

## **Analysis Of Factors Affecting Measles Rubella ( MR ) Immunization Services For Children Aged 18-24 Months During The Pandemic At The Bumiaji Health Center In Batu City**

**Tri Astutik<sup>1\*</sup>, Ratna Wardani<sup>2</sup>**

Institut Ilmu Kesehatan STRADA Indonesia

**\*Corresponding author:** [ibuerosi@yahoo.com](mailto:ibuerosi@yahoo.com)

### **ABSTRACT**

As service providers, the role of officers must be supported by knowledge, infrastructure, response and empathy so that immunization services during a pandemic can continue to run optimally. The purpose of this study was to determine the factors that influence the Measles Rubella (MR) immunization service for children aged 18-24 months during the pandemic at the Bumiaji Health Center, Batu City. The research design used was observational with a cross sectional approach with linear regression statistical tests to determine the factors that influence the Measles Rubella (MR) immunization service in children aged 18-24 months during the pandemic at the Bumiaji Health Center, Batu City. The population was 32 immunization officers at the Bumiaji Health Center with a sample of 30 respondents using simple random sampling. The research design used was observational with a cross sectional approach with linear regression statistical tests to determine the factors that influence the Measles Rubella (MR) immunization service in children aged 18-24 months during the pandemic at the Bumiaji Health Center, Batu City. The population was 32 immunization officers at the Bumiaji Health Center with a sample of 30 respondents using simple random sampling. The results of statistical tests showed that the significance results for the knowledge variable were  $0.735 > 0.05$ , the infrastructure variable was  $0.000 < 0.05$  and the response and empathy variables were  $0.456 > 0.05$ . For the variables of knowledge, response and empathy,  $H_0$  is accepted and  $H_1$  is rejected, meaning that there is no influence of knowledge or response and empathy to immunization services. While in the infrastructure variable  $H_0$  is accepted and  $H_1$  is rejected, it means that there is an effect of response and empathy of officers on immunization services. From the results of the study, it was concluded that only infrastructure had an effect on immunization services. In the simultaneous analysis of all variables when analyzed simultaneously on immunization services, there is indeed a significant effect. The Health Office is expected to continue to support increasing knowledge, equipping infrastructure, motivating response and empathy for officers so that Measles Rubella (MR) immunization services for children aged 18-24 months during a pandemic can run even better.

**Keywords:** Factors, MR immunization service

### **INTRODUCE**

Immunization is an effort to actively generate/increase a person's immunity against a certain disease, so that if one day he is exposed to the disease, he will not get sick or only experience mild illness (Indonesian Health Profile, 2017).

Immunization is one of the health interventions that has been proven to be the most cost-effective (cheap), because it can prevent and reduce the incidence of morbidity, disability, and death due to PD3I which is estimated at 2 to 3 million deaths annually. The

diseases that can be prevented by immunization are tuberculosis, diphtheria, tetanus, hepatitis B, pertussis, measles, rubella, polio, meningitis, and pneumonia.

In immunization there is the concept of Herd Immunity or Group Immunity. This group immunity can only be formed if the immunization coverage is high and evenly distributed throughout the region. The immunity of most of these targets will indirectly help provide protection for other age groups, so that if there is one or a number of cases of Immunization Preventable Diseases (PD3I) in the community, the disease will not spread quickly and Extraordinary Events (outbreaks) can be prevented. This concept is proof that the immunization program is very effective and efficient because only by targeting vulnerable groups can the entire community be protected.

Determination of the type of immunization is based on expert studies and epidemiological analysis of emerging diseases. One of the international commitments to improve children's health is the UCI (Universal Child Immunization) program, which is a state of achieving complete basic immunization for infants (children less than one year old) (Sari, 2018). Universal Child Immunization (UCI) in a village/kelurahan is a description of a village/kelurahan where 80% of the total number of infants (0-11 months) in the village/kelurahan have received complete basic immunization (Indonesian Health Profile, 2017).

From an economic point of view, disease prevention efforts will actually be much more cost-effective, when compared to treatment efforts. Diseases That Can Be Prevented By Immunization (PD3I) are mostly diseases that if they have infected a person, it will require a fairly high cost of treatment and care which will certainly burden the state, society and family. The costs incurred for the immunization program are very much lower than the total potential costs that must be incurred if the community is exposed to PD3I (Ministry of Health, 2020).

Measles and Rubella are infectious diseases that are transmitted through the respiratory tract caused by the Measles and Rubella viruses. Children and adults who have never been immunized against Measles and Rubella or who have never experienced this disease will be at high risk of contracting this virus (Ministry of Health of the Republic of Indonesia, 2017). In Indonesia in 2010-2015 there have been 23,164 cases of measles and 30,463 cases of rubella (Farid Agushybana, Nuryanto, 2018). Health Law Number 36 of 2009 states that every child has the right to receive basic immunization in accordance with the provisions to prevent the occurrence of diseases that can be avoided through immunization and the government is obliged to provide complete immunization to every baby and child (Ministry of Health, 2019).

Batu City recorded the achievement of Universal Child Immunization (UCI) coverage in 2019 of 62.5% and increased in 2020 by 70.8% (Batu City Health Office, 2020). Meanwhile, the achievement of Measles Rubella immunization coverage for children aged 18-24 months in 2019 was 81.47% and decreased in 2020 by 75.91%. Even though 2020 has entered a pandemic period, there has been an increase in UCI coverage per Village/Kelurahan as well as a decrease in further immunization coverage where this achievement is still far from the national target of 95%.

However, in early 2020, Indonesia and the rest of the world are facing the COVID-19 pandemic. The government has designated Coronavirus Disease 2019 (COVID-19) as a non-natural disaster in the form of an outbreak/pandemic, this determination is followed by efforts to prevent the spread of the corona virus through social restrictions, including restrictions on crowds, travel restrictions, implementation of isolation, delays and cancellations. events, as well as the closure of facilities and public service arrangements.

This condition also affects the schedule and procedures for immunization services both at posyandu, puskesmas and other health facilities, including the private sector. A

number of parents are worried about immunizing their children, and not a few health workers are hesitant in providing immunization services in the midst of the COVID-19 pandemic, this could be due to ignorance or because there are no available technical instructions.

If this condition continues, the national immunization coverage will decrease, so that community immunity is no longer formed and in the end this low immunization coverage can cause outbreaks of PD3I such as Measles, Rubella, Diphtheria, Polio and others. Of course, this will be a double burden for the community and the country in the midst of the ongoing COVID-19 pandemic.

Based on the above, immunization should not be stopped even though in the midst of the COVID-19 pandemic, routine immunizations must still be given, of course with due observance of the principles of Infection Prevention and Control (PPI). As a follow-up to the Circular Letter of the Director General of P2P Number SR.02.06/4/1332/2020 dated March 24, 2020 regarding Immunization Services for Children During the 2019 Corona Virus Disease Pandemic.

The COVID-19 pandemic, which has infected most countries, should not dampen the enthusiasm of health workers to continue to echo the importance of immunization and take important steps to ensure that every child who is a vulnerable group is protected from dangerous diseases by immunization. During this COVID-19 pandemic, immunizations must still be completed according to schedule to protect children from PD3I. Immunization services during the COVID-19 pandemic are carried out in accordance with local government policies, based on an analysis of the epidemiological situation of the spread of COVID-19, routine immunization coverage, and the epidemiological situation of PD3I. Immunization services are carried out according to the principles of Infection Prevention and Control (PPI) and maintain a safe distance of 1-2 meters. The health office must coordinate and advocate for local governments in immunization services during the COVID-19 pandemic. In addition, health workers are expected to be able to monitor the immunization status of each target in their working area. (Ministry of Health, 2020)

The role of the Puskesmas immunization officer is very important in increasing immunization coverage in the Village/Kelurahan in their respective work areas. Many tasks must be carried out both technically and administratively. Immunization officers at the Puskesmas are also required to master program management in a better and more professional manner. This is in line with the strategy and several global agreements in the field of immunization such as ERAPO (Polio Eradication), ETN (Tetanus Neonatorum Elimination), UCI (Universal Child Immunization) and RECAM (Measles Reduction).

The things related to the factors related to Measles Rubella immunization services for children aged 18-24 months during the pandemic that were observed by the researchers were from the point of view of service providers. Where the implementer is the determinant of the implementation of the process the service. As for these factors are :

1. Knowledge of implementing officers, where if immunization officers have adequate knowledge, skills about immunization management and technical according to SOPs, they will be able to be applied in their respective service facilities so that the vaccines given become safe, quality and quality products in order to increase individual immunity and immunity. group from PD3I

2. Facilities and infrastructure, facilities and infrastructure greatly affect the potential for vaccines given at the time of service

3. Response and empathy of officers, response and empathy of officers affect the service process

Thus, it is important to investigate what factors influence the Measles Rubella immunization service for children aged 18-24 months during the pandemic at the Bumiaji Health Center.

## METHODS

The research design that the researcher uses is observational with a cross sectional approach. The population in this study were immunization vaccination officers at the Bumiaji Health Center as many as 32 people with a sample of 30 people. Sampling in this study used the technique of Simple Random Sampling with a questionnaire sheet research instrument.

In this study consisted of 2 variables, namely:

1. Independent Variables or Free Variables, namely knowledge of officers, infrastructure, responsiveness and empathy.
2. Dependent Variable or Bound Variable, namely Measles Rubella Immunization Services for children aged 18-24 months during the Pandemic.

To get valid data or results, it is necessary to test the validity and reliability of the instrument to be used. The validity test technique uses the product moment correlation coefficient test. For testing the reliability of the research instrument, the researcher used the Cronbach's Alpha coefficient by using SPSS.

The data that has been collected will then be processed (Editing, Coding, Scoring and Tabulating). Then performed statistical tests and data analysis using linear regression.

## RESULT

### A. Characteristics Of Respondents

| Data Responden | Keterangan | Jumlah | Prosentase |
|----------------|------------|--------|------------|
| Jenis Kelamin  | Laki-Laki  | 6      | 20         |
|                | Perempuan  | 24     | 80         |
| Pendidikan     | Diploma    | 26     | 87         |
|                | Sarjana    | 4      | 13         |
| Umur           | Usia 20-29 | 8      | 27         |
|                | Usia 30-39 | 13     | 43         |
|                | Usia 40-49 | 9      | 30         |

Primary Data Source for May 2021

#### 1. Characteristics of Respondents Based on Gender

Characteristics of respondents based on gender can be concluded that most of the respondents are female, which is 80% (24 respondents).

#### 2. Characteristics of Respondents Based on Education

Characteristics of respondents based on education level, it can be concluded that most of the respondents have a Diploma in Diploma level, which is 87% (26 respondents).

#### 3. Characteristics of Respondents by age

Characteristics of respondents based on age can be concluded that most of the respondents are in the age of 30-39 years, which is 43% (13 respondents).

### B. Variable Characteristics

| Faktor - Faktor | Keterangan | Jumlah | Prosentase |
|-----------------|------------|--------|------------|
| Pengetahuan     | Kurang     | 3      | 10.0       |
|                 | Cukup      | 4      | 13.3       |

|                         |        |    |      |
|-------------------------|--------|----|------|
| Sarana Prasarana        | Baik   | 23 | 76.7 |
|                         | Kurang | 2  | 6.7  |
|                         | Cukup  | 13 | 43.3 |
| Responsiveness & Empati | Baik   | 15 | 50.0 |
|                         | Kurang | 4  | 13.3 |
|                         | Cukup  | 11 | 36.7 |
|                         | Baik   | 15 | 50.0 |

Primary Data Source for May 2021

1. Knowledge of Officers About Measles Rubella (MR) Immunization Services for Children Age 18-24 Months

It can be concluded that the knowledge of officers on Measles Rubella (MR) immunization services for children aged 18-24 months at the Bumiaji Health Center mostly has good knowledge, namely 76.7% (23 respondents).

2. Measles Rubella (MR) Immunization Service Facilities and Infrastructure for Young Children

It can be concluded that the Measles Rubella (MR) immunization service facilities for children aged 18-24 months at the Bumiaji Health Center in Batu City mostly have good infrastructure, namely 50.0% (15 respondents).

3. Responsiveness and Empathy of Measles Rubella (MR) Immunization Service Officers for Children aged 18-24 Months

It can be concluded that the responsiveness and empathy of officers to the Measles Rubella (MR) immunization service for children aged 18-24 months at the Bumiaji Health Center in Batu City were mostly in responsiveness and good empathy, namely 50.0% (15 respondents).

### C. Cross Tabulation Between Variables

| Tabulasi Silang    | Pelayanan Imunisasi |       |      | Total |
|--------------------|---------------------|-------|------|-------|
| Faktor - Faktor    | Kurang              | Cukup | Baik |       |
| Pengetahuan Baik   | 3                   | 11    | 9    | 23    |
|                    | 10.0                | 36.7  | 30.0 | 76.7  |
| Pengetahuan Cukup  | 2                   | 1     | 1    | 4     |
|                    | 6.7                 | 3.3   | 3.3  | 13.3  |
| Pengetahuan Kurang | 1                   | 0     | 2    | 3     |
|                    | 3.3                 | 0.0   | 6.7  | 10.0  |

Primary Data Source for May 2021

1. Cross Tabulation of Officer Knowledge on Measles Rubella (MR) Immunization Services for 18-24 Months Age Children during a Pandemic

It can be concluded that of the 30 respondents who have good knowledge and have carried out immunization services well as many as 9 respondents (30.0%) and the least are 2 respondents (6.7%).

| Tabulasi Silang       | Pelayanan Imunisasi |       |      | Total |
|-----------------------|---------------------|-------|------|-------|
| Faktor - Faktor       | Kurang              | Cukup | Baik |       |
| Sarana Prasarana Baik | 2                   | 2     | 11   | 15    |
|                       | 6.7                 | 6.7   | 36.7 | 50.0  |

|                         |     |      |     |      |
|-------------------------|-----|------|-----|------|
| Sarana Prasarana Cukup  | 2   | 10   | 1   | 13   |
|                         | 6.7 | 33.3 | 3.3 | 43.3 |
| Sarana Prasarana Kurang | 2   | 0    | 0   | 2    |
|                         | 6.7 | 0.0  | 0.0 | 6.7  |

Primary Data Source for May 2021

2. Cross tabulation of facilities and infrastructure for Measles Rubella (MR) immunization services for children aged 18-24 months during a pandemic.

It can be concluded that of the 30 respondents who have the best infrastructure, the majority have carried out immunization services well as many as 11 respondents (36.7%). And the least in the lack of infrastructure, namely 2 respondents (6.7 %).

Cross tabulation of Responsiveness and Empathy for Measles Rubella (MR) Immunization Services for Children aged 18-24 Months during a Pandemic. It can be concluded that of the 30 respondents who have good responsiveness and empathy levels and have carried out immunization services well as many as 8 respondents (26.7%) and the least to responsiveness and lack of empathy are 2 respondents (6.7%).

| Tabulasi Silang                | Pelayanan Imunisasi |       |      | Total |
|--------------------------------|---------------------|-------|------|-------|
| Faktor - Faktor                | Kurang              | Cukup | Baik |       |
| Responsiveness & Empati Baik   | 1                   | 6     | 8    | 15    |
|                                | 3.3                 | 20.0  | 26.7 | 50.0  |
| Responsiveness & Empati Cukup  | 5                   | 4     | 2    | 11    |
|                                | 17                  | 13.3  | 7    | 37    |
| Responsiveness & Empati Kurang | 0.0                 | 2.0   | 2.0  | 4.0   |
|                                | 0                   | 6.7   | 7    | 13    |

Primary Data Source for May 2021

3. Cross-tabulation of Responsiveness and Empathy for Measles Rubella (MR) Immunization Services for Children aged 18-24 Months during a Pandemic

It can be concluded that of the 30 respondents who have a good level of responsiveness and empathy and have carried out immunization services well, 8 respondents (26.7%) have the least responsiveness and lack of empathy, namely 2 respondents (6.7%).

## D. STATISTICS TEST

### 1. Data Normality Test

In this study, the researcher used the Kolmogorov – Smirnov test with SPSS to see the normality of the data. From the test results obtained a significance value of 0.145. Because 0.145 is greater than 0.05, according to the basis for decision making in the Kolmogorov-Smirnov normality test, it can be concluded that the data are normally distributed.

### 2. Test Statistics

The regression coefficient for the Infrastructure Facility (X2) variable is 0.293 indicating that if the Immunization Facility variable increases by 1 unit, it will increase the Measles Rubella (MR) Immunization Service for Children 18-24 Months Age in the

Pandemic Period by 0.293 units or by 29.3%.

The coefficient of determination (R square) aims to determine how much the ability of the independent variable (knowledge of immunization officers, infrastructure, responsiveness and empathy) is able to influence the dependent variable (Measles Rubella (MR) immunization services in children aged 18-24 months during a pandemic)

Based on the table above, it is known that the R square value is 0.759 (75.9%), this indicates that by using the regression model obtained where the independent variables (knowledge of immunization officers, infrastructure, responsiveness and empathy) are able to influence the dependent variable (Measles Rubella immunization service). (MR) in children aged 18-24 months during the pandemic) was 75.9%. While the remaining 24.1% is influenced by other unknown factors or variables and is not included in this regression analysis.

The criteria for taking the hypothesis is that if the significance value is  $< 0.05$  then  $H_0$  is rejected, meaning that statistically there is an influence between the knowledge of immunization officers on Measles Rubella (MR) immunization services in children aged 18-24 months during the pandemic.

Simultaneous analysis (knowledge of immunization officers, infrastructure, responsiveness and empathy) were analyzed together on Measles Rubella (MR) immunization services for children aged 18-24 months during a pandemic, but when analyzed partially, only facilities were variable. infrastructure that affects the Measles Rubella (MR) immunization service variable for children aged 18-24 months during the pandemic. This can be proven from the significance value  $< 0.05$ .

## DISCUSSION

### A. The Effect of Knowledge of Immunization Officers on Measles Rubella (MR) Immunization Services for Children aged 18-24 Months during a Pandemic.

From the results of statistical analysis, it was found that there was no effect of knowledge of immunization officers on immunization services because a significance value of  $0.735 > 0.05$  was obtained so that  $H_0$  was accepted and  $H_1$  was rejected.

This indicates that immunization services in this study did not consider the knowledge of officers in carrying out their activities, which means that immunization services can still run even though they are carried out by officers with different knowledge backgrounds. Where the knowledge of immunization officers is influenced by various factors, both from within the officers themselves and external factors. This is in accordance with the theory below.

In the Big Indonesian Dictionary (2011), knowledge is something related to the learning process. This learning process is influenced by various factors from the data, such as motivation and external factors in the form of available information facilities, as well as socio-cultural conditions. Knowledge is information or information that is known or realized by someone (Agus, 2013).

The results of this study are in accordance with research conducted by Rohani Widiyanti on the Relationship between Knowledge Level and Quality of Vaccine Chain in Independent Practice Midwives in Bantul Regency in 2016, namely the knowledge of officers does not have a significant effect on immunization services because officers with low knowledge will continue to carry out their duties in the service. immunization. This is in accordance with Notoadmodjo's (2010) theory which states that many factors influence a person's behavior to take an action, but there are other factors such as education, years of service, age, training and information obtained as well as awareness of the person himself. And according to Dahlan (2001) the formation of behavior towards immunization services is also influenced by the actions taken in connection with educational materials, namely

perception, response, guided, mechanism, and adaptation.

This shows that in a person the process of awareness, interest and efforts to choose whether or not a stimulus is good and then put into practice cannot be adopted properly so that higher education or training and seminars on immunization are needed.

According to Green, knowledge is a predisposition to take action and is the basis for forming one's attitudes, one's health behavior changes slowly. Knowledge that continues to increase causes a change in a person's attitude. This attitude change will then lead to behavior change by seeking to make individual behavior have a positive influence. A person's reaction or response then reacts to this influence which then takes action correctly automatically and makes a habit, this is called behavior (Notoatmojo, 2010).

## **B. The Effect of Facilities and Infrastructure on Measles Rubella (MR) Immunization Services for Children aged 18-24 Months during a Pandemic.**

From the results of statistical analysis, it was found that there was an influence of infrastructure on immunization services because a significance value of  $0.000 < 0.05$  was obtained, so  $H_0$  was rejected and  $H_1$  was accepted. This indicates that immunization services in this study are strongly influenced by the availability of infrastructure in carrying out their activities, which means that immunization services can run optimally if they are supported by adequate infrastructure.

Based on the results of the study, it was found that the facilities and infrastructure variables had a positive effect on the Measles Rubella (MR) immunization service variable in children aged 18-24 during the pandemic. Good facilities and infrastructure will greatly affect the Measles Rubella (MR) immunization service for children aged 18-24 during the pandemic. Thus, the better the facilities and infrastructure owned by the puskesmas, the better the Measles Rubella (MR) immunization service for children aged 18-24 during the pandemic at the Bumiaji Health Center, Batu City.

This is in accordance with the results of research by Ahmad Widarta Setiadi et al on the Factors Affecting the Completeness of the Basic Immunization Program in Jatisari Village, Wringin District, Bondowoso Regency that health service facilities can be defined as a collaborative process in the utilization of all health facilities and infrastructure effectively and efficiently in providing services effectively and efficiently. professionals, especially in the field of facilities and infrastructure in the process of effective and efficient health services. Completeness of good infrastructure is very important in creating customer satisfaction (Muhammad, 2010). Clow (1998) in (Febriani, 2012) which states that the quality of services is more difficult to evaluate than the quality of goods.

Means are everything that can be used as a tool in achieving goals and objectives (Big Indonesian Dictionary). Meanwhile, infrastructure is everything that is the main support for the implementation of a process (business, development). To make it easier for both, facilities are prioritized for movable objects, while infrastructure is intended for immovable objects (Rubiyanto, 2015).

Health service infrastructure can be defined as a collaborative process in the effective and efficient utilization of all health facilities and infrastructure in providing professional services, especially in the field of facilities and infrastructure in an effective and efficient health service process. Completeness of good infrastructure is very important in creating customer satisfaction (Muhammad, 2010). Clow (1998) in (Febriani, 2012) which states that the quality of services is more difficult to evaluate than the quality of goods.

Facilities and infrastructure in immunization services include cold chain / vaccine cold chain infrastructure (vaccine carriers, thermometers, refrigerators for storing vaccines, PPE, syringes, safety boxes, medical waste, etc.), puskesmas equipment and maintenance of existing facilities and infrastructure. . Immunization facilities and infrastructure are very



influential on the implementation of immunization services to the fullest.

With good infrastructure that meets operational standards at the puskesmas, the Measles Rubella (MR) immunization service for children aged 18-24 during the pandemic will be even better. So that the expected goal is to provide the best service to the target.

The Covid-19 pandemic did not hinder the implementation of routine immunizations, especially at the Bumiaji Health Center, Batu City. During this COVID-19 pandemic, immunizations must still be completed according to schedule to protect children from PD3I. Immunization services during the COVID-19 pandemic are carried out in accordance with local government policies, based on an analysis of the epidemiological situation of the spread of COVID-19, routine immunization coverage, and the epidemiological situation of PD3I.

Immunization officers during the pandemic continue to carry out their duties as routine immunization service providers while carrying out other additional tasks as innovatively as possible despite all the existing limitations and constraints. Other additional tasks that must be carried out include tracking Covid-19 cases, handling COVID-19 cases, checking for rapid tests, Covid-19 vaccinations, etc. Meanwhile, the problems and constraints experienced during the pandemic, such as setting the schedule for immunization services, which are usually carried out at the Posyandu every month, must be adjusted and implemented at the Pustu/Polindes/Puskesmas and hospitals. The shortage of health workers also occurred during the pandemic because there were several health workers who were identified as having confirmed Covid-19 so that the implementation of immunization services had to maximize the existing health workers. The limitations of PPE for officers for services at the beginning of the pandemic also occurred so that procurement was needed to support the availability of PPE for health workers. Other limitations and obstacles for immunization services are the limitations of injection equipment, alcohol swabs, safety boxes, vaccine carriers, thermometers and refrigerators due to the Covid-19 vaccination acceleration instructions so that equipment for routine immunization services must also be used to support this, while waiting for the process. provision of vaccination logistics through ongoing procurement. In addition, what is very important is the support of the Health Office, which coordinates and advocates for the local government and the collaboration of all levels of health in immunization services during the COVID-19 pandemic, is expected to increase the achievement of immunization coverage and protection against PD3I.

### **C. The Effect of Response and Empathy on Measles Rubella (MR) Immunization Services for 18-24 Months Age Children during a Pandemic**

From the results of statistical analysis, it was found that there was no effect of responsiveness and empathy on immunization services because a significance value of  $0.456 > 0.05$  was obtained so that  $H_0$  was accepted and  $H_1$  was rejected. This indicates that the immunization service in this study does not consider response and empathy in the implementation of its activities, which means that immunization services must continue even though they are carried out with different responses and empathy. Where response and empathy are influenced by various factors from within the officers themselves. This is in accordance with the theory below.

This has similarities with the previous research conducted by Solichah Supartiningsih 2016 regarding the Effect of Quality Health Services with Satisfaction Levels of Outpatients of National Health Insurance Participants in the Work Area of the Ngrampal Health Center, Sragen Regency, namely the results of the analysis show that the responsiveness variable does not have a positive influence. and not significant to patient satisfaction at Sarila Husada Hospital Sragen in outpatients. This can be interpreted if the ability of employees to help customers and provide services responsively may not necessarily increase patient satisfaction at Sarila Husada Hospital Sragen for outpatients.

And the results of the analysis of the empathy variable (emphaty) did not have a positive and significant effect on patient satisfaction at Sarila Husada Hospital Sragen in outpatients. This can be interpreted if the ease of providing information and attention to patients properly does not necessarily increase, then the satisfaction of patients at Sarila Husada Hospital Sragen in Outpatients has a tendency to decrease.

Response or responsiveness is the response or alertness of officers in helping and providing services quickly and responsively. Responsiveness can foster a positive perception of the quality of services provided. This includes if there is a failure or delay in the delivery of services, the service provider tries to repair or minimize consumer losses immediately. This dimension emphasizes the attention and speed of the officers involved in responding to requests, questions, and targeted complaints. So the components or elements of this dimension consist of the alertness of officers in serving targets, speed, accuracy and accuracy of officers in serving targets and handling targeted complaints.

Empathy is the ability that is carried out directly by officers to pay attention to the target. So the component of this dimension is a combination of access, namely the ease of utilizing the services offered by health service providers, communication is the ability to convey information to the target or obtain input from the target and understanding is an attempt to know and understand the needs and desires of the target.

According to Suparmanto (2011) that health workers are responsible for providing health services by showing a professional attitude in providing immunization services for individuals and families. These results indicate that the public's perception that employees at the puskesmas must take action according to the service standards at the puskesmas, therefore the puskesmas in providing good or bad service is the responsibility of the employee.

## CONCLUSION

From the results of research conducted at the Bumiaji Health Center in May 2021 on the Analysis of Factors Affecting Measles Rubella (MR) Immunization Services for Children 18-24 Months Age During a Pandemic, it can be concluded that :

1. Variable knowledge of officers obtained results of  $0.735 > 0.05$  so it can be concluded that knowledge of immunization officers has no effect on Measles Rubella (MR) immunization services for children aged 18-24 months during the pandemic at the Bumiaji Health Center, Batu City. Because the immunization service in its implementation can still run even though it is carried out by officers with various knowledge backgrounds.
2. The facilities and infrastructure variable obtained results of  $0.000 < 0.05$  so it can be concluded that the facilities and infrastructure have a positive and significant effect on the Measles Rubella (MR) immunization service for children aged 18-24 months during the pandemic at the Bumiaji Health Center, Batu City. With good and adequate facilities and infrastructure, immunization services can run optimally.
3. The responsiveness and empathy variables obtained results of  $0.456 > 0.05$  so it can be concluded that the responsiveness and empathy of immunization officers did not affect the Measles Rubella (MR) immunization service for children aged 18-24 months during the pandemic at the Bumiaji Health Center, Batu City. Because the immunization service in its implementation must still run even though it is carried out by officers with different responsiveness and empathy.

## REFERENCES

- Kemenkes RI. ( 2020 ). Profil Kesehatan 2019. Diunduh pada 23 Januari 2021 dari <https://pusdatin.kemkes.go.id/resources/download/pusdatin/profil-kesehatan-indonesia/Profil-Kesehatan-indonesia-2019.pdf>

- Kemenkes RI. ( 2018 ). Profil Kesehatan Indonesia 2017. Diunduh pada 23 Januari 2021 dari [https://pusdatin.kemkes.go.id/resources/download/pusdatin/profil-kesehatan-indonesia/PROFIL\\_KESEHATAN\\_2018\\_1.pdf](https://pusdatin.kemkes.go.id/resources/download/pusdatin/profil-kesehatan-indonesia/PROFIL_KESEHATAN_2018_1.pdf)
- Permenkes RI. ( 2010 ). Tentang Jenis Penyakit Menular Tertentu Yang Dapat Menimbulkan Wabah Dan Upaya Penanggulangan 2010. Diunduh pada 23 Januari 2021 [https://infeksiemerging.kemkes.go.id/download/PERMENKES\\_1501\\_2010\\_JENIS\\_PENYAKIT\\_MENULAR\\_POTENSIAL\\_WABAH\\_DAN\\_UPAYA\\_PENANGGULANGAN.pdf](https://infeksiemerging.kemkes.go.id/download/PERMENKES_1501_2010_JENIS_PENYAKIT_MENULAR_POTENSIAL_WABAH_DAN_UPAYA_PENANGGULANGAN.pdf)
- Permenkes RI. ( 2017 ). Tentang Penyelenggaraan Imunisasi 2017. Diunduh pada 26 Januari 2021 dari [http://hukor.kemkes.go.id/uploads/produk\\_hukum/PMK\\_No.\\_12\\_ttg\\_Penyelenggaraan\\_Imunisasi\\_.pdf](http://hukor.kemkes.go.id/uploads/produk_hukum/PMK_No._12_ttg_Penyelenggaraan_Imunisasi_.pdf)
- Sari, Desti Diana. ( 2018 ). Faktor-Faktor Pada Ibu Yang Berhubungan Dengan Pemberian Imunisasi Dasar Bayi Di Wilayah Kerja Puskesmas Korpri Kecamatan Sukarame Kota Bandarlampung. Universitas Lampung Bandarlampung.
- Hardiansyah. ( 2011 ). Kualitas Pelayanan Publik: Konsep, Dimensi, Indikator dan Implementasinya. Cetakan I. Jogjakarta: Gava Media
- Moenir, A.S. 2010. Manajemen Pelayanan Umum di Indonesia. Jakarta: Bumi Aksara
- Sinambela. 2010. Reformasi Pelayanan Publik. Jakarta: Bumi Aksara.
- Ranuh, I.G.N.Gde, dkk. ( 2014 ). Pedoman Imunisasi Di Indonesia Edisi 5. Jakarta : IDAI
- Manggianasih, ( 2016 ). Asuhan Kebidanan Pada Neonatus, Bayi, Balita Dan Anak Prasekolah. Yogyakarta: Penerbit Tran Info Media
- Pusat Pendidikan dan Pelatihan Tenaga Kesehatan. ( 2014 ). Buku Ajar Imunisasi. Jakarta. Buku Ajar Imunisasi
- Notoadmojo, Soekijo. ( 2010 ). Metodologi Kesehatan. Jakarta: PT. Rineka Cipta.
- Notoatmodjo, S. (2012). Metodologi Penelitian Kesehatan. Jakarta: Rineka Cipta
- Arikunto, Suharsini. 2010. Prosedur Penelitian Suatu Pendekatan Praktis Edisi Revisi Cetakan 14. Jakarta: Rineka Cipta