete basic immunization and there are 53 respondents (41.1%) with incomplete basic immunization.

Table 5

*Hubungan Keterjangkauan Fasilitas Kesehatan dengan Determinan Kelengkapan Imunisasi Dasar*

Affordability of Health Facilities	Immunization Completeness				Total		P Value
	Complete		Complete		n	%	
	n	%	n	%			
Difficult Access	0	0.0	8	6.2	8	62.2	0,009
Easy Access	57	44.2	64	49.6	108	93.8	
Total	57	44.2	72	55.8	129	100	

Based on Table 5, it can be seen that out of 129 respondents who had difficult access affordability, there were 0 respondents (0%) with complete basic immunization and 8 respondents (6.2%) with incomplete basic immunization. While 108 respondents (93.8%) who had easy access affordability, there were 57 respondents (44.2%) with complete basic immunization and there were 64 respondents (49.6%) with incomplete immunization.

Table 6

*Relationship between Health Worker Support and Determinants of Basic Immunization Completion*

Health worker support	Immunization Completeness				Total		P Value
	Complete		Incomplete		N	%	
	n	%	n	%			
Low	3	2.3	52	40.3	55	42.6	0,000
Simply	54	41.9	20	15.5	74	57.4	
Total	57	44.2	72	55.8	129	100	

Based on 6 it can be seen that out of 129 respondents with health worker support classified as low as 3 respondents (2.3%) with complete basic immunization and 52 respondents (40.3%) with incomplete basic immunization. While 74 respondents (57.4%) with health worker support were classified as sufficient as 54 respondents (41.9%) with complete basic immunization and there were 20 respondents (15.5%) with incomplete immunization.

## DISCUSSION

### Relationship between Maternal Knowledge and Determinants of Basic Immunization Completeness

Based on the results of the chi-square test conducted, a p-value of 0.238 ( $>0.05$ ) was obtained, so  $H_0$  was accepted, namely there was no relationship between maternal knowledge and the completeness of basic immunization. In the results of this study there were 64 respondents with sufficient knowledge but did not provide complete immunization to their children. This is because someone with sufficient knowledge does not necessarily provide complete immunization to their children. However, there are 3 respondents who have less knowledge but their basic immunization status is incomplete, this is due to other factors such as family support, information from officers that immunization is important for their babies so that mothers with low knowledge still immunize their babies completely.

This study is in line with research conducted by Umi Widyaningsih, et al in 2022 which states that from the results of the chi square correlation test and a significant value (p-value 0.527) or  $p>0.05$  was obtained. So it can be concluded that there is no relationship between maternal knowledge and the coverage of basic immunization completeness in infants (Widyaningsih & Sulistiawati, 2022).

This study is not in line with research conducted by Detti Silalahi in 2021 which states that the results of the chi-square test show a p-value of 0.002 where there is a relationship between maternal knowledge and basic immunization of infants in Ujung Lamba Village, Bangan Purba Kecamatan, Deliser Regency. Lack of maternal knowledge can result in incomplete basic immunization in toddlers. In addition to education, the busyness of working mothers can result in incomplete immunization of their children, because working mothers are more prone to thinking about their work and do not have time to take the time to bring their babies to immunization (Pakpahan & Silalahi, 2021).

### Relationship between Maternal Attitude and Determinants of Basic Immunization Completeness

The results of the chi-square test in this study indicate that there is no relationship between maternal attitudes and determinants of basic immunization completeness with a p-value of 0.071 ( $>0.05$ ). Based on the results of this study there were 68 respondents who had a positive attitude but the basic immunization of their children was incomplete. Based on observations in the field, it is known that some respondents feel that their children do not need to be given immunization injections because their children drink breast milk, while other respondents said that they were afraid because they saw news about fake vaccines and they were surprised because after immunization their children became feverish and experienced severe pain. So it can be said that respondents did not immunize their children because of adverse events after immunization (AEFI).

This study is in line with research conducted by Satrina Pangaribuan in 2018 which states that there is no influence between the variables of age, education, occupation, and attitude towards the completeness of immunization in toddlers in the Sentosa Baru Puskesmas working area in Medan City. Based on statistical tests using chin square, the p-value = 0.206 ( $p> 0.05$ ) means that there is no relationship between attitude and completeness of basic immunization in toddlers (Pangaribuan, 2018).

This study is not in line with research conducted by Yulianti in 2018 which states that based on the results of the analysis of the relationship between maternal attitudes and the completeness of basic immunization of 46 mothers with an attitude that does not support there are 36 babies (78.3%) with

incomplete immunization, while of the 46 mothers with a supportive attitude there are 22 babies (48.9%) with incomplete immunization. The results of the chi square statistical test obtained a p-value of 0.007 which means that there is a relationship between maternal attitudes and the completeness of basic immunization. Mothers with a less supportive attitude will tend not to pay attention to the schedule of giving complete basic immunization to their babies than mothers with a supportive attitude. With a supportive attitude, a person will be better at giving the perception of something he knows (Amperaningsih & Aprilia, 2018).

#### **Relationship between Maternal Beliefs with Determinants of Basic Immunization Completeness**

Based on the results of the chi-square test conducted, a p-value of 0.000 ( $<0.05$ ) was obtained, namely there is a relationship between maternal beliefs/beliefs and determinants of basic immunization completeness. This shows that belief has an influence on the provision of basic immunization in infants. Based on the results of the study, there were 19 respondents who did not believe that immunization was haram and caused KIPI in children but their immunization status was incomplete. However, there are 55 respondents who believe that immunization contains pork and causes KIPI in children, but their immunization status is complete. This is because mothers' belief in immunization is obtained from themselves or personal experience and obtained from encouragement and health workers. In addition, maternal beliefs have a relationship with good attitudes resulting in positive actions in health behavior.

This study is in line with research conducted by Triana in 2017 on Factors Associated with Providing Complete Basic Immunization in Infants, showing that the results of multivariate analysis obtained a p-value of the trust variable = 0.0001. Parents' knowledge, attitudes, and beliefs as well as information about immunization are factors that influence the completeness of basic immunization in infants (Triana, 2017).

This study contradicts research conducted by Miftahol Hudhah & Atik Choirul Hidajah in 2017 which states that there is no relationship between trust and incomplete immunization status in infants or toddlers. This study illustrates that the trust between mothers who live in Surabaya City is different from mothers who live in Gayam District, Sumenep Regency. This provides information that trust is influenced by the culture of the area where the respondent lives (Hudhah & Hidayah, 2018).

#### **Relationship between Health Facility Affordability and Determinants of Basic Immunization Completeness**

Based on the results of the chi-square test conducted, a p-value of 0.009 ( $<0.05$ ) was obtained, so there was a relationship between the affordability of health facilities and the completeness of basic immunization. In this study there were 64 respondents who had easy access to posyandu but their basic immunization status was incomplete. This is because access to the posyandu is not an important thing in the implementation of immunization. Posyandu cadres have certainly carried out various activities so that the entire coverage area gets good immunization. Therefore, even though access is easy, mothers still lack awareness of the importance of immunization for their children. It is also related to the role of family members in providing support related to the implementation and visit to the posyandu in conducting immunization.

This study is in line with research conducted by Fisnanda in 2022 which states that there is an influence between the affordability of access to service places with the completeness of basic immunization in infants in the Rawa Bokor area of Tangerang City. This is based on the results of the analysis with the chi square test obtained p-value = 0.016 (p-value  $<0.05$ ). Calculation of risk estimate, obtained Odd Ratio (OR) value = 3.166, so it can be concluded that most mothers, namely, as many as 54 (66.7%) do not have access to complete immunization. Meanwhile, mothers who have access affordability as many as 27 (33.3%) tend to provide complete basic immunization to their children, while those who do not have access affordability have a risk of 3.166 times not giving complete basic immunization to their children (Fisnanda, 2021).

This is inversely proportional to the research conducted by Zul Adhayani Arda in 2018 which suggests that based on the results of data analysis using the chi square statistical test, the p value (0.627)  $> 0.05$  was obtained, meaning that there is no significant relationship between access to maternal health services and the completeness of basic immunization in infants at several Puskesmas Gorontalo Regency (Arda et al., 2018).

#### **Relationship between Health Worker Support and Determinants of Basic Immunization Completeness**

Based on the results of the chi-square test conducted, a p-value of 0.000 ( $<0.05$ ) was obtained, so there is a relationship between health worker support and the completeness of basic immunization. This

study shows that there are 20 respondents who have sufficient health worker support but their immunization status is incomplete. This is due to the mother's non-compliance in giving statements to health workers due to their lack of confidence and trust in immunizations delivered by health workers. Another reason is due to the lack of friendliness of health workers in providing services at the posyandu. However, there were 3 respondents with low health worker support but complete immunization status. This is due to encouragement from health workers to encourage or remind mothers to immunize.

This research is in line with research conducted by Ida Widaningsih in 2022 entitled health worker support and family support with knowledge about basic immunization in Bantara Jaya Pebayuran Village. Based on the results obtained that respondents who had a high level of knowledge about basic immunization were 109 respondents (66%) with high support from health workers as many as 103 respondents (69%). Based on the results of the chi square statistical test, the p value is 0.04, meaning that there is a relationship between health worker support and knowledge about basic immunization in Bantar Jaya Pebayuran (Widaningsih, 2022).

This study contradicts research conducted by Nada Sari in 2022 which states that based on the bivariate results, it shows that mothers who provide complete basic immunization who do not get the support of health workers are greater than those who get support from health workers, namely 60.5%. While mothers who do not provide complete immunization and in the absence of support from health workers are greater than those who get the support of health workers, namely 69.2% in the Alue Bilie Health Center Working Area, Nagan Raya Regency in 2022. Based on the statistical results, it shows that the p-value is  $0.395 > 0.05$  which states that there is no significant relationship between health worker support and the completeness of basic immunization in the Alue Bilie Health Center Working Area, Nagan Raya Regency in 2022 (Sari et al., 2022).

## CONCLUSION

Based on the results of research conducted on 129 respondents in the working area of the City Health Center of Enrekang Regency, it can be concluded that there is a relationship between maternal trust/belief, affordability of health facilities and the role of health workers on determinants of completeness of basic immunization in the working area of the City Health Center of Enrekang Regency with a P value  $< 0.05$ . While the variables of maternal knowledge and maternal attitudes do not have a significant relationship with the completeness of basic immunization, namely the p value  $> 0.05$  using bivariate analysis of the chi-square test. For health workers, especially local posyandu cadres and community nurses should be more active in providing counseling about knowledge related to Post-Immunization Adverse Events (AEFI) to parents and the halallness of vaccines. For the Enrekang Regency Health Office, more programs should be developed to increase basic immunization coverage in Enrekang Regency, especially in the Kota Puskesmas coverage area.

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