

## Before and After COVID-19 Outbreak: Indonesia as a Successful Story of WHO Global Health Diplomacy

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### **Abstract**

After the Spanish flu pandemic in 1920s, the world experienced another one named the COVID-19 pandemic in 2019. It has significantly impacted human life in various aspects. In response to this, not only countries but all actors in international relations take part including the World Health Organization (WHO). One of its moves was the formation of the ACT-Accelerator, which includes four pillars of COVID-19 management namely diagnostics, therapeutics, vaccines, and the health systems and response connector. In this case, WHO formed a multilateral cooperation called COVID-19 Global Access (COVAX). This collaboration incorporates several international organizations and agencies; namely, GAVI, CEPI, and UNICEF. COVAX aims to provide equal access for countries that need vaccines, especially developing countries. This study examines the global health diplomacy strategy carried out by the World Health Organization in procuring world vaccines through the COVAX program in Indonesia. The authors used a descriptive qualitative method with secondary sources to analyze the phenomenon in this study. Based on the conceptual framework, namely international organizations and global health diplomacy, the authors analyze the strategies pursued by WHO in realizing global health in Indonesia. This study found that the efforts of WHO global health diplomacy through the COVAX program to Indonesia include conducting vaccine research and development and raising funds and negotiating vaccine purchases. This study finally argues that the COVAX program serves as a concrete example of how WHO's global health diplomacy strategies are implemented, offering a detailed case study of international cooperation in vaccine distribution.

**Keywords:** WHO, Global Health Diplomacy, COVID-19, COVAX Program, Indonesia

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## Introduction

Globalization impacts awareness of vulnerability and a sense of shared responsibility for inequality in today's global society, especially in the health sector (MacFarlane, Jacobs, and Kaaya 2008). The number of people moving across national borders worldwide is increasing daily due to increased trade, tourism, and migration. This phenomenon nullifies once-pertinent geographical boundaries on disease, wherein the term "global health" becomes relevant. There are several definitions of global health. Koplan et al. (2009) proposes the following definition: "areas of study, research, and practice in which equality in health may be enhanced for all people across the world, and health promotion is a high goal. The individual-level clinical treatment combines population-based preventive focusing on global health concerns, determinants, and care. Furthermore, this encompasses a wide variety of research inside and outside the sciences and supports cross-disciplinary collaboration." Beaglehole and Bonita (2009) further define global health as "research and collaborative activities undertaken transnationally to advance universal health, highlighting the urgent need for collaboration."

Global health looks at public health problems from a global perspective, identifies globally prevalent issues, and collaborates to solve and manage them (Luerdi and Setiawan 2022: 29-30). Several global health problems, including non-communicable diseases that occur in various countries, can be addressed through global health policies. The revelation of a pandemic that quickly spread to numerous countries surprised the world at the end of 2019. It is a respiratory disease atypical in Hubei Province, Wuhan, China, in December 2019. SARS-CoV-2 (later called COVID-19) was officially announced on 11 March 2020. The World Health Organization (WHO) said this would be a pandemic (World Health Organization 2020e). As a result, this problem has become a worldwide threat. For this reason, WHO is the leading actor in health matters which is also responsible for global health and overseeing all planning and handling of COVID-19 (World Health Organization 2020a). As a first step, for the first time, the WHO sent a delegation to review the spread of the coronavirus and learn first-hand how the Chinese authorities reacted. During the initial stretch of COVID-19, WHO also released several health guidelines and sent technical assistance to member countries in need. Regarding handling COVID-19, WHO has three strategies to limit the transmission of COVID-19: (1) build international coordination and operational support; (2) improve state preparedness and response; and (3) accelerate research and innovation.

Establishing the Access to COVID-19 Tools (ACT) Accelerator is one of the initiatives of the third method mentioned above. The ACT-Accelerator focuses on four pillars: (1) diagnostics; (2) therapeutics; (3) vaccines; and (4) the health systems and response connector (Pandey 2020). WHO develops international health standards and helps its members deal with health problems. From a historical perspective, the WHO's position as an international organization is that it works under the United Nations (UN) organization to ensure the best quality of health for everyone. The Millennium Development Goals (MDGs) and their successor, the Sustainable Development Goals (SDGs), must be supported by WHO and its parent organization, namely the United Nations. WHO's work is outlined in its constitution, which categorizes its core tasks into three groups: (1) normative duties, such as those related to non-binding international agreements, rules, standards, and recommendations; (2) coordination tasks, such as those connected to health for all, poverty and health, and their fundamental treatment activities and disease-specific programs; and (3)

research duties and technical collaboration, including disease control and emergency response (Burci and Vignes 2004).

WHO, together with the Global Alliance for Vaccines and Immunization (GAVI) and Coalition for Epidemic Preparedness Innovations (CEPI), created the COVID-19 Vaccines Global Access, commonly known as COVAX (Berkley 2020). This program is multilaterally-based in order to procure and distribute COVID-19 vaccines worldwide. COVAX is the third pillar or vaccines pillar of the Access to COVID-19 Tools (ACT) Accelerator, that was established due to the epidemic (World Health Organization 2020c: 5-6). Country preparedness and delivery workflows supporting recipient countries, as they are ready to receive and dispense vaccines, are also overseen by WHO and United Nations Children's Fund (UNICEF) (World Health Organization 2020c: 13). COVAX's membership constitutes 184 countries as of 19 October 2020, including India, Canada, Egypt, Afghanistan, Colombia, South Korea, Saudi Arabia, Uruguay, Armenia, Malaysia, and Indonesia (Sharafudeen et al. 2020).

On Monday, 2 March 2020, Indonesia reported its first case of COVID-19. At that time, President Joko Widodo revealed that two Indonesian citizens had been diagnosed positive for the Coronavirus. A Japanese citizen traveling to Indonesia was suspected of having carried the first case. About half of the COVID-19 patients in Indonesia came from the Special Capital Region (DKI) Jakarta area within the first month it was reported (Olivia, Gibson, and Nasrudin 2020). Regarding the number of fatalities and the addition of everyday issues, Indonesia ranked first among Southeast Asian nations in instances of COVID-19. Data has shown 592,900 positive cases as of 10 December 2020, which led Indonesia to become the country with the most COVID-19 cases in Southeast Asia. Indonesia was also ranked 20th globally, 4th in Asia, and 1st in ASEAN (Sinuhaji 2020). Indonesia must take additional precautions to reduce the prevalence of COVID-19 cases (Abhipraya et al. 2021; Candra and Zhafran 2023). The formation of the Task Force for the Acceleration of Handling COVID-19 on 13 March 2020, with other rules, was Indonesia's first step in combating COVID-19 (Djalante et al. 2020). In addition to these efforts, Indonesia is conducting bilateral and multilateral diplomacy in the health sector with various countries and international organizations in tackling this issue.

As a member of WHO and COVAX, on 21 September 2020, WHO, together with GAVI, began directing Indonesia and 91 other vaccine recipient countries regarding the mechanism and schedule for vaccine distribution to each recipient country (World Health Organization 2020b). Delivery of vaccines from COVAX in the first batch began with a total of 1.1 million doses of the AstraZeneca vaccine on March 2021 (Untari 2021). The COVAX program is expected to be able to restore stability to the country in various fields that have been affected so that it can recover.

Based on the aforementioned explanation, it shows several handling efforts carried out by WHO in the case of COVID-19. This research is intended to discuss the role of WHO in efforts to procure world vaccines through the COVAX program as an effort to create global health. This research will primarily examine the actions made by WHO before and during the COVID-19 era, notably when the COVAX program was launched to provide vaccines in Indonesia. Employing a conceptual framework; namely, international organization and global health diplomacy, the authors argue that WHO carries out two strategies in procuring world vaccines through the COVAX program as an effort to create global health in Indonesia, as follows: (1) in accordance with its role as an international organization for research and technical cooperation, WHO supports

global vaccine research and development; and (2) raises funds and negotiates vaccine purchase. According to global health diplomacy, WHO is using these efforts to ally in improving health and well-being in Indonesia.

## Literature Review and Concepts

This research subscribes to two concepts; namely, international organization and global health diplomacy – which have been employed to define objectives and illustrate how the WHO has been engaged in Indonesia.

### A. International Organization

In the international sphere, instruments are needed to become intermediaries between countries, actors, and individuals to carry out their goals. International organizations are considered capable of influencing countries indirectly. Mas'ood (1990) defines an international organization as a group of countries united by agreement to achieve common goals. On the other hand, Archer (2001) explains that an international organization is a formal and durable structure formed by an agreement between members (government or non-government) of two or more sovereign countries to further their shared interests.

The function of an international organization is the method with which it performs operations towards its overarching purpose. Perwita and Yani (2014: 97) describe the functions of international organizations as follows: (1) Providing the necessary conditions for international cooperation, which provides a great deal of benefit to all countries; and (2) building multiple avenues for intergovernmental communication to find solutions when problems arise.

To achieve its goal, every international organization has an organizational structure. If this structure works well, the organization will accomplish specific tasks. The following are the tasks of international organizations: (1) forum to advancing cooperation and prevent or reduce the intensity of disputes (between members); (2) means for negotiations and reaching mutually beneficial agreements; and (3) as a separate organization carrying out the necessary tasks (social activities, humanity, environmental preservation, peacekeeping, and others) (Perwita and Yani 2014: 95-97). With these in mind, the concept of the international organization remains appropriate to employ because it refers to the subject of this research.

### B. Global Health Diplomacy

According to Kickbusch et al. (2021), Blumenthal (2007), and Mol et al. (2021), global health diplomacy is a multi-level and multi-track concept of discussing global policies in health and non-health forums. With the help of global health diplomacy, non-governmental organizations (NGOs) can coordinate their efforts and work together to improve public health. It also provides a much-needed opportunity to forge global links between governments and the business sector. Citizens of each of the participating countries may benefit from better health insurance. Global health diplomacy is thus an essential platform for discussing international policy issues that affect and shape the world health environment in a changing global context. The main objectives of health diplomacy include the following (World Health Organization 2022a): (1) better population health and health insurance; (2) strengthening international relations and dedication of various parties to

collaboration on improving health; and (3) equitable outcomes that advance the goals of increasing equality and reducing poverty.

Global health diplomacy is a concept and procedure for formulating policies and using negotiation tactics to achieve political, economic, and social goals (Gagnon and Labonté 2013). WHO mentions that global health diplomacy is an attempt to find political answers to global health challenges that call for political dialogue, and that economic, social, and political partners are involved in creating these solutions. Kickbusch et al. (2021) has outlined seven pillars of global health diplomacy, which can be carried out multilaterally. They are as follows: (1) negotiating to enhance health and well-being in the case of conflicting interests; (2) creating governance structures that promote health and well-being; (3) creating alliances to support health and well-being; (4) establishing and maintaining connections with donors and stakeholders; (5) dealing with public health issues; (6) improving diplomatic affairs through health and well-being; and (7) helping to maintain peace and security. The concept of global health diplomacy in this study refers to a particular kind of multi-level, multi-actor tool used in the health sector to promote global health. The authors focus on the third point of the seven dimensions described by Kickbusch et al. (2021), that is, creating alliances to support health and well-being, particularly, in this case, in Indonesia.

### **WHO Global Health Diplomacy in Indonesia Before the COVID-19 Outbreak**

WHO performs activities as an international organization based on studying health history, notably in the previous 60 years. It helps the global public health community handle today's issues and shape a healthier future for all people, especially the most vulnerable. WHO's mission remains firmly founded in the 1948 Constitution's core values of the right to health and well-being for everyone (World Health Organization 2022b). WHO has also been actively assisting Indonesia in controlling a number of diseases through programs such as the following:

#### **A. Handling of Malaria through the Global Malaria Program (GMP)**

Plasmodium, a pathogen that causes malaria, an acute fever sickness, is transmitted by Anopheles-infected female mosquitoes (World Health Organization 2023b). By 2020, over half of the global population will be at risk of contracting malaria. Newborns, young children, pregnant women, people living with HIV/AIDS, and those with low immunity who move to malaria-endemic areas are all at a substantial risk. Nomadic populations, migratory laborers, and tourists have a higher risk of getting sick and spreading the disease, with catastrophic potential repercussions (World Health Organization 2023b).

The Global Malaria Program (GMP) expands on WHO's world malaria management and control initiatives. The World Health Assembly approved an international technical plan for malaria from 2016 to 2030 in May 2015, together with provisions made for 2021, which acts as a direction for its actions. GMP is committed to providing support to member states in achieving global technical and strategic targets through: (1) creating and distributing standard guidelines and policy directions for malaria prevention and eradication in countries; (2) providing support to countries as they adopt, implement, and adapt WHO worldwide guidelines for malaria prevention and control; (3) assisting countries in developing national malaria strategic plans; (4) assisting countries

in creating effective malaria surveillance systems; and (5) responding to request from countries to resolve biological and operational disasters (World Health Organization 2015).

As part of its fundamental mission, GMP keeps an independent score of global progress in combating malaria. The Malaria Policy Advisory Group (MPAG) provides strategic and objective advice to WHO on all forms of malaria control and elimination policy, thereby supporting the department's activities (World Health Organization 2015). Indonesia is one of nine Southeast Asian countries where malaria is prevalent, accounting for 15.6% of all malaria reports and 22% of malaria deaths. WHO continues to provide direct assistance to the Indonesian Ministry of Health by generating information, formulating national policies and strategies, improving case management, and updating monitoring and data management. Cases of malaria in Indonesia decreased from 1.1 million to 659,000 in the period from 2015 to 2019, and approximately 75% of the Indonesian population now lives in malaria-free areas. Since November 2018, WHO has offered sub-national assistance to nine poorly-performing regions with medium to low endemicity. The Ministry of Health has proclaimed two of the nine districts malaria-free, while one has been certified malaria-free, having recorded no indigenous cases since January 2019 (World Health Organization 2021).

WHO has provided sub-national technical support to nine districts throughout four provinces on the Indonesian island of Java since November 2018. It also supplied technical assistance to the design and implementation of the national electronic malaria surveillance information system (SISMAL), as well as training 786 health workers from nine provinces, 128 districts, and 422 health institutions on how to utilize it (World Health Organization 2021). Furthermore, over the years, WHO's technical and financial assistance to Indonesia's malaria eradication agenda has helped create evidence, boost malaria case management, improve quality assurance of diagnosis, monitoring, and information systems, and formulate national strategic plans and policies. WHO has assisted Indonesia in modifying and accepting global norms and standards depending on local circumstances, as well as developing the skills and abilities of the national and local workforce.

## **B. Handling of HIV-AIDS through the Global Program on AIDS**

The human immunodeficiency virus (HIV) infection targets the human immune system. HIV damages white blood cells, decreasing the human immunity of the body to serious diseases such as TBC and inflammatory disorders, severe bacterial infections, and certain kinds of cancer (World Health Organization 2024). A tourist from the Netherlands who died at Denpasar's Sanglah Hospital in April 1987 was the first case of AIDS ever reported in Indonesia. Initially, it was gay men, commercial sex workers, and their clients who contracted HIV/AIDS in Indonesia (Susilo et al. 2007). Indonesia received a red score for HIV/AIDS prevention efforts in 2014 from the Joint United Nations Programme on HIV/AIDS (UNAIDS). Because only 8% of people living with HIV and AIDS (PLHIV) receive antiretroviral (ARV) treatment, the number of AIDS deaths in Indonesia remains high (Sutriyanto 2014). After China and India, Indonesia has the third highest number of people in the world living with HIV (640,000). Indonesia's prevalence is only 0.43%, which is below the pandemic threshold of 1% (Tempo 2018).

In addition to treating HIV/AIDS cases directly, WHO has a number of programs designed to stop the spread and expansion of the disease around the world. One such program is the WHO Global Program on AIDS, which promotes a public health approach to curbing the spread of

HIV/AIDS through HIV prevention, treatment, treatment, and support. The plan sets out goals and guidelines for efforts to prevent and combat HIV on a local, national, and global scale, including requiring each country to have a tolerant and non-discriminatory social infrastructure. WHO cooperates with 6 regional branches and 191 countries in establishing norms and standards in accordance with scientific evidence to help realize the goal of universal access. WHO's Global Program on AIDS is concentrated in these five important areas: (1) providing individuals with opportunities to determine their HIV status; (2) increasing the role of the health sector in preventing HIV; (3) accelerating the treatment of people with HIV; and (4) strengthening and expanding medical systems (Putri and Rani 2016).

### **C. Handling of Avian Influenza through the Global Influenza Surveillance Response System (GISRS)**

The term "bird flu" denotes an illness triggered by avian influenza (flu) virus infection. This virus can infect farmed poultry, a wide range of birds and mammals, and wild waterbirds worldwide. Bird flu viruses seldom infect humans. However, there have been sporadic reports of human infection with the avian influenza virus. Birds serve as the virus's natural host. Following an epidemic of the A(H5N1) virus in poultry in Hong Kong SAR, China, in 1997, the bird flu virus has migrated from Asia to Europe and Africa since 2003 (World Health Organization 2023a). Between January 2004 and the end of October 2006, there were 258 human cases and 153 fatalities in Vietnam, Thailand, Cambodia, China, Iraq, Turkey, Egypt, Djibouti, Azerbaijan, and Indonesia. As a result, this case is thought to result from H5N1 transmission from poultry to people via physical contact with sick hens (Parry 2007).

WHO continues to intensively monitor avian influenza and other wildlife infections as part of its duty as a global health authority through the Global Influenza Surveillance and Response System (GISRS). In partnership with the Food and Agriculture Organization (FAO) and the World Organization for Animal Health (OIE), WHO maintains research on human involvement, analyses related risks, and organizes responses to zoonotic influenza epidemics and other health hazards (World Health Organization 2023a). Through establishing the two Influenza Teams: Global Influenza Program (GIP) and Pandemic Influenza Preparedness Framework (PIP), WHO provides recommendations, develops, and modifies surveillance, readiness, and response methods for seasonal, zoonotic, and pandemic influenza to improve local and global preparedness and response. Pandemic influenza preparations include sharing information on influenza viruses, access to vaccinations, and other advantages (WHA64.5). WHO also communicates risk assessment findings and action recommendations with member nations as soon as possible (World Health Organization 2023a).

Since the emergence of H5N1 visual acuity cases in 2007, the Indonesian government has fought to ensure that underdeveloped countries can benefit from vaccines derived from Indonesian virus strains. With this, Indonesia responded positively to the World Health Assembly's (WHA) Resolution on the PIP (Pandemic Influenza Preparedness) Framework: Sharing Influenza Viruses, Access to Vaccines, and Other Benefits in Geneva in 2011 (Roedyati 2013).



## Methods

This research employs a qualitative method with a descriptive analysis approach. The qualitative method investigates and understands phenomena, focusing on what occurred and how it happened (Chariri, 2009). Meanwhile, the descriptive analysis approach is defined as a problem-solving procedure that examines research subjects or objects – such as individuals, groups, organizations, or institutions – based on facts presented either in written or unwritten form (Nawawi, 2015). In this study, the author adopts a qualitative method with a descriptive analysis approach because it effectively describes and analyzes the global health diplomacy strategies implemented by the World Health Organization (WHO) in procuring vaccines worldwide through the COVAX program in Indonesia.

## Results and Discussion

### WHO Global Health Diplomacy in Indonesia Before the COVID-19 Outbreak

WHO's diplomacy relies heavily on global health diplomacy. Health diplomacy is utilized to supply medical health facilities in a health emergency. Access, affordability, and fairness of health care have become significant challenges within the COVID-19 framework, particularly for low-income countries, due to inadequate health facilities, severe poverty, and limited research and development funding. The first vaccines were created by industrialized countries like China, the United States, the United Kingdom, Russia, and India. According to reports, wealthy nations are storing the majority of COVID-19 vaccines (Singh and Chattu 2021). It should be noted, however, that there is no parity among developing countries. Some countries have attempted to vaccinate their whole populations. At the same time, other states provide their nations with nothing.

Recognizing developing nations' relative inability to access and purchase the COVID-19 vaccine, the WHO launched the COVID-19 Global Access (COVAX) program, which is the vaccine pillar of the Access to COVID-19 Tools (ACT) Accelerator. The COVID-19 vaccine is critical in conquering the pandemic, given the varying levels of efficacy of other methods in avoiding COVID-19-related sickness and mortality in numerous nations. The sooner a vaccine is created, the sooner the globe can recover from an acute pandemic, minimize infection-related death and morbidity, and resume pre-pandemic levels of social and economic activity. In this regard, ACT Accelerator is an international initiative to support global collaboration and awareness about the disease outbreak to accelerate vaccine availability and other tools to fight COVID-19. The ACT Accelerator, in particular, is committed to accelerating progress across four domains or pillars, including diagnostics, therapeutics, vaccines, and the health systems and response connector. The ACT-Accelerator will accelerate research and development in addition to efforts to ensure fairer access to COVID-19 vaccinations.

COVAX is a multilateral vaccine cooperation framework led by numerous international organizations, including WHO, the Coalition for Epidemic Preparedness Innovations (CEPI), the Global Alliance for Vaccines and Immunization (GAVI), and the United Nations International Children's Emergency Fund (UNICEF). COVAX was established on 4 June 2020, and now has 180 members and institutions. COVAX formed a list of nations judged suitable for vaccine support after receiving financing from various governments, international organizations, and (philanthropic) individuals. COVAX incorporates two forms of participation: (1) self-financing for



high-income countries; and (2) advance market commitment (AMC) for developing/low and low-middle-income countries (Setiawan, Affianty, and Tanjung 2022a). COVAX's mission is to offer developing countries equal access to vaccines, including at least 20% of the lower-middle-income population needing humanitarian and economic support. COVAX intends to have the potential to acquire up to 2 billion doses of vaccination for vulnerable populations by 2021. Furthermore, 92 low-and middle-income economy states are qualified for the Advanced Market Commitment (AMC), and the COVAX AMC may support their participation in this program.

Indonesia is classified as a lower middle-income nation under the COVAX classification; hence, under this arrangement, Indonesia was able to receive vaccination guarantees. This program substantially underwrote the 2021 State Budget, which requires more than Rp. 73 trillion in funding. Indonesia's also participated in the COVAX Advanced Market Commitment Engagement Group (COVAX-AMC EG), where Minister of Foreign Affairs Retno LP Marsudi was appointed co-chair. Indonesia accumulated the most votes to fill this position in a survey held by the 92 member nations of the AMC 92 Economies, winning 41% (Sekretariat Kabinet Republik Indonesia 2021). As Co-Chair of the COVAX Advance Market Commitment (AMC) Engagement Group (EG) AMC-EG, Indonesia made a substantial contribution to the conversation at the COVAX program, which explored advancing development of, production of, and equal access to the COVID-19 vaccine.

The Indonesian Minister of Health, Budi Gunadi Sadikin, stated that Indonesia received 108 million doses of COVID-19 vaccines free of charge through the COVAX program. Overall, the total procurement of contracted COVID-19 vaccines is 329,504,000 doses. In addition to the multilateral collaboration with COVAX program, the government also purchased 125.5 million doses of the COVID-19 vaccine produced by Sinovac, 50 million doses of Novavax, and 50 million doses of AstraZeneca. Indonesia is targeting vaccine recipients to reach 181.5 million people with a total vaccine requirement of 426,800,000 doses. According to Sadikin, based on contracts and existing potential, the government could obtain 663,504,000 doses of the COVID-19 vaccine (Setiawan et al. 2022a). As an AMC country, Indonesia gets access to fully subsidized vaccines (free of charge) for 20% of the population (54 million people, or around 108 million vaccine doses) by the end of 2021. Sadikin also said that the supply of vaccines in Indonesia by June 2021 is estimated to have only reached 80 to 90 million doses. The amount is about 24 percent of the total need. A total of 363 million vaccinations are needed for 181.5 million people (Setiawan et al. 2022a).

Through this program, WHO acts as a global organization and conducts diplomacy to advance global health in Indonesia. The following provides more detail regarding the global health diplomacy strategy used by WHO in Indonesia:

#### **A. Vaccine Research and Development to Indonesia**

WHO encourages global vaccine research and development, including vaccine development in Indonesia, in accordance with its role as an international institution in the field of research and technical cooperation. In this case, a state-owned company called Bio Farma became an instrumental actor. Through COVAX multilateral cooperation, vaccines sent to Indonesia will be received by Bio Farma before being distributed to the Indonesian people. Bio Farma also assists in providing vaccine access for developing countries and hard-to-reach areas. Certificates are

required to register products in some countries in order to promote them abroad. In this regard, Bio Farma obtained the World Health Organization Pre-Qualification (WHO PQ) in 1997 – a certificate to assess the quality, safety, and efficacy of medical products – so that the company could export its goods to around 152 countries.

According to the coordinating minister for Indonesian Economic Affairs, the collaboration between Bio Farma and CEPI – one of COVAX's founders – is working with foreign partners to build a new consortium for clinical testing of Indonesian vaccines (Setiawan 2020). This type of collaboration takes the form of CEPI transferring vaccine formulation technology to Bio Farma. The following is a table of COVID-19 vaccinations that Bio Farma received in 2021:

Timeline	Actions
<b>8 March 2021</b>	Bio Farma received 1.1 million doses of the AstraZeneca COVID-19 vaccine as part of the first batch of the COVAX program. The vaccine would then be manufactured and distributed to expedite the vaccination goal of being evenly distributed across Indonesia's population. The AstraZeneca vaccine, the result of multilateral cooperation between the Government of the Republic of Indonesia and COVAX/GAVI, has been distributed to several provinces in Indonesia on 22 March 2021.
<b>8 May 2021</b>	Bio Farma received another batch of the AstraZeneca vaccine in the form of a completed product via the COVAX, CEPI, UNICEF, and WHO multilateral cooperation channels, totaling 1,389,600 doses.
<b>13 July 2021</b>	The finished vaccine was delivered to Indonesia through the multilateral cooperation plan through the COVAX program. A total of 3,476,400 doses of AstraZeneca's completed vaccination landed at Soekarno-Hatta International Airport aboard an Emirates Airlines flight.
<b>15 July 2021</b>	Bio Farma received 1.5 million doses of the Moderna vaccine. The delivery of the Moderna vaccine is evidence of US Government cooperative support through the multinational COVAX program.
<b>16 September 2021</b>	Bio Farma received 877,500 doses of the Pfizer vaccine from the US Government via the COVAX program.
<b>17 September 2021</b>	Bio Farma received a further 1,775,000 doses of the Pfizer vaccine from the US Government via the COVAX program. At the same time, Bio Farma also received another 968,360 doses of the AstraZeneca vaccine from France through the COVAX Program.

<b>23 September 2021</b>	Bio Farma received 871,650 doses of the Pfizer vaccine provided by the US Government, as well as 1,236,480 doses of AstraZeneca vaccine through the French Government. Both are through the COVAX program.
<b>3 October 2021</b>	Bio Farma received 800,280 final doses of the Pfizer vaccine from the US Government through the COVAX program.
<b>26 November 2021</b>	Bio Farma received 1,500,100 doses of Moderna's final vaccine. The vaccine is the outcome of a multilateral collaboration scheme with the US Government through the COVAX program.
<b>11 December 2021</b>	Bio Farma received 1,749,600 AstraZeneca vaccinations as COVAX assistance.
<b>12 December 2021</b>	Bio Farma again received 1,766,700 Pfizer vaccinations as COVAX assistance.
<b>14 December 2021</b>	Bio Farma received 1,759,965 doses of the Pfizer vaccine from the US Government via the COVAX program.
<b>31 December 2021</b>	Lastly, Bio Farma received 819,000 Pfizer vaccinations as COVAX assistance.

**Table 1.** Vaccine Received in 2021  
Source: obtained from Bio Farma (2022)

The vaccine transfer from COVAX to Bio Farma is intended to provide access to various vaccine production methods, hence strengthening domestic vaccine independence. CEPI, as one of COVAX's creators, also commissioned Bio Farma to create the COVID-19 vaccine (Bio Farma 2020). In this effort, WHO makes Bio Farma a recipient of vaccines from COVAX in Indonesia. Some of the vaccines delivered are not all ready-to-use, but there are still some that must be developed and researched so that they can be adapted to the needs of the Indonesian people. The vaccine passed the quarantine and sampling stage by Bio Farma before being distributed. WHO should be commended for its contribution to the development of vaccinations in Indonesia. Vaccine research and development in Indonesia is a form of global health diplomacy conducted by WHO as an international organization. The purpose is to create an alliance to support health and well-being, as quoted in the global health diplomacy dimension written by Kickbusch et al. (2021). Health and welfare in Indonesia at the time of the pandemic can be achieved through access to vaccines already available in Indonesia. As an international organization, WHO also carried out its functions in research and technical cooperation, including eradicating disease and emergencies. Provision of vaccine programs by WHO act as a form of eliminating disease and emergency.

## B. Raising Funds and Purchase of Vaccines to Indonesia

One of the tasks of international organizations is to fulfill collaboration requirements. In this situation, the WHO uses the COVAX program to raise funds and negotiate vaccine supplies for Indonesia. Mainly Western nations fund the COVAX program (Steinhauser 2021). The COVAX program is primarily financed by the government (Official Development Assistance/ODA) but also by the corporate sector and charity, and recipient countries can contribute to the cost of vaccines and delivery (Berkley 2020). Some countries registered as donors are: (1) Norway with NOK 1 billion; (2) Canada with CAD 75 million; (3) Kuwait with USD 10 million; (4) Denmark with DKK 50 million; (5) New Zealand with NZD 10 million; (6) the Netherlands with EUR 5 million; (7) Singapore with USD 5 million; (8) The King Salman Humanitarian Aid and Relief Center with USD 1,3 million; and (9) Estonia with EUR 70,000 (World Health Organization 2020d). Also registered are several organizations, foundations, and multinational corporations, such as Google, Team Europe, the Bill & Melinda Gates Foundation, the Coca-Cola Foundation, and many others. As of 27 April 2022, the total funding sources for COVAX AMC are 12.4 billion USD (GAVI 2022). Through the COVAX program, Indonesia was able to receive several types of vaccines from various countries during 2021.

Budi Gunadi Sadikin stated that Indonesia received 108 million doses of the COVID-19 vaccine free of charge through the COVAX program. Overall, the total procurement of contracted COVID-19 vaccines is 329,504,000 doses. In addition to multilateral collaboration with the COVAX program, the government was able to purchase also 125.5 million doses of the COVID-19 vaccine produced by Sinovac, 50 million doses of Novavax, and 50 million doses of AstraZeneca. Indonesia aims to vaccinate 181.5 million people with a total vaccine need of 426,800,000 doses. According to Sadikin, if based on contracts and existing potential, the government could obtain 663,504,000 doses of the COVID-19 vaccine (Setiawan, Affianty, and Tanjung 2022b: 7).

Procuring vaccines for 20% of the population requires time, resources, and national readiness for the vaccine. Furthermore, by signing a request form with COVAX AMC EG, Indonesia obtained a million doses of the Covid-19 vaccine. It can be seen as Indonesia has already received millions of vaccination doses from the COVAX program and pharmaceutical companies such as Sinovac, AstraZeneca, and Pfizer (Wirajuda 2021). The COVAX program began in March 2021, and as of 6 December 2021, Indonesia has received 45,224,550 vaccination doses from the COVAX program (Aivanni 2021). In the latest report, as of 3 April 2022, the COVAX AMC mechanism has distributed 130,662,975 vaccine doses to Indonesia (Kementerian Luar Negeri Republik Indonesia 2022). This is an effort to reduce the COVID-19 outbreak in Indonesia, through which Indonesia can achieve better population health.

The fundraising and purchasing of vaccines by WHO for Indonesia is a form of carrying out its function as an international organization, namely providing things needed in cooperation between countries wherein this cooperation produces benefits for the whole nation. The implementation is through forming a COVAX partnership to become a facilitator for donor countries and Indonesia in conducting vaccine purchase transactions. In this case, WHO is also carrying out its role as a forum to build cooperation. The collection and purchase of vaccines carried out by WHO through the COVAX program for Indonesia aims to provide better health and health insurance for the population.

## Conclusion

The existence of globalization causes people to move across national borders. As a result of this phenomenon, diseases can also move quickly across national borders. Health problems therefore become a concern for countries. WHO is the most critical actor in responding to this global health case. As an international organization engaged in the health sector, it has acted in responding to the health problems that befell some of its member states. This falls under its function and purpose as an international organization. In responding to health problems, WHO conducts diplomacy with member countries, international agencies working in the health sector, and institutions that can support sustainability in ensuring health for the world. Diplomacy in health for the whole world can also be called global health diplomacy.

In 2019, the COVID-19 pandemic threatened all countries around the world. For this reason, WHO responded by launching the ACT-Accelerator with four components, one of which is vaccination. Vaccination is considered to contribute to global health. The vaccination program was initiated in an international cooperation forum called COVAX, which comprises countries, international health sector institutions, and several supporting foundations. The goal of COVAX is to guarantee equal access to vaccines for all. To achieve this goal, WHO in COVAX cooperates with countries and international organizations or companies.

Indonesia, as part of WHO, is taking a role in COVAX. WHO has carried out a lot of health diplomacy for Indonesia to provide vaccine guarantees for creating global health in Indonesia. The global health diplomacy strategy carried out by WHO in Indonesia; conducting vaccine research and development, raising funds, and negotiating vaccine purchases; is part of the wider effort towards global health. In conducting vaccine research and development, Bio Farma, an Indonesian government-owned company, received vaccines from COVAX. Indonesia uses vaccines received from multilateral relations (COVAX) previously researched and developed by Bio Farma before being distributed to the Indonesian people. In raising funds and negotiating the purchase of vaccines for Indonesia, WHO implemented this diplomacy strategy with evidence that Indonesia received vaccines from the United States, France, and Japan through the COVAX scheme. The results of raising funds and purchasing vaccines for Indonesia have been proven by sending the vaccine from the COVAX scheme for the first time from March 2021 to April 2022.

WHO's efforts have been directed at forging alliances to support Indonesians' health and welfare. Through WHO's global health diplomacy through COVAX, Indonesian people benefit from free vaccinations and can reduce their risk of exposure to the Covid virus. Furthermore, this global health diplomacy can deepen the relationship between Indonesia and WHO. Global health diplomacy is crucial in establishing effective global alliances and financial systems that enable collaboration, sympathy, and collaborative initiatives with greater involvement from all stakeholders. Accordingly, the authors acknowledge that there are deficiencies in these research findings and analysis as data gathering was heavily relied on secondary rather than primary sources. For a better validation, the authors suggest focusing on basing future research on primary data.

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