

# Analysis of Factors Affecting Community View on Covid-19 Vaccination

**Salmiani Abdul Manaf<sup>1\*</sup>, Irnawati<sup>2</sup>**

<sup>1,2</sup>Department of Midwifery, Politeknik Kesehatan Kementerian Kesehatan, Aceh, Indonesia

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## ABSTRACT

Indonesia is a country of law and has issued policies related to vaccination during the covid-19 pandemic, as in the Regulation of the Minister of Health Number 84 of 2020 (Concerning the 2019 War Against Corona Virus Disease (Covid-19) in the context of implementing vaccinations) as described in) pandemic. Judging from the prevalence of Covid-19 cases, the current need is to develop a safe and effective COVID-19 vaccine that can trigger an appropriate immune response to stop the COVID-19 pandemic. Objective: The purpose of this Systematic Review is to analyze the influence of public opinion on the covid-19 vaccination. Methods: Database searches include Google Scholar, Science Direct, and Pubmed with keywords. The keywords used are views, perceptions, covid 19 vaccination, Implementation of Covid-19 Vaccination, Vaccine Effectiveness. The next stage is to select articles according to the criteria, which are published in 2019-2022 with the full text of 13 articles that meet the inclusion criteria. Showing public doubts about the covid 19 vaccination, which was reinforced by the slanted news about the vaccine, some said they died, or got the virus again. So it can be said that people do not understand the use of the vaccine itself. That's. It is hoped that the government's duty is to continue to encourage and campaign about vaccination, because this way we can break the chain of virus spread. The public is asked to be patient in going through this pandemic, because it is not only Indonesia, but the whole world.

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## Corresponding Author:

Salmiani Abdul Manaf, [

1Department of Midwifery,

Poltekkes Kemenkes Aceh,

Jalan Soekarno-Hatta Kampus Terpadu Poltekkes Aceh, Aceh Besar 23352, Indonesia

Email: [salmiani@poltekkesaceh.ac.id](mailto:salmiani@poltekkesaceh.ac.id)

## INTRODUCTION

The vaccination program is a preventive measure taken by the Indonesian government to prevent and reduce the spread of the Covid-19 disease. To achieve this, the government requires all people to be vaccinated. However, the program received various responses from the community, one of which was the rejection of vaccination by some people in Indonesia<sup>1</sup>. The refusal of vaccination is seen as an effort to realize the ideals of moral imagination to be a good Muslim and obedient to the teachings of Islam and to see how social media plays a role in influencing a person's decision to vaccinate<sup>2</sup>. From the analysis conducted, an argument is found that for some Muslims in Indonesia, vaccination is legally forbidden. They believe that in the manufacturing

process, the vaccine uses ingredients from pigs, which are forbidden for consumption. So, to realize the moral imagination of being a good Muslim and obedient to religious teachings, refusing vaccination is a truth and a rational choice for them<sup>3</sup>.

According to the National Covid-19 vaccination data, as of November 5, 2021, there are 59 per 100 total vaccination targets until the final stage of 208,265,7204. The target population for vaccination has received dose 1 as much as 123,433,856 (59.27%) the total population targeted for vaccination has received dose 2 as much as 77,113,810 (37.03%), and total health workers targeted for vaccination have received dose 1 as much as 2,017,520 (137.36%) total health personnel targeted for vaccination have received dose 2 is 1,902,352 (129.52%), the total elderly who are targeted for vaccination have received dose 1 of 8,881,036 (41.21%) the total elderly who have been targeted for vaccination have received dose 2 of 5,490,800 (25.48%), public officers totaling targeted for vaccination have received dose 1 as many as 28,107,965 (162.22%) of the total public officers targeted for vaccination by public officers have received dose 2 as many as 23,115,192.

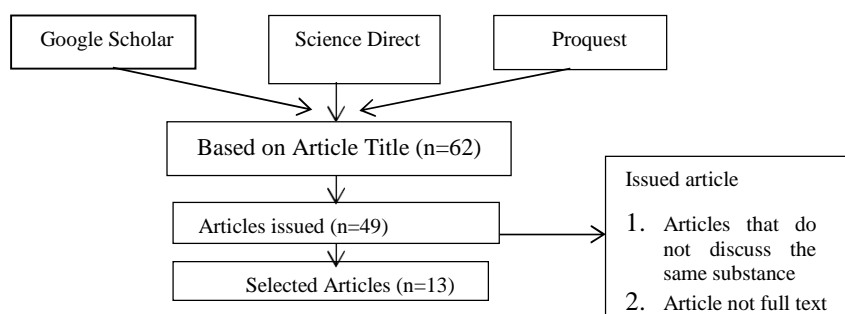
The general public usually gains knowledge about Covid-19 through information media that is used to find out a problem that is happening in society today<sup>6</sup>. Information is no longer interpreted as information from one person to another, but has become a necessity to find solutions to problems that exist at any time. However, in reality, problems arise in the rapid circulation of information. The news is invalid and the source is unclear. Hoaxes about the Covid-19 vaccine caused public panic in the face of the distribution of the Covid-19 vaccine<sup>7</sup>. Moreover, according to some reports, the COVID-19 vaccine is considered not halal and so on. The easy process of producing and disseminating information in society obscures effective information and is obscured by news edited by irresponsible people<sup>8</sup>. Therefore, the public needs effective knowledge and understanding of the Covid-19 vaccine. Therefore, researchers are interested in conducting a review with the title "Analysis of Factors Affecting Public Views on Covid-19 Vaccination.

## RESEARCH METHOD

Database searches include Google Scholar, Science Direct, and Pubmed with the keywords used are views, perceptions, Implementation of Covid-19 Vaccination, Vaccine Effectiveness. The next stage is to select articles according to the criteria limits, which are published in 2017-2022 with full text, in the preparation of Preferred Reporting Items for Systematic Reviews and Meta Analysis (PRISMA) the articles that have been found are then synthesized and analyzed according to the inclusion and exclusion criteria. The inclusion criteria in this systematic review are the public's view of the covid 19 vaccination. While the exclusion criteria in this systematic review are: articles that do not describe the covid-19 vaccination. The search for articles began in August 2022 with keywords that had been determined by the researcher. The articles found by the researchers were selected according to the inclusion and exclusion criteria, with the keywords views, perceptions, Implementation of Covid-19 Vaccination, Vaccine Effectiveness. The researcher deletes the published articles, examines the articles that meet the criteria and groups them according to the research results to proceed to the discussion.

## RESULTS AND DISCUSSION

An initial literature search found 62 articles (Google Scholar 52 articles, Science Direct 11 articles, Proquest 5 articles) 49 articles that were issued were not in sync with the topic of discussion and did not discuss the public's views on covid 19 vaccination. And 13 full text articles met the criteria as listed in Figure 1.



**Table 1.** Flow diagram and article selection

The results of 13 articles showed that the public's view of the covid 19 vaccination was strongly influenced by knowledge, attitudes and perceptions.

**Table 1.** Analysis of Factors Affecting Public Views on Covid-19 Vaccination

No	Title, author, year	Results
1	Factors Relating to Health Workers' Perceptions of the Covid-19 Vaccine at Health Center X  D. Wulandari, A. Heryana, I. Silviana, E. Puspita, R. H, and D. F (2021) <sup>9</sup>	Health workers with negative perceptions 22 people (41.5%), positive perceptions 31% (58.5%), youth 24 people (45.3%), elderly 29 people (54.7%), 33 people (62.3%), 20 men (37.7%), 28 people (52.8%) poor knowledge, 25 good (47.2%), 14 years of new work (26.4%) and 39 years of service work (73.6%). Bivariate analysis showed that there was a relationship between the perceptions of health workers about the COVID-19 vaccine with age (p value = 0.048, PR = 2.115), gender (p value = 0.029, PR = 2.727), knowledge (p value = 0.030, PR = 2,381). There is no relationship between perceptions of health workers and years of service (p value = 0.286, PR = 1.592)
2	Legal System Theory Perspective in Vaccination Policy Amid the Covid-19 Pandemic  David Rismana, Hariyanto. (2021) <sup>10</sup>	The results show that the birth of the vaccination policy in the midst of the COVID-19 pandemic as stated in the Minister of Health number 84 of 2021 in the perspective of legal system theory is in accordance with the legal theories put forward by LM Friedman and Gustav Radburch.
3	Analysis of Covid-19 Vaccination Acceptance Among the Community  Yuni Lasmita, Misnaniarti Misnaniarti, Haerawati Idris. (2021) <sup>11</sup>	The results of the bivariate analysis using SPSS showed that there was a relationship between knowledge (p-value 0.041), availability of access to information (p-value 0.009) and family support (p-value 0.000) with acceptance of the Covid-19 vaccination program, factors that affect acceptance of Covid-19 vaccination in Indonesia. the community includes knowledge, availability of access to information and family support, so efforts are needed to be made to the community in increasing knowledge, access to information related to Covid-19 vaccination and support from families to increase public acceptance of the Covid-19 vaccination program.
4	Socio-Cultural Approach in the Implementation of Covid-19 Vaccination in Indonesia  Ana Fauzia, Fathul Hamdani(2021) <sup>12</sup>	The results show that the success of vaccination is highly dependent on the approach taken by the government, one of which is a collaborative socio-cultural approach and involving community leaders or religious leaders as health agents is very important to educate the public.
5	Knowledge About Covid 19 And Attitude About Covid 19 Vaccine  Alfianur Alfianur(2021) <sup>13</sup>	The results of data analysis showed that respondents had a good level of knowledge as many as 49 people (94%) the rest had a sufficient level of knowledge as many as 3 people (6%) and as many as 47 people (90%) respondents had a positive attitude about the covid 19 vaccine but there were still 5 people (10%) who still have a negative attitude about the covid 19 vaccine
6	Acceptance of a COVID-19 Vaccine in Southeast Asia: A Cross-Sectional Study in Indonesia  Harapan H, Wagner AL, Yufika A, Winardi W, Anwar S, Gan AK, Setiawan AM, Rajamoorthy Y, Sofyan H, Mudatsir M (2020) <sup>14</sup>	Among 1,359 respondents, 93.3% of respondents (1,268/1,359) would like to be vaccinated for a 95% effective vaccine, but this acceptance decreased to 67.0% (911/1,359) for a vaccine with 50% effectiveness. For a 95% effective vaccine, being a healthcare worker and having a higher perceived risk of COVID-19 infection were associated with higher acceptance, adjusted odds ratio (aOR): 2.01; 95%CI: 1.01, 4.00 and aOR: 2.21; 95%CI: 1.07, 4.59, respectively; compared to civil servants, being retired was associated with less acceptance (aOR: 0.15; 95%CI: 0.04, 0.63). For a 50% effective vaccine, being a healthcare worker was also associated with greater acceptance, aOR: 1.57; 95%CI: 1.12, 2.20

- 7 Acceptance of and preference for COVID-19 vaccination in healthcare workers: a comparative analysis and discrete choice experiment  
Fu C, Pei S, Li S, Sun X, Liu P.(2021)<sup>15</sup>  
HCWs had a more in-depth understanding of COVID-19 and showed a higher willingness to accept COVID-19 vaccines with lower effectiveness and/or more severe adverse effects compared to the general population. 76.4% of HCWs (vs 72.5% of the general population) expressed willingness to receive vaccination ( $\chi^2=2,904$ ,  $p=0.234$ ). High levels of willingness to accept influenza (65.3%) and pneumococcal (55.7%) vaccinations were also seen in HCWs. Future COVID-19 disease incidence (OR: 4,367, 95% CI 3.721–5.126), decisions about vaccination among social contacts of respondents (OR 0.398, 95% CI 0.339–0.467), and infection risk >30% (OR 2.706, 95% CI 1.776–2.425) significantly increased the probability of vaccination acceptance in HCWs.
- 8 Knowledge, Attitude and Acceptance of a COVID-19 Vaccine: A Global Cross-Sectional Study  
Dr Kazi Abdul Mannan  
Khandaker Mursheda Farhana(2021)<sup>16</sup>  
Results revealed that two-thirds of respondents were at least moderately worried about a widespread COVID-19 outbreak. Differences in acceptance rates ranged from almost 93% (in Tonga) to less than 43% (in Egypt). Respondents reporting higher levels of trust in information from government sources were more likely to accept a vaccine and take their employer's advice to do so. Systematic interventions are required by public health authorities to reduce the levels of vaccines' hesitancy and improve their acceptance. These results and specifically the low rate of acceptability is alarming to public health authorities and should stir further studies on the root causes and the need of awareness campaigns.
- 9 Determinants of COVID-19 Vaccine Acceptance in Saudi Arabia: A Web-Based National Survey  
Mohammed Al-Mohaithef, Bijaya Kumar Padhi(2020)<sup>17</sup>  
Results Of the 992 respondents, 642 showed interest to accept the COVID-19 vaccine if it is available. Willingness to accept the future COVID-19 vaccine is relatively high among older age groups, being married participants with education level postgraduate degree or higher (68.8%), non-Saudi (69.1%), employed in government sector (68.9%). In the multivariate model, respondents who were above 45 years (aOR: 2.15; 95% CI: 1.08-3.21) and married (aOR: 1.79; 95% CI: 1.28-2.50) were significantly associated with vaccine acceptance ( $p < 0.05$ ).
- 10 Knowledge about, attitude and acceptance towards, and predictors of intention to receive the COVID-19 vaccine among cancer patients in Eastern China: A cross-sectional survey  
Jing Hong, Xiao-Wan Xu, Jing Yang, Jing Zheng, Shu-Mei Dai, Ju Zhou, Qing-Mei Zhang, Yi Ruan, Chang-Quan Ling (2022)<sup>18</sup>  
Results: A total of 2158 cancer patients were enrolled in this study. The rate of vaccine hesitancy was 24.05% (519/2158); further, among the participants of vaccine acceptance, 767 had taken COVID-19 vaccine (35.54%), and 872 were willing to get vaccinated (40.01%). A total of 24 variables including demographic characteristics, clinical status of cancer, impact of COVID-19 pandemic on study participants, patients' knowledge about the COVID-19 vaccine, and attitude towards the vaccine, had significant differences between the "vaccine hesitancy" population and "vaccine acceptance" population.
- 11 Public Perception About Vaccination for Coronavirus Disease 2019  
Sri Susanti Sakkung Lebang, Jeini Ester Nelwan, Fima Lanra Fredrik G. Langi (2022)<sup>19</sup>  
The results of the research on public perceptions in the Malalayang District, Manado City regarding COVID-19 vaccination on respondents who have not participated in the vaccination show that the most perceived percentage is 37.9% and the public perception of respondents who have received the first dose of COVID-19 vaccine shows a good perception and poor perception. each has a percentage of 42.9%. The conclusion of the public perception about the COVID-19 vaccination, not all people have a good perception of the implementation of this program even for respondents who have received the first dose of vaccine.
- 12 Public Perception of the Covid-19 Vaccine in South Sumatra  
Argista, Zisi Lioni And Sitorus, Rico Januar (2021)<sup>20</sup>  
Results: Shows that out of 440 respondents, there are 277 respondents (63%) who have a positive perception of the covid-19 vaccine and 163 respondents (37%) have a negative perception of the covid-19 vaccine. Variables related to public perception of the covid-19 vaccine were knowledge ( $P=0.000$ ), willingness to be vaccinated ( $P=0.000$ ), educational status ( $P=0.038$ ) and marital status ( $P=0.023$ ). The unrelated variables were age ( $P=0.099$ ), gender ( $P=0.411$ ), occupation ( $P=0.593$ ),

history of non-communicable diseases ( $P=0.437$ ), history of COVID-19 disease ( $P=0.716$ ), culture ( $P=0.731$ ), vaccine safety ( $P=0.111$ ) and economic status ( $P=0.183$ ). Then the dominant variable in influencing public perception of the covid-19 vaccine is the knowledge variable with ( $P$  value 0.005;  $PR = 1.592$ ; 95%  $CI = (0)$ ).

13 Factors Relating to Public Acceptance of the Covid-19 Vaccination at the Makkasau Health Center Asrijal Bakri(2022) <sup>21</sup>	Results :The chi square test shows the four factors with a p value greater than 0.05, which means that there is no relationship between these factors and public acceptance of the Covid-19 vaccination.
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### Discussion

Since the government announced the Covid-19 vaccination in Indonesia, the public has been faced with various dilemmas regarding the implementation of this policy<sup>22</sup>. Looking at people's activities on social media, there are still calls from groups that reject the Covid-19 vaccine. In fact, there was 49.9 percent of the total 601 respondents refused to be the first recipients of the Covid-19 vaccine. The level of education and perception of the Covid-19 vaccine stated that the majority of Indonesian people with higher education (diploma-S3) consider the Covid-19 vaccine important, both for themselves and their families. Meanwhile, the types or brands of vaccines that were most frequently referenced were Sinovac (41.8 percent), Pzifer, and Biofarma<sup>23</sup>. Community compliance with 3M's hygiene protocols (i.e. wearing masks, social distancing, and washing hands) remains unsatisfactory. Moreover, building public confidence in a new vaccine will not be easy. Moreover, this vaccination is widely regarded as the "intention" of the government.

There are even suspicions that there is a commercial motive behind the vaccination. The community considers vaccines to be mandatory, regardless of whether they are free or not<sup>24</sup>. but there is still almost 40 percent of the public who do not agree with the mandatory Covid-19 vaccine policy, the majority of which are highly educated people, and this directly has an impact on the negative perception of the community which reduces their willingness to receive the covid 19<sup>25</sup> vaccine. The availability of this vaccine is important not only to protect the public from COVID-19 but also to restore social and economic conditions in countries affected by the pandemic<sup>26</sup>. Vaccinations or immunizations are designed to allow a person's immune system to recognize and quickly fight off the bacteria or virus that causes infection. The goal of the COVID-19 vaccine is to reduce morbidity and mortality from the virus<sup>27</sup>.

While it doesn't 100% protect a person from the coronavirus, this vaccine can reduce the chances of serious symptoms and complications from COVID-19. In addition, the COVID-19 vaccination is designed to promote the development of herd immunity. This is important because some people cannot be vaccinated for some reason. Vaccines are expected to reduce mortality and transmission of Covid-19. However, knowledge and understanding of the widespread issues related to vaccination in the community greatly affect trust and adherence to the program<sup>29</sup>.

Some of these issues include doubts about the safety of vaccines, doubts about the effectiveness of vaccines, distrust of side effects such as fever and pain, and religious reasons. Knowledge and behavior are known to have a relationship with a person's willingness to receive a Covid-19 vaccination. The public's wrong view of COVID-19 vaccination activities is caused by a lack of understanding from the community<sup>25</sup>. It was found that this wrong perception arose due to the lack of good communication from the authorities such as health workers to convince the public about the effectiveness of the COVID-19 vaccine. Another impact that arises if people continue to accumulate doubts and do not allow themselves to be vaccinated is that there will be economic, social and tourism paralysis throughout the world. In addition, the unemployment rate will soar higher and cause other health problems<sup>30</sup>.

## CONCLUSION

It is important to educate the public about the Covid-19 vaccination. Increased knowledge and understanding can encourage awareness of the urgency of vaccination to promote herd immunity during a pandemic. A sociocultural collaborative approach that involves community leaders or religious leaders as health proxies is important to educate the public about the dangers of Covid-19 and the effectiveness of vaccines.

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