# Chapter 17 Management of Vaccines During the COVID-19 Pandemic and Distribution Techniques in Indonesia

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### **ABSTRACT**

In the current Covid 19 period, everyone cares about their own health, this is because the spread of Covid is very fast and of course not visible, and can be transmitted through the air. Therefore, it is highly recommended that we use masks during activities and routinely replace them within a few hours. After a long time, finally a vaccine has been found and immediately given to all people in the world and of course the vaccine is different depending on the policy of the country. In this article, the author wants to explain more about several vaccines that have been used in Indonesia, and also how to manage them so that they can be distributed properly.

### INTRODUCTION

Corona Virus Disease 2019 or commonly abbreviated as Covid-19 is an infectious disease caused by SARS-CoV-2, a type of coronavirus. This disease attacks the respiratory tract and is one of the biggest causes of death in the world (Fuady et al., 2021) For the last two years Indonesia has been under attack by the Covid-19 pandemic. This virus was first detected in the City of Wuhan, China in December 2019. In 2021 WHO (World Health Organization) confirmed that there were 223 countries affected by the virus, this number is increasing and spreading throughout the country due to the ease of spread. In Indonesia alone, Covid-19 was first announced after the first case on March 2, 2020. Covid-19 itself is included in the seventh family of corona viruses that can attack the human respiratory tract. For the spread of Covid 19 is through air breathing (droplets) that are produced when someone coughs or sneezes. (Hanifa et al., 2022). The incubation period for this virus is 1-14 days. The government has taken various ways to

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suppress the spread of Covid-19, namely by implementing social distancing, a work-at-home system, and the establishment of PSBB (Large-Scale Social Restrictions). As of February 2021, confirmed CO-VID-19 infections in Indonesia had reached 1 million cases with an alleged 27,000 deaths. The actual number of cases and deaths is potentially higher than known figures. After waiting for almost a year, finally a vaccine for Covid-19 was found, various countries around the world found various findings for the use of vaccines to be distributed.

Vaccination is done to give the body immunity against certain diseases so that it can relieve if one day we are exposed to the disease. if you are not vaccinated, you will not have better immunity to the diseases that vaccines would normally prevent. If vaccination coverage is high and evenly distributed, herd immunity will be formed. Herd immunity can be achieved in two ways, namely naturally and by injecting drugs or vaccinations (Hardy, 2020). The Covid-19 vaccination is carried out after clinical trials and certainty that it is safe and halal from several related parties. Vaccines have more benefits than side effects. Vaccines can provide higher antibodies and provide protection against the Covid-19 virus.

The administration of vaccines in Indonesia began for the first time in January 2021, the President of the Republic Indonesia, Joko Widodo, who first received the vaccine injection. The type of vaccine used is the Sinovac type originating from China, the selection of the vaccine has been declared safe by the POM and has been declared halal by the MUI. Before administering the vaccine, there are four stages that will be carried out by prospective recipients, namely the registration stage, verification of participant data, and giving informed consent, followed by a screening process in the form of history taking and other health checks. The last stage is that participants will be monitored and observed for 30 minutes to anticipate if an unwanted response arises.

Vaccines are ready to be given to all Indonesian people, but the challenges in each distribution are quite heavy because Indonesia's territory is large so that many areas are difficult to reach by public transportation. This causes delays in administering the vaccine. The management of vaccine distribution carried out by the Indonesian government is by giving the first vaccine to several priority people such as health workers, public sector employees, and elderly parents. The government has confirmed 300 million doses of vaccine from Sinovac, Pfizer, AstraZeneca, and other CEPI initiative vaccines, but the initial available dose in the first 6 months does not exceed 50 million doses. Hmm. Limited vaccines should also be distributed to 34 provinces in Indonesia.

### **BACKGROUND**

Vaccine management during the COVID-19 pandemic must be carried out properly and accurately and must be able to prioritize people who need it more. Indonesia itself has several types of vaccines that are ready to be given to all Indonesian citizens and of course the vaccine is given in stages as will be determined, namely the administration of the first dose of vaccine, the second dose, and a third dose if needed. But basically, educating the public to be able to make vaccination easy, of course, considering that pandemic cases like this have never happened before, so that some people are afraid to be vaccinated. They worry about what ingredients are in the vaccination and what is important for the body. This is what hinders the spread of the vaccine as a whole.

So far, no cure has been found for this, but the discovery of vaccines is being developed in different countries around the world. It should be underlined that the vaccine is not a drug but a weakened virus so that it will provide immunity to certain diseases and can relieve if one day we are exposed to the disease.

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