

# The Description of Community Perception and Behavior for Covid-19 Vaccination in Lerep Village, West Ungaran Sub District, Semarang Regency

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## Article

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## Abstract

One of the efforts to overcome the pandemic apart from implementing health protocols is by vaccinating. The government has made efforts to provide free vaccines for the community. There are still many people who refuse to get vaccination even though the government has made administrative threats for those who refuse it. Several possible factors which cause vaccine coverage target has not been achieved include public perceptions and behaviors related to the Covid-19 vaccine. The purpose of this research is to know the description of public perception and behavior for COVID-19 vaccination in Lerep Village, West Ungaran Sub District, Semarang Regency. The design of this research was descriptive with a survey approach. The population in this study were the community in Lerep Village, West Ungaran Sub District, Semarang Regency with sample of 100 people taken by quota sampling technique. The public perception of the covid-19 vaccine is mostly in positive category, as many as 93 people (93.0%). The behavior of the community for the covid-19 vaccine is mostly in good category, as many as 90 people (90.0%). It is expected that public will always update the latest information about COVID-19 vaccine from trusted sources such as the Ministry of Health website or WHO and implement health protocols to avoid COVID-19 infection and protect people around them.

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## Introduction

WHO on October 25, 2020, declared the COVID-19 infection as "pandemic" since it has spread to more than 114 countries, resulting in more than 43,140,173 confirmed cases and over 1,155,235 deaths. (Özkara, et.al., 2020). The COVID-19 Task Force (2021) stated that in Indonesia there were 1,713,684 confirmed cases, 98.39 (5.7%) data on active cases, 1,568,277 (91.5%) positive patients recovered and 47,012 died (2.7). % due to COVID-19. The total number of Indonesian citizens who have undergone antigen tests, PCR + TCM

tests were 10,205,668. While the number of Indonesians vaccinated against COVID-19 in the first stage were 13,340,957 cases, the number of people vaccinated in the second phase were 8,634,546 cases. (Parera and Tiala, 2021).

Various research efforts have focused on creating vaccines, as an effective way to combat COVID-19. However, given the large number of people who need to be vaccinated to achieve widespread immunity, vaccine development alone is not enough. Public doubts about the

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safety and ability of vaccines are increasing because the virus varies in each country plus there are some people who believe that the pandemic is a conspiracy of certain people. Governments, public health teams, and advocacy groups must be prepared to address issues and build vaccine knowledge so that people can be immunized at the right time. Anti-vaccine activists in many countries oppose the need for a vaccine, some outright denying the existence of COVID-19. (Lushington, 2020). The main obstacle to the use of the Covid-19 vaccine is public skepticism about the vaccine, namely the public's perception of the safety and efficacy of the Covid-19 vaccine.(Fadda, et.al., 2020).

Public perception is a reprocess that is experienced in a certain environment and gives positive and negative thoughts to the surrounding community. Attitude is a term that reflects a person's feeling of pleasure, displeasure, or neutral (neutral) feelings towards "something". The "thing" can be objects, events, situations, people, or groups. likes or dislikes that arise because of certain objects. The existence of a new virus that has not found a cure causes anxiety, fear, and even depression. Perception of the threat of disease is one of the things related to disease prevention. People who think they are at risk of developing the disease are more likely to take precautions than those who think they have no risk factors for the disease(Maulana, 2012).

Fear of possible disease encourages people to take preventive measures, in this study vaccination against COVID-19. The perception of the severity of the disease encourages people to try the treatment. If a person believes their condition has a serious health problem, they take action to protect themselves. People who have a higher level of trust in strategies designed to reduce the threat of disease will take precautionary measures with full awareness, for example

vaccinating against COVID-19(Bakhtari et.al, 2012).

Research related to the perception of the covid-19 vaccine that has been carried out in South Sumatra shows that most people (63.0%) have a positive perception of the covid-19 vaccine. (Argista, 2021). These results are not supported by research in Bangkok Village, Glagah District, Lamongan Regency. The results showed that more than half of the respondents had a negative perception about the covid-19 vaccination, namely 78 respondents (54.9%)(Kholidiyah, Sutomo, & Kushayati, 2021). This shows that there is a discrepancy between the results of research on public perceptions of the COVID-19 vaccine.

Research related to behavior for vaccines regarding the covid-19 vaccine that has been carried out in Palu City shows that only 35.3% of people are willing to receive the Covid-19 vaccination.(Ichsan, Hafid, Ramadhan, & Taqwin, 2021). Similarly, in Malaysia, there are 74% of people are concerned about the safety and effectiveness of the Covid-19 vaccine(Chew., 2021). When compared to other studies such as in the city of Surabaya, respondents who agreed to be vaccinated against covid 19 were quite high, namely 81.1%. (Febriyanti, 2021). In America, 69% of participants are willing to be vaccinated against Covid-19 while in Saudi Arabia 64.7%(Al-Mohaithef M & Padhi BK., 2020). This shows that there is a discrepancy in the results of research on community behavior for the COVID-19 vaccine.

The results of a preliminary study conducted in October 2021 in Lerep Village, West Ungaran Sub District, Semarang Regency, obtained data on the number of Lerep Village residents registered for Covid-19 vaccination as many as 13,000 people. The number of people who have received phase 1 vaccine were 7,890 people, while for



phase 2 as many as 7,890 people so 5,110 people have not received the vaccine. Some residents who have not received the Covid-19 vaccine stated that they did not want to be vaccinated. Some of the reasons stated include having a history of illness, worrying about having health problems after vaccination, and so on.

Data were also collected to measure the perception and behavior of vaccination from residents by using a simple questionnaire to 10 residents. The author found that 6 people (60.0%) had not been vaccinated where 2 people had a negative perception (not sure about the halal aspect of the Covid-19 vaccine and were hesitant to get the Covid-19 vaccine) and 4 people had a positive perception (intends to get/injected the Covid vaccine). -19 and the provision of this vaccine is the right effort to overcome the Covid-19 pandemic). It was also obtained that 4 people (40.0%) had vaccinated were 2 people (25.0%) had a negative perception (not sure about the halal aspect of the Covid-19 vaccine and unsure of the capacity of health services to be able to overcome the side effects of giving the Covid-19 vaccine) and 3 people (75, 0%) have a positive perception (intend to get/inject the Covid-19 vaccine and this vaccine is the right effort to overcome the Covid-19 pandemic). The results of this preliminary study show that some people have not been vaccinated even though they have a good perception of vaccination.

### **Research Methods**

This research design is descriptive. The approach used a survey approach. The study was carried out in Lerep Village, West Ungaran Sub District, Semarang Regency in December 2021. The population in this study were people who were required to get the vaccine in Lerep Village, West Ungaran Sub District, Semarang Regency with a sample of 100 people who had met the inclusion criteria, namely people who registered as vaccine

recipients. The inclusion criteria for this study were people who were registered but had co-morbidities with conditions that made it impossible to get the vaccine. This research used the quota sampling method. The data collection tool used in this research was a questionnaire that has been compiled by RI Kominfo, (2021).

The results of the validity test that was carried out in Candirejo Village, West Ungaran Sub-District in December 2021, for the perception variable for the covid-19 vaccination, the r-value was obtained between 0.543-0.837, while for the behavioral variable for the covid-19 vaccination, the r-value was obtained between 0.541-0.80771. This shows that the r-value of the results for the perception and behavior variables is greater than the r table value. This means that all statements used to measure perceptions and behaviors for covid-19 vaccination are valid. The results of the reliability test that was carried out in Lerep Village, West Ungaran Sub District in December 2021, for the perception variable for the covid-19 vaccination, the Cronbach alpha value was obtained at 0.926, while for the behavioral variable for the covid-19 vaccination, the Cronbach alpha value was 0.800. This shows that the Cronbach alpha value for the perception and behavior variables is greater than the limit value (0.600). This means that all statements used to measure perceptions and behaviors for COVID-19 vaccination are reliable. The processed data will then be evaluated in stages according to the research objectives to be determined. The data analysis that will be used is univariate analysis, which is an analysis that uses frequency and percentage distribution.

### **Research Result**

Based on the results of the research on public perception and behavior for COVID-19 vaccination in Lerep Village, West Ungaran Sub District, Semarang Regency in December 2021 with sample of 100 people. Respondents in this study



were the community in Lerep Village, Ungaran Barat District, Semarang Regency, most of them were elderly (46-55 years) as many as 28 people (28.0%), the gender of men and women are the same, namely 50 each. people (50.0%), with basic education (Elementary School and Junior High School) as many as 58 people (58.0%) and by profession as housewives and self-employed as many as 22 people (22.0%).

Table 1 Frequency Distribution of Public Perception about the COVID-19 Vaccine

Perception	Frequency (f)	Percentage (%)
Negative	7	7.0
Positive	93	93.0
Amount	100	100.0

Table 1 shows that people in Lerep Village, West Ungaran Sub-district, Semarang Regency have a perception about the Covid-19 vaccine in mostly in positive category, as many as 93 people (93.0%).

Table 2 Behavioral Frequency Distribution for COVID-19 Vaccination

Behavior	Frequency (f)	Percentage (%)
Not enough	6	6.0
Enough	4	4.0
Good	90	90.0
Amount	100	100.0

Table 2 shows that the community in Lerep Village, West Ungaran Sub-district, Semarang Regency has the behavior for the covid-19 vaccine mostly in good category, as many as 90 people (90.0%).

## Discussion

### The descriptions of perceptions about COVID-19 vaccination in the community in Lerep Village, West Ungaran Sub District, Semarang Regency

The results show that people in Lerep Village, West Ungaran Sub District, Semarang Regency have a positive

perception of the Covid-19 vaccine, namely 93 people (93.0%). This positive perception is in the indicator of the purpose of the covid-19 vaccine as indicated by respondents who stated "agree" that vaccination was the right effort to overcome the Covid-19 pandemic, namely 70 people (70.0%) and vaccination could prevent the spread of Covid-19, namely as many as 70 people. 77 people (77.0%) and vaccination played an important role in slowing the risk of Covid-19 infection, which was 58 people (58.0%). This shows a positive perception of the Covid-19 vaccine, which is indicated by vaccination as the right effort to overcome the pandemic by preventing the spread and slowing down the risk of infection.

Vaccination is one of the most effective measures to overcome the current COVID-19 pandemic. Vaccination is indicated by giving antigens that can stimulate the formation of defenses (antibodies) in the body's immune system. Vaccination is currently the main preventive measure that is very reliable to prevent infectious diseases such as COVID-19. Proper vaccination procedures are expected to achieve optimal immunity, safe injections, and low post-immunization co-occurrence (AEFI). (Widiastuti, 2021).

When a person is infected with a virus or disease-causing bacteria, the immune system is spontaneously formed. Coronavirus infection, on the other hand, carries a high risk of death and transmission. As a result, a different method of forming the immune system is needed, namely vaccination. Covid-19 immunization is given when safety and efficacy have been established in an effort to reduce morbidity and mortality while encouraging the development of herd immunity. Furthermore, Covid-19 immunization is intended to maintain and improve the entire health system, as well as sustain productivity, and reduce the social and economic impact of society (Widiastuti, 2021).



When describing an object, perception refers to a person's point of view. Perception is simply someone's evaluation of something. It is very important to have a favorable perspective as it will influence behavior. The public's negative impression of the COVID-19 vaccine must be eliminated, while positive perceptions must be fostered. The success rate of the COVID-19 vaccination program will be influenced by the good public impression of the vaccine. Education is one of the variables that affect a person's perception (Notoadmodjo, 2013).

This study determine that respondents with primary and secondary education have positive perceptions about vaccines. Respondents with positive perception are 93 people, most of whom have basic education, namely 55 people (59.1%), more than those with secondary education, namely 37 people (39.8%) and one person with higher education ( 1.1%). This shows that the majority of respondents who stated that vaccination was the right effort to overcome the Covid-19 pandemic have basic education (Elementary School and Junior High School) and secondary education (Senior High School) than those with University education.

Education is a person's effort to improve himself through the acquisition of knowledge or skills. The higher a person's educational background, the easier it is for them to receive information and gain a better understanding. This solid information becomes the foundation for them to have a positive attitude towards something. However, this does not mean that someone with low education has low knowledge as well. A person's knowledge is also influenced by the level of intelligence and personality of each person (Notoatmodjo, 2018). Respondents who have basic education have a positive perception of the covid-19 vaccine, it is possible that other factors influence it, including intelligence and

personality. In addition, most of the respondents in this study are those with primary and secondary education, so the proportion of research results is certainly higher at that level of education.

Several studies have shown the relationship between education and public perception of the COVID-19 vaccine. Research in South Sumatra shows that the variable related to public perception of the COVID-19 vaccine is education status ( $p$ -value = 0.038). This is different from research conducted by (Tasnim.2021) which states that there is no relationship between education and public perception of the COVID-19 vaccine with the resulting  $p$ -value of 0.302. Then this is also different from research conducted by (Faasse and Newby. 2020) which says that there is no relationship between education and public perception of the COVID-19 vaccine with a  $p$ -value of 0.804.

The results show that people in Lerep Village, West Ungaran Sub District, Semarang Regency have a negative perception of the COVID-19 vaccine, namely 7 people (7.0%). This is indicated by respondents who disagree that breastfeeding mothers who have blood pressure above 140/90 mmHg are not recommended to get Covid-19 vaccination (46.0%).

The results of this study are in accordance with a research in Bangkok Village, Glagah District, Lamongan Regency. The results showed that more than half of the respondents had a negative perception of the covid-19 vaccination, namely 78 respondents (54.9%) and almost half of the respondents had a positive perception of the covid-19 vaccination, namely 64 respondents (45.1%). (Kholidiyah et al., 2021).

The negative perception that respondents had in the study was possible because information related to vaccines used to form immunity/artificial antibodies was still rarely accessible to the public. Information related to vaccines that are used to form antibodies to reduce the



impact of being exposed to COVID-19 is very rarely obtained by the public. The current government's COVID-19 vaccination program, which is intended to build herd immunity, also seems forced and must be accelerated. In addition, the circulation of hoaxes / fake news related to the Covid-19 vaccine has also further reduced public perception regarding the Covid-19 vaccine program that is being promoted by the government. (Kholidiyah et al., 2021).

The administration of the COVID-19 vaccine basically faces the same problems as the immunization program. There are still many people who do not believe and doubt the effectiveness of the vaccines used. Some people question the halalness of the ingredients used to make vaccines, some ask about the quality of the injected vaccines, and some people also question the impact of injecting the covid-19 vaccine itself. In general, the type of vaccine that is widely used in Indonesia is the Covid-19 vaccine with the product brand CoronaVac. The Sinovac vaccine has the basic ingredients of the Coronavirus (SARS-CoV-2) which has been inactivated (inactivated virus). This vaccine has passed phase III clinical trials and is declared safe for use (Kholidiyah et al., 2021).

#### **Description of behavior for COVID-19 vaccination in the community in Lerep Village, West Ungaran Sub District, Semarang Regency**

The results showed that people in Lerep Village, West Ungaran Sub-district, Semarang Regency had the behavior for the covid-19 vaccine in almost all good categories, namely 90 people (90.0%). This is shown by respondents who have done the covid-19 vaccine twice (90.0%). In addition, respondents also stated that they followed the instructions during vaccination (99.9%).

Behavior shows a person's response or reaction to external stimuli(Notoatmodjo, 2015). Behavior is an individual's response to a stimulus or an action that

can be observed and has a specific frequency, duration and purpose, whether consciously or not(Wawan and Dewi, 2012). Behavior is a form of response or reaction to a stimulus or stimulus from outside a person, but in giving a response it really depends on the characteristics or other factors of the person concerned. (Azwar, 2013). The COVID-19 vaccination is administering a vaccine into a person's body to provide immunity against COVID-19, reduce transmission/contagion, reduce morbidity and mortality, achieve herd immunity, and protect the community from COVID-19 in order to remain socially and economically productive(Ministry of Health RI Director-General of P2P, 2021). One of the factors that influence people's behavior regarding the COVID-19 vaccine is knowledge about the COVID-19 Vaccine.

Knowledge is an idea that arises to get information and understand things that are known that can be remembered in the mind so that new ideas or information can be taken. Knowledge is one source of information obtained through human sensing on certain objects(Notoatmodjo, 2018). The general public usually gets knowledge about Covid-19 through information media that is used to find out a problem that is happening in society today. Information is no longer interpreted as information from one person to another but has become a necessity to find solutions to problems that exist at any time (Nurislaminingsih, 2020).

The results showed that people in Lerep Village, West Ungaran Sub-district, Semarang Regency had the behavior for the covid-19 vaccine in almost all categories, namely 6 people (6.0%). In addition, respondents also stated that they were not at the vaccine location for 15-30 minutes so that if there were side effects the vaccine could be handled quickly (31.0%).



The Covid-19 vaccine is considered not halal according to some reports. The process of production and easy dissemination of information in society obscures effective information and is obscured by news edited by irresponsible people. Therefore, the public needs effective knowledge and understanding of the Covid-19 vaccine (Nurislaminingsih, 2020). To increase public knowledge about the Covid-19 vaccine, socialization activities are needed to increase public knowledge about the Covid-19 vaccine and the importance of using masks when leaving the house for health and non-health workers so that perceptions about vaccines become positive. (Cheng, et.al, 2020). One of the factors that influence people's behavior regarding the Covid-19 vaccine is the safety of the Covid-19 vaccine

Vaccines are declared safe if there are no side effects. The safety of the vaccine can be seen in the reports of phase 1 and 2 clinical trials. If the evidence of the results of phase 1 and 2 clinical trials is not good, then phase 3 clinical trials cannot be carried out. Those who got the Covid-19 vaccine were far less likely to get sick than those who got the placebo vaccine (blank) (Sofiatin, 2020).

This study allows for limitations, including in this study only people with uneven or equal characteristics were obtained, researchers did not get respondents with a good education in a balanced number with those with basic education where the level of education affected the acceptance of information which in the end also affected perceptions and behavior. somebody.

### Closing

People in Lerep Village, West Ungaran Sub-district, Semarang Regency have a perception about the Covid-19 vaccine mostly in positive category, namely 93 people (93.0%). People in Lerep Village, West Ungaran Sub-district, Semarang Regency have a behavior for the Covid-

19 vaccine mostly in good category, as many as 90 people (90.0%).

It is expected that people will always update the latest information about the covid-19 vaccine from trusted sources such as the website of the ministry of health, the World Health Organization (WHO), and the health office so that they can distinguish between correct and incorrect information so as to increase perceptions about covid-19 vaccines. Public must always implement health protocols to avoid infection with COVID-19 and protect those around them. Future researchers are expected to be able to improve the results of this research by expanding the research area so as to get a more even sample related to the characteristics of the respondents so that more representative research results are obtained.

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