

Achievement of Basic Immunization Seen from the Distance from Home to Health Services and the Affordability of Access to Health Services in the Work Area of Banggai Timur Raya Public Health Center, Banggai Laut Regency, Central Sulawesi Province

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ABSTRACT

The low attendance of posyandu mothers, the long distance from home to health facilities and even transportation difficulties to reach health services. The aim of this research is to determine the relationship between the achievement of basic immunization seen from the distance from home to health services and the affordability of access to health services in the work area of Banggai Timur Raya Health Center, Banggai Laut Regency, Central Sulawesi Province. Method: The design of this research is correlational research with a cross sectional approach. Respondents were taken using a purposive sampling technique who met the inclusion and exclusion criteria with a sample of 30 people. The independent variables are Distance from Home to Health Services and Affordability of Access to Health Services and the dependent variable is Achievement of Basic Immunization. Statistical test results using Chi Square. Results: The results showed that almost all 25 respondents (83%) were in the close category. Almost all 25 respondents (83%) with affordable access to health services are in the affordable category. Nearly all 26 respondents (87%) achieved basic immunization in the achieved category. The results of data analysis show that the significance level is $0.000 < \alpha = 0.05$ so that H_0 is rejected and H_1 is accepted, thus there is a relationship between the distance from home to health services and the affordability of access to health services with the achievement of basic immunization in the work area of the Banggai Timur Raya Public Health Center, Banggai Laut Regency, Sulawesi Province. Middle. Based on the research results, it can be concluded that the closer the house is to health services and the affordability of access to health services, the more basic immunization will be achieved for children.

Keywords: Acces, Accessibility, Affordability, Basic Immunization, Distance from Home, Health Services

INTRODUCTION

The problem often faced by mothers of toddlers is that basic immunization in toddlers is not achieved. There are many obstacles faced, such as the low attendance of posyandu mothers, the long distance from home to health facilities and even transportation difficulties to reach health services (Bakoil, 2019). The distance to health services is relatively far, the mother's perception of basic immunization itself is one of the considerations for mothers of toddlers in determining their attitude towards sending toddlers to receive complete basic immunization. The distance traveled from the place of residence to the place of health services which is located too far from the area of residence is certainly not easy to reach, so transportation is needed to reach the place of health services. If this situation occurs, it will

certainly not satisfy mothers of toddlers in utilizing health services, especially basic immunization for babies (Jumiyati, 2018).

The World Health Organization (WHO) (2021), reports that every year more than 1.4 million children in the world die from various diseases that can actually be prevented with immunization. Indonesia is still ranked 4th in the world after India, Nigeria and the Democratic Republic of Congo for undervaccination of children with complete basic immunization coverage. This has resulted in Indonesia becoming one of the priority countries identified by WHO and UNICEF to accelerate the achievement of the 100% UCI (Universal Child Immunization) target in villages/subdistricts. Immunization coverage in the Southeast Asia region has only reached 52%. Child immunization coverage in WHO (World Health Organization) countries has reached 90%, it is estimated that 85% of babies throughout the world have received immunization and there are still 19.3% million babies and children who have not fully received vaccinations and are still at risk of disease (WHO, 2021). The Indonesian Ministry of Health (2021), reported that Complete Basic Immunization (IDL) coverage still reached 86.8% in April 2015. In 2019, the Ministry of Health targets that immunization coverage needs to be increased to reach the target of 93%. Facts on the ground show that there are still groups of people who have not been reached by health services (Ministry of Health of the Republic of Indonesia, 2021). The Ministry of Health (2021), also reported that 1.5 million children under five in Indonesia have not yet reached the complete basic immunization program (DepKes, 2021).

Data from the Banggai Laut District Health Service, Central Sulawesi Province shows that the achievement of UCI (Universal Child Immunization) at the Banggai Timur Raya Community Health Center (90.7%) has not yet achieved complete basic immunization coverage, meaning that there are still toddlers who do not receive complete basic immunization. If this is allowed to continue, there is a risk of higher infant mortality rates and an increase in the incidence of PD3I disease in Banggai Laut Regency (Data from the Banggai Laut District Health Service, Central Sulawesi Province, 2021). Based on data from the Banggai Timur Raya Community Health Center in 2020, out of 111 babies, only 103 babies or 92.8% of babies had complete basic immunization. In 2021, out of 150 babies, only 92 babies (61.3%) had complete basic immunization and 58 (38.7%) babies did not have complete basic immunization (Puskesmas Banggai Timur Raya, 2022). These results show that providing complete basic immunization has not met the Indonesian Ministry of Health's target of 93%.

The results of a preliminary study conducted by researchers in the Banggai Timur Raya Public Health Center Work Area, Banggai Laut Regency, Central Sulawesi Province on February 7 2022 with interviews with 10 mothers of toddlers showed that 5 (50%) mothers said that they felt tired of taking their children to health services because of the distance. The distance between home and posyandu is very far, causing mothers to rarely attend health services. One mother said that the long distance sometimes made mothers feel lazy about attending health services. Apart from that, the husband is busy at work so there is no one to take the toddler's mother to visit the health service. 3 (30%) mothers said that apart from complaining about the distance factor, mothers of toddlers also sometimes had difficulty paying for transportation to health services. The unavailability of transportation in the family makes mothers of toddlers reluctant to visit health services because they have to travel very long distances. One of the mothers of toddlers said that the lack of income and irregular employment of mothers and husbands resulted in low attendance of mothers of toddlers at posyandu because they did not have the funds to pay for transportation. 2 (20%) mothers said that even though the distance between home and health services was far, mothers were always present to be able to take their children to receive basic immunizations (Results of

Preliminary Study with Interviews with Respondents in the Working Area of the Banggai Timur Raya Public Health Center, Banggai Laut Regency, Province Central Sulawesi, 2022).

Factors associated with not achieving complete basic immunization are the distance from home to health services and affordability of access to health services. The concept of distance from home to health services is one of the factors that influences the behavior of mothers of toddlers in visiting health services so that babies receive basic immunization (Libunelo, 2020). The greater the distance between the place of residence and the health service, the more it will reduce the motivation of mothers of toddlers to visit health services. Likewise, the closer the distance between the residence and the health service, the greater the effort and motivation of mothers of toddlers to visit health services to take toddlers to receive basic immunization (Istriyati, 2019). The influence of the distance between residence and health services is inseparable from the large costs involved and the long time required, even the availability of transportation, both owned by the family and public transportation, to make it easier for mothers of toddlers to visit health services (Ningrum, 2019).

Failure to achieve basic immunization for children under five will have an impact on diseases such as tuberculosis, diphtheria, pertussis, measles, tetanus and polio. The high incidence of disease can be prevented by immunization of newborns up to 11 months of age. This must be supported by the knowledge and role of parents to actively participate in the immunization program which is carried out every month at the posyandu (Methilda, 2019). So the factor of distance from home to health services and the failure to achieve basic immunization programs due to the long distance to health service facilities from the mother's residence means that mothers do not bring their babies for immunizations. Distance from residence can be a driving factor, because long distances can influence mothers of toddlers in immunizing their children. The further the distance a mother of a toddler travels from her residence to the health center, the more time and energy she expends because the further the distance between her residence and the health center, the more it will reduce the motivation of the mother of a toddler to visit health services (Pinardi, 2019).

The solution to overcome the problem above is that the knowledge and role of each family member regarding basic immunization for babies is very important, especially mothers who have just given birth to their babies because they give vaccines to toddlers so that the toddler's body immunity can increase and become immune to disease. Because when they are born, the baby's immune system is still very weak and is very susceptible to various diseases, many of which even result in the death of the baby. Apart from that, the role of health workers in providing education during posyandu schedules about the importance of complete basic immunization is further enhanced. For example, when providing education, it must be accompanied by education media such as leaflets to be distributed to mothers of toddlers. So that the leaflet containing material about the importance of immunization can be read and understood.

Based on the background of the problem above, researchers are interested in conducting research with the title "Achievement of Basic Immunization Seen from the Distance from Home to Health Services and Affordability of Access to Health Services in the Working Area of the Banggai Timur Raya Public Health Center, Banggai Laut Regency, Central Sulawesi Province".

METHOD

The research design used in this research is correlational research with a cross sectional approach. The sampling technique used was purposive sampling which met the inclusion and exclusion criteria. In this study the independent variables are Distance from Home to Health Services and Affordability of Access to Health Services and the dependent variable is Failure

to Achieve Basic Immunization. Data processing goes through the stages of editing, coding, scoring, tabulation. The statistical test used is Chi Square with a value of $\alpha = 0.05$.

RESULT

A. General Data

No	Age	Frekuensi	Prosentase (%)
1	≤ 25 Years	7	23
2	25-35 Years	19	64
3	≥ 35 Years	4	13
Total		Amount	100
No	Education	Frekuensi	Prosentase (%)
1	elementary school	6	20
2	JUNIOR HIGH SCHOOL	10	33
3	SENIOR HIGH SCHOOL	14	47
4	Diploma/PT	0	0
Total		Amount	100
No	Work	Frekuensi	Prosentase (%)
1	Farmer/housewife	9	30
2	Entrepreneur/Entrepreneur/Trade	15	50
3	Private employees	6	20
4	Civil Servants (PNS/TNI/POLRI)	0	0
Total		30	100

Based on the table above, it shows that the age of mothers who have babies aged 9-12 months, it is known that the majority of respondents aged 25-35 years are 19 (64%) respondents. The education of mothers who have babies aged 9-12 months is known to be almost half of the respondents with a high school education level, namely 14 (47%) respondents. The occupation of mothers who have babies aged 9-12 months is that half of the respondents work as traders, namely 15 (50%) respondents.

B. Spesial Data

No	Distance from Home to Health Services	Distance from Home to Health Services	Prosentase (%)
1	Far	Far	17
2	Near	Near	83
Total		Amount	Amount
No	Affordability of Access to Health Services	Affordability of Access to Health Services	Prosentase (%)
1	Affordable	Affordable	83
2	Unreachable	Unreachable	17
Total		Amount	Amount
No	Achievement of Basic Immunization	Achievement of Basic Immunization	Prosentase (%)
1	Achieved	Achieved	87
2	Not achieved	Not achieved	13
Total		Amount	Amount

Based on the table above, it shows that the distance from home to health services is known to almost all respondents, 25 (83%) of whom are in the Near category. The affordability of access to health services is known to almost all respondents as many as 25 (83%) respondents in the Affordable category. It is known that almost all respondents, 26 (87%) of respondents were in the Achieved category.

C. Cross Tabulation Results Between Independent and Dependent Variables

1. Results of Cross Tabulation Between Distance from Home to Health Services and Achievement of Basic Immunization in the Working Area of Banggai Timur Raya Public Health Center, Banggai Laut Regency, Central Sulawesi Province

				Achievement of Basic Immunization	Total
				Not Archived	
Distance from home to health services is	Neat	Frekuensi	0	25	25
		%	.0%	100%	100%
close	Far	Frekuensi	4	1	5
		%	80%	20%	100%
Total		Frekuensi	4	26	30
		%	13%	87%	100%

Based on the table above, it shows that the distance from home to health services is known to all respondents in the near category so that basic immunization in this category was achieved by 25 (100%) respondents.

1. Results of Cross Tabulation Between Affordability of Access to Health Services and Achievement of Basic Immunization in the Working Area of Banggai Timur Raya Public Health Center, Banggai Laut Regency, Central Sulawesi Province

				Achievement of Basic Immunization	Total
				Not Archived	
Affordability of Access to Health Services	Unreachable	Frekuensi	4	1	5
		%	80%	20%	100%
	Affordable	Frekuensi	0	25	25
		%	.0%	100%	100%
Total		Frekuensi	4	26	30
		%	13%	87%	100%

Based on the table above, it shows that the affordability of access to health services is known to all respondents in the affordable category so that basic immunization in this category was achieved by 25 (100%) respondents.

Variable	Significance Level
Distance from Home to Health Services	0.000
Affordability of Access to Health Services	

The results of data analysis show that the significance level is $0.000 < \alpha = 0.05$ so that H_0 is rejected and H_1 is accepted, thus there is a relationship between the distance from home to health services and the affordability of access to health services with the achievement of basic immunization in the work area of the Banggai Timur Raya Public Health Center, Banggai Laut Regency, Sulawesi Province. Middle.

DISCUSSION

A. A. Distance from home to health services in the work area of Banggai Timur Raya Banggai Laut Public Health Center, Central Sulawesi Province

Based on the research results, it is known that the distance from home to health services in the Banggai Timur Raya Banggai Laut Public Health Center, Central Sulawesi Province, is known to be almost all respondents, 25 (83%) of whom are in the Near category. This shows that the proximity of the house to health services motivates mothers to always actively take their children to health services when the immunization schedule arrives. Rahmi (2020), said that there is a tendency for parents who have houses that are closer to immunization services to have children with complete immunizations. Apart from distance, the ease of transportation to get to the immunization service also has an influence. Even though the distance from where you live to the immunization service is far, if it is easy to reach, immunization can still be carried out.

Ministry of Health (2021), explains that distance is the space between two objects or places, namely the distance between the house and the health service, the distance influences the frequency of visits to the health service, the closer the residence and the health service, the greater the visit the service center. Sunaryani (2019), explains that the long distance to health service facilities can prevent someone from coming. Calculating transportation costs is a consideration if the health facility is far from where you live. Thus, some people decide not to come to health services that are far away. Suci (2021), said that the distance from where one lives can be a driving factor, because the distance can influence respondents in immunizing their children. The farther the respondent travels from where they live to the health center, the more time and energy they spend because it is further away. The distance between residence and health services will further reduce respondents' motivation to visit health services.

Wibowo (2020), also stated that a positive relationship was found between distance and the use of health services, where the farther away a health facility is, the more reluctant the population is to come. If the distance to health services is quite far, with a longer travel time, it will be more difficult to reach health services, especially immunization services. Notoatmodjo (2019), also said that people will not use health service facilities unless they are able to use them. There are several reasons why someone does not use health services, including the health facilities needed are very far away, health workers are unsympathetic, bitchy, unresponsive and so on.

The assumption in this research is that the distance between the house and the health service is in the close category, making it easier for mothers to come and bring their children to get immunizations. In the opinion of researchers, the closer the house is to a health service, the more complete basic immunization is achieved for children. Likewise, vice versa, where health services are far away make people reluctant to go to them, because apart from the service costs there are additional costs, namely transportation costs. People who think simply and have less economic means will probably decide not to come to the service facility. This is due to the affordability of health service facilities by the community. Keterjangkauan Akses Pelayanan Kesehatan Di Wilayah Kerja Puskesmas Banggai Timur Raya Kabupaten Banggai Laut Provinsi Sulawesi Tengah

Based on the research results, it is known that almost all respondents, 25 (83%) of respondents, are in the Affordable category. This shows that mothers who have a distance from an affordable service location are more likely to be fully immunized compared to mothers who have an unreachable distance, where the longer the distance traveled to carry out immunization, the more incomplete the immunization of the baby will be because mothers whose homes are too far away from each other. Immunization service places will

think twice about coming to the service place. Because some mothers are of the opinion that instead of paying money to go to an immunization place, it would be better to use the money for daily needs, and vice versa, going to a place by walking according to them will waste time, it is better to use that time for other work, for example taking care of homework.

Kartina (2020), said that affordability of access to health facilities with very diverse geographical situations and conditions is quite a big challenge in providing immunization evenly in Indonesia. Without easy and cheap access, it will certainly make it difficult for people, especially low-income people, to obtain immunization services for their children. The failure to achieve the target of complete immunization coverage is influenced, among other things, by how the community can achieve access to health facilities. Those who live in urban areas which have complete health facilities, both hospitals and clinics, can easily carry out immunizations, however, for those who live in rural areas with limited facilities, not all babies receive immunization services. Apart from that, the cost factor that must be spent on immunization is sometimes the reason why toddlers are not immunized. Riskesdas (2021), said that the existence of health facilities consists of government hospitals, private hospitals, Community Health Centers or auxiliary Community Health Centers, doctor's practices or clinics, midwife practices or maternity homes, Posyandu, Poskesdes or Poskestren and Polindes. The modes of transportation that can be used by households to get to health facilities consist of private cars, public transportation, walking, motorbikes, bicycles, boats, air transportation and others as well as the use of more than one mode of transportation or a combination. Travel time using the modes of transportation most frequently used by households is in minutes. Then finally get an idea of the costs or costs of transportation by households to health facilities in one trip (Riskesdas, 2021).

Health services are a facility that should be enjoyed by all groups fairly and equally. Regardless of whether people can afford it or not, everyone must be able to enjoy good health services. Therefore, it is necessary to expand the reach of existing health services so that the entire population, both in rural areas and the poor, can be better served because it is close to where they live. Because the determining factor is travel time to health facilities, it is necessary for hospitals and community health centers to expand services, for example by increasing operational hours, because services have coincided with people's work activities. In this way, people can take the time to immunize their children after daily work activities.

The assumption in this research is that access to health services is affordable, making it easier for mothers to come and bring their children to get immunizations. In the opinion of researchers, mothers who have a distance from an affordable service location are more likely to be fully immunized compared to mothers who have an unreachable distance, where the longer the distance traveled to carry out immunization, the more incomplete the immunization of the baby will be because mothers whose homes are too far from each other. Immunization service places will think twice about coming to the service place.

B. Achievement of Basic Immunization in the Working Area of Banggai Timur Raya Public Health Center, Banggai Laut Regency, Central Sulawesi Province

Based on the research results, it is known that almost all respondents, 26 (87%) of respondents, were in the Achieved category. This is supported by the house's close proximity to health services and affordability of access to health services, making it easier for mothers to always actively accompany their children when the immunization schedule arrives. In this way, complete basic immunization for children can be achieved and children's growth and development can be monitored optimally.

Immunization is a health effort in a country or the world in the health sector to reduce infant mortality rates, thus immunization can provide preventive and protective efforts against disease (Prawirohardjo, 2019). Immunization is a way to actively provide someone

with immunity against infectious diseases. Immunization is the administration of a vaccine to prevent the occurrence of certain diseases, vaccines help the body to produce antibodies, these antibodies function to protect against certain diseases (Mansjoer, 2019).

A factor related to achieving basic immunization is the distance from home to health services (Ministry of Health, 2021). The results of this research are the same as the Idwar 2021 research, which stated that health services and infrastructure, namely the distance to the service location, pose a risk for mothers taking their children for immunizations. Ramli (2019), also said that the factors that influence the incidence of drop out or incomplete infant immunization status include: the distance between the house and the immunization service. So it can be concluded that the mother will look for health services closest to her home because she considers other activities that must be completed which have to be postponed. Likewise the affordability of access to health facilities. Kartina (2020), said that affordability of access to health facilities with very diverse geographical situations and conditions is quite a big challenge in providing immunization evenly in Indonesia. Without easy and cheap access, it will certainly make it difficult for people, especially low-income people, to obtain immunization services for their children

The assumption in this research is that the achievement of basic immunization is known to almost all respondents in the Achieved category. This is supported by the house's close proximity to health services and affordability of access to health services, making it easier for mothers to always actively accompany their children when the immunization schedule arrives. In this way, complete basic immunization for children can be achieved and children's growth and development can be monitored optimally.

C. Relationship between the distance from home to health services and the affordability of access to health services with the achievement of basic immunization in the work area of the Banggai Timur Raya Public Health Center, Banggai Laut Regency, Central Sulawesi Province

The results of data analysis show that the significance level is $0.000 < \alpha = 0.05$ so that H_0 is rejected and H_1 is accepted, thus there is a relationship between the distance from home to health services and the affordability of access to health services with the achievement of basic immunization in the work area of the Banggai Timur Raya Public Health Center, Banggai Laut Regency, Sulawesi Province. Middle. The cross tabulation results also show that the distance from home to health services is known to all respondents in the near category so that basic immunization in this category was achieved by 25 (100%) respondents. Meanwhile, the affordability of access to health services was known to all respondents in the affordable category so that basic immunization in this category was achieved by 25 (100%) respondents.

Factors associated with not achieving complete basic immunization are the distance from home to health services and affordability of access to health services. The concept of distance from home to health services is one of the factors that influences the behavior of mothers of toddlers in visiting health services so that babies receive basic immunization (Libunelo, 2020). The greater the distance between the place of residence and the health service, the more it will reduce the motivation of mothers of toddlers to visit health services. Likewise, the closer the distance between the residence and the health service, the greater the effort and motivation of mothers of toddlers to visit health services to take toddlers to receive basic immunization (Istriyati, 2019). The influence of the distance between residence and health services is inseparable from the large costs involved and the long time required, even the availability of transportation, both owned by the family and public transportation, to make it easier for mothers of toddlers to visit health services (Ningrum, 2019).

Failure to achieve basic immunization for children under five will have an impact on diseases such as tuberculosis, diphtheria, pertussis, measles, tetanus and polio. The high incidence of disease can be prevented by immunization of newborns up to 11 months of age. This must be supported by the knowledge and role of parents to actively participate in the immunization program which is carried out every month at the posyandu (Methilda, 2019). So the factor of distance from home to health services and the failure to achieve basic immunization programs due to the long distance to health service facilities from the mother's residence means that mothers do not bring their babies for immunizations. Distance from residence can be a driving factor, because long distances can influence mothers of toddlers in immunizing their children. The further the distance a mother of a toddler travels from her residence to the health center, the more time and energy she expends because the further the distance between her residence and the health center, the more it will reduce the motivation of the mother of a toddler to visit health services (Pinardi, 2019).

The solution to overcome the problem above is that the knowledge and role of each family member regarding basic immunization for babies is very important, especially mothers who have just given birth to their babies because they give vaccines to toddlers so that the toddler's body immunity can increase and become immune to disease. Because when they are born, the baby's immune system is still very weak and is very susceptible to various diseases, many of which even result in the death of the baby. Apart from that, the role of health workers in providing education during posyandu schedules about the importance of complete basic immunization is further enhanced. For example, when providing education, it must be accompanied by education media such as leaflets to be distributed to mothers of toddlers. So that the leaflet containing material about the importance of immunization can be read and understood.

CONCLUSION

Distance from home to health services in the Banggai Timur Raya Banggai Laut Public Health Center, Central Sulawesi Province, it is known that almost all respondents, 25 (83%) of respondents, were in the Near category. Affordability of Access to Health Services in the Working Area of Banggai Timur Raya Public Health Center, Banggai Laut Regency, Central Sulawesi Province, it is known that almost all respondents, 25 (83%) of respondents, were in the Affordable category. Achievement of Basic Immunization in the Banggai Timur Raya Public Health Center Working Area, Banggai Laut Regency, Central Sulawesi Province, it is known that almost all respondents, 26 (87%) of respondents, were in the Achieved category. The results of data analysis show that the significance level is $0.000 < \alpha = 0.05$ so that H_0 is rejected and H_1 is accepted, thus there is a relationship between the distance from home to health services and the affordability of access to health services with the achievement of basic immunization in the work area of the Banggai Timur Raya Public Health Center, Banggai Laut Regency, Sulawesi Province. Middle. It is recommended that midwives provide education during posyandu schedules about the importance of complete basic immunization, for example, when providing education, it must be accompanied by education media such as leaflets to be distributed to mothers of toddlers. So that the leaflet containing material about the importance of immunization can be read and understood. It is hoped that mothers of toddlers can become information material in order to increase the knowledge of mothers of toddlers about the achievement of basic immunization in babies and mothers of toddlers can also access various information from print media, electronic media, mass media and even the behavior of mothers of toddlers following health education about the importance of basic immunization in toddler.

REFERENCES

- A.Aziz, Alimul Hidayat. 2017. *Metode Penelitian Keperawatan Dan Teknik Analisis Data*. Jakarta : Penerbit. Salemba Medika.
- Abbas, Salim. 2020. *Manajemen Transportasi*. Adisasmita, Sakti. 2020. Yogyakarta : Graha Ilmu.
- Adhayani Arda, Z. et al. 2020. *Hubungan Pekerjaan, Sikap Dan Akses Dengan Kelengkapan Imunisasi Dasar Di Kabupaten Gorontalo*, *Health Care Media*.
- Adisasmita, Sakti. 2020. *Transportasi dan Pengembangan Wilayah*. Yogyakarta: Graha Ilmu.
- Arda ZA, Hafid W, Pulu Z. 2020. *Hubungan Pekerjaan, Sikap Dan Akses Dengan Kelengkapan Imunisasi Dasar Di Kabupaten Gorontalo*. 2020;3(3):12–7.
- Arief, Abbas. 2020. *Manajenen Transportasi*. Jakarta; PT. Raja Grafindo Persada.
- Bakoil, M. 2019. *Hubungan Jaminan Persalinan, Jarak Tempat Tinggal Waktu Tempuh dan Kebiasaan Masyarakat Terhadap Pemanfaatan Tempat Persalinan di Kabupaten Timor Tengah Selatan*. Fakultas Kesehatan Masyarakat. Universitas Airlangga. Vol.15, No. 1, Hal. 487-496.
- Darwis, S. D. 2019. *Metode Penelitian*. Jakarta : EGC.
- DepKes RI. 2021. *Pedoman Umum Pengolahan Posyandu Dan Peningkatan Peran Serta Ibu Balita Melakukan Imunisasi Dasar Pada Bayi*. Jakarta: Salemba Medika.
- DepKes RI. 2021. *Profil Kesehatan Indonesia 2021 : Menuju Indonesia Sehat 2020*. Jakarta : Departemen Kesehatan RI.
- Elide, Hairunida. 2019. *Faktor-Faktor Yang Berhubungan Dengan Perilaku Kunjungan Ke Posyandu Pada Ibu Balita Di Wilayah Kerja Puskesmas Pancoran Mas Kota Depok*. [related:lib.ui.ac.id/file?file=digital/2021/Elida%20Hairunida%20BR%20Purba.pdf](https://ojs.lib.ui.ac.id/file?file=digital/2021/Elida%20Hairunida%20BR%20Purba.pdf) 319826-S-PDF
- Gunawan, Herry. 2019. *Pengantar Transportasi Dan Logistik*. Persada.
- Handayani, N. 2019. *Faktor-Faktor Yang Mempengaruhi Kelengkapan Imunisasi Dasar*, *Jurnal Obstetika Scientia*.
- Ibrahim, 2020. *Imunisasi dan Kematian Anak Balita*. Medika. Nomor 6. Jakarta.
- Istriyati, E. 2019. *Faktor-Faktor Yang Berhubungan Dengan Ketidakeengkapan Imunisasi Dasar Pada Bayi Di Desa Kumpulrejo*. Journal: Unair. ac. Id/download-fullpapers.pdf.
- Jumiyati, A. 2018. *Hubungan atara Umur Balita, Jarak Tempat Tinggal dan Tingkat Pendidikan Ibu dengan Kehadiran di Posyandu*. Universitas Muhammadiyah Semarang. Semarang.
- Kamaludin, Rustian. 2020. *Ekonomi Transportasi*. Jakarta; Ghalia Indonesia

- Kementerian Kesehatan Republik Indonesia 2021. *Pertanyaan Populer Tentang Imunisasi*. Jakarta : Percetakan Negara.
- Libunelo, E., Paramata, Y. and Rahmawati, R. 2020. *Hubungan Karakteristik Ibu dan Jarak Pelayanan Kesehatan Dengan Kelengkapan Imunisasi Dasar di Puskesmas Dulukapa*, Gorontalo Journal of Public Health. doi: 10.32662/gjph.v1i1.142.
- Marimbi, H. 2019. *Tumbuh Kembang Status Gizi & Imunisasi Dasar Pada Balita*. Yogyakarta: Nuha Medika.
- Mathilda Albertina, Sari Febriana. Sari Pediatri, 2021. *Kelengkapan Imunisasi Dasar Anak Balita Dan Faktor Yang Berhubungan Di Poliklinik Anak Di Jakarta*, Sari Pediatri, vol. 11, juni, p. 1.
- Methilda.M. 2019. *Kelengkapan Imunisasi Dasar Anak Balita Dan Faktor-Faktor Yang Berhubungan Di Poliklinik Anak Beberapa Rumah Sakit Di Jakarta Dan Sekitarnya Pada Bulan Maret 2008*. <http://lontar.ui.ac.id/file?file=digital/125308S5678Hubungan%20karakteristik-Analisis.pdf>. 2019.10.13.
- Nina Siti Mulyani, SST dan Mega Rinawati. 2020. *Imunisasi Untuk Anak*. Yogyakarta Nuha Medika.
- Ningrum, E.P. 2019. *Faktor-Faktor Yang Mempengaruhi Kelengkapan Imunisasi Dasar Pada Bayi Di Puskesmas Banyodono Kabupaten Boyolali*. <http://publikasiilmiah.ums.ac.id/bitstream/handle/123456789/460/1b.pdf?sequence=1>. 2019.10.15
- Notoatmodjo, Soekidjo. 2019. *Konsep Pengetahuan, Pendidikan dan Perilaku Kesehatan*. Jakarta, EGC.
- Notoatmodjo, Soekidjo. 2019. *Metodologi Penelitian Kesehatan*. Jakarta : Rineka Cipta.
- Nursalam, 2019. *Konsep dan Penerapan Metodologi Penelitian Ilmu Keperawatan*. Jakarta : Salemba Medika.
- Pinardi, S. 2019. *Analisis Faktor-Faktor Pemungkin Yang Berhubungan Dengan Kehadiran Ibu-Ibu Balita Di Posyandu Wilayah Puskesmas Lerep Kabupaten Semarang*. Tesis. Program Pascasarjana FKM Undip. Semarang
- Prawiroharjo, Sarwono. 2019. *Ilmu kebidanan*. (Edisi IV). Jakarta:Yayasan Bina Pustaka Sarwono Prawirohardjo.
- Profil Kesehatan Dinas Kesehatan Kabupaten Banggai Laut Provinsi Sulawesi Tengah, 2022. *Imunisasi Dasar Lengkap Pada Bayi 0-9 Bulan*.
- Proverawati, Adhini, dkk. 2020. *Imunisasi & Vaksinasi*. Yogyakarta: Nuha. Medika
- Soesilo, Nining I. 2020. *Ekonomi Perencanaan dan Manajemen Kota*. Jakarta. Magister Perencanaan dan Kebijakan Publik Universitas Indonesia.
- Sugiyono, 2019. *Metode Penelitian Kuantitatif Kualitatif Dan R&D (Edisi Revisi)*. Bandung : CV. Alfabeta.
- Tamin, Ofyar Z. 2020. *Perencanaan dan Pemodelan Transportasi*. Bandung. Penerbit ITB 7.

Risna Lam Ali et.al (Achievement of Basic Immunization Seen from the Distance from Home to Health Services and the Affordability of Access to Health Services in the Work Area of Banggai Timur Raya Public Health Center, Banggai Laut Regency, Central Sulawesi Province)

World Health Organization (WHO), 2021. World Immunization Coverage.
<http://www.who.int.imediacentere/> factsheets/fs378/en/. Diakses Tanggal 15 Januari 2021.