



Understanding COVID-19 Vaccination Program Among Indonesian Public: A Challenge and Hope for Government



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Abstract

We analyze publications from various health scientific journals, especially the COVID-19 vaccine program, which succeeded in answering this research problem. We want the COVID-19 vaccine program among citizens in terms of challenges and expectations. Our data retrieval efforts are carried out using electronic applications on data sources based on health publications related to the COVID-19 pandemic and national vaccination programs from Elsevier, Google Book, Taylor & France, Sagepub, Google Scholar, and Researchgate. Furthermore, data analysis involves a system of data evaluation, coding, and interpretation before concluding. With secondary data, we report the results; this paper chooses a descriptive and qualitative analytical approach and literature study. All stages and systems of our research design followed the researcher's direction for a descriptive qualitative review so that we were assisted in reporting the results. We can summarize the results that the vaccine program has received publicly. However, due to the government's limitations so far, public understanding of the vaccine agenda still requires national support and participation, so this is a challenge and hope in completing the COVID-19 response agenda in Indonesia.

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1 Introduction

To combat the spread of COVID-19, governments in many countries are opting for a vaccine approach. The government plans to vaccinate its citizens as many as 181 million residents to strengthen immunity or citizens' immunity against the spread of COVID-19 (Akim, 2021). The immunization campaign is expected to be completed in 15 months, with a target of nearly 200 million citizens across the country with an age limit of 18 to 60 years. For the Coronavirus immunization campaign, the government has selected seven types of vaccines (Piontek et al., 2021). The seven vaccines were chosen because they were considered safe to use and included in the Decree of the Minister of Health. According to the government, the administration of this vaccine is the most appropriate solution to reduce and break the chain of transmission of COVID-19. The vaccine program aiming to have basic immunity against a particular COVID-19 so that if one day exposed to the virus corona, it will only get not symptoms and sickness. So as researchers, we are interested in understanding all those related to the government's plan to respond to COVID-19 through the national vaccination agenda (Pandie, 2020; Putra et al., 2020).

To launch the COVID-19 vaccine program, the government has obtained a supply of vaccines ready to be given to the Indonesian people in stages to combat the COVID-19 outbreak that has been going on since March 2020 (Ismail et al., 2020). The government has controlled how vaccinations are given to the Indonesian people through a Decree of the Minister of Health. Initially, the COVID-19 vaccine was targeted at health workers, who are health workers who are most at risk of contracting the coronavirus. The vaccinations will then be given to government employees, military and Police, media teams, and senior citizens. If this priority group is verified to receive the required two doses of vaccination, the next vaccine will be targeted at geographically, sociologically, and economically vulnerable areas, as well as other groups depending on vaccine availability.

The government has also signed a circular and supply agreement with Novavax for 50 million doses of the recombinant protein subunit platform originating from the United States. Then, using the UK's AstraZeneca virus vector platform, up to 50 million vaccination doses could be produced (Masnun et al., 2021). Only AstraZeneca released efficacy data for all three vaccinations. They are cooperating with Chinese company Sinovac Biotech Ltd. (Allina, 2021). Aliana added that the government's import of COVID-19 vaccines from a legal perspective is legal by state law.

Every individual needs protection at least two doses as a citizen, and the government has produced 15% reserves according to WHO standards; the total required vaccination is around 426 million doses (Piontek et al., 2021). Through the Ministry of Health, the government assures seven types of brands that are safe to be vaccinated by the government, all of which have completed phase I-III clinical studies. Assist the immunization campaign; Sinovac vaccines have been sent to 34 provinces in Indonesia. The government also has a permit for emergency use from the Food and Drug Supervisory Agency, where Sinovac vaccination can be given (Ayunda et al., 2021). The new vaccine will be administered in two phases. The first immunization phase will run from January to April 2021. In 34 provinces, 1.3 million health workers and 17.4 million civil servants (Sulistyaningrum et al., 2021).

About 63.9 million susceptible individuals and another 77.4 million people are immunized in the group during the second vaccination season. Between April 2021 and March 2022, the second phase will take place. Subsequent vaccinations are given to adults over the age of 60, a population of about 21.5 million people. According to Nadia, providing 420 million vaccine injections for Indonesia is difficult. This is because many regions of the world require a similar vaccine. "Because the vaccine production capacity is approximately 6 billion doses," he said, "the need for COVID vaccines has been reduced by half (Caspi et al., 2021).

Several countries have adopted the COVID-19 antivirus. According to the World Health Organization (2021), vaccination was available in 18 countries on January 5. Two of these countries, Qatar and Mexico, used the Pfizer-Biotech vaccine in the first wave of their vaccination campaign. The following countries include Serbia, Kuwait, Switzerland, Costa Rica, Hungary, Slovakia, Czech Republic, Poland, Greece, United Kingdom,

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United Arab Emirates, Saudi Arabia, and Israel. These 13 countries are also using the Pfizer-BioNTech vaccine. Oman, Canada, and the United States are using the Pfizer vaccine (Turner et al., 2021).

2 Materials and Methods

We want to know how people feel about the COVID-19 vaccination program in terms of difficulties and expectations. So, our data search method is carried out by utilizing online applications on data sources based on articles from the medical world about the COVID-19 epidemic and national vaccination campaigns. Elsevier journal publications, Google Books, Taylor&France, Sagepub, Google Scholar, and Researchgate, are some of the data sources we refer to. First of all, data analysis requires a system of data scoring, coding, and interpretation. Due to movement constraints during the pandemic, we collect secondary data. Currently, restrictions on the movement of people are still in place. This article uses descriptive and qualitative methods to describe the findings. This research is also a combination of analytical investigation and literature study. All phases and systems of our research design followed the researcher's direction for a descriptive qualitative review to be assisted with the conduct and reporting of the research (Gholami-Kordkheili et al., 2013).

3 Results and Discussions

Ulama's Appeal

Citing information from the Indonesian Ulema Council of the Riau Archipelago Province, for example, urges local governments not to give Sinovac Vaccine to health workers, government officials, and military and police members as the general public (Siddik, 2021). The cleric there said that his party urged the local government to wait for the study results conducted by the Food and Drug Supervisory Agency and Ulama's version of the Food, Drug and Cosmetic Research Institute Tanjungpinang. The ulama asked the local government not to take the risk. Instead, the vaccine is injected after the Food and Drug Review Agency has completed clinical trials and the Ulama Medical Health Laboratory has completed research on halal or haram goods (Sitepu & Tarigan, 2021) and coupled with the statement that the Fatwa Commission of the Indonesian Ulema Council has issued a fatwa on the halalness of the Sinovac COVID-19 vaccine. According to the MUI Fatwa Number: 02 of 2021, vaccines are sacred and halal. To assess the halalness of vaccines, the MUI is guided by several principles (Allina, 2021). This includes the fact that the vaccine is manufactured in China and can be used by Muslims as long as its safety has been demonstrated.

According to Hilmy & Niam (2020), many of the general public is skeptical of vaccinations actively campaigning by the government. They ask questions because they are elements of society who are very minimally enlightened on the merits and demerits of the COVID-19 vaccine program (Bergman et al., 2006). People's skepticism is understandable because the injection of the vaccine will have an impact on their livelihoods, incredibly shortly with various impacts, even if only for a moment. When BPOM and LPPOM MUI take policies, the uncertainty will be replaced with confidence. Nine out of ten people questioned refused to be vaccinated because they were skeptical (Christina, 2020). This is a joint problem. To avoid the spread of COVID-19, the government emphasized that all health workers and paramedics must be vaccinated with the Sinovac Vaccine. According to Pesulima & Hetharie (2020), medical personnel in Indonesia are also entitled to legal protection of work safety for health workers due to the COVID-19 pandemic. So, the number of health workers now reaches 13,525 who serve and provide health services whose risks are because vaccines have a low risk of side effects. Therefore, the government is very concerned about improving and guaranteeing health and protection for residents, especially medical personnel who are the frontline of safety from the COVID-19 outbreak (Darlenski & Tsankov, 2020; Kim & Su, 2020).

Vaccination purpose

First, all citizens must understand the meaning and benefits of vaccines, which are defined as antigenic compounds used to develop disease immunity (Florindo et al., 2020). Vaccinations consist of agents that look

like disease-causing bacteria and are often derived from them. The toxin from one of the surface proteins of the virus kills or weakens the virus or bacteria. The administration of this substance encourages the immune system to identify it as a foreign agent, kill it, and remember it, preparing the immune system to be neutralized before entering the cell (Coico, 2021). Before the agent can grow, it recognizes and kills the contaminated cells. If it still hurts, the pain will be much less. The purpose of administering the COVID-19 vaccine is to reduce coronavirus transmission, reduce morbidity and mortality, establish community immunity (herd immunity), and protect the community from COVID-19 to remain socially and economically productive (Miller, 2018). Vaccination campaigns are considered more cost-effective than treatment campaigns.

The immunization campaign starts on January 13, 2021, and will end on January 13, 2022. Of course, every vaccine, like any other vaccine, has side effects. The side effects that arise can vary, generally mild and temporary, and not always long, and depending on the body's condition. Effects such as fever and muscle aches, or redness at the injection site are expected but still need to be monitored. So, when compared between the benefits and disadvantages, the vaccine's benefits are far greater than the risk of getting sick from infection if individuals do not get vaccinated (Squeri et al., 2017).

As previously stated, the COVID-19 Vaccination program seeks to build collective immunity so that people may be more productive in their everyday tasks. So, among many vaccinations, the Sinovac brand vaccine, CNN Indonesia (2021), must be given twice after completing the regulatory phase 3 clinical study, according to vaccine specialists. The interval between the first and second injections, however, is 14 days. The coronavirus immunization is administered in four phases, each considering the vaccine's availability, arrival time, and safety profile. COVID-19 vaccination starts with priority groups such as health care professionals and government employees in phase one that has given the Sinovac vaccine an emergency use authorization, or EUA (Emergency Use Authorization) (Parma, 2021).

A total of 125 million doses of the Sinovac vaccine have been delivered to Indonesia. The safety of the COVID-19 vaccination has been established (Hussin et al., 2021; Najman et al., 2020). Mass-produced vaccines have gone through a lengthy procedure and must fulfill the following criteria: safe, efficacious, stable, and cost-effective. Similarly, vaccination safety is guaranteed via many phases of proper clinical testing and adherence to scientific principles, science, and health standards (Nurdiana et al., 2021). As a result, the government only distributes COVID-19 vaccinations that have been proved safe in clinical studies and have been granted an Emergency Use of Authorization (EUA) permission by the Food Drug Inspection Agency (Gandryani & Hadi, 2021).

Vaccine recipients

Those who get the Corona Virus vaccination injection must fulfill specific requirements. Before getting vaccinated, several requirements must be fulfilled at the moment of injection (Indra Martias, 2021). This involves keeping a healthy body state and having a history of the illness that has been or is now being experienced assessed. The following are the requirements and conditions that the COVID-19 vaccine recipient must meet: The vaccine recipient does not have a fever (37.5 °C). If a fever is present, the vaccination may be delayed until the fever has subsided and the coronavirus has been eradicated (Pribakti, 2020). A blood pressure measurement of less than 140/90 mmHg is considered normal. The immunization is postponed until the blood pressure is expected if the blood pressure is too high.

According to Tandra (2021), each candidate for immunization must not have a COVID-19 positive history. Breastfeeding mothers and pregnant ladies under the age of eighteen 140/90 mmHg or higher blood pressure Cough, runny nose, and shortness of breath are all flu symptoms. Have a member of the family being treated for COVID-19 at home seven days before immunization. A blood issue is now being treated. Patients with rheumatoid arthritis and those with renal disease Patients suffering from heart disease (heart failure, coronary heart disease) Patients with autoimmune illnesses that impact the whole body, as well as those who suffer from chronic intestinal issues Patients with HIV who have a CD4 cell count of less than 200 or who have an undetermined CD4 cell count Hyperthyroidism or autoimmune hyperthyroidism patients Patients with blood disorders, cancer, blood transfusion recipients, and immunodeficiency Patients with diabetes mellitus are referred to as people with diabetes (Kurniawan et al., 2021).

Vaccination services

The government will begin accepting online registrations for COVID-19 vaccines for the general public or those aged 18 and above on July 1. The goal of one million vaccinations per day is being met with this universal COVID-19 vaccination ([Watrianthos et al., 2020](#)). People who have not yet had a vaccination injection may register immediately at www.loket.vaksin.com. Munawar and colleagues ([Munawar et al., 2020](#)). Following then, the public may attend the immunization site according to the set timetable. The COVID-19 vaccine is administered to the general population at health institutions that provide vaccination services. Before people could join the program, people had to register as a candidate for the COVID-19 vaccination. Residents may re-register and come on time after they have done so. Officers will use the e-ticket number issued following re-registration and the ID card, Health Check, to verify potential vaccination recipients ([Sari, 2020](#)).

Currently, health checks are performed to evaluate health issues, identify illnesses, and conduct essential physical exams such as monitoring body temperature and blood pressure (administration of vaccines). At this time, the COVID-19 vaccination process will be performed. Officers use pens/markers to write information on the label on the vaccine vial, such as the form, date, and time of opening the vaccination vial, particularly for multidose immunization. Officers provide vaccinations while emphasizing the need for safe injection. The officer entered the intended recipient's name, the population registration number, the name of the COVID-19 immunization, and the vaccine batch number into the database. The officer will tell the vaccination target that he or she must wait 30 minutes ([Parma, 2021](#)).

Understanding the COVID-19 vaccine

One of the most efficient ways to combat the current COVID-19 epidemic is vaccination. Let us learn more about COVID-19 vaccination to be more confident about the need for vaccines to avoid COVID-19 ([Pandie, 2020](#)).

Advantages of the COVID-19 vaccine

Vaccination is an injection of vaccination (antigen) that can increase the development of the immune system ([Makmun & Hazhiyah, 2020](#)). Vaccination is a highly effective primary prevention strategy for preventable diseases. It is hoped that following proper vaccination protocols, optimal immunity, safe injections, and a minimum of Post Immunization Adverse Effects (AEFI) will be achieved. When infected with a virus or disease-causing bacteria, the immune system naturally develops to fight it. Coronavirus infection, on the other hand, carries a significant risk of death and transmission. Therefore, another method is needed to form the immune system, namely vaccination ([Pandey et al., 2020](#)).

The COVID-19 vaccine is given when its safety and efficacy have been proven to lower morbidity and mortality while promoting herd immunity development ([Cohen, 2021](#)). The COVID-19 vaccination aims to maintain and enhance the entire health system, maintain productivity, and reduce the community's social and economic effects. COVID-19 Vaccine Recipients Priority Group The quantity of vaccines now accessible in Indonesia is inadequate to immunize all Indonesians at the same time. Consequently, some groups prioritize receiving the COVID-19 vaccine ([Hodgson et al., 2020](#)).

The following are some organizations for whom the COVID-19 vaccination is a top priority: Health care professionals are at a high risk of contracting COVID-19 and spreading it to others. Because they cannot maintain sufficient distance, members of the TNI/Police, law enforcement officials, and other public service workers are at significant risk of contracting and transmitting COVID-19. Those with comorbidities are more likely to die when exposed to COVID-19 ([SoleimanvandiAzar et al., 2021](#)). After all of the priority mentioned above groups have received the COVID-19 vaccine, vaccination will be extended to include other groups of COVID-19 vaccine recipients, beginning with individuals in regions with a high number of COVID-19 cases and expanding to all parts of Indonesia.

Recipients' requirements

People from all walks of life have been queuing to be vaccinated since the Food and Drug Administration (FDA) announced in January that the Sinovac Vaccine had been given an Emergency Use Permit ([Handayani, 2021](#)). Between January and February 2021, the first phase of administering the Sinovac Vaccine is completed, with most recipients being healthcare workers. Second-tier beneficiaries include the elderly, public servants, educators, market merchants, religious leaders, community representatives, state and government officials, security officers, transportation officers, tourist sector employees, journalists and media workers, and athletes ([Arianto, 2021](#)).

The Ministry of Health published a Circular on COVID-19 Vaccination for the Elderly, Comorbid, and COVID-19 Survivor Target Groups and Delayed Targets following the COVID-19 facsimile's suggestion ([Katuuk et al., 2021](#)). As a consequence of this new circular, several groups that were previously 'contraindicated' from receiving vaccinations have been 'allowed to get the vaccine with specific restrictions and conditions, according to the Ministry of Health. The elderly were the first group to be mentioned in the circular, and they were given two doses of Sinovac Vaccine with a 28-day interval between them ([Montalvo Zurbia-Flores et al., 2021](#)). Because the Sinovac Vaccine clinical research, including senior respondents, has not been finished and has disclosed results, both in terms of safety and efficacy, the elderly are still deemed 'contra indications' for vaccine recipients in the first round of vaccination yesterday. However, after senior participation in the Sinovac Vaccine clinical trials in Brazil and Turkey, the BPOM and Ministry of Health reconsidered giving the Sinovac Vaccine to the aged ([Wijayanti, 2021](#)).

Roadmap for vaccines

The government creates a strategy or roadmap for the COVID-19 vaccination campaign in two phases. When and how should potential vaccination recipients apply? Like many other nations across the globe, Indonesia began a free COVID-19 vaccination program in January 2021. President Joko Widodo was the first to get a vaccination shot at the State Palace. As of April 6, 2021, 8.9 million individuals have gotten the first injection, according to the Task Force for the Acceleration of Handling Covid-19. The second injection was given to 4.3 million individuals. When does the applicant need to get vaccinated? Vaccine recipients may have questions. Many prospective vaccination recipients may wonder why everyone else is immunized except them. Before we get into this, it is essential to understand why the COVID-19 vaccine was created in the first place. According to [Boschiero et al. \(2021\)](#), the goal of vaccination is to establish community immunity, often known as herd immunity, with a timeline that includes: Phase 1: (January-April 2021). The COVID-19 vaccination phase 1 campaign includes health professionals, assistant health workers, support staff, and students pursuing professional medical education who work in Health Service Facilities (Fasyankes).

The second phase (January-April 2021)

The following objectives are included in Phase 2 of COVID-19 immunization:

- a) Public service personnel at airports/ports/stations/terminals, banks, state power providers, and regional drinking water corporations, such as the Indonesian National Army/Police of the Republic of Indonesia, law enforcement officials, and other public service officers. Senior citizens (those over 60 years old).
- b) The third phase (April 2021-March 2022)
- c) Furthermore, stage 3 of the Covid-19 vaccine focuses on susceptible groups' geographical, sociological, and economic aspects.
- d) 4th Stage Phase (April 2021-March 2022). The government's COVID-19 immunization stage 4 program is aimed at the community and other economic players, using a cluster strategy based on vaccine availability ([Ezalina et al., 2021](#); [Gurning et al., 2021](#)).

The goal of the vaccination campaign

The government has created a strategy or roadmap for the COVID-19 immunization program (Pandie, 2020). The vaccine availability, population, danger region, phase of usage, and use index all play a role in this pathway, including estimated vaccination platform systems, target populations, anticipated needs, and vaccine delivery methods. To develop herd immunity, the government has set a target for all people over 18 to be vaccinated. Residents in this age range, on the other hand, will be eliminated as vaccination targets if they meet any of the following three criteria: uncontrolled comorbidities, pregnancy, or COVID-19 exposure in the three months previous to the injection date.

Because no COVID-19 vaccine for children had been produced at the time of the plan, the vaccination campaign is only for those over the age of 18. As a consequence, the government intends to vaccinate 180 million people following the immunization mentioned above program. Given that the vaccine needs two injections and an anticipated 15% vaccine loss rate, the Ministry of Health will need 426.8 million vaccine doses (Isakh & Suryatma, 2021). To fulfill the demand, the government has placed a definite purchase for 300 million doses of vaccine. Meanwhile, the government can increase orders with vaccine producers to make up for the vaccine dosage shortfall. If one of Biofarma's vaccine providers is interrupted, the government develops a strategy to enhance Biofarma's capabilities. For example, the government offers various registration alternatives for the elderly (Alifah & Yunita, 2021).

As previously said, this health research aims to acquire a better knowledge of the COVID-19 vaccine's function for people, which is both a challenge and a hope in the government's attempts to stop the coronavirus from spreading in Indonesia. In general, our research has examined and analyzed a large amount of material on the concepts and advantages of the COVID-19 immunization program, which seeks to build herd immunity so that individuals may be more productive in their everyday tasks (Masnun et al., 2021). Our research attempts to address the advantages and drawbacks of the COVID-19 vaccination program, which has proven numerous benefits and goodness from a medical perspective, by looking at the variety of public reactions to this vaccine program (Agustiarasari et al., 2021). Similarly, mass-produced vaccinations have a lengthy procedure and must satisfy the following criteria: safe, effective, stable, and cost-effective.

The vaccine's safety is guaranteed via many phases of proper clinical testing and adherence to scientific norms, science, and health standards (Abdullah, 2021). The government only provides COVID-19 vaccinations if they have been proved safe in clinical studies and have received an Emergency Use of Authorization (EUA) authorization from BPOM (Dewi, 2021). Furthermore, our results show that this vaccination program has no long-term health effects on the pandemic. Indeed, short-term COVID-19 vaccination users may suffer health effects that persist weeks to months after being pronounced healed. However, there have been reports of long-term side effects such as tiredness, trouble breathing or shortness of breath, coughing, joint discomfort, and chest pain. However, since the number is so tiny, we can safely infer that the COVID-19 vaccination program has more advantages than drawbacks, as many people believe (Sari, 2020).

In terms of the challenges identified by this study, namely the state of the community and the government's ability to organize this vaccine program, we can at least conclude that there is a lack of supply or supply of the vaccine itself compared to the number of potential vaccine recipients, among other things (Abdin et al., 2020). Other issues include developing/developing nations' lack of access, coverage imbalances, and the fair distribution of vaccination logistics across distant regions (UTH, 2021). According to Andersen & Rocabado (2021), the challenges in handling vaccines in developing countries include the assumption of herd immunity for 70% of the population. However, the country requires nearly 200 million doses of the COVID-19 vaccine, assuming a balanced distribution across all provinces in Indonesia. With average peak demand for all Covid-19 vaccines in Indonesia at just around 25% of doses given, the 70% shortfall raises worries about the country's capacity when the economy is down (Reis, 2017).

While industrialized nations have succeeded with vaccination programs, Indonesia is presently the worst-managed country in COVID-19 management. Not to add the growing worry about Emergency Utilize Authorization (EUA) due to the rush to use clinically proven vaccinations, which is inevitable (Verna et al., 2020). Low-income countries are rapidly approaching 50 doses of the COVID-19 vaccination per 100 people. In contrast to residents of industrialized nations, the population of its citizens has reached 70/100. Developing nations, such as Indonesia, are still battling access to and pledges to acquire the COVID-19 vaccine

from different manufacturer brands and community circumstances that must align with the vaccination program that the government is actively fighting for (French et al., 2020).

4 Conclusion

This section will summarize the results of our study, which aims to understand Indonesian citizens on the COVID-19 vaccine program, which is both a challenge and a hope. Based on the review and discussion of this study, that in Indonesia, an appeal from organizations is needed not to oppose the COVID-19 vaccination. So that this vaccine is the recipient of the COVID-19 vaccine that has the proper understanding, based on the majority of people still believe in the conspiracy idea of the global elite that vaccines are being developed for the benefit of pharmaceutical companies or to implant microchips into their bodies. The data from our study of residents in various regions requires a correct understanding of the results of an in-depth study. On the other hand, another challenge from the government is that the distribution of vaccine logistics is still not evenly distributed so that all citizens can quickly get vaccine injections with complete understanding and support from medical professionals, both understanding and benefiting from the COVID-19 vaccine, where more and more people receive confusing information during the COVID-19 campaign vaccine.

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